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ONTARIO  
DEPARTMENT OF MINES

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Mineral Resources Circular No. 10

# Silver Cobalt Calcite Vein Deposits of Ontario

By  
A. O. SERGIADES

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1968







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DEPARTMENT OF MINES

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# Silver Cobalt Calcite Vein Deposits of Ontario

By

A.O. Sergiades and Assistants

## ABSTRACT

The silver cobalt calcite vein deposits of Ontario are described individually. Four card sheets or two pages that include references and statistics are used for the producing and past producing mines; two card sheets or one page is used for some past producing mines and the developed prospects. Minor prospects, ten to a page, are described very briefly. For a few prospects in the Cobalt Area neither silver nor cobalt have been recorded in the published literature but because the development work was considerable these have been included.

The format is experimental and intended to facilitate searching of information. For economic reasons captions were typed and not printed which would improve the clarity and ease of use of the card sheets considerably. Modification is desirable as regards ages of rocks where some duplication is present. The usual margin of error of about  $\pm 50$  to 100 million years is not added to the absolute ages because of shortage of space. Districts, townships and deposits are

arranged alphabetically to conform with previous Mineral Resources Circulars. Index maps showing location of deposits and complete listings of properties are included for most areas described. The index is cross referenced between present owner, historical name and previous owners.





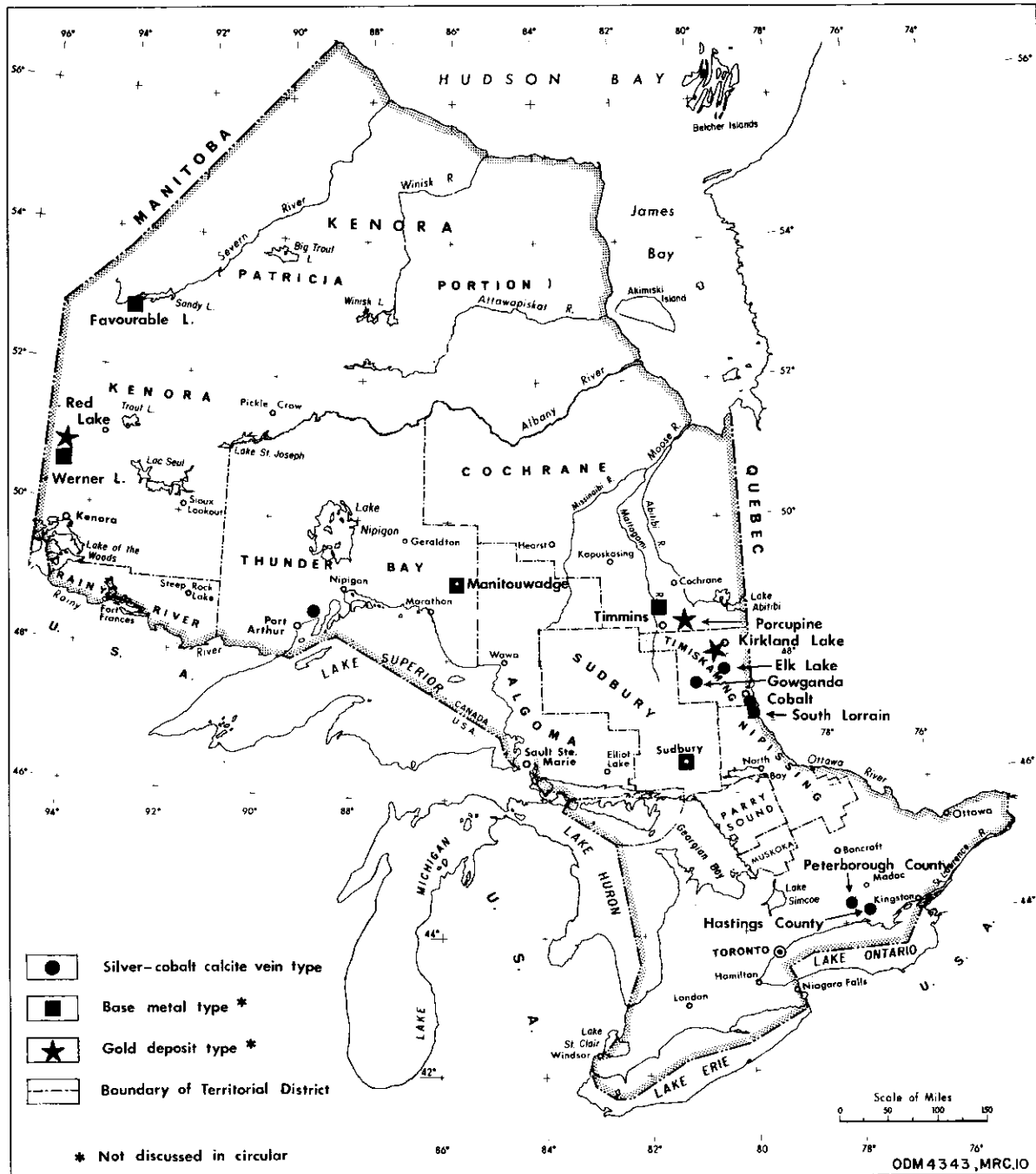


Figure 1 - Major silver-cobalt areas of Ontario

# Silver Cobalt Calcite Vein Deposits of Ontario

By

A.O. Sergiades<sup>1</sup> and Assistants<sup>2</sup>

## INTRODUCTION

Silver in Ontario is produced from three types of deposits:

(1) Gold ores where silver occurs as an amalgam with gold in quartz veins. (2) Silver-cobalt arsenide ores where native silver and smaller amounts of argentite ( $\text{Ag}_2\text{S}$ ) and dyscrasite ( $\text{Ag}_6\text{Sb}$ ) occur in calcite or carbonate veins sometimes with quartz, fluorite and barite. (3) Base metal ores where silver occurs in tetrahedrite and argentiferous varieties of galena and chalcopyrite as well as native in veinlets.

For Ontario in 1966, less than 1/30 of the silver production came from the gold ores and the remainder about equally from the arsenide and base metal types. In 1967 the base metal ores accounted for just under 2/3 of the silver production, likely to be exceeded in 1968 as the Kidd Creek mine near Timmins reaches full production and that from the

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<sup>2</sup> M. Hoque, D.G. Innes and L. Jensen.

gold and arsenide ores continues to decrease slightly.

This circular is restricted to describing the deposits of the silver-cobalt type but mention is made of the gold and base metal deposits for perspective and because of the increasing importance of the latter. The Kidd Creek mine of Texas Gulf Sulphur Co. is the world's largest primary source of silver with official reserves of over 300 million ounces or 75 million tons of ore grading 4 to 4.5 ozs/ton silver. The mine is situated 120 miles along the Temiskaming lineament (fault system) from Cobalt.

The Cobalt Area between 1903 and 1966 has produced from the silver-cobalt type ores 442,533,479 ounces of silver making it one of the greatest silver producing areas in the world, only exceeded by Potosi in Bolivia and Butte in Montana, and greater than Guanajuato in Mexico. Production for Ontario is given in table 1.

Silver-cobalt calcite vein ore deposits in Ontario essentially occur in two districts, that of Thunder Bay near Port Arthur and that of Timiskaming centred about the town of Cobalt from which nearly all the production has come. In Timiskaming District these deposits occur as individual veins or as vein systems in Cobalt series sediments, Keewatin volcanics and Nipissing diabase. The diabase occurs as a flat lying undulating sill or sheet upto 1000 feet thick that



has intruded the steeply dipping Keewatin volcanics and shallow dipping Cobalt sediments that lie unconformably above the volcanics; it is likely that the diabase has more than one feeder pipe from depth. In the Cobalt Area the veins are mostly found within 300 feet beneath the Nipissing diabase and best developed in the Cobalt sediments; in the Gowganda Area mostly within the upper 300 feet of the diabase and in the South Lorrain Area mostly above the diabase in Keewatin volcanics within 300 feet of the contact.

Although a spacial relationship clearly exists between the distribution of the veins and the Nipissing diabase in the Timiskaming District, ore deposition is dependent upon many factors some of which are tabulated below:-

Some Factors upon which Silver-Cobalt Calcite  
Vein Type Ore Deposits are Dependent in Ontario

- 1) Primordial distribution of silver and cobalt in the earth's crust.
- 2) Location of main feeder pipes from depth for rock magma and ore fluids, related in part to major fault systems or lineaments.
- 3) Distribution of channel ways for the ore fluids near surface of earth, related to:-

(a) Faults

- (b) Diabase sill contacts.
  - (c) Roll or variation in dip of diabase sill contact.
  - (d) Local arch in diabase sill contact.
  - (e) Cobalt Series Keewatin unconformity.
  - (f) Palaeovalleys on Keewatin basement surface.
  - (g) Coincidence or intersection of above features.
- 4) Physical properties of host rock, related to:-
- (a) Alternation of competent and incompetent rocks, seen where Keewatin lavas contain interflow beds, dikes or quartz veins.
  - (b) Variation in metamorphic state of Keewatin lavas near granite intrusions.
  - (c) Distance from contact or unconformity controlling type of stress or fracturing developed.
  - (d) Roll or variation in dip of diabase contact causing structural weakness or pressure shadows.
  - (e) Thickness of Cobalt Series sediments.
  - (f) Thickness of Nipissing diabase sill.

It should be emphasized that the deposition of silver is dependent upon fundamental structure and magma composition in the earth's crust, illustrated in the location of the Kidd Creek mine on the Timiskaming Lineament and the similarity of the Nipissing quartz diabase to the probable quartz diorite parent magma of the Sudbury irruptive.

In the Timiskaming District zoning of ores is found about the Cobalt Series Keewatin unconformity where locally the lower limit of silver deposition coincides with the unconformity, cobalt deposition extends across it and base metal deposition lies beneath it. Within the veins themselves in a carbonate gangue the central portions consist largely of cobalt-nickel arsenides and native silver, the terminal portions of arsenopyrite and sulphides and the edges of sulphides.

The veins are usually from a fraction of an inch to one foot in width, several hundred feet in both lateral and vertical extent, and steeply dipping.

Because many of the cobalt-nickel-iron arsenides and sulpharsenides are of very similar appearance and occur together in massive form as a hard steel grey mineral, this mineral in the card sheets has been referred to as smaltite; it is often essentially cobaltite, skutterudite and safflorite with a cobalt content of between 9% and 33%. The smaltite occurs in a gangue of carbonate or as massive veins upto two feet wide. Silver occurs mostly in the native state with minor amounts as argentite, dyscrasite and other minerals. In the vein proper native silver forms mere specks to slabs several feet in length; it is frequently intimately associated with the cobalt arsenides but also forms veinlets of native



silver in the carbonate gangue. In the wall rock it occurs as leaf silver in minute fractures.

Mercury as amalgam is present in the native silver and antimonide (dyscrasite); ordinary high grade ore carries from two to five pounds of mercury per ton.

The chemical compositions of some of the silver and cobalt minerals, and associated minerals found in the Timiskaming District are given in table 2.

In the Thunder Bay District flat lying Animikie Series sediments unconformably above basement Keewatin volcanics and Archean granite are intruded by sills generally less than 100 feet thick of Keweenawian diabase that cap the tops of hills. Steeply dipping veins with argentite and native silver in a gangue of quartz, carbonate and occasionally fluorite have formed along fault fractures beneath the sills.

The veins are often composite in nature and upto 20 feet in width but economic values generally do not persist below a depth of 200 feet; there is evidence to suggest that much of the silver is secondary in origin. The veins occur in two ENE zones about 20 miles apart, one passing through Port Arthur and the other along the coast and islands.

Table 2. Silver, Cobalt and Associated Minerals of the Timiskaming District

Acanthite	Ag <sub>2</sub> S	Niccolite	NiAs	
Amalgam	(Ag) (Hg)	Pararammelsbergite	NiAs <sub>2</sub>	
Annabergite (nickel bloom)	Ni <sub>3</sub> As <sub>2</sub> O <sub>8</sub> +8H <sub>2</sub> O	Proustite	Ag <sub>3</sub> AsS <sub>3</sub>	
Argentite	Ag <sub>2</sub> S	Pyrrargyrite	Ag <sub>3</sub> SbS <sub>3</sub>	
Arsenopyrite	FeAsS	Pyrite	FeS <sub>2</sub>	
Asbolite	(Co <sub>2</sub> O <sub>3</sub> ) <sub>x</sub> (Mn <sub>2</sub> O <sub>3</sub> ) <sub>y</sub> (H <sub>2</sub> O) <sub>z</sub>	Pyrrhotite	Fe <sub>1-x</sub> S	
Bismuth	Bi	Rammelsbergite	NiAs <sub>2</sub>	
Bismuthinite	Bi <sub>2</sub> S <sub>3</sub>	Safflorite	CoAs <sub>2</sub>	
Bornite	Cu <sub>5</sub> FeS <sub>4</sub>	Scorodite	FeAsO <sub>4</sub> +2H <sub>2</sub> O	
Breithauptite	NiSb	Siderite	FeCO <sub>3</sub>	1
Calcite	CaCO <sub>3</sub>	Silver	Ag	∞
Chalcopyrite	CuFeS <sub>2</sub>	Skutterudite	Co(Fe, Ni) As <sub>3</sub>	1
Chloanthite	NiAs <sub>2</sub>	Smaltite	CoAs <sub>2</sub>	
Cobaltite	CoAsS	Sphalerite	ZnS	
Dolomite	CaMg (Co <sub>3</sub> ) <sub>2</sub>	Sphene	CaTiSiO <sub>5</sub>	
Dyscrasite	Ag <sub>3</sub> Sb	Stephanite	Ag <sub>5</sub> SbS <sub>4</sub>	
Emplectite	CuBiS <sub>2</sub>	Tetrahedrite	(Cu, Ag, Fe) <sub>12</sub> Sb <sub>4</sub> S <sub>13</sub>	
Erythrite (Cobalt bloom)	CoAs <sub>2</sub> O <sub>8</sub> +8H <sub>2</sub> O	Ullmannite	NiSbs	
Galena	PbS	Violarite	FeNi <sub>2</sub> S <sub>4</sub>	
Gersdorffite	NiAsS	Xanthoconite	Ag <sub>3</sub> AsS <sub>3</sub>	
Glaucodot	(Co, Fe) AsS			
Loellingite	FeAs <sub>2</sub>			
Marcasite	FeS <sub>2</sub>			
Matildite	AgBiS <sub>2</sub>			
Millerite	NiS			
Mispickel	FeAsS			
Molybdenite	MoS <sub>2</sub>			

As = arsenic  
Sb = antimony  
S = sulphur

### Silver Price

In 1967 the U.S. Treasury abandoned its role in maintaining the silver price ceiling at \$1.29 per troy ounce and consequently a new silver market emerged largely governed by the psychological pressures of speculators. During 1968 while silver prices continued to rise, silver certificates (in essence warehouse receipts for silver at \$1.29) were increasingly redeemed to the final date of June 24th when virtually the immediately usable free bullion of the Treasury was exhausted, if allowance is made for the 165 million ounces ear marked for the strategic stock pile. Consequently to supply the 2 million ounces a week (i.e. about 100 million a year) authorized by Congress to industry the silver has had to come from the melting of old coins of which the Treasury at present has an adequate stock.

Annual Free World Industrial consumption of silver since 1965 has exceeded new mine output by something greater than 100 million ounces; silver consumption annually used in coinage is rapidly decreasing, and consequently the action of the U.S. Treasury may balance the market and stabilize the price of silver. However industrial consumption is rising while new mine production largely remains inflexible since over 2/3 is recovered as a by-product from base metal mines.

The hoard of between  $\frac{1}{4}$  and  $\frac{1}{2}$  billion ounces held by speculators is likely to remain inactive due to their state of mind and the distrust of international monetary agreements. Thus the balance or near balance that exists between the supply and demand for silver at a price of about \$2.30 per troy ounce (July 1968) remains delicate and could be easily disturbed.

#### Acknowledgments

The writer is greatly indebted to Mr. M. Hoque, now lecturing at Dacca University, Pakistan; to Mr. L.S. Jensen, now a graduate student at the University of Saskatchewan; and to Mr. D.G. Innes of the Department all of whom abstracted information for many of the properties. The writer further expresses his thanks to Mr. Innes for compiling the index of the circular.

LIST OF ABBREVIATIONS

Ag = Silver  
As = Arsenic  
Au = Gold

Ba = Barite  
Bi = Bismuth

Cl4 = Carbon 14  
C.P.R. = Canadian Pacific Railway  
Cl. = Claim  
Co = Cobalt  
Co. Ltd. = Company limited  
Con. = Concession  
Consol. = Consolidated  
Copr. = Copper  
Corp. = Corporation  
Cr. = Creek  
Cu = Copper

D. Drilling = Diamond Drilling  
Dev. = Development  
Dissem. = Disseminated

Explor. = Exploration

F = Fluorite  
Fe = Iron

GML. = Gold Mines Ltd.  
G.S.C. = Geological Survey of Canada  
Geol. Rept. = Geological Report  
Int. = International  
K/Ar = Potassium-Argon

L. = Lake  
Lat. = Latitude  
Long. = Longitude  
Ltd. = Limited

MCL. = Mining Company Limited  
M'G. CO. L. = Mining Company Limited  
ML. = Mines Limited  
m.y. = Million years  
Mem. = Memoir

Metsed. = Metasediments  
Metavolcs. = Metavolcanics  
Mnt. = Mountain  
MoS<sub>2</sub> = Molybdenite

N/A = Not available  
N.G.T. = Not greater than  
NKL. = Nickel  
N.L.T. = Not less than  
N.T.S. = National Topographic Sheets

O.D.M. = Ontario Dept. of Mines  
Ozs. = Ounces

Pb = Lead  
Prspc. = Prospect  
R. = River  
Rb/Sr = Rubidium Strontium

S = Sulphur  
SML. = Silver Mines Limited  
SMCL. = Silver Mining Company Limited  
SCMCL. = Silver Cobalt Mining Company Limited  
Sta. = Station  
Str. = Straits  
Twp. = Townships

Volcs. = Volcanics

Zn = Zinc.







Symbols For Fig. 2

Miscellaneous Silver - Cobalt Calcite Vein Deposits

Algoma, District of.

H = 28 Range XXVI  
KH = Kehoe Twp.  
Pa = Palmer Twp.  
Ot = Otter Twp.  
3H = 3H Twp.  
138 = Twp. 138

Cochrane, District of

Wh = Whitney Twp.

Frontenac, County of.

Y = Barrie Twp.

Hastings, County of.

Hs = Twp's: Cashel, Elzevir,  
Faraday, Huntington, Lake,  
Limerick, Madoc & Rawdon.

Kenora, District of.

A = N.T.S. 053D16E  
B = N.T.S. 053D16E  
C = N.T.S. 053E01W  
D = N.T.S. 053D16E  
E = N.T.S. 053C13E  
F = N.T.S. 053C10W  
G = N.T.S. 052L07W  
Bm = Bateman Twp.  
Ew = Ewart Twp.

Nipissing, District of.

As = Askin Twp.  
Be = Best Twp.  
Bg = Briggs Twp.  
Ca = Cassels Twp.  
El = Eldridge Twp.  
Ri = Riddell Twp.  
St = Strathy Twp.  
Cy = Cynthia Twp.

Parry Sound, District of.

Fo = Foley Twp.

Peterborough, County of.

Pe = Galway Twp.

Sudbury, District of.

De = Delhi Twp.

Ha = Harrow Twp.

Po = Porter Twp.

R = Hart Twp.

Tu = Turner Twp.

Thunder Bay, District of.

I = N.T.S. 42L04E

IG = St. Ignace Island

J = N.T.S. 42L06E

Ju = Jutten Twp.

Ni = Nipigon Twp.

Ns = Nipigon Strait

80 = Twp. 80

91 = Twp. 91

Temiskaming, District of.

Al = Alma Twp.

Ba = Baden Twp.

Bl = Black Twp.

Bo = Boston Twp.

He = Hearst Twp.

Ho = Holmes Twp.

In = Ingram Twp.

La = Langmuir Twp.



D E S C R I P T I O N   O F   D E P O S I T S

D I S T R I C T

O F

A L G O M A

Table 3

D I S T R I C T O F A L C O M A  
Miscellaneous Deposits (see fig. 2)  
L I S T O F P R O P E R T I E S

(Historical Name)	(Present Owner)
<u>KEHOE TWP.</u>	
▲ Ke Gimby prospect.	
<u>OTTER TWP.</u>	
▲ Ot Sopha-Miller Gold Mines Ltd.	
<u>PALMER TWP.</u>	
▲ Pa Glenrock Gold Mines Ltd.	
<u>3H</u>	
▲ 3H Briar Court Mines Ltd.	
<u>28 RANGE XXVI</u>	
▲ H Kozak Gold Mines Ltd.	Lake Kozak Mines Ltd., lessee. Adonis Mines Ltd.
<u>138</u>	
▲ 138 (Near) Reynolds Location.	

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: LAKE KOZAK MINES LTD. (lessee), ADONIS MINES LTD. HISTORICAL NAME: KOZAK GOLD MINES LTD.		LAT. 04820833	REF. NO.
				LONG. 08454583	O.D.M.-Ag-24290(H)
CO. or DIST.	ALGOMA	CODE No.	50	MINING DIV.	
TP. or SQUARE	28 Range XXVI		024290	SAULT STE MARIE	
LOCATION: 3 miles south of GOUDREAU station. 120 miles north of Sault Ste Marie.			NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
			042C02E		
HISTORY OF OWNERSHIP: 1927: N Kozak. 1927: Optioned to Nipissing Mining Co. 1927: Optioned to N. Timmins Inc. 1928: Kozak Gold Mines Ltd. 1934: Orecana Mines Ltd. 1952: American Yellowknife Gold Mines Ltd. 1959: Adonis Mines Ltd. 1962: Algoma Central Railway. 1963: Leased to H.J. Fordham. 1965: Leased to Lake Kozak Mines Ltd.			EXPLORATION AND DEVELOPMENT 1928: Trenching was carried out. 1934: Shaft was sunk 110' with levels at 35' and 100' depths; 316' of drifting was done. 1952: Shaft was dewatered and sampling done. 1959: Geophysical survey was carried out with indeterminate results. 1960: Diamond drilling indicated isolated pods of ore bearing material.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
			OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT <input checked="" type="checkbox"/> PRODUCER <input type="checkbox"/> PAST PRODUCER <input type="checkbox"/>
MAJOR ORE MINERALS Silver, argentite, gold, galena, sphalerite. MINOR ORE MINERALS Chalcopyrite, pyrrhotite, pyrite. ORE FABRIC Vein. MAJOR GANGUE MINERALS Quartz-carbonate. COUNTRY ROCK OR FORMATION Keewatin volcanics.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES 1960; largest pod of ore was estimated at 4,600 tons assaying 0.303 oz/t of gold and 17.5 oz/ton of silver. Best assay:- 209.28 oz/ton of silver. Shaft vein assayed 0.25 oz/ton of gold and 11.2 oz/ton of silver over 2.9' width for length of 45'. High silver values are restricted to near surface and come from secondary silver enrichment.		
AGE: GEOLOGICAL Archean		ABSOLUTE N.L.T. 3100 m.y.			
MAIN REFERENCE Hurst, M.E. 1928, O.D.M. Vol.37, pt.3, p.78. Moore, E.S. 1931, O.D.M. Vol.40, pt.4, p.25.			MAP REFERENCE USED FOR LOCATION O.D.M. Map 40e, Goudreau Gold Area, 1931.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED 1968 REVISED
DATE		SIGNATURE A.O.S.			
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: LAKE KOZAK MINES LTD. lessee. ADONIS MINES LTD. HISTORICAL NAME: KOZAK GOLD MINES LTD.		LAT. 48° 12' 30"	REF. NO.
				LONG. 84° 32' 45"	O.D.M.-Ag-24290(H)
GEOLOGY Keewatin acid to basic volcanics enclose zones of quartz feldspar porphyry, now quartz-sericite schist, in which quartz-carbonate veins and sulphide mineralization occur. The mineralization consists chiefly of particles or small bunches of sphalerite, galena and chalcopyrite, associated with veinlets or bodies of quartz which intersect the schist and in places merge imperceptibly into it. Locally the mineralization develops into small pods or lenses of ore grade.			EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Archean N.L.T. 3100 m.y. Acid and basic volcanics.		AGE OF DEFORMATION: AGE OF ORE MINERAL	
		K/Ar Rb/Sr Pb/Pb Cl4 X		K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES: O.D.M. Map 40e, Goudreau Gold Area, 1931. O.D.M. Map 49g, Goudreau Lochalsh Area, 1939. O.D.M. Map F.184, Michipicoten Area, 1963.			ODM FILES		



D I S T R I C T

O F

C O C H R A N E

Table 4

D I S T R I C T   O F   C O C H R A N E

Miscellaneous Deposits (see fig. 2)

L I S T   O F   P R O P E R T I E S

(Historical Name)

(Present Owner)

WHITNEY TWP.

▲ Wh Con.II, Lots 7, 8 & 9.

Canadian Lencourt Mines Ltd.







C O U N T Y  
O F  
F R O N T E N A C

Table 5

FRONTENAC COUNTY

Miscellaneous Deposits (see fig. 2)

LIST OF PROPERTIES

(Historical Name)

(Present Owner)

BARRIE TWP.

▲ Y Ore Chimney mine.

COMMODITY	NAME OF OCCURRENCE:		LAT. 04477500	REF. NO.
Silver	CIRCA 19 :		LONG. 07716400	O.D.M.-Ag-001340(Y)
	HISTORICAL NAME: ORE CHIMNEY MINE.			
CO. or DIST.	FRONTENAC	CODE No. 09	MINING DIV. EASTERN ONTARIO	
TP. or SQUARE	BARRIE	001340	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
LOCATION:			Con. I, Lots 32-36	
1 mile SE of Bishop Corners.		NTS 031C14E	UTM	
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1909: Ore Chimney Mining Co. Ltd.		1908-28: Shaft was sunk to 400' level where 240' NE of shaft winze was sunk to 500' level.		Nil
1928: The Bey Mines Ltd.		Drifting and crosscutting on the 7 levels included:- 108' level, 72'		
1944: East Webb Mines Ltd.		105' level, 560'		
1956: Cavalier Mining Corp. Ltd. (charter cancelled 1961)		250' level, 714'		
		300' level, nil.		
		332' level, 53'		
		400' level, 600'		
		500' level, 175'		
		1932: Crosscut was driven 100'S of main Vein on 400' level.		
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT X PRODUCER PAST PRODUCER

MAJOR ORE MINERALS	Silver and Gold.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS	Galena, sphalerite, chalcopyrite and pyrite	All work was concentrated on one quartz vein that strikes NE. Sampling carried out in 1956 shows 11,000 tons of ore between 100' and 500' depths that would assay 0.2 oz./ton gold and 5.64 oz./ton silver.			
ORE FABRIC	Vein.	Best silver assay recorded was 25 oz./ton.			
MAJOR GANGUE MINERALS	Quartz.	Diamond drilling in 1956 indicated that the mineralized zone with comparable silver and zinc assays continues east of the winze workings.			
COUNTRY ROCK OR FORMATION	Mafic metavolcanics.				
AGE: GEOLOGICAL	ABSOLUTE	MAP REFERENCE USED FOR LOCATION			
Helikian	1310 m.y.	O.D.M. Map 2053, 1964.			
MAIN REFERENCE		FILE STATUS	DATE	SIGNATURE	
Meen, V.B.		SKELETAL			
1942: Geol. of the Crimsthorpe-Barrie Area, O.D.M., Vol.51, pt.4, p.42.		INCOMPLETE			
		COMPLETED	1968	A.O.S.	
		REVISED			

COMMODITY	NAME OF OCCURRENCE:		LAT. 44° 46' 30"	REF.NO.
Silver	CIRCA 19 :		LONG. 77° 09' 50"	O.D.M.-Ag-01340(Y)
	HISTORICAL NAME: ORE CHIMNEY MINE.			
GEOLOGY		EXPLORATION AND DEVELOPMENT (Cont)		
At the shaft, steeply dipping sheared greenstone trends NE and forms part of a belt of tightly folded mafic volcanics that are overlain by steeply dipping conglomerate of similar strike and age (formerly considered part of the Hastings Series). The mine workings follow a quartz vein in the sheared greenstone about 200'N of the conglomerate contact and parallel to it.		1930: 3 diamond drill holes totalling 2,372' were completed.		
		1932: 3 diamond drill holes totalling 1000' were completed.		
		1956: 8 surface diamond drill holes totalling 4667' were completed.		
		1963: 1 surface diamond drill hole of 600' was completed.		

ALTERATION	METAMORPHISM		MINERAL PARAGENESIS			
GEOLOGICAL AGE	AGE OF FORMATION	ROCK OR MINERAL	AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE	Helikian				N.G.T. 1310 m.y.	
ROCK TYPE AND/OR MINERAL	1310 m.y.					
METHOD	Volcanics					
	K/Ar	Rb/Sr Pb/Pb C14	K/Ar	Rb/Sr Pb/Pb C14	K/Ar	Rb/Sr Pb/Pb C14
		(Zircon)	NAME OF TECTONIC EVENT			(Zircon)

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE
	PLAN SECTION LONGITUDINAL PROJECTION
	Meen, V.B.
	1942: O.D.M. Vol.51, pt.4, p.43.
MAP REFERENCES	ODM FILES
O.D.M. Map 2053, Madoc Area, 1964.	Assessment work files, Resident Geologist, Toronto.
O.D.M. Map 51d, Crimsthorpe-Kennebec Area, 1942.	



C O U N T Y

O F

H A S T I N G S

Table 6

HASTINGS COUNTY  
Miscellaneous Deposits (see fig. 2)  
LIST OF PROPERTIES

(Historical Name)	(Present Owner)
<u>CASHEL TWP.</u>	
▲ Hs Con.I, Lot 20.	
▲ Hs Con.IV, Lot 29.	F. J. Trumble
<u>ELZEVIR TWP.</u>	
▲ Hs Silver King Mining Co. Ltd.	Republic Ores & Mining Corp., Ltd.
<u>FARADAY TWP.</u>	
▲ Hs Jeffrey prospect.	
<u>HUNTINGTON TWP.</u>	
▲ Hs Canada Fluorspar Co.	Stoklosar Marble Quarries and L. E. Baalim
<u>LAKE TWP.</u>	
▲ Hs Katherine Lead & Zinc mine.	C. B. Airhart.
<u>LIMERICK TWP.</u>	
▲ Hs Chrysler Lead Property.	Domtar Woodlands Ltd. & The International Nickel Co. Ltd.
<u>MADOC TWP.</u>	
▲ Hs Dominion Iron mine.	
<u>RAWDON TWP.</u>	
▲ Hs Con.XIII, Lot 4.	The Canadian Co.







D I S T R I C T

O F

K E N O R A

Table 7

D I S T R I C T O F K E N O R A

Miscellaneous Deposits (see fig. 2)

L I S T O F P R O P E R T I E S

(Historical Name)	(Present Owner)	Silver (Troy ozs.)	Production Cobalt (lbs.)
<u>BATEMAN TWP.</u>			
▲ Bm McFinley Red Lake Gold Mines Ltd.	McFinley Red Lake Gold Mines Ltd.		
<u>EWART TWP.</u>			
▲ Ew Chimo Gold Mines Ltd.			
<u>N.T.S.</u>			
▲ B Berens River Mines Ltd.	Golsil Mines Ltd.		some ore stockpiled (1958)
○ E Berens River Mines Ltd.	Golsil Mines Ltd.	5,702,616	
▲ A Noranda mine	Barymin Exploration	about 2,000,000	
▲ D North Rock Explor., Ltd.			
▲ C Orlac Reed Lake Mine			
▲ F Silver Spirit Mines Ltd.			
○ C Werner Lake Cobalt mine.	Falconbridge Nickel Mines Ltd.		143,386

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: GOL SIL MINES LTD. HISTORICAL NAME: BERENS RIVER MINES LTD. (Nos. 3, 10 & 19 Veins)		LAT. 05283972	REF. NO.
				LONG. 09364333	D.D.M.-Ag-53C13E(B)
CO. or DIST.	KENORA	CODE No.	52	MINING DIV. RED LAKE	
TP. or SQUARE				LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Former claims PA 119 & 120 (1927-1959) now Leased claims K.R.L. 45332-33 (1959- )	
LOCATION: 9 miles east of southeast end of FAVOURABLE LAKE, 130 miles north of Red Lake.			NTS	UTM	
			053C13E		
HISTORY OF OWNERSHIP:			EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1928: Favourable Lake Mining & Exploration Co.			1928: 4 trenches were developed.		1958
1936: Newmont Mining Corp.			1929: 8 diamond drill holes were put down.		
1936-57: Berens River Mines Ltd.			1941-42: Diamond drilling was carried out.		
1959: Goldsil Mines Ltd.			1943-44: Long drive driven from 1550' level of No.1 vein zone with minor drifting along vein.		Ore stock piled on surface.
			1947: Exploration shaft was sunk to 511' with levels at 190', 340' and 490'. Lateral work was done on 340' and 490' levels Long drive driven to beneath shaft.		
			1948: Minor development on 340', 490' and 1550' levels was carried out.		
			1960: EM survey was done.		
			1961-64: 25 diamond drill holes were put down		
			OCCURRENCE		
			RAW PROSPECT		
			DEVELOPED PROSPECT		
			X PRODUCER		
			PAST PRODUCER		

MAJOR ORE MINERALS	Galena, sphalerite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS	Chalcopyrite, pyrite.	Situated 2000' N of No.1 vein zone.			
ORE FABRIC	Vein.	Jan. 11 1965, Reserved, indicated by surface drilling, 600,000 tons grading 0.18 ozs./ton Gold			
MAJOR GANGUE MINERALS	Quartz, actinolite.	7.81 ozs./ton Silver			
COUNTRY ROCK OR FORMATION	Felsic volcanics.	2.06 % Lead			
		2.99 % Zinc			
AGE: GEOLOGICAL	ABSOLUTE				
Archean	N.L.T. 3100 m.y.				
MAIN REFERENCE		MAP REFERENCE USED FOR LOCATION		FILE STATUS	DATE
Hurst, M.E. 1929 Favourable-Sandy Lakes Area, O.D.M. Vol.38, pt.2, p. 68-78.		O.D.M. Map 38a, Favourable Lake to Sandy Lake Area, 1929.		SKELETAL	
Bateman, J.D. 1938, O.D.M. Vol.47, pt.7, p. 79-92.				INCOMPLETE	
Keys, M.R. 1948, C.I.M.M. Canadian Ore Deposits, Vol.1, p.365.				COMPLETED	1968
				REVISED	A.O.S.

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968 GOLDSIL MINES LTD. HISTORICAL NAME: BERENS RIVER MINES LTD. (Nos. 3, 10 & 19 Veins)		LAT. 52° 50' 23"	REF. NO.
				LONG. 93° 38' 36"	D.D.M.-Ag- 53C13E(B)
GEOLOGY For general geology see Goldsil Mines Ltd., No.1 Vein. Ore zone strikes N65W and dips 75°S. Three quartz veins occur within a 200' wide zone and are probably interconnected. Main ore zone occurs between 500' and 1500' levels in area not explored by Berens River Mines Ltd.			EXPLORATION AND DEVELOPMENT (Cont) totalling 24,069'. 1966: Exploration shaft was deepened with levels established at 615' and 740' depths. 1967: Fire destroyed power house - mine flooded.		

ALTERATION		METAMORPHISM				MINERAL PARAGENESIS			
		Metamorphic grade:- Greenschist facies							
GEOLOGICAL AGE		AGE OF FORMATION		ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE		Archean							
ROCK TYPE AND/OR MINERAL		N.L.T. 3100 m.y.		Volcanics					
METHOD		K/Ar	Rb/Sr	Pb/Pb	Cl4	K/Ar	Rb/Sr	Pb/Pb	Cl4
		X							
NAME OF TECTONIC EVENT									
COMPANY REPORTS					METALLURGY REFERENCE				
ECONOMICS REFERENCE					MILLING REFERENCE				
GEOCHEMICAL DATA REFERENCE					MINING REFERENCE				
GEOPHYSICAL DATA REFERENCE					MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION				
MAP REFERENCES O.D.M. Map 38a, Favourable Lake to Sandy Lake Area, 1929.					ODM FILES Assessment work files at Red Lake and Toronto.				

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: GOLSIL MINES LTD. HISTORICAL NAME: BERENS RIVER MINES LTD. (No.1 Vein).		LAT. 05283611	REF. NO.
				LONG. 09363611	O.D.M.-Ag- 53C13E(E)
CO. or DIST. KENORA	CODE No. 52	MINING DIV. RED LAKE		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Former claim: FA 116 (1927-1959) now Leased claim: K.R.L. 45330 (1959-)	
TP. or SQUARE		NTS	UTM		
LOCATION: 9 miles east of southeast end of FAVOURABLE LAKE, 130 miles north of Red Lake.		053C13E			
HISTORY OF OWNERSHIP: 1928: Fabourable Lake Mining & Exploration Co. 1936: Newmont Mining Corp. 1936-57: Berens River Mines Ltd. 1959: Golsil Mines Ltd.		EXPLORATION AND DEVELOPMENT 1928: 5 trenches were developed, and 18 diamond drill holes, totalling 2,145' were put down. 1929: 7 diamond drill holes were put down. 1936: 20 diamond drill holes were put down. 1928-36: Diamond drilling totalled 32,913'. 1937: Shaft was sunk 515' with levels developed at 250', 375' and 500'. 1939: Shaft was dewatered and production began. 125' level opened. 1940-43: Shaft was deepened to 1898' with levels at 650', 800', 950', 1100', 1250', 1400', 1550', 1700' and 1850' depths.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1939-1948 Gold: 157,503 ozs. Silver 5,702,616 ozs. Lead 6,315,372 lbs. from 560,607 tons milled. 1943-1946 Zinc 1,797,091 lbs. L.D. Ayres, Geologist, O.D.M.	
MAJOR ORE MINERALS Tetrahedrite, galena, silver, sphalerite, dyscrasite. MINOR ORE MINERALS Ruby Silver, pyrite. ORE FABRIC Vein. MAJOR GANGUE MINERALS Quartz, actinolite. COUNTRY ROCK OR FORMATION Felsic volcanics.		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER	
AGE: GEOLOGICAL Archean ABSOLUTE N.L.T. 3100 m.y.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Jan. 11th 1965, Reserves estimated from old plans, 75,000 tons, grading 0.10-0.12 ozs/ton gold and 4-5 ozs/ton silver (Golsil Report) Ore zone Ore zone extends over 800' in E-W direction. The veins occur as short, narrow, silicified zones that are tabular to lenticular in form and parallel or en echelon in arrangement. Ore shoots are up to 350' long and 25' in width. Series of NW reverse faults displace ore.			
MAIN REFERENCE Hurst, M.E. 1929: Favourable-Sandy Lakes Area, O.D.M. Vol.38, pt.2, 68-78. Bateman, J.D. 1938: O.D.M. Vol.47, pt.7, p. 79-92. Keys M.R. 1948: C.I.M.M. Canadian Ore Deposits, Vol.1, p.365.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 38a, Favourable Lake to Sandy Lake Area, 1929.		FILE STATUS	DATE
				SKELETAL	
				INCOMPLETE	
				COMPLETED	1968
				REVISED	A.O.S.
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: GOLSIL MINES LTD. HISTORICAL NAME: BERENS RIVER MINES LTD. (No.1 Vein).		LAT. 52°50'10"	REF.NO.
				LONG. 93°38'10"	O.D.M.-Ag-53C13E(E)
GEOLOGY Host rock is felsic to intermediate pyroclastic sequence of volcanics including quartz porphyry and rhyolite which trends N with subvertical dips and faces W; it is underlain by mafic to intermediate volcanics and overlain by greywacke and conglomerate. Fracture zones with quartz veins trend E-W, parallel to a strong cleavage and foliation which obliterates many primary features; the foliation is also parallel to mylonite zones in the western granite batholith. The veins are generally breccia zones with abundant wall rock cemented by quartz. Sulphides fill fractures in quartz.		EXPLORATION AND DEVELOPMENT (Cont) 1944: Winze, collared on 1700' level 1100' SE of main shaft, was sunk to 2175' with levels at 2000' and 2150' depths. 1945-47: Winze was deepened to 3246' with levels at 2300', 2500', 2700', 2850', 3025' and 3200' depths. 1948: Reserves were exhausted and operations suspended.			
ALTERATION	METAMORPHISM Metamorphic grade:- Greenschist facies		MINERAL PARAGENESIS		
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean N.L.T. 3100 m.y. volcanics	AGE OF DEFORMATION:	AGE OF ORE MINERAL		
	K/Ar Rb/Sr Pb/Pb C14 X	K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	K/Ar Rb/Sr Pb/Pb C14		
COMPANY REPORTS	METALLURGY REFERENCE				
ECONOMICS REFERENCE	MILLING REFERENCE				
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE				
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Bateman, J.D. 1938: O.D.M. Vol.47, pt.7, p.72.				
MAP REFERENCES O.D.M. Map 38a, Favourable Lake to Sandy Lake Area, 1929.	ODM FILES Assessment work files at Red Lake and Toronto				

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968; BARYMIN EXPLORATIONS (Optionee). HISTORICAL NAME: NORANDA MINES - BEATRICE LAKE.		LAT. 05293000	REF. NO.
				LONG. 09410000	O.D.M.-Ag- 53D16E(A)
CO. or DIST. KENORA	CODE No. 52	MINING DIV. RED LAKE		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE 1967: Property included 43 claims.	
TP. or SQUARE		NTS 053D16E	UTM		
LOCATION: 1 mile north of northwest end of FAVOURABLE LAKE, 130 miles north of Red Lake.					
HISTORY OF OWNERSHIP: Circa 1946: Berens River Mines Ltd. 1963: Noranda Exploration Co. and Syndicate. 1965: Optioned to Astrabrun Mines Ltd. 1968: Optioned to Barymin Explorations Ltd.		EXPLORATION AND DEVELOPMENT 1947: 4 x-ray diamond drill holes, totalling 600', were put down. 1961-64: 34 diamond drill holes, totalling 11,873', were put down. 5 pits were also sunk. Some geophysical surveys were carried out. 1965: 27 diamond drill holes, totalling 9,101', were put down. 1968: Further diamond drilling has been carried out.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 238,000 tons averaging 9.0 ozs/ton Silver along a strike length of 1200'.  Northern Miner, Aug.18, 1966	
		OCCURRENCE		RAW PROSPECT	DEVELOPED PROSPECT <input checked="" type="checkbox"/>
MAJOR ORE MINERALS Galena.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS					
ORE FABRIC Vein.					
MAJOR GANGUE MINERALS					
COUNTRY ROCK OR FORMATION Metagreywacke.					
AGE: GEOLOGICAL Archean		ABSOLUTE 3100 m.y.			
MAIN REFERENCE		MAP REFERENCE USED FOR LOCATION O.D.M. Map 38a, Favourable Lake to Sandy Lake Area, 1929. Claim map: Borland Lake is other name for Beatrice Lake.		FILE STATUS:	DATE
				SKELETAL	
				INCOMPLETE	
				COMPLETED	1968
				REVISED	A.O.S.
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968; BARYMIN EXPLORATIONS (Option) HISTORICAL NAME: NORANDA MINES - BEATRICE LAKE		LAT. 52° 56'	REF. NO.
				LONG. 94° 6'	O.D.M.-Ag- 53D16E(A)
GEOLOGY In biotite paragneiss or metagreywacke containing minor marble, calc-silicate gneiss layers and sills or lenses of granitic rocks, mineralization is restricted to biotite poor, quartz rich zones which occur across a 75' width. Most of the zone is below 100' clay unit beneath the shallow Beatrice or Barland Lake but is exposed on point at west end of lake. Mineralization consists essentially of galena.		EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM Metamorphic grade: - Upper almandine amphibolite facies.		MINERAL PARAGENESIS	
GEOLOGICAL AGE Archean		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:	
ABSOLUTE AGE N.L.T. 3100 m.y.		AGE OF MINERAL		AGE OF ORE MINERAL	
ROCK TYPE AND/OR MINERAL Paragneiss		K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	
METHOD		X		NAME OF TECTONIC EVENT	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Map 38a, Favourable Lake to Sandy Lake Area, 1929.		ODM FILES Assessment work files. Red Lake and Toronto offices.			

COMMODITY Cobalt		NAME OF OCCURRENCE: CIRCA 1968: FALCONBRIDGE NICKEL MINES LTD. HISTORICAL NAME: WERNER LAKE COBALT MINE.		LAT. 05046667	REF. NO.
				LONG. 09496944	O.D.M.-Ag-52L07W(G)
CO. or DIST. KENORA	CODE No. 52	MINING DIV. KENORA		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE 1968: Claims, Nos. KRL 9383, 9385, 9387 Falconbridge Nickel Mines Ltd.	
TP. or SQUARE		NTS 052L07W	UTM	1968: Claim No. KRL 29058 Consol. Canadian Faraday Mines Ltd.	
LOCATION: Northwest end of WERNER LAKE, about 50 miles north of Kenora.					
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1928: Kenora Prospectors and Miners Ltd.		Circa 1928: Trenches and test pits were dug and a shaft was sunk 35'.		1932 and 1940-44	
1940: Leased to Norman B. Davis of Ottawa.		1932: Property was actively mined, the ore being hand cobbled, and 70 tons of ore were produced.		Cobalt	
1968: Falconbridge Nickel Mines Ltd. Consol. Canadian Faraday Mines Ltd.		1940-44: Property was again actively mined, and in 1942 a small 25 tons/day mill was flown in. 1957: 3,000' of diamond drilling was completed.		143,386 lbs.	
				G.S.C. files.	
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X	

MAJOR ORE MINERALS Cobaltite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS Chalcopyrite, pyrrhotite, pyrite, magnetite.		Grade 1932: 286 lbs/ton or 20,000 lbs. of cobalt from 70 tons of ore.			
ORE FABRIC Vein.		1940-44: 123,386 lbs. of cobalt were produced.			
MAJOR GANGUE MINERALS Paragneiss.					
COUNTRY ROCK OR FORMATION Paragneiss					
AGE: GEOLOGICAL Archean		ABSOLUTE N.L.T. 3100 m.y.			
MAIN REFERENCE Carlson, H.D. 1957: Geology of the Werner Lake-Rex Lake Area. Ontario Dept. Mines, Vol.66, pt.4, p.25.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 1957-2, Werner Lake-Rex Lake Area, 1957.		FILE STATUS:	DATE
				SKELETAL	
				INCOMPLETE	
				COMPLETED	1968 A.O.S.
				REVISED	

COMMODITY Cobalt		NAME OF OCCURRENCE: CIRCA 1968: FALCONBRIDGE NICKEL MINES LTD. HISTORICAL NAME: WERNER LAKE COBALT MINE.		LAT. 50° 28' 00"	REF.NO.
				LONG. 94° 58' 10"	O.D.M.-Ag- 52L07W(G)
GEOLOGY The property occurs in an E-W belt of interbanded paragneiss and pink granodiorite; the mine workings occur near the intersection of a major NW and a major E-W fault along which several nickel-copper deposits have formed. The ore zone occurs along an E-W gash fracture filled by a lens of amphibolite (peridotite origin), 9' wide and 150' long, formed at the contact between granite and paragneiss. The ore forming minerals are generally disseminated but form irregular, small lenses and pods of high grade ore, particularly in the quartz poor biotite feldspar schist.		EXPLORATION AND DEVELOPMENT (Cont)			

ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE Archean		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE N.L.T. 3100 m.y.					
ROCK TYPE AND/OR MINERAL Paragneiss		K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	
METHOD		NAME OF TECTONIC EVENT			

COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			

MAP REFERENCES O.D.M. Map 1957-2, Werner Lake-Rex Lake Area, (West Sheet) 1957		ODM FILES			
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D I S T R I C T  
O F  
N I P I S S I N G

Table 8

D I S T R I C T   O F   N I P I S S I N G

Miscellaneous deposits (see fig. 2)

L I S T   O F   P R O P E R T I E S

(Historical Name)	(Present Owner)
<u>ASKIN TWP.</u>	
▲ As Claim: J.S. 56 prospect.	
<u>BEST TWP.</u>	
▲ Be Friday Creek Portage prospect.	
<u>CASSELS TWP.</u>	
▲ Ca Gosselin (claim: T.R. 1597) prospect.	
▲ Ca Timagami-Lorrain Mining Co. Ltd.	
<u>CYNTHIA TWP.</u>	
▲ Cy Mayer Mining Co. Ltd.	L.F. Brysen
<u>ELDRIDGE TWP.</u>	
▲ El Pubelow prospect	
<u>RIDDELL TWP.</u>	
▲ Ri Upper Twin Lake. (R.R. cut) prospect.	
<u>STRATHY TWP.</u>	
▲ St J. Milne & Son prospect.	Northern & Central Gas Co. Ltd.
▲ St Timagami Gold Mines Ltd.	International Nickel Co. Ltd.

District of NIPISSING

N.T.S. or Townships ASKIN, BEST, CASSELS, CYNTHIA

NAME	WORK DONE	VEIN	DESCRIPTION	METALS PRESENT	REFERENCE
1905: Claim: J.S. 56 prpsc.	Shaft Adit Pit Trench D. Drill Geophys	In 1925 showing was covered by water. Best assay:- Ni, 6.56% Co, 8.76%	Fracture zone in highly metamorphosed & schistose Gowganda conglomerate & greywacke is about 18" wide and mineralized with Co, Ni arsenides.	Ag Co Cu Ni Bi Zn Pb native arsenides	O.D.M. Vol.34, pt.3, p.32 1925, Todd, E.W.  ASKIN (As)  W shore at S end of Rabbit L. MAPS O.D.M. 34b, 1925. O.D.M. P.321, 1965.
46°57'40" 79°40'04"		CALCITE QUARTZ APLITE		X X	
Friday Creek Portage prpsc. Former claim: T.20809	Shaft Adit Pit Trench D. Drill Geophys	Pit was sunk on diabase near contact with quartzite.	Nipissing diabase sheet is intrusive into Lorrain quartzite. 8"NW vein occurs in fault in the diabase. Chalcopyrite & pyrite are present. Best assay: 0.5 oz/t Ag	X X	O.D.M. Vol.34, pt.3, p.32, 1925.  BEST (Be)  SE corner of township. MAPS O.D.M. 34b, 1925. O.D.M. P.321, 1965.
47°09'20" 79°38'25"		X X		X X	
1925: Gosselin prpsc. Claim: E.D. 161	Shaft Adit Pit Trench D. Drill Geophys	Shaft was sunk 175' on quartz calcite vein. Second shaft to NW was sunk on narrow vein. Veins traced at surface & to bottom of shafts.	Nipissing diabase overlies Gowganda conglomerate. Veins in diabase up to 2' wide strike N & NW. Chalcopyrite occurs.	X X X X	O.D.M. Vol.34, pt.3, p.31, 1925. Todd, E.W.  CASSELS (Ca)  S end of Gosselin L. MAPS O.D.M. 34b, 1925. O.D.M. P.321, 1965.
47°05'30" 79°42'00"		X X X		X X X X	
Prior to 1925: Temagami-Lorrain M <sup>g</sup> Co. Claim: E.D. 161	Shaft Adit Pit Trench D. Drill Geophys	Shaft was sunk in diabase on SSE fracture with vein. Best assay:- Co, 5.8 % Au, 1.1. oz/t	Nipissing diabase overlies Keewatin volcanics, the contact striking ENE across the claim. SSE vein up to 4" wide occurs Arsenopyrite, Chalcopyrite.	X X Au As	O.D.M. Vol.34, pt.3, p.31, 1925, Todd E.W.  CASSELS (Ca)  S of Sauve L. MAPS O.D.M. 34b, 1925. O.D.M. P.321, 1965.
47°06'40" 79°41'00"				X X	
Coppersand Lake prpsc. 1960: Mayer M <sup>g</sup> Co, Ltd. 1968: L.F. Boysen. Claim: E.D. 161	Shaft Adit Pit Trench D. Drill Geophys	Several pits and trenches were put down. 1960: 6 short D. drill holes were completed. Best assay: 8.5% Ag	Nipissing diabase sheet intrusive into Gowganda conglomerate & greywacke Flat lying vein in granophyric diabase near lower contact. Galena, chalcopyrite, pyrite.	X X X	O.D.M. C.R.28, p.21, 1964.  CYNTHIA (Cy)  Ferguson Bay L. Timagami. MAPS O.D.M. 2057, 1964. O.D.M. P.301, 1965.
47°08'25" 80°03'45"		X X		X X	

District of NIPISSING

N.T.S. or Townships ELDRIDGE, RIDDELL, STRATHY

\* native not necessarily applicable.

NAME	WORK DONE	VEIN	DESCRIPTION	METALS PRESENT	REFERENCE
1925: Pubelow prpsc. Claims: TRT3129 & 3332	Shaft Adit Pit Trench D. Drill Geophys	Two shafts were sunk near north side of diabase in the footwall.	In Nipissing diabase intrusive sheet within granite mass, E-W fractures contain quartz calcite veins about 2" wide traversed with stringers of Co minerals	Ag Co Cu Ni Bi Zn Pb native arsenides	O.D.M. Vol.34, pt.3, p.33, 1925, Todd E.W.  ELDRIDGE (E1)  W of Collins L. MAPS O.D.M. 34b, 1925. O.D.M. P.321, 1965.
47°02'15" 79°34'00"		CALCITE QUARTZ APLITE		X X	
Railway cut at Upper Twin Lake prpsc.	Shaft Adit Pit Trench D. Drill Geophys	Small smaltite vein seen railway cut.	Nipissing diabase intrusive sheet occurs within Gowganda conglomerate & greywacke of the Cobalt Series rocks.	X	O.D.M. Vol.34, pt.3, p.32, 1925, Todd E.W.  RIDDELL (Ri)  E of Upper Twin L. MAPS O.D.M. 34b, 1925. O.D.M. P.321, 1965.
47°00'15" 79°44'25"				X	
1942: J. Milne & Sons 1968: Northern & Central Gas Co. Claim: J.S. 107	Shaft Adit Pit Trench D. Drill Geophys	Extensive trenching was carried out & several D. drill holes completed. Best assay: 15 oz/t Ag and 1.72 oz/t Au	In acid volcanic zone of Keewatin volcanics 200' NNE vein up to 1' wide is mineralized with arsenopyrite & pyrite. Best assay: 20 oz/t Ag.	* X Au As	O.D.M. Vol.51, pt.6, p.35, 1942.  STRATHY (St)  N shore of Link L. MAPS O.D.M. 51e, 1942. O.D.M. P.321, 1965.
47°04'50" 79°48'40"		X		X	
1942: Timagami GML. 1968: International Nickel Co. L. Claims: TRT 4413, etc	Shaft Adit Pit Trench D. Drill Geophys	Extensive trenching was carried out & several D. drill holes completed. Best assay: 15 oz/t Ag and 1.72 oz/t Au	Keewatin rhyolites are cut by diorite intrusives in which E-W veins up to 3' wide show pyrite, arsenopyrite, chalcopyrite, chalcopyrite, sphalerite and gold.	X X X Au As	O.D.M. Vol.51, pt.6, p.39, 1942.  STRATHY (St)  Centre of township. MAPS O.D.M. 51e, 1942. O.D.M. P.321, 1965.
47°05'30" 79°50'15"		X		X X X	
	Shaft Adit Pit Trench D. Drill Geophys				MAPS



D I S T R I C T  
O F  
P A R R Y S O U N D

Table 9

D I S T R I C T O F P A R R Y S O U N D

Miscellaneous Deposits (see fig. 2)

L I S T O F P R O P E R T I E S

(Historical Name)

(Present Owner)

FOLEY TWP.

▲ Fo Boyne mine & Lafex mine.







C O U N T Y

O F

P E T E R B O R O U G H

Table 10

P E T E R B O R O U G H   C O U N T Y

Miscellaneous Deposits (see fig. 2)

L I S T   O F   P R O P E R T I E S

(Historical Name)

(Present Owner)

CALWAY TWP.

▲ Pe Con. XIV, Lot 16.





D I S T R I C T

O F

S U D B U R Y

Table 11

D I S T R I C T   O F   S U D B U R Y  
Miscellaneous Deposits (See Fig. 2)  
L I S T   O F   P R O P E R T I E S

(Historical Name)	(Present Owner)
<u>DELHI TWP.</u>	
▲ De New Delhi Mines Ltd.	Delhi Pacific Mines Ltd.
<u>HARROW TWP.</u>	
▲ Ha Big Game Property	
▲ Ha Massey Claims	
<u>HART TWP.</u>	
▲ R Iron Mask Cobalt Silver Mines Ltd.	
<u>PORTER TWP.</u>	
▲ Po Turpeinen Property	
<u>TURNER TWP.</u>	
▲ Tu D'Eldona Gold Mines Ltd.	R. E. McIntosh.



COMMODITY Cobalt		NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: IRON MASK COBALT SILVER MINES LTD.		LAT. 04669444	REF. NO.
				LONG. 08162500	O.D.M.-Ag-09330(R)
CO. or DIST.	SUDBURY	CODE No.	58	MINING DIV.	SUDBURY
TP. or SQUARE	HART		009330		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.V, Lots 6 and 7.
LOCATION: 30 miles west northwest of SUDBURY,			NTS	UTM	
			041112E		
HISTORY OF OWNERSHIP: Prior to 1920: Iron Mask Cobalt Silver Mines Ltd. 1929: Optioned to Nickel Hill Syndicate Ltd. 1965-66: Optioned to Salem Explorations Ltd.		EXPLORATION AND DEVELOPMENT 1929: Trenching across 90' wide mineralized zone was carried out. 1930: About 2000' of diamond drilling was completed. 1965: Electromagnetic survey was carried out; 4 diamond drill holes were put down.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 6 tons of Cobalt ore were shipped. Shipments could be made of 15% Cobalt.	
OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT    PRODUCER    PAST PRODUCER					

MAJOR ORE MINERALS Fe, Ni, Co - arsenides, magnetite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Cobalt-Nickel mineralization An assay from zone 200' long by 6' wide: 16.9% Co, 7.32% Ni and 3.3% Bi. Assay across a 3' trench showed 23% Zn. A channel sample for same trench assayed; 6% Zn, 3% pb and \$3.40/ton Au (gold at \$20.00 an ounce) 2 diamond drill holes intersected high grade cobalt-nickel mineralization at 120' and 160' depths.
MINOR ORE MINERALS Galena, sphalerite, chalcopyrite, pyrite.	
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Limestone.	
COUNTRY ROCK OR FORMATION Espanola limestone.	
AGE: GEOLOGICAL Aphebian	ABSOLUTE N.L.T. 2150 m.y.
MAIN REFERENCE Osborne, F.F. 1929: Cartier-Stralak Area. Ontario Dept. of Mines, Vol.38, pt.7, p.65.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 38h, Cartier-Stralak Area, 1929.
	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED
	DATE: 1968
	SIGNATURE: A.O.S.

COMMODITY Cobalt	NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: IRON MASK COBALT SILVER MINES LTD.	LAT. 46° 41' 40"	REF. NO.
		LONG. 81° 37' 30"	O.D.M.-Ag-09330(R)
GEOLOGY A Nipissing diabase sill about 500' thick and intrusive along the unconformity between Algonan granite and overlying Bruce Series Huronian rocks has contact metamorphosed the Espanola Limestone formation to produce considerable mineralization: Adjacent to the limestone a magnetite zone impure with sulphides extends for a length of 1000'; further from the limestone lead and zinc ore occurs in small lenses, and also disseminated pyrite and chalcopyrite; Between the lead-zinc and magnetite zones, high grade cobalt-nickel mineralization occurs.		EXPLORATION AND DEVELOPMENT (Cont)	

ALTERATION Skarn	METAMORPHISM Contact metamorphic	MINERAL PARAGENESIS			
GEOLOGICAL AGE Aphebian	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:	AGE OF ORE MINERAL		
ABSOLUTE AGE N.L.T. 2150			Post-Huronian		
ROCK TYPE AND/OR MINERAL Limestone			N.L.T. 2150 m.y.		
METHOD K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	K/Ar	Rb/Sr	Pb/Pb C14
	X	NAME OF TECTONIC EVENT	X		
COMPANY REPORTS	METALLURGY REFERENCE				
ECONOMICS REFERENCE	MILLING REFERENCE				
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE				
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN                  SECTION                  LONGITUDINAL PROJECTION				
MAP REFERENCES O.D.M. Map 38h, Cartier-stralak Area, 1929.	ODM FILES				



D I S T R I C T  
O F  
T H U N D E R B A Y

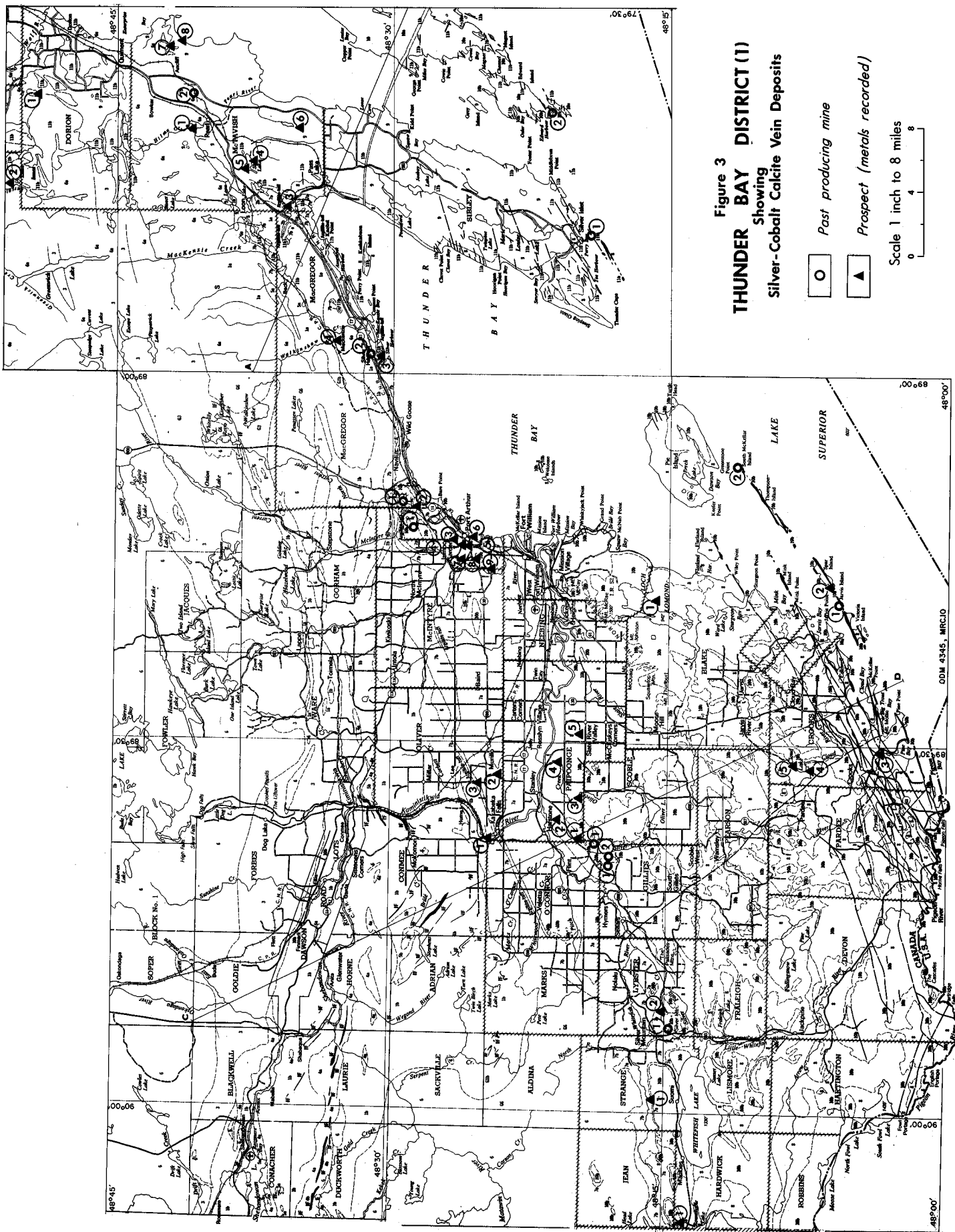
Table 12.

THUNDER BAY DISTRICT (1)

LIST OF PROPERTIES

(Historical Name)	(Present Owner)	(Historical Name)	(Present Owner)
<u>BLAKE TWP. (and Island)</u>		O1 Shuniah mine.	
* ▲1 Loch Lomond prospect.		▲7 Singleton mine.	
▲2 McKellar Island.	Extender Minerals of Canada Ltd.	▲3 Stewart Quarry.	
<u>CROOKS TWP. (and Islands)</u>		<u>McTAVISH TWP.</u>	
▲4 Cloud Lake prospect.		▲5 Anderson Vein.	
▲5 Cloud Lake prospect.	Landwide Explorations Ltd.	▲3 Blende Lake Vein.	
O1 Jarvis Mining Co. (Jarvis Island).	Westfield Minerals Ltd.	▲7 Con. III, Lot 3, N½.	
▲3 Pine Bay prospect.		▲6 Con. V, Lot 5, N½, NE¼.	E. Palmer.
O2 Prince's mine (Spar Island).	Airways Exploration Ltd.	▲1 Detroit-Algoma mine.	A.W. Wright.
<u>DORION TWP.</u>		O2 Enterprise mine.	Oscar Styffe Ltd.
▲1 Con. V & VI, Lots 11, 12 and 13.	J. Bragshaw.	▲8 Granite Islet prospect.	
▲2 Former Claims: TB.3358 & 3461.		▲4 Silver Lake Vein.	
<u>GILLIES TWP.</u>		<u>O'CONNOR TWP.</u>	
O2 Badger mine.		O1 Beaver mine.	Cairngorm Mines Ltd.
O1 Porcupine mine.	Climax Silver Mines Ltd.	<u>OLIVER TWP.</u>	
<u>HARDWICK TWP.</u>		▲2 Con. I, Lot 11, S½, SW¼.	
▲1 Mink prospect.		▲1 Kakabeka Falls prospect.	
<u>LYBSTER TWP.</u>		▲3 Neepatyre mine.	
▲2 Mining Location R70.	Majojeca.	<u>PAIPOONGE TWP.</u>	
O1 Silver Mountain mine.		▲3 Big Bear prospect.	
<u>MacGREGOR TWP.</u>		▲4 Copeland's Vein (Fedral mine).	
▲3 Lots 3A and 12Z.		▲1 Elgin Vein.	
▲4 Lot 10.		▲5 Parson's mine.	
O2 Three A and Beck mine.	Canadian Dredge & Dock Co. Ltd.	▲2 Victoria mine.	
O1 Thunder Bay mine.		<u>SCOBLE TWP.</u>	
<u>McINTYRE TWP.</u>		O1 Rabbit Mountain mine.	Great Lakes Silver mine.
▲4 City of Port Arthur.		<u>SIBLEY TWP.</u>	
▲6 " " " "		▲2 Edward Island prospect.	
▲8 " " " "		O1 Silver Islet mine.	E. McKnight.
▲9 " " " "		<u>STRANGE TWP.</u>	
▲2 Hewitson Quarry.		▲1 Tye Stucco Works.	
▲5 Lot 53.			

\* Number refers to that on deposit description card; non sequence follows as a consequence of data processing.



**Figure 3**  
**THUNDER BAY DISTRICT (1)**  
**Showing**  
**Silver-Cobalt Calcite Vein Deposits**

- Past producing mine
- ▲ Prospect (metals recorded)

Scale 1 inch to 8 miles  
0 4 8

Table 12a.

THUNDER BAY DISTRICT (1)

PRODUCTION TABLE

(Historical Name)	Silver (Troy oz)	Cobalt (lbs)	(Historical Name)	Silver (Troy ozs)	Cobalt (lbs)
<u>BLAKE TWP. (and Island)</u>			O1 Shuniah mine.	50,000	
* ▲1 Loch Lomand prospect.			▲7 Singleton mine.		
▲2 McKellar Island.			▲3 Stewart Quarry.		
<u>CROOKS TWP. (and Islands)</u>			<u>McTAVISH TWP.</u>		
▲4 Cloud Lake prospect.			▲5 Anderson Vein.		
▲5 Cloud Lake prospect.			▲3 Blende Lake Vein.		
O1 Jarvis Mining Co. (Jarvis Island).	36,000		▲7 Con. III, Lot 3, N½.		
▲3 Pine Bay prospect.			▲6 Con. V, Lot 5, N½, NE¼.		
O2 Prince's mine (Spar Island).	few hundred lbs. of 3% Ag. Ore.		▲1 Detroit-Algoma mine.		
<u>DORION TWP.</u>			O2 Enterprise mine.	167 tons of ore	
▲2 Con. V & VI, Lots 11, 12 and 13.			▲8 Granite Islet prospect.		
▲1 Former Claims: TB.3358 & 3461.			▲4 Silver Lake Vein.		
<u>GILLIES TWP.</u>			<u>O'CONNOR TWP.</u>		
O2 Badger mine. )	400,000		O1 Beaver mine.	500,000	
O1 Porcupine mine. )			<u>OLIVER TWP.</u>		
<u>HARDWICK TWP.</u>			▲2 Con. I, Lot 11, S½, SW¼.		
▲1 Mink prospect.			▲1 Kakabeka Falls prospect.		
<u>LYBSTER TWP.</u>			▲3 Neepatyre mine.		
▲2 Mining Location R70.			<u>PAIPOONGE TWP.</u>		
O1 Silver Mountain mines.	770,000		▲3 Big Bear prospect.		
<u>MacGREGOR TWP.</u>			▲4 Copeland's Vein (Fedral mine).		
▲3 Lots 3A and 12Z.			▲1 Elgin mine.		
▲4 Lot 10.			▲5 Parson's mine.		
O2 Three A and Beck mine.	9,000		▲2 Victoria mine.		
O1 Thunder Bay mine.	16,000		<u>SCOBLE TWP.</u>		
<u>McINTYRE TWP.</u>			O1 Rabbit Mountain mine.	50,000	
▲4 City of Port Arthur			<u>SIBLEY TWP.</u>		
▲6 " " " "			▲2 Edward Island prospect.		
▲8 " " " "			O1 Silver Islet mine.	2,870,000	
9 " " " "			<u>STRANGE TWP.</u>		
▲2 Hewitson Quarry.			▲1 Tye Stucco Works.		
▲5 Lot 53.					

\* Number refers to that on deposit description card; non sequence follows as a consequence of data processing.

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: WESTFIELD MINERALS LTD. HISTORICAL NAME: JARVIS MINING CO.		LAT. 04809700 LONG. 08930500		REF. NO. O.D.M.-Ag-0504001	
CO. or DIST. THUNDER BAY		CODE No. 60	MINING DIV. PORT ARTHUR		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE		
TP. or SQUARE JARVIS ISLAND		905040	LOCATION: Island 24 miles south of Port Arthur.		Jarvis Island is E of Crook twp.		
HISTORY OF OWNERSHIP: 1868: Mr. MacFarlane 1871: Ontario Mineral Lands Company. 1871: Sold to an English company. Jarvis Mining Company. 1927: Sudbury Basin Mines Company. 1968: Westfield Minerals Ltd.		EXPLORATION AND DEVELOPMENT 1868: Vein was discovered. 1869: Shaft was sunk 12'. 1870: Shaft was deepened to 32'. 1871-1872: Main shaft was sunk to 160' with two levels at 70' and 150' depths. Two other Shafts and a winze were also sunk. 1886: Further underground development including drilling north and south from main shaft.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1868 to 1911. Value of silver ore produced was: \$40,000 from about 36,000 ozs. of silver.			
MAJOR ORE MINERALS Argentite.		MINOR ORE MINERALS Galena, sphalerite, chalcopyrite and pyrite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Poor.			
ORE FABRIC Banded Vein.		MAJOR GANGUE MINERALS Calcite, barite and quartz.		COUNTRY ROCK OR FORMATION Animikie argillite and Keweenawan diabase dike.			
AGE: GEOLOGICAL Aphebian and Helikian.		ABSOLUTE 2000 - m.y. and 1000 - m.y.		MAP REFERENCE USED FOR LOCATION Army Survey Establishment Map, 1/50,000, Jarvis River, 52A/3W. (Longitude and latitude refer to centre of vein).			
MAIN REFERENCE Tanton T.L., 1931: G.S.C. Memoir 167, p. 190-191. Ingall E.D., 1889: Geol. and Nat. Hist. Surv. of Canada, pt. H, p.43-45.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED		DATE 1968		SIGNATURE A.O.S.	
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: WESTFIELD MINERALS LTD. HISTORICAL NAME: JARVIS MINING CO.		LAT. 48° 05' 48" LONG. 89° 18' 18"		REF. NO. O.D.M.-Ag-0504001	
GEOLOGY Jarvis Island is formed by two parallel NE striking Keweenawan diabase dikes about 350' apart that support between them flat lying Animikie argillites of the Rove formation. The argillite bedding is turned down against the northern dike but turned up against the southern one. Biotite and hematite develop at the contacts. A NW striking calcite vein that dips 55° NE crosses the island. The vein is banded and varies from 10' to 15' in thickness. Some argentite with galena and sphalerite occurs in a gangue of coarse calcite and barite with minor quartz.		EXPLORATION AND DEVELOPMENT (Cont)					
ALTERATION Hematite and Biotite developed at northern dike contacts.		METAMORPHISM		MINERAL PARAGENESIS			
GEOLOGICAL AGE Aphebian		ROCK OR MINERAL Sediment		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Animikie.	
ABSOLUTE AGE 2000 ± m.y.		METHOD K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14		N.G.T. 1000 m.y.	
ROCK TYPE AND/OR MINERAL		METHOD X		NAME OF TECTONIC EVENT		X	
COMPANY REPORTS		METALLURGY REFERENCE					
ECONOMICS REFERENCE		MILLING REFERENCE					
GEOCHEMICAL DATA REFERENCE Oja, R.V., 1966: G.S.C. Paper 66-54, p. 211-220.		MINING REFERENCE					
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Ingall, E.D., 1887: Geol. and Nat. Surv. of Canada, pt. H, p. 44, plate IV.					
MAP REFERENCES G.S.C. Map 276A Thunder Bay Silver Area, 1931. O.D.M. Map 2065 Atikokan-Lakehead sheet, 1965.		ODM FILES					

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: AIRWAYS EXPLORATIONS LTD. HISTORICAL NAME: PRINCE'S MINE.		LAT. 04811600	REF. NO.
				LONG. 08930000	O.D.M.-Ag-0504002
CO. or DIST.	THUNDER BAY	CODE No.	60	MINING DIV.	
TP. or SQUARE	CROOKS & SPAR ISLAND	005040		PORT ARTHUR	
LOCATION: Spar Island 2 miles long and 1/2 mile wide is 19 miles SSW of Fort William. Crooks Twp: 2 1/2 mi. W of Spar Island.			NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Spar Island is E of Crook twp. and SE of Blake twp.
HISTORY OF OWNERSHIP:			EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1846: Col. J. Prince.			1846-47: An open cut was driven westerly for 65' from the SW point of Spar Island 750' further inland, 2 shafts 24' and 47' deep were sunk. A tunnel 163' long was driven towards the shafts 50' below the collar of the higher shaft. It was reported that a winze was driven 50' to 60' below this level. A shaft 90' deep on the vein is reported to have been sunk.		1846-47: Several hundred pounds of ore containing 3% silver were extracted.
1848-49: British North America Co.			1866: Worked for copper.		
1856: Montreal Mining Co.					
1871: Ontario Mineral Lands Co.					
1968: Airways Explorations Ltd.					
OCCURRENCE      RAW PROSPECT      DEVELOPED PROSPECT      PRODUCER      PAST PRODUCER X					

MAJOR ORE MINERALS      Silver and argentite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS      Chalcopyrite, sphalerite, pyrite and cobalt arsenides.	Assays: Several hundred pounds of ore contained 3% silver.
ORE FABRIC      Vein.	Size of veins: Two branches of a NW vein on the shore of Spar Island are 5' and 6' wide; further inland they join to form one vein with a width of 14 1/2'.
MAJOR GANGUE MINERALS      Calcite, barite and quartz.	
COUNTRY ROCK OR FORMATION      Animikie argillite and Keweenawan diabase.	
AGE: GEOLOGICAL      ABSOLUTE	
Aphebian and Helikian      2000± m.y. and 1000± m.y.	
MAP REFERENCE USED FOR LOCATION	FILE STATUS:      DATE      SIGNATURE
Ingall, E.D.	SKELETAL
1887-88: Geol. and Nat.Hist. Surv. of Canada, pt. H, p.51.	INCOMPLETE
Tanton, T.L.	COMPLETED      1968      A.O.S.
1931: G.S.C., Memoir 167, p.189 and p.193.	REVISED

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: AIRWAYS EXPLORATION LTD. HISTORICAL NAME: PRINCE'S MINE.		LAT. 48°07'	REF.NO.
				LONG. 89°18'	O.D.M.-Ag-0504002
GEOLOGY      Two parallel NE striking Keweenawan diabase dikes support between them, flat-lying Animikie argillites of the Rove formation. The argillite bedding is turned upward as it approaches the main dike and is much altered. Two branches of a NW vein on the southwest shore are 5' and 6' wide; further inland they join to form one vein 14' wide. Argentite, silver, chalcopyrite, sphalerite, galena and cobalt arsenides are found in a gangue of calcite, barite and quartz.			EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE	Aphebian and Helikian			Post-Animikie	
ROCK TYPE AND/OR MINERAL	2000± and 1000± m.y.			N.G.T. 1000 m.y.	
METHOD	Sediments and Diabase.	K/Ar	Rb/Sr	Pb/Pb	C14
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
Oja, R.V. 1966: G.S.C. Paper 66-54, p. 211-220.			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION X LONGITUDINAL PROJECTION		
GEOPHYSICAL DATA REFERENCE			Ingall, E.D. 1887: Geol. and Nat. Surv. of Canada, pt. H, p.424, Plate III.		
MAP REFERENCES			ODM FILES		
O.D.M., P.177, Lakehead-Shebandowan Sheet, 1963.					
G.S.C., Map 276A, Thunder Bay Silver Area, 1931.					



COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 19 ; HISTORICAL NAME: BADGER MINE		LAT. 04810600 LONG. 08966200	REF.NO. O.D.M.-Ag-0825002	
CO. or DIST. THUNDER BAY	CODE No. 50	MINING DIV. PORT ARTHUR		LOT, CONCESSION, CLAIMS OR LEASE ACRIAL "Con. VI, Lot 2." "S $\frac{1}{2}$ of N $\frac{1}{2}$ ."		
TP. or SQUARE GILLIES	008250	LOCATION: 20 miles southwest of Port Arthur.		NIS 052A05E	UIM	
HISTORY OF OWNERSHIP: 1884: 1887-1891: Owned or leased by American capitalists.		EXPLORATION AND DEVELOPMENT Initial exploration and development carried out before 1887. 1887-1891: Actively mined. Operations ceased in about 1892. Workings include two shafts and considerable underground development on two veins 170' apart at the shafts.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1884 to 1911. Value of silver ore produced from this mine and adjacent Porcupine mine was \$300,000. from about 400,000 ozs. of silver.		
MAJOR ORE MINERALS Argentite, silver.		MINOR ORE MINERALS Galena, sphalerite and pyrite.		OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT    PRODUCER    PAST PRODUCER X		
ORE FABRIC Vein.		MAJOR GANGUE MINERALS Calcite, quartz and fluorite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
COUNTRY ROCK OR FORMATION Animikie sediments and Keewenawan diabase sill.		AGE: GEOLOGICAL Apehbian and Helikian		ABSOLUTE 2000 $\pm$ m.y. and 1000 $\pm$ m.y.		
MAIN REFERENCE: Tanton, T.L., 1931: G.S.C. Memoir 167, p.126. Bowen, N.L., 1911: Silver in Thunder Bay District, O.D.M. Vol.XX, pt.1 p. 119-132.		MAP REFERENCE USED FOR LOCATION O.D.M. Map, Silver Mountain Area, 1911. (Longitude and Latitude refer to west boundary of claim on north side of hill).		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968	SIGNATURE A.O.S.
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 19 ; HISTORICAL NAME: BADGER MINE		LAT. 48° 18' 23" LONG. 89° 39' 42"	REF.NO. O.D.M.-Ag-0825002	
GEOLOGY The mine occurs on a hill formed by a Keewenawan diabase sill up to 60' thick that caps 100' of Animikie black shales. Two silver producing veins occur 170' apart as cemented fissures along NE striking faults. The No.1 vein is composite and occurs in a shatter zone 6' wide; the No.2 vein is about 4" wide. Argentite with galena and sphalerite occurs in a gangue of calcite, quartz and fluorite. The veins occur in the shale and diabase, but the material on the mine dumps consists chiefly of the black shale.		EXPLORATION AND DEVELOPMENT (Cont)				
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS		
GEOLOGICAL AGE Apehbian		AGE OF FORMATION, ROCK OR MINERAL: 2000 $\pm$ m.y.		AGE OF DEFORMATION:		
ABSOLUTE AGE Sediments		AGE OF ORE MINERAL Post Animikie N.G.T. 1000 m.y.				
ROCK TYPE AND/OR MINERAL METHOD		K/Ar Rb/Sr Pb/Pb C14 X	K/Ar Rb/Sr Pb/Pb C14	NAME OF TECTONIC EVENT X		
COMPANY REPORTS		METALLURGY REFERENCE				
ECONOMICS REFERENCE		MILLING REFERENCE				
GEOCHEMICAL DATA REFERENCE Oja, R.V., 1966: G.S.C. Paper 66-54, p. 211-220.		MINING REFERENCE				
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION X LONGITUDINAL PROJECTION X Ingall, E.D., 1887: Geol. and Nat. Hist Surv. of Canada, pt.H, p.128, plate X.				
MAP REFERENCES G.S.C. Map 276A, Thunder Bay Silver Area, 1931. G.S.C. Map 213A, Kakabeka Smeat, Thunder Bay District, Ontario, 1928. O.D.M. Map, Silver Mountain Area, 1911.		ODM FILES				

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: CLIMAX SILVER MINES LTD. HISTORICAL NAME: PORCUPINE MINE.		LAT. 04830600 LONG. 08966200		REF.NO. O.D.M.-Ag-0825001	
CO. or DIST. THUNDER BAY TP. or SQUARE GILLIES		CODE No. 60 002850	MINING DIV. PORT ARTHUR		LOT, CONCESSION, CLAIMS OR LEASE AREA: "Con. VI, Lot 3". N $\frac{1}{2}$ .		
LOCATION: 20 miles southwest of Port Arthur.			NTS 052A05E	UTM	Former Claim: T96.		
HISTORY OF OWNERSHIP: 1887: Mr. T.A. Keefer et alia. 1956: Climax Silver Mines Ltd. 1965: Creswel Mines Ltd. (lease).			EXPLORATION AND DEVELOPMENT 1884: Development work was begun, and continued spasmodically up to 1911. Principal mine workings consist of two groups of adits driven northeasterly into west side of hill, and of two shafts on north side of hill. 1956-57: Some development work was carried out. 1966: Rehabilitation of old workings and sampling was carried out. 1968: Shaft has been unwatered to 3rd level and sampling carried out.			PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1884 to 1911: Value of silver ore produced from this mine and adjacent Badger mine was \$300,000. from about 400,000 ozs. of silver.	
MAJOR ORE MINERALS Argentite, silver.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES				
MINOR ORE MINERALS Galena, sphalerite, pyrite, chalcopyrite and pyrrhotite. ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite, quartz, fluorite and witherite. COUNTRY ROCK OR FORMATION Animikie sediments and Keewenawan diabase sill.			Size of veins:- Not exceeding about 200' in length, 100' in vertical depth and 4' in width. 1968 Assays:- On back of W stope, first level: 22.5 oz/ton Ag across 2.33' for length of 250'. On back of E stope, first level: 20.53 oz/ton Ag across 2.28' for length of 140'.				
AGE: GEOLOGICAL Aphebian and Heikian ABSOLUTE 2000 $\pm$ m.y. and 1000 $\pm$ m.y.							
MAIN REFERENCE: Tanton, T.L., 1931: G.S.C. Memoir 167, p. 125-126. Bowen, N.L., 1911: Silver in Thunder Bay District, O.D.M. Vol. XX, pt.1, p. 119-132.			MAP REFERENCE USED FOR LOCATION O.D.M. Map Silver Mountain Area, 1911. (Longitude and latitude refer to east boundary of claim on north side of hill)		FILE STATUS: SKELETAL INCOMPLETE COMPLETED RLVISED	DATE 1968	SIGNATURE A.O.S.
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: CLIMAX SILVER MINES LTD. HISTORICAL NAME: PORCUPINE MINE		LAT. 48° 18' 23" LONG. 89° 39' 42"		REF.NO. O.D.M.-Ag-0825001	
GEOLOGY The mine occurs in a hill formed by a Keewenawan diabase sill up to 60' thick that caps 100' of Animikie black shales. Three faults striking about ENE with steep southerly dips contain silver producing veins that have cemented fissures within and parallel to the faults. The veins vary from a few inches to 4' in width. The faults are 600' and 200' apart. Argentite occurs in a gangue of calcite, quartz, fluorite and witherite; locally argentite in nugget and leaf form and native silver in wire and mossy forms occurs in vugs and cleavage planes of other minerals.				EXPLORATION AND DEVELOPMENT (Cont) 1968 cont.: Geochemical and geological surveys are being carried out on surface.			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS			
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL: Aphebian 2000 $\pm$ m.y. Sediments		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4		AGE OF ORE MINERAL Post Animikie N.G.T. 1000 m.y. K/Ar Rb/Sr Pb/Pb Cl4	
COMPANY REPORTS		METALLURGY REFERENCE		ECONOMICS REFERENCE		MILLING REFERENCE	
GEOCHEMICAL DATA REFERENCE Oja B.V., 1966: G.S.C. Paper 66-54 p. 211-220.		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION X LONGITUDINAL PROJECTION X Ingall, E.D. 1887: Geol. and Nat. Hist. Surv. of Canada, pt. H, p.68, plate VII.		MINING REFERENCE		ODM FILES	
GEOCHEMICAL DATA REFERENCE Oja B.V., 1966: G.S.C. Paper 66-54 p. 211-220.		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION X LONGITUDINAL PROJECTION X Ingall, E.D. 1887: Geol. and Nat. Hist. Surv. of Canada, pt. H, p.68, plate VII.		MINING REFERENCE		ODM FILES	
MAP REFERENCES G.S.C. Map 276A, Thunder Bay Silver Area, 1931. G.S.C. Map 213A, Kakabeka Sheet, Thunder Bay District, Ontario, 1928. O.D.M. Map Silver Mountain Area, 1911.							

COMMODITY Silver	CIRCA 19 : HISTORICAL NAME: SILVER MOUNTAIN MINES.	NAME OF OCCURRENCE:	LAT. 04825000 LONG. 08986700	REF.NO. O.D.M.-Ag-1244001
CO. or DIST. THUNDER BAY TP. or SQUARE LYBSTER	CODE No. 60 012440	MINING DIV. PORT ARTHUR	LOT, CONCESSION, CLAIMS OR LEASE ACKN. # "Con. II, Lots 10, 11 and 12"	
LOCATION: 35 miles southwest of Port Arthur.		NTS 052A04W	UTM	Former Claims: R53, R54, R55, R56, R57.

HISTORY OF OWNERSHIP: 1884: Mr. Oliver Daunais. 1885: (East End). Leased to American capitalists 1886: (East End). The Silver Mountain Mine Company of Liverpool, England. 1886: (West End). Bonded by the Silver Mountain Mine Company. 1887: (West End). Litigation and stoppage of work 1924: (West End). Leased by Tyeo Stucco Works Company. 1946: McWilliams - Beardmore Mines Ltd. 1954: Jem Exploration Corporation Ltd.	EXPLORATION AND DEVELOPMENT 1885: (East End). Considerable exploration and development was carried out. 1886: Some development work was done in Upper tunnel. 1886-1892: (East End). Development work was carried out. 1887: (West End). 2 shafts had been sunk and also a pit. 1898-1903: (West End). Actively mined. 1911: (West End). Sporadic mining. 1924: (West End). Mined for stucco dressing. Development includes: Three shafts (No.2 to No.2 level or tunnel), 80' winze connecting	PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1888 to 1902 Value of silver ore produced was \$500,000. from about 770,000 ozs. of silver.
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MAJOR ORE MINERALS Argentite, Silver.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES At the Discovery pit (No.4) on slope on eastern side of mesa several tons of ore graded between 1000 and 2000 oz/ton of silver.
MINOR ORE MINERALS Galena, Sphalerite, Fluorite, pyrite, chalcocopyrite ORE FABRIC Vein.	Development work was thorough in upper 200 feet of mine. 1949: Estimated 250,000 tons of minable grade silver, zinc, lead and calcium fluoride ore.
MAJOR GANGUE MINERALS Calcite and Quartz, Barite COUNTRY ROCK OR FORMATION Animikie sediments and Keweenaw diabase sill.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 1960j, Silver Mountain Area, 1960. (East side of mountain by fault used for latitude and longitude location).
AGE: GEOLOGICAL ABSOLUTE Aphebian and Helikian 2000 ± m.y. and 1000 ± m.y.	FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED
MAIN REFERENCE: Tanton, T.L., 1931: G.S.C. Memoir 167, p. 115-117. Bowen, N.L., 1911: Silver in Thunder Bay District. O.D.M. Vol. XX, pt. 1, p. 119-132. Ingall, E.D., 1887: Geol. and Nat. Hist. Surv. of Canada, pt. H, p. 88.	

COMMODITY Silver	CIRCA 19 : HISTORICAL NAME: SILVER MOUNTAIN MINES.	NAME OF OCCURRENCE:	LAT. 48° 15' 00" LONG. 89° 52' 02"	REF.NO. O.D.M.-Ag-1244001
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GEOLOGY The mine occurs on Silver Mountain that is a mesa capped by diabase sill up to a 100' thick. Beneath the sill occur flat-lying Animikie shales. A fault zone striking east-west crosses the mesa and causes a depression 100' wide. Cemented fissures in the faulted zone constitute the vein material. In the diabase simple veins up to 6' wide occur; in the Animikie shales a stockwork of veins locally reaches 100' in width. The vein system can be followed 2 miles. Argentite with native silver occurs in a gangue of calcite and quartz. Barite and fluorite are common.	EXPLORATION AND DEVELOPMENT (Cont) two levels or tunnels, crosscuts and 4 pits. Vertical depth of workings extends over 250'.
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ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL: Neohelikian, Aphebian & Helikian 2000 ± and 1000 ± m.y. Sediments and Diabase K/Ar Rb/Sr Pb/Pb C14 X	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE Oja, R.V., 1966: C.S.C. paper 66-54, p. 211-220.	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION X LONGITUDINAL PROJECTION Ingall, E.D., 1887: Geol. and Nat. Hist. Surv. of Canada, pt. H, p. 88, plate IX.
MAP REFERENCES G.S.C. Map 276A, Thunder Bay Silver Area, 1931. G.S.C. Map 213A, Kakabeka Sheet, Thunder Bay District, Ontario, 1928. O.D.M. Map Silver Mountain Area, 1911.	ODM FILES

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 19 68; CANADIAN DREDGE & DOCK COMPANY LTD. HISTORICAL NAME: THREE A AND BECK MINES.		LAT. 04851600	REF. NO.
				LONG. 08897000	O.D.M.-Ag-1255002
CO. or DIST. THUNDER BAY	CODE No. 60	MINING DIV. PORT ARTHUR		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Lots: 3A and 12Z.	
TP. or SQUARE MACGREGOR	012550	N1S 052A10W UTM			
LOCATION: Near Silver Harbour, 12 miles northeast of Port Arthur.					
HISTORY OF OWNERSHIP: 1870: Discovered by A. Cyrette.  1911: Stewart and Skene.  1922: Mr. J. Beam of Pennsylvania.  1968: Canadian Dredge & Dock Company Ltd.		EXPLORATION AND DEVELOPMENT Beck Mine:- 1870: Vein was discovered.  1870-1872: Surface and underground development that included a 40' deep shaft was carried out.  Three A Mine:- 1869: Vein was discovered.  1870: Vein traced on surface for half a mile.  1872-1877: 4 shafts were sunk; the main shaft to		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1869-1911. Value of silver ore produced was \$10,000 from possibly 9,000 ozs. of silver.	
		OCCURRENCE		RAW PROSPECT	DEVELOPED PROSPECT
MAJOR ORE MINERALS Argentite and silver.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Veins up to 2½' wide occur.			
MINOR ORE MINERALS Galena, sphalerite, smaltite and nickelite.					
ORE FABRIC Vein.					
MAJOR GANGUE MINERALS Quartz, calcite, barite and fluorite.					
COUNTRY ROCK OR FORMATION Keewatin volcanics, Animikie iron formation and Keweenawan diabase sill.					
AGE: GEOLOGICAL Archean, Apehbian and Helikian		ABSOLUTE N.L.T. 3100 m.y. 2000 ± m.y. and 1000 ± m.y.			
MAIN REFERENCE Tanton, T.L., 1931: G.S.C. Memoir 167, p. 157-158.		MAP REFERENCE USED FOR LOCATION G.S.C. Map 214A, Loon Sheet, 1928. (Longitude and latitude refer to southeast corner of lot 3A).		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968
Ingall, E.D., 1887: Geol. and Nat. Hist. Surv. of Canada, pt. H, p. 63 and 66.				SIGNATURE A.O.S.	
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968; CANADIAN DREDGE & DOCK COMPANY LTD. HISTORICAL NAME: THREE A AND BECK MINES		LAT. 48° 30' 57"	REF. NO.
				LONG. 88° 58' 11"	O.D.M.-Ag-1255002
GEOLOGY Country rocks consist of steeply dipping Keewatin volcanics that strike ENE and are overlain by 100' of flat lying Animikie sediments of the lower Gunflint formation capped by a thin Keweenawan diabase sill. Each property is crossed by an ENE striking silver bearing vein that locally contains pockets of argentite and native silver in a gangue of mostly quartz and calcite. Silver values decrease with depth. Galena and sphalerite are present as is common in the district but also cobalt and nickel minerals occur. On the coast headland of Silver Harbour a network of veins occurs over a width of 30'.		EXPLORATION AND DEVELOPMENT (Cont) a depth of 150' with two levels.  1911: 200' of drifting and crosscutting was done on first level.  1922: New exploration shaft was sunk to a depth of 44'.			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE Archean and Apehbian		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Animikie	
ABSOLUTE AGE N.L.T. 3100 m.y. and 2000 ± m.y.				N.G.T. 1000 m.y.	
ROCK TYPE AND/OR MINERAL Volcanics and Sediments		K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4	
METHOD X		NAME OF TECTONIC EVENT		X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE Oja, R.V., 1966: G.S.C. paper 66-54, p. 211-220.		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION X LONGITUDINAL PROJECTION X Ingall, E.D., 1887: Geol. and Nat. Hist. Surv. of Canada, pt. H; p. 58, plate VI.			
MAP REFERENCES G.S.C. Map 214A, Loon Sheet, 1928. G.S.C. Map 276A, Thunder Bay Silver Area, 1931. D.D.M. Map 1960P, Loon Lake Area, 1960. O.D.M. Map 2065, Atikokan-Lakehead Sheet, 1965.		ODM FILES			

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: THUNDER BAY MINE.		LAT. 04848600	REF. NO.
				LONG. 08915400	O.D.M.-Ag-1255001
CO. or DIST. THUNDER BAY	CODE No. 60	MINING DIV. PORT ARTHUR		LOT, CONCESSION, CLAIMS OR LEASE ACKNOWLEDGMENT Con. I, Lot 6.	
TP. or SQUARE MACGREGOR	012550			Claim:	
LOCATION: Adjacent to north boundary of city of Port Arthur.		NTS 052A06E	UM		
HISTORY OF OWNERSHIP: 1866: Discovered by Peter McKellar.		EXPLORATION AND DEVELOPMENT 1866-1869: Developed and mined. 1874: Mine was in operation for 6 months. Workings consist of four shafts sunk on a composite vein, a crosscut driven NW on the 60' level, and some drifting between shafts Nos. 1 and 2. No.1 and No.2 shafts were sunk 70', No.3 shaft 35' and No.4 shaft 25'. No.2 shaft lies 300' northerly from No.1, No.3 is 150' north of No.2, and No.4, 150' north of No.3. Ore was mined locally over the total length of 600'.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1866 to 1911 Value of silver ore produced was \$20,000. from about 16,000 ozs. of silver.	
MAJOR ORE MINERALS Silver and argentite.		MINOR ORE MINERALS Galena, sphalerite and pyrite.		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER x	
ORE FABRIC Vein.		MAJOR GANGUE MINERALS Quartz with minor calcite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Native silver and argentite occurred in pockets 3" to 18" thick by 6' to 40' in length, the silver being in leaves and grains irregularly distributed among the other vein minerals.	
COUNTRY ROCK OR FORMATION Animikie Gunflint formation.		AGE: GEOLOGICAL Aphebian		ABSOLUTE 2000 ± m.y.	
MAIN REFERENCE: Tanton, T.L., 1931: G.S.C. Memoir 167, p. 155-156. Bowen, N.L., 1911: Silver in Thunder Bay District, O.D.M. Vol. XX, p. 11, p. 119-132.		MAP REFERENCE USED FOR LOCATION G.S.C. Map 198A, Fort William and Port Arthur Sheet, 1928. (Longitude and Latitude refer to centre of orebody).		FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.D.S. REVISED	
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: THUNDER BAY MINE.		LAT. 48° 29' 10"	REF. NO.
				LONG. 89° 09' 14"	O.D.M.-Ag-1255001
GEOLOGY The host rock of the veins consists of Animikie cherty carbonate of the Gunflint formation and black shales that strike N34°E and dip 22°SE in the vicinity of the vein but subhorizontally 100' NW beneath a diabase sill, 40' thick. A 10' wide composite vein or stockwork of up to 1" wide veinlets lies within and parallel to a fault that also strikes N34°E and dips 65°NW. Native silver and argentite occur locally in pockets 3" to 18" thick and from 6' to 40' in length in a gangue of quartz, with some calcite, galena, sphalerite and pyrite. A second vein of calcite occurs in a parallel fault 20' SE of the composite vein.		EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL:		AGE OF DEFORMATION:	
ABSOLUTE AGE		Aphebian		AGE OF ORE MINERAL	
ROCK TYPE AND/OR MINERAL		2000 ± m.y.		Post-Animikie	
METHOD		Sediments		N.C.T. 1000 m.y.	
		K/Ar	Rb/Sr	Pb/Pb	Cl4
		X			
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE Oja, R.V. 1966: G.S.C. Paper 66-54, p. 211-220.		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE		PLAN SECTION LONGITUDINAL PROJECTION	
MAP REFERENCES G.S.C. Map 198A, Fort William and Port Arthur Sheet, 1928. G.S.C. Map 276A, Thunder Bay Silver Area, 1931. O.D.M. Map 2065, Atikokan-Lakehead Sheet, 1965.		OIM FILES			

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: SHUNIAH MINE.		LAT. 04847700	REF. NO.
			LONG. 08920400	O.D.M.-Ag-1371001
CO. or DIST. THUNDER BAY	CODE No. 60	MINING DIV. PORT ARTHUR	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Lots 8 and 9.	
TP. or SQUARE McINTYRE	013710	LOCATION: Within city of Port Arthur, 7/8 mile south of its north boundary.	NTS 052A06E	UTM
HISTORY OF OWNERSHIP: 1867: Known as Shuniah mine. 1870: Mine was bought for \$75,000. 1873: Mine was reopened as the Duncan mine.		EXPLORATION AND DEVELOPMENT 1867: Vein was discovered. 1867-1868: Two shafts were sunk to 30' and 60' depths; from the deeper shaft a crosscut was driven across the lode and silver mined. 1870: Mine was reopened and main shaft was sunk to 135'; several drifts and crosscuts were driven. Also more surface trenching was carried out. Some ore was mined. 1873-1881: Actively mined and vein followed to a vertical depth of about 720'. 1921-1922: Crosscut surface trenches were dug. Surface exploration occurs along vein for a distance of 1 1/2 miles.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY) Value of silver produced was \$50,000 from about 50,000 ozs. of silver.	
MAJOR ORE MINERALS Silver and argentite.		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X		
MINOR ORE MINERALS Sphalerite, galena, chalcopryrite and pyrite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Silver ore was mostly mined from within 70' of surface; none or little was found in lower levels of the mine; the silver is probably secondary in origin. Sphalerite continues to depth.		
ORE FABRIC Vein.				
MAJOR GANGUE MINERALS Calcite, quartz and fluorite.				
COUNTRY ROCK OR FORMATION Keweenaw diabase sill, Animikie sediments and Kewatin metavolcanics.				
AGE: GEOLOGICAL ABSOLUTE 1000± m.y. 2000 Helikian, Apehbian and Archean ± m.y. and N.L.T. 3100 m.y.				
MAIN REFERENCE Tanton, T.L., 1931: G.S.C. Memoir 167, p. 153-155. Ingall, E.D., 1887: Geol. and Nat. Surv. of Canada, pt. H. p. 56-63. Bowen, N.L., Silver in Thunder Bay Dist. O.D.M. Vol XX, pt.1, p.119-132.		MAP REFERENCE USED FOR LOCATION G.S.C. Map 198A, Fort William and Port Arthur Sheet, 1928.  (Longitude and latitude refer to centre of ore body).	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968
SIGNATURE A.O.S.				
COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: SHUNIAH MINE		LAT. 48° 28' 39"	REF. NO.
			LONG. 89° 12' 13"	O.D.M.-Ag-1371001
GEOLOGY An 80' thick Keweenaw diabase sill overlies 515' of flat lying Animikie cherty slates of Gunflint formation above Kewatin hornblende schists intruded by Syenite or granite. An E-W fault with upthrow on north side from which sill has been eroded off, was fissured and then cemented by vein material. The main composite vein occurs along the fault and is up to 20' wide. Native silver and argentite occur in leaf form in irregularly spaced rich bunches associated with those parts of the vein rich in sphalerite. The gangue is calcite and quartz. Near the surface cavities in the vein are coated with manganese oxide. Vugs contain hydrocarbon gas under great pressure. Most ore was found within 70' of surface in Gunflint formation.		EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION Silicification.		METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Apehbian 2000 ± m.y. Sediments K/Ar Rb/Sr Pb/Pb C14 X	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Animikie N.G.T. 1000 m.y. K/Ar Rb/Sr Pb/Pb C14 X
COMPANY REPORTS		METALLURGY REFERENCE		
ECONOMICS REFERENCE		MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE Oja, R.V., 1966: G.S.C. paper 66-54, p. 211-220.		MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION X LONGITUDINAL PROJECTION X Ingall, E.D., 1887: Geol. and Nat. Hist. Surv. of Canada, pt. H, p. 56-58, plates V and VI.		
MAP REFERENCES G.S.C. Map 198A Fort William and Port Arthur sheet, 1928. G.S.C. Map 276A Thunder Bay Silver Area, 1931. O.D.M. Map 2065 Atikokan-Lakehead sheet, 1965.		ODM FILES		

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968 : A.W. WRIGHT, HISTORICAL NAME: DETROIT-ALGOMA MINE.		LAT. 04865000	REF. NO. O.D.M.-Ag-1406001
				LONG. 08865000	
CO. or DIST. THUNDER BAY	CODE No. 60	MINING DIV. PORT ARTHUR		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. IV, Lot 4, S $\frac{1}{2}$ , SE $\frac{1}{4}$ .	
TP. or SQUARE McTAVISH	014060				
LOCATION: 1 $\frac{1}{2}$ miles NW of Pearl Station on the C.P.R.		NTS 052A10E	UTM		
HISTORY OF OWNERSHIP: 1871: Patented by T.H. Wright. 1906: Detroit-Algoma Mining Co. 1921: Mr. A.H. Wright. 1926: Leased to an eastern Company. 1968: A.W. Wright.		EXPLORATION AND DEVELOPMENT 1906-14: Test pitting and stripping exposed the main vein for 400'. A shaft was sunk to a depth of 52' and hoisting equipment was set up. Two more shafts were sunk on the vein to depths of 30' and 15' respectively.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  N/A	
		OCCURRENCE		RAW PROSPECT	DEVELOPED PROSPECT <input checked="" type="checkbox"/>
MAJOR ORE MINERALS Chalcopyrite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Best Assay: 210 lb/t Cu, 170 ozs./t Ag, 3.75 ozs./t Au, and 4.1 ozs/t Pt.  Size of vein: A vein striking NE to E-W cements a shatter zone 15' wide.			
MINOR ORE MINERALS Galena, silver, gold and platinum.					
ORE FABRIC Vein.					
MAJOR GANGUE MINERALS Quartz and calcite.					
COUNTRY ROCK OR FORMATION Archean granites, Sibley sediments and Keweenawan diabase.					
AGE: GEOLOGICAL Archean, Aphebian? & Helikian		ABSOLUTE N.L.T. 2490, 2000 $\pm$ ? & 1000 $\pm$ m.y.			
MAIN REFERENCE Tanton, T.L. 1931: G.S.C. Memoir 167, p. 164-65.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2137, Nipigon-Schreiber Sheet, 1968.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968
				SIGNATURE A.O.S.	
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: A.W. WRIGHT, HISTORICAL NAME: DETROIT-ALGOMA MINE.		LAT. 48° 39'	REF. NO. O.D.M.-Ag-1406001
				LONG. 88° 39'	
GEOLOGY Flat-lying sediments of the Sibley Series up to 30' thick unconformably overlie Archean granite. Two faults with veins strike NE. The main vein strikes NE along the fault in the southeast part of the property, where at the main shaft the vein material, locally 40% of the total volume, cements a 15' wide brecciated zone: irregular seams and stringers up to 1" in width and a few feet in length, occur. These are variously mineralized with galena, sphalerite or chalcopyrite, about 3% (mainly galena) by volume over an 8' width near the main shaft.		EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Archean, Aphebian? and Helikian N.L.T. 2490 m.y., 2000 $\pm$ ? & 1000 $\pm$ m.y. Granites, Sediments and Diabase K/Ar Rb/Sr Pb/Pb C14 X X		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	
				AGE OF ORE MINERAL Post-Animikie N.G.T. 1000 $\pm$ m.y. K/Ar Rb/Sr Pb/Pb C14 X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE Oja, R.V. 1966: G.S.C. paper 66-55, p. 211-220.		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCE G.S.C., Map 275A, Thunder Bay Silver Area, 1931. O.D.M., Map 2137, Nipigon Schreiber Sheet, 1968.		ODM FILES			

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: OSCAR STYFFE LTD. HISTORICAL NAME: ENTERPRISE MINE		LAT. 04865000	REF. NO.
				LONG. 08860000	O.D.M.-Ag-1406002
CD. DIST.	THUNDER BAY	CODE No.	60	MINING DIV. PORT ARTHUR	
TP. or SQUARE	McTAVISH		1406002	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Mining Lot C.	
LOCATION: N side of the CNR about 2½ miles SW of Ancliff station			NTS	UTM	
			052A0E		
HISTORY OF OWNERSHIP: 1865: Discovered by Mr. P. McKellar. 1884: Ownership changed. 1926: Acquired by Power and Mines Corp. Ltd. 1968: Oscar Styffe Ltd.			EXPLORATION AND DEVELOPMENT 1868: Sampling and assays were completed. 1870-76: Two shafts were sunk. No.1 shaft was sunk 180'. 76' of E drifting and 66' of W drifting was done on the 60' level. A stope was mined in the W drift and a winze was sunk 14' in the E drift. A sump was completed on the north wall of the shaft at the 60' level. A crosscut was made from the bottom of the shaft 13'S No.2 shaft, (W of No.1), was sunk to a depth of 60'. 1884: The shafts were dewatered and the vein was sampled. 1926: New buildings were erected and No.1 shaft was dewatered and sampled.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1875: 167 tons of ore sent to Swansea, Wales.
			OCURRENCE	RAW PROSPECT	DEVELOPED PROSPECT
				PRODUCER	PAST PRODUCER X

MAJOR ORE MINERALS Lead.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Assays: 41.84% Pb, 5.40% Cu, 3.2 ozs./t Ag and 0.33/t Au. Size of veins: An ENE vein 4' wide cements a shatter zone. Numerous branches extend for 3' on either side. The vein was traced 150' underground.
MINOR ORE MINERALS Silver, chalcopryrite, and gold.	
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Calcite, quartz and barite.	
COUNTRY ROCK OR FORMATION Archean granites, Sibley sediments and Keweenawan diabase.	
AGE: GEOLOGICAL ABSOLUTE Archean, Aphebian & Helikian N.L.T. 2490, 2000 <sup>±</sup> ? & 1000 <sup>±</sup> m.y.	

MAIN REFERENCE Tanton, T.L., 1932: G.S.C. Memoir 167, p. 168-169.	MAP REFERENCE USED FOR LOCATION	FILE STATUS:	DATE	SIGNATURE
	O.D.M. Map 2137, Nipigon Schreiber Sheet, 1968. G.S.C. Map 276A, Thunder Bay Silver Area, 1931.	SKELETAL INCOMPLETE COMPLETED REVISED	1968	A.O.S.

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: OSCAR STYFFE LTD. HISTORICAL NAME: ENTERPRISE MINE.		LAT. 48° 39'	REF. NO.
				LONG. 88° 36'	O.D.M.-Ag-1406002
GEOLOGY Flat-lying sediments of the Sibley Series, locally 40' thick and resting unconformably on Archean granite are cut by an E-W fault occupied by a Keweenawan diabase dike 4' wide. Faulting occurred after the diabase intrusion and several mineralized veins were formed. A 4' wide ENE vein with ramifying branches that cement a shatter zone for 3' on either side, contains rich concentrations of galena and chalcopryrite in a gangue of calcite, quartz and barite with gold and silver values.			EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS			
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean, Aphebian, and Helikian N.L.T. 2490, 2000 <sup>±</sup> ? and 1000 <sup>±</sup> m.y. Granites, sediments and Diabase. K/Ar Rb/Sr Pb/Pb C14 X X	AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Annikie N.G.T. 1000 <sup>±</sup> m.y.	
		K/Ar	Rb/Sr	Pb/Pb	C14
		NAME OF TECTONIC EVENT		K/Ar	Rb/Sr Pb/Pb C14
				X	

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE Oja, R.J. 1966: G.S.C. paper 66-55, p. 211-220.	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION
MAP REFERENCES O.D.M., Map 2137, Nipigon Schreiber Sheet, 1968. G.S.C., Map 276A, Thunder Bay Silver Area, 1931.	ODM FILES





COMMODITY		NAME OF OCCURRENCE:		LAT. 04830800		REF.NO.	
Silver		CIRCA 1968: GREAT LAKES SILVER MINES HISTORICAL NAME: RABBIT MOUNTAIN MINE		LONG. 08960400		O.D.M.-Ag-1837001	
CO. or DIST. THUNDER BAY		CODE No. 60	MINING DIV. PORT ARTHUR		LOT, CONCESSION, CLAIMS OR LEASE ACKN/ACT "Con VI, Lots 9 and 10".		
TP. or SQUARE SCOBLE		018370	NIS 052A05E		UTM		
LOCATION: 20 miles southwest of Port Arthur.				Former Claims: T39 and T40.			
HISTORY OF OWNERSHIP: 1882: Discovered by Oliver Daunais. 1882-1887: Several different owners. 1927: Owned by George Harris and Mrs. Gryderman of Fort William. 1967: Great Lakes Silver Mines.		EXPLORATION AND DEVELOPMENT Exploration and development was by several shafts, levels and crosscuts for a distance along the main vein of 370' and over a depth of 290'. Trenches and surface pits were developed locally along the vein system over a distance of 800'. 1967: Mine was being dewatered; diamond drilling was begun.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) Value of silver ore produced was \$50,000 from about 50,000 ozs. of silver.			
MAJOR ORE MINERALS Argentite and silver.		MINOR ORE MINERALS Sphalerite, galena, pyrite and chalcocopyrite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Vein system extends for 1100' with composite veins that locally reached 20' in width.			
ORE FABRIC Vein.		MAJOR GANGUE MINERALS Quartz, calcite, barite and fluorite.		COUNTRY ROCK OR FORMATION Animikie sediments and Keweenawan diabase sill.			
AGE: GEOLOGICAL Aphebian and Helikian		ABSOLUTE 2000 ± m.y. and 1000± m.y.					
MAIN REFERENCE: Tanron, T.L., 1931: G.S.C. Memoir 167, p. 135-137. Bowen, N.L., 1911: Silver in Thunder Bay District, O.D.M. Vol. XX, pt. 1, p. 119-132. Ingall, E.D., 1887: Geol. and Nat. Hist. Surv. of Canada, pt. H, p. 68-71.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 1960L, Hymers-Stanley Area, 1960. G.S.C. Map 213A, Kakabeka Sheet 1931. (Longitude and latitude refer to shaft on vein).		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED		DATE 1968	
SIGNATURE A.O.S.							
COMMODITY		NAME OF OCCURRENCE:		LAT. 48° 18' 28"		REF.NO.	
Silver		CIRCA 1968: GREAT LAKES SILVER MINES. HISTORICAL NAME: RABBIT MOUNTAIN MINE.		LONG. 89° 36' 15"		O.D.M.-Ag-1837001	
GEOLOGY The mine lies in a miniature rift-valley formed within a hill where a Keweenawan diabase sill up to 100' thick caps flat lying Animikie shales. The valley and faults trend northeast and contain breccia zones, 3' to 20' in width, that have been cemented by vein material to form composite veins. The vein system extends along the valley for a known distance of 1100'. Argentite and native silver with galena, sphalerite, chalcocopyrite and pyrite occur in a gangue of quartz, calcite, barite and fluorite.		EXPLORATION AND DEVELOPMENT (Cont)					
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS			
GEOLOGICAL AGE Aphebian.		AGE OF FORMATION, ROCK OR MINERAL: 2000 ± m.y.		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Animikie	
ABSOLUTE AGE 2000 ± m.y.		ROCK TYPE AND/OR MINERAL Sediments.				N.C.T. 1000 m.y.	
METHOD K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4		NAME OF TECTONIC EVENT		K/Ar Rb/Sr Pb/Pb Cl4	
COMPANY REPORTS		METALLURGY REFERENCE					
ECONOMICS REFERENCE		MILLING REFERENCE					
GEOCHEMICAL DATA REFERENCE Oja, R.V. 1966: G.S.C. paper 66-54, p. 211-220.		MINING REFERENCE					
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION X LONGITUDINAL PROJECTION Ingall, E.D., 1887: Geol. and Nat. Hist. Surv. of Canada, pt. H, p. 68, plate VII.					
MAP REFERENCES G.S.C. Map 276A, Thunder Bay Silver Area, 1931. G.S.C. Map 213A, Kakabeka sheet, Thunder Bay District, Ontario, 1928. O.D.M. Map Silver Mountain Area, 1911. O.D.M. Map 1960L, Hymers-Stanley Area, 1960.		ODM FILES					

CONTOUR		NAME OF OCCURRENCE:		LAT.	04836000	REF. NO.
Silver		CIRCA 1965: MONARCH GOLD MINES (optionee). HISTORICAL NAME: EDWARD ISLAND PROSPECT		LONG.	08856000	O.D.M.-Ag-1888002
CO. OF DIST. THUNDER BAY		CODE No.	MIXING DIV.	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE		
TP. OF SQUARE SIBLEY		60	PORT ARTHUR	Island southeast of Sibley township.		
LOCATION: Edward Island (2 miles wide) 28 miles east across Thunder Bay from Port William.		NTS	UTM			
		052A07E				
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)		
1884: Silver Islet Co.		1884: Two shafts were sunk on the southwestern end of Edward Island. No.1 shaft located on the beach, was sunk 35' deep. No.2 shaft, inland about 200' to the NE, was sunk 100' deep.		1884-1921: A few hundred pounds of ore rich in native arsenic.		
1921: D.C. Peacock of Duluth.		1921: No.1 shaft was dewatered and extended a few feet.				
1962: Optioned to Monarch Gold Mines Ltd.		1963: An EM survey was conducted to outline graphitic shear zones. Two diamond drill holes, totalling 1,300' failed to show silver ore.				
1965: Mr. B.M. Arnott, Apt.709, 1001 Lawrence Ave. E., Don Mills, Ontario.						
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT X PRODUCER PAST PRODUCER		
MAJOR ORE MINERALS		Argentite, silver.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS		Sphalerite, native arsenic, galena and chalcopyrite.		1884 to 1921: Ore taken from shaft No.1 assayed 80 ozs/ton silver		
ORE FABRIC		Vein.		Size of veins: Shaft No.1 vein strikes N and varies in width up to 1' with branches and parallel veinlets extending to a width of 2' on either side.		
MAJOR GANGUE MINERALS		Calcite.		Shaft No.2 vein strikes N and is of the composite type with a width of several feet.		
COUNTRY ROCK OR FORMATION		Osler lavas and sediments and Keweenaw dikes.				
AGE: GEOLOGICAL		ABSOLUTE				
Helikian?		1000 ± m.y.?				
MAIN REFERENCE		MAP REFERENCE USED FOR LOCATION		FILE STATUS:	DATE	SIGNATURE
Tanton, T.L., 1931: G.S.C. Memoir 167, p. 186-187. Monarch Gold ML. 1962: Prospectus, Aug. 16th.		G.S.C. Map 276A, Thunder Bay Silver Area, 1931 Lat. and long. refer to island.		SKELETAL INCOMPLETE COMPLETED REVISED	1968	A.O.S.
CONTOUR		NAME OF OCCURRENCE:		LAT.	48° 22"	REF. NO.
Silver		CIRCA 1965: MONARCH GOLD MINES. HISTORICAL NAME: EDWARD ISLAND PROSPECT.		LONG.	88° 34"	O.D.M.-Ag-1888002
GEOLOGY		Basic lavas, locally 30' thick, overlie calcareous quartz sandstone and red fragmental rock of the Osler Series. These rocks have been faulted and intruded by a system of NE Keweenaw diabase dikes. A major NE fault zone cuts all of these rocks; two minor nearly parallel faults within this zone are mineralized and each has been explored by a shaft. In shaft No.1 vein, native silver and argentite occur in a gangue of calcite; other minerals include: sphalerite, native arsenic chalcopyrite and galena. Vein No.2 is sparsely mineralized with galena, sphalerite and chalcopyrite.		EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS		
Grey graphitic granophyre						
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL
ABSOLUTE AGE		Helikian 1000± m.y.				Post-Annikie N.G.T. 1000 m.y.
ROCK TYPE AND/OR MINERAL		Lavas and sediments.				
METHOD		K/Ar	Rb/Sr	Pb/Pb	Cl4	K/Ar
		x				X
COMPANY REPORTS		METALLURGY REFERENCE				
ECONOMICS REFERENCE		MILLING REFERENCE				
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE				
Oja, R.V., 1966: G.S.C. Paper 66-55, p.211-220.		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE				
GEOPHYSICAL DATA REFERENCE		PLAN		SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES		ODM FILES				
G.S.C. Map 276A, Thunder Bay Silver Area, 1931. G.S.C. Map 203A, Thunder Cape Sheet, 1931.						

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: E. MCKNIGHT HISTORICAL NAME: SILVER ISLET MINE		LAT. 04832100 LONG. 08881300		REF. NO. O.D.M.-Ag-1888001					
CO. or DIST. THUNDER BAY		CODE No. 60	MINING DIV. PORT ARTHUR		LOT, CONCESSION, CLAIMS OR LEASE AREA: Islet, south of township.						
TP. or SQUARE SIBLEY		018880	NIS		UIM						
LOCATION: Silver Islet (80' wide) 20 miles east across Thunder Bay from Fort William.		052A07W									
HISTORY OF OWNERSHIP: 1846: Joseph Woods.  1868: Montreal Mining Co.  1870: A.H. Sibley of Detroit. 1870: Ontario Mineral Lands Syndicate of Detroit. 1872: Silver Islet Mining Co. 1920: Optioned to Jamison and Peacock of Duluth. 1921: Islet Exploration Co. 1958: J.G. Cross(?) of Port Arthur. 1968: E. McKnight.		EXPLORATION AND DEVELOPMENT 1868: Initial surface exploration. 1869: Shaft sinking begun. 1870-73: Cribwork built around islet, mined to 360' level and 2 million ounces of silver were produced. 1873-78: Mostly underground exploration. Southerly drifting on 3rd level (150' depth) in 1878 encountered rich ore that produced 800,000 ounces of silver. 1878-1883: Workings developed to 1230' depth. 1921: Exploration drift on 4th level driven south west for 783'; diamond drill hole extended a further 431'.			PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  1869 to 1922.  Approximately:-  2,870,000 ozs. of silver worth \$ 3,261,000.						
MAJOR ORE MINERALS Silver.		OCURRENCE		RAW PROSPECT		DEVELOPED PROSPECT		PRODUCER		PAST PRODUCER	
MINOR ORE MINERALS Argentite, nicollite, galena, sphalerite, marcasite, cobaltite, smaltite, domeykite and tetrahedrite.		ORE FABRIC Vein.		MAJOR GANGUE MINERALS Dolomite and Quartz.		COUNTRY ROCK OR FORMATION Keweenaw dike.		AGE: GEOLOGICAL Helikian		ABSOLUTE 1000± m.y.	
MAIN REFERENCE: Tanton T.L., 1931: G.S.C. Memoir 167, p. 94-104. Ingall E.D. 1887: Geol. and Nat. Hist. Surv. of Canada, pt.H, p. 27-40.		MAP REFERENCE USED FOR LOCATION G.S.C. Map 276A. Thunder Bay Silver Area. 1931.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES 1869-70: About 13½ tons of ore graded approximately 2,200 ozs/ton. 1870-73: Ore shoot of about 350' depth by 200' in length produced 2,000,000 ozs. of silver. 1878: Ore shoot of about 100' depth by 50' in length produced 800,000 ozs. of silver. 1921: Silver content of roof pillar estimated at 300,000 ozs. Above 360' level: Supergene enrichment in part by secondary silver.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED		DATE 1968		SIGNATURE A.O.S.	
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: E. MCKNIGHT HISTORICAL NAME: SILVER ISLET MINE		LAT. 48° 19' 16" LONG. 88° 48' 48"		REF. NO. O.D.M.-Ag-1888001					
GEOLOGY Silver Islet is formed by a NE striking Keweenaw diabase dike of 350' width that intruded Animikie sediments. The dike and sediments are crossed by a NW striking fault that caused excessive brecciation of the dike but little in the sediments. The productive silver vein lies within the brecciated fault zone in the dike and parallel to the fault. Native silver occurs in a gangue of dolomite and quartz; other minerals include: argentite, niccolite, galena, sphalerite, marcasite, cobaltite, smaltite, domeykite, chalcopyrite and tetrahedrite. Locally above 360' level, rich secondary silver in vugs and fissures occurs as wires, leaves and nuggets of native silver.				EXPLORATION AND DEVELOPMENT (Cont) 1922: Mining carried out above 60' level. 19 : Exploration drift on 9th or 560' level was extended northwesterly along vein for 720'. Vein system followed northwest on main land with trenches and shallow shafts.							
ALTERATION Pink and grey graphitic granophyre.		METAMORPHISM				MINERAL PARAGENESIS					
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL: Helikian 1000 ± m.y.		AGE OF DEFORMATION:				AGE OF ORE MINERAL Post-Animikie N.G.T. 1000 m.y.			
		K/Ar Rb/Sr Pb/Pb Cl4 X		K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT X				K/Ar Rb/Sr Pb/Pb Cl4 X			
COMPANY REPORTS				METALLURGY REFERENCE							
ECONOMICS REFERENCE				MILLING REFERENCE							
GEOCHEMICAL DATA REFERENCE Oja, R.V., 1966: G.S.C. paper 66-54, p. 211-220.				MINING REFERENCE							
GEOPHYSICAL DATA REFERENCE				MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION X LONGITUDINAL PROJECTION Tanton, T.L., 1931: G.S.C. Memoir 167, p.99.							
MAP REFERENCES 1) G.S.C. Map 276A. Thunder Bay Silver Area. 1931. 2) G.S.C. Map 1902. Thunder Cape. 1924.				ODM FILES							



District of THUNDER BAY

N.T.S. or townships MacGREGOR, McINTYRE

\* native not necessarily applicable.

NAME	WORK DONE		VEIN		DESCRIPTION	METALS PRESENT							REFERENCE
						Ag	Co	Cu	Ni	Bi	Zn	Pb	
Circa 1925: MacGregor Twp. prspc. (4)  Lot 10 48°32' 89°00'	Shaft	1925: reported by Maj. H. Ruttan of Port Arthur.	CALCITE	QUARTZ	Silver occurs in a vein on the bank of the Mackenzie R.	*	native arsenides						G.S.C. Mem.167, p.159, 1931  MacGREGOR 4  Bank of Mackenzie River. MAPS O.D.M., 1960o, 1960. G.S.C. 198A, 1931.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													
Circa 1923: Port Arthur prspc. (4)  Shore of L. Superior 48°24' 89°14'	Shaft	outcrop observation			Keweenaw diabase intrudes the Animikie or Lower Gunflint iron formation; a silver bearing vein occurs.	*							G.S.C., Mem.167, p.153, 1931. ODM, Vol.69, pt.7, p.7, 1960.  McINTYRE 4  Close to C.P.R. station MAPS O.D.M. 1960o, 1960. G.S.C. 198A, 1931.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													
Circa 1927: Port Arthur prspc. (6)  City of Port Arthur 48°24' 89°14'	Shaft	hand specimen observation.			Keweenaw diabase intrudes the Animikie or Lower Gunflint iron formation and exhibits shearing traversed by veinlets. Pyrite occurs.	*							G.S.C., Mem.167, p.153, 1931. ODM, Vol.69, pt.7, p.7, 1960.  McINTYRE 6  Adjacent to Pagoda. MAPS O.D.M. 1960o, 1960. G.S.C. 198A, 1931.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													
Circa 1923: Port Arthur prspc. (8)  48°25' 89°14'	Shaft	1923: excavation for foundation of home.			In Animikie or lower Gunflint iron formation a vein containing native silver occurs.	*							G.S.C. Mem.167, p.153, 1931. ODM Vol.69, pt.7, p.7, 1960.  McINTYRE 8  N end of Banning Street MAPS O.D.M. 1960o, 1960. G.S.C. 198A, 1931.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													
Circa 1923: Port Arthur prspc. (9)  48°25' 89°15'	Shaft	1923: excavation for foundation of a home.	X	X	In Animikie or Lower Gunflint iron formation a vein 1" wide is ex- posed. Sphalerite, chalcopyrite and leaf silver occur in a gangue of quartz, barite and calcite.	*		X	X		X	Ba	G.S.C. Mem.167, p.153, 1931. ODM Vol.69, pt.7, p.7, 1960.  McINTYRE 9  NW corner Hebert & Peter St. MAPS O.D.M., 1960o, 1960. G.S.C., 198A, 1931.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													

District of THUNDER BAY

N.T.S. or townships McINTYRE, McTAVISH

\* native not necessarily applicable.

NAME	WORK DONE		VEIN		DESCRIPTION	METALS PRESENT							REFERENCE
						Ag	Co	Cu	Ni	Bi	Zn	Pb	
Circa 1910: Hewitson Quarry  City of Port Arthur. 48° 25' 89° 15'	Shaft	Quarry 20' deep by 375' by 225'. No development on silver-bearing veins.	CALCITE	QUARTZ	Animikie or Lower Gunflint iron formation is intruded by 15' thick diabase sill hosting E-W vein 1' wide. Sphalerite, Fluorite, argentite and native silver.	*	native arsenides						G.S.C. Mem.167, p.152, 1931 ODM, Vol.69, pt.7, p.7, 1960.  McINTYRE 2  1 mile NE of Golf Club. MAPS O.D.M. 1960o, 1960. G.S.C., 198A, 1931.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													
Circa 1923: Lot 53  Lot 53, SW Port Arthur 48°25' 89°16'	Shaft	Quarry ½ miles NE of Hewitson quarry.			In Animikie or Lower Gunflint iron formation 6 E-W veins occupy fault fractures. N most vein strikes ENE, is 1' wide and contains leaf argentite and barite.	*							G.S.C. Mem.167, p.151, 1931. ODM, Vol.69, pt.7, p.7, 1960.  McINTYRE 5  Central Ave. Port Arthur. MAPS O.D.M. 1960o, 1960. G.S.C., 198A, 1931.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													
Circa 1887: Singleton Mine  City of Port Arthur 48°76' 89°14'00"	Shaft	1887: a pit 30' deep deep was sunk.			In Animikie or Lower Gunflint iron formation a vein cements an ENE fault, said to have contained bunches of silver.	*							G.S.C. Mem.167, p. 152, 1931 ODM, Vol.69, pt.7, p.7, 1960  McINTYRE 7  Prospect school playgrounds MAPS O.D.M. 1960o, 1960. G.S.C., 198A, 1931.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													
Circa 1923: Stewart Quarry  City of Port Arthur 48° 25' 89° 15'	Shaft	Quarry of 300' in diameter. No development on silver-bearing veins.			Animikie or Lower Gunflint iron formation is intruded by 15' thick diabase sill hosting NNE vein 6" wide. Sphalerite, Fluorite and silver bearing minerals.	*							G.S.C. Mem.167, p. 152, 1931 ODM, Vol.69, pt.7, p.7,  McINTYRE 3  N end of May Street. MAPS O.D.M. 1960o, 1960. G.S.C. 198A, 1931.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													
Anderson Vein  McTavish twp. 48°36' 88°43'	Shaft	Reported occurrence			In the Sibley Series ESE network of veinlets was traced for 20'. Fluorite galena, sphalerite and pyrite occur.	*							G.S.C. Mem.167, p.164, 1931 G.S.C. Mem.167, p. 47, 1931.  McTAVISH 5  NW shore of Silver L. MAPS O.D.M. 1960o, 1960 G.S.C., 214A, 1931.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													







Table 13

THUNDER BAY DISTRICT (2)  
LIST OF PROPERTIES

(Historical Name)

(Present Owner)

N.T.S.

DUCK LAKE AREA

- ▲ 1 Burstrom Deposit.
- ▲ 2 Canabel Syndicate.
- ▲ 3 Church No.1 Deposit.
- ▲ 3 Duck Lake Mining Co. Ltd.
- ▲ 4 Haslat-Duck Lake Mines Ltd.

LAC DES MILLE LACS

- ▲ 1 Bolton Bay prospect.
- ▲ 2 Tunnel Island prospect.

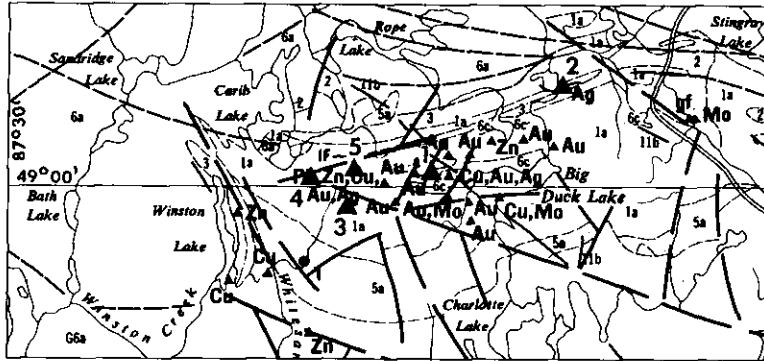


Figure 4 - Duck Lake Area

▲ Prospect

Scale 1 Inch to 4 Miles

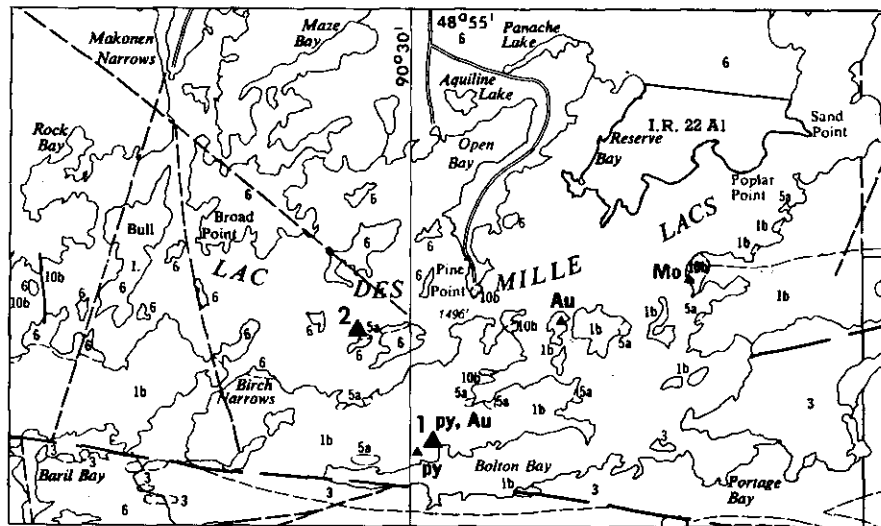
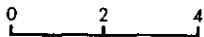


Figure 5 - Lac Des Mille Lacs Area

Table 14

THUNDER BAY DISTRICT (3)  
LIST OF PROPERTIES (see fig. 2)

(Historical Name)

(Present Owner)

(Historical Name)

(Present Owner)

JUTTEN TWP.

- ▲ Ju Donner Property.

RIPIGON TWP.

- ▲ Ni Con. III, Lot 9, N $\frac{1}{2}$ , NE $\frac{1}{4}$ .

TWP. 80

- ▲ 80 Brae Breest Gold Mines Ltd.
- ▲ 80 Saratoga Explor. Ltd.

TWP. 91

- ▲ 91 Claim No.: TB 3745.
- ▲ 91 Claim No.: TB 6038.

ST. IGNACE ISLAND

- ▲ 1G Harrison's Location.
- ▲ 1S Montreal Mining Co.

N.T.S.

- ▲ 1 Buffalo Red Lake Mines Ltd.
- ▲ 1 Corndesson Mines Ltd.
- ▲ J Hurd-Demetrieff Group.



COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1963: WHITEGATE MINING COMPANY LIMITED. HISTORICAL NAME: SARATOGA EXPLORATIONS LIMITED		LAT. 04880000	REF. NO. O.D.M.-Ag- 2514001
				LONG. 08668000	
CO. or DIST. THUNDER BAY	CODE No. 60	MINING DIV. PORT ARTHUR		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Group "A": consists of 7 claims (east of McKellar Harbour).	
TP. or SQUARE 80	025140	NTS 042D15E	UTM	Group "B" consists of 14 claims. (2 miles north of McKellar Harbour).	
LOCATION: Just east of McKellar Harbour. 20 miles east of Terrace Bay railway station.					
HISTORY OF OWNERSHIP: 1948: (Group "A") Seaboard Oil and Mines Ltd. 1950: (Group "A" plus claims T.B.38109-11 inclusive and claim T.B.40913 Saratoga Explorations Ltd. 1952: Claims T.B.38112-16 inclusive were purchased by Saratoga Explorations Ltd. 1954: (8 claims from Group "A" and 6 claims from Group "B"):- MacKellar Bay Mines Ltd. 1963: Group "A" and Group "B" optioned by Whitegate Mining Company Ltd. 1965: Property was partially restaked by A. Maskevich.		EXPLORATION AND DEVELOPMENT Group "A" 1952: Buildings were erected and a vertical 2-compartment shaft was sunk 51'. 70' of drifting was done on the 50' level. Adjacent to the shaft an adit was driven westerly 154'. 14 holes totalling 5,514' in length, were diamond-drilled from surface. 1956: Grab samples taken and 1000' of trenching Group "B" 1954: 9 holes, totalling 2000' in length were diamond-drilled from surface. 1956: Grab samples were taken.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  1952-53:  455 bags of high grade silver-lead-zinc ore were recovered and stockpiled.	
		OCCURRENCE		RAW PROSPECT	DEVELOPED PROSPECT X
				PRODUCER	PAST PRODUCER

MAJOR ORE MINERALS Silver.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Grab sample assays: Group "A": 25.2% Pb, 28.8% Zn and 55.86 ozs/t Ag. Group "B": 27.0% Pb, 16.8% Zn and 56.40 ozs/t Ag. Size of Veins: Group "A": A NNW striking sulphide vein 1" wide crosses greywacke and a N striking diabase dike. The vein is richest where it cuts the diabase. Group "B": An E-W striking calcite vein 4" wide contains narrow seams of sulphides.
MINOR ORE MINERALS Sphalerite, galena, pyrite and some chalcocopyrite.	
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Quartz-Calcite.	
COUNTRY ROCK OR FORMATION Archean Metasediments and Metavolcanics and Keweenawan dikes.	
AGE: GEOLOGICAL Archean and Helikian	ABSOLUTE N.L.T. 3100 m.y. and 1000 ± m.y.

MAIN REFERENCE Walker, J.W.R. 1956: O.D.M. Geol. Circ. No. 4, p.5. Thomson, J.E. 1957: O.D.M. Geol. Circ. No. 2, p.57.	MAP REFERENCE USED FOR LOCATION Preliminary Map of the Jackfish Area, (Geol.) Accomp. report by Walker, (1956). Lat and long refer to Ontario Mineral Map 2024, 1963.	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968	SIGNATURE A.O.S.
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COMMODITY SILVER	NAME OF OCCURRENCE: CIRCA 1963: WHITEGATE MINING COMPANY, LIMITED HISTORICAL NAME: SARATOGA EXPLORATIONS LIMITED	LAT. 48° 48'	REF.NO. O.D.M.-Ag-2514001
		LONG. 86° 41'	

GEOLOGY Group "A": Archean metasediments and a N striking Keweenawan diabase dike, are cut by a narrow zone of galena-sphalerite mineralization and carbonate alteration. Sulphides occur mainly in a vein 1" wide striking NNW. The vein is richest where it transects the diabase. The metasediments are cut by red syenite dikes. Group "B": Archean metavolcanics host and E-W fracture zone 4" wide, cemented by quartz-calcite veins and stringers carrying sulphides.	EXPLORATION AND DEVELOPMENT (Cont) Group "B" Circa 1956: 6000' of stripping along the vein was completed.  1963: Groups "A" and "B", were examined by Whitegate Mining Co. Ltd.
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ALTERATION Carbonate alteration.	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE Archean and Helikian	AGE OF FORMATION, ROCK OR MINERAL Archean and Helikian	AGE OF DEFORMATION:
ABSOLUTE AGE N.L.T. 3100 and 1000± m.y.		AGE OF ORE MINERAL Post-Animikie N.G.T. 1000± m.y.
ROCK TYPE AND/OR MINERAL Metased., Metavolcs. and Diabase.	K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14
METHOD X X	NAME OF TECTONIC EVENT	X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE Oja, R.V. 1966: G.S.C. paper 66-55, p. 211-220.	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION
MAP REFERENCES Preliminary Map of the Jackfish Area, (Geol.) Accomp. report by Walker, 1956. O.D.M. Map 2137, Nipigon Schreiber Sheet, 1968.	ODM FILES

District of THUNDER BAY

N.T.S. or Townships JUTTEN, NIPIGON, TWP.80, TWP.91

\* native not necessarily applicable

NAME	WORK DONE	VEIN	DESCRIPTION	METALS PRESENT							REFERENCE	
				Ag	Co	Cu	Ni	Bi	Zn	Pb		
Circa 1930: Mr. Donner, Winnipeg. 1965: Monarch Gold ML Donner Property.	Shaft	Past 1930: 3 pits were dug and evidence of 4 x-ray drill setups was found. 3 chip samples were taken.	A sulphide lens 15' long and 1' to 3' wide, cements an ENE shear zone 4' wide. Sphalerite pyrite and galena occur. Best assay: 26.2 oz/t Ag 2.81% Pb and 0.96% Zn.	Ag native X	Co arsenides	Cu	Ni	Bi	Zn	Pb	Au	JUTTEN (Ju) 12 mi. NE of village of Savant Lake. MAPS O.D.M.37J, Savant L. Gold Area.
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												
50°22' 90°31'												
Circa 1920, 1923: Nipigon Twp. prspc. Con. III, Lot 9, N½, NE¼ 49°00' 88°15'	Shaft	Between 1920 and 1923, stripping and test pitting were done.	Archean granites host NE vein up to 2' wide, traced for 150'. Barite, galena, sphalerite & chalcocopyrite occur. Best assay: 0.5 oz/t Ag.	X	X				Zn	Ba		G.S.C. Mem.167, p.181, 1931. G.S.C. Mem.167, p.18, 1931.  NIPIGON (NI) 4 miles SW of Nipigon Village MAPS O.D.M. Red Rock Fine Portage, P.357, 1966.
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												
(Leslie Property) Brae Breest Gold ML. 48°48' 86°41'	Shaft	Circa 1949: surface drilling program planned.	1949: a vein was exposed for 300' in length and varying from 12" to 13" in width. Best assay: 19% Pb, 19% Zn and 22 ozs per ton Ag.	*								Northern Miner, Jan.27,p.2, 1949.  TP. 80 (80) Near McKellar Bay MAPS O.D.M. Prelim. Map to Accomp. Geol.Circ. No.4,1956.
Adit												
Pit												
Trench												
D. Drill												
Geophys												
Circa 1927: Former claim: TB3745 49°02' 88°02'	Shaft	Circa 1927: 2000' of stripping on E-W vein. 55' shaft was sunk on W boundary. Best assay: 3 oz/t Ag.	Archean pegmatitic granite gneiss hosts 30' wide E-W shatter zone cemented by a composite vein. Galena, chalcocopyrite, sphalerite barite and pyrite occur.	*					Zn	Ba		G.S.C. Mem.167, p.183, 1931. G.S.C. Mem.167, p.18, 1931.  TP. 91 (91) ½ mile N of Ozone on C.P.R. MAPS O.D.M. 2137, 1968.
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												
Circa 1926: Former claim: TB6038 49°00' 88°05'	Shaft	1927: 2 trenches cut across E-W vein on E bank of river. 14' pit sunk on west bank.	Archean pegmatitic granite-gneiss hosts 40' wide E-W shatter zone cemented by a composite vein, exposed for 100'. Sphalerite, chalcocopyrite and barite occur.	*					Zn	Ba		G.S.C. Mem.167, p.182, 1931. G.S.C. Mem.167, p.18, 1931.  TP. 91(91) 1 mile N of Copper Point. MAPS O.D.M. 2137, 1968.
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												

District of THUNDER BAY

N.T.S. or Townships ST. IGNACE ISLAND, NIPIGON STRAIT, 42L04E

\* native not necessarily applicable

NAME	WORK DONE	VEIN	DESCRIPTION	METALS PRESENT							REFERENCE	
				Ag	Co	Cu	Ni	Bi	Zn	Pb		
Circa 1881: St. Ignace Island Harrison's Loc. 48°47' 87°45'	Shaft	Circa 1882: Shallow test pits were sunk.	The Osler Series hosts E-W veins up to 5' wide. 3 veins lie along N & S walls of a diabase dike. Chalcocopyrite & silver in calcite, laumontite & drusy quartz.	Ag native X	Co arsenides	Cu	Ni	Bi	Zn	Pb		G.S.C. Mem.167, p.185, 1931. G.S.C. Mem.167, p.57, 1931.  ST. IGNACE ISLAND (IG) N of Mines Cove. MAPS O.D.M. 2137, 1968.
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												
Circa 1846: Montreal MCo. St. Ignace Island. 48°46' 88°07'	Shaft	No development work was reported.	The Osler Series hosts calcite veins 1' wide bearing silver and chalcocite. Argentiferous copper in amygdaloidal lava also occurs.	X		X						G.S.C. Mem.167, p.185, 1931. G.S.C. Mem.167, p.57, 1931.  NIPIGON STRAIT (NS) NE & NW shores of Nipigon Str MAPS O.D.M. 2137, 1968.
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												
1928: Buffalo Red Lake ML. 50°07' 87°42'	Shaft	1950: Float was sampled.	Silver associated with galena and sphalerite. Best assay: 37 oz/t Ag, 25% Pb, 15% Zn.	*					Zn	X	X	Northern Miner, Sept.27, p.4, 1951.  42L04E (I) 40 mi. NW of Geraldton. MAPS O.D.M. 2024, 1963
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												
1957: Carnedsson ML. 50°02' 87°42'	Shaft	1949: surface work and 5,018' of D. drilling. 1952: further surface work and D. drilling	Contacts between greenstone & porphyry dikes host sulphide replacements within NE shear zone traced 2.4 miles. Best assay: 1.14% Pb, 1.58% Zn and 9.0 oz/t Ag	*					Zn	X	X	O.D.M. M.R. Circ. No.2,p.24 1957.  42L04E (I) 25 miles N of Nezhah on Hwy.11 MAPS O.D.M. 2024, 1963.
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												
1947: Hurd-Demetrieff Group 50°25'30" 87°03'30"	Shaft	1947: grab samples taken.	Keewatin sheared agglomerate and tuff hosts a NW vein 1" to 9" wide mineralized with arsenopyrite. Silver and gold values found on assay.	*							As	O.D.M. Vol.64, pt.4, p.22, 1955.  42L06E (J) W side of Farley Island MAPS O.D.M. 2024, 1963. O.D.M. 1955-2, Moorhouse, 1955
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												

D I S T R I C T  
O F  
T I M I S K A M I N G

Table 15

COBALT AREA (1)  
LIST OF PROPERTIES

COLEMAN TWP.			COLEMAN TWP.		
(Historical Name)	Page	(Present Owner)	(Historical Name)	Page	(Present Owner)
* Agnico Mines Ltd-407 Shaft mine; see Nipissing 407 & 408.			○ 26 Nipissing Mines Co. Ltd., 404	168	Agnico Mines Ltd.
● 45 Alexandra Silver Mining Co.	88	Silverfields Mining Corp. Ltd.	○ 31 Nipissing Mines Co. Ltd., 405.	170	Agnico Mines Ltd.
○ 62 Beaver Consolidated Mines Ltd.	90	Ansil Mines Ltd.	● 27 Nipissing Mines Co. Ltd., 406.	172	Agnico Mines Ltd. (Cart Lake Property).
○ 58 Brady Lake Property (Lumsden, Rochester & Pan Silver).	92	Silver Miller Mines Ltd.	● 29 Nipissing Mines Co. Ltd., 407, (408).	174	Agnico Mines Ltd.
○ 4 Buffalo Mines Ltd.	94	Agnico Mines Ltd.	○ 30 Nipissing Mines Co. Ltd., 408, (407).	176	Agnico Mines Ltd.
Cart Lake Property - see Nipissing 406.			○ 34 Nova Scotia Silver Cobalt Mining Co. Ltd.	178	Trinova Cobalt Silver Mines Ltd.
○ 12 Chambers Ferland Mining Co. Ltd. (R.L. 401, PCL 3 & 4).	96	Silver Miller Mines Ltd.	○ 14 O'Brien (R.L. 403)	180	Agnico Mines Ltd.
○ 9 Chambers Ferland Mining Co. Ltd. (R.L. 402W, & R.L. 400E½).	98	Silver Miller Mines Ltd.	○ 65 Ophir Cobalt Mines Ltd.	182	V.J. Adams
○ 59 Christopher Silver Mines Ltd.	100	Agnico Mines Ltd.			
○ 5 City of Cobalt Mining Co. Ltd.	102	Agnico Mines Ltd.	Pan Silver Claim (see Brady Lake Property).		
Cleopatra Mining Co. Ltd. (Gillies Limit).			○ 48 Penn Canadian Mines Ltd.	184	Agnico Mines Ltd.
○ 57 Cobalt Badger Silver Mines Ltd.	104	Silver Miller Mines Ltd.	○ 32 Peterson Lake Silver Cobalt Mining Co. Ltd. (W½ leases Peterson L.).	186	Silver Town Mines Ltd.
○ 25 Cobalt Lake Mining Co. Ltd.	106	Agnico Mines Ltd.	○ 28 Peterson Lake Silver Cobalt Mining Co. Ltd. (Cart Lake leases).	188	Silver Town Mines Ltd.
○ 60 Cobalt Lode Silver Mines.	108	Agnico Mines Ltd.	○ 22 Princess Claim J.B.3.	190	Silver Miller Mines Ltd.
○ 19 Cobalt Silver Queen Ltd.	110	H.A. Dunning.	○ 42 Red Jacket Property.	192	Silver Wedge Mines Ltd.
○ 21 Cobalt Townsite Mining Co. Ltd.	112	Agnico Mines Ltd.	○ 39 Reinhardt Cross Lake Group.	194	Deer Horn Mines Ltd.
○ 64 Cochrane Cobalt Mining Co. Ltd.	114	Patricia Silver Mines Ltd. (Lessee)	○ 24 Right of Way Mines Ltd. (South Mine).	196	Agnico Mines Ltd.
○ 16 Colonial Mining Co. Ltd.	116	Agnico Mines Ltd.	○ 10 Right of Way Mines Ltd. (North Mine).	198	Agnico Mines Ltd.
○ 3 Conigas Mines Ltd.	118	Marcobalt Mining Syndicate Ltd.	Rochester Claim (see Brady Lake Property).		
● 52 Conisil Mines Ltd.	120	Silver Miller Mines Ltd.	○ 43 Savage mine (McKinley-Darragh -Savage mines of Cobalt Ltd.).	200	Silver Summit Mines Ltd.
○ 61 Consolidated Silver Banner Property.	122	Coballoy Mines & Refiners Ltd.	○ 18 Silver Cliff Mining Co. Ltd.	202	United Cobalt Mines Ltd.
● 40 Cross Lake O'Brien Property	124	Deer Horn Mines Ltd.	○ 37 Silver Cross Cobalt Mining Co. (Morgan).	204	Morgan Silver Cross Mines Ltd.
○ 53 Crown Reserve Mining Co. Ltd.	126	Agnico Mines Ltd.	○ 50 Silver Leaf Mining Co. Ltd.	206	J.J. Gray.
○ 56 Drummond Mines Ltd.	128	Silver Miller Mines Ltd.	○ 41 Smith Cobalt Mines Ltd.	208	Rockzone Mines Ltd.
○ 36 Farah Mining Co. Ltd.	130	Agnico Mines Ltd.	○ 63 Temiskaming Mining Co. Ltd.	210	Agnico Mines Ltd.
○ 49 Foster Cobalt Mining Co. Ltd.	132	Agnico Mines Ltd.	○ 2 Trethewey Silver Cobalt Mines Ltd., (Claim J.B.7).	212	Marcobalt Mining Syndicate Ltd.
Giroux Lake mine - see Conisil & University.			● 47 University Mines Ltd.	214	Glen Lake Silver Mines Ltd. (Hiho).
Glen Lake mine - see New Bailey.			○ 33 Victoria Silver Cobalt Mines Ltd.	216	United Cobalt Mines Ltd.
○ 55 Hargrave Silver Mines Ltd.	134	Silver Miller Mines Ltd.	○ 15 Violet Mining Co. Ltd.	218	Ansil Mines Ltd.
○ 1 Hudson Bay Mines Ltd.	136	Coballoy Mines & Refiners Ltd.			
○ 35 Juno Metals Corporation.	138	Juno Metals Corporation.			
○ 54 Kerr Lake Mining Co. Ltd.	140	Glen Lake Silver Mines Ltd. (Hiho).			
○ 38 King Edward Mining Co.	142	United Cobalt Mines Ltd.			
○ 11 La Rose Mines Ltd.	144	Silver Miller Mines Ltd.			
○ 51 Lawson mine.	146	Glen Lake Silver Mines Ltd. (Hiho).			
○ 20 Little Nipissing-claim J.B.2.	148	Agnico Mines Ltd.			
Lumsden Claim (see Brady Lake Property).					
○ 66 Mayfair Mines Ltd.	150	Silvermaque Mining Ltd.			
○ 23 McKinley-Darragh Savage Mines of Cobalt Ltd.	152	Agnico Mines Ltd.			
○ 44 Mensilvo Mines Ltd.	154	Silver Summit Mines Ltd.			
Morgan (see Silver Cross)					
○ 6 Nancy Helen Mines Ltd.	156	Agnico Mines Ltd.			
○ 17 Nerlip Mines Ltd.	158	United Cobalt Mines Ltd.			
● 46 New Bailey Mines Ltd.	160	North American Rare Metals Ltd.			
○ 7 Nipissing Mines Co. Ltd., 400W½ & 401, PCL 2.	162	Agnico Mines Ltd.			
○ 8 Nipissing Mines Co. Ltd., 401, PCL 1.	164	Agnico Mines Ltd.			
○ 13 Nipissing Mines Co. Ltd., 402, (East Part).	166	Agnico Mines Ltd.			

\* Number refers to that on deposit description card; non sequence follows as a consequence of data processing.

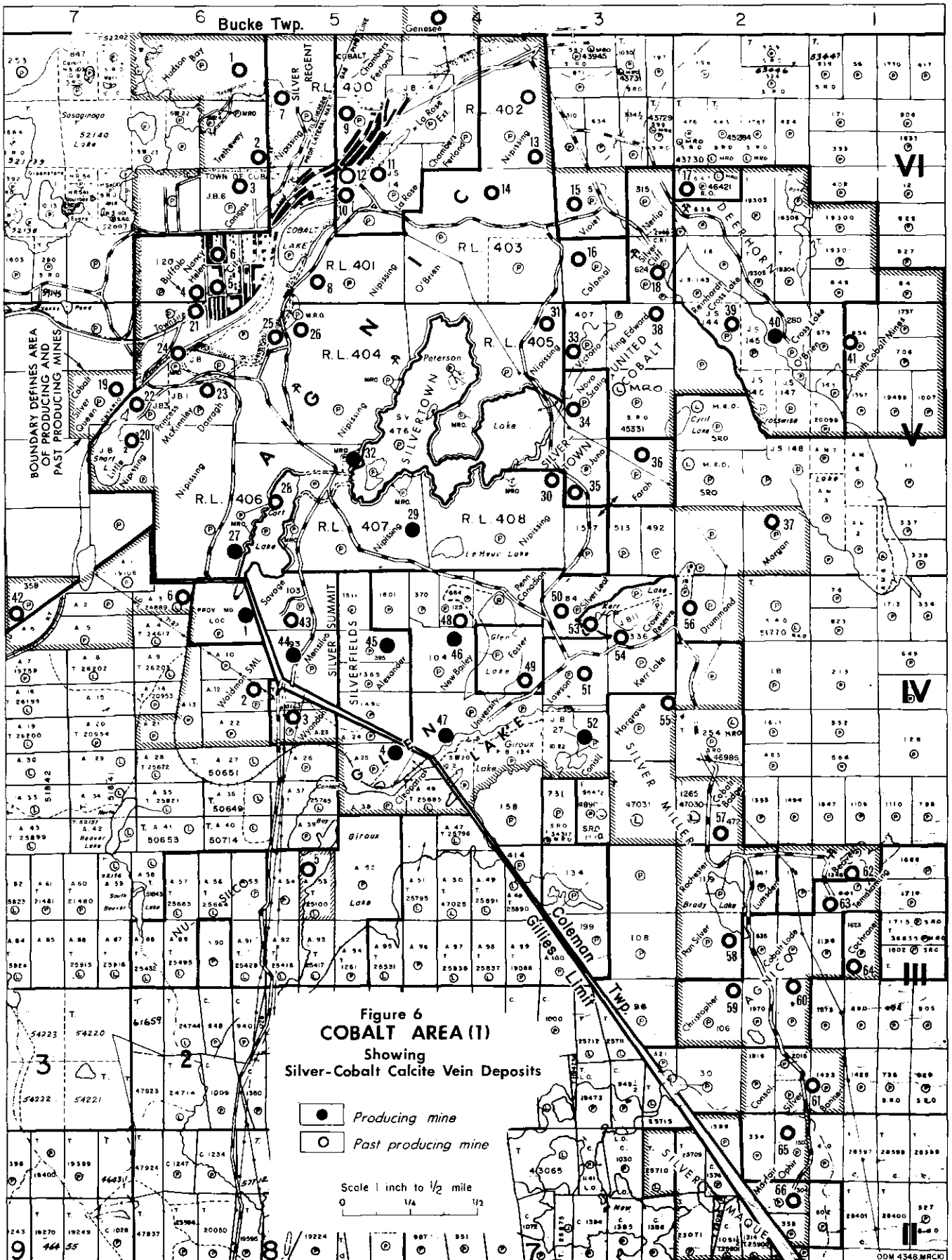


Table 15a.

COBALT AREA (1)  
P R O D U C T I O N T A B L E

<u>COLEMAN TOWNSHIP</u>			<u>COLEMAN TOWNSHIP</u>		
(Historical Name)	Silver Troy ozs.	Cobalt lbs.	(Historical Name)	Silver Troy ozs.	Cobalt lbs.
* Agnico Mines Ltd-407 Shaft mine; see Nipissing 407 & 408.			○ 26 Nipissing Mines Co. Ltd., 404.	22,000,000	(5,636,704)
● 45 Alexandra Silver Mining Co.	4,619,245	219,206	○ 31 Nipissing Mines Co. Ltd., 405.	300,000	
○ 52 Beaver Consolidated Mines Ltd.	7,127,858	139,472	● 27 Nipissing Mines Co. Ltd., 406.	20,000,000	
○ 58 Brady Lake Property (Lumsden, Rochester & Pan Silver).	7,000,000	190,541	● 29 Nipissing Mines Co. Ltd., 407, (408).	1,750,000	
○ 4 Bufflo Mines Ltd.	14,155,558	152,269	○ 30 Nipissing Mines Co., 408, (407)	300,000	
Cart Lake Property - see Nipissing 406.			○ 34 Nova Scotia Silver Cobalt Mining Co. Ltd.	1,082,774	114,199
○ 12 Chambers Ferland Mining Co. Ltd. (R.L. 401, PCL 3 & 4).	2,030,000		○ 14 O'Brien (R.L. 403)	33,600,000	(830,333)
○ 9 Chambers Ferland Mining Co. Ltd. (R.L. 402W, & R.L. 400E½).	2,175,469	13,000	○ 55 Ophir Cobalt Mines Ltd.	69	
○ 59 Christopher Silver Mines Ltd.	4,100,000		Pan Silver Claim (see Brady Lake Property).		
○ 5 City of Cobalt Mining Co. Ltd.	14,000,000	25,000	○ 48 Penn Canadian Mines Ltd.	3,765,877	153,633
Cleopatra Mining Co. Ltd. (Gillies Limit).			○ 32 Peterson Lake Silver Cobalt Mining Co. Ltd. (W½ leases Peterson L.).	909,064	
○ 57 Cobalt Badger Silver Mines Ltd.	3,475	112	○ 28 Peterson Lake Silver Cobalt Mining Co. Ltd. (Cart Lake leases).	5,627,297	
○ 25 Cobalt Lake Mining Co. Ltd.	6,900,708	146,073	○ 22 Princess Claim J.B.3.	3,713,806	
○ 60 Cobalt Lode Silver Mines.	4,493,542	2,545,117	○ 42 Red Jacket Property.	3	354
○ 19 Cobalt Silver Queen Ltd.	1,406,000	168,311	○ 39 Reinhardt Cross Lake Group.	278,531	2,532
○ 21 Cobalt Townsite Mining Co. Ltd.	25,000,000	4,116	○ 24 Right of Way Mines Ltd. (South Mine).	169,000	
○ 64 Cochrane Cobalt Mining Co. Ltd.	33,280	2,702	○ 10 Right of Way Mines Ltd. (North Mine).	2,800,000	
○ 16 Colonial Mining Co. Ltd.	1,211,956	3,671	Rochester Claim (see Brady Lake Property).		
○ 3 Conigas Mines Ltd.	33,963,067	310,557	○ 43 Savage mine (McKinley-Darragh -Savage mines of Cobalt Ltd.).	4,500,000	(465,582)
● 52 Conisil Mines Ltd.	100,000		○ 18 Silver Cliff Mining Co. Ltd.	535,246	9,314
○ 61 Consolidated Silver Banner Property.	41,700		○ 37 Silver Cross Cobalt Mining Co. Ltd. (Morgan).		3,091
● 40 Cross Lake O'Brien Property	11,600,000	98,248	○ 50 Silver Leaf Mining Co. Ltd.	495,443	1,206
○ 53 Crown Reserve Mining Co. Ltd.	20,325,302	33,682	○ 41 Smith Cobalt Mines Ltd.		914
○ 56 Drummond Mines Ltd.	3,887,585	245,807	○ 55 Temiskaming Mining Co. Ltd.	12,118,796	202,687
○ 36 Farah Mining Co. Ltd.	8,952		○ 2 Trethewey Silver Cobalt Mines Ltd. (Claim J.B. 7).	7,256,470	216,198
○ 49 Foster Cobalt Mining Co. Ltd.	1,159,390	457,164	● 47 University Mines Ltd.	790,000	82,681
Giroux Lake mine - see Conisil & University.			○ 33 Victoria Silver Cobalt Mines Ltd.	1,000 (?)	
Glen Lake mine - see New Bailey.			○ 15 Violet Mining Co. Ltd.	897,291	
○ 55 Hargrave Silver Mines Ltd.	506,927	6,418			
○ 1 Hudson Bay Mines Ltd.	6,452,266	185,572			
○ 35 Juno Metals Corporation.	46,391				
○ 54 Kerr Lake Mining Co. Ltd.	28,502,037	650,094			
○ 38 King Edward Mining Co.	1,294,233	3,466			
○ 11 LaRose Mines Ltd.	17,479,977	200,000			
○ 51 Lawson mine.	4,213,513				
○ 20 Little Nipissing-claim J.B.2.	82,000				
Lumsden Claim (see Brady Lake Property).					
○ 66 Mayfair Mines Ltd.	26,240				
○ 23 McKinley-Darragh Savage Mines of Cobalt Ltd.	17,300,000	(465,582)			
○ 44 Mensilvo Mines Ltd.	374,824	149,508			
Morgan (see Silver Cross)					
○ 6 Nancy Helen Mines Ltd.	91,770				
○ 17 Nerlip Mines Ltd.	911	2,949			
● 46 New Bailey Mines Ltd.	3,131,352	76,780			
○ 7 Nipissing Mines Co. Ltd., 400W½ & 401, PCL. 2.	32,000,000				
○ 8 Nipissing Mines Co. Ltd., 401, PCL. 1.	7,000,000				
○ 13 Nipissing Mines Co. Ltd., 402, (East Part).	1,000				

Note: Some of the figures given above are estimates; for details see card sheets.

\* Number refers to that on deposit description card; non sequence follows as a consequence of data processing.



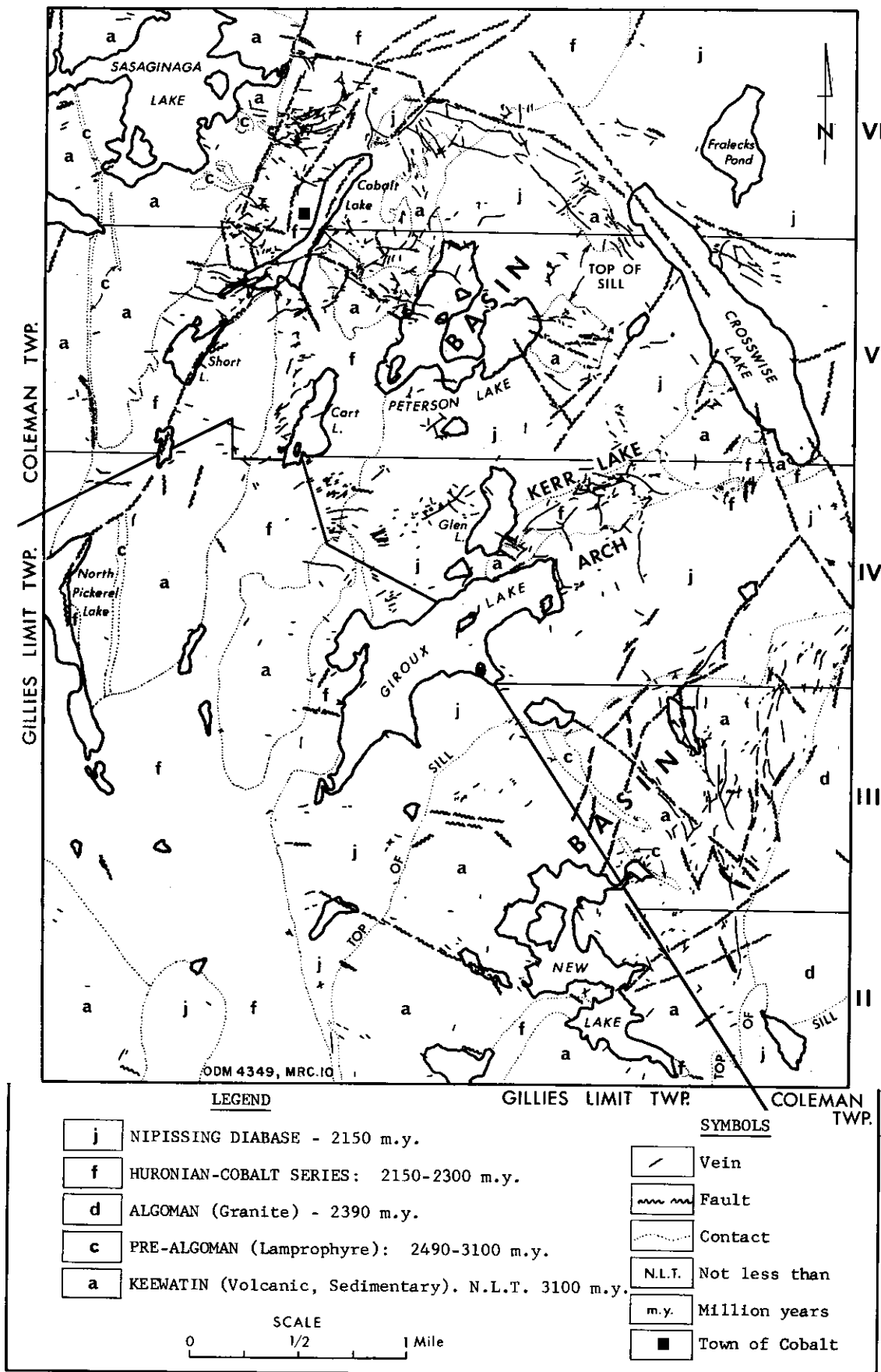


Figure 7 - Map showing geology and ore veins in productive part of the Cobalt Area, Ontario, (after Thomson 1961 and Petruk 1967, with modifications to legend and map by Sergiades).

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1966 SILVER FIELDS MINING CORP. LTD. HISTORICAL NAME: ALEXANDRA SILVER MINING CO.		LAT. 04737200 LONG. 07967400	REF.NO. O.D.M.-Ag-0455045
CO. or DIST. TIMISKAMING TP. or SQUARE COLEMAN	CODE No. 59 004550	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACKNOWLEDGEMENT Con. IV, Lot 5. Claim: - W $\frac{1}{2}$ of NE $\frac{1}{4}$ , N $\frac{1}{2}$ of lot 5, No. 1511 (Meteor). Con. IV, Lot 5. Claims: - SE $\frac{1}{4}$ , N $\frac{1}{2}$ of Lot 5, Nos. 395 (Alexandra) and 1385 (Cobalt Silver Mountain). Con. IV, Lot 5. Claim: - App. NE $\frac{1}{4}$ of NE $\frac{1}{4}$ , S $\frac{1}{2}$ of lot 5, No. 1490 (McCormick).	
LOCATION: The property is located between Glen Lake Silver Mines and Silver Summit Mines on Diabase Mountain that is about 1 $\frac{1}{2}$ miles SSE of town of Cobalt.		NTS 031M05E	UTM		
HISTORY OF OWNERSHIP: 1906: Alexandra Silver Mining Co. 1913: Canadian Gold and Silver Mining Co. 1915: Leased to Sydney Smith 19 : Carl Reinhardt 1962: Silverfields Mining Corp.		EXPLORATION AND DEVELOPMENT 1906-22. Surface prospecting, shaft sinking and adit driving. 395 or Alexandra Shaft: - was sunk 310'. Levels were established at 65', 200' and 310' depths, from which a total of 925' of drifts, 870' of cross-cuts and 124' of raises were completed. 1490-Shaft: - was sunk 300'. 1385-Shaft: - was sunk about 100'. Two adits, Meteor Adits Nos. 1 and 2 with their portals on the adjoining Savage Claim, were driven 5. Meteor Adit No. 1, about 500' long, connects with an inclined internal shaft that was sunk 250' with levels at 104' and 250'. Meteor Adit No. 2 was driven 90'.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) (Jan. 1964-Aug 1967) Silver Cobalt 4,619,245 ozs. 219,206 lbs.  Copper 238,893 lbs. Total Value: \$6,487,052. Source: Ont. Dept. Mines Ann. Repts. for 1962-64 and Northern Miner Press, Dec. 1966 and 1967.	
MAJOR ORE MINERALS Silver, Co, Fe, Ni-arsenides.		MINOR ORE MINERALS Tetrahedrite, bismuth, bismuthite, niccolite, chalcocopyrite, arsenopyrite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES At the end of 1964, ore reserves of about 110,000 tons were indicated by development and drill hole intersections. These reserves form only a part of the favourable zone, currently being explored and developed, that extends both to the north and south. 1968: Ore reserves remain at about 110,000 tons. Grade (1964-67) Silver Cobalt 24 ozs/ton 1.3 lbs/ton 1.1 lbs/ton	
ORE FABRIC Vein MAJOR GANGUE MINERALS Calcite and dolomite. COUNTRY ROCK OR FORMATION Keewatin volcanics and Cobalt Series sediments are intruded by Nipissing diabase.		AGE: GEOLOGICAL ABSOLUTE Archean and Aphebian. N.L.T. 3100, N.L.T. 2150, 2150 m.y.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2051, Cobalt Silver Area, 1964.	
MAIN REFERENCE: O.D.M. Prelim. Rept. 1961-6, p. 83-86.		FILE STATUS: SKELETAL INCOMPLETE COMPLETE D REVISED		DATE 1968	
SIGNATURE A.O.S.					
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968; SILVERFIELDS MINING CORP. LTD. HISTORICAL NAME: ALEXANDRA SILVER MINING CO.		LAT. 04737200 LONG. 07967400	REF.NO. O.D.M.-Ag-0455045
GEOLOGY Keewatin volcanics and Cobalt sediments are intruded by Nipissing diabase. The Lower diabase - Cobalt contact dips about 7°E. The Cobalt sediments, about 200' thick, occupy a N trending paleovalley in the surface of the underlying Keewatin. Subvertical major faults strike NW; subvertical secondary faults strike E and intersect veins at acute angles where often high grade pockets of silver occur. Fifteen vein systems have been opened to date, and a set of WSW silver-cobalt bearing veins form a major ore zone on the 3rd, 4th, 5th and 6th levels of the Alexandra Shaft. Production is restricted to the Cobalt Series Sediments.		EXPLORATION AND DEVELOPMENT (Cont) 1962-64. Alexandra Shaft was deepened 126' to a depth of 436' with levels at 356' (4th) and 4 19' (5th). Several ore shoots were discovered on the 3rd, 4th and 5th levels. Other development work includes: - drifting, 4,714'; cross-cutting, 2,916'; raising, 638'; and 237 underground diamond drill holes, totaling 43,000'. 1965-67. Alexandra Shaft has been deepened 82' to open a 6th level at 518'. Several ore shoots have been discovered on the 5th and 6th levels.			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL: Archean Aphebian, Aphebian. N.L.T. 3100, N.L.T. 2150, 2150 m.y.		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT	
COMPANY REPORTS		AGE OF ORE MINERAL Post-Kuronian N.L.T. 2150 m.y.		X	
ECONOMICS REFERENCE		METALLURGY REFERENCE			
GEOCHEMICAL DATA REFERENCE		MILLING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MINING REFERENCE			
MAP REFERENCES 1. O.D.M. Map 2051, Cobalt Silver Area, 1964. 2. O.D.M. Maps P.96 and P.96A, 1961.		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION X LONGITUDINAL PROJECTION Moore, H.A. 1967: Cobalt and District; Guide book C.I.M.M.		OIM FILES	

Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968 SILVERFIELDS MINING CORP. LTD. HISTORICAL NAME: ALEXANDRA SILVER MINING CO.	LAT. 47° 22' 18"	REF. NO. O.D.M.-Ag-0455045
		LONG. 79° 40' 27"	
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Longitude and latitude refer to southeast corner of claim 1385 (Cobalt Silver Mountain).	
		EXPLORATION AND DEVELOPMENT (CONT.)	
		1968:- Principal ore development has been on No.8 Vein on the third level (of Alexandra Shaft) where main drift advanced 100' west in high grade ore over maximum widths of 20'. Additional drifting: Third level, on Nos. 11 and 13 vein systems; fourth level, on Nos. 9 and 15 veins; fifth level on No.2 vein; sixth level, 309'.	

ADDITIONAL REFERENCES:-

- Moore, H.A.  
1967: Cobalt and District; Guide book of C.I.M.M. Centennial Field Excursion, P.147-149.
- Riddell, G.S.  
1966: Annual Report for the year 1964, Ontario Department of Mines, Vol. 74, p. 134-135.
- Thomas, R.  
1961: Preliminary Report of Coleman Township, Concession IV, Lots 1 to 5 and Gillies Limit, the Eastern "A" Claims, District of Timiskaming. Ontario Dept. Mines, Prelim. Rept. 1961-6, p.83-86.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968; SILVERFIELDS MINING CORP. LTD. HISTORICAL NAME: ALEXANDRA SILVER MINING CO.	LAT. 47° 22' 18"	REF. NO. O.D.M.-Ag- 0455045
		LONG. 79° 40' 27"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cpgr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1964	22,204	862	18,703	31,795	751,050	1,051,470	3,324	2,708	29,565	9,875	1,095,848
1965	46,678	7,767	31,188	25,848	1,336,499	1,871,099			30,606	11,508	1,908,455
	70,882	8,629	49,891	57,643	2,087,549	2,922,569	3,324	2,708	60,171	21,383	3,004,303
1966			66,849	112,975	1,524,646	2,132,979			60,485	27,158	2,273,112

COMMODITY Cobalt Silver		NAME OF OCCURRENCE: CIRCA 19 68; ANSIL MINES LTD. HISTORICAL NAME: BEAVER CONSOLIDATED MINES LTD.		LAT. 04736100	REF. NO.
				LONG. 07963800	O.D.M.-Ag-0455062
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. III, Lot 1, N $\frac{1}{2}$ Claim: N $\frac{1}{2}$ of NW, No.1348.	
TP. or SQUARE COLEMAN	004550	NTS	UTM		
LOCATION: 1/4 mile east of Brady Lake, 3 miles southeast of town of Cobalt		031M05E			
HISTORY OF OWNERSHIP: 1907: Beaver Consolidated Mines Ltd. 1944: Silanco Mining and Smelting Co. 1957: Ansil Mines Ltd. 1967: Leased to Agnico Mines Ltd.		EXPLORATION AND DEVELOPMENT Mostly carried out between 1907 and 1920 during which 8 $\frac{1}{2}$ miles of underground workings were developed. Beaver Shaft was sunk to 1600' depth, then winze 500'W, to 1675'. Levels at:- 77', 199', 235', 297', 347', 395', 456', 530', 602', 702', 1200'. Sublevels at 1,400' and 1600'. Some levels connect with Temiskaming shaft on adjacent property to south. Shaft No.2. 240' west of Beaver shaft was sunk to 77' depth.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  (1907-1940)  Silver Cobalt 7,127,858 ozs. 139,472 lbs. \$4,317,511 \$22,407  Total value:- \$4,339,918  O.D.M. statistical files.	
		OCCURRENCE		RAW PROSPECT	DEVELOPED PROSPECT
MAJOR ORE MINERALS Silver and smaltite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		PRODUCER	PAST PRODUCER X
MINOR ORE MINERALS Niccolite.		Vein system, Nos. 3 and 5 Length: vein system extends 800' in plan. Width: vein system extends 400' in plan. Depth: vein system extends discontinuously over 1600' vertically. Production: from near upper contact of Nipissing diabase sill. Vein No.1600-1: Production: not more than 50,000 ozs. of silver. Grade: Silver 171 ozs/ton (1907-1916) Cobalt 1.4 lbs/ton (1907-1940)			
ORE FABRIC Vein.				FILE STATUS	DATE
MAJOR GANGUE MINERALS Calcite.				SKELETAL	
COUNTRY ROCK OR FORMATION Keewatin volcanics intruded by Nipissing diabase.				INCOMPLETE	
AGE: GEOLOGICAL ABSOLUTE Archean and Aphebian N.L.T. 3100 and 2150 m.y.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052, Cobalt Silver Area, 1964.		COMPLETE D	1968 A.O.S.
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-7, p. 13-20.				REVISED	
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: ANSIL MINES LTD. HISTORICAL NAME: BEAVER CONSOLIDATED MINES LTD.		LAT. 04736100	REF. NO.
				LONG. 07963800	O.D.M.-Ag-0455062
GEOLOGY Keewatin volcanics are intruded by 1100' thick Nipissing sill with east dip that steepens along north striking "roll". The sill encloses a large xenolith of Lorrain Granite. The Beaver Fault with steep east dip was initiated by the granite intrusion. Most silver and cobalt production was obtained from veins Nos. 3 and 5 in Keewatin rocks near contact above sill, a little in the sill and some in the granite xenolith. Some production below sill was obtained in Keewatin rocks from vein 1600-1.		EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
Archean and Aphebian N.L.T. 3100 and 2150 m.y. Volcanics and Diabase.				Post-Huronian N.G.T. 2150 m.y.	
K/Ar Rb/Sr Pb/Pb C14 X X		K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT		K/Ar Rb/Sr Pb/Pb C14 X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W. O.D.M. Vol.XXXI, Pl-2, Map Sheets 31a, 1, 4 and 5. 1922.			
MAP REFERENCES O.D.M. Map 2052, 1964 (2) O.D.M. P.96, 1961.		ODM FILES			

COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver Cobalt	CIRCA 1968: ANSIL MINES LTD. HISTORICAL NAME: CONSOLIDATED MINES LTD.	47° 21' 40" LONG. 79° 38' 17"	O.D.M.-Ag-0455062
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Longitude and latitude refer to southeast corner of claim. N.B. Great depth of Vein 1600-1 (1600' level).	
ADDITIONAL REFERENCES:-			
Knight, C.W. 1922: Geology of the Mine Working of Cobalt and South Lorrain Silver areas, Ontario Dept. Mines, Vol.XXXI, pt.2, p. 145-152.			
Thomson, R. 1961: Preliminary Report on Parts of Coleman Township, Con.III, Lots 1 to 3 and Gillies Limit, Blocks 1 and 2; claims A48 to 58 and A88 to 100, Ontario Dept. Mines, Preliminary Report 1961-7, p. 13-20.			
COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver Cobalt	CIRCA 1968: ANSIL MINES LTD. HISTORICAL NAME: BEAVER CONSOLIDATED MINES LTD.	47° 21' 40" LONG. 79° 38' 17"	O.D.M.-Ag-0455062

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1907	20	20			4,948	2,480					2,480
08		33			6,144	3,072					3,072
09	49	49	33,600	248	139,108	67,915					68,163
1910	194	141	5,160	412	181,450	100,103					100,515
11	786	786			888,875	438,333					438,333
12	176	429			607,551	364,026					364,026
13	410	386			726,801	404,117					404,117
14	26,168	421	1,138	80	692,095	316,101					316,181
15	190	624			970,168	482,019					482,019
16	36	482			567,993	372,944					372,944
17		408			462,723	376,735					376,735
18		362	13,104	2,185	411,606	398,319					400,504
19		329	11,435	1,908	261,388	306,223					308,131
1920		227	20,276	2,858	228,602	242,948					245,806
21		27	2,728	618	30,057	17,951					18,569
22		14			3,715	2,508					2,508
23	16,161	103	15,151	3,325	117,193	73,076					76,401
24	19,827	159	22,671	5,000	123,073	82,628					87,628
28		45			4,146	2,405					2,405
29	1	9	272	98	4,503	1,810					1,908
1930	46	46	3,734	1,426	80,412	26,053					27,479
31	68	51	6,193	1,345	91,286	27,678					29,023
32	140	135	1,333	276	191,860	61,430					61,706
33	542	542			88,157	32,480					32,480
34	34	34			58,621	24,599					24,599
35	305	305			51,772	31,771					31,771
36	17	17			75,860	34,195					34,195
37	21	21			50,375	21,359					21,359
38		1	97	48	2,273	977					1,025
39		16	2,568	2,568	3,052	1,236	1,397	140			3,944
1940			12		51	20					32
	65,191	6,242	139,472	22,407	7,127,858	4,317,511	1,397	140			4,340,058

COMMODITY		NAME OF OCCURRENCE:		LAT.	04736000	REF. NO.
Silver Cobalt		CIRCA 1968: SILVER MILLER MINES LTD. HISTORICAL NAME: BRADY LAKE PROP. (LUMSDEN, ROCHESTER, & PAN SILVER)		LONG.	07964800	O.D.M.-Ag-0455058
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
TP. or SQUARE	COLEMAN	004550		TIMISKAMING		Con. III, Lot 2, Claim:- W part of NE 1/4, No. 367 (Lumsden)
LOCATION:		NTS		UTM		Con. III, Lot 2, Claim:- NW 1/4, N 1/2, No. 119 (Rochester)
		031M05E				Con. III, Lot 2, Claim:- SW 1/4, N 1/2 (Pan Silver)
HISTORY OF OWNERSHIP:			EXPLORATION AND DEVELOPMENT			PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1906-1947 (I) Lumsden Claim 1906: Lumsden Mining Co. Ltd. 1919: Leased to Camburn Silver Mines			1906-60 No. 4 Pan Silver Shaft:- was sunk 629' with levels at 100', 200' (connected by a raise with 285' level of No. 1 Lumsden shaft), 440' (connected to the Lumsden workings by No. 1 winze), 500' and 610'. From the 610' level No. 3 winze was put down and sublevels made at 675' and 725'. No. 1 Lumsden Shaft:- was sunk 400' with levels at 100', 175', 250', 285' and 400'. From the 285' level, No. 1 winze was put down and sublevels established at 360', 410' and 440'. No. 2 Rochester shaft:- was sunk 153'			Silver (1910-60) 7,000,000 ozs. (about) \$6,000,000 (about) Cobalt (1910-51) Nickel (1950) 190,641 lbs. 8,620 lbs. \$250.117 \$ 501 Copper (1951) 11,320,136 \$ 3,136 Total Approx. value: \$6,300,000 O.D.M. statistical files.
(II) Rochester Claim 1906: Rochester Cobalt Mines Ltd. 1915: Trethewey Silver Cobalt Mines Ltd. 1917-47: The claim changed hands several times.						
(III) Pan Silver Claim 1906: Coleman Development Co. Ltd. 1907: Pan Silver Mining Co. Ltd. 1915: Adanac Silver Mines Ltd.						
			OCCURRENCE			RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X

MAJOR ORE MINERALS Silver and smaltite		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS Chalcopryrite, sphalerite, galena, pyrite, niccolite, breithauptite.		No. 2 Vein System:- with a productive horizontal length of about 900' extends vertically about 600'. C-4 Vein System:- with a horizontal length of at least 500' extends vertically 300'. Lumsden Vein:- extends horizontally for a length of about 500'.			
ORE FABRIC Vein.		Grade (1947-51):- Silver 76 ozs./ton; Cobalt 2.6 lbs./ton.			
MAJOR GANGUE MINERALS Quartz and Calcite.					
COUNTRY ROCK OR FORMATION Keewatin andesitic lava and interflow sedimentary bands intruded by the Nipissing diabase sill.		MAP REFERENCE USED FOR LOCATION			
AGE: GEOLOGICAL ABSOLUTE Archean and Apehbian N.L.T. 3100 & 2150 m.y.		O.D.M. Map 2052, Cobalt Silver Area, 1964.		FILE STATUS:	DATE
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-7, p. 38-51.				SKELETAL	
				INCOMPLETE	
				COMPLETED	1968
				REVISED	A.O.S.

COMMODITY		NAME OF OCCURRENCE:		LAT.	04736000	REF. NO.
Silver Cobalt		CIRCA 1968: SILVER MILLER MINES LTD. HISTORICAL NAME: BRADY LAKE PROP. (LUMSDEN, ROCHESTER, & PAN SILVER)		LONG.	07964800	O.D.M.-Ag-0455058
GEOLOGY Keewatin rocks, cut by Haileyburian andesite dikes are intruded by Nipissing diabase sill; about 1160' thick. The Columbus quartz diabase dike of Keweenawian age striking NW with steep SW dip intrudes the sill and Keewatin. Three faults traverse the property:- the Columbus Fault striking NW with a vertical displacement of 30'; the Badger Fault striking NE with 30°SE dip; and the Brady Lake Fault striking N with 80°E dip. Three important vein systems occur: No. 2 vein system (Rochester claim); C-4 vein system (Pan Silver claim) and Lumsden vein. The productive zone was in proximity to the Keewatin-Upper Nipissing diabase contact. Base metal mineralization such as chalcopryrite, niccolite, sphalerite, galena and pyrite occurs as disseminated sulphides.			EXPLORATION AND DEVELOPMENT (Cont) with levels at 33', 75' and 153'. No. 3 Rochester shaft was sunk 79' with levels at 45' and 79'. From the 79' level a winze goes down to 150' sublevel. Total development:- 32,014' of drifts; 7,505' of cross-cuts and 9,775' of raises. 1961-63. Operations were conducted through No. 4 shaft and No. 3 winze. Development included:- 71' of drifting; 208' of raisings and 37 underground diamond drill holes, totalling 4,845'. 1,980 tons of ore were hoisted. 1964-67. Development work includes 28 underground diamond drill holes, totalling 5,320'. No ore was hoisted.			
ALTERATION Streaky alteration of the Keewatin lavas due to the irregular development of epidote and zoisite, is widespread.			MINERAL PARAGENESIS			

AGE OF FORMATION	ROCK OR MINERAL	AGE OF DEFORMATION:	AGE OF ORE MINERAL
Archean and Apehbian			Post-Huronian
N.L.T. 3100 and 2150 m.y.			N.G.T. 2150 m.y.
ROCK TYPE AND/OR MINERAL		NAME OF TECTONIC EVENT	
Volcanics and Diabase		X	
K/Ar	Rb/Sr	Pb/Pb	C14
X	X		

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W. 1922: O.D.M. Vol. 31, pt. 2, Map Sheet, 31a-18.
MAP REFERENCES 1. O.D.M. Map 2052, Cobalt Silver Area, 1964. 2. O.D.M. Maps P.96 and P.96A, 1961.	ODM FILES

COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver Cobalt	CIRCA 19 68 SILVER MILLER MINES LTD. HISTORICAL NAME: BRADY LAKE PROP.(LUMSDEN, ROCHESTER & PAN SILVER)	47° 21' 35" LONG. 79° 38' 54"	O.D.M.-Ag-0455058
HISTORY OF OWNERSHIP (CONT)		REMARKS	
Brady Lake Property (includes above three claims) 1947: Silver Miller Mines Ltd. 1961-64: Leased to Agnico Mines Ltd.		Longitude and latitude refer to southeast corner of Rochester claim.	

ADDITIONAL REFERENCES:-

Knight, C.W.  
 1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas, Ontario Dept. Mines, Vol.XXXI, pt.2, p.178-179 and Map 31a-18  
 Riddell, G.S.  
 1964: Annual Report for the year 1962, Ontario Dept. Mines, Vol.72, p. 122-123.  
 1966: Annual Report for the year 1964, Ontario Dept. Mines, Vol.74, p.137.  
 Thomson, R.  
 1961: Preliminary Report on parts of Coleman Township, Concession III, lots 1 to 3, and Gillies Limit, Blocks 1 and 2; Claims A48 to 58 and A88 to 100, District of Timiskaming, Ontario Dept. Mines, Prelim. Rept. 1961-7, p. 38-71

COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver Cobalt	CIRCA 19 68: SILVER MILLER MINES LTD. HISTORICAL NAME: BRADY LAKE PROP. (LUMSDEN, ROCHESTER & PAN SILVER)	47° 21' 35" LONG. 79° 38' 54"	O.D.M.-Ag-0455058

N.B. Between 1952-60, the Brady Lake Property produced about 2,750,000 ozs. of silver.

YEAR	ORE		COBALT		SILVER		Nkl		Cpgr		TOTAL VALUE
	RAISED TONS	SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	\$
1910					11,696	5,877					5,877
13	19	19			18,128	9,553					9,553
16					1,763	1,275					1,275
18		5			2,026	1,978					1,978
1921		3			933	560					560
1930		1	146	88	33	13					101
36	3	17	4,187	188	509	163					351
37	12	12	2,156	1,940	1,192	501					2,441
38		2	350	157	58	25					182
39		1	300	233	104	42					275
1940		1	151	151	21	8					159
42		3	512	462	374	157					619
47	2,681	40	1,379	465	171,494	113,819					114,284
48	4,379	36	5,134	1,833	123,637	139,688					141,521
49	7,004	61	23,675	12,486	474,032	340,338					352,874
1950	6,257	828	61,372	23,081	1,813,712	1,526,377	8,620	501			1,549,959
51	35,130	961	91,279	209,029	1,630,424	1,541,566			11,320	3,136	1,753,731
	55,485	1,990	190,641	250,117	4,250,136	3,681,990	8,620	501	11,320	3,136	3,937,760

COMMODITY		NAME OF OCCURRENCE:		LAT. 04739200	REF. NO.
Silver	CIRCA 1968:	AGNICO MINES LTD.		LONG. 07969000	O.D.M.-Ag-0455004
Cobalt	HISTORICAL NAME:	BUFFALO MINES LTD.			
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	COLEMAN		004550	TIMISKAMING	
LOCATION: Few hundred feet west of town of Cobalt.				NTS	UTM
				031M05E	
				LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
				Con. VI, Lot 6.	
				Claim:- SW 1/4 of S 1/2	

HISTORY OF OWNERSHIP:	1906: Buffalo Mines Ltd.	EXPLORATION AND DEVELOPMENT A number of shafts were put down on veins with underground workings:- Shaft No. 12:- 235' deep with levels at depths of 80' (2nd), 149' (3rd), and 225' (4th). From the 3rd level a winze goes down to the 4th and 5th level (25' below the 4th). Shaft No. 4:- 175' deep, with levels at 56' (1st), 99' (2nd), and 165' (3rd). Shaft No. 5:- 175' deep with levels at 84' (1st), 132' (2nd) and 162' (3rd). Shaft No. 6:- 193' deep with levels at 72' (1st), 120' (2nd) and 180' (3rd).	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)		
	1919: Mining Corp. of Canada Ltd. 1932: Cobalt Properties Ltd. 1946: Silanco Mining and Refinery Co. Ltd. 1949: Leased to R.C. McAllister 1957: Agnico Mines Ltd.		Silver 14,154,558 ozs \$ 8,859,769	Cobalt 152,269 lbs \$ 17,073 Total Value: \$ 8,880,842	O.D.M. Statistical files
		OCURRENCE	RAW PROSPECT	DEVELOPED PROSPECT	PRODUCER
					PAST PRODUCER

MAJOR ORE MINERALS	Silver and Smaltite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS	Chalcopyrite, galena and sphalerite.	Vein system at south end of property has length of 1,000' and is some 75 feet in width. The system in the middle of property has a slope 400 feet long and five to seven feet wide. Vertical depth of vein systems is not known.
ORE FABRIC	Vein.	
MAJOR GANGUE MINERALS	Calcite.	Grade:- Silver 36.1 ozs/ton (1905-1916) Cobalt 25.4 lbs/ton (1905-1908)
COUNTRY ROCK OR FORMATION	Keewatin rocks and Cobalt Series sediments.	
AGE: GEOLOGICAL	ABSOLUTE Archean and Aphebian. N.L.T. 3100 - and N.L.T. 2150 m.y.	

MAIN REFERENCE	THOMSON, R.	MAP REFERENCE USED FOR LOCATION	FILE STATUS	DATE	SIGNATURE
	1961: O.D.M. Prelim Rept. 196-13, p.162-169.		O.D.M. Map 2050, Cobalt Silver Area, 1964.	SKELETAL	
			INCOMPLETE		
			COMPLETED	1968	A.O.S.
			REVISED		

COMMODITY		NAME OF OCCURRENCE:		LAT. 04739200	REF. NO.
Silver	CIRCA 1968:	AGNICO MINES LTD.		LONG. 07969000	O.D.M.-Ag-0455004
Cobalt	HISTORICAL NAME:	BUFFALO MINES LTD.			
GEOLOGY			EXPLORATION AND DEVELOPMENT (Cont)		
Cobalt Series and Keewatin rocks are traversed by two vertical faults, the Galena and No.6 that strike a little south of east and dip vertically. Silver and cobalt bearing veins on the claim fall into two systems with connecting networks: one at the south end and one centrally in the claim. The veins mostly strike also a few degrees south of east and dip 80° to vertical. Midway between the systems there are two parallel veins carrying fair ore. The productive part of the veins, with chalcopyrite, galena and sphalerite base metal mineralization, lies in Cobalt Series sediments directly above the folded interflow Keewatin sediments.			1961-62: Further exploration, using No. 7 Shaft, was carried out that included 26' of crosscutting and 3 diamond drill holes. 1963-1967: Underground exploration was continued on small scale.		

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:
ABSOLUTE AGE	Archean and Aphebian	AGE OF ORE MINERAL
ROCK TYPE AND/OR MINERAL	N.L.T. 3100 and N.L.T. 2150 m.y.	Post-Ruronian
METHOD	Volcanics and Sediments.	N.G.T. 2150 m.y.
	K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14
	X X	X
	NAME OF TECTONIC EVENT	

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE
	PLAN X SECTION LONGITUDINAL PROJECTION
	Knight, C.W. O.D.M. Vol. XXXI, Map 31a-12, 1922.

MAP REFERENCES	ODM FILES
O.D.M. Map 2050, Cobalt-Silver Area, 1964.	
O.D.M. P97, 1961.	
O.D.M. Map 31a-12, 1922.	



COMMODITY Silver Cobalt	CIRCA 1968: HISTORICAL NAME: AGNICO MINES LTD. BUFFALO MINES LTD.	NAME OF OCCURRENCE	LAT. 47°23'30"	REF. NO. O.D.M.-Ag-0455004
			LONG. 79°41'25"	
HISTORY OF OWNERSHIP (CONT)			REMARKS	
			Longitude and latitude refer to southeast corner of claim.	

ADDITIONAL REFERENCES:-

Knight, C.W.  
1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver areas. Ontario Dept. of Mines Vol. XXXI, pt. 2, p.66-70, Map 31a-12.  
op.cit. Map 31a-12 - Buffalo 3rd level plan.  
op.cit., p.67-69, Fig. 17 and Map 31a-12.

Thomson, R.  
1961: Preliminary Report on part of Coleman Township, Concession VI, Lots 1 to 6, District of Timiskaming. Ontario Dept. of Mines, Prelim. Report 1961-3, p.162-169.

COMMODITY Silver Cobalt	CIRCA 1968: HISTORICAL NAME: AGNICO MINES LTD. BUFFALO MINES LTD.	NAME OF OCCURRENCE	LAT. 47°23'30"	REF. NO. O.D.M.-Ag-0455004
			LONG. 79°41'25"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	\$
1905	333	184			82,068	49,743					49,743
06	689	589	14,000	4,309	210,598	137,540					141,849
07	1,232	1,232	13,280	1,486	466,969	310,065					311,551
08	683	683	47,192	4,532	903,126	470,494					475,026
09		116	63,000	4,926	1,272,649	653,320					658,246
1910	39,213	169	12,500	966	1,629,327	868,924					869,890
11	44,042	119			1,644,245	870,585					870,585
12	51,960	1,158			1,890,150	1,156,845					1,156,845
13	71,079	6			1,752,199	1,052,252					1,052,252
14	55,268				912,350	520,805					520,805
15	55,702	240			957,831	475,315					475,315
16	12,162	374			267,468	177,903					177,903
17		1,307			645,915	549,025					549,025
18		688			870,247	852,210					852,210
19		1,964			577,811	651,591					651,591
1920		475			9,320	5,075					5,075
27	70	70			14,349	8,322					8,322
35		35			5,597	3,582					3,582
1950	1	1	52	10	7,188	5,882					5,882
51	3		317	726	11,505	10,878					11,604
54	1		176	466	2,198	1,745					2,211
55	1	1	277	714	4,141	3,752					4,466
56	1	1	55	142	2,807	2,517					2,659
57	4		910	1,820	16,257	14,204					16,024
58	3		271	542	4,180	3,628					4,170
59	2		217	434	4,063	3,567					4,001
	332,449	9,412	152,269	17,073	14,154,558	8,859,769					8,880,842

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968; SILVER MILLER MINES LTD. HISTORICAL NAME: CHAMBERS-FERLAND M.C.L. CLAIMS:- R.L.401, PCL 3 and 4.		LAT. 04739600 LONG. 07967400	REF.NO. O.D.M.-Ag-0455012
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.VI, Lot 5. Claim:- R.L.401, Parcel 4 (South of R.L. 400, E $\frac{1}{2}$ ).	
TP. or SQUARE COLEMAN	004550	NIS 031MOSE	UM	Con.VI, Lot 5. Claim:- Approx. S part of lot 5 No. R.L.401, Parcel 3.	
LOCATION: Located NE of Cobalt Lake that is about $\frac{1}{2}$ mile NE of town of Cobalt.		EXPLORATION AND DEVELOPMENT 1908-22. Three shafts with underground workings: Shaft No.2 - was sunk 100'. Shaft No.3 - was sunk 80'. It was connected with 83' level of the adjacent No.2 Right of Way shaft. Sylvester Shaft - was sunk 62' and a level at this depth was connected with the adjacent La Rose Workings. 1953-58. Shaft No.3 was deepened 330' with levels at 83', 358' and 410'. A vertical winze was sunk a distance of 53' from 358' level. Other development work includes:- drifting,		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1908-1922: 30,000 ozs. of silver from Vein No.21. 1954-1958: An estimated 2,000,000 ozs. of silver was obtained from vein No. 1-SE.	
HISTORY OF OWNERSHIP: 1908: Chambers-Ferland Mining Co. Ltd. 1912: Aladdin Cobalt Co. Ltd. 1919: Kirkland Lake Proprietary Ltd. 1924: Leased to Nipissing Mines Co. Ltd. 19 : New La Rose Mining and Smelting Ltd. 1953: Silver Miller Mines Ltd. 1966: Leased to Tower Financial.		OCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X			
MAJOR ORE MINERALS Silver and Smaltite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Vein No.1-SE:- with a horizontal length of about 600' extends vertically 240'. Vein No.21:- with a horizontal length of 200' extends vertically 100'. Vein No.1-C-F:- with a horizontal length of 500' extends vertically 300'.			
MINOR ORE MINERALS Chalcopyrite, pyrite, galena, sphalerite and breithauptite Vein. ORE FABRIC Calcite MAJOR GANGUE MINERALS Keewatin rocks underlie Cobalt Series sediments.		Grade:- Unknown.			
AGE: GEOLOGICAL ABSOLUTE Archean and Aphebian, N.L.T. 3100 and N.L.T. 2150 m.y.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.		FILE STATUS: DATE SIGNATURE SKETCHED INCOMPLETE COMPLETED 1968 A.O.S. REVISED	
MAIN REFERENCE: Thomson, R., 1961: O.D.M. Prelim. Rept. 1961-3, p. 66-79.					
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968; SILVER MILLER MINES LTD. HISTORICAL NAME: CHAMBERS-FERLAND M.C.L. CLAIMS:- R.L.401, PCL 3 and 4		LAT. 04739600 LONG. 07967400	REF.NO. O.D.M.-Ag-0455012
GEOLOGY Cobalt sediments, about 400' thick, overlie the Keewatin rocks unconformably. The unconformity follows a paleovalley that strikes SW and grades 15° SW and continues beneath Cobalt Lake. The property is traversed by two faults: The Cobalt Lake Fault striking SW with 45°-65° SE dips is a reverse fault; the O'Brien-Violet Fault striking E-W with 75°S dip is a normal fault. The host rocks of the producing veins are Cobalt sediments and Keewatin interflow chert bands. The silver and cobalt produced came mostly from Vein No.1-SE (on R.L.401, Parcel 3) and veins Nos. 1-C-F and 21 (on R.L.401, Parcel 4). Chalcopyrite, galena, pyrite and breithauptite mineralizations occur as disseminated sulphides in the chert bands.		EXPLORATION AND DEVELOPMENT (Cont) 1,374'; cross-cuttings, 1,100'; raisings, 930'; and 59 underground diamond drill holes, totalling 9,581'.			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE N.L.T.3100 and N.L.T. 2150 m.y.		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL Volcanics and Sediments.		METHOD K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	
METHOD X X		NAME OF TECTONIC EVENT		X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W., 1922: Ontario Dept. Mines, Vol. XXXI, pt.2 Map 31a-14.			
MAP REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M. Maps P.97 and P.97A, 1961 3. O.D.M. Map 31a-14, 1922.		ODM FILES			

COMMODITY Silver	NAME OF OCCURRENCE CIRCA 1968: SILVER MILLER MINES LTD. HISTORICAL NAME: CHAMBERS-FERLAND M.C.L. CLAIMS- R.L.401, PCL 3 and 4.	LAT. 47°23'45"	REF. NO. O.D.M.-Ag-0455012
		LONG. 79°40'26"	

HISTORY OF OWNERSHIP (CONT)	REMARKS Longitude and latitude refer to southeast corner of claim R.L.401, parcel 3.
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ADDITIONAL REFERENCES:-  
 Knight, C.W.,  
 1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas, Ontario Dept Mines, Vol. XXXI, pt.2 p. 161-165 and Map 31a-14.  
 Thomson, R.,  
 1961: Preliminary Report on part of Coleman Township, Concession VI, Lots 1 to 6, District of Timiskaming, Ontario Dept. Mines Prelim. Rept. 1961-3, p. 66-79.

COMMODITY Silver	NAME OF OCCURRENCE CIRCA 1968: SILVER MILLER MINES LTD. HISTORICAL NAME: CHAMBERS-FERLAND M.C.L. CLAIMS:- R.L.401, PCL3 and 4.	LAT. 47°23'45"	REF. NO. O.D.M.-Ag-0455012
		LONG. 79°40'26"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT lbs.	\$	oz.	SILVER \$	Nkl lbs	Cprr lbs	TOTAL VALUE \$
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1908-22: Production meagre.  
 1954-58: Silver Miller Mines Ltd. obtained substantial production from the property but statistics of the company do not segregate it from production of their other properties.

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: SILVER MILLER MINES LTD. HISTORICAL NAME: CHAMBERS-FERLAND M.C.L. CLAIMS - R.L. 402, W and R.L. 400, E $\frac{1}{2}$		LAT. 04740000 LONG 07966900	REF. NO. O.D.M.-Ag-0455009
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACQUISITION Con. VI, Lot 4. Claim:- Approx. N $\frac{1}{2}$ of lot 4, No. R.L. 402, W part.	
TP. or SQUARE COLEMAN	004550	NIS 031M05E UTM		Con. VI, Lot 5. Claim:- Approx. E $\frac{1}{2}$ of lot 5, No. R.L. 400, E $\frac{1}{2}$ .	
LOCATION: Located about 1 $\frac{1}{2}$ miles NE of town of Cobalt.					
HISTORY OF OWNERSHIP: 1908: Chambers-Ferland Mining Co. Ltd. 1912: Aladdin Cobalt Co. Ltd. 1919: Kirkland Lake Proprietary Ltd. 1924: Leased to Nipissing Mines Co. Ltd. 1924: New La Rose Mining and Smelting Ltd. 1953: Silver Miller Mines Ltd. 1966: Leased to Tower Financial.		EXPLORATION AND DEVELOPMENT 1908. With the sinking of Shaft No.1 mining began on R.L.402, W, in the S.E. corner. 1913-1921. Shaft No.4 (on R.L.400, E $\frac{1}{2}$ ) was sunk 525' with levels at 275', 350', 425', 480' and 525'. 1924-1925. Underground work from adjoining Nipissing R.L.400, W $\frac{1}{2}$ was continued into Chambers-Ferland R.L.400, E $\frac{1}{2}$ . 1954. Shaft No.4 was dewatered and limited amount of exploration was done. 1955. Shaft No.1 was dewatered.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1908-1922. Silver: Approximately 2,175,469 ozs. Cobalt: About 13,000 lbs. Knight, C.W., 1922: O.D.M. Vol. XXXI, pt.2, p. 161.	
MAJOR ORE MINERALS Silver and Smaltite.		MINOR ORE MINERALS		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES	
ORE FABRIC Vein.		MAJOR GANGUE MINERALS Calcite.		Vein No.14 - with a horizontal length of 150' within the property extends vertically 150'. Vein No.15 - with a horizontal length of 280' extends vertically 250'. Offshoot Vein - extends for a horizontal length of 400'. Vein No.10 - extends for a horizontal length of 300'. Grade (1908-1922):- Silver approx. 100 ozs/ton.	
COUNTRY ROCK OR FORMATION Keewatin and Cobalt Series sediments are intruded by Nipissing diabase.		AGE: GEOLOGICAL ABSOLUTE Archean and Aphebian. N.L.T. 3100, N.L.T. 2150 & 2150 m.y.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.	
MAIN REFERENCE: Thomson, R., 1961: O.D.M. Prelim. Rept. 1961-3, p. 66-79.		FILE STATUS: SKETCHED INCOMPLETE COMPLETED 1968 REVISED		DATE 1968 SIGNATURE A.O.S.	
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 19 : SILVER MILLER MINES LTD. HISTORICAL NAME: CHAMBERS-FERLAND M.C.L. CLAIMS - R.L. 402, W and R.L. 400, E $\frac{1}{2}$		LAT. 04740000 LONG 07966900	REF. NO. O.D.M.-Ag-0455009
GEOLOGY Keewatin rocks and Cobalt sediments are intruded by Nipissing diabase. The Cobalt-Keewatin unconformity follows a paleovalley that strikes SW and grades 15° SW and continues beneath the Cobalt Lake. The property is traversed by three faults; The Cobalt Lake Fault striking SW with 45°-65° SE dips is a reverse fault; the O'Brien Violet and No.64 Faults striking WNW with 75° S dips are normal faults. Ore bearing veins, viz. Nos. 14 and 15, on R.L.400, E $\frac{1}{2}$ were productive near the Cobalt-Keewatin unconformity and are continuations of veins on the adjacent Nipissing claim R.L.400, W $\frac{1}{2}$ . Production on R.L.402, W came largely from the Offshoot and No.10 veins where they traversed Cobalt sediments.		EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL: Archean and Aphebian N.L.T. 3100, N.L.T. 2150 & 2150 m.y. Volcanics, Sediments and Diabase K/Ar Rb/Sr Pb/Pb C14 X X		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT X	
AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W., 1922: Ontario Dept. Mines, Vol. XXXI, pt.2, Map 31a-14.			
MAP REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M. Maps P.97 and P.97A, 1961. 3. O.D.M. Map 31a-14, 1922		ODM FILES			

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 19 : SILVER MILLER MINES LTD. HISTORICAL NAME: CHAMBERS-FERLAND M.C.L. CLAIMS:- R.L.402, W and R.L.400, E½	LAT. 47°23'59"	REF. NO.  O.D.M.-Ag-0455009
		LONG. 79°40'9"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to southeast corner of claim R.L.402, W part. Claims R.L.402, W part and R.L.400, E½ completely surround claim JB4 (La Rose Extension).	

ADDITIONAL REFERENCES:-  
 Knight, C.W.,  
 1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas, Ontario Dept. Mines, Vol. XXXI, pt.2, p. 161-165 and Map 31a-14.  
 Thomson, R.,  
 1961: Preliminary Report on part of Coleman Township, Concession VI, Lots 1 to 6, District of Timiskaming. Ontario Dept. Mines Prelim. Rept. 1961-3, p. 66-79.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: SILVER MILLER MINES LTD. HISTORICAL NAME: CHAMBERS-FERLAND M.C.L. CLAIMS:-R.L.402, W and R.L. 400, E½.	LAT. 47°23'59"	REF. NO.  O.D.M.-Ag-0455009
		LONG. 79°40'9"	

N.B. A small portion of production came adjoining claims R.L. 401, parcels 3 and 4.

YEAR	ORE & CONC.		COBALT		SILVER		Nkl		Cpnr		TOTAL VALUE
	RAISED TONS	SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
Chambers - Ferland Mining Co.											
1904	251	24	7,200	3,960			2,400	328			4,288
08	283	223			69,477	28,539					28,539
09	790	501			214,755	94,477					94,477
1910	1,845	922			335,853	155,150					155,150
11	2,125	718			94,030	40,186					40,186
12	1,486	511			119,203	64,556					64,556
13	3,212	230			69,467	38,457					38,457
14	10,831	293			205,025	97,461					97,461
19		708	2,035	204	20,375	19,799					20,003
1920		13,339	3,703	370	186,715	159,378					159,748
	20,823	17,469	12,938	4,534	1,314,900	698,003	2,400	328			702,865
Aladdin Cobalt Co. Ltd.											
1915	6,435	323			200,912	100,456					100,456
16	123	1,092			175,235	121,304					121,304
17		1,585			330,063	271,394					271,394
18		424	4,655	568	198,927	199,321					199,889
1920		1,021	622	62	21,467	16,461					16,523
21	628	24	2,718	272	38,031	24,890					25,162
27		11	1,444	291	16,521	9,599					9,890
1930		6	1,140	795	261	100					895
31		7	1,809	922							922
32			67	11	915	284					295
	7,186	4,493	12,455	2,921	982,332	843,809					746,730

COMMODITY	NAME OF OCCURRENCE:		LAT. 04735200	REF. NO.
Silver Cobalt	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: CHRISTOPHER SILVER MINES LTD.		LONG. 07964600	O.D.M.-Ag-0455059
CO. or DIST.	TIMISKAMING	CODE No.	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE	COLEMAN	59	Con.III, Lot 2. Claim:- NW $\frac{1}{2}$ , S $\frac{1}{2}$ , No.106	
LOCATION:	3 miles southeast of town of Cobalt		NTS	UTM
			Con.III, Lot 2. Claim:- W part, NE $\frac{1}{2}$ , S $\frac{1}{2}$ No.1970.	

HISTORY OF OWNERSHIP:	EXPLORATION AND DEVELOPMENT	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1906: Columbus Cobalt Silver Co. Ltd.	1905-59. Two shafts with underground workings:- No.1 or Columbus West shaft:- was sunk 240' with levels at 64' (lateral work 220'), 150' (lateral work 225'), and 240' (lateral work 810'). An inclined winze at the NW end of 240' level goes down 140' to a crosscut 140' in length. Christopher No.2 shaft:- was sunk 415' with levels at 90' (lateral work 130'), 300' and 400'. The 400' level is extensive and connects with the contiguous Cobalt Lode shaft. From the Cobalt Lode shaft a long crosscut extends SW on the 600' level into the Christopher property. Where there are sublevels at 500' and 650'. The No.4 Pan Silver shaft of the Brady Lake property	1906-58: 1,500,000 ozs. 1960-64: About 2,600,000 ozs.
1937: Leased to W.E. McCready.		Source: O.D.M. PR. 1961-7, p.72 and O.D.M. Ann. Rept. for years 1960-64.
1937: Leased to Lapa Cadillac Gold Mines.		
1950: Christopher Silver Mines Ltd.		
1954: Cobalt Consolidated Mining Corp. Ltd.		
1960: Agnico Mines Ltd.		
	OCCURRENCE	RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X

MAJOR ORE MINERALS Silver and smaltite	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS Pyrrhotite, Sphalerite, Chalcopyrite Pyrite and Galena.	CH7 Vein System:- with a horizontal length of about 1400' extends vertically about 400'.
ORE FABRIC Vein.	CH11 Vein System:- with a horizontal length of about 300' extends vertically about 200'.
MAJOR GANGUE MINERALS Quartz and Calcite	CH6 Vein System:- extends for a horizontal length of 1200'.
COUNTRY ROCK OR FORMATION Keewatin volcanics and Nipissing diabase.	
AGE: GEOLOGICAL ABSOLUTE Archean and Aphebian N.L.T 3100 & 2150 m.y.	

MAIN REFERENCE Thomson, R.: 1961: O.D.M. Prelim. Rept. 1961-7, p. 68-79	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052, Cobalt Silver Area, 1964.	FILE STATUS:	DATE	SIGNATURE
		SKELETAL		
		INCOMPLETE		
		COMPLETED	1968	A.O.S.
		REVISED		

COMMODITY	NAME OF OCCURRENCE:	LAT. 04735200	REF. NO.
Silver Cobalt	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: CHRISTOPHER SILVER MINES LTD.	LONG. 07964600	O.D.M.-Ag-0455059
GEOLOGY NW striking Keewatin rocks, cut by Halleyburian lamprophyre dikes, are intruded by Nipissing diabase sill, about 1100' thick. The sill forms the NW limb of the NE trending New Lake Diabase Basin. The NW trending Columbus diabase dike of Keweenaw age intrudes Keewatin and Nipissing rocks. The Columbus Fault striking NW with 60° NE dip bisects the property. Two vein systems occur: one strikes NE, parallel to the long axis of the New Lake Basin; the other strikes at right angles to the axis. Silver-cobalt production is restricted to the NW trending veins particularly in the vicinity of the Keewatin-Upper Nipissing contact. Base metal mineralization occurs as disseminated sulphides in the Keewatin volcanics.	EXPLORATION AND DEVELOPMENT (Cont) provided access, via No.1 winze from 610' level, to deep ore on Christopher property. The winze also provided access to the 725' Christopher sublevel. Total development:- drifting 6,592'; crosscutting, 2,375'; and raising, 6,582'. 1960-64: No.1 shaft was deepened 55'. The 650' winze was sunk 75' from 550' sublevel. Other development work includes:- drifting, 9,120'; crosscutting, 2,659'; raising: 7,537'; and 284 underground diamond-drill holes totalling 50,833. An appreciable amount of ore was hoisted. 1965-67:		

ALTERATION The Keewatin lavas commonly show grey-green streaky alteration patches.	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE Archean and Aphebian	AGE OF DEFORMATION:	AGE OF ORE MINERAL Post-Huronian
ABSOLUTE AGE N.L.T. 3100 and 2150 m.y.		N.G.T. 2150 m.y.
ROCK TYPE AND/OR MINERAL Volcanics and Diabase		
METHOD K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14
	NAME OF TECTONIC EVENT	X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION

MAP REFERENCES 1. O.D.M. Map 2052, Cobalt Silver Area, 1964. 2. O.D.M. Maps P.96 and P.96A, 1961	ODM FILES
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COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: CITY OF COBALT MINING CO. LTD.		LAT. 04739200 LONG. 07968600	REF. NO. O.D.M.-Ag-0455005
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. VI, Lot 6. Claim:- Approx. SE $\frac{1}{2}$ , S $\frac{1}{2}$ of lot 6.	
TP. or SQUARE COLEMAN	004550	NTS	UTM		
LOCATION: Town of Cobalt.		031M05E			
HISTORY OF OWNERSHIP: 1906: City of Cobalt Mining Co. Ltd. 1914: Mining Corporation of Canada. 1935: Cobalt Properties Ltd. 19 : Agnico Mines Ltd.		EXPLORATION AND DEVELOPMENT 1906-32. One shaft with underground workings:- The City Shaft:- is about 390' deep with levels at 65', 136' (1st), 196' (2nd), 252' (3rd), 308' (4th) and 377' (5th) depths. No. 24 Winze in the northeastern part of the claim extends 100' downward from the second level which was used to develop and mine the important vein group in that vicinity.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) Silver (1907-32):- about 14,000,000 ozs.  Cobalt (1907-32) At least:- 25,000 lbs. Possibly in excess of 100,000 lbs.  Source:- O.D.M. statistical files by Thomson (1961, p. 158)	
MAJOR ORE MINERALS Silver and Smealtite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Nos. 24-32 Vein System:- with a horizontal length of 500' extends vertically about 200'. It produced 12,000,000 ozs. of silver during 1907-22. 5-Vein System:- with a horizontal length of 300' extends vertically at least 150'. NW Vein:- has a horizontal length of 200'. It produced 250,000 ozs. of silver during 1907-32. Grade (1909-12):- Silver 138 ozs/ton; Cobalt 12 lbs/ton.		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCERX	
MINOR ORE MINERALS		COUNTRY ROCK OR FORMATION Keewatin rocks and Cobalt series sediments.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.	
ORE FABRIC Vein.		AGE: GEOLOGICAL ABSOLUTE Archean and Aphebian N.L.T. 3100 & N.L.T. 2150 m.y.		FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED	
MAJOR GANGUE MINERALS Calcite.		MAIN REFERENCE Thomson, R., 1961: O.D.M. Prelim. Rept. 1961-3, p. 155-162.			
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: CITY OF COBALT MINING CO. LTD.		LAT. 04739200 LONG. 07968600	REF.NO. O.D.M.-Ag-0455005
GEOLOGY Cobalt Series sediments up to 196' thick unconformably overlie the Keewatin rocks. The unconformity at the south end of the property follows a SE trending paleo-valley. Three faults traverse the property:- The West and Contact Faults striking NE with 20°-40° SE dips are reverse faults; and the Galena Fault striking WNW with 70° SSW dip is a normal fault. The productive veins consist of two isolated vein systems: Nos. 24-32 vein system at the NE corner and Nos. 17-18-31 at the SW corner of the property. Production was restricted to those parts of veins which traversed Cobalt sediments particularly near their contact with the Keewatin.		EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Archean and Aphebian N.L.T. 3100 and N.L.T. 2150 m.y. Volcanics and Sediments.		AGE OF DEFORMATION: Post-Huronian N.G.T. 2150 m.y.	
		K/Ar Rb/Sr Pb/Pb C14 X X		K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W., 1922: Ontario Dept. of Mines, Vol. XXXI, pt. 2, Map 31a-12.			
MAP REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M. Maps P.97 and P.97A, 1961. 3. O.D.M. Map 31a-12, 1922.		ODM FILES			



COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver Cobalt	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: CITY OF COBALT MINING CO. LTD.	47° 23' 30" LONG. 79° 41' 9"	O.D.M.-Ag-0455005
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		1. Longitude and latitude refer to southeast corner of claim (500' due west of Cobalt Lake Shaft No. 2 and also on the border of Right of Way Property). 2. a) Statistics of production for 1907-13: O.D.M. statistical files. b) Statistics of production for 1913-17: Ninth Annual Report to 31st Dec. 1922 - The Mining Corporation of Canada Ltd. p. 11. c) For the years 1918-32 production from this claim is not segregated from that of other holdings of Mining Corp. of Canada.	
ADDITIONAL REFERENCES:-			
Knight, C.W., 1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas. Ontario Dept. of Mines, Vol. XXXI, pt. 2, p. 70-74.			
Thomson, R., 1961: Preliminary Rept. on part of Coleman Township, Concession VI, Lots 1 to 6, District of Timiskaning. Ontario Dept. of Mines Prelim. Rept. 1961-3, p. 155-162.			
COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver Cobalt	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: CITY OF COBALT MINING CO. LTD.	47° 23' 30" LONG. 79° 41' 9"	O.D.M.-Ag-0455005

YEAR	ORE		COBALT		SILVER		NkI		Cprr		TOTAL VALUE
	RAISED TONS	ORE & CONG. SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1907		49			65,950	36,602					36,602
08		778	7,380	836	503,772	234,254					235,090
09	604	581	7,000	566	432,929	222,105					222,671
1910	143	143	2,073	124	305,216	169,080					169,204
11	36	36			215,338	112,971					112,971
12	7,628	259		1,731,157	207,952	116,087					116,087
13		108			100,158	59,640					59,640
14					796,327						
15					1,023,863						
16					1,742,954						
17					2,181,106						
18-30					at least 6,000,000						
					14,000,000 (at least)						

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: SILVER-MILLER MINES LTD. HISTORICAL NAME: COBALT BADGER SILVER MINES LTD.		LAT. 04736400	REF. NO.
				LONG. 07964800	O.D.M.-Ag-0455057
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. TIMISKAMING	
TP, or SQUARE	COLEMAN		004550	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
LOCATION: Located about 3 miles southeast of town of Cobalt.				NTS 031M05E	UTM
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT			PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1907: Badger Mines Ltd. (Claims Nos. 1265 and 472).		1907-1940: Several trenches and shafts with underground workings.			(1929 and 1937)
1907: Cobalt Merger Ltd. (Claim No.147).		Shaft No.9: 223' deep with 280'W and 100'E drifts along vein on the 100' level and 100'W and 100'E drifts along vein on the 200' level.			Silver 3,475 ozs
1950: Cobalt Badger Silver Mines Ltd.		Shaft No.7: About 50' deep.			(1937 and 40)
19 : Silver Miller Mines Ltd.		Shaft No.6: About 103' deep.			Cobalt 112 lbs.
		Shaft No.2: Depth unknown.			(1940)
		Shaft No.1: About 50' deep with level at bottom			Nickel 89 lbs.
					O.D.M. statistical files
		OCCURRENCE			RAW PROSPECT
		DEVELOPED PROSPECT			PRODUCER
		FAST PRODUCER			X
MAJOR ORE MINERALS Silver and smaltite.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS Chalcopyrite and pyrrhotite.			Vein No.9: 380' in length, contains an ore shoot 165' in horizontal length and 28' in vertical depth.		
ORE FABRIC Vein.					
MAJOR GANGUE MINERALS Calcite.					
COUNTRY ROCK OR FORMATION Nipissing diabase sill					
AGE: GEOLOGICAL Aphebian		ABSOLUTE 2150 m.y.			
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-6, p. 33-36.			MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052, Cobalt Silver Area, 1964.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED
			DATE 1968		SIGNATURE A.O.S.
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968 SILVER-MILLER MINES LTD. HISTORICAL NAME: COBALT BADGER SILVER MINES LTD.		LAT. 04736400	REF.NO.
				LONG. 07964800	O.D.M.-Ag-0455057
GEOLOGY Nipissing diabase is the only rock to outcrop in the property. A well-defined topographic depression caused by selective erosion along a NE trending fault traverses the property. The diabase is the only host rock for the calcite veins of which Nos. 9, 8, and 3 contained silver and cobalt mineralization with some chalcopyrite and pyrrhotite.			EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE Aphebian		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Suronian	
ABSOLUTE AGE 2150 m.y.				N.C.T. 2150	
ROCK TYPE AND/OR MINERAL Diabase.					
METHOD K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4	
X		NAME OF TECTONIC EVENT		X	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Map 2052, Cobalt Silver Area, 1964. O.D.M. Map P.96, 1961.			ODM FILES		

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: SILVER-MILLER MINES LTD. HISTORICAL NAME: COBALT BADGER SILVER MINES LTD	LAT. 47° 21' 49"	REF. NO. O.D.M.-Ag-0455057
		LONG. 79° 38' 53"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to southeast corner of Claim No. 472.	
ADDITIONAL REFERENCES:-  Davis, H.P. 1909: The Davis Handbook, Directory part, p.10.  Thomson, R. 1961: Preliminary Reports on parts of Coleman Township, Con.IV. Lots 1 to 5 and Cillies Limit, the Eastern "A" Claims, District of Timiskaming, Ontario Dept. Mines Prelim. Rept., 1961-6, p. 33-36.			
COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: SILVER-MILLER MINES LTD. HISTORICAL NAME: COBALT BADGER SILVER MINES LTD.	LAT. 47° 21' 49" LONG. 79° 38' 53"	REF. NO. O.D.M.-Ag-0455057

YEAR	ORE	ORE & CONC.	COBALT		SILVER		Nkl		Cpnr		TOTAL VALUE
	RAISED	SHIPPED	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1929											
1937			60	219			89				
1940			52	3,256							
			112	3,475			89				

COMMODITY Silver Cobalt	CIRCA 1968: HISTORICAL NAME:	AGNICO MINES LTD. COBALT LAKE MINING CO. LTD.	LAT. 04739000 LONG. 07968600	REF. NO. O.D.M. -Ag-0455025
CO. or DIST. TIMISKAMING TP. or SQUARE COLEMAN	CODE No. 59 004550	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE "Con. V and VI, Lots 5 and 6."	
LOCATION: Cobalt Lake, adjacent and east of town of Cobalt.		NTS 031M05E UTM	Claim:- About 47 acres of area under Cobalt Lake.	

HISTORY OF OWNERSHIP: Prior to 1906: Ontario Government. 1906: Cobalt Lake Mining Co. Ltd. 1914: Mining Corporation of Canada. 1934: Cobalt Properties Ltd. 1946: Silanco Mining and Refining Co. Ltd. 1953: Cobalt Consolidated Mining Corp. Ltd. 19 : Agnico Mines Ltd.	EXPLORATION AND DEVELOPMENT 1906-14. Several shafts with underground workings:- Shaft No. 1:- was sunk 129' with one extensive level at 129'. Shaft No. 2:- was sunk 48'. Shaft No. 3:- was sunk 28'. Shaft No. 4:- was sunk 216' with levels at 84' (1st), 150' (2nd) and 216' (3rd) depths. The third level connects with No. 6 shaft workings and from it No. 5 Winze was put down to 291' (4th), 369' (5th) and 432' (6th) levels. The 6th level was used for systematic development of central and northern part of the property. From the 6th level, No. 6 Winze was put down in the south part of the property to establish 7th level at 504' depth and No. 7 Winze was put down in the north	PRODUCTION ORE RESERVES (DATE AND AUTHORITY) (1908-43) Silver Cobalt 6,900,708 146,073 lbs. \$3,833,459 \$27,319 Total value (incd. small nickel):- \$3,861,174. 1967 Tailings reclamation of Silver:- 190,684 ozs. O.D.M. Statistical files.
OCCURRENCE K&V PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X		

MAJOR ORE MINERALS Silver and smaltite. MINOR ORE MINERALS Niccolite and Breithauptite. ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite. COUNTRY ROCK OR FORMATION Keewatin rocks and Cobalt series sediments.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Cobalt Lake Fault Vein:- with a horizontal length of about 1000' extends vertically about 400'. The vein is of unusual width in places. On the second level from No. 4 shaft, it has a width of 4 feet in one place; in the stope above this level the vein has 15" of niccolite. Nos. 2-5 Vein System:- with a horizontal length of about 1000' extends vertically about 300'. Grade (1911-16):- Silver 40 ozs./ton.
AGE: GEOLOGICAL Archean and Apehbian ABSOLUTE N.L.T. 3100 & N.L.T. 2150 m.y.	

MAP REFERENCE Thomson, R., 1961: O.D.M. Prelim. Rept. 1961-4, p. 90-10.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.	FILE STATUS: SKELETAL INCOMPLETE COMPLETED 1968 REVISED	DATE 1968	SIGNATURE A.O.S.
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COMMODITY Silver Cobalt	CIRCA 1968: HISTORICAL NAME:	AGNICO MINES LTD. COBALT LAKE MINING CO. LTD.	LAT. 04739000 LONG. 07968600	REF. NO. O.D.M. -Ag- 0455025
GEOLOGY Cobalt sediments up to 394' thick unconformably overlies Keewatin volcanics. The unconformity follows a faulted paleovalley that trends and grades NNE. The reverse Cobalt Lake fault within the valley strikes generally NE with 45°-65° SE dip; it bisects Cobalt Lake along its axis. The Cobalt Lake Fault Vein and Veins Nos. 2 and 5 are the principal productive veins. Production was restricted to the Cobalt sediments particularly above the paleovalley.		EXPLORATION AND DEVELOPMENT (Cont) part of the property to establish 8th level at 596' depth. Shaft No. 5:- was sunk 84'. Shaft No. 6:- was sunk 239' with levels at 135' and 239' from the 239'; level a maze of workings with numerous winzes and sublevels extend throughout the SW part of the property. 1915. Cobalt Lake was pumped out. 1915-32. Underground workings at various levels were connected with those on the adjoining McKinley-Darragh Townsite, City and Buffalo properties. 1967-68: Tailings reclamation has been carried out from Cobalt Lake.		

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE Archean and Apehbian ABSOLUTE AGE N.L.T. 3100 and N.L.T. 2150 m.y. ROCK TYPE AND/OR MINERAL Volcanics and Sediments METHOD K/Ar Rb/Sr Pb/Pb C14 X X	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W., 1922: Ontario Dept. of Mines, Vol. XXXI, pt. 2, Map 31a-12.

MAP REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M. Maps P.97 and P.97A, 1961. 3. O.D.M. Map 31a-12, 1922.	ODM FILES
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COMMODITY	NAME OF OCCURRENCE	LAT. 47° 23' 24"	REF. NO.
Silver Cobalt	CIRCA 19 : AGNICO MINES LTD. HISTORICAL NAME COBALT LAKE MINING CO. LTD.	LONG. 79° 41' 9"	O.D.M.-Ag-0455025
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to No. 4 or Cobalt Lake Shaft.	
ADDITIONAL REFERENCES:-			
Knight, C.W., 1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas; Ontario Dept. of Mines, Vol. XXXI, pt. 2, p. 63 and 74-			
Thomson, E., 1930: A Qualitative and Quantitative Determination of the Ores of Cobalt, Ontario; Econ.Geol., Vol. 25, p. 470-505 and 527-652.			
Thomson, R., 1961: Preliminary Report on part of Coleman Township, Concession V, Lots 1 to 6, District of Timiskaming. Ontario Dept. of Mines Prelim. Rept. 1961-4, p. 90-100.			
COMMODITY	NAME OF OCCURRENCE	LAT. 47° 23' 24"	REF. NO.
Silver Cobalt	CIRCA 1968; AGNICO MINES LTD. HISTORICAL NAME; COBALT LAKE MINING CO. LTD.	LONG. 79° 41' 9"	O.D.M.-Ag-0455025

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cppr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1908	131	224	51,500	18,222	74,934	38,044					56,266
09	370	69			46,732	23,788					23,788
10		301			239,728	126,467					126,467
11	2,009	2,009			626,044	329,047					329,047
12	24,678	1,080			1,123,146	695,949	7,920	396			696,345
13	35,408	1,105			980,858	521,220					521,220
14	53,753	1,225			1,247,677	620,539					620,539
15	35,087	1,253			1,566,206	817,869					817,169
16	23,496	792	86,380	4,870	994,609	660,952					665,832
1941		17	3,607	2,801							2,801
42		8	1,411	1,125	548	183					1,308
43			3,175	301	226	91					392
	175,129	8,083	146,073	27,319	6,900,708	3,833,459	7,920	396			3,861,174

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: COBALT LODS SILVER MINES		LAT. 04735600	REF. NO.
				LONG. 07964300	O.D.M.-Ag-0455060
CO. or DIST.	TIMISKAMING	CODE No.	59	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE	COLEMAN	004550		Con.III, Lot 2. Claim:- SE $\frac{1}{2}$ , N $\frac{1}{2}$ , Nos. 1523 535	
LOCATION: Located about three miles southeast of town of Cobalt			N1S 031M05E	UTM	Con.III, Lot 2. Claim:- E part, NE $\frac{1}{2}$ , S $\frac{1}{2}$ , No. 9
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1908: Pan Silver Mining Co.		1908-59: Three shafts with underground workings Cobalt Lode or Adanac No.1 Shaft:- was sunk 522' with levels at 100', 275', 400', 500', and 600'. There are sublevels at 310', 321', 455' and 480'. Workings on 400' level are extensive and are joined with the 400' level of the Christopher mine. The workings on the 600' level join the Christopher property where they are extensive. Pan Silver No.1 Shaft:- was sunk 200' with levels at 100' and 200'. Part of the underground workings extend into the adjoining Pan Silver claim of the Brady Lake property. The 100' level is connected with the No.4 Pan Silver shaft workings.		Silver 4,493,542 ozs. 2,545,117 lbs. S3,903,745 \$6,502,542	
1915: Adanac Silver Mines Ltd.				Cobalt 810,716 lbs. 459,078 lbs. S351,236 \$161,397	
1949: Cobalt Lode Silver Mines				Total Value: \$10,918,920	
1953: Cobalt Consolidated Mining Corp. Ltd.				O.D.M. statistical files	
1957: Agnico Mines Ltd.					
MAJOR ORE MINERALS Smaltite and Silver		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS Pyrrhotite, Chalcopyrite, Sphalerite Galena, and Pyrite.		No.1 Vein System:- with a horizontal length of about 1300' extends about 500' vertically.			
ORE FABRIC Vein.		No.2 Vein System:- with a horizontal length of about 1,000' extends 400' vertically.			
MAJOR GANGUE MINERALS Calcite.		Grade (1951-56):- Silver 16.7 ozs./ton; Cobalt 9.8 lbs./ton; Nickel 2.3 lbs./ton and Copper 1.8 lbs./ton.			
COUNTRY ROCK OR FORMATION Keewatin volcanics and Nipissing diabase sill.		MAP REFERENCE USED FOR LOCATION		FILE STATUS: DATE SIGNATURE	
AGE: GEOLOGICAL ABSOLUTE Archean and Apehbian N.L.T. 3100 and 2150 m.y.		O.D.M. Map 2052, Cobalt Silver Area, 1964.		SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED	
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-7, p. 51-57.					
COMMODITY		NAME OF OCCURRENCE:		LAT. 04735600	REF. NO.
Silver Cobalt		CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: COBALT LODS SILVER MINES		LONG. 07964300	O.D.M.-Ag-0455060
GEOLOGY NW striking Keewatin rocks, cut by Haileyburian lamprophyre dikes, are intruded by Nipissing diabase sill, about 1100' thick. The sill forms the NW limb of the NE trending New Lake Basin. The NW striking Columbus quartz diabase dike of Keweenawan age intrudes the Keewatin and Nipissing rocks. Two vein systems are important:- No.1 vein system strikes N and dips 70°E; No.2 vein system strikes NW and dips 80° ENE. Silver-Cobalt production is restricted to the vicinity of the Upper Nipissing-Keewatin contact. Base metal mineralization such as pyrrhotite, chalcopyrite, pyrite, sphalerite and galena occurs as disseminated sulphides in the interflow sedimentary bands.		EXPLORATION AND DEVELOPMENT (Cont) Calumet Shaft:- was sunk 200' with a level at 200'. Other development work includes:- about 10,000' of drifting; about 5,500' of crosscutting; and about 7,000' of raisings. 1960-64: Mining operations during the period were from Christopher property but ore of appreciable quantity was hoisted from Cobalt Lode shaft in conjunction with Christopher shafts.			
ALTERATION The Keewatin lavas most commonly show irregular and variable development of epidote and feldspar		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL: Archean and Apehbian N.L.T. 3100 and 2150 m.y. Volcanics and Diabase K/Ar Rb/Sr Pb/Pb Cl4 X X		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT	
				AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb Cl4 X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W. 1922: O.D.N.. Vol. 31, pt. 2. Map Sheet, 31a-18.			
MAP REFERENCES 1. O.D.M. Map 2052, Cobalt Silver Area, 1964. 2. O.D.M. Maps P.96 and P.96A, 1961.		ODM FILES			

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 19 68 AGNICO MINES LTD. HISTORICAL NAME: COBALT LODE SILVER MINES	LAT. 47° 21' 22"	REF. NO. O.D.M.-Ag-0455060
		LONG. 79° 38' 35"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to southeast corner of claim (SE½, N½ of lot 2, Con.III)	

ADDITIONAL REFERENCES:-

Knight, C.W.  
1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas, Ontario Dept. Mines, Vol. XXXI, pt.2,  
p. 177-178 and Map 31a-18.  
Thomson, R.  
1961: Preliminary Report on parts of Coleman Township, Con. III, Lots 1 to 3, and Gillies Limit, Blocks 1 and 2;  
Claims A48 to 58 and A88 to 100, District of Timiskaming. Ontario Dept. Mines, Prelim. Rept. 1961-7,  
p. 51 - 57.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 19 68 AGNICO MINES LTD. HISTORICAL NAME: COBALT LODE SILVER MINES.	LAT. 47° 21' 22"	REF. NO. O.D.M.-Ag-0455060
		LONG. 79° 38' 35"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1917		3,277			2,620	2,249					2,249
18		3			427	431					431
19		105	741	93	25,010	25,540					25,633
1925	3	3			1,398	2,384					2,384
1937	92	92			1,741	757					757
1938		4	689	344	9,192	3,953					4,297
1939	187	187	1,239	1,344	3,753	1,388					2,732
1940	1	1	286	286	4,259	1,575	42	4			1,865
41		1	134	134	383	147					281
42		1	296	296	152	64	100	18			378
1950	6,358	132			256,286	222,420					222,420
51	27,146	1,206	117,404	268,855	1,025,319	969,439	38,131	21,277	25,245	6,993	1,266,564
52	30,003	1,148	84,922	199,567	711,589	594,319	20,328	11,119	32,829	9,369	814,374
53	100,366	3,188	636,272	1,590,680	870,960	731,693	175,874	94,972	87,627	34,998	2,452,343
54	40,923	3,309	669,396	1,773,899	708,656	562,673	145,652	78,652	119,969	34,455	2,449,679
55	32,448	2,556	628,355	1,621,156	292,663	265,182	136,811	88,927	99,518	36,702	2,011,967
56	25,583	2,553	405,383	1,045,888	579,317	519,531	93,778	56,267	93,890	38,880	1,660,566
	263,140	17,766	2,545,117	6,502,542	4,493,725	3,903,745	610,716	351,236	459,078	161,397	10,918,920

COMMODITY Silver Cobalt	CIRCA 1968: HISTORICAL NAME: DR. H.A. DUNNING COBALT SILVER QUEEN LTD.	NAME OF OCCURRENCE:	LAT. 04738800 LONG. 07969800	REF. NO. O.D.M.-Ag-0455019
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. V, Lot 7.	
TP. or SQUARE COLEMAN	004550	NTS 031M05E UTM	Claim:- SE $\frac{1}{2}$ of N $\frac{1}{2}$ lot 7. Claim:- SW $\frac{1}{2}$ of N $\frac{1}{2}$ lot 7.	
LOCATION: NW shore of Short Lake about half a mile SW of town of Cobalt.				

HISTORY OF OWNERSHIP: 1904: Timiskaming and Hudson Bay Mining Co. Ltd. 1906: Cobalt Silver Queen Ltd. 1912-14: Aladdin Cobalt Co. Ltd. 19 : Dr. H.A. Dunning	EXPLORATION AND DEVELOPMENT 2 shafts with underground workings. No. 1 shaft inclined at 57°S, is on north side of open pit along vein No. 1. First level at 58', second level at 99' & third level at 200' vertical depths. From first level, crosscut extends to No.2 vein in NE corner of claim. No. 2 shaft, sunk on No.3 vein, to depth of 86' with level at 75' depth. Dormant since 1939.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY) (1905-1939)							
		<table border="1"> <tr> <td>Silver</td> <td>Cobalt</td> </tr> <tr> <td>1,406,000 ozs.</td> <td>168,311 lbs.</td> </tr> <tr> <td>\$768,655</td> <td>\$16,404</td> </tr> <tr> <td colspan="2">Total value: \$785,059</td> </tr> </table> <p>Thomson, R., O.D.M., 1960.</p>	Silver	Cobalt	1,406,000 ozs.	168,311 lbs.	\$768,655	\$16,404	Total value: \$785,059
Silver	Cobalt								
1,406,000 ozs.	168,311 lbs.								
\$768,655	\$16,404								
Total value: \$785,059									

MAJOR ORE MINERALS Silver and Smaltite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS Chalcopyrite, sphalerite, galena, pyrrhotite.	Length:- Vein No. 1 on first level extends over 900'.
ORE FABRIC Vein.	Grade:- Silver, 100 ozs/ton. (1906 to 1915).
MAJOR GANGUE MINERALS Calcite.	
COUNTRY ROCK OR FORMATION Cobalt Series.	

AGE: GEOLOGICAL Aphebian	ABSOLUTE N.L.T. 2150 m.v.
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MAIN REFERENCE THOMSON, R. 1960: O.D.M. Prelim. Rept. 1960-3, p.16-19.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area.	FILE STATUS:	DATE	SIGNATURE
		SKELETAL		
		INCOMPLETE		
		COMPLETED	1968	A.O.S.
		REVISED		

COMMODITY Silver Cobalt	CIRCA 1968: HISTORICAL NAME: DR. H.A. DUNNING COBALT SILVER QUEEN LTD.	NAME OF OCCURRENCE:	LAT. 04738800 LONG. 07969800	REF.NO. O.D.M.-Ag-0455019
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GEOLOGY Flat lying Cobalt Series sediments about 90' thick unconformably overlies steeply dipping Keewatin Volcanics that strike WNW. Vein No. 1, responsible for most of the production similarly strikes WNW. Most silver production came from the vein with a gangue of calcite in the sediments; cobalt mineralization with a gangue of quartz-calcite persists into the volcanics, where the vein follows an interflow bed.	EXPLORATION AND DEVELOPMENT (Cont)
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ALTERATION Spotted chlorite	METAMORPHISM	MINERAL PARAGENESIS
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GEOLOGICAL AGE Aphebian	AGE OF FORMATION, ROCK OR MINERAL N.L.T. 2150 m.v. Sediments	AGE OF DEFORMATION:	AGE OF ORE MINERAL Post Huronian
ABSOLUTE AGE			N.G.T. 2150 m.v.
ROCK TYPE AND/OR MINERAL METHOD	K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14
	X	NAME OF TECTONIC EVENT	X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W., O.D.M., Vol. XXXI, pt. 2, Sheet 31-a-13, 1922.

MAP REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M., P.80, 1960. 3. O.D.M. Map 31-a-13, 1922.	ODM FILES
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COMMODITY Silver Cobalt	NAME OF OCCURRENCE		LAT. 47°23'17"	REF. NO.
	CIRCA 1968: HISTORICAL NAME:	DR. H.A. DUNNING COBALT SILVER QUEEN LTD.	LONG. 79°41'52"	O.D.M.-Ag-0455019
HISTORY OF OWNERSHIP (CONT)			REMARKS	
			Longitude and Latitude refer to Shaft No. 1. Most production came from Vein No. 1.	

ADDITIONAL REFERENCES:-

Canadian Mines Register, 1960.

Knight, C.W.

1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas, Ontario Department of Mines, Vol. XXXI, pt. 2, p.161.

Thomson, R.

1960: Preliminary Report on Parts of Coleman Township and Gillies Limit to the south and Southwest of Cobalt, Ontario Department of Mines, Prelim. Rept. 1960-3, p.16-19.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE		LAT. 47°23'17"	REF. NO.
	CIRCA 1968: HISTORICAL NAME:	DR. H.A. DUNNING COBALT SILVER QUEEN LTD.	LONG. 79°41'52"	O.D.M.-Ag-0455019

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1905					63,020	25,208					
06	111	111			195,807	125,939					125,939
07	573	481		3,080	182,987	105,200					108,280
08			138,000	8,275	589,693	284,466					292,721
09	2,562	172	16,700	1,605	145,210	70,415					72,020
1910					2,091	1,124					1,124
13	1,920	31			22,792	10,343					10,343
14	1,161	104			59,856	34,267					34,267
15	29	29			36,545	18,545					18,545
17		25			3,679	3,035					3,035
18		733	9,394	1,391	20,450	20,441					21,832
19		1,875		150	24,222	27,169					27,319
1920		673	287	45	14,600	14,253					14,298
21		456			2,058	1,353					1,353
22	4	4			5,464	3,688					3,688
23					3,871	2,468					2,468
24	7	7			19,560	12,714					12,714
25					241	167					167
26					2,466	4,480					4,480
27	2	32			1,357	765					765
29		7	1,061	148	2,493	1,296					1,444
1930		1	130	39	30	12					51
33					795	324					324
35	600	133			824	552					552
36		3	603	300	476	190					490
38		9	1,913	1,148	308	132					1,280
39		1	223	223	319	129	102	18			370
	6,969	4,867	168,311	16,404	1,343,194	743,447	102	18			759,869
					63,020	25,208					
					1,406,214	768,655					

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: COBALT TOWNSITE MINING CO. LTD.		LAT. 04739000 LONG. 07969000	REF. NO. O.D.M.-Ag- 0455021
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. TIMISKAMING	
TP. or SQUARE	COLEMAN		04550	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. V, Lot 6	
LOCATION: Adjacent and SW of town of Cobalt			NTS 031M05E	UTM	Claim:- NW¼ of N½"
HISTORY OF OWNERSHIP: 1906: Cobalt Townsite Mining Co. Ltd. 1914: Mining Corporation of Canada Ltd. 1934: Cobalt Properties Ltd. 19 : Agnico Mines Ltd.			EXPLORATION AND DEVELOPMENT 1906-32. Four shafts with underground workings. No.1 Shaft:- was sunk 320' with levels at 44', 99', 192', 255', and 310'. No.2 Shaft:- was sunk 118' with one level at 118'. No.4 Shaft:- was sunk 120' with levels at 58' and 113'. No.7 Shaft:- was sunk 430' with levels at 86', 186', 252', 308', and 374'. This was the main production shaft on the property.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) Silver (1907-1916) 13,182,906 ozs. Cobalt (1910) 4,116 lbs. Final Year of Production - 1939 O.D.M. statistical files.
			OCURRENCE	RAW PROSPECT	DEVELOPED PROSPECT
				PRODUCER	PAST PRODUCER X

MAJOR ORE MINERALS	Silver and smaltite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS	Pyrite.	Vein system:- 14, S and SE:- with a horizontal length of 500' extends vertically at least 55'. Vein Q:- with a horizontal length of 300' extends vertically 100'. Vein system:- L <sub>1-3</sub> and West:- extends for a horizontal length of 300'. Grade (1907-16):- Silver 41 ozs/ton.			
ORE FABRIC	Vein.	MAP REFERENCE USED FOR LOCATION			
MAJOR GANGUE MINERALS	Calcite.	O.D.M. Map 2050, Cobalt Silver Area, 1964.			
COUNTRY ROCK OR FORMATION	Keewatin rocks underlie Cobalt Series sediments	FILE STATUS:	DATE	SIGNATURE	
AGE: GEOLOGICAL	ABSOLUTE	SKELETAL			
Archean and Aphebian	N.L.T.3100 and N.L.T. 2150 m.y.	INCOMPLETE			
MAIN REFERENCE	Thomson, R., 1961: O.D.M. Prelim. Rept. 1961-4, p. 100-104.	COMPLETED	1968	A.O.S.	
		REVISED			

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: COBALT TOWNSITE MINING CO. LTD.		LAT. 04739000 LONG. 07969000	REF.NO. O.D.M.-Ag- 0455021
GEOLOGY Keewatin rocks cut by Haileyburian lamprophyre dike underlie Cobalt sediments unconformably. The unconformity follows a paleovalley that strikes SE and grades 22° to 25°SE. The Cobalt sediments dip inwards towards the centre of the valley. Three faults traverse the property: The Contact and Slate Faults striking N15W with low dips to the east are reverse faults, and X-Fault striking E with 75°S dip is a normal fault. A network of vein systems with non-uniform distribution and trend occur. The production is restricted to that part of the veins traversing Cobalt sediments, Silver-Cobalt mineralization was found only within the paleovalley.			EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:	
ABSOLUTE AGE		Archean and Aphebian		AGE OF ORE MINERAL	
ROCK TYPE AND/OR MINERAL		N.L.T. 3100 and N.L.T. 2150 m.y.		Post-Huronian	
METHOD		Volcanics and Sediments.		N.G.T. 2150 m.y.	
		K/Ar	Rb/Sr	Pb/Pb	Cl4
		X	X		
COMPANY REPORTS		METALLURGY REFERENCE		MILLING REFERENCE	
ECONOMICS REFERENCE		MINING REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE	
GEOCHEMICAL DATA REFERENCE		GEOPHYSICAL DATA REFERENCE		PLAN x SECTION LONGITUDINAL PROJECTION	
MAP REFERENCES		1. O.D.M. Map 2050, Cobalt Silver Area, 1964.		Knight, C.W., 1922: O.D.M. Vol.XXXI, pt.2, Map 31a-10.	
2. O.D.M. Maps P.97 and P.97A, 1961.		3. O.D.M. Map 31a-12. 1922.		ODM FILES	

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: COBALT TOWNSITE MINING CO. LTD.	LAT. 47° 23' 24"	REF. NO. O.D.M.-Ag-0455021
		LONG. 79° 41' 25"	
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Longitude and latitude refer to southeast corner of claim.	

ADDITIONAL REFERENCES:-

Knight, C.W.,  
1922: Geology of the mine workings of Cobalt and South Lorrain Silver Areas. Ontario Dept. Mines, Vol. XXXI, pt. 2, p. 78-81 and Map 31a-12.  
Thomson, R.,  
1961: Preliminary Report on part of Coleman Township, Concession V, Lots 1 to 6, District of Timiskaming, Ontario Dept. Mines, Prelim. Rept. 1961-4, p. 100-104.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: COBALT TOWNSITE MINING CO. LTD.	LAT. 47° 23' 24"	REF. NO. O.D.M.-Ag-0455021
		LONG. 79° 41' 25"	

1907-13, from Townsite Claim; 1914-1932, from Townsite and other Cobalt Camp claims of Mining Corporation of Canada Ltd; and 1934-39, from Townsite and other claims of Cobalt Properties Ltd.

YEAR	ORE & CONC.		COBALT		SILVER		Nkl		Cpnr		TOTAL VALUE
	RAISED TONS	SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1907	158	143			60,963	25,000					25,000
08	148	142			108,827	51,955					51,955
10	349	334	4,116	412	195,597	98,193					98,605
11	14,245	299			834,949	399,738					397,738
12	36,256	1,618			1,505,396	905,014					905,014
13	69,519	2,615			2,314,601	1,326,645					1,326,645
14	61,736	3,153			3,079,275	1,624,289					1,624,289
15	97,508	2,354			2,776,589	1,465,324					1,465,324
16	61,364	1,363	134,280	6,715	3,115,637	2,308,653					2,315,308
17		430	65,221	7,874	4,546,065	4,034,724					4,062,598
18			173,259	41,884	1,944,061	2,041,889					2,083,773
19		976			1,088,064	1,256,880					6,256,880
1920		1,530			1,806,274	2,097,505					2,097,505
21	72,650	22,702			911,899	696,334					696,334
22	91,622	3,237			1,763,870	1,204,802					1,204,802
23	66,780	1,355	218,418	61,754	890,227	575,585					637,339
24	52,415	1,176	198,163	67,497	834,657	567,815					635,312
25	41,468	43,720	114,828	23,786	1,948,648	1,348,176			90,288	12,364	1,384,326
26	51,266	51,266			1,105,459	686,310					686,310
27	49,773	49,773			1,217,180	685,592					685,592
28	52,954	52,954	4,342	620	918,266	537,101					537,721
29	47,823	47,823	20,034	6,810	971,554	506,830					513,640
1930	20,075	20,075	68,687	29,117	559,286	217,517					24,834
31	24,062	3,693	709,651	371,726	733,425	223,181					594,907
32		1,161	15,702	3,299	1,155,647	359,163					362,402
33		8			24,158	10,644					10,664
34		243			271,161	133,720					133,720
35	854	854	87,542	34,234	279,414	193,166	135,707	19,773			247,173
36		1,935	25,416	10,083	284,653	125,274	25,612	4,610			139,967
37		454	5,870	4,092	110,703	50,466	2,003	361			54,919
38	215	225	6,193	3,790	4,646	1,522	365	62			5,379
39	28	150	1,053	112	881	305					417

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: PATRICIA SILVER MINES LTD. (LEASE) HISTORICAL NAME: COCHRANE COBALT MINING CO. LTD.		LAT. 04735600	REF. NO.
				LONG. 07963800	O.D.M.-Ag-0455064
CO. or DIST.	TIMISKAMING	CODE No.	59	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE	COLEMAN		004550	Con. III, Lot 1, N½	
LOCATION: 3½ miles southeast of town of Cobalt.			NTS 031M05E	UTM	Claim: E½ of SW¼, No.1623
HISTORY OF OWNERSHIP: 1907: Cochrane Cobalt Mining Co. Ltd. 1916-17: Crown Reserve Mining Co. Ltd. 1918-19: Temiskaming Mining Co. Ltd. 1928-29: Shields Development Co. Ltd. 1949-50: Silver Dollar Mines Ltd. 1962 : Leased to Patricia Silver Mines Ltd.		EXPLORATION AND DEVELOPMENT 1907-39: No.1 Shaft: 220' deep with levels at 100' & 200' No.2 Shaft: Inclined at 70° with levels at 100' 200', 300', 550' and 630' depths. The 100' level connects with the Duchess Shaft 150' S of No.3 post and crosses the Progress claim it follows the vein for 650', the 200' level for 550', the 300' level for 400' and the 550' level for 500'. The 500' level of the neighbouring Timiskaming Shaft extends 90' into claim at the 550' elevation on the No.2 Shaft.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1913, 14, 38, 39 Silver Cobalt 33,280 ozs. 2,702 lbs. \$18,572 \$2,621 Total Value: \$21,193  O.D.M. statistical files.	
		OCCURRENCE		RAW PROSPECT	DEVELOPED PROSPECT
MAJOR ORE MINERALS Silver and smaltite.		MINOR ORE MINERALS Galena, sphalerite, pyrite, chalcopyrite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Shaft No.2 Vein: Silver-cobalt mineralization occur through a vertical height of 700' from 70' to 770' above Nipissing diabase and essentially within Keewatin volcanics. Production was from 100' and 200' levels.  Grade: Silver 13 ozs/ton (1913-14) Cobalt 19 lbs/ton (1939)	
ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite and quartz. COUNTRY ROCK OR FORMATION Keewatin rocks, Lorrain granite, Nipissing diabase.		ACE: GEOLOGICAL ABSOLUTE Archean, Archean, Aphebian N.L.T. 3100, 2390, 2150 m.y.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052, Cobalt Silver Area, 1964.	
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-7, p. 28-31.				FILE STATUS	DATE
				SKELETAL	
				INCOMPLETE	
				COMPLETED	1968 A.O.S.
				REVISED	
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: PATRICIA SILVER MINES LTD. (LEASE) HISTORICAL NAME: COCHRANE COBALT MINING CO. LTD.		LAT. 04735600	REF.NO.
				LONG. 07963800	O.D.M.-Ag-0455064
GEOLOGY The claim is underlain by Keewatin volcanics with chert beds, cut by Lorrain granite that dips 85°W and by Nipissing diabase beneath 710' depth. No.2 Shaft Vein follows a post Lorrain granite fault; the vein is arcuate, striking about NNE and dipping 70°; in part it is a quartz vein related to the granite otherwise of calcite. Shaft No.1 Vein strikes N with steep E dip; a 100' level it is 12" to 14" wide. Base metal sulphides locally occur along the veins.		EXPLORATION AND DEVELOPMENT (Cont) 1950: Extensive diamond drilling programme was carried out. 1963: Diamond drilling from 550' level of No.2 Shaft (entry from Timiskaming Shaft) was completed without success.			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:	
ABSOLUTE AGE		Archean, Archean, Aphebian N.L.T. 3100, 2390, 2150 m.y.		Post-Huronian N.C.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL		Volcanics, Granite, Diabase			
METHOD		K/Ar	Rb/Sr	Pb/Pb	Cl4
		X	X	X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Map 2052, Cobalt Silver Area, 1964. O.D.M. Map P.91, 1961.		ODM FILES			

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: PATRICIA SILVER MINES LTD. (LEASE) HISTORICAL NAME: COCHRANE COBALT MINING CO. LTD.	LAT. 47° 21' 22"	REF. NO. O.D.M.-Ag-0455064
		LONG. 79° 38' 17"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to Southeast corner of claim.	

ADDITIONAL REFERENCES:-

Davis, H.P.  
1920: "The Davis Handbook" Directory part.

Reid, J.A.  
1943: Ontario Dept. Mines, Bull. 134, p.11.

Thomson, R.  
1961: Preliminary Report on parts of Coleman Township, Con.III, Lots 1 to 3 and Gillies Limit, Blocks 1 and 2; Claims A48 to 58 and A88 to 100, District of Timiskaming. Ontario Dept. Mines, Prelim. Rept. 1961-7, p. 28-31

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 19 68 PATRICIA SILVER MINES LTD. (LEASE) HISTORICAL NAME: COCHRANE COBALT MINING CO. LTD.	LAT. 47° 21' 22"	REF. NO. O.D.M.-Ag-0455064
		LONG. 79° 38' 17"	

YEAR	ORE		COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
	RAISED TONS	ORE & CONC. SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1913	300	8			3,272	1,886					1,886
14	2,250	2,250			29,750	16,575					16,575
1938		3	402	231	258	111					342
39	121	11	2,300	2,390							2,390
	2,671	2,272	2,702	2,621	33,280	18,572					21,193

COMMODITY		NAME OF OCCURRENCE:		LAT. 04739200	REF. NO.
Silver	CIRCA 1968:	AGNICO MINES LTD.		LONG. 07965700	O.D.M.-Ag-0455016
Cobalt	HISTORICAL NAME:	COLONIAL MINING CO. LTD.			
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	COLEMAN		004550	TIMISKAMING	
LOCATION: 1 mile east of Cobalt Lake.				LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
				Con. VI, Lot 3.	
				CLAIM:- SW $\frac{1}{2}$ of S $\frac{1}{2}$ .	

HISTORY OF OWNERSHIP: 1906: Colonial Mining Co. Ltd. 1922: Menago Mining Co. Ltd. 1940: Cobalt Products Ltd. 1943: Silanco Mining & Refining Co. Ltd. 1953: Cobalt Consolidated Mining Corp. Ltd. 1957: Agnico Mines Ltd.	EXPLORATION AND DEVELOPMENT Mostly carried out before 1926. Underground workings are extensive and include 4 adits and 7 shafts; for location of these see O.D.M. maps 2050 and P.97. No. 3 and Mill adit:- From these adits, drifts cross-cuts and winzes are developed. Menago Shaft:- Extends to 980' level from which are developed winzes to 1030' and 1080' levels. Also sub levels at 880' and 1020'. Shaft No. 2 has depth of 75', Elizabeth Shaft 100', Northwest Shaft 80'.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY) (1907 to 1937)	
		Silver	Cobalt
		1,211,956 ozs.	3,671 lbs.
		\$780,681	\$1,192
		Total value:- \$781,873	
		O.D.M. Statistical files.	

MAJOR ORE MINERALS Silver, argentite and smaltite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES	
MINOR ORE MINERALS Arsenopyrite, chalcopyrite, galena, sphalerite, pyrrhotite.		Menago No. 1 vein striking northwest was productive over horizontal length of about 700' and vertical depth of 150'.	
ORE FABRIC Vein.		Productive dimensions of other veins not known.	
MAJOR GANGUE MINERALS Calcite and barite.		Grade:- silver - 23 oz/ton.	
COUNTRY ROCK OR FORMATION Keewatin volcanics intruded by Nipissing diabase sill.			
AGE: GEOLOGICAL ABSOLUTE Archean and Aphebian. N.L.T.3100 and 2150 m.y.			

MAIN REFERENCE  THOMSON, R. 1961: O.D.M. Prelim.Rept. 1961-3, p.33-44	MAP REFERENCE USED FOR LOCATION	FILE STATUS:	DATE	SIGNATURE
	O.D.M. Map 2050, Cobalt Silver Area, 1964.	SKELETAL INCOMPLETE COMPLETED REVISED	1968	A.O.S.

COMMODITY		NAME OF OCCURRENCE:		LAT. 04739200	REF. NO.
Silver	CIRCA 1968:	AGNICO MINES LTD.		LONG. 07965700	O.D.M.-Ag-0455016
Cobalt	HISTORICAL NAME:	COLONIAL MINING CO. LTD.			
GEOLOGY Keewatin volcanics striking northwest are intruded by Nipissing quartz-diabase sill. Thickness of overlying Keewatin remnant is 50' and of the sill 1100'. Northeast corner of claim is crossed by northwest-trending O'Brien-Violet fault. Two vein systems exist:- Those veins with northwest strike that were productive within proximity of lower contact of sill and associated with faults; those veins with northeast strike that parallel the axis of the Peterson Lake diabase basin and were productive within proximity of the upper contact.				EXPLORATION AND DEVELOPMENT (Cont)	

ALTERATION Grapophyre Reddish wall-rock alteration.		METAMORPHISM		MINERAL PARAGENESIS			
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Archean and Aphebian N.L.T. 3100 and 2150 m.y. Volcanics and Diabase K/Ar Rb/Sr Pb/Pb Cl4 X X		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post Huronian N.G.T. 2150 m.y.	
COMPANY REPORTS		METALLURGY REFERENCE		K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4 X	
ECONOMICS REFERENCE		MILLING REFERENCE		NAME OF TECTONIC EVENT			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE					
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W. 1922: O.D.M., Vol. XXXI, Map 31a-10.					
MAP REFERENCES 1. O.D.M. Map 2050, 1964. 2. O.D.M. Map P.97, 1961. 3. O.D.M. Map 31a-10, 1922.		ODM FILES					



COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 19 68 THE MARCOBALT MINING SYNDICATE LTD. HISTORICAL NAME: CONIGAS MINES LTD. - CLAIM JB. 6.		LAT. 04739500	REF. NO.
				LONG. 07968500	O.D.M.-Ag-0455003
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. VI, Lot 6.	
TP. or SQUARE COLEMAN	004550	NTS 031MOSE UTM		Claim:- NE 1/4, S 1/2 of lot 6.	
LOCATION: Immediately north of town of Cobalt.					
HISTORY OF OWNERSHIP: 1904: W.G. Trethewey. 1906: Conigas Mines Ltd. 1928-30: Leased to E.H. Clemens. 1932: Cobalt Properties Ltd. 1937: A. Murphy and A.P. Landry. 1943: Sanymac Mining and Development Co. Ltd. 1956: The Marcobalt Mining Synd. Ltd.		EXPLORATION AND DEVELOPMENT: 1906-24. Four shafts with underground workings: No. 2 Shaft:- was the main hoisting shaft but was largely destroyed by sloping - It was sunk 225' with levels at 75', 150' and 225'. From the 225' level winzes went down 66' and the 285' sub-level was established. From the 285' sublevel near No. 4 Shaft a winze goes down 90' and the 375' sublevel was established from it. No. 1 Shaft:- was sunk 75' which connects with the 150' level of the No. 2 Shaft. No. 4 Shaft:- was sunk 212' with one level at 152' connecting with the 225' level of the No. 2 Shaft; and another level at a depth of 212' connects with the 285' sublevel of the No. 2 Shaft. No. 6 Shaft:- was sunk 120' connecting		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) (1905-1943) Silver (1905-43) Cobalt (1905-43) 33,963,067 ozs. 310,557 lbs \$20,093,356 \$55,395  Nickel (1940-43) (1922-24) 3,543 lbs. 47,470 lbs. \$228 \$s,436 Total value:- \$20,152,415. O.D.M. Statistical files.	
MAJOR ORE MINERALS Silver and smaltite		MINOR ORE MINERALS Chalcopyrite and niccolite.		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X	
ORE FABRIC Vein MAJOR GANGUE MINERALS Calcite.		COUNTRY ROCK OR FORMATION Keewatin rocks and Cobalt Series sediments.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES No. 2 Vein System:- With a horizontal length of 600' extends vertically 200'. The maximum width of the vein is about 18" with 7" or 8" of solid ore. No. 18 Vein System:- With a horizontal length of 500' extends vertically 200'. No. 28 Vein System:- With a horizontal length of 300' extends vertically 200' Grade (1905-16):- Silver 55 ozs./ton.	
AGE: GEOLOGICAL ANSOLUTE Archean and Aphebian. N.L.T. 3100 and N.L.T. 2150 m.y.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.		FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED	
MAIN REFERENCE Thomson, R., 1961: Ontario Dept. of Mines Prelim. Rept. 1961-3, p. 139-154.					
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 19 68 THE MARCOBALT MINING SYNDICATE LTD. HISTORICAL NAME: CONIGAS MINES LTD. - CLAIM J.B.6		LAT. 04739500	REF. NO.
				LONG. 07968500	O.D.M.-Ag-0455003
GEOLOGY Low dipping Cobalt sediments up to 300' thick unconformably overlie steeply dipping Keewatin rocks that are cut by a Haileburian dioritic intrusive. The Conigas and West faults with low easterly dips strike NNE across the property. Almost the entire production of silver and cobalt has come from the Cobalt sediments within 200' of the surface in an area of about 17 acres in the NE part of the property. The veins form a complex network; included among the major producers are Veins Nos. 2, 18 and 28; of these, Vein No. 2 is the most important.		EXPLORATION AND DEVELOPMENT (Cont) with the 150' level of the No. 2 Shaft. 1943-47. Extensive surface diamond drilling programme was carried out.			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL: Archean and Aphebian N.L.T. 3100 and N.L.T. 2150 m.y. Volcanics and Sediments K/Ar Rb/Sr Pb/Pb Cl4 X X		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT	
AGE OF ORE MINERAL Post-Huronian N.G.T. 2150		K/Ar Rb/Sr Pb/Pb Cl4 X			
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W., 1922: Ontario Dept. of Mines, Vol. XXXI, pt. 2, Map 31a-11.			
MAP REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M. Maps P.97 and P.97A, 1961. 3. O.D.M. Map 31a-11, 1922.		ODM FILES			



COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: THE MARCOBALT MINING SYNDICATE LTD. HISTORICAL NAME CONIGAS MINES LTD. - CLAIM J.B.6.	LAT. 47°23'43"	REF. NO. O.D.M.-Ag-0455003
		LONG. 79°41'5"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to southeast corner of claim.	

ADDITIONAL REFERENCES:-

- Knight, C.W.,  
1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas. Ontario Dept. of Mines, Vol. XXXI, pt. 2, p. 82-86 and Map 31a-11.
- Parks, W.A.,  
1906: The Geology of a District from Lake Timiskaming Northward. Geology Survey of Canada.
- Thomson, R.,  
1961: Preliminary Report on part of Coleman Township Concession VI, Lots 1 to 6, District of Timiskaming; Ontario Dept. of Mines Prelim. Rept. 1961-3, p. 139-154.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: THE MARCOBALT MINING SYNDICATE LTD. HISTORICAL NAME: CONIGAS MINES LTD. - CLAIM J.B.6.	LAT. 47°23'43"	REF. NO. O.D.M.-Ag-0455003
		LONG. 79°41'5"	

N.B. The following statistics of production would include 500,000 ozs. of silver from the contiguous Trethewey claim during the period 1920-27.

YEAR	ORE		COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED TONS	SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1905	72	37			130,853	79,121					79,121
06	2,000	435			567,009	389,496					389,496
07	19,000	2,545	45,180	4,414	1,369,006	830,722					835,136
08	16,974	614	42,240	3,156	1,369,953	662,940					666,096
09	20,165	371			1,416,731	708,365					708,365
1910	39,061	453	15,900	1,518	2,621,681	1,310,840					1,312,358
11	53,671	553			3,273,465	1,636,736					1,636,736
12	53,515	1,944			3,703,942	1,851,971					1,851,971
13	53,431	1,530			3,252,566	1,626,283					1,626,283
14	56,167	1,152			2,459,008	1,229,504					1,229,504
15	55,020	868			1,916,615	958,308					958,308
16	58,294	2,016			1,816,287	919,370					919,370
17		5,374			1,273,853	1,039,929					1,039,929
18		1,382	16,492	2,474	1,006,104	992,490					994,964
19		968	21,593	3,239	918,063	1,073,933					1,077,172
1920			10,752	2,685	990,176	1,023,838					1,026,523
21	117,784	932			1,301,860	922,926					922,926
22		740	41,536	9,346	1,899,571	1,318,815			17,024	1,217	1,329,378
23	130,482	744	27,346	5,411	1,156,517	729,055			21,253	1,589	736,055
24	62,182	434	12,821	2,690	573,555	379,462			9,193	630	382,782
25		2			7,796	5,367					5,367
26		28			54,919	32,395					32,395
28	5				293	170					170
29	53	53			154,837	80,501					80,501
1930	35	109	43,808	3,527	222,449	89,862					93,389
33		64			154,553	68,590					68,590
37	2,540	2,539	417	90	53,365	21,209					21,299
38	4,360	1,360			13,645	5,210					5,210
39	26	26	3,206	3,785	16,593	4,951					8,736
1940	3,044	61	8,312	3,616	86,263	31,914	3,318	165			35,695
41	553	480	7,262	843	103,322	39,560					40,403
42	1,439	1,337	6,886	3,902	40,550	13,532					17,434
43	291	30	6,806	4,699	37,667	15,991					26,753
750,164	29,181	310,537	53,395	33,963,067	20,093,356	3,543	63	47,470	3,436	20,152,415	

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: SILVER-MILLER MINES LTD. HISTORICAL NAME: CONISIL MINES LTD.		LAT. 04736700	REF. NO.	
				LONG. 07965900	O.D.M.-Ag-0455052	
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. TIMISKAMING		
TP. or SQUARE	COLEMAN		004550	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. IV, Lot 3. Claim:- NW $\frac{1}{2}$ , S $\frac{1}{2}$ of lot 3. (Claim J.B. 27)		
LOCATION: Located about 2 $\frac{1}{2}$ miles southeast of town of Cobalt.			NTS 031M05E	UTM		
HISTORY OF OWNERSHIP: About 1905: Giant Silver Nugget Mines Ltd. 1946: Conisil Mines Ltd. 1960: Silver Miller Mines Ltd. 1967; Leased to Glen Lake Silver Mines Ltd. (Hiho)			EXPLORATION AND DEVELOPMENT 1905-1946:- Nugget Shaft was sunk 100' deep with 60'N drift. Island 22 Shaft was sunk about 100' deep. 5 adits, one from Conisil shaft extends 400' 1946-1966: Conisil Shaft was sunk 625' with levels at 310', 460', 535' and 610'. The 300' and 400' levels of the Lawson Shaft on the neighbouring claim were extended into the property. Total development to Dec. 1965:- Drifts, 3,742' crosscuts, 1,279'; raises, 3339'; and 18 diamond drill holes totalling 9,166'. 1967-1968:- Conisil Shaft has been dewatered. 2,500'W crosscut on 610' level is planned to extend beneath Dymamite Island. Conisil shaft		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1961-1965 Silver:- About 100,000 ozs. (5) (about 10,000 tons of ore were raised)	
MAJOR ORE MINERALS Silver.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS Chalcopyrite, sphalerite, galena, and pyrite.			Vein 1-S, striking N, extends for a horizontal length of 500'.			
ORE FABRIC Vein.			Vein 1-S, striking E, extends for a horizontal length of 250'.			
MAJOR GANGUE MINERALS Calcite.						
COUNTRY ROCK OR FORMATION Keewatin rocks intruded by Nipissing diabase.						
AGE: GEOLOGICAL ABSOLUTE Archean and Aphebian N.L.T. 3100 and 2150 m.y.			MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052, Cobalt Silver Area, 1964.			
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-6, p. 60-63.			FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED			
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: SILVER-MILLER MINES LTD. HISTORICAL NAME: CONISIL MINES LTD.		LAT. 04736700	REF. NO.	
				LONG. 07965900	O.D.M.-Ag-0455052	
GEOLOGY Nipissing diabase is the only rock to outcrop on the property. Keewatin rocks, encountered in underground workings, are intruded by the diabase. The bottom contact of the diabase dips about 25°S. The diabase on the 310-ft. level of the Conisil shaft is intersected by a fault that strikes WNW and dips 85°NNE. Silver bearing veins occur both within the Keewatin sediments and the diabase. Vein 1-S, the most important silver producing vein, divides at Conisil shaft to strike N and E. Production of silver with base metal mineralization such as sphalerite, chalcopyrite, galena and pyrite has been largely restricted to Keewatin chert bands.			EXPLORATION AND DEVELOPMENT (Cont) may become main shaft of the Hiho Giroux Lake Mine (0455047).			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS		
GEOLOGICAL AGE Archean and Aphebian		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Huronian		
ABSOLUTE AGE N.L.T. 3100 and 2150 m.y.				N.G.T. 2150 m.y.		
ROCK TYPE AND/OR MINERAL Volcanics and Diabase.						
METHOD K/Ar Rb/Sr Pb/Pb Cl4 X X		K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT		K/Ar Rb/Sr Pb/Pb Cl4 X		
COMPANY REPORTS			METALLURGY REFERENCE			
ECONOMICS REFERENCE			MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES 1. O.D.M. Map 2052, Cobalt Silver Area, 1964. 2. O.D.M. Map P.96, 1961.			ODM FILES			

COMMODITY Silver	NAME OF OCCURRENCE CIRCA 1968: SILVER-MILLER MINES LTD. HISTORICAL NAME: CONISIL MINES LTD.	LAT. 47° 22' 2"	REF. NO. O.D.M.-Ag-0455052
		LONG. 79° 39' 32"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to southeast corner of claim J.B. 27.	

ADDITIONAL REFERENCES:-

Kelley, T.J., and Riddell, G.S.  
 1965: Statistical Review of the Mineral Industry and Mining Operations for 1963, Ontario Dept. Mines, Ann. Rept. Vol.73, p.141.  
 1968: Statistical Review of the Mineral Industry and Mining Operations for 1965. Ontario Dept. Mines, Ann. Rept. Vol.75, p.136.  
 Thomson, R.  
 1961: Preliminary Report on parts of Coleman Township, Con. IV, Lots 1 to 5 and Gillies Limit, the Eastern "A" Claims, District of Timiskaming, Ontario Dept. of Mines, Prelim. Rept. 1961-6, p. 60-63.

COMMODITY Silver	NAME OF OCCURRENCE CIRCA 1968 SILVER-MILLER MINES LTD. HISTORICAL NAME: CONISIL MINES LTD.	LAT. 47° 22' 2"	REF. NO. O.D.M.-Ag-0455052
		LONG. 79° 39' 32"	

YEAR	ORE		COBALT	SILVER	Nkl	Cpnr	TOTAL VALUE
	RAISED	SHIPPED					
	TONS	TONS	Lbs.	Oz.	Lbs.	Lbs.	\$

COMMODITY		NAME OF OCCURRENCE:		LAT.	REF. NO.
Silver Cobalt		CIRCA 1968: COBALLOY MINES AND REFINERS LTD. HISTORICAL NAME: CONSOLIDATED SILVER BANNER PROPERTY		04734900	
				LONG.	O.D.M.-Ag-0455061
		CODE No.	MINING DIV.	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
CO. or DIST.	TIMISKAMING	59	TIMISKAMING	Con. III, Lot 1, Claim:- W part, SW $\frac{1}{2}$ , S $\frac{1}{2}$ No. 1423	
TP. or SQUARE	COLEMAN	004550		Con. II, Lot 2, Claim:- E part, SE $\frac{1}{2}$ , S $\frac{1}{2}$ No. 2016	
LOCATION:		NTS	UTM	Con. III, Lot 2, Claim:- W part, SE $\frac{1}{2}$ , S $\frac{1}{2}$ , 186	
3 $\frac{1}{2}$ miles southeast of Town of Cobalt.		031MOSE			
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
19 : Consolidated Silver Banner Property.		1918-58: Two shafts with underground workings:- Victory or C.S.B. No. 3 Shaft:- was sunk 618' with levels at 185', 325', 392', 469', 505' and 600'. There are sublevels at 493' and 515'. The 505' level workings extend south of the shaft and connect with those on the adjacent Ophir Claim.		Silver (1927-58):- at least 40,000 ozs. 1964:- 1,701 ozs.	
191 : Temiskaming Extension Syndicate.					
1921: Victory Silver Mines Ltd.					
1947: Silver Banner Mines Ltd.				Copper 1964:- 412 lbs.	
1950: Consolidated Silver Banner Mines Ltd.		C.S.B. No. 2 Shaft:- was sunk 100'			
1954: Silver Crater Mines Ltd.		1963-64:- 130' of drifting and 50' of cross- cutting were carried out on 475' level.			
1957: Leased to Coballoy Mines & Refiners Ltd		1965:- Total development footage includes: 4,165' of drifts 3,293' of crosscuts and		Source: O.D.M. PR. 1961-7, p.62	
1963 : Amerigo Silver Mines Ltd.		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X	
MAJOR ORE MINERALS Silver and Smaltite		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS Chalcopyrite, pyrrhotite, sphalerite and galena.		N Vein System:- extends horizontally for a length of about 500.			
ORE FABRIC Vein.		NW Vein System or No.1 Vein System:- extends horizontally for a length of about 900'.			
MAJOR GANGUE MINERALS Quartz and calcite					
COUNTRY ROCK OR FORMATION Keewatin volcanic, Lorrain Granite and Nipissing diabase.					
AGE: GEOLOGICAL ABSOLUTE					
Archean, Archean and Aphebian N.L.T. 3100, 2390, 2150 m.y.					
MAIN REFERENCE		MAP REFERENCE USED FOR LOCATION		FILE STATUS:	DATE
Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-7, p. 57-68		O.D.M. Map 2052, Cobalt Silver Area, 1964.		SKELETAL INCOMPLETE COMPLETED REVISED	1968
				SIGNATURE	A.O.S.
COMMODITY		NAME OF OCCURRENCE:		LAT.	REF. NO.
Silver Cobalt		CIRCA 1968: COBALLOY MINES AND REFINERS LTD. HISTORICAL NAME: CONSOLIDATED SILVER BANNER PROPERTY		04734900	
				LONG.	O.D.M.-Ag-0455061
GEOLOGY NW striking Keewatin volcanics, cut by Haileyburian lamprophyre dikes, are intruded by Nipissing diabase sill; in the SE portion of the property they are also intruded by Lorrain granite whose contact strikes NNE. Several NW and two NNE trending faults cross the property. The arcuate NW striking and E dipping Victory Fault is the most important. Two vein systems occur: N and NW in strike. The cobalt- silver mineralization which approaches ore grade is restricted to the Upper Nipissing-Keewatin contact. Chalcopyrite, pyrrhotite sphalerite and galena occur as disseminated sulphides in Keewatin volcanics.		EXPLORATION AND DEVELOPMENT (Cont)			
		336' of raises. 67 underground diamond drill holes, totalling 17,499' were also completed.			
ALTERATION Keewatin lavas show variable development of epidote and feldspar		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE		K/Ar Rb/Sr Pb/Pb C14		Post-Huronian N.G.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL		NAME OF TECTONIC EVENT			
METHOD				X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES		ODM FILES			
1. O.D.M. Map 2052, Cobalt Silver Area, 1964. 2. O.D.M. Maps P.96 and P.96A, 1961.					

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 19 68: COBALLOY MINES AND REFINERS LTD. HISTORICAL NAME: CONSOLIDATED SILVER BANNER PROPERTY	LAT. 47° 20' 56"	REF. NO. O.D.M.-Ag-0455061
		LONG. 79° 38' 35"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to southeast corner of claim No. 2016.	
ADDITIONAL REFERENCES:- Knight, C.W. 1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas, Ontario Dept. Mines, Vol.XXXI, pt.2, p.184. Thomson, R. 1961: Preliminary Report on parts of Coleman Township, Con. III, Lots 1 to 3, Claims A48 to 58 and A88 to 100, District of Timiskaming, Ontario Dept. Mines, Prelim. Rept. 1961-7, p. 57-68.			
COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 19 68 COBALLOY MINES AND REFINERS LTD. HISTORICAL NAME: CONSOLIDATED SILVER BANNER PROPERTY	LAT. 47° 20' 56"	REF. NO. O.D.M.-Ag-0455061
		LONG. 79° 38' 35"	

YEAR	ORE RAISED	ORE & CONC. SHIPPED	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	TONS	TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	\$
1964	469	27			1,701	2,381			412	138	2,519

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 19 : DEER HORN MINES LTD. HISTORICAL NAME: CROSS LAKE O'BRIEN PROPERTY		LAT. 04738800 LONG. 07964000	REF. NO. O.D.M.-Ag- 0455040
CO. or DIST. TIMISKAMING TP. or SQUARE COLEMAN	CODE No. 59 004550	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACKNOWLEDGEMENT Con. VI, Lot 2. Claims:- T.19300, T.19303, T.19306, No.636, T.19301, No.649, T.19304, T.19305, No.16, and J.S.143. Con.V, Lots 1 and 2. Claims:- No.679, No.280, No.363, T.20099. 147 and J.S.146.	
LOCATION: Located north of Cross Lake that is about 2 miles east of town of Cobalt.		NIS 031M03E	UTM		
HISTORY OF OWNERSHIP: 19 : 1923: M.J. O'Brien Ltd. 1940: Leased to Cross Lake Lease 1948: Leased to L.J. O'Shaughnessy (Shag Silver Mines Ltd.) 195 : Agnico Mines Ltd. 1958: Leased to Deer Horn Mines Ltd. 1963: Deer Horn Mines Ltd.		EXPLORATION AND DEVELOPMENT About 1905. Extensive surface prospecting began: 1908. Trinity Shaft, about 150' deep, was sunk. 1922. Cross Lake O'Brien No.1 vein was discovered. 1923-53. Extensive diamond drilling program began to test the downward extension of No.1 vein. Cross Lake O'Brien Shaft or Main Shaft was sunk to a depth of 590' with levels at 270', 395', and 450'. 1958-64. The Main Shaft was deepened to depth of 900' with two winzes at 656' and 800' below surface. Development work includes: drifting, 5,813'; cross-cuttings, 2,548'; raisings,		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) (1960-65) Silver Cobalt 2,637,057 ozs. 98,248 lbs. \$3,112,331. \$157,239. Nickel Copper 32,217 lbs. 158,467 lbs. \$30,142. \$51,801. 1928-42 Silver: about 9,000,000 ozs. O.D.M. statistical files.	
MAJOR ORE MINERALS Silver and cobalt arsenides.		OCURRENCE		RAW PROSPECT	DEVELOPED PROSPECT
MINOR ORE MINERALS Skutterudite, rammelsbergite, chalcocopyrite, niccolite, galena and sphalerite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Vein No.1:- has an ore shoot that extends 900' horizontally and 700' vertically. Vein No.2:- extends for a horizontal length of 2,000'. Vein No.16:- with a horizontal length of about 500' extends vertically for a depth of about 100'. Grade (1960-65):- Silver, 20 ozs/ton; Cobalt, .7 lb/ton; Nickel, .2 lb/ton and Copper, 1.2 lb/ton. Vein No.40 (1967): On 900' level contains silver ore over 130' length Vein No.52 (1967): Silver mineralization extends over 240' length.		PRODUCER * PAST PRODUCER	
ORE FABRIC Vein.		COUNTRY ROCK OR FORMATION Keewatin rocks and Cobalt Series sediments are intruded by Nipissing diabase.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.	
MAJOR GANGUE MINERALS Calcite.		AGE: GEOLOGICAL ABSOLUTE Archean and Aphebian N.L.T.3100, N.L.T.2150 and 2150 m.y.		FILE STATUS: DATE SIGNATURE SKETCHED INCOMPLETE COMPLETED 1968 A.O.S. REVISED	
MAJOR REFERENCE: Thomson, R., 1961: O.D.M. Prelim. Rept. 1961-4, p. 15-22.					
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 19 : DEER HORN MINES LTD. HISTORICAL NAME: CROSS LAKE O'BRIEN PROPERTY		LAT. 04738800 LONG. 07964000	REF. NO. O.D.M.-Ag- 0455040
GEOLOGY Within the property Nipissing diabase, about 500' thick forms the Nipissing Diabase Arch that trends NNE and separates the Peterson from the Lorrain basin. In the eastern part Cobalt sediments 225' thick, underlie the diabase about the crest of the arch; in the west part Keewatin rocks cut by Halleyburian lamprophyre dikes occur in underground workings from the main shaft. The west portion of the property is also crossed by NW striking Cross Lake Fault and Cross Lake olivine diabase dike. The most important producing veins found till 1959 are Nos. 1, 2 and 6. Vein No.1 is arcuate in nature and strikes generally SW; it was productive mostly in the diabase. Veins Nos. 2 and 6 striking WNW with steep dips were most productive in the Keewatin rocks. Vein No.10 is closely associated with WNW striking Vein No.10 Fault. After 1960, pipe silver zones were discovered; veins Nos.7, 16 and 27 account for most of current production.		EXPLORATION AND DEVELOPMENT (Cont) 10,025' and 1,037' underground diamond drill holes, totalling 134,054'. Total development footage to 1964 is as follows: drifts, 45,206'; cross-cuts, 15,072'; and raises, 14,103'. Nine new silver zones were discovered of which six were brought into production. 1965-68. On 900' level the NW No.40 vein has been developed and also the parallel No.52 vein, for further development of these veins a 260' inclined shaft is planned and 1000' of drifting below the 900' level.			
ALTERATION The veins in the diabase show well-marked "dark and light" wall rock alteration		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL: Archean, Aphebian and Aphebian N.L.T.3100, N.L.T.2150 & 2150 m.y. Volcanics, Sediments and Diabase		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	
AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.		K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964 2. O.D.M. Maps P.97 and P.97A, 1961		O.D.M. FILES			

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: DEER HORN MINES LTD. HISTORICAL NAME: CROSS LAKE O'BRIEN PROPERTY	LAT. 47°23'18"	REF. NO. O.D.M.-Ag-0455040
		LONG. 79°38'25"	
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Latitude and longitude refer to southeast corner of claim No. 679.  Geology continued:-  1965-68: On the 900' level the very strong No.40 vein structure has been found to strike NW along the Cross Lake Fault, and parallel to it, about 50' northeast, the new No.52 vein has been discovered Both veins are rich in silver.	

ADDITIONAL REFERENCES:-

- Bourne, D.A.,  
1951: Wall rock Alteration in the Nipissing Diabase Sill, Cobalt, Ontario. Unpublished M.Sc. Thesis, McMaster University, p.53.
- Hriskevich, M.E.,  
1952: Petrology of the Nipissing Diabase Sheet. Ph.D. Dissertation, Princeton University, p.68.
- Riddell, G.S.,  
1965: Statistical Review of the Mineral Industry and Mining Operation for 1963. Ontario Dept. Mines, Ann. Rept., Vol. 73, p. 126-128.  
1966: Statistical Review of the Mineral Industry and Mining Operations for 1964. Ontario Dept. Mines, Ann. Rept. V. 74, p. 125-126.
- Thomson, Ellis.,  
1931: A quantitative study of Cross Lake Ores, University of Toronto Studies, Geological Series No.30.  
1933: Further quantitative studies of Cross Lake Ores. University of Toronto Studies, Geological Series No. 32, p.34.
- Thomson, R.,  
1961: Preliminary Report on Part of Coleman Township, Con VI, Lots 1 to 6, Ontario Dept. Mines, Prelim. Rept. 1961-3, p.61.  
: Preliminary Report on part of Coleman Township, Concession V, Lots 1 to 6, District of Timiskaming, Ontario Dept. Mines Prelim. Rept. 1961-4, p. 15-22.
- C.I.M.M.  
1967: Cobalt and District; Guidebook of C.I.M.M. Centennial Field Excursion, p.153.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: DEER HORN MINES LTD. HISTORICAL NAME: CROSS LAKE O'BRIEN PROPERTY.	LAT. 47° 23' 18"	REF. NO. O.D.M.-Ag-0455040
		LONG. 79° 38' 25"	

Individual Production statistics for this Property prior to 1960 are not known; see O'Brien Mine, O.D.M.-Ag-0455014

YEAR	ORE		COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
	RAISED TONS	ORE & CONC. SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1960	15,532	423	67,494	122,636	681,483	605,907	19,743		18,709		754,171
61	8,725	265	5,055	7,833	135,967	128,162		846		9,107	139,049
62	22,022	747	4,152	6,228	419,471	483,684	1,919		19,666		502,610
63	30,257	1,075			694,470	961,646			41,535		974,647
64	26,951	897	7,073	12,024	364,348	510,151	2,108		40,711		531,496
65	26,183	768	4,474	8,768	341,268	477,775	7,596		28,739		503,540
	129,670	4,175	88,248	157,239	2,637,057	3,172,331	32,217		158,467		3,411,513
66			8,876	15,000	209,046	292,456	6,626		14,144		319,293

1928 to 1942: Silver production possibly of order of 9,000,000 ozs.  
Cobalt production possibly of order of 600,000 lbs.

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: CROWN RESERVE MINING CO. LTD.		LAT. 04737600 LONG. 07965900	REF. NO. ODM-Ag-0455053								
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con IV, Lot 3.									
TP. or SQUARE COLEMAN	004550	NTS	UTM	CLAIM:- a 23 acre claim on Kerr Lake bottom									
LOCATION: 2 miles southeast of town of Cobalt		031M05E											
HISTORY OF OWNERSHIP: 1907: Crown Reserve Mining Co. Ltd. 1946: Messrs. J.H. Price, D.J. Russell and F.H. Todd. 1951: Penn-Cobalt Silver Mines Ltd. 1953: Cobalt Consolidated Mining Corp. Ltd. 1957: Agnico Mines Ltd. 1966: Leased to Glen Lake Silver Mines Ltd.		EXPLORATION AND DEVELOPMENT Two Shafts with underground workings:- Crown Reserve Shaft:- 300' deep with levels at 50', 100', 150', 200', 250', and 300'; from 300' level winze goes down to the 460' level (continuous with the North Shaft 500' level) North Shaft:- is on the contiguous Silver Leaf claim and is 500' deep with one level at 500'. From this level a winze was sunk on the North vein and sublevels were established at 550', 700' and 800' depths from the shaft collar.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) (1908-1948) <table border="1"> <tr> <td>Silver</td> <td>Cobalt</td> </tr> <tr> <td>20,325,302 ozs</td> <td>33,682 lbs</td> </tr> <tr> <td>\$11,478,312</td> <td>\$6,681</td> </tr> <tr> <td colspan="2">Total Value:- \$11,484,993</td> </tr> </table> O.D.M. Statistical Files		Silver	Cobalt	20,325,302 ozs	33,682 lbs	\$11,478,312	\$6,681	Total Value:- \$11,484,993	
Silver	Cobalt												
20,325,302 ozs	33,682 lbs												
\$11,478,312	\$6,681												
Total Value:- \$11,484,993													
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X									

MAJOR ORE MINERALS Silver and Smaltite.  
MINOR ORE MINERALS  
ORE FABRIC Vein  
MAJOR GANGUE MINERALS Calcite.  
COUNTRY ROCK OR FORMATION Keewatin volcanics and Cobalt Series sediments intruded by Nipissing diabase.  
AGE: GEOLOGICAL ABSOLUTE  
Archean, Aphebian, Aphebian. N.L.T.:3100, .L.T.:2150, 2150 m.y.

DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES  
Between 1910 and 1919 production of silver from the four most important veins was as follows:- Carson Vein : 9,211,279 ozs, with an ore shoot of 286' long and productive over a depth of 200' where it occurs in the Cobalt Series.  
No.17 Vein:- 2,821,000 ozs with a horizontal length of about 500'. Ross Vein:- 2,757,500 ozs. Gear Vein:- 2,463,000 ozs.  
Grade (1908 to 1916):- Silver 346 ozs/ton.

MAIN REFERENCE  
THOMSON, R.,  
1961 O.D.M. Prelim. Rept. 1961, p.39-44

MAP REFERENCE USED FOR LOCATION  
ODM Map 2052, Cobalt Silver Area, 1964.

FILE STATUS:	DATE	SIGNATURE
SKELETAL		
INCOMPLETE		
COMPLETED	1968	A.O.S.
REVISED		

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968 AGNICO MINES LTD. HISTORICAL NAME: CROWN RESERVE MINING CO. LTD.		LAT. 04737600 LONG. 07965900	REF. NO. ODM-Ag-0455053
GEOLOGY Keewatin rocks cut by Haileburian lamprophyre are overlain by shallow dipping Cobalt sediments. The Nipissing diabase sill dipping 45°N constitutes the northern limb of the Kerr Lake arch and cuts across the bedding of the Cobalt sediments. The west end of the claim is traversed by four most important silver cobalt producing calcite veins, namely, Carson, No.17, Ross and Gear. These veins lie parallel to the WSW trending Kerr Lake arch. The ore shoots are restricted to the Cobalt Series sediments.		EXPLORATION AND DEVELOPMENT (Cont)			

ALTERATION Intense chloritic alteration of the spotted type was developed in the Cobalt Series conglomerate.		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Archean, Aphebian, Aphebian N.L.T. 3100, N.L.T. 2150, 2150 m.y. Volcanics, Sediments, Diabase.		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	
				AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X X	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W. O.D.M. Vol. XXXI, pt.2, Map Sheet 31a-7 and 1922. 31a-2.		
MAP REFERENCES 1. O.D.M. Map 2052, Cobalt Silver Area, 1964. 2. O.D.M. Map p 96, 1961.			ODM FILES		



LOCALITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver	CIRCA 19 68 AGNICO MINES LTD.	47° 22' 33"	
Cobalt	HISTORICAL NAME: CROWN RESERVE MINING CO. LTD.	LONG. 79° 39' 32"	ODM-Ag-0455053
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Longitude and latitude refer to the Crown Reserve Shaft, at the SW end of the claim.	

ADDITIONAL REFERENCES:-

- KNIGHT, C.W.  
1922: Geology of the mine workings of Cobalt and South Lorrain Silver Areas. Ontario Department of Mines, Vol. XXXI, pt.2, p.101-112 and Map 31a-2 and 3a-7.
- THOMSON, R.  
1961: Preliminary Report on parts of Coleman Township Concession W, Lots 1 to 5 and Gillies Limit, the Eastern "A" Claims, District of Timiskaming, Ontario Department of Mines Prelim. Rept. 1961-6, p. 39-44.

LOCALITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver	CIRCA 19 68: AGNICO MINES LTD.	47° 22' 33"	
Cobalt	HISTORICAL NAME: CROWN RESERVE MINING CO. LTD.	LONG. 79° 39' 32"	O.D.M.-Ag-0455053

YEAR	ORE RAISED TONS	ORE & CONG. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1908	651	631		703	1,698,955		859,647				860,350
1909	3,092	3,092		1,245	4,034,325		2,078,311				2,080,156
1910	2,753	2,753			3,248,196		1,757,824				1,757,824
1911	1,048	1,048			3,430,902		1,833,517				1,833,517
1912	546	545			2,714,765		1,638,192				1,638,192
1913	313	337			1,776,678		1,056,272				1,056,272
1914	31,917	237			1,425,320		721,873				721,873
1915	80	14,756			512,396		260,660				260,660
1916	14,760				262,470		182,822				182,822
1917		16			309,420		247,614				247,614
1918			915	135	301,507		292,113				292,248
1919		14	2,098	278	265,853		303,126				303,404
1920		5,125	1,302	252	65,232		77,256				77,508
1921					1,121		729				729
1922	5	5			16,959		10,522				10,522
1923		5			16,816		10,716				10,716
1924	403	921	1,337	351	40,453		28,087				28,438
1925	1,318	1,328		975	302	54,792	37,773				38,075
1926	1,710	1,708	1,735	340	72,695		43,107				43,447
1927		2	314	58	3,371		1,895				1,953
1929		5	9,005	484	13,231		6,877				7,361
1930		5	6,893	330	12,236		4,283				4,613
1931		4	4,510	218	8,424		2,386				2,604
1934		4			7,274		3,273				3,273
1935		8			10,551		6,208				6,208
1936		2	2,146	78	742		263				341
1937		5	689	276	3,344		1,504				1,780
1938		11	669	228	2,587		1,243				1,471
1939					822		611				611
1940			536	536	2,152		833				1,369
1948		3	558	267	11,713		8,775				9,042
	58,596	32,617	33,682	6,681	20,325,302		11,478,312				11,484,993



COMMODITY	NAME OF OCCURRENCE	LAT. 47° 22' 29"	REF. NO.
Silver	CIRCA 1968: SILVER MILLER MINES LTD.	LONG. 79° 38' 54"	ODM-Ag-0455056
Cobalt	HISTORICAL NAME: DRUMMOND MINES LTD.		
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Longitude and Latitude refer to southeastern corner of south claim.	

ADDITIONAL REFERENCES:-

KNIGHT, C.W.  
1922: Geology of the mine working of Cobalt and South Lorrain silver areas. Ontario Department of Mines, Vol. XXXI, pt.2, p.158.

THOMSON, R.  
1961: Preliminary Report on parts of Coleman Township, Concession IV, Lots 1 to 5, and Gillies Limite, the Eastern "A" claims, District of Timiskaming. Ontario Department of Mines Prelim. Rept. 1961-6, p.27-30.

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 22' 29"	REF. NO.
Silver	CIRCA 1968: SILVER MILLER MINES LTD	LONG. 79° 38' 54"	ODM-Ag-0455056
Cobalt	HISTORICAL NAME: DRUMMOND MINES LTD.		

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cpnr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1905	75	31	6,500	3,906	26,400	13,594					17,500
06	235	319	164,000	26,561	287,348	193,353					219,914
07	131	102	17,207	1,400	256,626	168,110					169,510
08	1,085	1,087	37,204	3,168	718,793	328,420					331,588
09		1,874			74,960	21,550					21,550
1910	2,115	2,115			120,573	29,448					29,448
11		956			146,625	69,027					69,027
12	903	902			232,348	126,103					126,103
13	11,565	4,520			509,860	240,107					240,107
14	18,595	20,216			712,892	352,646					352,646
15	19,000				507,367	146,290					146,290
16	6,961	6,955			185,504	61,950					61,950
17		147			32,128	24,346					24,346
18		1,144			20,629	14,724					14,724
1929		10	20,898	731							731
30					550	210					210
34	5	5			13,605	6,712					6,712
35	48	61			23,010	14,862					14,862
36		87			18,367	7,699					7,699
	60,808	40,531	245,809	35,766	3,887,585	1,819,151					1,854,917

Silver		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: FARAH MINING CO.LTD.		LAT. 04738100 LONG.07965300		REF.NO. ODM-Ag-0455 036																
CO. OF DISC. TIMISKAMING		CODE No. 59		MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIM OR LEASE ACREAGE Con V, lot 3. CLAIM:- NE 1/4, S 1/4 of lot 3.																
TOWN OF COLEMAN		004550		NTS 031M05E																		
Located 1/2 mile SE of Peterson Lake that is about 2 miles SE of town of Cobalt																						
HISTORY OF OWNERSHIP:				EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)																
1908 - Farah Mining Co.Ltd. 1910 - Extension Mining Co.Ltd. 1922 - Optioned to Mining Corp. of Canada 1955 - Optioned to South Giroux Mines Ltd. 19 - Agnico Mines Ltd.				1908. Surface and sub-surface work commenced. 1910-22. Four shafts were sunk. No.3 Shaft:- is 90' deep with levels at 83' and 90' and sublevel at 56'. A 150' drift occurs on the 90' level. A small sublevel was established at 133' by a winze from the 83' level. NE or No.1 shaft is 150' deep with a drift that extends 200' north. SW or No.2 Shaft:- is 150' deep with levels at 75' and 150'. On the 1st level a drift was driven north 140' and on the second level 100'. North shaft: is 30' deep. 1955. Eleven surface diamond drill holes with aggregate length of 1,515' were completed.		Silver (1923 and 26) 8,952 ozs \$4,769 Total value \$4,769 ODM Statistical Files.																
MAJOR ORE MINERALS Silver,				DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES																		
MINOR ORE MINERALS Chalcopryrite and pyrite				WNW Vein:- With a horizontal length of 300' extends vertically to a depth of 80'.																		
ONE FABRIC Vein. MAJOR GANGUE MINERALS Calcite. COUNTRY ROCK OR FORMATION Keewatin volcanics intruded by the Nipissing diabase.				Grade (1923):- silver 15 ozs/ton.																		
AGE: GEOLOGICAL ABSOLUTE Archean and Aphebian. N.L.T. 3100 and 2150 m.y.				MAP REFERENCE USED FOR LOCATION																		
MAIN REFERENCE: THOMSON, R. 1961: ODM Prelim Rept. 1961-4, p45-47				ODM Map 2050, Cobalt Silver Area, 1964.		<table border="1"> <tr> <td>STATUS:</td> <td>DATE</td> <td>STATUS</td> </tr> <tr> <td>SEARCHED</td> <td></td> <td></td> </tr> <tr> <td>INDEXED</td> <td></td> <td></td> </tr> <tr> <td>COMPLETED</td> <td>1968</td> <td>A.O.S.</td> </tr> <tr> <td>REVISED</td> <td></td> <td></td> </tr> </table>		STATUS:	DATE	STATUS	SEARCHED			INDEXED			COMPLETED	1968	A.O.S.	REVISED		
STATUS:	DATE	STATUS																				
SEARCHED																						
INDEXED																						
COMPLETED	1968	A.O.S.																				
REVISED																						
Silver		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: FARAH MINING CO.LTD.		LAT. 04738100 LONG. 07965300		REF.NO. ODM-Ag-0455 036																
GEOLOGY Keewatin volcanics cut by Haileyburian hornblende lamprophyre are intruded by the Nipissing diabase sill. The upper contact of the Nipissing diabase strikes N and dips 10°W. The Cyril Lake Fault striking NE traverses the claim. The host rocks of the silver bearing veins are both Keewatin and Nipissing diabase. The silver produced came entirely from a vein that strikes N60W and is located about 820' north of the SW corner of the claim. Chalcopryrite and pyrite occur with cobalt in a calcite vein showing epidotization at the North Shaft.				EXPLORATION AND DEVELOPMENT (Cont)																		
ALTERATION Calcite vein at North shaft shows albite and epidote alteration		METAMORPHISM		MINERAL PARAGENESIS																		
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL: Archean and Aphebian N.L.T. 3100 and 2150 m.y. Volcanics and Diabase		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.																
		X X		NAME OF TECTONIC EVENT		X																
COMPANY REPORTS				METALLURGY REFERENCE																		
ECONOMICS REFERENCE				MILLING REFERENCE																		
GEOCHEMICAL DATA REFERENCE				MINING REFERENCE																		
GEOPHYSICAL DATA REFERENCE				MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION																		
MAP REFERENCES 1. ODM Map 2050, Cobalt Silver Area, 1964. 2. ODM Map p.97 1961.				ODM FILES																		

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 22' 51"	REF. NO.
Silver	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: FARAH MINING CO. LTD.	LONG. 79° 39' 12"	O.D.M.-Ag-0455036
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Longitude and latitude refer to southeast corner of claim.	
ADDITIONAL REFERENCES:-			
1909: Eighteenth Report of the Ontario Bureau of Mines. Ontario Bur. Mines, Vol.XVIII, pt.1, p.103, and 105.			
Thomson, R.			
1961: Preliminary Report on part of Coleman Township, Concession V, Lots 1 to 6, District of Timiskaming, Ontario Dept. Mines, Prelim. Rept. 1961-4, p. 45-47.			
COMMODITY	NAME OF OCCURRENCE	LAT. 47° 22' 51"	REF. NO.
Silver	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: FARAH MINING CO. LTD.	LONG. 79° 39' 12"	O.D.M.-Ag-0455036

YEAR	ORE	ORE & CONC.	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED TONS	SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	\$
1923	557	557			8,355	4,411					4,411
26		1			597	358					358
	557	558			8,952	4,769					4,769

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 19 68; AGNICO MINES LTD.		LAT. 04737200	REF. NO.
Cobalt		HISTORICAL NAME: FOSTER COBALT MINING CO. LTD.		LONG. 07966400	ODM-Ag-0455049
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE COLEMAN	004550			Con IV, Lot 4 Claim:- SE $\frac{1}{2}$ , N $\frac{1}{2}$ of Lot 4.	
LOCATION: Located east of Foster Lake, about 1 $\frac{1}{2}$ miles southeast of town of Cobalt.		NTS 031M05E	UTM		

HISTORY OF OWNERSHIP: 1906: Foster Cobalt Mining Co. Ltd. 1909: Leased to Argentum Mines Ltd. 1915-16: Leased to Glen Lake Cobalt Mines Ltd. 1943: Cobalt Products Ltd. Silanco Mining and Smelting Corp. Ltd. 1952: Penn-Cobalt Silver Mines Ltd. 1953: Cobalt Consolidated Mining Corp. Ltd. 1958: Agnico Mines Ltd.	EXPLORATION AND DEVELOPMENT Seven shafts were put down in the early days but as these were on veins, they were destroyed by later stoping. The No.5 Foster Shaft is about 200' deep with levels at 70', 140' and 210' depths. An adit near the east shore of Glen Lake connects with the 70' level. 1965: Some further exploration was carried out.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY) (1905 to 1956 excluding 1946 to 1950, and 1953-1954) <table border="1"> <tr> <td>Silver</td> <td>Cobalt</td> </tr> <tr> <td>1,159,390 ozs</td> <td>457,164 lbs</td> </tr> <tr> <td>\$777,308</td> <td>\$276,446</td> </tr> <tr> <td>Nickel</td> <td>Copper</td> </tr> <tr> <td>21,766 lbs</td> <td>24,121 lbs</td> </tr> <tr> <td>\$12,603</td> <td>\$9,052</td> </tr> </table> O.D.M. Statistical Files	Silver	Cobalt	1,159,390 ozs	457,164 lbs	\$777,308	\$276,446	Nickel	Copper	21,766 lbs	24,121 lbs	\$12,603	\$9,052
	Silver	Cobalt												
1,159,390 ozs	457,164 lbs													
\$777,308	\$276,446													
Nickel	Copper													
21,766 lbs	24,121 lbs													
\$12,603	\$9,052													
OCCURRENCE		RAW PROSPECT	DEVELOPED PROSPECT	PRODUCER	PAST PRODUCER									

MAJOR ORE MINERALS Silver and Smaltite	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS Sphalerite, galena, chalcopyrite, pyrite and pyrrotite.	Where complete replacement of Chert took place ore locally graded:- zinc 20.15%, lead 8.3%, copper 0.58%, cobalt 0.28%, silver 1.53 ozs/ton, gold trace. The base metals were explored to a vertical depth of 500' by 11,500' of "D drilling" from the 140' and 210' levels of the No.5 shaft.
ORE FABRIC Vein	Grade Silver: 658 ozs/ton. (1905-1909)
MAJOR GANGUE MINERALS Calcite	Cobalt: 410 ozs/ton. (1905-1909)
COUNTRY ROCK OR FORMATION Keewatin rocks and Cobalt sediments intruded by Nipissing diabase.	
AGE: GEOLOGICAL ABSOLUTE Archean, Apehbian, Apehbian. N.L.T. 3100, N.L.T.2150, and 2150m.y.	

MAIN REFERENCE THOMSON, R. 1961: O.D.M. Prelim. Rept. 1961-6, p. 64-73.	MAP REFERENCE USED FOR LOCATION	FILE STATUS:	DATE	SIGNATURE
	O.D.M. Map 2052, Cobalt Silver Area, 1964	SKELETAL INCOMPLETE COMPLETE D REVISED	1968	A.O.S.

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968; AGNICO MINES LTD.		LAT. 04737200	REF. NO.
Cobalt		HISTORICAL NAME: FOSTER COBALT MINING CO. LTD		LONG. 07966400	ODM-Ag- 0455049
GEOLOGY Flat lying Cobalt Series sediments lying unconformably above steeply dipping Keewatin volcanics are overlain by Nipissing diabase (in the NW $\frac{1}{2}$ of the claim) where the diabase forms the SW end of the SW trending Kerr Lake Arch. Calcite veins were productive in the Keewatin and Cobalt rocks. 11 silver-cobalt producing veins, including the Foster No.5 Vein, the largest base metal producer in the Cobalt Camp, strike NW (sub) parallel to bedding on the Keewatin volcanics where the base metals occur as replacements of chert beds and not in vein forms.		EXPLORATION AND DEVELOPMENT (Cont)			

ALTERATION Well marked spotted chlorite alteration occurs in parts of the Cobalt sediments.	METAMORPHISM	MINERAL PARAGENESIS			
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean Apehbian, Apehbian N.L.T. 3100 N.L.T. 2150, 2150 m.y. Volcanics, Sediments, Diabase	AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150m.y.	
	K/Ar Rb/Sr Pb/Pb C14 X X	K/Ar Rb/Sr Pb/Pb C14	NAME OF TECTONIC EVENT X		

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION Knight, C.W. 1922: O.D.M., Vol. 31, pt. 2, Map Sheets 31a-c and 9.
MAP REFERENCES 1. O.D.M. Map 2052, Cobalt Silver Area, 1964 2. O.D.M. P.69, 1961- 3. O.D.M. Maps 31a-8, and 9 1922.	ODM FILES

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 22' 20"	REF. NO.
Silver	CIRCA 19 : AGNICO MINES LTD.	LONG.	
Cobalt	HISTORICAL NAME: FOSTER COBALT MINING CO. LTD.	79° 39' 50"	ODM - Ag- 0455049

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1905	110	85	136,000	1,300	110,000	66,000					67,300
06	120	115	2,000	,620	64,450	38,800					39,420
07	292	264		10,000	209,000	100,000					110,000
08	209	209	160,000	5,300	99,500	52,100					57,400
09	53	107	23,550	3,180	33,055	16,528					19,708
10					561	280					280
14	4	5			7,145	3,812					3,812
16	1,430	1,430			42,605	23,247					23,247
18		2,590			7,700	7,451					7,451
19		2,683	7,195	1,151	137,464	143,476					144,627
1920		9,284			178,282	123,580					123,580
23	5	5	259	54	6,502	4,155					4,209
24	9	9	932	251	19,513	13,062					13,313
25	5	9	1,252	263	8,975	6,118					6,381
26	10	10	1,815	490	2,760	1,474					1,964
27		19			3,030	1,818					1,818
29	15	15	2,940	1,376	9,230	4,236					5,612
1930		32	5,364	3,218	13,974	5,310					8,528
31		5	2,170	948							948
32		3	457	171	2,027	558					729
33		3			8,696	3,573					3,573
34		6			6,455	3,089					3,089
35		4	650	130	1,591	970					1,100
36		20	3,719	1,634	579	231					1,865
37		7	1,100	877	1,002	448					1,325
38		20	3,922	1,000	102	44					1,044
39		19	3,206	3,206	2,809	1,137	521	52			4,395
1944	35	35	5,834	2,520	15,121	3,161					5,681
45		3	338	279	7,124	3,348					3,627

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 22' 20"	REF. NO.
Silver	CIRCA 1988 : AGNICO MINES LTD.	LONG.	
Cobalt	HISTORICAL NAME: FOSTER COBALT MINING CO. LTD.	79° 39' 50"	ODM - Ag- 0455049

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1951	981	48	9,262	21,210	3,004	2,840	990	552	3,029	839	25,441
52	1,540	65	11,310	26,578	45,092	35,990	1,940	1,061	867	243	63,872
53											
55			45,263	116,800	10,185	9,212	9,387	6,102	8,923	3,291	135,405
56			28,626	73,890	101,857	91,260	7,886	4,732	11,302	4,679	174,561
	<u>2,818</u>	<u>17,199</u>	<u>457,164</u>	<u>276,446</u>	<u>1,159,390</u>	<u>777,308</u>	<u>21,766</u>	<u>12,603</u>	<u>24,121</u>	<u>9,052</u>	<u>1,065,305</u>

COMMODITY		NAME OF OCCURRENCE:		LAT.	04737100	REF. NO.
Silver	CIRCA 1968; SILVER-MILLER MINES LTD.			LONG.	07964900	ODM-Ag-0455055
Cobalt	HISTORICAL NAME:HARGRAVE SILVER MINES LTD					
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.		
TP. or SQUARE	COLEMAN	004550		TIMISKAMING		
LOCATION:				NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
2½ miles southeast of town of Cobalt				031M05E		Con IV, Lot 2, Claim:- SW¼, N½ of Lot 2. Con IV, Lot 3, Claim:- NE¼, S½ of Lot 3
HISTORY OF OWNERSHIP:				EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1905-1920
1905: White Silver Co. Ltd.				1905-1928:- Two shafts with underground workings:		Silver:- 506,927 ozs. \$283,438
1908: Hargrave Silver Mines Ltd.				Shaft No.3:- 550' deep with levels at 65',75',		Cobalt:- 6,418 lbs. \$526
1921: Kerr Lake Mines Ltd.				175' and 375'. A drift was extended 100' into		Total value:- \$283,964
1928: Leased to Cobalt Argyros Mines Ltd.				West claim from 550' level of the adjoining		
19 : Silver-Miller Mines Ltd.				Kerr Lake No.3 Shaft, and a 90' raise was		
				driven from the level.		
				Shaft No.1:- About 175' deep with levels at 75'		
				125' and 175'. Extensive drift was driven on		
				125' level.		
				O.D.M. Statistical files.		
				OCCURRENCE      RAW PROSPECT      DEVELOPED PROSPECT      PRODUCER      PAST PRODUCER X		

MAJOR ORE MINERALS	Silver and Smaltite	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS		Hargrave No.3 Vein:- Extends over a horizontal length of 400'. A small shoot of ore on 375' level at the northern extension of the vein yielded 35,973 ozs of silver.
ORE FABRIC	Vein	Hargrave No.1 Vein:- Extends over a horizontal length of 200'.
MAJOR GANGUE MINERALS	Calcite	
COUNTRY ROCK OR FORMATION	Keewatin volcanics and Cobalt Sediments intruded by Nipissing diabase	
AGE: GEOLOGICAL	ABSOLUTE	
	Archean, Aphebian, Aphebian. N.L.T.3100,NLT 2150 and 2150 m.y	

MAIN REFERENCE	THOMSON, R. 1961: ODM Prelim. Rept. 1961-6, p. 36-39	MAP REFERENCE USED FOR LOCATION	FILE STATUS	DATE	SIGNATURE
		ODM Map 2052, Cobalt Silver Area, 1964	SKELETAL INCOMPLETE COMPLETE D REVISED	1968	A.O.S.

COMMODITY	NAME OF OCCURRENCE:	LAT.	04737100	REF. NO.
Silver	CIRCA 1968; SILVER-MILLER MINES LTD.	LONG.	07964800	ODM-Ag-0455055
Cobalt	HISTORICAL NAME:HARGRAVE SILVER MINES LTD			
GEOLOGY		EXPLORATION AND DEVELOPMENT (Cont)		
Nipissing diabase is the only rock to outcrop on the property. Keewatin volcanics and Cobalt sediments encountered in underground workings, are intruded by the diabase. The diabase forms the host rock of the silver-cobalt bearing calcite veins; two of these - Hargrave Nos. 1 and 3 - were important silver producers. Hargrave No.3 Vein, which is the northern and southern extension of contiguous Kerr Lake No.3 Vein, is cut by a SSE striking fault at 375-foot level of No.3 shaft.				

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:
ABSOLUTE AGE	Archean, Aphebian, Aphebian. N.L.T. 3100, N.L.T. 2150, 2150 m.y.	AGE OF ORE MINERAL
ROCK TYPE AND/OR MINERAL	Volcanics, Sediments, Diabase	Post-Huronian NGT 2150 m.y.
METHOD	K/Ar      Rb/Sr      Pb/Pb      Cl4	K/Ar      Rb/Sr      Pb/Pb      Cl4
	X              X	X
COMPANY REPORTS	METALLURGY REFERENCE	
ECONOMICS REFERENCE	MILLING REFERENCE	
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE	
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN      SECTION      LONGITUDINAL PROJECTION Knight, C.W. ODM Vol. XXXI, pt.2, Map Sheet 31a-3 1922.	
MAP REFERENCES	ODM FILES	
	1. ODM Map 2052, Cobalt Silver Area, 1964 2. ODM Map P 96, 1961.	



COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver	CIRCA 1968: SILVER-MILLER MINES LTD.	47° 22' 25"	ODM-Ag-0455055
Cobalt	HISTORICAL NAME: HARGRAVE SILVER MINES LTD.	LONG. 79° 38' 54"	
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Longitude and Latitude refer to southeast corner of East Claim.	

ADDITIONAL REFERENCES:-

- KNIGHT, C.W.  
1922 : Geology of the mine workings of Cobalt and South Lorrain Silver Areas, Ontario Dept. of Mines, Vol. XXXI, pt.2, p.92-93 and Map 31a-3.
- THOMSON, R.  
1961: Preliminary Report on parts of Coleman Township, Concession IV. Lots 1 to 5, and Gillies Limit, the Eastern "A" Claims District of Timiskaming, Ontario Dept. of Mines Prelim Rept. 1961-6, p.36-39.

COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver	CIRCA 1969; SILVER-MILLER MINES LTD.	47° 22' 15"	ODM-Ag-0455055
Cobalt	HISTORICAL NAME:HARGRAVE SILVER MINES LTD.	LONG. 79° 38' 54"	

YEAR	ORE RAISED	ORE & CONC. SHIPPED	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	TONS	TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	\$
1905	20	28			12,013	6,936					6,936
10	625	336	3,200	322	168,840	91,074					91,396
11	715	96			147,114	70,327					70,327
12		35	2,900	174	56,330	33,811					33,985
13	166	166			32,232	16,514					16,514
16		419			6,541	1,375					1,375
17		2,132			57,392	39,957					39,957
18		58	318	30	15,884	13,734					13,764
19		186			3,474	3,584					3,584
20		3			7,107	6,126					6,126
	1,534	3,459	6,418	526	506,927	283,438					283,964

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: COBALLOY MINES AND REFINERS LTD. HISTORICAL NAME: HUDSON BAY MINES LTD.		LAT. 04740300 LONG. 07968500	REF. NO. O.D.M.-Ag-0455001
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. TIMISKAMING	
TP. or SQUARE	COLEMAN		004550	LOT, CONCESSION, CLAIMS OR LEASE AGREEMENT Con. VI, Lot 6, Claim:- NE $\frac{1}{2}$ , N $\frac{1}{2}$ lot 6. Con. VI, Lot 6, Claim:- W $\frac{1}{2}$ , N $\frac{1}{2}$ of lot 6.	
LOCATION: About $\frac{3}{4}$ of a mile north of town of Cobalt.			NTS 031MOSE	UTM	
HISTORY OF OWNERSHIP: 1903: Temiskaming and Hudson Bay Mining Co. Ltd. 1909: Hudson Bay Mines Ltd. (name changed from above). 1951: Gordon Cobalt Mines Ltd. 19 : Coballoy Mines and Refiners Ltd.			EXPLORATION AND DEVELOPMENT 1905: The most productive veins Nos. 1 and 2 were discovered. 1906-14. Two shafts with underground workings: Main Shaft:- was sunk 249' with levels at 65', 98', 150', 199' and 249' depths. North Shaft:- was sunk 85', initial 25' vertically, and then inclined to south for 60'. 1914. Mine was closed down due to exhaustion of ore. 1916. Mine was re-opened and profitably operated till 1920. 1951-54. Surface and underground diamond drilling programmes were carried out.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) (1905-43; and 1953) Silver Cobalt 6,452,766 ozs. 185,577 lbs \$3,469,255 Total Value:- O.D.M. Statistical files.
MAJOR ORE MINERALS Silver and smaltite.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES No. 1 Vein:- With a horizontal length of at least 400' extends vertically about 200'. It has a width up to 8". No. 2 Vein:- With a horizontal length of 400' extends vertically about 200'. Grade (1905-16):- Silver 123 ozs./ton.		
MINOR ORE MINERALS Chalcopryrite, galena, and sphalerite:			MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.		
ORE FABRIC Vein.			FILE STATUS: SKELETAL INCOMPLETE COMPLETED 1968 REVISED		
MAJOR GANGUE MINERALS Calcite.			DATE SIGNATURE 1968 A.O.S.		
COUNTRY ROCK OR FORMATION Keewatin rocks and Cobalt series sediments.			SIGNATURE		
AGE: GEOLOGICAL ABSOLUTE Archean and Apheblan. N.L.T.3100 and N.L.T.2150 m.y.			SIGNATURE		
MAIN REFERENCE Thomson, R., 1961: O.D.M. Prelim. Rept. 1961-3, p. 125-133.			SIGNATURE		
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: COBALLOY MINES AND REFINERS LTD. HISTORICAL NAME: HUDSON BAY MINES LTD.		LAT. 04740300 LONG. 07968500	REF. NO. O.D.M.-Ag-0455001
GEOLOGY Low dipping Cobalt sediments up to 150' thick unconformably overlie Keewatin rocks. Three normal faults, the Z, Y and No. 64 - striking WNW with steep SSW dips cross the property. The Contact Fault striking NE with low SE dip follows the Cobalt-Keewatin unconformity. Veins Nos. 1 and 2 were the most important silver-cobalt producers. Most of the production came from that part of veins traversing Cobalt sediments (a small part, $\frac{1}{20}$ , came from Keewatin rocks. Base metal mineralization such as chalcopryrite, galena and sphalerite occurs as disseminated sulphides in the Keewatin.			EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION Spotted Chlorite alteration is abundantly present in the Cobalt sediments.		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean and Apheblan N.L.T. 3100 and N.L.T. 2150 m.y. volcanics and Sediments	AGE OF DEFORMATION: NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post Huronian N.G.T., 2150 m.y.	K/Ar Rb/Sr Pb/Pb C14 X X	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W., 1922: Ontario Dept. of Mines, Vol. XXXI, pt. 2, Map 31a-11.		
MAIN REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M. Maps P.97 and P.97A, 1961. 3. O.D.M. Map 31a-11, 1922.			ODM FILES		

COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver Cobalt	CIRCA 1968: COBALLOY MINES AND REFINERS LTD. HISTORICAL NAME HUDSON BAY MINES LTD.	47° 24' 9" 79° 41' 6"	O.D.M.-Ag-0455001
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Longitude and latitude and latitude refer to southeast corner of NE $\frac{1}{2}$ , N $\frac{1}{2}$ of lot 6.	
ADDITIONAL REFERENCES:-			
Gard, A.A., 1908: The story of Temiskaming and Hudson Bay Mines Ltd.			
Knight, C.W., 1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas; Ontario Dept. of Mines, Vol. XXXI, pt. 2, p. 142-144.			
Pearce, R., 1936: The story of Temiskaming First Mining Company, Northern Miner.			
Thomson, R., 1961: Preliminary Report on part of Coleman Township, Concession VI, Lots 1 to 6, District of Timiskaming; Ontario Dept. of Mines Prelim. Rept. 1961-3, p. 125-133.			
COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver Cobalt	CIRCA 1968: COBALLOY MINES AND REFINERS LTD. HISTORICAL NAME: HUDSON BAY MINES LTD.	47° 24' 9" 79° 41' 6"	O.D.M.-Ag-0455001

YEAR	ORE		COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED TONS	SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1905	45	45			63,020	39,520					39,520
06	10	7			7,620	4,598					4,578
07	150	150		664	257,370	136,357					137,021
08	1,173	1,173	29,900	2,520	1,116,387	512,888					515,408
09	752	735	49,776	4,978	914,165	411,342					416,320
10	200	217	4,860	486	663,236	340,327					340,813
11	297	297			1,067,667	526,266					526,260
12	65	688			692,817	392,594					392,594
13	22,736	634			544,823	295,737					295,737
14	11,380	636			380,792	185,020					185,020
16	10,186	131	8,304	696	50,268	37,532					38,228
17		480	57,110	3,520	277,091	229,086					232,606
18		293	4,372	385	122,953	117,352					117,737
19		351			92,904	97,865					97,865
1920		236			80,555	77,961					77,961
21	4,330	67			22,278	16,013					16,013
25	7	7	602	90	15,525	10,600					10,690
26	14	11	887	172	18,781	11,554					11,728
27	1	4			11,437	6,419					6,419
28		47			2,956	1,715					1,715
29		32	3,811	457	2,542	1,322					1,779
1930	36	36	3,787	502	17,649	6,122					6,624
32	8	8	276	47	11,911	3,580					3,627
34	6	6			8,741	3,735					3,735
35		54			1,527	774					774
36		6	1,000	412	5,988	2,495					2,907
38		1	663	497	116	50	309	56			603
39	8	8	1,866	1,795	179	67					1,862
1940	27	27	5,048	5,055	395	163					5,218
42		16	3,706	3,706	198	83	1,217	219			302
43		45	9,434	9,980	252	124					10,104
1953	300		170		123		104				10,104
	52,370	6,448	185,572		6,452,266	3,469,255	1,630				3,501,786

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: JUNO METALS CORPORATION HISTORICAL NAME: JUNO METALS CORPORATION		LAT. 04738100 LONG. 07965900		REF. NO. ODM-Ag-0455035																																																																																																	
CO. or DIST. TIMISKAMING		CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACRES																																																																																																		
TP. or SQUARE COLEMAN		004550	NTS 031M05E UTM		Con V, Lot 3. CLAIM:- NW $\frac{1}{2}$ , S $\frac{1}{2}$ of lot 3.																																																																																																		
LOCATION: Located about $\frac{1}{2}$ mile S.E. of Peterson Lake about 1 $\frac{1}{2}$ miles SE of town of Cobalt.																																																																																																							
HISTORY OF OWNERSHIP: 1909- Reliance Silver Mines Ltd. 1916-22 Leased to- Peterson Lake Silver Cobalt Mining Co. Ltd. Reliance Leasing. Shaw and Dean. Hermo Mining Co. Ltd. 1921 - Hermo Mining Co. Ltd. 1952 - Juno Metals Corporation 1956 - Coballoy Mines and Refiners Ltd.			EXPLORATION AND DEVELOPMENT Mostly carried out between 1916 and 1922. Underground workings include two shafts and an adit. No.1 Shaft:- is 227' deep with levels at depths of 53 143 and 207'. A sublevel at 100' is connected to the levels above and below. Shaft (ruined) - is about 100' east of No.1 Shaft.			PRODUCTION ORE RESERVES (DATE AND AUTHORITY) Silver (1918 to 20 and -22) 46,391 ozs \$36,712  O.D.M. Statistical files																																																																																																	
<table border="1"> <tr> <td>MAJOR ORE MINERALS</td> <td>Silver.</td> <td>OCURRENCE</td> <td>RAW PROSPECT</td> <td>DEVELOPED PROSPECT</td> <td>PRODUCER</td> <td>PAST PRODUCER</td> <td>x</td> </tr> <tr> <td>MINOR ORE MINERALS</td> <td>Galena, chalcopryrite, zinc blende, pyrite and marcasite.</td> <td colspan="6">DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES</td> </tr> <tr> <td>ORE FABRIC</td> <td>Vein.</td> <td colspan="6">Shaft No.1 vein system extends for a horizontal length of about 500' and persists vertically to a depth of about 140'.</td> </tr> <tr> <td>MAJOR GANGUE MINERALS</td> <td>Calcite and quartz.</td> <td colspan="6">Grade (1918-20): Silver- 17 ozs/ton.</td> </tr> <tr> <td>COUNTRY ROCK OR FORMATION</td> <td>Keewatin volcanics intruded by Nipissing diabase.</td> <td colspan="6"></td> </tr> <tr> <td>AGE: GEOLOGICAL</td> <td>ABSOLUTE</td> <td colspan="6"></td> </tr> <tr> <td></td> <td>Archean and Aphebian N.L.T. 3100 and 2150 m.y.</td> <td colspan="6"></td> </tr> <tr> <td colspan="2">MAIN REFERENCE: THOMSON, R. 1961: ODM Prelim.Rept. 1961-4, p.47-51.</td> <td colspan="2">MAP REFERENCE USED FOR LOCATION ODM Map 2050, Cobalt Silver Area, 1964.</td> <td>FILE STATUS:</td> <td>DATE</td> <td colspan="2">SIGNATURE</td> </tr> <tr> <td colspan="2"></td> <td colspan="2"></td> <td>SKELETAL</td> <td></td> <td colspan="2"></td> </tr> <tr> <td colspan="2"></td> <td colspan="2"></td> <td>INCOMPLETE</td> <td></td> <td colspan="2"></td> </tr> <tr> <td colspan="2"></td> <td colspan="2"></td> <td>COMPLETED</td> <td>1968</td> <td colspan="2">A.O.S.</td> </tr> <tr> <td colspan="2"></td> <td colspan="2"></td> <td>REVISED</td> <td></td> <td colspan="2"></td> </tr> </table>								MAJOR ORE MINERALS	Silver.	OCURRENCE	RAW PROSPECT	DEVELOPED PROSPECT	PRODUCER	PAST PRODUCER	x	MINOR ORE MINERALS	Galena, chalcopryrite, zinc blende, pyrite and marcasite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES						ORE FABRIC	Vein.	Shaft No.1 vein system extends for a horizontal length of about 500' and persists vertically to a depth of about 140'.						MAJOR GANGUE MINERALS	Calcite and quartz.	Grade (1918-20): Silver- 17 ozs/ton.						COUNTRY ROCK OR FORMATION	Keewatin volcanics intruded by Nipissing diabase.							AGE: GEOLOGICAL	ABSOLUTE								Archean and Aphebian N.L.T. 3100 and 2150 m.y.							MAIN REFERENCE: THOMSON, R. 1961: ODM Prelim.Rept. 1961-4, p.47-51.		MAP REFERENCE USED FOR LOCATION ODM Map 2050, Cobalt Silver Area, 1964.		FILE STATUS:	DATE	SIGNATURE						SKELETAL								INCOMPLETE								COMPLETED	1968	A.O.S.						REVISED			
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COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: JUNO METALS CORPORATION HISTORICAL NAME: JUNO METALS CORPORATION		LAT. 04738100 LONG. 07965900		REF. NO. ODM-Ag-0455035																																																																																																	
GEOLOGY Keewatin rocks cut by Haileyburian lamprophyre dikes are intruded by the Nipissing diabase sill. The upper contact of the diabase sill strikes N and dips sub-horizontally. The property is traversed by four faults: in SE corner by Juno Metals Fault that strikes NE and dips 25°NW; in NE portion by two faults, one strikes WNW and the other WSW with dip 37°N, and in SW corner by a NNW striking fault. Silver bearing veins mostly occur within the Nipissing diabase. The silver produced came mainly from a group of small veins passing through shaft No.1. Base metal mineralization such as galena, chalcopryrite, zinc blende, pyrite and marcasite occur in association with the Juno Metals Fault.				EXPLORATION AND DEVELOPMENT (Cont)																																																																																																			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS																																																																																																			
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL:		AGE OF DEFORMATION:		AGE OF ORE MINERAL																																																																																																	
ABSOLUTE AGE		Archean and Aphebian				Post-Huronian																																																																																																	
ROCK TYPE AND/OR MINERAL		N.L.T. 3100 and 2150 m.y.				N.C.T. 2150 m.y.																																																																																																	
METHOD		Volcanics and Diabase																																																																																																					
		K/Ar	Rb/Sr	Pb/Pb	C14	K/Ar	Rb/Sr																																																																																																
		X	X			X																																																																																																	
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GEOCHEMICAL DATA REFERENCE				MINING REFERENCE																																																																																																			
GEOPHYSICAL DATA REFERENCE				MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE																																																																																																			
				PLAN SECTION LONGITUDINAL PROJECTION																																																																																																			
MAP REFERENCES 1. ODM Map 2050, Cobalt Silver Area, 1964. 2. ODM Map p.97, 1961.				ODM FILES																																																																																																			

COMMODITY Silver	NAME OF OCCURRENCE CIRCA 19 68 JUNO METALS CORPORATION HISTORICAL NAME: JUNO METALS CORPORATION	LAT. 47° 22' 51" LONG. 79° 39' 31"	REF. NO. O.D.M.-Ag-0455035
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to southeast corner of claim.	
ADDITIONAL REFERENCES:- Thomson, R. 1961: Preliminary Report on part of Coleman Township, Concession V, Lots 1 to 6, District of Timiskaming, Ontario Dept. of Mines Prelim. Rept. 1961-6, p. 47-51.			
COMMODITY Silver	NAME OF OCCURRENCE CIRCA 1968; JUNO METALS CORPORATION HISTORICAL NAME: JUNO METALS CORPORATION	LAT. 47° 22' 51" LONG. 79° 39' 31"	REF. NO. ODM-Ag-0455035

YEAR	ORE	ORE & CONC.	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED	SHIPPED	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1918		306			3,636	3,519					3,519
19		1,266			21,425	16,923					16,923
20		1,101			20,671	15,844					15,844
22		1			659	426					426
		2,674			46,391	36,712					36,712

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: GLEN LAKE SILVER MINES LTD. (HIHO) HISTORICAL NAME: KERR LAKE MINING CO. LTD.		LAT. 04737200	REF. NO.
				LONG. 07965400	O.D.M.-Ag-0455054
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	COLEMAN		004550	TIMISKAMING	
LOCATION: Located about 2 1/8 miles southeast of town of Cobalt.			NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
			031M05E		Con.IV, Lot 3. Claim:- No.336 (approx. SE 1/4, N 1/2 of Lot 3); Claim J.B.11 and 5-acre part on the south side of Adjacent Lawson property.
HISTORY OF OWNERSHIP:			EXPLORATION AND DEVELOPMENT 1905-48: 13 shafts & development work including drifts, crosscuts, & raises amounting to over 12.5 miles. Three notable shafts:- Shaft No.7:- is 325' deep with levels at 165', 175', 190', 225', 275', & 325'. The shaft was used for mining most of the veins in the northern part of the property.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1905: Kerr Lake Mining Co. Ltd.			Shaft No.3:- is 320' deep with levels at 67', 123', 179', 224', 272' 320', 370', 420' & 550' below collar of the shaft. This was used to exploit vein No.3.		(1905 to 1948)
19 : Kerr Lake Mines Ltd. & F.H. Todd.			Shaft No.13:- is 140' deep.		Silver Cobalt 28,502,037 ozs. 650,096 lbs. \$17,068,986 \$132,724
1946: Leased to Messrs. J.H. Price,D.J.Russell			1960:- Three underground diamond-drill holes, totalling 98', were completed. 1960-64:- Development footage:- 335' of drifting and		Copper (1947 to 1948) 1,792 lbs. \$352 Total Value \$17,202,072.
1947: Leased to Medusa Mines Ltd.			OCCURRENCE		O.D.M. statistical files.
1951: Leased to Penn-Cobalt Silver Mines Ltd.			RAW PROSPECT		DEVELOPED PROSPECT
1953: Leased to Cobalt Consolidated Mining Corp. Ltd.			DEVELOPER		PAST PRODUCER X
1959: Silver Miller Mines Ltd.					
1963: Hiho Silver Mines Ltd (wholly owned subsidiary of Glen Lake Silver Mines Ltd.)					

MAJOR ORE MINERALS	Silver and smaltite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS	Chalcopyrite, galena, sphalerite and pyrrhotite.	1910 to 1921
ORE FABRIC	Vein.	Vein No.10:- 3,345,233 ozs.
MAJOR GANGUE MINERALS	Calcite.	Vein No.3:- 3,000,000 ozs, productive over a vertical depth of 125' in Nipissing diabase. On the 550' level, the vein in the Keewatin contained some gold; assays of \$1 to \$18 were obtained.
COUNTRY ROCK OR FORMATION	Keewatin rocks and Cobalt Series sediments intruded by Nipissing diabase.	Vein.No.7:- 2,029,518 ozs. with an ore shoot 700' long. Big Chamber Vein:- 1,488,401 ozs. with an ore shoot of 175' long. Fleming Vein: 2,217,512 ozs. Grade (1905-16): Silver 170 ozs/ton
AGE: GEOLOGICAL	ABSOLUTE	
	Archean, Aphebian, Aphebian. N.L.T.3100,N.L.T.2150,2150 m.y.	

MAIN REFERENCE	Thomson, R.	MAP REFERENCE USED FOR LOCATION	FILE STATUS	DATE	SIGNATURE
	1961: O.D.M. Prelim. Rept. 1961-6, p. 45-50.	O.D.M. Map 2052, Cobalt Silver Area, 1964.	SKELETAL		
			INCOMPLETE		
			COMPLETE D	1968	A.O.S.
			REVISED		

COMMODITY Cobalt Silver		NAME OF OCCURRENCE: CIRCA 1968: GLEN LAKE SILVER MINES LTD (HIHO) HISTORICAL NAME: KERR LAKE MINING CO. LTD.		LAT. 04737200	REF.NO.
				LONG. 07965400	O.D.M.-Ag-0455054
GEOLOGY Keewatin volcanics with cherty bands and Cobalt sediments are intruded by Nipissing diabase sill. Within the claim Cobalt sediments, formerly underlying Nipissing diabase, occur along the WSW axial region of the Kerr Lake arch. Keewatin volcanics are traversed in underground workings but do not outcrop; the Keewatin-Cobalt unconformity is markedly irregular. Many of the silver-cobalt producing calcite veins lie parallel to the axis of the Kerr Lake arch and form a complex set. No.3 vein which trends north produced silver only within the diabase above the Keewatin contact. Base metal mineralization such as chalcopyrite, galena, sphalerite and pyrrhotite occur extensively near shaft No.13.			EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION			and 308' of raising were completed.		
METAMORPHISM			1967-68:- Kerr Lake has been unwatered exposing surface stock piles; these are being milled and assay about 6 ozs/ton silver. Kerr Lake mine has been unwatered to 200' level.		
MINERAL PARAGENESIS					

GEOLOGICAL AGE	Archean, Aphebian, Aphebian				AGE OF DEFORMATION:	AGE OF ORE MINERAL						
	N.L.T.3100, N.L.T.2150, 2150 m.y.					Post-Huronian						
ABSOLUTE AGE						N.G.T. 2150 m.y.						
ROCK TYPE AND/OR MINERAL	Volcanics, Sediments, Diabase											
METHOD	K/Ar	Rb/Sr	Pb/Pb	C14	K/Ar	Rb/Sr	Pb/Pb	C14	K/Ar	Rb/Sr	Pb/Pb	C14
		X	X							X		
					NAME OF TECTONIC EVENT							

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE
	PLAN X SECTION LONGITUDINAL PROJECTION
	Knight, C.W.
	O.D.M. Vol.XXXI, pt.2, Map sheet 31a-3, 1922.

MAP REFERENCES	ODM FILES
1. O.D.M. Map 2052, Cobalt Silver Area, 1964.	
2. O.D.M. Map P.96, 1961.	
3. O.D.M. Map 31a-3, 1922.	

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968; GLEN LAKE SILVER MINES LTD. (HIHO) HISTORICAL NAME: KERR LAKE MINING CO. LTD.	LAT. 47° 22' 20"	REF. NO. O.D.M.-Ag-0455054.
		LONG. 79° 39' 13"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1905	6	7	5,200	1,552	128,805	79,572					81,124
06	627	227			425,000	365,033					365,033
07	320	320			676,000	587,000					587,000
08	653	653	49,648	3,263	1,551,324	741,802					745,065
09	1,633	1,613	92,600	8,342	3,112,067	1,549,311					1,557,653
10	5,074	5,065			2,877,299	1,409,803					1,409,803
11	2,265	2,230			2,238,352	1,110,512					1,110,512
12	8,042	8,051			1,895,309	1,045,734					1,045,734
13	23,027	22,035			2,072,406	992,692					992,692
14	18,192	10,719			1,817,087	830,430					830,430
15	28,881	28,882			2,109,354	806,725					806,725
16	37,539	37,551			2,527,062	1,331,709					1,331,709
17		29,152	144,983	24,418	2,302,466	1,917,599					1,942,017
18		28,805	193,063	29,754	2,221,811	2,253,652					2,283,406
19		451			802,243	948,950					948,950
1920		29,993	37,034	6,532	610,604	602,357					608,889
21	1,013	43	7,770	1,925	78,391	46,045					47,970
23		5			16,109	10,143					10,143
24		21,470			46,952	32,467					32,467
25	12	26	2,227	223	60,078	41,309					41,532
27		7			17,629	9,962					9,962
28	6,072	5,958	358	43	9,919	5,629					5,672
29		65	9,030	1,993	124,761	62,298					64,291
30		288	50,849	23,505	118,330	43,217					66,722
31		209	35,152	12,139	125,223	36,434					48,573
32		136			168,633	53,132					53,132
33		39			37,370	10,189					10,189
36		409			32,571	12,674					12,674
37		244	402	73	54,208	23,366					23,439
38		80	5,187	7,082	27,601	11,629					18,711
39		48	7,645	3,670	59,012	23,747					27,417

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968; GLEN LAKE SILVER MINES LTD (HIHO) HISTORICAL NAME: KERR LAKE MINING CO. LTD.	LAT. 47° 22' 20"	REF. NO. O.D.M.-Ag-0455054
		LONG. 79° 39' 13"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1940	32	32	4,685	4,685	96,698	35,907					40,592
41	21	21	2,228	1,560	13,906	5,295					6,855
42		10	1,222	1,281	5,731	2,120					3,401
43		2	416	428	853	341					769
46		4	395	256	3,297	2,906					3,162
47	600	613			19,850	14,887			900	153	15,040
48	1,412	20			17,726	12,408			892	209	12,617
		235,503	650,094	132,724	28,502,037	17,068,986			1,792	352	17,202,072

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: UNITED COBALT MINES LTD. HISTORICAL NAME: KING EDWARD MINING CO.		LAT. 04738700	REF. NO.
				LONG. 07964800	O.D.M.-Ag-0455038
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE	COLEMAN		004550	TIMISKAMING Con.V, Lot 2, Claim:- NW $\frac{1}{2}$ , N $\frac{1}{2}$ of lot 2 (King Cobalt)	
LOCATION: Located on the west side of Cross-Lake that is about 2 miles east of town of Cobalt.			NTS 031M05E	UTM	Con.V, Lot 3, Claim:- NE $\frac{1}{2}$ , N $\frac{1}{2}$ of lot 3 (Watts)
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT 1905-16		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1905: New Ontario Cobalt and Silver Mining Co. (Watts Mine)		Development was restricted to exploration of the Upper diabase contact. Several adits from the E facing bluff of the diabase beside Cross-Lake were driven W and SW to connect with Shafts 1, 2, 5 and 7. King Edward No.1 winze was put down vertically 860' on No.4 vein from adit No.1 level (140' below hill top) to establish the "1000-ft" level.		1905-38 Silver: 678,629 ozs., \$376,744.	
1908(?): King Edward Mining Co.				1962-64 Silver: 615,604 ozs., \$824,762	
1913: York Ontario Silver Mines Ltd.				Cobalt: 3,466 lbs., \$6,393	
1916: National Mines Ltd.				Nickel: 1,310 lbs., \$1,074	
1948: Leased to Ausic Mining & Reduction Co.Ltd		1960-64 Underground workings by Rix Athabasco were laid out to explore the Lower diabase contact. No.1 winze was sunk 285' to give a total vertical depth of 1,135' below adit No.1. Other development workings include:-		Copper: 18,618 lbs. \$5,922	
1951: United Cobalt Mines Ltd.				O.D.M. statistical files.	
1960: Optioned to Rix-Athabasca Uranium Mines Ltd. (Lapsed 1964).					
MAJOR ORE MINERALS Silver and smaltite.		OCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER	
MINOR ORE MINERALS Chalcopyrite, galena & nickel minerals		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
ORE FABRIC Vein.		NW vein system:- With a horizontal length of about 800' extends vertically to a depth of at least 150'.			
MAJOR GANGUE MINERALS Calcite.		Grade: Silver Cobalt Copper			
COUNTRY ROCK OR FORMATION Keewatin rocks intruded by the Nipissing diabase sill.		1905-10 27 ozs/ton			
AGE: GEOLOGICAL ABSOLUTE		1962-64 18 ozs/ton 0.10 lb/ton 0.55 lb/ton			
Archean and Aphebian N.L.T. 3100 and 2150 m.y.					
MAIN REFERENCE Thomson, R.		MAP REFERENCE USED FOR LOCATION		FILE STATUS: DATE SIGNATURE	
1961: O.D.M. Prelim. Rept. 1961-4, p. 23-27.		O.D.M. Map 2050, Cobalt Silver Area, 1964.		SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED	
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: UNITED COBALT MINES LTD. HISTORICAL NAME: KING EDWARD MINING CO.		LAT. 04738700	REF.NO.
				LONG. 07964800	O.D.M.-Ag-0455038
GEOLOGY The Nipissing diabase sill, 1,168' thick, is intrusive into Keewatin rocks. It is cut by the NW trending Cross-Lake olivine diabase dike. The upper contact of the diabase sill strikes NNW and dips 18° ENE. Cyril Lake Fault striking NE with 60°NW dip traverses the King Cobalt claim. The host rocks for the system of NW trending silver-cobalt bearing veins are both diabase & Keewatin sediments. Veins Nos.4 & 5 were the most important producers. Early production was restricted to the vicinity of the Upper diabase contact, while after 1960 production was mostly from veins in Keewatin rocks below the Lower diabase contact. Chalcopyrite, galena, & nickel minerals are associated with veins in proximity to both Upper and Lower diabase contacts.			EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION			drifting, 3,407'; crosscutting, 3,131'; raising, 3,824'; and 377' underground diamond-drill holes, totalling 52,196'.		
METAMORPHISM			MINERAL PARAGENESIS		
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:	
ABSOLUTE AGE		Archean and Aphebian		AGE OF ORE MINERAL	
ROCK TYPE AND/OR MINERAL		N.L.T. 3100 and 2150 m.y.			
METHOD		Keewatin sediments and Diabase		K/Ar Rb/Sr Pb/Pb Cl4	
		K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4	
		X X		X	
NAME OF TECTONIC EVENT					
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES			ODM FILES		
1. O.D.M. Map 2050, Cobalt Silver Area, 1964.					
2. O.D.M. Map P.97, 1961.					



COMMODITY	NAME OF OCCURRENCE	LAT. 47° 23' 13"	REF. NO.
Silver Cobalt	CIRCA 1968: UNITED COBALT MINES LTD. HISTORICAL NAME: KING EDWARD MINING CO.	LONG. 79° 38' 52"	O.D.M.-Ag-0455038
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Longitude and latitude refer to southeast corner of King Cobalt claim.	
ADDITIONAL REFERENCES:-			
<p>Kelley, T.J. and Riddell, G.S. 1962: Statistical Review of the Mineral Industry for 1960 combined with Mining Operations in 1960. Ontario Dept. Mines, Ann. Rept., Vol.70, p.116. 1966: Statistical Review of the Mineral Industry for 1964 combined with Mining Operations in 1964. Ontario Dept. Mines, Ann. Rept. Vol.74, p. 132-133.</p> <p>Thomson, R. 1961: Preliminary Report on part of Coleman Township, Con. V, Lots 1 to 6, District of Timiskaming, Ontario Dept. Mines, Prelim. Rept. 1961-4, p. 23-27.</p>			
COMMODITY	NAME OF OCCURRENCE	LAT. 47° 23' 13"	REF. NO.
Silver Cobalt	CIRCA 1968: UNITED COBALT MINES LTD. HISTORICAL NAME: KING EDWARD MINING CO.	LONG. 79° 38' 52"	O.D.M.-Ag-0455038

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1905	30	20			3,160	1,500					1,500
07	83	31			62,225	24,193					24,193
08	4,226	353			253,196	117,762					117,762
09	8,806	2			128,538	65,555					65,555
1910	6,519	76			91,474	45,789					45,789
13					17,198	8,813					8,813
17		196			55,126	49,349					49,349
18		216			59,963	60,386					60,386
37		10			5,717	2,523					2,423
38		34			2,032	874					874
	19,664	938			678,629	376,744					376,744
62	8,096	243			140,817	164,052			3,189	988	165,040
63	15,777	474	1,472	3,003	249,503	345,312	1,257	1,031	142	2,834	325,180
64	9,820	402	1,994	3,390	225,284	315,395	55	43	6,287	2,100	320,931
	53,357	2,057	3,466	6,393	1,294,233	1,801,506	1,310	1,074	18,618	5,922	1,214,895

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: SILVER MILLER MINES LTD. HISTORICAL NAME: LA ROSE MINES LTD.		LAT. 04739700 LONG. 07967300		REF. NO. O.D.M.-Ag-0455011					
CO. or DIST. TIMISKAMING		CODE No. 39	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACRI.ACT						
TP. or SQUARE COLEMAN		004550	NTS 031M05E UTM		Con. VI, Lot 4. Claim:- Approx. NW $\frac{1}{2}$ S $\frac{1}{2}$ of lot 4 (Claim J.S. 14-La Rose). Con. VI, Lot 4. Claim:- Approx. E center of N $\frac{1}{2}$ of lot 4. (Claim J.B.4 - La Rose Extension)						
LOCATION: Located NE of Cobalt Lake that is about a mile NE of town of Cobalt		EXPLORATION AND DEVELOPMENT 1903-1948. Several shafts with underground workings:- Main, La Rose Shaft:- was sunk 240' with levels at 62', 85', 157' and 240'. A winze, collared at 240' level, runs to a depth of 665' with levels at 380', 500' and 665'. No.10 Shaft:- was sunk 380' with one level at 380'. No.3 Shaft:- was sunk 165'. Discovery Shaft:- was sunk 85'. Old La Rose Shaft:- was sunk 85'. Several adits were driven easterly from the base of the W facing cliff on claim J.S. 14. 1949. A concentrator was erected close to the main shaft.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1904-22.  Silver: 17,479,977 ozs. Cobalt: Probably in excess of 200,000 lbs. (A.O.S.)  Knight, C.W., O.D.M., Vol. 31, pt. 2.							
HISTORY OF OWNERSHIP: 1903: La Rose Consolidated Mining Co. 1926: La Rose Rouyn Mines Ltd. 1948: New La Rose Mining and Smelting Ltd. 1949: Silver Miller Mines Ltd.		OCURRENCE		RAW PROSPECT		DEVELOPED PROSPECT		PRODUCER		PAST PRODUCER	
MAJOR ORE MINERALS Silver and Smaltite.		MINOR ORE MINERALS Chalcopyrite, galena, pyrrhotite, niccolite and sphalerite.		ORE FABRIC Vein.		MAJOR GANGUE MINERALS Calcite		COUNTRY ROCK OR FORMATION Keewatin rocks and Cobalt Series sediments are intruded by the Nipissing diabase.		AGE: GEOLOGICAL ABSOLUTE Archean and Aphebian. N.L.T.3100, N.L.T.2150 & 2150 m.y.	
MAIN REFERENCE: Thomson, R., 1961: O.D.M. Prelim. Rept. 1961-3, p. 79-95.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED		DATE 1968		SIGNATURE A.O.S.			
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: SILVER MILLER MINES LTD. HISTORICAL NAME: LA ROSE MINES LTD.		LAT. 04739700 LONG. 07967300		REF. NO. O.D.M.-Ag-0455011					
GEOLOGY Keewatin rocks and Cobalt sediments are intruded by Nipissing diabase. The property is traversed by three faults: The Cobalt Lake Fault striking NE with 50°-70°SE dip has a reversed vertical displacement of 240'; the O'Brien Violet Fault striking WNW with 70° dip; and the No.64 Fault striking NNW with vertical dip. Silver-cobalt veins occur in two systems:- the Main Vein system striking NE lies in close proximity to the Cobalt Lake Fault; and a south striking vein system that includes: The McDonald Vein, Nos.1, 3,5, and 6 veins. Veins were productive in the vicinity of the Cobalt Series - Keewatin unconformity. Abundant base metal mineralization such as chalcopyrite, pyrite, sphalerite, galena, pyrrhotite and niccolite occurs as disseminated sulphides.		EXPLORATION AND DEVELOPMENT (Cont) 1951-59. Main Shaft:- was deepened 10' to give a total depth of 250'. No.10 Shaft:- was deepened 20' to give a total depth of 400'. Other development work includes: drifts, 9,530'; cross-cuts, 2,708'; raises, 3,374'; and 248 underground diamond drill holes, totalling 30,317'. 1964-66. Development work includes: 5 underground diamond drill holes, totalling 427' and 6 surface drill-holes, totalling 334'.		ALTERATION Spotted chlorite alteration is of common occurrence in the Cobalt sediments.		METAMORPHISM		MINERAL PARAGENESIS			
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL: Archean and Aphebian N.L.T.3100, N.L.T.2150 and 2150 m.y. Volcanics, Sediments and Diabase		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.					
		K/Ar Rb/Sr Pb/Pb Cl4 X X		K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT		K/Ar Rb/Sr Pb/Pb Cl4 X					
COMPANY REPORTS		METALLURGY REFERENCE		ECONOMICS REFERENCE		MILLING REFERENCE					
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE		GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W., 1922: Ontario Dept.Mines, Vol.31, pt. 2, Sheet 31a-14.					
MAP REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M. Maps P.97 and P.97A, 1961. 3. O.D.M. Map 31a-14, 1922.		ODM FILES									

COMMODITY	NAME OF OCCURRENCE	LAT. 47°23'50"	REF. NO.
Silver Cobalt	CIRCA 1968: SILVER MILLER MINES LTD. HISTORICAL NAME: LA ROSE MINES LTD.	LONG. 79°40'22"	O.D.M.-Ag-0455011
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Longitude and latitude refer to southeast corner of claim J.S. 14 (La Rose)	
		Cobalt Lake Fault is thought to be younger than the deposition of silver.	

ADDITIONAL REFERENCES:-

- Knight, C.W.,  
1922: Geology of the mine workings of Cobalt and South Lorrain Silver areas. Ontario Dept. Mines, Vol. XXXI, pt.2. p.93-95 and Map 3la-14.
- Miller, W.G.,  
1904: Cobalt-Nickel Arsenides and Silver. Ontario Bur. Mines, Vol. XIII, pt.1, p. 96-103.  
1913: Cobalt-Nickel Arsenides and Silver Deposits of Timiskaming. Ontario Bur. Mines Rept. Vol. XIX, pt.2, p. 1-4.
- Thomson, R.,  
1961: Preliminary Report on part of Coleman Township. Concession VI, Lots 1 to 6, District of Timiskaming. Ontario Dept. of Mines Prelim. Rept. 1961-3, p. 79-95.

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 23' 50"	REF. NO.
Cobalt	CIRCA 1968: SILVER MILLER MINES LTD. HISTORICAL NAME: LA ROSE MINES LTD.	LONG. 79° 40' 22"	O.D.M.-Ag-0455011

N.B. Statistics includes production of other La Rose Consolidated Mining Co., properties viz. Violet, University and Princess.

YEAR	ORE & CONC.		COBALT		SILVER		Nkl		Cppr		TOTAL VALUE
	RAISED TONS	SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1904	150	90	18,000	11,700	112,500	62,116	23,500	2,820			76,636
05	493	493	54,000	36,114	284,894	172,817	70,059	8,553			217,484
06	818	818			873,600	594,063					594,063
07	2,787	2,787	17,876	6,204	771,473	468,940	4,975	498			476,142
08			110,000	13,418	1,759,479	756,846					770,264
09	6,343	6,315	243,200	25,356	3,185,051	1,406,701					1,432,057
10	4,863	3,811	219,860	19,433	2,769,266	1,342,657					1,362,090
11	3,268	2,392			4,090,156	2,006,360					2,006,360
12	3,452	3,477			2,920,344	1,644,836					1,644,836
13	3,315	3,274			2,592,776	1,393,524					1,393,524
14	2,032	1,995	10,898	1,362	1,398,404	663,503					664,865
15	1,670	1,740			1,071,694	481,663					481,663
16	1,444	1,442			830,707	482,561					482,561
17		1,501	64,174	6,802	478,639	389,733					396,535
18		918	20,032	3,538	276,130	252,907					256,445
19		967	13,247	2,296	290,227	306,584					308,880
20		1,178	8,421	1,779	492,801	359,600					361,379
21	59	733	63,118	15,979	658,423	452,149					468,128
22	451	481	35,333	7,144	434,560	302,981					310,125
23	11,053	9,304	10,535	2,248	324,427	193,450					195,698
24	2,306	4,089	15,537	4,040	152,305	100,607					104,647
25	7,076	6,894		160	279,296	178,166					178,326
1926	5,921	5,822	2,701	188	92,056	46,337					46,525
27	20	17	3,099	855	29,355	17,320					18,175
28	15	12	6,147	946	9,123	5,044					5,990
29		15	2,409	606	34,697	17,727					18,333
30		94	17,632	10,580	13,628	5,179					15,759
36		24	5,580	2,982	967	303					3,285
37		17	3,743	2,433	5,423	2,440					4,873

Continued on following statistical page.

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: GLEN LAKE SILVER MINES LTD. (HIHO) HISTORICAL NAME: LAWSON MINE		LAT. 04737100	REF. NO.	
				LONG. 07965900	O.D.M.-Ag-0455051	
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. TIMISKAMING		
TF. or SQUARE	COLEMAN		004550	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE: Con. IV, Lot 3 Claim:- SW $\frac{1}{4}$ , N $\frac{1}{2}$ of lot 3.		
LOCATION: North of Giroux Lake, about 2 miles SE of town of Cobalt.			NTS 031M05E	UTM		
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT			PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1905: Lawson Mine		Shaft No.8 was sunk about 410'. Levels were established at 88', 185', 240', 300', & 400' depths. The 300' & 400' levels extend across the adjoining Kerr Lake fraction. The 185' level is connected with the No.1 shaft and a long crosscut extends SW to the adjacent Bond Shaft. Shaft No.1 is vertical and about 195' deep. Silver Leaf Shaft was about 88' deep but destroyed. Shaft No.9 was 75' deep but destroyed. Shaft No.11 is about 80' deep.			1905-1919: 4,213,553 ozs.	
1909: La Rose Mines Ltd.		1960:- 23 underground diamond-drill holes, totalling 3,383' were completed.			Since 1953 production has been grouped with that from other properties owned by Silver-Miller Mines Ltd.	
1953: La Rose-Rouyn Mines Ltd.		1958-64:- Development footages: 210' of drifting and 158' of raises were carried			Knight (1922) and O.D.M. statistical files.	
1959: Silver-Miller Mines Ltd.		OCCURRENCE			RAW PROSPECT DEVELOPED PROSPECT PRODUCER FAST PRODUCER X	
1963: Hiho Silver Mines Ltd. (wholly owned subsidiary of Glen Lake Silver Mines Ltd.)						

MAJOR ORE MINERALS	Silver and smaltite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS	Chalcopryrite, galena, sphalerite and pyrrhotite.	Veins Nos. 8, 10 and 11 form a system with silver-cobalt mineralization, extending for a horizontal length of 800 feet. Vein No.8: At surface it occurs in Cobalt sediment to a depth of 15', beneath which it follows a Keewatin interflow bed where drifts have followed it on the 88', 185', 240', 300' and 400' levels. It is up to 2' wide.			
ORE FABRIC	Vein.	Grade (1905 to 1910):- Silver 1231 ozs/ton.			
MAJOR GANGUE MINERALS	Calcite.				
COUNTRY ROCK OR FORMATION	Keewatin rocks and Cobalt sediments intruded by Nipissing diabase.				
AGE: GEOLOGICAL	ABSOLUTE				
Archean, Apehbian, Apehbian.	N.L.T.3100, N.L.T.2150 & 2150m.y.				

MAIN REFERENCE	MAP REFERENCE USED FOR LOCATION	FILE STATUS:	DATE	SIGNATURE
		SKELETAL		
1961: Thomson R. Prelim. Rept. 1961-6, p. 55-60.	O.D.M. Map 2052, Cobalt Silver Area, 1964.	INCOMPLETE		
		COMPLETED	1968	A.O.S.
		REVISED		

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: GLEN LAKE SILVER MINES LTD. (HIHO) HISTORICAL NAME: LAWSON MINE		LAT. 04737100	REF. NO.
				LONG. 07965900	O.D.M.-Ag-0455051
GEOLOGY			EXPLORATION AND DEVELOPMENT (Cont)		
Keewatin rocks with chert bands and Cobalt sediments are intruded by Nipissing diabase sill. The bottom contact of diabase dips about 30°S. A number of silver-cobalt calcite veins, viz. Nos. 1,2,5,8,9,10-S,1-S & 11 are closely associated with Keewatin sedimentary interflow bands but also occur in Cobalt sediments. Nipissing diabase is a poor host rock for these veins. Deposition of silver occurs above that of cobalt in the same vein, i.e., nearer the former contact of the sill. Base metal mineralization such as chalcopryrite, galena, sphalerite & pyrrhotite occur in interflow chert bands. Silver-cobalt mineralization in general dies out with increasing depth but that of the base metals continues.			out. Total development footages to 1964 are as follows: 19,669' of drifts, 2,816' of crosscuts and 5,118' of raises.		

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS			
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE	Archean, Apehbian, Apehbian			Post-Huronian	
ROCK TYPE AND/OR MINERAL	N.L.T.3100, N.L.T.2150, 2150 m.y.			N.G.T. 2150 m.y.	
METHOD	Volcanics, Sediments, Diabase	K/Ar	Rb/Sr	Pb/Pb	Cl4
		X	X	X	X
		NAME OF TECTONIC EVENT			

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION
MAP REFERENCES	ODM FILES
1. O.D.M. Map 2052, Cobalt-Silver Area, 1964.	
2. O.D.M. Map P.96, 1961.	

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: GLEN LAKE SILVER MINES LTD. (HIHO) HISTORICAL NAME: LAWSON LAKE	LAT. 47° 22' 17"	REF. NO. O.D.M.-Ag-0455021
		LONG. 79° 39' 32"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to southeast corner of claim.	
ADDITIONAL REFERENCES:- Knight, C.W. 1922: Geology of the mine workings of Cobalt and South Lorrain Silver Areas. Ontario Dept. Mines, Vol.XXXI, pt.2, p.99-100. Thomson, R. 1961: Preliminary Report on parts of Coleman Township, Con.VI, Lots 1 to 5 and Gillies Limit, the Eastern 'A' claims, District of Timiskaming. Ontario Dept. Mines, Prelim. Rept. 1961-6, p. 55-60.			
COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: GLEN LAKE SILVER MINES LTD. (HIHO) HISTORICAL NAME: LAWSON MINE	LAT. 47° 22' 17"	REF. NO. O.D.M.-Ag-0455051
		LONG. 79° 39' 32"	

YEAR	ORE RAISED	ORE & CONC. SHIPPED	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	TONS	TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	\$
1905	26	14			55,384	31,942					31,942
07	44	44			108,013	62,783					62,783
09	216	192			86,494	39,572					39,572
1910	427	357			627,938	298,587					298,587
	713	607			877,829	432,884					432,884

LA ROSE MINES LTD. O.D.M. -Ag-0455011, continued

1938		14	2,386	1,074	7,914	3,403					4,477
39		57	9,941	9,941	9,312	3,770	5,647	1,016			14,727
1940		84	16,167	11,475	18,156	5,296					16,771
	57,536	60,657	974,962	199,153	26,267,783	14,119,583	104,181	12,887			14,331,623
1941		29	5,842	5,842	721	279					6,121
43		73	14,282	15,710	4,821	2,181	2,465	444			18,335
44		43	9,562	10,327	4,494	1,667	2,169	119			12,113
45		21	4,580	3,778	156	73	2,195	395			4,246
	57,536	60,823	1,009,228	234,810	26,277,975	14,123,783	111,010	13,845			14,372,438
48		8	584	204	5,397	3,852					4,056
	57,544	60,827	1,009,812	235,014	26,283,372	14,127,635	111,010	13,845			14,376,494



COMMODITY Silver Cobalt	CIRCA 1968 : HISTORICAL NAME: LITTLE NIPISSING - CLAIM J.B. 2.	NAME OF OCCURRENCE AGNICO MINES LTD.	LAT. 47°22'56"	REF. NO. O.D.M.-Ag-0455020
			LONG. 79°41'42"	
HISTORY OF OWNERSHIP (CONT)			REMARKS	
			Longitude and latitude refer to southeast corner of claim. Production statistics uncertain and incomplete.	

ADDITIONAL REFERENCES:-

Mining Corporation of Canada Ltd., Third Ann. Rept. (to Dec. 21, 1916), 1917, p.22.  
 Knight, C.W.  
 1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas; Ontario Dept. of Mines, Vol. XXXI, pt. 2, p.161 and map sheet 31-a-13.  
 Thomson, R.  
 1960: Preliminary Report on parts of Coleman Township and Gillies Limit to the South and Southwest of Cobalt; Ontario Dept. of Mines Prelim. Rept. 1960-3, p.19-21.

COMMODITY Silver Cobalt	CIRCA 1968 HISTORICAL NAME: LITTLE NIPISSING - CLAIM J.B. 2.	NAME OF OCCURRENCE AGNICO MINES LTD.	LAT. 47°22'56"	REF. NO. O.D.M.-Ag-0455020
			LONG. 79°41'42"	

YEAR	ORE RAISED	ORE & CONG. SHIPPED	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	TONS	TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: SILVERMAQUE MINING LTD. HISTORICAL NAME: MAYFAIR MINES LTD.	LAT. 04734400 LONG. 07964300	REF. NO. O.D.M.-Ag-0455066
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Coleman Twp. Con. II lot 1 N <sup>1</sup> Claim: W part of SW <sup>2</sup> No. 602 Con. II, lot 2 N <sup>2</sup> Claims: SE <sup>1</sup> no. 304 and 335. Gillies Limit, Block 6 Claims: T25900, T25901, T23071, T25709 & T1374
TP. or SQUARE COLEMAN, GILLIES LIMIT	004550	NTS 031M05E	UTM
LOCATION: About 4 miles SE of Cobalt		HISTORY OF OWNERSHIP: Claim 304: 1908-1911: John Black 1911-1942: Peoples' Silver Mines Ltd. Claim 1599: 1907: Bonanza Cobalt Mines Co. Ltd. Claims: 304, 335, 602, and 1599 (Coleman) C1374, T23071, T23095, T25709 (Gillies Limit) 1945-1962: Mayfair Mines Ltd. 1962-1968: Silvermaque Mining Ltd.	
EXPLORATION AND DEVELOPMENT Claim: 304; 1910: The Peoples' shaft (now Mayfair shaft) was sunk 200' with a few hundred feet of later work on the 200' level. 1916: The shaft was deepened to 420' and a drift driven N into the adjoining Ophir claim. Claim: 1599; 1907: Several pits or small shafts were put down. Claims: 304, 335, 602, 1599 (Coleman twp.); C1374, T23071, T23095 T25709 (Gillies Limit) 1945-1953: 25 diamond drill holes totalling 7425' were put down from the surface and 76 underground diamond drillholes totalling 19,917' were completed. The Mayfair shaft		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1945-1953 Silver 26,240 oz. \$35,000 Northern Miner Press Handbook	
OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X			

MAJOR ORE MINERALS Silver, Cobalt nickel arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Vein No.1 strikes N through claim 304 for 700' with vertical depth of 400'. Vein No.2 strikes NNW for 350' with a vertical extension of 300'. Vein No.3 (Group of veins) strikes N55°E and dips steeply SW. It is associated with the Silver Crater Fault. Vein No.4 is exposed on the 530' level for a length of 150' with a vertical strike of N25°W. Vein No.5 is exposed on the 530' level for a length of 200' and a height of 40'. It strikes N50°W and dips nearly vertically. Vein No.6 is exposed on the 550' level for a distance of 150'. It strikes N70°W and and dips 75°S. Vein No.7 is 380' long, strikes N28°W and dips vertically (Diamond drilling information).
MINOR ORE MINERALS Bismuth, galena, chalcopyrite.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052, Cobalt Silver Area 1964. Lat. and long. refer to SE corner of claim 304.
ORE FABRIC Vein.	FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED
MAJOR GANGUE MINERALS Calcite, quartz.	
COUNTRY ROCK OR FORMATION Keewatin andesite, Lorrain granite Nipissing diabase	
AGE: GEOLOGICAL Archean, Archean ABSOLUTE Aphebian N.L.T. 3100, 2390, 2150 m.y.	
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept., 1961-2, p. 33-41.	

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: SILVERMAQUE MINING LTD. HISTORICAL NAME: MAYFAIR MINES LTD.	LAT. 04734400 LONG. 07964300	REF. NO. O.D.M.-Ag-0455066
GEOLOGY Steeply dipping Keewatin andesite with a general NW strike is exposed on most of the property. Lorrain granite occurs on the eastern portion of claim 602. Nipissing diabase occurs on the southern portion of claim 602 from where it dips in a general NW direction under the Keewatin rocks toward the New Lake diabase basin. The Nipissing diabase has two irregular arches in the upper contact; one trending NE of the shaft and a second trending NW, west of the shaft. The Silver Crater Fault strikes WSW in association with a roll that dips steeply SSE in the upper contact of the Nipissing diabase. The Mayfair Fault strikes WSW across the property and a third fault associated with vein No. 3 strike NW across claim 304.		EXPLORATION AND DEVELOPMENT (Cont) was 420' deep with levels at 200', 285' and 400'. 1953' of crosscutting and drifting was done on the 400' level that extended into claim T25900, Gillies Limit, where No.3 winze was sunk about 157' on a 19° incline and levels established at 530' and 550' in claims C1374, T25709, and T23071 Gillies Limit. 166' of drifting and 558' of lateral work was done on the 530' and 550' levels respectively. 1961-1962: 18 underground diamond drill holes totalling 8,327' and 144' of lateral work on the 550' level were completed.	
ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	

GEOLOGICAL AGE Archean, Archean, Aphebian	AGE OF DEFORMATION:	AGE OF ORE MINERAL Post-Huronian
ABSOLUTE AGE N.L.T. 3100, N.G.T. 2390, 2150 m.y.		N.G.T. 2150 m.y.
ROCK TYPE AND/OR MINERAL Volcanics, Granite, Diabase		
METHOD K/Ar Rb/Sr Pb/Pb CI4	K/Ar Rb/Sr Pb/Pb CI4	K/Ar Rb/Sr Pb/Pb CI4
X X X		X
NAME OF TECTONIC EVENT		
COMPANY REPORTS	METALLURGY REFERENCE	
ECONOMICS REFERENCE	MILLING REFERENCE	
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE	
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION	
MAP REFERENCES O.D.M. Maps Nos. P.95 and P.95A, 1961. O.D.M. Map 2052 Cobalt Silver Area, 1964.	ODM FILES	



COMMODITY Silver	NAME OF OCCURRENCE CIRCA 1968: SILVERMAQUE MINING LTD. HISTORICAL NAME: MAYFAIR MINES LTD.	LAT. 47° 20' 37"	REF. NO. O.D.M.-Ag-0455066
		LONG. 79° 38' 33"	
HISTORY OF OWNERSHIP (CONT)		REMARKS	

ADDITIONAL REFERENCES:-

- O.D.M. Vol.56, 1946, pt.2, p.107
- O.D.M. Vol.57, 1947, pt.2, p.108
- O.D.M. Vol.58, 1948, pt.2, p.95
- O.D.M. Vol.59, 1949, pt.2, p.94
- O.D.M. Vol.60, 1950, pt.2, p.94
- O.D.M. Vol.61, 1951, pt.2, p.100
- O.D.M. Vol.62, 1952, pt.2, p.111
- O.D.M. Vol.63, 1953, pt.2, p.135
- O.D.M. Vol.72, 1964, p. 137-138.

COMMODITY Silver	NAME OF OCCURRENCE CIRCA 1968: SILVERMAQUE MINING LTD. HISTORICAL NAME: MAYFAIR MINES LTD	LAT. 47° 20' 37"	REF. NO. O.D.M.-Ag-0455066
		LONG. 79° 38' 33"	

YEAR	ORE	ORE & CONC.	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED	SHIPPED	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	\$
1945- 1953		2,500*			26,240	35,000					

\* The ore was obtained from Vein No.1 and No.5.

COMMODITY		NAME OF OCCURRENCE:		LAT.	04738500	REF. NO.
Silver	CIRCA 1968:	AGNICO MINES LTD.		LONG.	07968800	O.D.M.-Ag-0455023
Cobalt	HISTORICAL NAME: MCKINLEY-DARRAGH (SAVAGE) MINES OF COBALT LTD.					
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.		
TP, or SQUARE	COLEMAN		004550	TIMISKAMING		
LOCATION: South end of Cobalt Lake, about half a mile south of town of Cobalt.				NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
				031M05E		"Con. V, Lot C, SE 1/4 of N 1/2".
						Claim:- No. J.B. 1.

HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT	Five shafts with over 15 miles of underground workings that include drifts, trenches, crosscuts, raises, winzes and stopes. Shaft No. 1: 400' deep with levels at 75', 150', 250', 300', 350' and 400' depths. A winze extends from 400 foot level to 450. Shaft No. 2: Over 220' deep with levels at depths of 60', 110' and 220'. Shaft No. 3: 75' deep. Shaft No. 7: 110' deep with levels at 60' and 110' depths. Old Shaft No. 1: 60' deep; presently buried under tailings.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY) For claims J.B. 1 and Savage - (1904-1954 excl. 1935-1952).	
1903: McKinley-Darragh - Savage Mines of Cobalt Ltd.				Silver	Cobalt
1928: Mining Corp. of Canada Ltd.				\$12,769,769	\$73,154
1932: Cobalt Properties Ltd.					
1953: Cobalt Consolidated Mining Corp. Ltd.					
				Copper	Nickel
				51,751 lbs.	11,348 lbs.
				\$4,278	\$633
				Total Value - \$12,847,734	
				O.D.M. Statistical Files.	
		OCCURRENCE			
		RAW PROSPECT		DEVELOPED PROSPECT	
		PRODUCER		PAST PRODUCER	

MAJOR ORE MINERALS	Silver and smaltite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Vein No. 7 (Adjacent to Keewatin-Cobalt Series unconformity) was productive to a depth of 115'. The width of the contained ore shoot was 30'; its length is not recorded.  Grade: Silver 48 ozs/ton (1906-1914) Cobalt lbs/ton
MINOR ORE MINERALS	Galena, sphalerite, chalcopryrite and nickel-sulphide.	
ORE FABRIC	Vein.	
MAJOR GANGUE MINERALS	Calcite.	
COUNTRY ROCK OR FORMATION	Keewatin rocks and Cobalt Series sediments.	
AGE: GEOLOGICAL	ABSOLUTE	
	Archean and Aphebian. N.L.T. 3100 and N.L.T. 2150 m.y.	

MAP REFERENCE	THOMSON, R. 1961: O.D.M. Prelim. Rept. 1961-4, p.106-114.	MAP REFERENCE USED FOR LOCATION	O.D.M. Map 2050, Cobalt Silver Area, 1964.	FILE STATUS	DATE	SIGNATURE
				SKELETAL		
				INCOMPLETE		
				COMPLETED	1968	A.O.S.
				REVISED		

COMMODITY		NAME OF OCCURRENCE:		LAT.	04738500	REF. NO.
Silver	CIRCA 1968:	AGNICO MINES LTD.		LONG.	07968800	O.D.M.-Ag-0455023
Cobalt	HISTORICAL NAME: MCKINLEY-DARRAGH (SAVAGE) MINES OF COBALT LTD.					

GEOLOGY		EXPLORATION AND DEVELOPMENT (Cont)			
Cobalt Series and Keewatin rocks are traversed by the NE striking and steeply dipping Cobalt Lake Fault. The silver-cobalt rich veins, viz. the 1st, 2nd and 3rd Swamp veins, the Lake, Blind and Discovery, with disseminated galena, chalcopryrite, sphalerite and nickel-sulphide, form a complex network. Production was restricted to that part of the veins which traversed Cobalt Series sediments or in close proximity of the Cobalt Lake Fault.					

ALTERATION	METAMORPHISM		MINERAL PARAGENESIS			
Spotted chlorite alteration in Cobalt Series sediments.						
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE	Archean and Aphebian				Post-Huronian	
ROCK TYPE AND/OR MINERAL	N.L.T. 3100 and N.L.T. 2150 m.y.				N.G.T. 2150 m.y.	
METHOD	Volcanics and Sediments					
	K/Ar	Rb/Sr	Pb/Pb	Cl4	K/Ar	Rb/Sr
		X	X			X
	NAME OF TECTONIC EVENT					

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE
	PLAN X SECTION LONGITUDINAL PROJECTION
	Knight, C.W.; O.D.M., Vol. XXXI, Map 31a-13, 1922.
MAP REFERENCES	ODM FILES
1. O.D.M. Map 2050, Cobalt Silver Area, 1964.	
2. O.D.M. P.97, 1961.	
3. O.D.M. Map 31-a-13, 1922.	

COMMODITY	CIRCA 1968:	NAME OF OCCURRENCE	LAT. 47°23'05"	REF. NO.
Silver Cobalt	HISTORICAL NAME:	AGNICO MINES LTD. McKINLEY-DARRAGH (SAVAGE) MINES OF COBALT LTD.	LONG. 79°41'17"	O.D.M.-Ag-0455023
HISTORY OF OWNERSHIP (CONT)			REMARKS	
			Longitude and latitude refer to southeast corner of claim.	

ADDITIONAL REFERENCES:-

- Knight, C.W.  
1922: Geology of the mine workings of Cobalt and South Lorrain Silver Areas. Ontario Dept. of Mines, Vol. XXXI, pt. 2, p.17, 95, 97-99, 113-120, 160 and Map 31a-13.
- McCloskey, H.C.  
1925: The McKinley-Darragh-Savage Mines of Cobalt Ltd. report for the year 1925, p.8-12.  
1915: McKinley-Darragh-Savage Mines of Cobalt Ltd., Reports for the years 1908 and 1915.
- Miller, W.G.  
1910: Ontario Bur. Mines, Vol. XIX, pt. 2, p.96.
- Robbins, P.A.  
1909: General Manager's report for the year 1909. The McKinley-Darragh-Robbins, P.A.  
1909: Savage Mines of Cobalt Ltd., p.19.
- Thomson, R.  
1961: Preliminary Report on part of Coleman Township, Concession V, Lots 1 to 6, District of Timiskaming. Ontario Dept. of Mines, Prelim. Rept. 1961-4, p.106-114.

COMMODITY	CIRCA 1968:	NAME OF OCCURRENCE	LAT. 47°23'05"	REF. NO.
Silver Cobalt	HISTORICAL NAME:	AGNICO MINES LTD. McKINLEY-DARRAGH (SAVAGE) MINES OF COBALT LTD.	LONG. 79°41'17"	O.D.M.-Ag-0455023

N.B. THE DATA REFERS TO CLAIM J.B. 1 OF THE PROPERTY

YEAR	ORE & CONC.		COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED TONS	SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1906-7					749,216						
1908					695,413						
1909					1,235,144						
1910					2,224,656						
1911					2,043,578						
1912					2,089,393						
1913					1,647,880						
1914					1,159,154						
1915					838,147						
Total to January 1, 1916					12,682,781	ozs.					

for full production figures see ref. no. ODM-Ag-0455043.

Statistics after Thomson 1961-4.

COMMODITY		NAME OF OCCURRENCE:		LAT. 04737200	REF. NO.
Silver	CIRCA 1968: SILVER SUMMIT MINES LTD.			LONG. 07967900	ODM-Ag-0455044
Cobalt	HISTORICAL NAME: MENSILVO MINES LTD.				
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	COLEMAN	004550		TIMISKAMING	
LOCATION:			NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
Located about 2 miles SSE of town of Cobalt			031M05E		Con IV, Lot 5. Claim:- Approx. SW $\frac{1}{4}$ , N $\frac{1}{2}$ of Lot 5.

HISTORY OF OWNERSHIP:	EXPLORATION AND DEVELOPMENT	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
	Surface work, shaft sinking and surface diamond drilling began as early as 1905. Several shafts with underground development:- No.1 Shaft: about 100' deep No.2 Shaft: about 140' deep with levels at 40' and 96'. No.3 Shaft: about 40' deep. No.4 shaft about 70' deep. No.6 shaft: 40' deep. No.7 shaft 200' deep with levels at 140' and 200'. All underground work in recent years has been done from this shaft; the 140' level is continuous with the 96 foot level of the No.2 Shaft. 1962-64. Development for the Mensilvo claim and adjoining Savage property was as follows:- drifting 4060'; cross-cutting, 592';	Silver (1913, -24, -36, -37, -40, -42, -44, -48, to 50, -52 to 53 and -63 to 64):- 174,824 ozs 3467,397. Cobalt (1924, -36 to 40, -42 to 44, -48 to 50, -52 to 53 and -63 to 64):- 149,508 lbs \$263,866 Total Value:- \$729,969 O.D.M. Statistical Files
1905 - Silver Bar Mining Co.Ltd. 1912 - Leased to Preston East Dome Mines Ltd. 1940 - Cobalt Products Ltd. 1946 - Mensilvo Mines Ltd. 1947 - Silver Arrow Mines Ltd. 1954 - Leased to Silver Crater Mines Ltd. 1957 - Subleased to Juno Metals Corp. 1961 - J.J. Grey. 1962 - Silver Summit Mines Ltd.		

MAJOR ORE MINERALS	Silver and Smaltite	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS	Chalcopyrite, sphalerite and galena.	Vein No.6:- Extends to a horizontal length of 900' and a vertical depth of at least 150'
ORE FABRIC	Vein	Vein Nos.1, 2, 3 and 4:- Extend to an average horizontal length of 300'. Production from 1905 to 1935 is reported as 23,376 ozs of silver and 13,642 lbs of Cobalt
MAJOR GANGUE MINERALS	Calcite	313W drive Vein :- (1968) Assays up to 10,000 ozs/ton over 2' widths.
COUNTRY ROCK OR FORMATION	Keewatin rocks and Cobalt sediments intruded by Nipissing diabase sill.	Grade (1952 to 1964): Silver 5 ozs/ton Cobalt 2 lbs/ton
AGE: GEOLOGICAL	ABSOLUTE	
	Archean and Apehbian. N.L.T.3100, N.L.T.2150, 2150 m.y.	

MAIN REFERENCE:	MAP REFERENCE USED FOR LOCATION	FILE STATUS	DATE	SIGNATURE
	ODM Map 2051, Cobalt Silver Area, 1964.	SKELETAL INCOMPLETE COMPLETE D REVISED	1968	A.O.S.

COMMODITY		NAME OF OCCURRENCE:		LAT. 04737200	REF.NO.
Silver	CIRCA 1968: SILVER SUMMIT MINES LTD.			LONG. 07967900	ODM-Ag-0455044
Cobalt	HISTORICAL NAME: MENSILVO MINES LTD.				
GEOLOGY			EXPLORATION AND DEVELOPMENT (Cont)		
Keewatin rocks and Cobalt sediments are intruded by the Nipissing diabase sill. The Nipissing-Cobalt Series contact in underground working is marked by a gentle E dipping, NS striking fault with a 10' wide gouged zone. A set of 5 silver-cobalt producing veins striking E with nearly vertical dips occur within Keewatin interflow chert bands, Cobalt sediments and the gouged zone. The vein set lies in a zone with general northerly trend. Base metal mineralization such as chalcopyrite, spalerite and galena occurs in the cherty wall rock of vein No.6, the most important vein in the property.			raising, 1457'; and 149 underground diamond drilling holes totalling 17,921'. Total development footage to 1964 was:- drifts, 7,549'; cross-cuts, 1,505'; and raises 2,342'. 1965-66. Shaft No.7 was serviceable with levels at 140' and 200'. 1967-68. The 313W drive on the third level of the Alexandra shaft of the neighbouring Silverfields property has been extended west along a silver vein into the Silver Summit property.		

ALTERATION	Spotted chloritic alteration is well marked in the Cobalt Series sediments on the 140-ft level of the No.7 Shaft.	METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE	Archean, Apehbian, Apehbian.	AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE	N.L.T. 3100, N.L.T. 2150, 2150 m.y.				
ROCK TYPE AND/OR MINERAL	Volcanics, Sediments, Diabase				
METHOD	K/Ar Rb/Sr Pb/Pb Cl4				
	X X				
		NAME OF TECTONIC EVENT			

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION
MAP REFERENCES	ODM FILES
1. ODM Map 2051, Cobalt Silver Area, 1964 2. ODM Map p. 96, 1961.	

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: SILVER SUMMIT MINES LTD. HISTORICAL NAME: MENSILVO MINES LTD.	LAT. 47° 22' 28" LONG. 79° 40' 46"	REF. NO. ODM-Ag-0455044
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to southeast corner of claim.	

ADDITIONAL REFERENCES:-

KELLY, T.J. and RIDDELL, G.S.

- 1964: Statistical Review of the Mineral Industry and Mining Operations for 1962. Ontario Department of Mines, Ann. Rept. for the year 1962, p. 140.
- 1965: Statistical Review of the Mineral Industry and Mining Operations for 1962. Ontario Department of Mines, Ann. Rept. for the year 1963, p.143.
- 1965: Statistical Review of the Mineral Industry and Mining Operations for 1964. Ontario Department of Mines, Ann. Rept. for the year 1964, p. 138.

THOMSON, R.

- 1961: Preliminary Report on parts of Coleman Township Concession IV, Lots 1 to 5 and Gillies Limit, the Eastern 'A' Claims. District of Timiskaming. Ontario Department of Mines, Prelim. Rept. 1961-6, p.91-96.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: SILVER SUMMIT MINES LTD. HISTORICAL NAME: MENSILVO MINES LTD.	LAT. 47° 22' 18" LONG. 79° 40' 46"	REF. NO. O.D.M.-Ag-0455044
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YEAR	ORE		COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
	RAISED TONS	ORE & CONC. SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1913	7	7			21,980	12,763					12,763
24	1	1	155	28	2,707	1,703					1,731
36	875	30	1,194	1,096	118	40	1,283	128			1,364
37		5	1,133	736			1,086	109			845
38		2	242	99	96	41	218	22			162
39		1	344	279	52	10	288	29			318
1940	883	46	6	6	272	104					110
			3,074	2,244	25,225	14,661	2,873	288			17,193
42	186	32	8,679	9,641	140	59	2,281	228			9,928
43	1	1	206	216							216
44		3	683	642	11	5	221	40			687
	1,070	82	13,642	12,743	25,376	14,725	5,377	556			28,024
47	3,000					1					1
48		64	15,130	24,965	13,480	10,155					35,120
49	5,000	93	28,693	5,811	1,132	810					6,621
1950		75			7,716	6,944	1,250	580			7,524
52	12,350	343	60,452	142,062	19,836	16,567	14,978	8,193	11,291	3,272	170,044
53	5,000	70	24,642	65,301	14,683	11,658					79,959
63*	22,078	195	2,561	5,224	193,808	268,230			6,783	2,103	275,557
64*	14,073	148	4,388	7,460	98,791	138,307			3,810	1,273	147,040
	62,571	1,060	149,508	263,366	374,824	467,397	21,605	9,329	21,834	6,598	746,890

\* Includes production from adjacent Savage claim.

COMMODITY		NAME OF OCCURRENCE:		LAT.	REF. NO.
Silver		CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NANCY HELEN MINES LTD.		04739300	O.D.M.-Ag-0455006
LONG.		MINING DIV.		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
07968900		TIMISKAMING		Con. VI, Lot 6.	
CO. or DIST.	CODE No.	LOCATION:		Claim: A 4-acre claim contiguous with Buffalo and City of Cobalt claims.	
TIMISKAMING	59	NTS 031M05E UTM			
TP. or SQUARE					
COLEMAN	004550				
LOCATION: Contiguous with town of Cobalt					
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1906: Nancy Helen Mines Ltd.		1906-16: Development work began with the sinking of Nancy Helen shaft, the only shaft on the property. The shaft was sunk 190' with levels at 50', 100' and 190'. On the 50' level drifts have been driven E and NE for distances of 150' and 100' respectively. The 100' level is the most extensive and is connected with the adjoining City shaft, 196' or second level workings. The 100' level workings also join the contiguous Buffalo shaft No.5 third level workings.		Silver (1907-11):- 91,770 ozs.	
1912: Buffalo Mines Ltd.		1946: A few surface diamond drill holes were put down.		Total Value:- \$44,469	
1914: Mining Corporation of Canada Ltd.				O.D.M. statistical files	
1946: Silanco Mining and Refining Co. Ltd.					
19 : Agnico Mines Ltd.					
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER	
MAJOR ORE MINERALS Silver.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS		NW Vein system:- with a horizontal length of about 300' extends vertically about 200'.			
ORE FABRIC Vein.		NE Vein:- with a horizontal length of about 200' extends vertically 200'.			
MAJOR GANGUE MINERALS Calcite and quartz.		Grade (1908-09):- Silver 276 ozs./ton.			
COUNTRY ROCK OR FORMATION: Keewatin rocks and Cobalt Series sediments		MAP REFERENCE USED FOR LOCATION		FILE STATUS: DATE SIGNATURE	
AGE: GEOLOGICAL ABSOLUTE		O.D.M. Map 2050, Cobalt Silver Area, 1964.		SKELETAL	
Archean and Aphebian. N.L.T.3100 and N.L.T. 2150 m.y.				INCOMPLETE	
MAIN REFERENCE				COMPLETED 1968 A.O.S.	
Thomson, R., 1961: O.D.M. Prelim. Rept. 1961-3, p. 169-170.				REVISED	
COMMODITY		NAME OF OCCURRENCE:		LAT.	REF. NO.
Silver		CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NANCY HELEN MINES LTD.		04739300	O.D.M.-Ag-0455006
LONG.		EXPLORATION AND DEVELOPMENT (Cont)			
07968900		GEOLOGY Low dipping Cobalt Series sediments unconformably overlie the steeply dipping, NW striking Keewatin volcanics. The unconformity strikes NNE and dips subhorizontally eastward. Two NW striking and one NE striking veins occur. Silver production was restricted to those parts of veins which traversed Cobalt sediments particularly near their contact with the Keewatin volcanics			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE		K/Ar Rb/Sr Pb/Pb Cl4		Post-Huronian	
ROCK TYPE AND/OR MINERAL		NAME OF TECTONIC EVENT		N.G.T. 2150 m.y.	
METHOD				K/Ar Rb/Sr Pb/Pb Cl4	
				X X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE		PLAN SECTION LONGITUDINAL PROJECTION	
MAP REFERENCES		ODM FILES			
1. O.D.M. Map 2050, Cobalt Silver Area, 1964.					
2. O.D.M. Maps P.97 and P.87A, 1961.					
3. O.D.M. Map 31a-12, 1922.					

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 23' 33"	REF. NO.
Silver	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NANCY HELEN MINES LTD.	LONG. 79° 41' 19"	O.D.M.-Ag-0455006
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Longitude and latitude refer to southeast corner of claim.	
ADDITIONAL REFERENCES:-			
Knight, C.W. 1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas. Ontario Dept. Mines, Vol. XXXI, pt.2, p.26.			
1907: Ontario Bur. Mines, Vol. XVI, pt.2, p. 97-99			
1910: Ontario Bur. Mines, Vol. XIX, pt.1, p.105.			
Thomson, R., 1961: Preliminary Report on part of Coleman Township,			
COMMODITY	NAME OF OCCURRENCE	LAT. 47° 23' 33"	REF. NO.
Silver	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NANCY HELEN MINES, LTD.	LONG. 79° 41' 19"	O.D.M.-Ag-0455006

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1907		30			20,000	11,000					11,000
08	188	188			31,569	14,809					14,809
09	61	82			37,106	17,262					17,262
11		112			3,095	1,398					1,398
	249	412			91,770	44,469					44,469

COMMODITY Cobalt Silver		NAME OF OCCURRENCE: CIRCA 19 : UNITED COBALT MINES LTD. HISTORICAL NAME: NERLIP MINES LTD.		LAT. 04739700 LONG. 07964800	REF. NO. O.D.M.-Co-0455017
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACRIAL P Con. VI, Lot 2. Claim:- N part, NW $\frac{1}{4}$ , S $\frac{1}{4}$ of lot 2 (Claim 647). Con. VI, Lot 3. Claim:- NE $\frac{1}{4}$ , S $\frac{1}{4}$ of lot 3 (Claim Webb or 315).	
TP. or SQUARE COLEMAN	004550	LOCATION: Located north of Cross Lake that is about 2 $\frac{1}{2}$ miles ENE of town of Cobalt.	NTS 031M05E	UTM	
HISTORY OF OWNERSHIP: 19 : Webb claim. 1932: Nerlip Mines Ltd. 1943: Austin Mining Syndicate 1944: Augener Mines Ltd. (Charter cancelled 1958) Circa 1957: United Cobalt Mines Ltd.		EXPLORATION AND DEVELOPMENT 19 : Earliest underground work began with the sinking of 100' deep Webb Shaft. The shaft has a level at 100' with about 150' of lateral work. 1925-26. The 1130-foot level of the adjacent Menago Shaft (Colonial claim) was extended into the Webb claim. 1931. Nerlip or Main Shaft was sunk to a depth of 90'. 1936-43. The Main Shaft was deepened to 760' with levels at 117', 175', 275', 410', 610', and 745'. The vertical winze collared at 745' was deepened by 145' with levels at 820', 860'		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)(1940, '43 and '44) Cobalt Silver Nickel 2,949 lbs. 911 ozs. 2,502 lbs. \$2,378. \$396. \$ 429. Total Value:- \$3,203. O.D.M. statistical files.	
MAJOR ORE MINERALS Cobalt, nickel mineral and silver.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Main Vein:- Extends for a horizontal length of 1250'. The ore shoot extends for a vertical depth of at least 90' below the 745' level of the shaft. Grade (1943-44):- Cobalt 4 lbs/ton; Nickel 3.6 lbs/ton; and Silver .6 oz/con.		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER x	
MINOR ORE MINERALS ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite COUNTRY ROCK OR FORMATION Keewatin rocks and Cobalt Series are included by Nipissing diabase sill.		AGE: GEOLOGICAL ABSOLUTE Archean and Aphebian N.L.T.3100, N.L.T.2150 & 2150 m.y.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.	
MAIN REFERENCE: Thomson, R., 1961: O.D.M. Prelim. Rept. 1961-3, p. 11-17		FILE STATUS: SKELETAL INCOMPLETE COMPLETED RLVISED		DATE 1968 SIGNATURE A.O.S.	
COMMODITY Cobalt Silver		NAME OF OCCURRENCE: CIRCA 1968: UNITED COBALT MINES LTD. HISTORICAL NAME: NERLIP MINES LTD.		LAT. 04739700 LONG. 07964800	REF. NO. O.D.M.-Co-0455017
GEOLOGY Keewatin sediments cut by Haileyburian lamprophyre dikes are intruded by the Nipissing diabase sill. The diabase lies on the NW flank of Peterson diabase basir. Cobalt sediments, about 12' thick, underlie the diabase in underground workings in the NW part of the property. The Lower diabase-Keewatin contact is exposed on 745' level and is marked by steep rolls and large inclusions of Keewatin. The SW portion of the Webb claim is crossed by the NW trend- ing Cross Lake Fault and Cross Lake olivine diabase dike. The Main Vein, exposed on 745' level, was the only producing vein It is closely associated with a WNW striking zone of faulting and is in proximity to a lamprophyre dike. The productive part of the vein was in Keewatin rock and near the bottom contact of diabase.		EXPLORATION AND DEVELOPMENT (Cont) and 895'. Other development work include:- drifting, 4,481'; cross-cutting , 1,727'; raising , 367'; and 20 underground diamond-drill holes, totalling 2,851'. 1944-45. Development workings include:- drifting 108'; cross-cutting , 55'; raising , 30'; and 4 underground diamond-drill holes, totalling 650'.		ALTERATION METAMORPHISM MINERAL PARAGENESIS	
AGE OF FORMATION, ROCK OR MINERAL: Archean Aphebian and Aphebian N.L.T. 3100, N.L.T. 2150 & 2150 m.y.		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT		AGE OF ORE MINERAL Post-Huronian N.C.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL METHOD K/Ar Rb/Sr Pb/Pb Cl4 X X		K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT X			
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M. Maps P.97 and P.97A, 1961.		ODM FILES			



COMMODITY Cobalt Silver	NAME OF OCCURRENCE CIRCA 19 : UNITED COBALT MINES LTD. HISTORICAL NAME: NERLIP MINES LTD.	LAT. 47°23'50" LONG. 79°38'54"	REF. NO. O.D.M.-Co-0455017
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refers to southeast corner of claim 647.	
ADDITIONAL REFERENCES:-  1943: Fifty-second Annual Report of the Ontario Dept. Mines, Vol. 52, pt.1, p.224. 1944: Fifty-third Annual Report of the Ontario Dept. Mines, Vol. 53, pt. , p. 189, 193. 1945: Fifty-fourth Annual Report of the Ontario Dept. Mines, Vol. 54, pt.2, p. 112-113.  Thomson, R., 1961: Preliminary Report on part of Coleman Township, Con. VI, Lots 1 to 6, District of Timiskaming, Ontario Dept. Mines Prelim. Rept. 1961-3, p. 11-17.			
COMMODITY Cobalt Silver	NAME OF OCCURRENCE CIRCA 1968; UNITED COBALT MINES LTD. HISTORICAL NAME: NERLIP MINES LTD.	LAT. 47° 23' 50" LONG. 79° 38' 54"	REF. NO. O.D.M.-Co-0455017

YEAR	ORE		COBALT		SILVER		Nkl		CpPr		TOTAL VALUE
	RAISED TONS	ORE & CONC. SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1940		1	68	68			269	27			95
43	440	444	2,437	1,893	400	176	1,500	270			2,339
44	173	3	444	417	511	220	733	132			769
	613	448	2,949	2,378	911	396	2,302	429			3,203

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1967: NORTH AMERICAN RARE METALS LTD. HISTORICAL NAME: NEW BAILEY MINES LTD. (GLEN LAKE MINE)		LAT. 04737200	REF. NO.
				LONG. 07967100	O.D.M.-Ag-0455046
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. TIMISKAMING	
TP. or SQUARE	COLEMAN		004550	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. IV, Lot 4, SW $\frac{1}{2}$ of N $\frac{1}{2}$ Claim: No.104, Bailey. Con. IV, Lot 5, E pt. of NE $\frac{1}{2}$ of N $\frac{1}{2}$ . Claim: No.1601, New Bailey.	
LOCATION: About 1 $\frac{1}{2}$ miles SE of town of Cobalt.		NTS	031M05E	UTM	
HISTORY OF OWNERSHIP: 1906: Bailey Cobalt Mines Ltd. 1920: Bailey Silver Mines Ltd. 1951: New Bailey Mines Ltd. 19 : North American Rare Metals Ltd. 1960: Leased to Glen Lake Silver Mines Ltd.		EXPLORATION AND DEVELOPMENT 1906-1952: Bailey Shaft was sunk 283' with levels at 60' (adit level), 90', 150', 225' (4th), and 275' (5th). Adit (portal 550' at S10°E from shaft) was driven into hill side on claim No.104. Second level of Meteor No.1 adit, about 104' below portal, was driven east into claim No.1601. Workings include 2,130' of drifting and 2,340' of crosscutting. 1962-68: No.1 winze, collared at 283' depth was sunk 169' with levels at 341' (6th) and at about 441' (7th) depths.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1912-1936 Silver: 331,480 ozs. Cobalt: 1,079 lbs. 1962-1966 Silver: 2,799,872 ozs. Cobalt: 75,701 lbs. O.D.M. statistical files.	
		OCCURRENCE		RAW PROSPECT	DEVELOPED PROSPECT
				PRODUCER	PAST PRODUCER X

MAJOR ORE MINERALS Silver and smaltite.  
MINOR ORE MINERALS Sphalerite, arsenopyrite, pyrite.  
ORE FABRIC Vein and Disseminated.  
MAJOR GANGUE MINERALS Calcite.  
COUNTRY ROCK OR FORMATION Keewatin volcanics and Cobalt Series sediments intruded by Nipissing diabase.  
AGE: GEOLOGICAL ABSOLUTE  
Archean, Aphebian, Aphebian. N.L.T.3100, N.L.T.2150, 2150 m.y.

DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES  
Big Pete Vein: Horizontal length over 700' & vertical depth over 230'.  
No.3 Vein: Horizontal length over 210', width 2" to 4".  
Grade (1912-14): 54 oz/ton silver.  
1962-68: Two major veins: the N-S 406 vein, the E-W 404 vein. An oreshoot has also been discovered in Keewatin volcanics.  
Grade of ore mined is about 60-70 ozs/ton silver.

MAP REFERENCE  
Thompson, R.  
1961: O.D.M. Prelim. Rept. 1961-6, p. 79-83.

MAP REFERENCE USED FOR LOCATION	FILE STATUS:	DATE	SIGNATURE
O.D.M. Map 2052, Cobalt Silver Area, 1964.	SKELETAL		
	INCOMPLETE		
	COMPLETED	1968	A.O.S.
	REVISED		

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1967: NORTH AMERICAN RARE METALS LTD. HISTORICAL NAME: NEW BAILEY MINES LTD. (GLEN LAKE MINE).		LAT. 04737200	REF.NO.
				LONG. 07967100	O.D.M.-Ag-0455046
GEOLOGY 300' to 800' of Nipissing diabase overlies about 200' of flat lying Cobalt Series sediments unconformably above steeply dipping Keewatin volcanics. The ore bearing veins mostly occur in the sediments within a NW trending palaeovalley; but ore is also present in the diabase and rich shoots have been found in the underlying volcanics. The veins occur in two sets striking N to NW and E to NE.		EXPLORATION AND DEVELOPMENT (Cont) Total development to 1966 was 5,646' of drifts, 5,595' of crosscuts and 1,837' of raises. Diamond drilling in 1965 included 57 underground holes of 5,571' and 33 surface holes of 12,751'. High grade silver ore has been developed on the 4th, 6th and 7th levels.			

ALTERATION		METAMORPHISM		MINERAL PARAGENESIS			
GEOLOGICAL AGE Archean, Aphebian, Aphebian		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Huronian			
ABSOLUTE AGE N.L.T. 3100, N.L.T. 2150, 2150 m.y.				N.G.T. 2150 m.y.			
ROCK TYPE AND/OR MINERAL Volcanics, Sediments, Diabase		K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4			
METHOD		X X		X			
NAME OF TECTONIC EVENT							
COMPANY REPORTS		METALLURGY REFERENCE					
ECONOMICS REFERENCE		MILLING REFERENCE					
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE					
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION X LONGITUDINAL PROJECTION Knight, C.W. O.D.M. Vol.31, pt.2, Map Sheets 31-6 & 8, 1922. Ninacs, G.J. C.I.M.M. Cent. Field Excursion, p.152, 1967.					
MAP REFERENCES 1. O.D.M. Map 2052, Cobalt Silver Area, 1964. 2. O.D.M. Map P.96, 1961.		ODM FILES					

COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver	CIRCA 1967: NORTH AMERICAN RARE METALS	47° 22' 20"	O.D.M.-Ag-0455046
Cobalt	HISTORICAL NAME: NEW BAILEY MINES LTD. (GLEN LAKE MINE)	79° 40' 14"	
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Longitude and latitude refer to southeast corner of Bailey Claim.	
		1962-68: Property is referred to as the Glen Lake Mine.	
ADDITIONAL REFERENCES:-			
Davis, H.P. 1909: The Davis Handbook, Directory Part, p.11.			
Knight, C.W. 1922: Geology of the mine workings of Cobalt and South Lorrain Silver Areas, Ontario Dept. Mines, Vol.XXXI, pt.2 p. 172 and Maps 31a-8 and 6. 1953: Sixty-second Annual Report of the Ontario Dept. Mines, Vol.LXII, pt.2, p.112.			
Ninacs, C.L. 1967: Cobalt and District; Guidebook of C.I.M.M. Centennial Field Excursion, p. 151-152.			
Thomson, R. 1961: Preliminary Reports on parts of Coleman Township, Con.IV, Lots 1 to 5 and Gillies Limit, the Eastern 'A' Claims, District of Timiskaming, Ontario Dept. Mines, Prelim. Rept. 1961-6, p. 79-83.			
COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver	CIRCA 1967: NORTH AMERICAN RARE METALS	47° 22' 20"	O.D.M.-Ag-0455046
Cobalt	HISTORICAL NAME: NEW BAILEY MINES LTD. (GLEN LAKE MINE)	79° 40' 14"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkj		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1912	70	41			48,335	30,260					30,260
13	3,236	153			131,431	76,099					76,099
14	1,161	1,161			59,856	34,268					34,268
1920		35	740	76	8,401	5,850					5,926
21	11,600	11,600			67,706	42,537					42,537
22		21			15,647	10,728					10,728
1936	2	2	339	85	104	31					116
	16,069	13,013	1,079	161	331,480	199,773					199,934
1962	12,526	240	8,744	13,116	395,411	460,654			3,661	1,135	274,905
63	28,474	595	28,404	57,944	1,162,598	1,608,385			423	131	1,666,460
64	25,907	461	15,475	26,307	591,005	827,407					853,714
65	7,793	191	3,290	6,448	308,592	432,029					438,477
66			19,788	33,442	342,266	478,830					512,272
			75,701		2,799,872						

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO.LTD.-CLAIMS R.L.400W½-401 Par.2		LAT. 04739900 LONG. 07968000	REF. NO. O.D.M.-Ag-0455007
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE COLEMAN	004550	NTS UTM 031M05E		"Con. VI, Lot 5", Claim:- "W½ of N½" of lot 5" no. R.L. 400W½ "NW¼ of S½ of lot 5" no. R.L. 501 Parcel 2	
LOCATION: Adjacent to and NNE of town of Cobalt.					
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) Included in total figures shown for Nipissing Mines Co.Ltd. - See ODM-Ag-0455026	
1904: Nipissing Mines Co. Ltd.		1904-32: Extensive with thousands of feet of drifts and crosscuts.		Silver:- Vein No.73 (Meyer)13,000,000 ozs.	
1952: Nipissing O'Brien.		Shaft No.64: Sunk to 902', then winze to 1002', 7 levels.		Vein No.98 4,000,000 ozs.	
1958: Agnico Mines Ltd.		Shaft No.73: Sunk to 328', then winze to 548', 6 levels.		Vein No.64 Probably well over 10,000,000 ozs.	
1967: Optioned to Silver Regent Mines Ltd.		Shaft No.98: Sunk to 333'. Shaft No.80: Sunk to 191', then winze to 373'. Promise Shaft: Sunk to 104'.		Vein No.490 Probably several million ounces.	
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER <input checked="" type="checkbox"/> FAST PRODUCER <input checked="" type="checkbox"/>	

MAJOR ORE MINERALS Silver and smaltite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS		Vein No.73, (Meyer):- Horizontal length about 1,200', rich ore shoots over vertical distance of 110'.			
ORE FABRIC Vein and Disseminated.		Vein No.98, Horizontal length about 1,000'.			
MAJOR GANGUE MINERALS Calcite.		Vein No.64, Horizontal length about 1,300', vertical extent several hundred feet.			
COUNTRY ROCK OR FORMATION Cobalt Series sediments.		Vein No.490, Horizontal length over 1,400', rich ore shoots over 150' vertical distance. Ore shoot on 5th level was 690' long, 6" wide and assayed 800 to 1,000 ozs/ton; in 1918 stope widths averaged 10'.			
AGE: GEOLOGICAL ABSOLUTE Apehbian N.L.T. 2150 m.y.		MAP REFERENCE USED FOR LOCATION		FILE STATUS:	DATE
		O.D.M. Map 2050, Cobalt Silver Area, 1964.		SKELTAL	
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim Rept. 1961-3, p.114-125.				INCOMPLETE	
				COMPLETED	1968 A.O.S.
				REVISED	

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO.LTD.-CLAIMS R.L.400W½ - 401 Parcel 2.		LAT. 04739900 LONG. 07967000	REF.NO. O.D.M.-Ag-0455007
GEOLOGY Subhorizontal Cobalt sediments increase in thickness from 150' to 600' southeasterly and overlie steeply dipping Keewatin volcanics. Nipissing diabase formerly overlay the sediments. Two pre-ore fault systems occur: e.g. the reverse Valley Fault that strikes NNE with low dip east, and the normal Fault 64 that strikes ESE with steep dip south. Veins tend to strike parallel to Keewatin volcanic beds which follow a broad fold; they occur in both volcanics and overlying Cobalt sediments but with rich silver ore-shoots restricted to the latter within 150' above the unconformity. Silver mineralization also occurred in wall rocks.		EXPLORATION AND DEVELOPMENT (Cont)			
		1967-68: Shaft No. 73 has been unwatered and some drifting carried out. Drifting had been carried out along the new No.101 Vein where assays of 3,790 ozs/ton silver over 1½" have been encountered. Leaf and ruby silver extend to 2' on either side of the vein.			

ALTERATION		METAMORPHISM		MINERAL PARAGENESIS			
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Apehbian N.L.T. 2150 m.y. Sediments		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
		K/Ar Rb/Sr Pb/Pb Cl4 X		K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4 X	
COMPANY REPORTS		METALLURGY REFERENCE					
ECONOMICS REFERENCE		MILLING REFERENCE					
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE					
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W., O.D.M. Vol. XXXI, pt. and map 31a-11, 1922.					
MAP REFERENCES (1) O.D.M. Map 2050, 1964. (2) O.D.M. Map P.97, 1961. (3) O.D.M. Map 31a-11, 1922.		ODM FILES					

COMMODITY	NAME OF OCCURRENCE	LAT. 47°23'56"	REF. NO.
Silver Cobalt	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO. LTD. - CLAIMS R.L. 400W½ - 401 Parcel 2.	LONG. 79°40'48"	O.D.M.-Ag-0455007
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Latitude and longitude refer to southeast corner of Claim R.L. 400W½.  Cobalt production was probably in excess of 100,000 lbs.	

ADDITIONAL REFERENCES:-

- Knight, C.W.  
1922: Cobalt and South Lorrain Silver Areas. Ontario Dept. of Mines Vol. XXXI, pt. 2, p.46-57.
- Miller, W.G.  
1910: The Cobalt - Nickel Arsenides and Silver Deposits of Timiskaming. Ontario Bureau of Mines, Vol. XIX, pt. 2, plate 4, p.90.
- Thomson, R.  
1961: Preliminary Report on Part of Coleman Township, Concession VI, Lots 1 to 6, District of Timiskaming. Ontario Dept. of Mines, Prelim. Rept. 1961-3, p.114-125.
- Watson.  
1914: Annual Report, Nipissing Co. Ltd., P.11.

COMMODITY	NAME OF OCCURRENCE	LAT. 47°23'56"	REF. NO.
Silver Cobalt	CIRCA 1968: HISTORICAL NAME: NIPISSING MINES CO. LTD. - CLAIMS R.L. 400W½ - 401 Parcel 2.	LONG. 79°40'48"	O.D.M.-Ag-0455007

YEAR	ORE		COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED TONS	ORE & CONC. SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO.LTD.-CLAIM R.L.401 Parcel 1.		LAT. 04739200	REF. NO.
				LONG. 07967400	O.D.M.-Ag-045500u.
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	COLEMAN		004550	TIMISKAMING	
LOCATION: East of Cobalt Lake, east of town of Cobalt.			NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
			031M05E		"Con. VI, Lot 5, S $\frac{1}{2}$ ". Claim:- No. R.L.401, Parcel 1,
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT			PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1904: Nipissing Mines Co. Ltd.		Mostly before 1923 with three shafts and considerable underground workings.			Silver production:- Considerable.
1952: Nipissing - O'Brien Mines Ltd.		Shaft No.10:- with 4 levels was sunk to 210'.			Vein No.26:- 1,500,000 ozs.
1958: Agnico Mines Ltd.		Shaft No.127:- Shaft No.128:- 685' of crosscutting on 120' level. Levels 425' and 520' of shaft No.81 in claim R.L.404 extend into SW corner of R.L.401.			Production figures included in those of Nipissing Mines Co.Ltd., see O.D.M.-Ag-0455026.
		1956: Underground diamond drilling was carried out from workings of No.128 shaft.			
		OCCURRENCE			RAW PROSPECT
		DEVELOPED PROSPECT			PRODUCER
		PAST PRODUCER			
MAJOR ORE MINERALS		Silver and smaltite.			
MINOR ORE MINERALS					
ORE FABRIC		Vein.			
MAJOR GANGUE MINERALS		Calcite.			
COUNTRY ROCK OR FORMATION		Keewatin volcanics and Cobalt Series sediments.			
AGE: GEOLOGICAL		ABSOLUTE			
Archean and Aphebian		N.L.T.3100 and N.L.T.2150 m.y.			
MAIN REFERENCE		MAP REFERENCE USED FOR LOCATION		FILE STATUS:	DATE
THOMSON, R.		O.D.M. Map 2050, Cobalt Silver Area, 1964.		SKELETAL	
1961: O.D.M. Prelim. Rept. 1961-3, p.95-104.				INCOMPLETE	
				COMPLETED	1968
				REVISED	A.O.S.
COMMODITY		NAME OF OCCURRENCE:		LAT. 04739200	REF.NO.
Silver Cobalt		CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO.LTD.-CLAIM R.L.401,Par.1.		LONG. 07967400	O.D.M.-Ag-0455008
GEOLOGY			EXPLORATION AND DEVELOPMENT (Cont)		
Keewatin volcanics with steep dip and N.W. strike are intruded by Haileyburian lamprophyre and overlain by shallow dipping Cobalt sediments up to 200' thick; formerly the above rocks were overlain by the Nipissing sill which outcrops just east of claim. Highly productive silver-cobalt veins strike NNW in NE of claim; others with similar strike occur in SW. Profitable veins e.g. no. 26, strike NE in SE of claim. Productivity of veins depends on proximity to Nipissing Sill and to Keewatin-Cobalt unconformity. Rich secondary silver occurs locally as a soft black film. Sulphides, that include chalcopyrite, galena and sphalerite, occur in Keewatin interflow bands.					
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
1. Spotted chlorite. 2. Quartz veinlets					
GEOLOGICAL AGE		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE		Archean and Aphebian		Post Huronian	
ROCK TYPE AND/OR MINERAL		N.L.T. 3100 and N.L.T. 2150 m.y.		N.G.T. 2150 m.y.	
METHOD		Volcanics and Sediments			
		K/Ar	Rb/Sr	Pb/Pb	C14
		X	X		
		NAME OF TECTONIC EVENT		K/Ar Rb/Sr Pb/Pb C14	
				X	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE		
			PLAN SECTION X LONGITUDINAL PROJECTION		
			Knight, C.W., O.D.M., Vol. XXXI, pt. 2, p.59, 1922.		
MAP REFERENCES			ODM FILES		
O.D.M. Map 2050, 1964. O.D.M. Map p.97, 1961.					

COMMODITY	NAME OF OCCURRENCE	LAT. 47°23'32"	REF. NO.
Silver Cobalt	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO.LTD.-CLAIM R.L.401, Parcel 1	LONG. 79°40'27"	O.D.N.-Ag-0455008
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Latitude and longitude refer to southeast corner of claim.	
		N.B. Large silver production from vein No.2b was entirely within Keewatin Volcanics; this is unusual in the Cobalt Camp.	
		Cobalt production was probably in excess of 25,000 lbs.	

ADDITIONAL REFERENCES:-

Knight, C.W.  
1922: Cobalt and South Lorrain Silver Areas. Ontario Dept. of Mines, Vol. XXXI, pt. 2, p.57-59.

Miller, W.G.  
1910: The Cobalt-Nickel Arsenides and Silver Deposits of Timiskaming. Ontario Bureau of Mines, Vol. XIX, pt. 2, p.19.

THOMSON, R.  
1961: Preliminary Report on Part of Coleman Township, concession VI, Lots 1 to 6, District of Timiskaming. Ontario Dept. of Mines, Prelim. Rept. 1961-3, p.95-104.

COMMODITY	NAME OF OCCURRENCE	LAT. 47°23'32"	REF. NO.
Silver Cobalt	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO.LTD.-CLAIM R.L.401-Parcel 1.	LONG. 79°40'27"	O.D.N.-Ag-0455008

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT Lbs. \$	SILVER Oz. \$	Nkl Lbs. \$	Cppr Lbs. \$	TOTAL VALUE \$
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COMMODITY		NAME OF OCCURRENCE:		LAT.	04740000	REF. NO.
Silver		CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO. LTD.-CLAIM RL402 E PART		LONG.	07966300	ODM-Ag-0455013
CO. OF DIST.	TIMISKAMING	CODE No.	59	MINING DIV.		
TP. OF SURVEY	COLEMAN		004550	TIMISKAMING		
LOCATION: 1 mile northeast of town of Cobalt				NTS	031MOSE	UTM
				LOT, CONCESSION, CLAIMS OR LEASE ACREAGE		
				Con VI, Lot 4		
				Claim:- NE 1/4 of N 1/2 No. R.L. 402 E pt.		
HISTORY OF OWNERSHIP:				EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1904: Nipissing Mines Co. Ltd.				Pre-1915: Much trenching and pitting.		
1952: Nipissing-O'Brien Mines Ltd.				1915-1917: Underground work from O'Brien No. 14 Shaft.		
1958: Agnico Mines Ltd.				1918: 4000' of surface diamond drilling.		Silver:- Small production during years 1915-1917.
				1932-1941: Shaft 402 was sunk to 385' with levels at 255' and 365', this level crossed eastern boundary of claim into Sycee property.		
				OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X

MAJOR ORE MINERALS	Silver	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS		Small silver production from short veins near diabase contact.			
ORE FABRIC	Vein				
MAJOR GANGUE MINERALS	Calcite				
COUNTRY ROCK OR FORMATION		Cobalt Series intruded by Nipissing diabase sill.			
AGE: GEOLOGICAL	ABSOLUTE				
Aphebian and Aphebian	N.L.T. 2150 and 2150 m.y.				
MAIN REFERENCE	THOMSON R. 1961: ODM Prelim Rept. 1961-3, p. 52-58.	MAP REFERENCE USED FOR LOCATION	FILE STATUS	DATE	SIGNATURE
		O.D.M. Map 2050, Cobalt Silver Area 1964. Lat. and Long. refer to SE corner of claim	SKELETAL INCOMPLETE COMPLETED REVISED	1968	A.O.S.

COMMODITY		NAME OF OCCURRENCE:		LAT.	47° 23' 59"	REF.NO.
Silver		CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO. LTD.-CLAIM R.L.402, E.PART		LONG.	79° 39' 47"	ODM-Ag-0455013
GEOLOGY				EXPLORATION AND DEVELOPMENT (Cont)		
Much of the claim is covered by overburden, 70' deep in the N.E. part where the Cobalt Lake, Valley and Cross Lake faults intersect. Parallel and adjacent to the N.W. Cross Lake Fault the Keweenaw olivine diabase dike occurs. At the south end of the claim the lower contact between the Nipissing diabase sill and Cobalt sediments occurs. These sediments increase in thickness northwards from 300' to 700'. In the southeast corner of the claim 6 minor veins in the sediments strike N and contained silver in proximity to the diabase contact.						
ALTERATION	METAMORPHISM		MINERAL PARAGENESIS			
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE	Aphebian and Aphebian N.L.T. 2150 and 2150 m.y.				Post Huronian N.G.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL	Sediments and Diabase					
METHOD	K/Ar	Rb/Sr	Pb/Pb	Cl4	K/Ar	Rb/Sr Pb/Pb Cl4
		X				X
COMPANY REPORTS			METALLURGY REFERENCE			
ECONOMICS REFERENCE			MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES	(1) O.D.M. Map 2050, 1964 (2) O.D.M. Map P. 97, 1961.		ODM FILES			



COMMODITY Silver	NAME OF OCCURRENCE CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO. LTD. CLAIM R.L. 402, E.PART	LAT. 47° 23' 59"	REF. NO. O.D.M.-Ag-0455013
		LONG. 79° 39' 47"	

HISTORY OF OWNERSHIP (CONT)	REMARKS

ADDITIONAL REFERENCES:-

COMMODITY Silver	NAME OF OCCURRENCE CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO. LTD. CLAIM R.L. 402, E.PART	LAT. 47° 23' 59"	REF. NO. O.D.M.-Ag-0455013
		LONG. 79° 39' 47"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT Lbs.	\$	SILVER Oz.	\$	Nkl Lbs.	\$	Cppr Lbs.	\$	TOTAL VALUE \$
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COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO. LTD., - CLAIM R.L.404				LAT. 04738778	REF. NO.
						LONG. 07967750	O.D.M.-Ag-0455026
CO. or DIST. TIMISKAMING		CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE		
TP. or SQUARE COLEMAN		004550			"Con. V, Lot 5, N $\frac{1}{2}$ "		
LOCATION: Adjacent and southeast of town of Cobalt.		NTS 031M05E	UTM		Claim: No. R.L.404.		
HISTORY OF OWNERSHIP: 1904: Nipissing Mines Co. Ltd. 1952: Nipissing - O'Brien Mines Ltd. 1958: Agnico Mines Ltd. 1964: Leased to Chitaroni Minerals Ltd.		EXPLORATION AND DEVELOPMENT Surface workings: Early development was by trenching, miles in extent; later in 1912 hydraulic removal of overburden was used. Underground workings: Numerous open cuts and shafts were constructed with extensive underground workings. Shaft No.81 in operation to 1954 is 518' deep. Many shafts were destroyed by stopping operations. Commonly three levels were developed. 1964-67: Small scale mining and salvage. Operations have been carried out.			PRODUCTION ORE RESERVES (DATE AND AUTHORITY) For Claims:R.L. 400, W pt., R.L.401, R.L.402, E pt., R.L.404, 405, 406, 407, 408 - Years 1905 to 1950. Silver Cobalt 91,796,735 ozs. 5,636,704 lb. \$59,481,058 \$2,275,574  Nickel 236,157 lbs. \$17,504  Total Value: \$61,777,136  O.D.M. statistical files		
		OCCURRENCE			RAW PROSPECT	DEVELOPED PROSPECT	PRODUCER
MAJOR ORE MINERALS Silver and smaltite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES					
MINOR ORE MINERALS Nickel mineral.		Vein system in 2 broad zones several hundred feet wide that traverse the claim diagonally over lengths of 2500' to 3500'. Vertical extent of productive zones up to about 300'.					
ORE FABRIC Vein.		Grade (all claims): Silver 68 ozs./ton (1905-1950) Cobalt 5 lbs./ton (1905-1950)					
MAJOR GANGUE MINERALS Calcite.		Production from claim R.L. 404 is of the order of 40,000,000 ounces of silver.					
COUNTRY ROCK OR FORMATION Keewatin Volcanics and Cobalt Series sediments.		MAP REFERENCE USED FOR LOCATION					
AGE: GEOLOGICAL ABSOLUTE Archean and Aphebian N.L.T. 3100 and N.L.T. 2150 m.y.		O.D.M. Map 2050, Cobalt Silver Area, 1964.				FILE STATUS:	DATE
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-4, p. 70-87						SKELETAL	
						INCOMPLETE	
						COMPLETED	1968 A.O.S.
						REVISED	
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO. LTD., - CLAIM R.L.404				LAT. 04738778	REF. NO.
						LONG. 07967750	O.D.M.-Ag-0455026
GEOLOGY Keewatin volcanics cut by Haileyburian lamprophyre are overlain by shallow dipping Gowganda rocks. Lower contact of the Nipissing diabase sill dipping east occurs on east margin of claim. The Cobalt Lake Fault trends NE and dips 57°SE; the "Galena" Fault trends NW to bisect the claim. Veins occur in two zones several hundred feet wide subparallel to the faults mentioned above. Productive zone is probably within 300' of former position of Nipissing sill's lower contact, now mostly eroded from claim. Zoning with mineralization of cobalt at greater depth than silver is a possibility. Concentrations of silver locally occur against lamprophyre dykes. Local area in claim shows general sulphide mineralization in Keewatin rocks.		EXPLORATION AND DEVELOPMENT (Cont)					
ALTERATION		METAMORPHISM				MINERAL PARAGENESIS Locally within Keewatin rocks:- Pyrite pyrrhotite, galena, chalcopyrite.	
GEOLOGICAL AGE Archean and Aphebian		AGE OF DEFORMATION:				AGE OF ORE MINERAL Post Huronian	
ABSOLUTE AGE N.L.T. 3100 and N.L.T. 2150 m.y.						N.G.F. 2150 m.y.	
ROCK TYPE AND/OR MINERAL Volcanics and Sediments		K/Ar Rb/Sr Pb/Pb Cl4				K/Ar Rb/Sr Pb/Pb Cl4	
METHOD		X X				X	
NAME OF TECTONIC EVENT							
COMPANY REPORTS				METALLURGY REFERENCE			
ECONOMICS REFERENCE				MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE				MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE				MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W., 1922: O.D.M. Vol.XXXI, pt.2, p. 57-62. Map 31a-13.			
MAP REFERENCES O.D.M. Map 2050, Cobalt Silver Area, 1964. O.D.M. Map P.97, 1961. O.D.M. Map 31a-13, 1922.				ODM FILES			

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 23' 16"	REF. NO.
Silver Cobalt	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO. LTD. - CLAIM R.L. 404	LONG. 79° 40' 39"	O.D.M.-Ag-0455026
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Latitude and longitude refer to No.12 shaft.	
		Production 1964-66: Silver 95,674 ozs. worth \$133,893 Cobalt 8,335 lbs. worth \$14,212	

ADDITIONAL REFERENCES:-

- Ellsworth, H.V.  
1916: A study of certain minerals from Cobalt, Ontario. Ontario Bur. of Mines, Vol.XXV, pt.1, p. 221.
- Knight, C.W.  
1922: Cobalt and South Lorrain Silver areas, Ontario Dept. Mines, Vol.XXXI, pt.2, p. 57-62.
- Miller, W.G.  
1904: Cobalt Nickel Arsenides and Silver, Ontario Bur. Mines, Vol.XIII, p.99, 100.
- Nipissing Mines Co. Ltd.  
1909: Fourth Annual Report. (Prospecting method).  
1910: Fourth Annual Report. (Prospecting method).
- Thomson, E.  
1930: A qualitative and quantitative determination of the ores of Cobalt, Ontario. Economic Geol. Vol.XXV, p. 470-505 and 627-652.
- Thomson, R.  
1961: Preliminary Report on part of Coleman Township, Con.V, lots 1 to 6, District of Timiskaming, Ontario Dept. Mines, Prelim. Rept. 1961-4, p. 70-87.

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 23' 16"	REF. NO.
Silver Cobalt	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO. LTD. - CLAIM R.L. 404	LONG. 79° 40' 39"	O.D.M.-Ag-0455026

For Claims:- R.L. 400 W pt., R.L. 401, R.L. 402 E pt., R.L. 404, R.L. 405, R.L. 406, R.L. 407, R.L. 408.

YEAR	ORE		COBALT		SILVER		Nkl		Cpnr		TOTAL VALUE
	RAISED TONS	ORE & CONC. SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1905	700	488	70,400	35,147	803,577	376,383	68	3			411,533
06	1,824	205	206,000	33,372	2,201,386	1,445,127					1,478,499
07	2,819	2,552	85,060	35,571	2,099,274	1,294,419	58,900	589			1,330,579
08	3,806	3,531	105,800	21,575	2,897,445	1,334,080					1,355,655
09	6,462	6,318	181,080	19,865	4,640,649	2,237,706	118	14			2,257,585
1910	6,531	6,326	174,215	17,650	5,590,079	2,736,132					2,753,787
11	4,059	2,608			4,627,043	2,371,856					2,371,856
12	2,891	1,762			4,681,914	2,768,886					2,768,886
13	1,002	165	33,380	3,324	4,786,166	2,907,519					2,910,843
14	78,677				3,999,863	2,195,810					2,195,810
15	78,093	35	58,600	7,967	4,623,957	2,373,496					2,381,463
16	77,915	2,590	440,000	62,349	3,819,768	2,624,139					2,686,488
17		2,262	512,985	88,946	3,794,242	3,033,466					3,122,412
18		135	395,979	107,595	5,785,739	5,830,466					5,938,061
19		34	133,294	93,142	3,731,892	4,258,916					4,352,058
1920		3,402	508,094	475,581	3,390,537	3,178,820					3,654,401
21	80,720	3			3,012,680	1,828,876					1,828,876
22	82,025	3,087	128,849	112,743	3,864,291	2,893,270					3,006,013
23	82,243	121	383	175	3,224,691	2,093,410					2,093,585
24	85,734	715	87,094	34,837	3,228,248	2,166,224					2,201,061
25	91,044	707	85,133	31,005	3,351,280	2,317,163					2,348,168
26	84,555	873	112,948	39,532	3,022,617	1,890,033					1,929,565
27	78,938	993	140,256	52,179	1,961,028	1,167,985					1,220,164
28	63,192	1,276	195,530	71,249	1,886,655	1,105,317					1,176,566
29	45,721	991	148,382	58,147	1,428,850	774,734					832,881
1930	40,356	1,342	192,301	72,091	1,905,425	738,638					810,729
31	38,873	886	122,006	42,702	258,105	75,020					117,722
32	4,700	463	70,332	22,182	32,454	9,761					31,943
33		241	47,626	13,185	879,739	266,541					279,726
34	2,000	1,741	194,920	57,303	511,143	201,186					258,489
35		4,380	345,654	94,247	1,353,661	841,433					935,680
36	500	1,906	328,376	107,336	116,911	46,891					154,227
37		2,360	60,684	38,634	7,533	3,364					41,998

Continued on next Statistical Sheet

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO. LTD. - CLAIM R.L. 405		LAT. 04738700	REF. NO.
				LONG. 079663300	O.D.M.-Ag-0455031
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. TIMISKAMING	
TP. or SQUARE	COLEMAN		004550	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.V, Lot 4, N $\frac{1}{2}$ .	
LOCATION: North of Peterson Lake, 1 mile ENE of town of Cobalt			NTS 031M05E	UTM	Claim: No.405
HISTORY OF OWNERSHIP: 1904: Nipissing Mines Co. Ltd. 1952: Nipissing O'Brien Mines Ltd. 1958: Agnico Mines Ltd.			EXPLORATION AND DEVELOPMENT 1925: Lower contact of diabase was explored by diamond drilling and by a crosscut on 930' level from Menago shaft in adjacent Colonial property; this prospecting was incomplete. 1926-29: Underground workings were extended under the peninsula from Peterson Lake No.3 shaft on 320' level. 1922-32: Underground workings were extended into NW corner of claim from Nipissing No.10 shaft.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) A probable small production of silver was obtained in NW corner of claim.
			OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X

MAJOR ORE MINERALS Silver.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS			
ORE FABRIC Vein.			
MAJOR GANGUE MINERALS Calcite.			
COUNTRY ROCK OR FORMATION Keewatin volcanics intruded by Nipissing diabase sill.			
AGE: GEOLOGICAL Archean and Aphebian	ABSOLUTE N.L.T. 3100 and 2150 m.y.		
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-4, p. 54, 55.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968
		SIGNATURE A.O.S.	

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968 AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO. LTD. - CLAIM R.L. 405		LAT. 04738700	REF. NO.
				LONG. 079663300	O.D.M.-Ag-0455031
GEOLOGY The Nipissing diabase sill outcrops over most of the claim except in the northwest corner where Keewatin pillow lava occurs exposing the lower contact of the sill, this contact in the northeast of the claim is at a vertical depth of about 900'. Few known veins with silver occur in the claim.			EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION	METAMORPHISM		MINERAL PARAGENESIS		
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean and Aphebian N.L.T. 3100 and 2150 m.y. Volcanics and Diabase	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14	
		NAME OF TECTONIC EVENT		X	
COMPANY REPORTS	METALLURGY REFERENCE				
ECONOMICS REFERENCE	MILLING REFERENCE				
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE				
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION				
MAP REFERENCES O.D.M. Map 2050, Cobalt Silver Area, 1964. O.D.M. Map P.97, 1961.	ODM FILES				

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 23' 12"	REF. NO.
Silver	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO. LTD. - CLAIM R.L. 405	LONG. 79° 39' 45"	O.D.M.-Ag-0455031
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Latitude and longitude refer to southeast corner of claim. * Nipissing sill was formerly thought erroneously to be of Keweenaw age.	

ADDITIONAL REFERENCES:-

- Moore, E.S.  
1934: Genetic Relations of Silver Deposits and Keweenaw\* Diabases in Ontario. Econ. Geol. Vol.29, p.735.
- Park, H.  
1926: "Underground Prospecting from 930 level crosscut from Menago Shaft" Nipissing Mines Co. Ann. Rept. p.16.
- Thomson, R.  
1961: Preliminary Report on Part of Coleman Township, Con. V, Lots 1 to 6, District of Timiskaming, Ontario Dept. Mines, Prelim. Rept. 1961-4, p. 54, 55.

COMMODITY	NAME OF OCCURRENCE	LAT. 04738778	REF. NO.
Silver Cobalt	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES LTD. - CLAIM R.L. 404	LONG. 07967750	O.D.M.-Ag-0455026

Continued

YEAR	ORE & CONC.		COBALT			SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED TONS	SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$		
1938	139	469	81,189	56,492	6,885	2,943						59,635
39	1,606	490	112,974	105,974	38,341	13,504	51,179	5,617				125,095
1940	5,954	485	95,258	95,133	22,605	5,089	46,237	5,082				105,304
41	9,279	397	93,177	88,518	143,179	43,026	47,269	3,575				135,119
42	4,204	271	55,208	50,931	23,350	9,029	30,871	2,351				62,311
43		80	19,898	21,209	21,015	9,268						30,477
44		29	7,954	7,477	414	178	1,514	273				7,928
45	21	2			3,095	1,331						1,331
49		29	6,411	209	15,838	7,043						7,252
1950					3,171	2,580						2,580
	1,066,589	56,750	5,636,704	2,275,574	91,796,735	59,481,058	236,157	17,504				61,777,136

COMMODITY		NAME OF OCCURRENCE:		LAT. 04737700	REF. NO.
Silver	CIRCA 1968; AGNICO MINES LTD. (CART LAKE PROPERTY)			LONG. 07968800	O.D.M.-Ag-0455027
Cobalt	HISTORICAL NAME: NIPISSING MINES CO. LTD. - CLAIM R.L. 406				
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	COLEMAN		004550	TIMISKAMING	
LOCATION:			NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
3/4 mile south of town of Cobalt.			031M05E		"Con. V, Lot 6 S $\frac{1}{2}$ ".
					Claim:- No. R.L. 406

HISTORY OF OWNERSHIP:	EXPLORATION AND DEVELOPMENT	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1904: Nipissing Mines Co. Ltd.	Mostly before 1922.	
1952: Nipissing-O'Brien Mines Ltd.	Several shafts and considerable underground workings.	Silver production:- considerable.
1958: Agnico Mines Ltd.	Shaft No.86 is 200' deep with two levels of several hundred feet of crosscuts and drifts.	Included in total figures shown for Nipissing Mines Co. Ltd. - See O.D.M.-Ag-0455026.
	Winze No.102-13, Collared in tunnel, is 150' deep with two levels of several hundred feet of crosscuts and drifts.	
	1936: Shaft No.105 is 68' deep with level at bottom with short crosscuts and drifts.	
	1965-67: Cart Lake Shaft (Gould No.2 Shaft) was made serviceable with one level at	
OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCERX

MAJOR ORE MINERALS Silver and smaltite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS	Veins with Silver and Cobalt mineralization strike NE and are several hundred feet in length; they occur in a zone 3000' long that strikes N.
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Calcite.	
COUNTRY ROCK OR FORMATION Keewatin Volcanics and Cobalt Series Sediments.	
AGE: GEOLOGICAL ABSOLUTE	
Archean and Apehbian N.L.T. 3100 and N.L.T. 2150 m.y.	

MAP REFERENCE USED FOR LOCATION	FILE STATUS:	DATE	SIGNATURE
O.D.M. Map 2050, Cobalt Silver Area, 1964.	SKELETAL		
	INCOMPLETE		
	COMPLETED	1968	A.O.S.
	REVISED		

COMMODITY		NAME OF OCCURRENCE:		LAT. 04737700	REF. NO.
Silver	CIRCA 1968; AGNICO MINES LTD. (CART LAKE PROPERTY)			LONG. 07968800	O.D.M.-Ag-0455027
Cobalt	HISTORICAL NAME: NIPISSING MINES CO. LTD. - CLAIM R.L. 406				

GEOLOGY Keewatin volcanics outcrop in west part of claim and are steeply folded with WNW strike; these are overlain in the east part by Cobalt sedimentary rocks that strike north and dip east. Nipissing diabase occurs further east beyond the claim, and presumably, formerly overlay the Keewatin and Cobalt rocks. A swarm of veins that strike NE occurs only in the Cobalt rocks above the Keewatin; these veins contain silver and cobalt. Two veins, nos. 105 and 141, that occur in the Keewatin formation and strike WNW parallel to its bedding were rich in cobalt with little silver.	EXPLORATION AND DEVELOPMENT (Cont)
	98' depth; this shaft provides access to shaft No.86. Diamond drilling was carried out and high grade silver ore intersected. A small tonnage of ore was mined.
	1967-68: Shaft No.96 (about 1000'N of No.86 shaft) was dewatered to bottom at 150' depth. Diamond drilling from Tunnel and 150' levels has indicated six silver veins. It is planned to deepen the shaft 200' and develop two new levels.

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:
ABSOLUTE AGE	Archean and Apehbian	AGE OF ORE MINERAL
ROCK TYPE AND/OR MINERAL	N.L.T. 3100 and N.L.T. 2150 m.y.	Post Huronian
METHOD	Volcanics and Sediments	N.L.T. 2150 m.y.
	K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14
	X X X	X
	NAME OF TECTONIC EVENT	

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE
	PLAN X SECTION LONGITUDINAL PROJECTION
	Knight, C.W.
	1922: O.D.M. Vol.31, pt.2, Map 31a-13.
MAP REFERENCES	ODM FILES
O.D.M. Map 2050, Cobalt Silver Area, 1964.	
O.D.M. Map P.97, 1961.	
O.D.M. Map 31a-13, 1922	

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 19 68 AGNICO MINES LTD. (CART LAKE PROPERTY) HISTORICAL NAME: NIPISSING MINES LTD. - CLAIM R.L. 406.	LAT. 47° 22' 36"	REF. NO. O.D.M.-Ag-0455027
		LONG. 79° 41' 17"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to southeast corner of claim.	
ADDITIONAL REFERENCES:- Knight, C.W. 1922: Cobalt and South Lorrain Silver Areas, Ontario Dept. Mines, Vol.XXXI, pt.2, Map 31a-13. Mines of Ontario 1937: Nipissing Mining Co. Ltd. Ontario Dept. Mines, Vol.XLVI, pt.1, p.233. Thomson, R. 1961: Preliminary Report on Part of Coleman Township, Con. V, Lots 1 to 6, District of Timiskaming. Ontario Dept. Mines, Prelim. Rept. 1961-4, p. 116-117.			
COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: AGNICO MINES LTD. (CART LAKE PROPERTY) HISTORICAL NAME: NIPISSING MINES LTD. - CLAIM R.L. 406.	LAT. 47° 22' 36"	REF. NO. O.D.M.-Ag-0455027
		LONG. 79° 41' 17"	

YEAR	ORE RAISED		ORE & CONC. SHIPPED		COBALT		SILVER		Nkl		Cpnr		TOTAL VALUE
	TONS		TONS		Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	

COMMODITY		NAME OF OCCURRENCE:		LAT. 04737700	REF. NO.
Silver	CIRCA 1968: AGNICO MINES LTD. (407 Mine)			LONG. 07967200	O.D.M.-Ag-0455029
Cobalt	HISTORICAL NAME: NIPISSING MINES CO. LTD. CLAIM R.L. 407 (408)				
CO. or DIST.	TIMISKAMING	CODE No.	MINING DIV.	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE	COLEMAN	59	TIMISKAMING	"Con.V, Lot 5, S $\frac{1}{2}$ "	
LOCATION:			NTS	UTM	Claim: No. R.L. 407
Between Peterson and Cart lakes, 1 mile southeast of town of Cobalt.			031M05E		
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1904: Nipissing Mines Co. Ltd.		1904-11: Extensive trenching.		1904-1926	
1952: Nipissing-O'Brien Mines Ltd.		1912: Hydraulic removal of overburden.		Silver: 5,200 ozs.	
1958: Agnico Mines Ltd.		1911-15: Shaft No.150 was sunk and crosscuts were developed on levels at 209' & 309' depths.		1965-1967	
		1924-26: Shaft No.407 was sunk to 364' and underground development carried out.		Silver: 1,700,000 ozs.	
		1955: Diamond drilling was done.			
		1963-68: Shaft No.407 was sunk to 364' and underground development carried out.			
		1955: Diamond drilling was done.			
		1963-68: Shaft No.407 was rehabilitated and extensive levels at 308' (second),			
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER X PAST PRODUCER	

MAJOR ORE MINERALS	Silver, smaltite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS	Nicolcolite.	Vein zone, 1900' long by 800' wide, occurs parallel to NW fault near No.407 shaft through vertical height of 150'.		
ORE FABRIC	Vein and dissemination.	Veins occur in two sets that strike NW to N and NE to E; widths are mostly $\frac{1}{2}$ " to 1", & ore pockets average 25' by 25'.		
MAJOR GANGUE MINERALS	Calcite.	Stopes vary up to 15' in width in the greywacke where mineralization has followed bedding planes outward from veins.		
COUNTRY ROCK OR FORMATION	Cobalt Series sediments and Nipissing diabase.	Production is mostly from sediments within 50' of Keewatin unconformity.		
AGE: GEOLOGICAL	ABSOLUTE	Grade 1965-1967: about 24 oz/ton silver.		
Aphebian and Aphebian	N.L.T. 2150 and 2150 m.y.	MAP REFERENCE USED FOR LOCATION		
MAIN REFERENCE		FILE STATUS: DATE SIGNATURE		
Thomson, R.		SKELETAL		
1961: O.D.M. Prelim. Repr. 1961-4, p. 87-90.		INCOMPLETE		
		COMPLETED 1968 A.O.S.		
		REVISED		

COMMODITY		NAME OF OCCURRENCE:		LAT. 04737700	REF. NO.
Silver	CIRCA 1968: AGNICO MINES LTD. (407 Mine)			LONG. 07967200	O.D.M.-Ag-0455029
Cobalt	HISTORICAL NAME: NIPISSING MINES CO. LTD. CLAIM R.L.407 (408)				
GEOLOGY			EXPLORATION AND DEVELOPMENT (Cont)		
Flat lying Cobalt Series sediments in a shallow paleo-valley and up to 200' thick unconformably overlies Keewatin volcanics; the sediments are overlain by the Nipissing diabase sill that dips & increases in thickness (from 150') to the E. A major NW fault crosses the property about 500'E of No.407 shaft. Two sets of veins strike NW to N and NE to E. Chlorite spotting is pronounced in the sediments near the veins. Most production has come from the sediments within 50' of the Keewatin unconformity. Zoning of silver above cobalt mineralization is present in the veins.			365' (third) and 445' (fourth) depths have been developed with six production stopes. Diamond drilling on the fourth level, about 1300' ESE of No.407 shaft and in claim R.L. 408 has outlined richly mineralized veins.		

ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
Spotted chlorite type.					
GEOLOGICAL AGE		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE		K/Ar Rb/Sr Pb/Pb C14		Post-Huronian	
ROCK TYPE AND/OR MINERAL		NAME OF TECTONIC EVENT		N.G.T. 2150 m.y.	
METHOD		X		X	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE		
			PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES			ODM FILES		
O.D.M. Map 2050, Cobalt Silver Area, 1964.					
O.D.M. Map P.97, 1961.					





COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO. LTD. - CLAIM R.L. 408 (407)			LAT. 04737800	REF. NO. O.D.M.-Ag-0455030
		CODE No. 59	MINING DIV. TIMISKAMING	LONG. 07966200	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE "Con.V, Lot 4, S $\frac{1}{2}$ "	
CO. or DIST. TIMISKAMING	TP. or SQUARE COLEMAN	004550	NTS 031MOSE	UTM	Claim:- No.R.L. 408	
LOCATION: South of Peterson Lake, 1 mile SE of town of Cobalt.						
HISTORY OF OWNERSHIP: 1904: Nipissing Mines Co. Ltd. 1952: Nipissing-O'Brien Mines Ltd. 1958: Agnico Mines Ltd.		EXPLORATION AND DEVELOPMENT 1913: 2,239' of diamond drilling in 6 holes. 1914: 1,159' of diamond drilling. 1926: Lateral workings, on 308' level from Shaft No.407 in adjacent claim. 19 : Lateral workings from Nova Scotia No.3 Shaft in adjacent claim. 1954: Diamond drilling on vein 149. Shaft No. 149 is about 50' deep. 1963-68: lateral workings on levels at 365' and 445' depths from No.407 shaft in adjacent claim were developed with four production stopes. Diamond drilling on the 445' (fourth) level at about 1300' ESE of			PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1913-1926 Silver production: small 1965-67 Silver production: 1,700,000 ozs. (Includes that from claim R.L. 407).	
MAJOR ORE MINERALS Silver and smaltite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Vein No. 133 (Nova Scotia No.2) produced some silver. Vein No.149 (Juno Metals No.1) contained high grade silver ore.				
MINOR ORE MINERALS Niccolite.		COUNTRY ROCK OR FORMATION Cobalt Series sediments and Nipissing diabase.			Agnico Mines Ltd, 407 Shaft Mine Veins occur in two sets that strike NW to N and NE to E. Production is mostly from sediments within 50' of Keewatin unconformity. Grade is about 24 oz/ton silver.	
AGE: GEOLOGICAL Aphebian and Aphebian		ABSOLUTE N.L.T. 2150 and 2150 m.y.			MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.	
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-4, p. 56-57.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED			DATE 1968	
SIGNATURE A.D.S.						
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO. LTD. - CLAIM R.L. 408 (407)			LAT. 04737800	REF. NO. O.D.M.-Ag-0455030
		CODE No. 59	MINING DIV. TIMISKAMING	LONG. 07966200	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE "Con.V, Lot 4, S $\frac{1}{2}$ "	
GEOLOGY The Nipissing diabase sill that outcrops over the claim dips and increases in thickness (from 150') to the E; in the W $\frac{1}{2}$ of the claim it overlies flat lying Cobalt Series sediments up to 200' thick that occur in a shallow paleovalley and unconformably overlie Keewatin volcanics. Two major faults strike NW and one NE across the claim. Chlorite spotting is pronounced in the sediments near the veins. In the 407 Shaft Mine production has come from the sediments within 50' of the Keewatin unconformity; in the NE part of the claim vein No.149 carried high grade ore in Nipissing diabase.		EXPLORATION AND DEVELOPMENT (Cont) No.407 shaft has outlined richly mineralized veins.				
ALTERATION Spotted chlorite type.		METAMORPHISM			MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGS: ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Aphebian and Aphebian N.L.T. 2150 and 2150 m.y. Sediments and Diabase			AGE OF DEFORMATION: AGE OF ORE MINERAL Post-Huronian N.C.T. 2150 m.y.	
K/Ar Rb/Sr Pb/Pb Cl $\bar{4}$		K/Ar Rb/Sr Pb/Pb Cl $\bar{4}$			K/Ar Rb/Sr Pb/Pb Cl $\bar{4}$	
X		NAME OF TECTONIC EVENT			X	
COMPANY REPORTS		METALLURGY REFERENCE				
ECONOMICS REFERENCE		MILLING REFERENCE				
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE				
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION				
MAP REFERENCES O.D.M. Map 2050, Cobalt Silver Area, 1964. O.D.M. Map P.97, 1961.		ODM FILES				

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO. LTD. - CLAIM R.L. 408 (407)	LAT. 47° 22' 40" LONG. 79° 39' 43"	REF. NO. O.D.M.-ag-0455030
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Latitude and longitude refer to Southeast corner of claim R.L.408. 1963-68: Claim is part of Agnico Mines Ltd. 407 Shaft Mine.	
ADDITIONAL REFERENCES:-			
Thomson, R. 1961: Preliminary Report on Part of Coleman Township, Con.V, Lots 1 to 6, District of Timiskaming, Ontario Dept. of Mines, Prelim. Rept. 1961-4, p. 56-57.			
Watson, R.B. 1911: Seventh Annual Report of Nipissing Mines Co. Ltd.			
Thorniley, B.H. 1967: Cobalt and District; Guidebook of C.I.M.M. Centennial Field Excursion, p. 154-156			
COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: NIPISSING MINES CO. LTD. - CLAIM R.L. 408 (407)	LAT. 47° 22' 40" LONG. 79° 39' 43"	REF. NO. O.D.M.-Ag-0455030

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT Lbs.	\$	SILVER Oz.	\$	Nkl Lbs.	\$	Cpgr Lbs.	\$	TOTAL VALUE \$
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COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: TRINOVA COBALT SILVER MINES LTD. HISTORICAL NAME: NOVA SCOTIA SILVER COBALT MINING CO. LTD (CLAIM)		LAT. 04738500	REF. NO. O.D.M.-Ag-0455034
CO. or DIST. TIMISKAMING		CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.V, Lot 3	
TP. or SQUARE COLEMAN		004550	NTS 031M05E	UTM Claim:- SW $\frac{1}{2}$ , N $\frac{1}{2}$ of lot 3	
LOCATION: Located on the eastern shore of Peterson Lake, about 1 $\frac{1}{2}$ miles southeast of town of Cobalt.					
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1905: Peterson Lake Silver Cobalt Mining Co.		1905: Underground workings commenced. No.3 Shaft is 250' deep with levels at depth of 52', 74', 105', 153' & 227'. From the 227-ft. level at about 210'W of the shaft, a winze was put down 40' and from it a sublevel made at 15' below the 227-foot level. No.1 Shaft:- is 145' deep with levels at 50' and 125'. No.2 Shaft:- is about 125' deep. No.4 Shaft:- is 75' deep with one level. No.5 Shaft:- is about 50' deep with no lateral workings.		Silver (1906-11, 17 to 18, 21 to 22, 28-31, 33-35, 39-40 & 51-52) 1,082,774 ozs, \$592,698. Cobalt (1907-09, 28, 39-40 & 51-52) 114,199 lbs., \$26,695. Gold (1935) 165 ozs. \$5,198 Total Value: \$624,591	
1906: Nova Scotia Silver Cobalt Mining Co. Ltd.		1940: McCready Shaft - is 135' deep with levels at 60' and 135'. The 135-foot level		O.D.M. statistical files.	
1913: Dominion Reduction Co. Ltd.					
1935: Leased to Trinova Cobalt Silver Mines Ltd					
1939: Trinova Cobalt Silver Mines Ltd.					
1954: Leased to Coballoy Mines & Refiners Ltd.					
1963: Leased to Silver Town Mines Ltd.					
		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER			
MAJOR ORE MINERALS Silver and smaltite.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS Chalcopyrite and galena.			Vein No.1:- The ore shoot extends for a horizontal length of 600' and persists to a vertical depth of at least 150'.		
ORE FABRIC Vein.			Vein No.2:- Extends for a horizontal length of 300' and persists to a vertical depth of 250'.		
MAJOR GANGUE MINERALS Calcite and quartz.			Vein No.10: The ore shoot has a horizontal length of 50' and extends to a vertical depth of 75'. Production was restricted to where the vein cuts through the lamprophyre dike and andesitic lava.		
COUNTRY ROCK OR FORMATION Keewatin rocks intruded by Nipissing diabase.			Grade (Av. 1906-11): Silver 81 ozs/ton.		
AGE: GEOLOGICAL ABSOLUTE Archean and Aphebian N.L.T. 3100 and 2150 m.y.			MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.		
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-4, p. 38-44.			FILE STATUS: DATE SIGNATURE		
			SKELETAL		
			INCOMPLETE		
			COMPLETED		1968 A.O.S.
			REVISED		
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: TRINOVA COBALT SILVER MINES LTD. (CLAIM) HISTORICAL NAME: NOVA SCOTIA SILVER COBALT MINING CO. LTD.		LAT. 04738500	REF.NO. O.D.M.-Ag-0455034
GEOLOGY Keewatin rocks cut by Haileyburian Lamprophyre dikes are intruded by the Nipissing diabase sill. The upper contact of the diabase sill is circular with subhorizontal dip. Two faults cross the southwest portion of the claim; one strikes WNW and dips 70-80° NNE, the other strikes NNW and dips vertically. Silver-cobalt bearing veins mostly occur in the vicinity of the Keewatin-diabase contact. The silver and cobalt produced came mainly from veins nos.1 & 2 which strike easterly and transect with steep dips both Keewatin rocks and Nipissing diabase. Base metal mineralization such as chalcopyrite and galena occurs in association with cobalt mineralization in veins Nos. 1 and 5.			EXPLORATION AND DEVELOPMENT (Cont) connects with 125-foot level on the No.1 shaft. 1955 Shaft:- is 170' deep with levels at 90' and 130'. The 130-ft. level connects with the No.3 shaft 105-ft. level which is at the same elevation.		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
Archean and Aphebian N.L.T. 3100 and 2150 m.y. Volcanics and Diabase				Post-Huronian N.G.T. 2150 m.y.	
K/Ar Rb/Sr Pb/Pb C14 X X		K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT		K/Ar Rb/Sr Pb/Pb C14 X	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M. Map P.97, 1961.			ODM FILES		

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: TRINOVA COBALT SILVER MINES LTD. HISTORICAL NAME: NOVA SCOTIA SILVER COBALT MINING CO. LTD. (CLAIM)	LAT. 47° 23' 4"	REF. NO. O.D.M.-Ag-0455034
		LONG. 79° 39' 32"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to southeast corner of claim.	

ADDITIONAL REFERENCES:-

Thomson, R.  
1961: Preliminary Report on part of Coleman Township, Con.V, Lots 1 to 6, District of Timiskaming, Ontario  
Dept. Mines Prelim. Rept. 1961-4, p. 38-44.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: TRINOVA COBALT SILVER MINES LTD. HISTORICAL NAME: NOVA SCOTIA SILVER COBALT MINING CO. LTD. (CLAIM)	LAT. 47° 23' 4"	REF. NO. O.D.M.-Ag-0455034
		LONG. 79° 39' 32"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cpnr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1906	43	43			10,785	6,200					6,200
07	280	280	8,000	4,000	112,000	56,000					60,000
08		172			110,136	52,509					52,509
09		319	76,000	422	157,222	61,822					62,244
1910	5,592				271,981	147,944					147,944
11	880				145,694	79,611					79,611
17		6,354			88,488	72,773					72,773
18		3,457			45,318	30,041					30,041
1921	91	264			83,932	53,478					53,478
22	12	80			19,015	12,443					12,443
28		112			11,332	6,573					6,573
1931		5	15,299	7,488	537	161					7,649
33					10	5					5
34		27			11,490	5,808					5,808
35		221			10,695	4,307	165	5,198			9,505
39	92	20	4,532	4,271	225	84					4,355
1940	194	42	10,168	10,091	1,343	497					10,588
1951		658	24	144	1,135	1,134					1,278
52			176	274	1,436	1,308					1,587
	7,184	12,054	114,199	26,695	1,082,774	592,698	165	5,198			624,591

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: O'BRIEN MINE - R.L.403		LAT. 04739200 LONG. 07966300	REF.NO. O.D.M.-Ag-0455014
CO. or DIST. TIMISKAMING TP. or SQUARE COLEMAN		CODE No. 59 004550	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACKNOWLEDGMENT Con. VI, Lot 4. Claim: 5/8 of lot 4. (R.L.403)
LOCATION: Located about one mile east of town of Cobalt.		NTS 031M05E	UTM		
HISTORY OF OWNERSHIP: 1903: M.J. O'Brien 1940: Leased to Cross Lake Lease 1952: Nipissing O'Brien Mines Ltd. 1958: Agnico Mines Ltd.		EXPLORATION AND DEVELOPMENT 1905-1937. Several Shafts with about 12 miles of drifts, cross-cuts, raises and winzes. Main Shaft:- was sunk 345' with levels at 140', 180', 270' and 340'. No.6 Shaft:- was sunk 300' with levels at 75', 120', 245' and 300'. No.1 Shaft:- was sunk 320' with levels at 25', 90', 125', 200' and 300'. No.2 Shaft:- was sunk 240' with levels at 65', 165', 205' and 240'. No.33 Shaft:- was sunk 180' with levels at 100' and 180'. 1940-52. Development work was confined to No.2		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) (1905-52) Silver Cobalt 41,328,539 ozs. 2,910,149 lbs. \$ 23,258,716 \$830,333 Nickel Copper Gold (1931-40) (1923-40) (1931-40) 186,421 lbs. 474,998 lbs. 64 oz. \$ 4,747. \$36,101. \$1,524. N.B. The data for production between 1928 and 1942 includes that from Cross Lake O'Brien property. O.D.M. statistical files.	
MAJOR ORE MINERALS Silver and Smaltite. MINOR ORE MINERALS Nickel and Copper minerals ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite and Quartz. COUNTRY ROCK OR FORMATION Keewatin rocks and Cobalt Series sediments are intruded by the Nipissing diabase sill. AGE: GEOLOGICAL ABSOLUTE Archean and Aphebian. N.L.T.3100,N.L.T.2150 & 2150 m.y.		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES No.1 vein system:- extends horizontally for a length of at least 2,500'. No.6 vein system:- extends horizontally for a length of about 1,800'. No.20 vein system:- with a horizontal length of 300' extends vertically 200'. Grade:- Silver Cobalt 1905-15:- 58 ozs/ton 1906-10:- 14 lbs/ton 1923-27:- 16 ozs/ton 1923-27:- 3 lbs/ton 1943-52:- 488 ozs/ton 1943-52:- 60 lbs/ton	
MAIN REFERENCE: Thomson, R., 1961: O.D.M. Prelim. Rept. 1961-3, p. 58-66.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.		FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED	
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: O'BRIEN MINE - R.L. 403		LAT. 04739200 LONG. 07966300	REF.NO. O.D.M.-Ag-0455014
GEOLOGY Keewatin rocks cut by Haileyburian lamprophyre dike, and Cobalt Series sediments are intruded by the Nipissing diabase sill. The lower contact of the diabase strikes SW with SE dip and cuts across the Cobalt-Keewatin unconformity. The NE half of the property is crossed by the O'Brien Fault that strikes WNW and dips 85°S. Three main vein systems occur: Nos. 1, 6, and 20. Veins Nos. 1 and 6 strike WNW with steep dips; towards the SE they converge and split into branches. Vein No.1, the eastward extension of the Macdonald vein on adjoining LaRose property, is the largest in the Cobalt area. Vein No.20 runs southeastward from vein No.6. The silver-cobalt ore shoots mostly follow the lower contact of the diabase sill.		EXPLORATION AND DEVELOPMENT (Cont) Shaft with several hundred feet of lateral workings. 1952-58. No.2, Shaft :- was deepened 10'. No.615 Winze:- was sunk 115' from 340' level of the main shaft. No. 14 Shaft:- was sunk 176'. Other development work includes: drifts, 4,424'; crosscuts, 1,044'; raises, 2,583'; and 204 underground diamond drill holes, totalling 39,711'. 1958-64. Development work, restricted to the main shaft, includes: drifting 4,488', subdrifting, 3,344'; cross-cuttings, 1,265'; raisings 6084'; and 752 underground drill holes totalling 100,755'. 1964-67			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Archean, Aphebian and Aphebian N.L.T. 3100, N.L.T. 2150, and 2150 m.y. Volcanics, Sediments and Diabase K/Ar Rb/Sr Pb/Pb C14 X X		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT X	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Archean, Aphebian and Aphebian N.L.T. 3100, N.L.T. 2150, and 2150 m.y. Volcanics, Sediments and Diabase K/Ar Rb/Sr Pb/Pb C14 X X		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W. 1922: O.D.M. Vol. XXXI, pt. 2, Map 31a-10.			
MAP REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964 2. O.D.M. Maps P. 97 and P. 97A, 1961. 3. O.D.M. Map 31a-10, 1922.		ODM FILES			

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 23' 31"	REF. NO.
Silver Cobalt	CIRCA 1968 : AGNICO MINES LTD. HISTORICAL NAME: O'BRIEN MINE - R.L.403	LONG. 79° 39' 45"	O.D.M. -Ag-0455014

\* Includes production from Cross Lake O'Brien property.  
 \*\* Includes production of other Nipissing O'Brien Mines; about 2/3 of the production from claim R.L. 403.

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT			SILVER		Nkl		Cpnr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$		
1905	25	25			117,055	64,272					64,272	
06	210	115	20,000	1,659	145,012	92,660					94,319	
07	2,010	1,489	108,660	9,911	1,584,920	996,551					1,006,462	
08	3,493	3,493	116,860	8,940	1,765,073	806,802					815,742	
09	5,164	1,415	98,000	9,665	1,576,411	796,918					806,583	
1910	21,319	411	93,000	7,469	1,479,313	746,675					754,144	
11	29,462	349			1,497,546	700,613					700,613	
12	30,070	606			1,091,631	670,890					670,890	
13	30,449	681			1,240,931	72,844					722,844	
14	41,949	515			1,231,834	113,599					603,599	
15	53,025	373			991,084	510,301					510,301	
16	81	284			776,068	528,924					528,924	
17		641	46,263	3,650	1,064,335	879,068					882,718	
18		750			1,074,312	1,107,910					1,107,910	
19		636	72,556	8,717	648,501	766,463					775,180	
1920		734	86,989	11,309	1,179,706	1,274,082					1,285,391	
21	54,046	609	55,654	8,181	1,366,686	991,888					1,000,069	
22	43,346	733	69,130	12,420	896,195	696,781					709,201	
23	46,853	1,678	202,904	32,649	1,025,865	666,812		8,645	605		700,066	
24	46,146	1,603	126,700	21,539	683,353	475,517		13,430	942		497,998	
25	53,786	1,679	130,902	26,180	742,461	501,400		23,826	1,430		529,010	
26	54,594	1,780	140,076	35,761	867,987	494,753		15,381	1,525		532,039	
27	53,016	1,640	135,500	32,500	718,041	397,122		14,000	980		430,602	
* 28	54,065	1,915	113,716	15,151	1,020,600	575,271		20,412	1,526		591,948	
* 29	55,599	1,636	93,617	12,638	1,928,129	983,346			7,800		996,998	
*1930	56,192	1,151	101,285	15,129	2,133,833	756,462			33,054		775,319	
* 31	51,431	1,367	119,199	28,896	2,450,802	797,371	59,670	1,729	57,941	5,438	833,721	
* 32	34,093	873	14,196	11,936	1,636,786	502,905	28,282	596	36,714	2,152	512,257	

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 23' 31"	REF. NO.
Silver Cobalt	CIRCA 1968 : AGNICO MINES LTD. HISTORICAL NAME: O'BRIEN MINE - R.L.403	LONG. 79° 39' 45"	O.D.M. -Ag-0455014

\* Includes production from Cross Lake O'Brien property.  
 \*\* Includes production of other Nipissing O'Brien Mines; about 2/3 of the production from Claim R.L. 403.

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT			SILVER		Nkl		Cpnr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$		
*1933	28,751	614	54,323	16,597	1,184,347	465,962	13,400	362	38,052	2,802	485,846	
* 34	30,500	568	54,873	16,463	1,070,670	514,155	7,789	2	24,745	86	530,749	
* 35	25,863	741	60,545	24,163	897,860	586,747	13,136	15	15,969	234	611,210	
* 36	27,574	751	80,193	5,326	858,439	386,393	14,541	540	37,644	3,445	395,877	
* 37	30,512	874	97,897	28,833	653,615	293,472	24,442	852	45,910	6,057	329,533	
38	27,085	872	40,000	7,063	698,134	302,626	11,963	420	29,822	2,910	313,206	
39	31,639	901	56,704	21,230	723,201	271,258	8,692	16	20,821	528	393,140	
*1940	6,090	637	124,431	95,300	496,618	169,827	4,306	215	10,832	699	266,106	
* 41	1,410	641	125,054	94,020	46,510	9,324					103,344	
* 42	214	275	66,375	58,852	361,354	126,669					185,521	
43	546	446	83,101	75,965	265,973	101,876					177,841	
44	320	269	51,276	27,995	187,747	70,824					98,819	
45	125	69	12,190	4,852	41,557	17,512					22,364	
46	70	66			271,433	221,231					221,231	
48	38	84	14,873	7,670	152,541	113,880					121,550	
49	100	43	6,682	2,604	95,576	20,744					73,348	
1950	115	35	3,876	1,446	211,669	177,142					178,588	
1950	239	5	700	308	45,180	39,550					39,858	
51	500	44	8,312	19,034	161,869	153,047					172,081	
	1033,115	37,143	2,910,149	830,333	41,328,539	23,258,716	186,421	4,747	474,998	36,101	24,129,682	
**1954			12,588		210,765				2,833			
**1955			65,872		669,734		24,651		36,028			
**1956			46,716		610,474				22,682			
**1957			52,600		595,225				34,216			
**1958			28,340		269,211		2,504		14,467			
			206,116		2,355,409		27,155		110,226			

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: V.J. ADAMS HISTORICAL NAME: OPHIR COBALT MINES LTD.	LAT. 04734500 LONG. 07964300	REF. NO. O.D.M.-Ag- 0455065
CO. or DIST. TIMISKAMING TP. or SQUARE COLEMAN	CODE No. 59 004550	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. II, Lot 2, N $\frac{1}{2}$ , Claim: E part of NE $\frac{1}{4}$ (No.150)
LOCATION: About 4 miles SE of Cobalt.		NTS 031M05E	UM
HISTORY OF OWNERSHIP: 1908-1942: Ophir Cobalt Mines Ltd. 1918: Leased to Mining Corporation. 1919: Leased to Nipissing Mining Co. 1952-1957: Leased to Silver Crater Mines Ltd. 1957: Subleased to Juno Metals Corporation 19 : V.J. Adams.		EXPLORATION AND DEVELOPMENT 1908-1915: No.1 Ophir Shaft was sunk 300' with levels at 100' (of minor extent) 200' and 300'. About 850' of lateral work was done on the 200' level and 800' on the 300' level. 1913-15 : No.2 Ophir Shaft was put down. 1917-1920: From the 400' level of Peoples' Silver Mines Ltd. Shaft (now the Mayfair Shaft) 1200' of drifting was done on the Ophir, claim where No.4 winze was sunk. 1952-1954: The 200' level of the Mayfair Shaft was extended 295' into the Ophir claim to connect with No.2 Ophir Shaft and 750' of cross cutting and drifting was done on the 500' of	PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1921: Silver 69 oz. \$45

MAJOR ORE MINERALS Silver, Cobalt nickel arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS Bismuth.	Ophir Vein No.1 group, an extension of Mayfair No.1 veins, extends 1300' N through the Ophir claim into the N adjoining Silver Banner Property. The veins extend to a depth of 500'.
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Calcite.	
COUNTRY ROCK OR FORMATION Keewatin andesite, Nipissing diabase.	
AGE: GEOLOGICAL ABSOLUTE	
Archean, Aphebian N.L.T. 3100 and 2150 m.y.	
MAP REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-2, p. 27-32.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052, Cobalt Silver Area, 1964. Lat. and long. refer to SE corner of claim No.150.
	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED DATE: 1968 SIGNATURE: A.O.S.

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: V.J. ADAMS HISTORICAL NAME: OPHIR COBALT MINES LTD.	LAT. 47° 20' 43" LONG. 79° 38' 33"	REF. NO. O.D.M.-Ag- 0455065
GEOLOGY Steeply dipping Keewatin pillowed andesite that strikes NW and faces NE is exposed on the claim. Nipissing diabase that forms the SE northwesterly dipping limb of the New Lake diabase basin cuts the Keewatin rocks 400' below the surface. A small NW trending depression occurs on the limb in the vicinity of No.1 and 2 Ophir shafts. Two NE striking faults cross the property, the Silver Crater Fault and the Mayfair Fault.		EXPLORATION AND DEVELOPMENT (Cont) of the Victory Shaft to connect with No.4 winze. Diamond drilling was also done.	

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean, Aphebian N.L.T. 3100 2150 m.y. Volcanics, Diabase K/Ar Rb/Sr Pb/Pb C14 X X	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT
		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X
COMPANY REPORTS	METALLURGY REFERENCE	
ECONOMICS REFERENCE	MILLING REFERENCE	
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE	
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION	
MAP REFERENCES O.D.M. Maps No. P.95 and No.P.95A, 1961. O.D.M. Map No. 2052, Cobalt Silver Area, 1964.	ODM FILES	



COMMODITY Silver	NAME OF OCCURRENCE CIRCA 1968: V.J. ADAMS HISTORICAL NAME: OPHIR COBALT MINES LTD.	LAT. 47° 20' 43"	REF. NO. O.D.M.-Ag-0455065
		LONG. 79° 38' 33"	
HISTORY OF OWNERSHIP (CONT)		REMARKS	
ADDITIONAL REFERENCES: -			
COMMODITY Silver	NAME OF OCCURRENCE CIRCA 1968: V.J. ADAMS HISTORICAL NAME: OPHIR COBALT MINES LTD.	LAT. 47° 20' 43" LONG. 79° 38' 33"	REF. NO. O.D.M.-Ag-0455065

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT Lbs.	\$	SILVER Oz.	\$	Nkl Lbs.	\$	Cprr Lbs.	\$	TOTAL VALUE \$
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COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: PENN-CANADIAN MINES LTD.		LAT. 04737600 LONG. 07966400	REF. NO. O.D.M.-Ag-0455048
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. IV, Lot 4, N $\frac{1}{2}$ Claims:- Nos. 370,664,125 and NE $\frac{1}{2}$ .	
TP. or SQUARE COLEMAN	004550	NTS 031M05E	UTM		
LOCATION: Located at northern end of Glen Lake, about 1 $\frac{1}{2}$ miles southeast of town of Cobalt.					
HISTORY OF OWNERSHIP: 1905: Big Pete Canadian Mines Ltd. 1906: Cobalt Central Mines Co. Ltd. 1912: Penn-Canadian Mines Ltd. 1924-25: Doherty-Easson Mining Sndc. 1943: Cobalt Products Ltd. 1952: Penn-Cobalt Silver Mines Ltd. 1953: Cobalt Consolidated Mining Corp. Ltd.		EXPLORATION AND DEVELOPMENT Two shafts with underground workings: Cobalt Central No.1 shaft:- 310' deep with levels at 61' (1st); 100' (2nd), 180' (3rd), 254' (4th) and 305' (5th). Sublevels at about 40' below the 5th level have been established at different places. Workings on the 4th level include a long cross-cut to near the NW corner of claim. Cobalt Central No.2 Shaft:- 110' deep with about 810' of lateral work on 100' level. 1966: Diamond drilling was carried out.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) (1908-1949 excluding 1935-48) Silver Cobalt 3,765,877 ozs. 153,633 lbs. \$2,196,557 \$8,969  O.D.M. statistical files.	
MAJOR ORE MINERALS Silver and smaltite.		MINOR ORE MINERALS Zinc, lead and copper minerals.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES The average width of mineralization is 12'.  1951, Ore reserves: Estimated at in excess of 300,000 tons, of 3% Zn, 1.5% Pb, 0.5% Cu and 0.75 ozs/ton Ag.	
ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite.		COUNTRY ROCK OR FORMATION Cobalt Series sediments intruded by Nipissing diabase sill.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052, Cobalt Silver Area, 1964.	
AGE: GEOLOGICAL ABSOLUTE Aphebian and Aphebian N.L.T. 2150 and 2150 m.y.		GEOLOGY Nipissing diabase as part of the SE limb of the Peterson Lake Basin, outcrops over the property; its (lower) contact is conformable with the Cobalt Series sediments on which it lies. Gently dipping faults occur near the contact. Veins form two sets with NE and SE strikes. The Big Pete and Cobalt Central Nos. 1 and 2 veins were important silver producers. Production was restricted to those parts of the veins in the diabase and sediments, being absent in the Keewatin volcanics.		FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED	
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-6, p. 64-73.		EXPLORATION AND DEVELOPMENT (Cont)			
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: PENN-CANADIAN MINES LTD.		LAT. 04737600 LONG. 07966400	REF. NO. O.D.M.-Ag-0455048
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Aphebian and Aphebian N.L.T. 2150 and 2150 m.y. Sediments and Diabase K/Ar Rb/Sr Pb/Pb Cl4 X		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT	
				AGE OF ORE MINERAL Post-Huronian N.L.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb Cl4 X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W. 1922: O.D.M. Vol.31, pt.2, Map Sheet 31a-8 and 9.			
MAP REFERENCES O.D.M. Map 2052, Cobalt-Silver Area, 1964. O.D.M. Map P.96, 1961.		ODM FILES			

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: PENN-CANADIAN MINES LTD.	LAT. 47° 22' 33"	REF. NO. O.D.M.-Ag-0455048
		LONG. 79° 39' 50"	
HISTORY OF OWNERSHIP (CONT)		REMARKS	
1958: Agnico Mines Ltd. 1963: Leased to Glen Lake Silver Mines Ltd. (Hiho).		Longitude and latitude refer to southeast corner of claim.	

ADDITIONAL REFERENCES:-

Knight, C.W.  
1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas, Ontario Dept. Mines, Vol.XXXI, Pt.2, p. 156-157 and maps 31a-8 and 9.

Thomson, R.  
1961: Preliminary Reports on parts of Coleman Township, Con.IV, Lots 1 to 5 and Gillies Limit, the Eastern 'A' Claims, District of Timiskaming, Ontario Dept. Mines, Prelim. Rept. 1961-6, p. 64-73.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: PENN-CANADIAN MINES LTD.	LAT. 47° 22' 33"	REF. NO. O.D.M.-Ag-0455048
		LONG. 79° 39' 50"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER Oz.	Nkl Lbs.	Cpnr Lbs.	TOTAL VALUE \$
			Lbs.	\$				
1908	14,026	40	26,630	1,259	468,138	226,493		227,752
09	26,863	1	61,536	3,270	438,756	226,499		229,769
10	23,838		40,048	403	149,282	73,111		73,514
11	116				10,732	4,843		4,843
12		124			92,076	57,663		57,663
13	16,710	331			334,426	165,690		165,690
14	25,558	448	1,392	167	556,119	275,126		275,293
15	28,593	686			590,170	293,179		293,179
16	33,216	551			518,585	340,508		340,508
17		440	10,398	1,721	259,784	211,549		213,270
18		259	12,787	1,917	222,198	215,025		216,962
19		153			88,671	84,609		84,609
1921		3			2,079	1,385		1,385
25	3,014	39	599	94	15,051	10,586		10,680
26		1			3,295	1,903		1,903
27					10,377	5,591		5,591
1930		2	233	138	3,963	1,506		1,644
34					1,767	1,000		1,000
1949					408	292		292
	171,934	3,078	153,633	8,969	3,765,877	2,196,557		2,205,526

COMMODITY Silver Cobalt	CIRCA 1968: HISTORICAL NAME: PETERSON LAKE SCMCL (west half leases Peterson Lake)	NAME OF OCCURRENCE: SILVER TOWN MINES LTD.	LAT. 04738600 LONG. 07967300	REF. NO. ODM-Ag-0455032
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. V, Lot 4. Claims:- Approx. W half of lot 4 (Peterson Lake, West half leases).	
TP. or SQUARE COLEMAN	004550	NTS 031M05E	UTM	
LOCATION: West half of Peterson Lake that is about 3/4 of a mile SE of town of Cobalt.				

HISTORY OF OWNERSHIP: 1906: Peterson Lake Silver Cobalt Mining Co. Ltd. 1906-12: Leased most of the property in separate parcels to various working companies. 1922: Leased to Mining Corporation of Canada. 1935: Leased to Trinova Cobalt Silver Mines. 1952: Leased to Cobalt Lode Silver Mines Ltd. (Car Pete Lease). 1955: Leased to Coballoy Mines and Refiners Ltd. 1963: Silver Town Mines Ltd.	EXPLORATION AND DEVELOPMENT 1906-30. Sasquehanna Shaft:- sunk 210' with extensive lateral workings on its only level at 200'. Little Nip or No. 3 Shaft:- sunk 160' with levels at 100' and 150'. From the 150' level No. 2 Winze goes to the 215' and 273' sublevels. No. 1 Winze goes from 273' level to 320' sublevel 1000' of working extends SE across the adjoining Nipissing R.L. 405 property. Island No. 19 Shaft :- sunk 100'. Union Pacific Shaft:- sunk 100'. St. Anthony Shaft:- sunk 150' with extensive lateral work. Peterson Lake No. 2 Shaft:- sunk 225' with levels at 125' and 200'. A sublevel at 299' was established by a winze from the 200' level. The 200' level connects with Nos. 1 and 3 Peterson Lake Shafts. Peterson Lake No. 1 Shaft:- sunk 217' with extensive level at 200'.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY) (1908-65) Silver Cobalt 909,064 ozs. 27,303 lbs. \$613,464 \$ 3,846 Total Value:- \$617,310. 1967-68, January Silver production: 140,000 ozs. O.D.M. Statistical files.
OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER X PAST PRODUCER		

MAJOR ORE MINERALS Silver and smaltite. MINOR ORE MINERALS Chalcopyrite and niccolite. ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite. COUNTRY ROCK OR FORMATION Keewatin Volcanics and Cobalt Sediments are intruded by Nipissing diabase sill. AGE: GEOLOGICAL Archean and Aphebian N.L.T.3100 and N.L.T.2150 & 2150 m.y. ABSOLUTE	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Nipissing Vein No. 8: with a horizontal length of 1000' extends vertically about 225'. Little Nip Vein No. 2:- with a horizontal length of about 300' extends vertically 160'. Grade (Silver):- 1922-23 1963-64 19 ozs./ton. 17 ozs./ton.
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MAIN REFERENCE Thomson, R., 1961: O.D.M. Prelim. Rept. 1961-4, p. 57-70.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968	SIGNATURE A.O.S.
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COMMODITY Silver Cobalt	CIRCA 1968: HISTORICAL NAME: PETERSON LAKE SCMCL (Peterson Lake, west half leases)	NAME OF OCCURRENCE: SILVER TOWN MINES LTD.	LAT. 04738600 LONG. 07967300	REF. NO. O.D.M.-Ag-0455032
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GEOLOGY Keewatin rocks and Cobalt sediments are intruded by Nipissing diabase sill. The diabase forms the W limb of the SW trending Peterson Lake Diabase Basin. Silver bearing veins occur in two sets: one of these strikes W and follows Keewatin interbedded chert; the other strikes SW parallel to the axis of the Peterson Lake Basin. Production is mostly restricted to the vicinity of the Keewatin-Nipissing contact. Base metal mineralization such as chalcopyrite and niccolite occurs as disseminated sulphides in the Keewatin rocks.	EXPLORATION AND DEVELOPMENT (Cont) 1963-68. Several silver producing veins were discovered after extensive development work. Four shafts viz. Peterson Shaft Nos. 1 and 2, Little Nip and Sasquehanna Shaft were de-watered. No.2 winze was deepened 150' below 273' sublevel and No.1 winze 283' below 320' sublevel. Underground drill hole footage totalled 42,000'. Inclined winze, collared on 200' level of Peterson Lake No.1 Shaft, has been sunk to new 260' level where several high grade silver producing veins have been developed.
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ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION

MAP REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M. Map P.97 and P.97A, 1961. 3. O.D.M. Map 31a-19, 1922.	ODM FILES
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COMMODITY	NAME OF OCCURRENCE	LAT. 47° 23' 9"	REF. NO.
Silver Cobalt	CIRCA 19 68 SILVER TOWN MINES LTD. HISTORICAL NAME: PETERSON LAKE SCMCL (Peterson Lake, west half leases)	LONG. 79° 40' 22"	O.D.M.-Ag-0455032
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		<p>1. Longitude and latitude refer to St. Anthony Shaft in St. Anthony lease.</p> <p>2. Peterson Lake, West half leases consist of:-                      a) Sasquehanna                      b) Little Nipissing                      c) Island 19                      d) Island 20 (e) Union Pacific                      e) St. Anthony (g) Kerry (h) Island 26.</p>	

ADDITIONAL REFERENCES:-

Riddell, G.S.,  
 1965: Annual Report for the year 1963; Ontario Dept. of Mines, Vol. 73, p. 144-145.  
 1966: Annual Report for the year 1964; Ontario Dept. of Mines, Vol. 74, p. 139-140.

Thomson, R.,  
 1961: Preliminary Report on part of Coleman Township, Concession V, Lots 1 to 6, District of Timiskaming; Ontario Dept. of Mines, Prelim. Rept. 1961-4, p. 57-70.

The Northern Miner  
 1966: August 11th, September 1st and 8th, November 10th, December 8th.  
 1967: March 9th, April 27th, December 2nd and 21st.  
 1968: March 28th.

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 23' 9"	REF. NO.
Silver Cobalt	CIRCA 19 68: SILVERTOWN MINES LTD. HISTORICAL NAME: PETERSON LAKE SCMCL (Peterson Lake, West half leases)	LONG. 79° 40' 22"	O.D.M.-Ag-0455032

YEAR	ORE & CONG.		COBALT		SILVER		Nkl		Cpnr		TOTAL VALUE
	RAISED TONS	SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1908		113	20,000	204	55,081	25,118					25,322
09	20	183	1,826	153	124,505	60,306					60,306
10	318	618	1,607	96	328,461	174,358					174,358
13	311	9			31,253	17,970					17,970
14	39	38			23,639	13,326					13,326
18		58			19,008	19,222					19,222
19		71			35,755	42,171					42,171
1920		3,963	791	106	95,665	87,685					87,791
22					29,887	16,898					16,898
23	811	3,004			29,444	14,400					14,400
24	2,760	2,761			47,334	32,140					32,140
25		29			1,920	1,094					1,094
26		20			1,056	581					581
27	320	17			947	520					530
28		20			1,708	991					991
1932		1	110	55	2,584	775					830
33		2			2,623	988					988
34					404	166					166
36		6		500	416	166					666
39		1		63	433	160					223
1944			97		1,602	689					786
48					462	290					290
49			211	211							211
1964	3,762	67	1,389	2,361	66,477	93,068					95,429
65		255			7,400	10,360					10,360
1966	8,331	11,223	27,303	3,846	909,064	613,464					617,310
					9,012	12,608					12,608

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: SILVER TOWN MINES LTD. HISTORICAL NAME: PETERSON LAKE SCML (Cart Lake Lease)		LAT. 04737700	REF. NO.
				LONG. 07968400	O.D.M.-Ag-0455028
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE COLEMAN	004550			"Con.V, Lot 6."	
LOCATION: Cart Lake that is about 1 mile SSE of town of Cobalt.		NTS 031M05E	UTM	Claim:- Approx. W $\frac{1}{2}$ of S $\frac{1}{2}$ of lot 5 (Cart Lake)	
HISTORY OF OWNERSHIP: 1906: Peterson Lake Silver Cobalt Mining Co. Ltd. 1906: Leased Seneca - Superior Lease to Kerry Mining Co. 1907-19: Leased Gould Lease to Gould Consolidated Mines Ltd. 1911-17: Leased Seneca - Superior Lease to Seneca - Superior Silver Mines Ltd. 1914: Cart Lake Silver Mines Ltd. operated the Gould Lease.		EXPLORATION AND DEVELOPMENT 1906: Seneca No.1 Shaft: was sunk 110' with level at 100'. Seneca No.2 Shaft: was sunk 50'. 1908: Gould No.1 Shaft: was sunk 200' with levels at 80', 118', 200'. Gould No.2 Shaft: (Agnico ML Cart Lake shaft, 1966) was sunk 195' with levels at 98', 185'. 1911-16: Seneca No.2 Shaft was deepened with levels at 100', 200', 265' & 335' to develop very productive Worth Vein. Seneca Shaft No.1 was deepened with an extensive second level		PRODUCTION OR RESERVES (DATE AND AUTHORITY) 1912-1916 Silver:- 5,627,297 oza. 33,064,226  O.D.M. statistical files	
MAJOR ORE MINERALS Silver.		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER x PAST PRODUCER x			
MINOR ORE MINERALS Cobalt.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
ORE FABRIC Vein.		Worth Vein Shoot:- with a horizontal length of 500' extends vertically about 250'.			
MAJOR GANGUE MINERALS Calcite.		Av. Grade (1912-16):- Silver 90 ozs.			
COUNTRY ROCK OR FORMATION Keewatin volcanics and Cobalt Series sediments.					
AGE: GEOLOGICAL Archean and Aphebian		ABSOLUTE N.L.T. 3100 & N.L.T. 2150 m.y.			
MAIN REFERENCE Knight, C.W., 1922: Ontario Dept. Mines, Vol. XXXI, pc.2, p. 152-156.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.		FILE STATUS:	DATE
				SKELETAL	
				INCOMPLETE	
				COMPLETED	1968
				REVISED	A.O.S.
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: SILVER TOWN MINES LTD. HISTORICAL NAME: PETERSON LAKE SCML (Cart Lake Lease)		LAT. 04737700	REF. NO.
				LONG. 07968400	O.D.M.-Ag-0455028
GEOLOGY A sequence of Cobalt conglomerate, slate and greywacke, about 350' thick, rests unconformably on Keewatin rocks. The unconformity follows a W striking paleovalley. The very productive Worth Vein forms an oval-shaped vertical lens as an oreshoot, 500' in horizontal length, that strikes NE. Production was largely restricted to the vicinity of a flat lying lens of well cleaved slate up to 30' thick between 200' and 265' levels of the Seneca Shaft No.2. Above in the greywacke, and in the upper part of the slate, the ore assayed 3,500 ozs./ton; below towards the Cobalt-Keewatin unconformity this progressively decreased to 900 ozs./ton.		EXPLORATION AND DEVELOPMENT (Cont) at 200', which connects with Seneca No. 2 Shaft. 1914. Gould No.3 Shaft:- was sunk 200' with an extensive level at 200'. Extension of the Worth Vein in Gould lease was discovered 1916. The 200' level of Seneca No.2 Shaft was extended to the Gould lease. 1952. Cobalt Lode SML dewatered Seneca No.2 Shaft; some 3,500' of diamond drilling was completed. 1963-67. Silver Town Mines Ltd. carried out drilling and rehabilitation of Seneca No.1 Shaft.			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL:		AGE OF DEFORMATION:	
ABSOLUTE AGE		Archean and Aphebian		Post-Huronian	
ROCK TYPE AND/OR MINERAL		N.L.T. 3100 and N.L.T. 2150 m.y.		N.G.T. 2150 m.y.	
METHOD		Volcanics and Sediments			
		K/Ar	Rb/Sr Pb/Pb CI4	K/Ar	Rb/Sr Pb/Pb CI4
		X	X	NAME OF TECTONIC EVENT	
				X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION Knight, C.W. 1922: O.D.M. Vol.31, pt.2, p.155.			
MAP REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M. Maps, P.97 and P.97A, 1961. 3. O.D.M. Map 31a-19, 1922.		ODM FILES			

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 22' 38"	REF. NO.
Silver Cobalt	CIRCA 1968: SILVER TOWN MINES LTD. HISTORICAL NAME PETERSON LAKE SCMCL (Cart Lake Lease)	LONG. 79° 41' 1"	O.D.M.-Ag-0455028
<b>HISTORY OF OWNERSHIP (CONT)</b> 1922-24: Leased to Mining Corporation of Canada. 1952: Leased to Cobalt Lode Silver Mines Ltd. (Car Pete Lease) 1963: Silver Town Mines Ltd.		<b>REMARKS</b> 1. Longitude and latitude refer to Gould Shaft 3 in Gould Lease.	
<b>ADDITIONAL REFERENCES:-</b> Knight, C.W., 1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas; Ontario Dept. Mines, Vol. XXXI, pt.2, p. 152-156 and Map 31a-19. Thomson, R., 1961: Preliminary Report on part of Coleman Township, Concession V, Lots 1 to 6, District of Timiskaming. Ontario Dept. Mines Prelim. Rept. 1961-4, p. 57-70. The Northern Miner. 1966: September 8th, November 10th.			
COMMODITY	NAME OF OCCURRENCE	LAT. 47° 22' 38"	REF. NO.
Silver Cobalt	CIRCA 1968: SILVER TOWN MINES LTD. HISTORICAL NAME: PETERSON LAKE SCMCL (Cart Lake Lease)	LONG. 79° 41' 1"	O.D.M.-Ag-0455028

YEAR	ORE		COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED TONS	SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1912	425	421			320,575	191,969					191,969
13	10,608	445			1,124,577	651,103					651,103
14	17,871	564			1,509,466	796,438					796,438
15	25,194	1,015			1,996,257	1,031,284					1,031,284
16	6,243	498			676,422	393,432					393,432
	60,341	2,943			5,627,297	3,064,226					3,064,226

COMMODITY		NAME OF OCCURRENCE:		LAT. 04738500	REF. NO.
Silver Cobalt		CIRCA 1968: SILVER MILLER MINES LTD. HISTORICAL NAME: PRINCESS CLAIM J.B. 3		LONG. 07969400	O.D.M.-Ag-0455022
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	COLEMAN	004550		TIMISKAMING	
LOCATION: Southwest end of Cobalt Lake, ½ mile southwest of Cobalt			NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
			031M05E		"Con. V, Lot 6", N½. Claim: J.B. 3
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		1908-1923	
1908: La Rose Consolidated Mines.		Main shaft was sunk and four levels were developed; namely first at 45', second at 132', third at 185' and fourth at 230' below shaft collar. A winze extends from third to fourth levels. Lateral workings include: First level about 500' second level two to three thousand feet, third and fourth levels several hundred feet each.		1908-1922	
1924-28: Leased to McKinley-Darragh-Savage Mines of Cobalt.				Silver	
1953: Silver Miller Mines Ltd.				3,713,806 ozs.	
				Knight, C.W., O.D.M., Vol. 31, pt. 2, p.97.	
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X	
MAJOR ORE MINERALS Silver, smaltite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS		Important silver bearing veins, strike NW; on second level these were stoped over widths of 15' to 25'.			
ORE FABRIC Vein.		A rich smaltite bearing vein occurs in the Cobalt Lake Fault; massive smaltite up to 8" wide is present.			
MAJOR GANGUE MINERALS Calcite					
COUNTRY ROCK OR FORMATION Cobalt Series.					
AGE: GEOLOGICAL Aphebian		ABSOLUTE N.L.T. 2150 m.y.			
MAIN REFERENCE		MAP REFERENCE USED FOR LOCATION		FILE STATUS:	DATE
THOMSON, R. 1961: O.D.M. Prelim Rept. 1961-4, p.105-106.		O.D.M. Map 2050, Cobalt Silver Area, 1964.		SKELETAL	
				INCOMPLETE	
				COMPLETED	1968 A.O.S.
				REVISED	
COMMODITY		NAME OF OCCURRENCE:		LAT. 47°23'05"	REF. NO.
Silver Cobalt		CIRCA 1968: SILVER MILLER MINES LTD. HISTORICAL NAME: PRINCESS CLAIM J.B. 3		LONG. 79°41'37"	O.D.M.-Ag-0455022
GEOLOGY: Up to 230' thick shallow dipping Cobalt Series sediments including Gowganda conglomerate up to 15' thick at the base, greywacke up to 2' and thick quartzite, unconformably overlies steeply dipping Keewatin volcanics; the sediments are faulted off against the volcanics in the SE corner of the claim by the Cobalt Lake Fault which strikes NE. The Contact Fault in the sediments dips 25°SE parallel to and about 12' above the volcanics-sediments unconformity; it strikes NE. An important silver producing vein strikes NW over the unconformity and below the Contact Fault; other silver veins also strike NW. A rich smaltite bearing vein occurs within the Cobalt Lake Fault.		EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE Aphebian		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Huronian	
ABSOLUTE AGE N.L.T. 2150 m.y.				N.G.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL Sediments					
METHOD K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	
		NAME OF TECTONIC EVENT		X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION			
		Knight, C.W. 1922: O.D.M., Vol. 31, Map 31a-13.			
MAP REFERENCES		ODM FILES			
1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M. Map P.97, and P.97A, 1961.					





COMMODITY Cobalt Silver	NAME OF OCCURRENCE: CIRCA 1968; SILVER WEDGE MINES LTD - C.L. MURRAY HISTORICAL NAME: RED JACKET PROPERTY	LAT. 04737700 LONG. 07970600	REF. NO. O.D.M.-Ag-0455042
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Coleman Township
TP. or SQUARE COLEMAN	004550	NTS	Con. IV, Lot 8, Claim: No. 358
LOCATION: North of North Pickereel Lake, 1 1/4 miles south-west of town of Cobalt.		031M05E	Gillies Limit Township Claims: A5, A6.

HISTORY OF OWNERSHIP: 1908: Red Jacket or Morrison Claim 1926: Keweenaw Silver Mines Ltd. 1936: Ambrose Murphy and associates. 1941: Norden Steel Alloys Ltd. 1942: Sanymac Mining and Development Ltd. 1953: Silver Wedge Mines Ltd. 1956: Coballoy Mines and Refiners Ltd. 19 : C.L. Murray (Claims: A-5, A-6).	EXPLORATION AND DEVELOPMENT 1908-1942: Red Jacket Shaft (claim A-6) was sunk 100' with levels at 50' and 96' depths, and sub level at 75'. Hamilton Shaft (claim 358) was sunk 100' with level at 100' depth and sublevel at 75'; 225' west of the shaft on 100' level, 30' winze was put down on Cobalt occurrence. 100' level connects shafts. Shaft (579'N and 80'E of No.3 post of claim 358) was sunk 50'; it is not connected with the other workings. North Shaft (claim A-5) was sunk 50' at	PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1938-39 <table border="1"> <tr> <td>Cobalt</td> <td>Silver</td> </tr> <tr> <td>354 lbs.</td> <td>3 ozs.</td> </tr> <tr> <td>\$195</td> <td>\$1.0</td> </tr> </table> O.D.M. Statistical Files	Cobalt	Silver	354 lbs.	3 ozs.	\$195	\$1.0
Cobalt	Silver							
354 lbs.	3 ozs.							
\$195	\$1.0							
Cont.								
OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT    PRODUCER    PAST PRODUCER								

MAJOR ORE MINERALS Cobalt arsenides, silver.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Red Jacket Vein (Claims 358 and A-6) Cobalt mineralization occurs over a length of 90' and vertical depth of 35'; vein is 4" to 8" wide.
MINOR ORE MINERALS	Second Vein (Claim 358): Explored by 200'N crosscut with raise from Hamilton Shaft. Cobalt mineralization occurs over a length of 30'; vein is about 12" wide. Very small shoots of high grade silver, assaying 12,000 ozs/ton, are also present.
ORE FABRIC Vein	
MAJOR GANGUE MINERALS Calcite	
COUNTRY ROCK OR FORMATION Keewatin volcanics and Cobalt Series sediments.	
AGE: GEOLOGICAL ABSOLUTE Archean, Apehbian. N.L.T. 3100, N.L.T. 2150 m.y.	

MAIN REFERENCE THOMSON, R. 1960: O.D.M. Prelim. Rept. 1960-3, p. 34-39.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2051, Cobalt Silver Area, 1964.	FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED
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COMMODITY Cobalt Silver	NAME OF OCCURRENCE: CIRCA 1968; SILVER WEDGE MINES LTD - C.L. MURRAY HISTORICAL NAME: RED JACKET PROPERTY	LAT. 04737700 LONG. 07970600	REF. NO. O.D.M.-Ag-0455042
GEOLOGY Cobalt Series sediments about 100' thick unconformably overlie steeply dipping Keewatin volcanics in the west of the property. To the east the Cobalt Series are faulted out against the Keewatin volcanics along the Cobalt Lake Fault that strikes NNE; other minor faults strike E-W and N-S. The Red Jacket Vein extends 900' E-W; it traverses Cobalt Series sediments and underlying Keewatin rocks where it follows an interflow bed. The Second Vein is similar, also following an interflow bed. Cobalt arsenides with minor silver occur in a gangue of calcite.		EXPLORATION AND DEVELOPMENT (Cont) Intersection of N and E fracture zones with calcite veinlets. South Shaft (claim A-5) was sunk 100'. 1956-1957: Red Jacket Shaft was dewatered and one underground diamond drill hole completed.	

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE Archean, Apehbian ABSOLUTE AGE N.L.T. 3100, N.L.T. 2150 m.y.	AGE OF DEFORMATION:	AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.
ROCK TYPE AND/OR MINERAL Volcanics, Sediments	K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14
METHOD X X	NAME OF TECTONIC EVENT	X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION    LONGITUDINAL PROJECTION THOMSON, R. 1960: O.D.M. Map P. 81, Inset.
MAP REFERENCES (1) O.D.M. Map 2051, Cobalt Silver Area, 1964 (2) O.D.M. Map P.81, 1960.	ODM FILES



COMMODITY		NAME OF OCCURRENCE:		LAT.	REF. NO.
Silver Cobalt		CIRCA 1968: DEER HORN MINES LTD. HISTORICAL NAME: REINHARDT CROSS LAKE GROUP		04738900	O.D.M.-Ag-0455039
CO. or DIST.		CODE No.	MINING DIV.	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TIMISKAMING		59	TIMISKAMING	Con. V, Lot 2, N½;	
TP. or SQUARE		004550		Claim No.144 (NE part of NW½) Claim No.145 (SW part of NE½)	
LOCATION:		NTS	UTM		
About 2 miles E of Cobalt under Cross Lake.		031M05E			
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
19 : Carl Reinhardt.		1948-1952: Surface diamond drilling and underground work was carried out from 270' and 395' levels of the Cross Lake O'Brien shaft.		(1949-1951)	
1948-1952: Leased to L.J. O'Shaughnessy (Shag Silver Mines Ltd.)		1961-1968:		Silver 278,631 ozs. \$210,985	
1958: Leased to Deer Horn Mines Ltd.				Cobalt 2532 oz. \$4245.	
1963: Deer Horn Mines Ltd				O.D.M. statistical files	
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER	
MAJOR ORE MINERALS Silver, cobalt arsenides.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS Niccolite, chalcopryrite.		Cross Lake O'Brien Vein No.1 extends a short distance into claim No.145. See Cross Lake O'Brien Property (Deer Horn Mines Ltd.)			
ORE FABRIC Vein.		Grade (1949-1950) Silver 290 oz./ton Cobalt 3 lb./ton			
MAJOR GANGUE MINERALS Calcite, quartz.					
COUNTRY ROCK OR FORMATION Nipissing diabase.					
AGE: GEOLOGICAL ABSOLUTE					
Aphebian 2150 m.y.					
MAIN REFERENCE		MAP REFERENCE USED FOR LOCATION		FILE STATUS:	DATE
Thomson, R.		O.D.M. Map 2050, Cobalt Silver area, 1964		SKELETAL	
1961: O.D.M. Prelim. Rept. 1961-4, p. 22-23		Lat. and Long. refer to SE corner of claim No.145.		INCOMPLETE	
				COMPLETED	1968
				REVISED	A.O.S.
COMMODITY		NAME OF OCCURRENCE:		LAT.	REF.NO.
Silver Cobalt		CIRCA 1968: DEER HORN MINES LTD. HISTORICAL NAME: REINHARDT CROSS LAKE GROUP		04738900	O.D.M.-Ag-0455039
				LONG.	
				09776440	
GEOLOGY The claims are underlain by 600' of Nipissing diabase of the Peterson Lake Nipissing diabase basin. The NW-SE Cross Lake Fault cuts the property. The only production was obtained from a short southern extension of the SW trending Cross Lake O'Brien No.1 vein. Silver, and cobalt arsenide in the vein occurs in a gangue of calcite and quartz.		EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:	
ABSOLUTE AGE		Aphebian		Post-Huronian	
ROCK TYPE AND/OR MINERAL		2150 m.y.		N.G.T. 2150 m.y.	
METHOD		Diabase			
		K/Ar	Rb/Sr	Pb/Pb	C14
		X			
COMPANY REPORTS		NAME OF TECTONIC EVENT		K/Ar Rb/Sr Pb/Pb C14	
				X	
ECONOMICS REFERENCE		METALLURGY REFERENCE			
GEOCHEMICAL DATA REFERENCE		MILLING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MINING REFERENCE			
MAP REFERENCES		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE			
O.D.M. Maps P.97 and P.97A, 1961.		PLAN SECTION LONGITUDINAL PROJECTION			
O.D.M. Map 2050, Cobalt Silver Area, 1964.					
		ODM FILES			

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: DEER HORN MINES LTD. HISTORICAL NAME: REINHARDT CROSS LAKE GROUP	LAT. 47° 23' 19"	REF. NO. O.D.M.-Ag-0455039
		LONG. 79° 38' 39"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Lat. and Long. refer to SE corner of Claim No.145.	

ADDITIONAL REFERENCES:-

- Bourne, D.A.  
 1951: Wall rock Alteration the Nipissing Diabase Sill, Cobalt, Ontario, unpublished M.Sc. Thesis, McMaster University, p.53.  
 Hriskevich, M.E.  
 1952: Petrology of the Nipissing Diabase Sheet, Ph.D Dissertation, Princeton University, p.68.  
 Thomson, Ellis  
 1931: A quantitative study of Cross Lake Ores, University of Toronto Studies, Geological Series No.30.  
 1933: Further quantitative studies of Cross Lake Ores, University of Toronto Studies, Geological Series No.32, p.34.  
 Thomson, R.  
 1961: Preliminary Report on part of Coleman Township, Concession V, Lots 1 to 6, District of Timiskaming, Ontario  
 Dept. Mines Prelim. Rept. 1961-4, p. 22-23.  
 1967: C.I.M.M.  
 Cobalt and District; Guidebook of C.I.M.M. Centennial Field Excursion, p.153.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: DEER HORN MINES LTD. HISTORICAL NAME: REINHARDT CROSS LAKE GROUP	LAT. 47° 23' 19"	REF. NO. O.D.M.-Ag-0455039
		LONG. 79° 38' 39"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cpnr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1949	367	9	914	298	94,337	70,953					71,251
1950	288	8	1,014	336	95,840	56,399					56,735
51			1,527	3,611	88,454	83,633	484*		141*		87,244
	655	17	2,532	4,245	278,631	210,985					215,230

\* Thomson, R.  
 1961: Prelim. Rept. 1961-4, p.22.

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968 : AGNICO MINES LTD. HISTORICAL NAME: RIGHT OF WAY MINES LTD. (SOUTH MINE)		LAT. 04738800 LONG. 07969400	REF.NO. O.D.M.-Ag-0455024
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE AREA: Con. V, Lots 6 and 7.	
TP. or SQUARE COLEMAN	004550	NTS 031M05E	UTM	Claim: A narrow strip extending from south end of the Cobalt Lake to Mile 101 in lots 6 and 7.	
LOCATION: A narrow strip of ground along the Ontario Northland Railway in the vicinity of town of Cobalt.					
HISTORY OF OWNERSHIP: 1906: Right of Way Mines Ltd. 1909: Right of Way Mining Co. Ltd. 1932: Leased to Laurentian Mines Ltd. 1934: Cobalt Properties Ltd. 19 : Silanco Mining and Smelting Corp. Ltd. 19 : Silanco Mining and Refining Co. Ltd. 19 : Cobalt Consolidated Mining Corp. Ltd.		EXPLORATION AND DEVELOPMENT 1906-22. Two shafts with underground workings, viz: Shaft No.3:- was sunk 75' with level at 75'. Shaft No.4:- was sunk 120' with levels at 75' and 120'. The 75' level consists of a cross-cut more than 1,700' long. Three winzes with small sublevels go down 45' from 75' level. After 1922. Little or no exploration was done.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) Silver (1906-35):- About 169,000 ozs.	
MAJOR ORE MINERALS Silver and smaltite.		RAW PROSPECT		DEVELOPED PROSPECT	
MINOR ORE MINERALS		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		PRODUCER	
ORE FABRIC Vein.		NW Vein System:- with a horizontal length of over 100' extends vertically 50'.		PAST PRODUCER x	
MAJOR GANGUE MINERALS Calcite.					
COUNTRY ROCK OR FORMATION Keewatin rocks and Cobalt Series sediments.					
AGE: GEOLOGICAL ABSOLUTE Archean and Archean N.L.T.3100 & N.L.T. 2150 m.y.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.		FILE STATUS: DATE SIGNATURE	
MAIN REFERENCE: Thomson, R., 1961: O.D.M. Prelim. Rept. 1961-4, p. 115-116.				SKLELAL INCOMPLETE COMPLETED 1968 A.O.S. KLVISIED	
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 19 : AGNICO MINES LTD. HISTORICAL NAME: RIGHT OF WAY MINES LTD. (SOUTH MINE)		LAT. 04738800 LONG. 07969400	REF.NO. O.D.M.-Ag-0455024
GEOLOGY Cobalt sediments overlie Keewatin rocks unconformably. The central part of the property is traversed by two major faults: the Contact or Reverse Fault striking N 15°W with low E dip is a reverse fault; the X-Fault, striking ESE with 75°S dip, is a normal fault. Near Shaft No.4 a third fault strikes N and dips 37°E. The veins on which mining was done were extensions of those from contiguous properties. A set of 5 veins striking NW occur in the Cobalt sediments.		EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL: Archean and Archean N.L.T. 3100 and N.L.T. 2150 m.y. Volcanics and Sediments K/Ar Rb/Sr Pb/Pb C14 X X		AGE OF DEFORMATION: NAME OF TECTONIC EVENT	
COMPANY REPORTS		METALLURGY REFERENCE		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X	
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W., 1922: Ontario Dept. Mines, Vol. XXXI, pt.2 Map 31a-14.			
MAP REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M. Maps P.97 and P.97A, 1961. 3. O.D.M. Map 31a-14, 1922.		ODM FILES			

COMMODITY Silver	NAME OF OCCURRENCE CIRCA 19 : AGNICO MINES LTD. HISTORICAL NAME: RIGHT OF WAY MINES LTD. (SOUTH MINE)	LAT. 47° 23' 17"	REF. NO. O.D.M.-Ag-0455024
		LONG. 79° 41' 37"	
HISTORY OF OWNERSHIP (CONT)		REMARKS	
1955: Use of shaft leased to Silver Miller Mines Ltd.		Longitude and latitude refer to centre of Shaft No.4.	
1958: Agnico Mines Ltd.			

ADDITIONAL REFERENCES:-

Knight, C.W.,  
1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas. Ontario Dept. of Mines, Vol.XXXI, pt.2, p.160 and Map 31a-14.

Thomson, R.,  
1961: Preliminary Report on part of Coleman Township. Concession V, Lots 1 to 6, District of Timiskaming. Ontario Dept. Mines Prelim. Rept. 1961-4, p. 115-116.

COMMODITY Silver	NAME OF OCCURRENCE CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: RIGHT OF WAY MINES LTD. (SOUTH MINE)	LAT. 47° 23' 17"	REF. NO. O.D.M.-Ag- 0455024
		LONG. 79° 41' 37"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	lbs.	COBALT \$	oz.	SILVER \$	Nkl lbs	Cprr lbs	TOTAL VALUE \$
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Statistics of production of the South Mine is not segregated from the adjoining Right of Way - North Mine production.

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: RIGHT OF WAY MINES LTD. (NORTH MINE)		LAT. 04739700 LONG. 07967900	REF. NO. O.D.M.-Ag-0455010
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACKNOWLEDGEMENT Con. VI, Lots 4 and 5. Claim: - A narrow strip extending from north end of Cobalt Lake to Mile 104 (near N line of Coleman Township).	
TP. or SQUARE COLEMAN	004550	NTS 031M05E	UIM		
LOCATION: A narrow strip of ground along the Ontario Northland Railway in the vicinity of town of Cobalt.					
HISTORY OF OWNERSHIP: 1906: Right of Way Mines Ltd. 1909: Right of Way Mining Co. Ltd. 1932: Leased to Laurentian Mines Ltd. 1934: Cobalt Properties Ltd. 19 : Silanco Mining and Smelting Corp. Ltd. 19 : Silanco Mining and Refinery Co. Ltd. 19 : Cobalt Consolidated Mining Corp. Ltd.		EXPLORATION AND DEVELOPMENT 1906. Mining commenced with the sinking of Shaft No. 1, 70' deep, on the Main Vein System, a direct extension of the LaRose Main Vein. 1907. Shaft No. 2, 410' deep, was sunk with levels at 83', 143', 358', and 410'. From 358' level a winze goes to 410', 454' and 538' levels below the shaft collar. 1932-53. A little underground work was carried out.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) Silver (1906-1935): About 2,800,000 ozs. Cobalt (1906-1910): About 40,000 lbs.	
MAJOR ORE MINERALS Silver and Smaltite.		MINOR ORE MINERALS		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER	
ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite		COUNTRY ROCK OR FORMATION Keewatin rocks and Cobalt Series sediments.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Main Vein System:- with a horizontal length of about 500' extends vertically at least 200'. Vein I-C-F:- extends horizontally for a length of about 100' Grade (1906-1916):- Silver 120 ozs/ton.	
AGE: GEOLOGICAL ABSOLUTE Archean and Apehbian. N.L.T. 3100 & N.L.T. 2150 m.y.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.		FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED	
MAIN REFERENCE: Thomson, R., 1961: O.D.M. Prelim. Rept. 1961-3, p. 104.					
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: RIGHT OF WAY MINES LTD. (NORTH MINE)		LAT. 04739700 LONG. 07967900	REF. NO. O.D.M.-Ag-0455010
GEOLOGY Cobalt sediments, about 410' thick, overlie the Keewatin rocks unconformably. The unconformity follows a paleovalley that strikes SW and grades 15°SW. The property is traversed by two faults: The Cobalt Lake Fault, striking NE with 60°-70° SE dips, is a reverse fault; the O'Brien-Violet Fault, striking E-W with 75°S dip, is a normal fault. Nearly all the silver produced came from the Main Vein system that strikes NE with vertical dip. The vein is closely associated with the Cobalt Lake Fault. Production is restricted to the vicinity of the Keewatin - Cobalt, unconformity. The Vein I-C-F striking ESE carried cobalt mineralization exclusively.		EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL: Archean and Apehbian N.L.T. 3100 and N.L.T. 2150 m.y. Volcanics and Sediments K/Ar Rb/Sr Pb/Pb C14 X X		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN x SECTION LONGITUDINAL PROJECTION Knight, C.W., 1922: Ontario Dept. of Mines, Vol. XXXI, Pt. 2 Map 31a-14.			
MAP REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M. Maps P.97 and P.97a, 1961. 3. O.D.M. Map 31a-14, 1922.		ODM FILES			



COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver Cobalt	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: RIGHT OF WAY MINES LTD. (NORTH MINE)	47°23'49" LONG. 79°40'44"	O.D.M.-Ag-0455010
HISTORY OF OWNERSHIP (CONT)		REMARKS	
1955: Use of shaft leased to Silver Miller Mines Ltd. 1958: Agnico Mines Ltd.		Longitude and latitude refer to Shaft No. 2.	

ADDITIONAL REFERENCES:-

Knight, C.W.,  
1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas. Ontario Dept. of Mines,  
Vol. XXXI, pt. 2, p. 159-160 and Map 31a-14.

Thomson, R.,  
1961: Preliminary Report on part of Coleman Township, Concession VI, Lots 1 to 6, District of Timiskaming,  
Ontario Dept. of Mines Prelim. Rept. 1961-3, p. 104-111.

COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver Cobalt	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: RIGHT OF WAY MINES LTD. (NORTH MINE)	47°23'49" LONG. 79°40'44"	O.D.M.-Ag-0455010

N.B. A small portion of production came from adjoining Right of Way - South Mine Property.

YEAR	ORE		COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
	RAISED TONS	ORE & CONC. SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1906	45	45	3,364	245	86,349	56,000					56,245
07	126	126	11,964	364	216,901	123,274					123,638
08	752	752			447,585	218,753					218,753
09	3,914	1,230			773,162	370,059					370,059
1910	1,006		26,446	2,604	455,986	231,234					233,838
11	706	706			289,718	151,588					151,588
12	265	233			59,973	34,399					34,399
13	1,000	945			99,401	57,598					57,598
14	1,006	182			122,227	66,135					66,135
15	6,040				102,274	53,304					53,304
16	8,213	193			122,928	82,501					82,501
17	23,073	240			110,963	86,885					86,885
18		152			49,723	49,724					47,724
19					5,819	5,906					5,906
1920		680			18,443	16,639					16,639
32		4			7,327	2,035					2,035
35		35			526	321					321
	23,073	5,523	41,774	3,213	2,969,205	1,606,355					1,609,568

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968: SILVER SUMMIT MINES LTD. HISTORICAL NAME: (MCKINLEY-DARRAGH)- SAVAGE MINES OF COBALT LTD.	LAT. 04737500 LONG. 07967900	REF. NO. ODM-Ag-0455043
CO. or DIST. TIMISKAMING TP. or SQUARE COLEMAN	CODE No. 59 004550	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. IV, Lot 5. Claim:- NW¼ of Lot 5.
LOCATION: South of Cart Lake, about 1½ miles south of town of Cobalt		NTS 031M05E	UTM
HISTORY OF OWNERSHIP: 1903 - McKinley-Darragh-Savage Mines of Cobalt Ltd. 1942 - Cobalt Products Ltd. 1944 - Silanco Mining and Smelting Corp. Ltd. 1946 - Ausic Mining and Reduction Co. Ltd. 1955 - Nasco Cobalt Silver Mines Ltd. 1962 - Silver Summit Mines Ltd.		EXPLORATION AND DEVELOPMENT Extensive exploration and development began about 1909-11 when 9,800' of surface was prospected by trenching. Shaft No.4:-230' deep with levels at 80', 140' and 230' depths. Shaft No.2:-319' deep with levels at 80', 140' 190' 240' and 290' depths; a two-compartment winze near this shaft has been put down to a depth of 175' below the 140' level. Shafts Nos.1 and 3:-80' and 140' deep respectively Meteor No.2 adit:-driven about 110' SE to adjoining Meteor claim.	
		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) For claims JB1 and Savage (1904 to 1954 excluding 1935 to 1952) Silver Cobalt 21,848,896 ozs 465,582 lbs \$12,769,769 \$ 73,154 Total Value \$12,842,923 O.D.M. Statistical Files.	
MAJOR ORE MINERALS Silver and Smaltite		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER	
MINOR ORE MINERALS		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES	
ORE FABRIC Vein MAJOR GANGUE MINERALS Calcite.		Production of silver along any vein was restricted to length of 600'. Vein No.3 in Shaft No.3:-0-20' from collar - not ore 20'-30' 1½ inches wide, 8,000 to 10,000 ozs/ton Grade(Claims J.B.1 and Savage):- Silver 40 ozs/ton (1904-1916)	
COUNTRY ROCK OR FORMATION Keewatin rocks, Cobalt Series sediments and Nipissing diabase.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2051, Cobalt Silver Area, 1964.	
AGE: GEOLOGICAL ABSOLUTE Archean, Aphebian, Aphebian, N.L.T.3100,N.L.T.2150,2150 m.y.		FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S REVISED	
MAIN REFERENCE THOMSON, R. 1961 : O.D.M. Prelim Rept. 1961-6, p.86-91.			
COMMODITY Silver Cobalt GEOLOGY	NAME OF OCCURRENCE: CIRCA 1968 : SILVER SUMMIT MINES LTD. HISTORICAL NAME: (MCKINELY-DARRAGH)-SAVAGE MINES OF COBALT LTD	LAT. 04737500 LONG. 07967900	REF.NO. ODM-Ag-0455043
Cobalt Series sediments overlay Keewatin rocks with cherty bands and are intruded by the Nipissing sill. The claim lies on the southeasterly flank of the NE trending Cart Lake trough. A set of 23 silver cobalt bearing veins striking NE with vertical dips intersect Cobalt Series sediments. The production of silver is restricted to where the veins were enclosed in these sediments, although the vein structure with silver-cobalt mineralization sometimes extends into the Keewatin rocks.		EXPLORATION AND DEVELOPMENT (Cont) 1962-64 Development work for Savage Claim and adjoining Mensilvo property was as follows: drifting, 4,060'; cross- cutting, 592'; raising, 1,457'; and 149 underground diamond-drill holes totalling, 17,921'. Total development footage to 1964 was :- drifts, 7,549'; cross-cuts 2,505'; and raises 2,342'. 1965-66 Shafts Nos. 2 and 4 were made serviceable, and underground diamond drilling was carried out.	
ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean, Aphebian, Aphebian N.L.T.3100,N.L.T. 2150, 2150 m.y. Volcanics, Sediments, Diabase	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian N.C.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X
COMPANY REPORTS	METALLURGY REFERENCE		
ECONOMICS REFERENCE	MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN x SECTION LONGITUDINAL PROJECTION Knight, C.W. O.D.M. Vol. XXXI, Map 31a-17, 1922.		
MAP REFERENCES (1) O.D.M. Map 2051, Cobalt Silver Area, 1964 (2) O.D.M. P96, 1961, (3) O.D.M. Map 31a-17.	ODM FILES		

COMMODITY	NAME OF OCCURRENCE	LAT. 47°22'30"	REF. NO.
Silver	CIRCA 1968: AGNICO MINES LTD.	LONG. 79°40'49"	O.D.M.-Ag-0455043
Cobalt	HISTORICAL NAME: (McKINLEY-DARRAGH) SAVAGE MINES LTD.		

THE DATA REFERS TO CLAIMS J.B. 1 AND SAVAGE

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1904	24	24	2,800	1,400	7,873	4,307	1,578	159			5,886
05	412	412	19,000	5,243	235,262	130,848	9,757	474			136,565
06	102	67	8,000	1,068	42,354	25,102					26,170
07	770	726			611,798	313,232					313,232
08	1,873	1,869	36,600	2,880	667,970	291,594					294,474
09	19,033	330			1,324,372	614,626					614,626
1910	36,801	488			2,606,891	1,291,867					1,291,867
11	55,946	608			2,551,885	1,241,745					1,241,745
12	69,985	2,731			2,694,560	1,491,381					1,491,381
13	61,431	2,799			2,228,832	1,198,876					1,198,876
14	47,234	2,940			1,260,356	596,178					596,178
15	56,121	1,896			1,061,827	539,590					539,590
16	62,147	2,130	5,748	575	1,055,959	637,076					637,651
17		1,840			1,013,602	757,219					757,219
18		2,206	14,549	2,260	885,530	882,504					884,764
19		1,833	35,110	5,256	760,787	841,978					847,234
1920		1,242	47,184	6,412	613,428	511,083					517,495
21		61	6,893	1,096	82,189	49,313					50,409
22	25,887	266	27,559	5,384	254,308	164,701			8,146	733	170,818
23	44,769	457	31,910	7,614	387,614	253,395			35,614	3,016	264,025
24	56,148	510	65,797	10,200	394,018	264,452					274,652
25	55,378	647	79,517	11,233	419,479	273,955					285,188
26	42,770	519	59,314	6,976	340,203	201,174					208,150
27	9,608	325	18,108	2,266	291,476	165,095			7,991	529	167,892
29		102	297	38	15,093	7,212					7,250
1930			6,003	1,855	15,568	6,003					7,858
31		5	813	351							351
32		25			5,522	1,373					1,373
33		3	3,240		3,240	1,215					1,215
34		13			3,154	1,535					1,535
53		5	379	947	4,897	4,114					5,061
54		182			8,849	7,026					7,026
	646,439		465,582	73,154	21,848,896	12,769,769	11,348		51,751	4,278	12,847,734

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 22' 30"	REF. NO.
Silver	CIRCA 1968: SILVER SUMMIT MINES LTD.	LONG. 79° 40' 49"	O.D.M.-Ag-0455043
Cobalt	HISTORICAL NAME: (McKINLEY-DARRAGH)-SAVAGE MINES OF COBALT LTD.		

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1906-7	-	-	-	-	NIL						
1908	-	-	-	-	22,655						
09	-	-	-	-	62,182						
10	-	-	-	-	409,350						
11	-	-	-	-	610,599						
12	-	-	-	-	627,790						
13	-	-	-	-	566,156						
14	-	-	-	-	237,386			11,348		51,751	
15	-	-	-	-	269,668						
1940	-	-	415	-	301						
42	-	-	203	-	75						
1963-64	-	-	618*	-	3,006,162*						
					292,599**						

\* Would make up about 2/3 of total production from the property  
 \*\* Includes production from Mensilvo property.  
 Statistics after Thomson, 1961-6.

ADDITIONAL REFERENCES:-

- Halsted, M.C.  
1955: Report on the Savage Mine for Nasco Cobalt Silver Mines Ltd.
- Knight, C.W.  
1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver areas. Ontario Department of Mines, Vol. XXXI, Pt. 2, p. 120-121 and Map 13a-17.
- McKinley-Darragh Mines of Cobalt Ltd. Annual Rept. For 1915, p.3.
- Thomson, R.  
1961: Preliminary Report on parts of Coleman Township IV, Lots 1 to 5 and Gillies Limit, the Eastern 'A' claims, District of Timiskaming, Ontario Department of Mines Prelim. Rept. 1961-6, p. 86-61.

COMMODITY		NAME OF OCCURRENCE:		LAT. 04739200	REF. NO.
Silver Cobalt	CIRCA 1968: HISTORICAL NAME:	UNITED COBALT MINES LTD. SILVER CLIFF MINING CO. LTD.		LONG. 07965400	O.D.M.-Ag-0455018
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	COLEMAN		004550	TIMISKAMING	
LOCATION: Located on the NW side of Cross Lake, about 2 miles east of town of Cobalt.				NTS 031M05E	UTM
LOT, CONCESSION, CLAIMS OR LEASE ACREAGE					
Con. VI, Lot 3.					
CLAIM:- SE $\frac{1}{2}$ , S $\frac{1}{2}$ of lot 3.					
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1907: Silver Cliff Mining Co. Ltd. 1919: Leased to Northern Customs Concentrators Ltd. 1921: Leased to Bailey Mines Ltd. 1943: A.B. Pilliner and Associates. 1944: Ausic Mining and Reduction Co. Ltd. 1951: United Cobalt Mines Ltd. 1960: Leased to Rix Athabasca Uranium Mines Ltd.		1907 - Underground operations began with west driven adits. Adit No. 1 is 120' long with a drift 240' in length. Adit No. 2 has extensive lateral workings with a 60' winze. 1909 - A 100-ton concentrating mill was erected. 1911 - 160' deep Lake Shaft with level at 150' was sunk. 1917-22 - The "1000-foot" level of the adjoining King Edward No. 1 winze was extended into the SW corner of claim. The NW corner of the claim is traversed by a crosscut from the adjacent Menago Shaft (Colonial claim) on the 1130' level.		Silver (1908-51) 535,246 ozs. \$277,849. Cobalt (1938, 45 to 51) :- 9,314 lbs. \$1,462. Nickel (1938, and -45):- 15,380 lbs. \$797. Copper (1951) 6,287 lbs. \$1,741. Total Value: \$281,849 O.D.M. Statistical files.	
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER	
MAJOR ORE MINERALS		Silver and Smaltite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES	
MINOR ORE MINERALS		Chalcopyrite, pyrite and pyrrhotite.		NE vein system:- With a horizontal length of about 700' extends to a vertical depth of at least 140'.	
ORE FABRIC		Vein.		Grade	
MAJOR GANGUE MINERALS		Calcite.		Silver Cobalt Nickel	
COUNTRY ROCK OR FORMATION		Keewatin rocks intruded by the Nipissing diabase sill.		1909-10 18 ozs/ton 1945 7 ozs/ton 1 lb/ton 2 lbs/ton	
AGE: GEOLOGICAL		ABSOLUTE Archean and Apebian. N.L.T.3100 and 2150 m.y.			
MAIN REFERENCE		THOMSON, R. 1961: O.D.M. Prelim Rept. 1961-3, p.44-52.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.	
				FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED	
COMMODITY		NAME OF OCCURRENCE:		LAT. 04739200	REF. NO.
Silver Cobalt	CIRCA 1968: HISTORICAL NAME:	UNITED COBALT MINES LTD. SILVER CLIFF MINING CO. LTD.		LONG. 07965400	O.D.M.-Ag-0455018
GEOLOGY		The Nipissing Diabase sill, about 1000' thick, intruded the Keewatin rocks; its upper contact strikes NNW & dips about 18°ENE. It is cut by the NW-trending Cross-Lake diabase dike. The property is crossed by two major faults: the Cross-Lake Fault that strikes NW and lies in the NE portion of the claim; and the O'Brien-Violet Fault that strikes WNW with vertical dip & is exposed on 150' level of the Lake shaft. Two other parallel minor faults occur. The host rocks for the set of NW striking veins are both diabase and Keewatin sediments. Veins No.1 & 2 were the most important producers. The silver-cobalt produced was restricted to the proximity of the Upper diabase contact. An appreciable amount of pyrrhotite, pyrite and chalcopyrite mineralization occur in the Keewatin sediments below the diabase contact.		EXPLORATION AND DEVELOPMENT (Cont) 1943 - The concentrating mill was reconditioned. 1960 - Rix-Athabasca carried out three underground diamond-drill holes with aggregate length of 1,416' from the extension of working from the No. 1 King Edward winze.	
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE		ARCHAIC		AGE OF ORE MINERAL	
ABSOLUTE AGE		Archean and Apebian N.L.T. 3100 and 2150 m.y.		Post-Huronian N.G.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL		Volcanics and Diabase			
METHOD		K/Ar Rb/Sr Pb/Pb C14 X X		K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT X	
COMPANY REPORTS				METALLURGY REFERENCE	
ECONOMICS REFERENCE				MILLING REFERENCE	
GEOCHEMICAL DATA REFERENCE				MINING REFERENCE	
GEOPHYSICAL DATA REFERENCE				MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION	
MAP REFERENCES		1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M. Map P.97, 1961.		ODM FILES	

COMMODITY	NAME OF OCCURRENCE		LAT. 47°23'31"	REF. NO.
Silver Cobalt	CIRCA 1968 : HISTORICAL NAME:	UNITED COBALT MINES LTD. SILVER CLIFF MINING CO. LTD.	LONG. 79°39'13"	O.D.M.-Ag-0455018
HISTORY OF OWNERSHIP (CONT)		REMARKS		
		Longitude and latitude refer to southeast corner of claim.		
ADDITIONAL REFERENCES:-				
THOMSON, R. 1961: Preliminary Report on part of Coleman Township; Concession VI, Lots 1 to 6, District of Timiskaming; Ontario Dept. of Mines Prelim. Rept. 1961-3, p.44-52.				

COMMODITY	NAME OF OCCURRENCE		LAT. 47°23'31"	REF. NO.
Silver Cobalt	CIRCA 1968 : HISTORICAL NAME:	UNITED COBALT MINES LTD. SILVER CLIFF MINING CO. LTD.	LONG. 79°39'13"	O.D.M.-Ag-0455018

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1908		155			70,267	33,056					33,056
09	144	144			115,879	60,273					60,273
1910	9,012	47			143,921	70,231					70,231
11					49,755	23,581					23,581
21		248			1,590	1,044					1,044
22		40			22,668	14,889					14,889
1930		56			14,048	4,961					4,961
35		694			19,404	11,836					11,836
38		1	131	59	1,668	717	218	39			815
39		20			855	327					327
45	7,273	108	9,183	1,403	50,708	21,910	15,162	758			24,071
47	4,123	45			35,664	26,686					26,686
51		57			8,819	8,338			6,287	1,741	10,079
54											
	20,552	1,615	9,314	1,462	535,246	277,849	15,380	797	6,287	1,741	281,849

COMMODITY Cobalt		NAME OF OCCURRENCE: CIRCA 1968: MORGAN SILVER CROSS MINES LTD. HISTORICAL NAME: SILVER CROSS COBALT MINING CO. LTD.		LAT. 04737800 LONG. 07964300		REF.NO. O.D.M. - Ag-0455037	
CO. or DIST. TIMISKAMING		CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACKNOWLEDGMENT Con. V, Lot 2.		
TP. or SQUARE COLEMAN		004550	NTS 031M05E UTM		Claim: - SE $\frac{1}{2}$ , S $\frac{1}{2}$ of lot 2.		
LOCATION: Located west of Cross Lake that is about 2 $\frac{1}{2}$ miles ESE of town of Cobalt.							
HISTORY OF OWNERSHIP: 1907: Silver Cross Cobalt Mining Co. Ltd. 1948: Morgan Silver Cross Mines Ltd.			EXPLORATION AND DEVELOPMENT 1907-10. Extensive surface prospecting and underground work were carried on. Three shafts were sunk. Test Shaft:- is near west boundary of the claim and is 22' deep. Shaft No.1:- is 60' deep and inclined steeply to the east. Shaft No.2:- is 150' deep with a level at 67' on which 390' of lateral work was done. 1947. Limited geophysical work was carried out 1949-50. 33 surface diamond-drill holes with a total length of 6,000' were completed. 1953-55. An electrical resistivity survey was made and anomalies were tested by four diamond drill holes with a total length of 2,000'.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) Cobalt: 1940:- 824 lbs. 1942:- 2,267 lbs. Total:- 3,091 lbs.		
MAJOR ORE MINERALS Smaltite.			MINOR ORE MINERALS Silver, chalcocopyrite, galena and sphalerite.		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER x DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES No.2 Shaft vein:- Extends for a horizontal length of 300'. An assay return of a sample of massive mineralization over a width of one inch is: Cobalt 15.30 percent, Nickel 3.66 percent, and Silver 0.48 oz/per ton.		
ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite and quartz			COUNTRY ROCK OR FORMATION Keewatin sediments and Cobalt Series sediments.				
AGE: GEOLOGICAL ABSOLUTE Archean and Archean N.L.T. 3100 and N.L.T. 2150 m.y.			MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.		FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED		
MAIN REFERENCE: Thomson, R., 1961: O.D.M. Prelim. Rept. 1961-4, p. 30-33.							
COMMODITY Cobalt		NAME OF OCCURRENCE: CIRCA 1968: MORGAN SILVER CROSS MINES CO. LTD. HISTORICAL NAME: SILVER CROSS COBALT MINING CO. LTD.		LAT. 04737800 LONG. 07964300		REF.NO. O.D.M. - Ag-0455037	
GEOLOGY Keewatin sediments cut by Halleyburian lamprophyre dike are overlain by Cobalt sediments. The NW trending Cross-Lake olivine diabase dike crosses NE portion of claim. The NW and SE portions of claim are traversed by two NE striking parallel faults. Several cobalt-bearing veins with little silver, chalcocopyrite, galena and sphalerite occur in the Keewatin sediments: The No.2 Shaft vein, striking ENE with subvertical SSE dip, contained in a trench east of the shaft pockets of massive cobalt with nickel and cobalt mineralization.			EXPLORATION AND DEVELOPMENT (Cont)				
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS			
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL: Archean and Archean N.L.T. 3100 and N.L.T. 2150 m.y. Volcanics and Sediments		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X	
COMPANY REPORTS			METALLURGY REFERENCE				
ECONOMICS REFERENCE			MILLING REFERENCE				
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE				
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION				
MAP REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M. Maps P.97 and P.97A, 1961.			ODM FILES				

COMMODITY Cobalt	NAME OF OCCURRENCE CIRCA 19 : SILVER CROSS MINES LTD. HISTORICAL NAME: SILVER CROSS COBALT MINING CO. LTD.	LAT. 47°22'39"	REF. NO. O.D.M.- Ag-0455037
		LONG. 79°38'34"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to southeast corner of claim.	
ADDITIONAL REFERENCES:-  Thomson, R., 1961: Preliminary Report on part of Coleman township, Con. V, Lots 1 to 6, District of Timiskaming. Ontario Dept. Mines Prelim. Rept. 1961-4, p. 30-33.			
COMMODITY Cobalt	NAME OF OCCURRENCE CIRCA 1968: MORGAN SILVER CROSS MINES LTD. HISTORICAL NAME: SILVER CROSS COBALT MINING CO. LTD.	LAT. 47° 22' 39" LONG. 79° 38' 34"	REF. NO. O.D.M.-Ag-0455037

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT Lbs.      \$	SILVER Oz.      \$	Nkl Lbs.      \$	Cprr Lbs.      \$	TOTAL VALUE \$
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COMMODITY	CIRCA 1968: J.J. GRAY	NAME OF OCCURRENCE:	LAT. 04737600	REF. NO.
Silver	HISTORICAL NAME: SILVER LEAF MINING CO. LTD.		LONG. 07966000	O.D.M.-Ag-0455050
Cobalt				

CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
TP. or SQUARE	COLEMAN		004550			Con. IV, Lot 3. Claim: North end of Lot 3, No. 84.
LOCATION:	Located about 2 miles southeast of town of Cobalt.		NTS	031M05E	UTM	

HISTORY OF OWNERSHIP:	1905: Silver Leaf Mining Co. Ltd.	EXPLORATION AND DEVELOPMENT	1907-1927:	PRODUCTION ORE RESERVES (DATE AND AUTHORITY) (1906 to 1931 excluding 1916 to 1920, 1922 to 1928 and 1930)
	1909-19: Leased to Crown Reserve Mining Co. Ltd.		Two shafts with underground workings:- Main shaft: 300' deep with levels at 50', 75', 100', 130' and 300'. The shaft has been destroyed near surface. North shaft: 500' deep with level at 500'. Two crosscuts extend from the shaft on the 500' level, one southerly and the other about 800' in a northeasterly direction.	
	1946: Lakeleaf Silver Mining Co. Ltd.		1946: 7 diamond drill holes were completed.	Total Value:- \$247,659
	1959: Coballoy Mines and Refiners Ltd.		1952-1955: Neighbouring Crown Reserve Shaft was dewatered and underground workings of Main shaft were examined.	
	19 : J.J. Gray.			O.D.M. statistical files

MAJOR ORE MINERALS	Silver and smeltite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS		The Carson vein with a horizontal length of 75' was explored to a depth of 50'. About 500' west of the Main Shaft on the 75' level a one inch wide calcite vein showed assays of 1,000 ozs. of Silver/ton.
ORE FABRIC	Vein.	Grade (1906 to 1921 excluding 1916 to 1920): Silver 1,516 ozs/ton
MAJOR GANGUE MINERALS	Calcite.	
COUNTRY ROCK OR FORMATION	Keewatin volcanics and Cobalt Series sediments intruded by Nipissing diabase.	

AGE: GEOLOGICAL	ABSOLUTE
Archean, Aphebian, Aphebian.	N.L.T. 3100, N.L.T. 2150, 2150 m.y.

MAIN REFERENCE	Thomson, R.	FILE STATUS:	DATE	SIGNATURE
	1961: O.D.M. Prelim. Rept. 1961-6, p. 51-55.	SKELETAL		
		INCOMPLETE		
		COMPLETED	1968	A.O.S.
		REVISED		

COMMODITY	CIRCA 1968: J.J. GRAY	NAME OF OCCURRENCE:	LAT. 04737600	REF. NO.
Silver	HISTORICAL NAME: SILVER LEAF MINING CO. LTD.		LONG. 07966000	O.D.M.-Ag-0455050
Cobalt				

GEOLOGY	Keewatin volcanics cut by Haileyburian lamprophyre and quartz gabbro are overlain by shallow north dipping Cobalt sediments. The Nipissing diabase sill dipping 45° to 60°N constitutes the northern limb of WSW trending Kerr Lake Arch and cuts across the Cobalt sediments. The two most important silver-cobalt producing calcite veins are the Carson and North veins. Carson Vein is productive only within the Cobalt sediments by contrast the North Vein only within the Keewatin.	EXPLORATION AND DEVELOPMENT (Cont)	1959: 4 surface diamond drill holes were completed.

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:
ABSOLUTE AGE	Archean, Aphebian, Aphebian	AGE OF ORE MINERAL
ROCK TYPE AND/OR MINERAL	N.L.T. 3100, N.L.T. 2150, 2150 m.y.	Post-Huronian
METHOD	Volcanics, Sediments, Diabase	N.G.T. 2150 m.y.
	K/Ar Rb/Sr Pb/Pb Cl4	K/Ar Rb/Sr Pb/Pb Cl4
	NAME OF TECTONIC EVENT	

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE
	PLAN X SECTION LONGITUDINAL PROJECTION
	Knight, C.W.
	O.D.M. Vol. XXXI, pt. 2, Map Sheets 31a-2 & 31a-7, 1922.
MAP REFERENCES	ODM FILES
O.D.M. Map 2052, Cobalt Silver Area, 1964.	
O.D.M. Map P.96, 1961.	
O.D.M. Map 31a-2, 1922.	



COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver Cobalt	CIRCA 1968: J.J. GRAY HISTORICAL NAME: SILVER LEAF MINING CO. LTD.	47° 22' 33" 79° 39' 36"	O.D.M.-Ag-0455050
HISTORY OF OCCURRENCE (CONT)		REMARKS	
		Longitude and latitude refer to the main shaft at the south centre of the claim.	

ADDITIONAL REFERENCES:-

- Knight, C.W.  
1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Area. Ontario Dept. Mines, Vol.XXXI, pt.2 p.167 and Maps 31a-2 and 31a-7.
- Thomson, R.  
1961: Preliminary Report on parts of Coleman Township, Con.IV, Lots 1 to 5, and Gillies Limit, the Eastern "A" Claims, District of Timiskaming, Ontario Dept. Mines, Prelim. Rept. 1961-6, p. 51-55.

COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver Cobalt	CIRCA 1968: J.J. GRAY HISTORICAL NAME: SILVER LEAF MINING CO. LTD.	47° 22' 33" 79° 39' 36"	O.D.M.-Ag-0455050

YEAR	ORE & CONC.		COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
	RAISED TONS	SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1906	28	9			900	600					600
07	46	46			51,121	28,027					28,027
08	226	226			343,112	172,118					172,118
1910	8	8			7,371	3,963					3,963
15	12	13			84,000	39,159					39,159
1921	1	1			1,461	922					922
29		1	132	16	2,382	1,239					1,255
1931		3	1,074	175	5,096	1,440					1,615
	321	307	1,206	191	495,443	247,468					247,659

COMMODITY Cobalt	NAME OF OCCURRENCE: CIRCA 1968: ROCKZONE MINES LTD. HISTORICAL NAME: SMITH COBALT MINES LTD. (Claim No.654)		LAT. 04741300	REF. NO.
			LONG. 09763700	O.D.M.-Ag-0455041
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
TP. or SQUARE COLEMAN	004550			Con.V, Lot 1, N $\frac{1}{2}$ Claims: nos. 1737, 654, 706, 1397, 1007 T.19498
LOCATION: 1500' E of Cross Lake; about 2 $\frac{1}{2}$ miles E of town of Cobalt.		NTS 031M05E	UTM	Con.VI, Lot 1, Claim: no.654
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1904-1926: Kingsbury (claim No.1737) Silverware (claim No. 706) Donaldson (claim No. 654) Clark (claim No. 1007)		1926-1928: Two diamond drill holes and a shaft (elevation 973') 412' deep with 900' of crosscutting on the 400' level were completed.		1939-40 Cobalt 914 lbs.
1926-1928: Mining Corporation of Canada Ltd. (option)		1934: No.1 winze was sunk 50' and 931' of crosscutting done on the 450' level		8894
1928-1960: Smith Cobalt Mines Ltd.		1935: No.2 winze was put down 50' from the 450' level. 365' of drifting and cross-cutting was done on the 500' level.		
1959-1960: Dolmac Mines Ltd. (Option)		1959: Dolmac Mines drilled 12 holes totalling 6,010'.		
1961-1968: Rockzone Mines Ltd.		1963: The shaft was dewatered and 4,768' of underground diamond drilling was done		O.D.M. statistical files.
MAJOR ORE MINERALS Smaltite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS Cobaltite, niccolite, silver, chalcopyrite		South vein - strikes WNW, horizontal length N.L.T. 125' vertical height N.L.T. 60'.		
ORE FABRIC Vein.		North vein - strikes WNW, horizontal length N.L.T. 125' vertical height, N.L.T. 60'.		
MAJOR GANGUE MINERALS Calcite, quartz		Distance between veins: 450'.		
COUNTRY ROCK OR FORMATION Keewatin volcanics, Cobalt Series sediments and Nipissing diabase.		MAP REFERENCE USED FOR LOCATION		FILE STATUS: DATE SIGNATURE
AGE: GEOLOGICAL ABSOLUTE		O.D.M. Map 2050, Cobalt Silver Area 1964.		SKELETAL
Archean, Aphebian & Aphebian. N.L.T.3100,N.L.T.2150 & 2150m.y.		Lat. and Long. refer to SE corner of claim 654.		INCOMPLETE
MAIN REFERENCE Thomson, R.				COMPLETED 1968 A.O.S.
1961: O.D.M. Prelim. Rept. 1961-4, p. 6-11.				REVISED
COMMODITY Cobalt	NAME OF OCCURRENCE: CIRCA 1968: ROCKZONE MINES LTD. HISTORICAL NAME: SMITH COBALT MINES LTD. (Claim No.654)		LAT. 04741300	REF.NO.
			LONG. 09763700	O.D.M.-Ag-0455041
GEOLOGY Nipissing diabase occurs as a N-S trending arch 245' thick overlying flat Cobalt Series sediments. The Cobalt Series consists of 195' of conglomerate overlain by 35' of greywacke. The lower contact of the Cobalt Series lies in a paleovalley on the Keewatin surface as seen in an E-W cross-section through the shaft. The Keewatin rocks consist of steeply dipping E-W trending volcanics and sediments. No.10 Vein-Fault from the adjoining Cross Lake O'Brien property extends into claim 654 in a ESE direction N of the shaft. The North and South veins also follow ESE faults cutting all three major rock units. Veins were the most productive in the Keewatin rocks.		EXPLORATION AND DEVELOPMENT (Cont)  in 10' holes.		
ALTERATION	METAMORPHISM	MINERAL PARAGENESIS		
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:		AGE OF ORE MINERAL
ABSOLUTE AGE	Archean, Aphebian, Aphebian			Post-Huronian
ROCK TYPE AND/OR MINERAL	N.L.T. 3100, N.L.T. 2150, 2150 m.y.			N.G.T. 2150 m.y.
METHOD	Volcanics, Sediments and Diabase	K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4
		X X		X
COMPANY REPORTS	METALLURGY REFERENCE			
ECONOMICS REFERENCE	MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES	ODM FILES			
O.D.M. Map 2050, Cobalt Silver Area, 1964				
O.D.M. Map P.97 and P.97A, 1961.				

COMMODITY Cobalt	NAME OF OCCURRENCE CIRCA 1968: ROCKZONE MINES LTD. HISTORICAL NAME: SMITH COBALT MINES LTD. (Claim No.654)	LAT. 47° 24' 46"	REF. NO. O.D.M.-Ag-0455041
		LONG. 97° 38' 15"	
HISTORY OF OWNERSHIP (CONT)		REMARKS	

ADDITIONAL REFERENCES:-

- Bourne, D.A.  
 1951: Wall rock Alteration in the Nipissing Diabase Sill, Cobalt, Ontario, unpublished M.Sc. Thesis, McMaster University, p.53.  
 Hriskevich, M.E.  
 1952: Petrology of the Nipissing Diabase Sheet. Ph.D. Dissertation, Princeton University, p.68.  
 Riddell, G.S.  
 1965: Statistical Review of the Mineral Industry and Mining Operation for 1963, Ontario Dept. Mines Ann. Rept., Vol.73, p. 137-138.  
 1966: Statistical Review of the Mineral Industry and Mining Operations for 1964. Ontario Dept. Mines, Ann. Rept. V.74, p.133.  
 Thomson, Ellis.,  
 1931: A quantitative study of Cross Lake Ores, University of Toronto Studies, Geological Series No.30.  
 1933: Further quantitative studies of Cross Lake Ores. University of Toronto Studies, Geological Series, No.32, p.34.  
 Thomson, R.  
 1961: Preliminary Report on part of Coleman Township, Concession V, Lots 1 to 6, District of Timiskaming, Ontario Dept. Mines, Prelim. Rept. 1961-4, p. 6-11.

COMMODITY Cobalt	NAME OF OCCURRENCE CIRCA 1968: ROCKZONE MINES LTD. HISTORICAL NAME: SMITH COBALT MINE LTD. (Claim No.654)	LAT. 47° 24' 48"	REF. NO. O.D.M.-Ag-0455041
		LONG. 97° 38' 15"	

YEAR	ORE		COBALT		SILVER		Nkl		Cpnr		TOTAL VALUE
	RAISED TONS	ORE & CONC. SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1939			126	116							116
1940	1	1	331	331							331
	1	1	457	447							447

Note - 1935: Reported that 9,570 lbs of cobalt ore was produced.

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: TIMISKAMING MINING CO. LTD.		LAT. 04736000	REF. NO.
				LONG. 07971000	O.D.M.-Ag-0455063
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	COLEMAN	004550		TIMISKAMING	
LOCATION: 1/4 mile east of Brady Lake, 3 miles southeast of town of Cobalt.			NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.III, Lot 1, N $\frac{1}{2}$ Claim: S $\frac{1}{2}$ of NW $\frac{1}{2}$ , No.441 Claim: W $\frac{1}{2}$ of SW $\frac{1}{2}$ , No.1198
HISTORY OF OWNERSHIP: 1907: Temiskaming Mining Co. Ltd. 1940: Cobalt Products Ltd. 1943: Silanco Mining & Refining Co. Ltd. 1956: Cobalt Consolidated Mining Corp. 1961: Agnico Mines Ltd. 1962: Leased to Patricia Silver Mines Ltd.			EXPLORATION AND DEVELOPMENT 1907-1920: Temiskaming shaft was sunk to 1600' depth; Drifts on several levels connect with those of the Beaver Shaft on neighbouring property to north. No.2 shaft was sunk to 250' depth with levels at 80', 173', and 226' joining those of the Temiskaming shaft. No.1 shaft was sunk to 40' depth on rich vein No.19. 1962: The Timiskaming shaft was reactivated. The headframe was straightened and strengthened, the collar retimbered and the shaft rehabilitated as the water was		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1907-55 Silver Cobalt 12,077,750 ozs 200,585 lbs. \$7,204,852 \$39,173 Nickel 25,337 lbs. \$4,484 1962-63 Silver Cobalt 41,046 ozs 2,102 lbs. \$56,808 \$4,288 Copper: 6,261 lbs. \$1,941 O.D.M. statistical files
MAJOR ORE MINERALS Silver and smaltite.			OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X		
MINOR ORE MINERALS Niccolite, chalcopyrite.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
ORE FABRIC Vein.			Vein System		
MAJOR GANGUE MINERALS Calcite.			Length: Vein system extends 1600' in plan.		
COUNTRY ROCK OR FORMATION Keewatin volcanics intruded by Nipissing diabase.			Width: Vein system extends 400' in plan.		
AGE: GEOLOGICAL ABSOLUTE			Depth: Most production from within 150' of upper diabase contact.		
Archean and Aphebian N.L.T. 3100 and 2150 m.y.			Grade: Silver 82 ozs/ton. Cobalt 1.4 lbs/ton. Nickel 0.18 lbs/ton.		
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-7, p. 21-28.			MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052, Cobalt Silver Area, 1964.		
			FILE STATUS: DATE SIGNATURE		
			SKELETAL		
			INCOMPLETE		
			COMPLETED 1968 A.D.S.		
			REVISED		

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: TIMISKAMING MINING CO. LTD.		LAT. 04736000	REF. NO.
				LONG. 07971000	O.D.M.-Ag-0455063
GEOLOGY Keewatin volcanics striking north are intruded by 1070' thick quartz-d diabase Nipissing sill with eastward dip. Arcuate initially pre-Nipissing faults end as fractures in the sill. Productive vein systems follow these steep arcuate faults. Rich ore chimneys occur where veins intersect cross fractures. Most of silver production came from vein systems Nos.19, land 3 within 150' of upper contact of sill, mostly in Keewatin volcanics but also within sill itself. No production from lower contact.			EXPLORATION AND DEVELOPMENT (Cont) lowered. 1962-63: Development work included: drifting, 143' on the 270' and 322' levels; crosscutting, 200' on the 500' level; and 49 underground diamond drill hole, totalling 10,519'. The 500' level was rehabilitated to the south, and a 200' connection was made to the Old Cochrane Shaft.		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Archean and Aphebian N.L.T. 3100 and 2150 m.y. Volcanics and Diabase K/Ar Rb/Sr Pb/Pb Cl4 X X		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT	
				AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb Cl4 X	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W. 1922: O.D.M. Vol.31, pt.2, Map Sheet 31-a.		
MAP REFERENCES 1. O.D.M. Map 2052, 1964 2. O.D.M. Map P.96, 1961.			ODM FILES		

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: TEMISKAMING MINING CO. LTD.	LAT. 47° 21' 36"	REF. NO. O.D.M.-Ag-0455063
		LONG. 79° 42' 36"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to Temiskaming Shaft.	

ADDITIONAL REFERENCES:-

Knight, C.W.  
1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas, Ontario Dept. Mines, Vol.XXXI, pt.2 p. 128-140.

Thomson, R.  
1961: Preliminary Report on Parts of Coleman Township, Con. III, Lots 1 to 3 and Gillies Limit, Blocks 1 and 2, claims A48 to 58 and A88 to 100. Ontario Dept. Mines, Prelim. Report 1961-7, p. 21-28.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: TEMISKAMING MINING CO. LTD	LAT. 47° 21' 36"	REF. NO. O.D.M.-Ag-0455063
		LONG. 79° 42' 36"	

N.B. Production for period 1943 to 1948 is grouped with that of other properties owned by Silanco Mining & Refining Co. Ltd.

YEAR	ORE	ORE & CONC.	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED	SHIPPED	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1907	265	201			327,527	187,021					187,021
08		741	40,520	4,009	1,013,874	479,192					483,201
09	871	783	22,000	2,353	616,312	319,900					322,253
1910	19,830	445	5,600	356	1,994,226	1,075,645					1,076,001
11	139	136			1,162,317	625,720					625,720
12	31,449	950			1,217,994	740,675					740,675
13	32,296	599			768,939	458,515					458,515
14	25,007	455			323,022	160,078					160,078
15	148	579			1,486,400	738,703					738,703
16	33,716	404			873,507	572,548					572,548
17		415	2,179	183	887,122	722,268					722,451
18		243	14,262	1,797	517,763	476,684					478,481
19		199	22,907	3,882	194,270	227,504					231,386
1920		595	55,450	10,466	298,627	252,098					262,564
27		48			2,814	1,586					1,586
28		67			19,820	11,848					11,848
29		18	3,568	1,961	16,904	8,741					10,702
1930		23	4,126	2,888	10,102	3,839					6,727
31		14			32,335	9,363					9,363
32		12	4,000	2,400	43,898	12,439					14,839
33		4			12,430	3,917					3,917
34		18			25,488	11,748					11,748
35		10	648	283	10,246	6,660	1,812	252			7,195
36		25	897	441	85,149	37,195	46	5			37,641
37		20	1,532	556	89,012	39,445	588	106			40,107
38		14	15,586	2,790	9,272	3,629	18,052	3,249			9,668
39	25	22	4,443	2,255	31,891	13,813	2,427	437			16,505
1940		16	2,687	2,037	3,378	1,250	2,414	435			3,722
1955	1	1	200	516	3,121	2,828					3,344
1963	143,747	7,057	200,585	39,173	12,077,750	7,204,852	25,337	4,484			7,248,509
	6,060	157	2,102	4,288	41,046	56,808			6,261	1,941	63,037
	149,807	7,214	202,687	43,461	12,118,796	7,261,760	25,337	4,484	6,261	1,941	7,311,546

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 19 68 THE MARCOBALT MINING SYNDICATE LTD. HISTORICAL NAME: TRETWEY SCML - CLAIM JB.7		LAT. 04739900	REF. NO.
				LONG. 07968500	O.D.M.-Ag-0455002
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. VI, Lot 6.	
TP. or SQUARE COLEMAN	04550	NTS 031M05E UTM		Claim:- SE½, N½ of lot 6.	
LOCATION: About half a mile north of town of Cobalt.					
HISTORY OF OWNERSHIP: 1904: W.G. Trethewey 1906: Trethewey Silver Cobalt Mines Ltd. 1920: Conigas Mines Ltd. 1928: Leased to J.W. Shaw 1932: Cobalt Properties Ltd. 1937-43: Leased to A. Murphy, C.A. Landry, and R. Mercier. 1943: Sanyac Mining and Development Co. Ltd. 1956: The Marcobalt Mining Syndicate Ltd.		EXPLORATION AND DEVELOPMENT 1904-20. Six shafts with underground workings:- Shaft No.1:- was sunk 98' with levels at 49' and 98'. Shaft No.2:- was sunk 180' with levels at 59', 135' and 180'. A sublevel was established at 113' depths. Shaft No.3:- was sunk 156' with levels at 45', 110' and 156'. Shaft No.4:- was sunk 186' with levels at 127' and 179'. The 127' level joins the 150' level of the adjacent Hudson Bay Shaft. From the 179' level a winze extends to 204' depth. Shaft No.5:- was sunk 67' with a level of 67'		PRODUCTION ORE RESERVES (DAIL AND AUTHORITY)  Silver 7,256,470 ozs. \$ 4,325,393 (approx.)  Cobalt 216,198 lbs. \$ 66,688 Total Approx. value:- \$4,392,243 O.D.M. statistical files.	
MAJOR ORE MINERALS Silver and smaltite.		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X			
MINOR ORE MINERALS Niccolite		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Main Vein System:- with a horizontal length of 600', extends vertically 200'.  Grade (1904-16):- Silver 33 ozs./ton.			
ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite					
COUNTRY ROCK OR FORMATION Keewatin rocks and Cobalt Series Sediments					
AGE: GEOLOGICAL ABSOLUTE Archean and Aphebian N.L.T. 3100, N.L.T. 2150 m.y.					
MAIN REFERENCE Thomson, R., 1961: Ontario Dept. Mines, Prelim. Rept. 1961-3, p. 133-139.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968 SIGNATURE A.D.S.
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 19 68 THE MARCOBALT MINING SYNDICATE LTD. HISTORICAL NAME: TRETWEY SCML - CLAIM JB.7		LAT. 04739900	REF. NO.
				LONG. 07968500	O.D.M.-Ag-0455002
GEOLOGY Low dipping Cobalt sediments up to 186' thick unconformably overlie steeply dipping Keewatin rocks that are cut by a Haileyburian dioritic intrusive. The property is traversed by two faults:- the Trethewey Fault striking N with low easterly dip is a reverse fault; the No.6 Shaft Fault striking ESE with steep S dip is a normal fault. A network of productive veins occur in the SE corner of the property. The veins are the direct extensions of the veins in the contiguous properties of Nipissing and Conigas. Production was largely restricted to the Cobalt Series.		EXPLORATION AND DEVELOPMENT (Cont) Shaft No.6:- was sunk 139' with levels at 68' and 139'. There is a sub-level at 50' below the shaft collar. 1934. A number of surface diamond drill holes were put down.			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Archean and Aphebian N.L.T. 3100 and N.L.T. 2150 m.y. Volcanics and Sediments K/Ar Rb/Sr Pb/Pb Cl4 X X		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT	
				AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb Cl4 X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W., 1922: Ontario Dept. Mines, Vol. XXXI, pt.2, Map 31a-11.			
MAP REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M. Maps P.97 and P.97A, 1961. 3. O.D.M. Map 31a-11, 1922.		ODM FILES			

COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver Cobalt	CIRCA 19 68 THE MARCOBALT MINING SYNDICATE LTD. HISTORICAL NAME: TRETHERWEY SCML - CLAIM JB.7	47° 23' 56"	O.D.M.-Ag-0455002
HISTORY OF OWNERSHIP (CONT)		LONG. 79° 41' 5"	
		REMARKS Longitude and latitude refer to southeast corner of claim.	
ADDITIONAL REFERENCES:-			
Knight, C.W., 1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas. Ontario Dept. Mines, Vol. XXXI, pt.2, p. 140-141 and Map 31a-11.			
Thomson, R., 1961: Preliminary Report on part of Coleman Township, Concession VI, Lots 1 to 6, District of Timiskaming. Ontario Dept. Mines Prelim. Rept. 1961-3, p. 133-139.			
COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver Cobalt	CIRCA 1968: THE MARCOBALT MINING SYNDICATE LTD. HISTORICAL NAME: TRETHERWEY SCML - CLAIM JB.7	47° 23' 56"	O.D.M.-Ag-0455002
		LONG. 79° 41' 5"	

N.B. Statistics of production for the years 1920-27 are included in the Conigas Property production figures.

YEAR	ORE & CONC.		COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED TONS	SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1904	50	20	4,500	2,900	55,320	29,873					32,933
05	190	183	32,000	16,621	345,602	209,930					226,551
06	410	205			127,848	88,540					88,540
07	792	810	21,440	2,281	362,456	195,785					198,066
08	1,430	1,449	51,800	4,547	717,183	323,024					327,573
09	1,154	1,154	60,920	1,183	727,237	331,628					337,811
10	27,375	362	5,643	596	846,579	457,152					457,748
11	31,054	129			716,464	373,486					373,486
12	26,710	571			620,923	381,693					381,693
13	35,300	587			599,035	326,193					326,193
14	26,380	612			453,097	263,967					263,967
15	6,113	117			126,010	60,289					60,289
16	18,541	244			190,988	129,842					129,842
17		430			311,324	248,265					248,265
18		441		2,703	291,269	277,460					280,163
19		254			181,078	196,772					196,772
20-27					500,000	400,000					400,000
29		3	443	75	9,688	5,268					5,343
1937		2	1,703	4,293	2,485	1,118					2,411
38		14	3,878	2,514	2,179	361					2,875
39	52	53	10,667	8,205	4,559	1,061					9,266
1940	50	50	10,461	8,609	19,315	7,048					15,657
41	36	36	7,425	5,404	20,076	6,328					11,732
42		5			7,078	2,985					2,985
43	29	29	5,348	4,757	18,677	7,325					12,082
	175,666	7,759	216,198	66,688	7,256,470	4,325,393					4,392,243

COMMODITY		NAME OF OCCURRENCE:		LAT. 04737200	REF. NO.
Silver Cobalt		CIRCA 19 68 GLEN LAKE SILVER MINES LTD. (HIHO) HISTORICAL NAME: UNIVERSITY MINES LTD. (GIROUX L. MINE)		LONG. 07966400	O.D.M.-Ag-0455047
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	COLEMAN		004550	TIMISKAMING	
LOCATION:			NTS	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
On north shore of Giroux Lake, about 2 miles SSE of town of Cobalt.			031M05E	UTM	
HISTORY OF OWNERSHIP:			EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1905 to 1915 1938, 1940, 42, 43, 44, 45.
1905: University Mines Ltd.			1905-56: No.1 shaft was sunk 243' with levels at 40', 105', 123', 171' & 215'; 105' level connects with 185' level of adjoining Lawson No.8 shaft.		Silver 287,718 ozs. Cobalt 82,681 lbs.
1909: La Rose Mines Ltd.			No.2 Shaft was sunk 60' on No.2 vein with level at 40' where 60' of drifting was done.		Nickel 38,283 lbs. Copper 1,205 lbs.
19 : La Rose-Rouyn Mines Ltd.			No.3 or Main shaft was sunk with extensive 91' level, extending into Alexandra and Cleopatra properties, and with 145' level which lies near Cobalt-Keewatin unconformity.		1966-1968 Silver: about 500,000 ozs.(?)
1954: Silver-Miller Mines Ltd.			1963-68: No.3 or Giroux Lake shaft was deepened to 291'. Drive on 291' level was extended to beneath Dynamite Island where		O.D.M. statistical files.
1963: Hiho Silver Mines Ltd. (wholly owned subsidiary of Glen Lake Silver Mines Ltd.)			OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER
MAJOR ORE MINERALS Silver and smaltite.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS Galena, sphalerite, chalcopryrite, pyrrhotite, and bismuth.			No.1 vein: with horizontal length greater than 500' extends over a vertical depth of 380'.		
ORE FABRIC Vein.			Nos. 2, 3 and 4 vein system: Horizontal length greater than 300' vertical depth and width are unknown.		
MAJOR GANGUE MINERALS Calcite.			No.5 vein: is 200' in horizontal length and 3" in width and extends over a vertical depth of 25'.		
COUNTRY ROCK OR FORMATION Keewatin volcanics, Cobalt Series sediments intruded by Nipissing diabase.			Grade (1905 to 1908):- Silver 522 ozs/ton.		
AGE: GEOLOGICAL ABSOLUTE			4-1 W Vein: Horizontal length over 400'; assays up to 10,000 ozs/ton over 4" to 5" widths.		
Archean, Apehbian, Apehbian. N.L.T.3100, N.L.T.2150, 2150 m.y.			MAP REFERENCE USED FOR LOCATION		
MAIN REFERENCE Thomson, R.			O.D.M. Map 2052, Cobalt Silver Area, 1964.		
1961: O.D.M. Prelim. Rept. 1961-6, p. 73-79.			FILE STATUS: SKELETAL INCOMPLETE COMPLETE REVISED		
			DATE: 1968		
			SIGNATURE: A.O.S.		
COMMODITY		NAME OF OCCURRENCE:		LAT. 04737200	REF.NO.
Silver Cobalt		CIRCA 1968: GLEN LAKE SILVER MINES LTD. (HIHO) HISTORICAL NAME: UNIVERSITY MINES LTD. (GIROUX L. MINE)		LONG. 07966400	O.D.M.-Ag-0455047
GEOLOGY Keewatin volcanics and Cobalt sediments are intruded by the Nipissing diabase sill. The sill at the No.3 shaft forms the 45° north and south dipping limbs of the WSW trending Kerr Lake arch; the Cobalt sediments below the arch have been folded into a shallow syncline. Four silver-cobalt calcite veins, viz. nos. 1, 2, 3 & 4, strike SW, one, No.5 strikes WNW. Nos 1 and 2 veins with some native bismuth are productive only within Keewatin lavas, by contrast Nos. 3 and 4 veins with galena, sphalerite, chalcopryrite and pyrrhotite mineralization only within the Cobalt Series. No.5 vein with Cobalt bloom, galena and chalcopryrite is associated with fracturing along Keewatin chert bands.			EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION			METAMORPHISM		
			MINERAL PARAGENESIS		
AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
GEOLOGICAL AGE Archean, Apehbian, Apehbian				Post-Huronian	
ABSOLUTE AGE N.L.T.3100, N.L.T.2150, 2150 m.y.				N.G.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL Volcanics, Sediments, Diabase					
METHOD K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	
		NAME OF TECTONIC EVENT		X	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W. 1922: O.D.M. Vol.31, pt.2, Map sheets 31a-6 and 9.		
MAP REFERENCES			ODM FILES		
O.D.M. Map 2052, Cobalt Silver Area, 1964. O.D.M. Map P.96, 1961.					





NAME OF OCCURRENCE:		LAT. 04738800	REF. NO.
Silver	CIRCA 1968: UNITED COBALT MINES LTD. HISTORICAL NAME: VICTORIA SILVER COBALT MINES LTD	LONG. 07965900	ODM-Ag-0455033
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACRES
TP. or SQUARE COLEMAN	004550		Con V, Lot 3. CLAIM:- NW $\frac{1}{2}$ , NE $\frac{1}{2}$ of lot 3.
LOCATION	N $^{\circ}$ 031M05E		
Located $\frac{1}{2}$ mile NE of Peterson Lake that is about $\frac{1}{2}$ miles ESE of town of Cobalt			
HISTORY OF OWNERSHIP:	EXPLORATION AND DEVELOPMENT	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1906 - Victoria Silver Cobalt Mines Ltd.	1906-10. Six shafts and 750' of diamond drilling. Shaft No.1: is 25' deep. Shaft No.2: is about 150' deep with levels at 75' and 150'. On the 75' level a drift extends 100'W. A north cross-cut of 20' and a south cross-cut of 50' occur on the same level. On the 150' level 190' of cross-cutting and 350' of drifting were reported. From the north cross-cut on this level a winze was sunk 95'. Shaft No.3: is 80' deep with 36' of lateral work. Shaft No.4: is about 200' deep with a level at 82'.	Silver production meagre.	
Circa 1951: United Cobalt Mines Ltd.			
OCCURRENCE		RAW PROSPECT	DEVELOPED PROSPECT
MAJOR ORE MINERALS Silver.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES	
MINOR ORE MINERALS Pyrite and chalcopyrite.		NE Vein System: Extends horizontally for a length of 150'.	
ORE FABRIC Vein.		NW Vein System: Extends horizontally for a length of 250'.	
MAJOR GANGUE MINERALS Calcite.		Grade:- Unknown	
COUNTRY ROCK OR FORMATION Keewatin rocks intruded by the Nipissing diabase.			
AGE: GEOLOGICAL ABSOLUTE			
Archean and Aphebian N.L.T. 3100 and 2150 m.y			
MAP REFERENCE:		MAP REFERENCE USED FOR LOCATION	FILE STATUS: DATE SIGNATURE
THOMSON, R. 1961: ODM Prelim.Rept. 1961-4, p.33-36		ODM Map 2050, Cobalt Silver Area, 1964.	SKELETAL INCOMPLETE COMPLETE D 1968 A.O.S. REVISED
COMMODITY	NAME OF OCCURRENCE:	LAT. 04738800	REF.NO.
Silver	CIRCA 1968: UNITED COBALT MINES LTD. HISTORICAL NAME: VICTORIA SILVER COBALT MINES LTD.	LONG. 07965900	ODM-Ag-0455033
GEOLOGY		EXPLORATION AND DEVELOPMENT (Cont)	
Keewatin rocks are intruded by the Nipissing diabase sill. The upper contact of the diabase sill strikes N and dips 10 $^{\circ}$ E. The western portion of the claim is traversed by a N trending elongated topographic depression presumably caused by the selective erosion of bedrock along structural failures. The silver bearing veins can be assigned to two sets; one strikes NE and the other strikes NW. Shaft No.2 veins with NW strikes are regarded to be the most important. Pyrite and chalcopyrite mineralization is associated with shaft no.4 veins. A 3" wide feldspar-amphibole dikelet containing calcite, pyrite and chalcopyrite traverses diabase in the SW corner of the claim.		Shaft No.5: is 50' deep  Shaft No.6: is 50' deep	
ALTERATION		METAMORPHISM	
Calcite vein at Shaft No.1 shows epidote alteration.		MINERAL PARAGENESIS	
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL:	
ABSOLUTE AGE		AGE OF DEFORMATION:	
ROCK TYPE AND/OR MINERAL		AGE OF ORE MINERAL	
METHOD		NAME OF TECTONIC EVENT	
Archean and Aphebian		Post-Huronian	
N.L.T. 3100 and N.L.T. 2150 m.y.		N.C.T. 2150 m.y.	
Volcanics and Sediments			
K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4	
X X		X	
COMPANY REPORTS		METALLURGY REFERENCE	
ECONOMICS REFERENCE		MILLING REFERENCE	
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE	
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE	
		PLAN SECTION LONGITUDINAL PROJECTION	
MAP REFERENCES		ODM FILES	
1.ODM Map 2050. Cobalt Silver Area, 1964 2.ODM Map p.97 1961			

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: UNITED COBALT MINES LTD. HISTORICAL NAME: VICTORIA SILVER COBALT MINES LTD	LAT. 47° 23' 18" LONG. 79° 39' 31"	REF. NO. ODM-Ag-0455 033
HISTORY OF OWNERSHIP (CONT.)		REMARKS Longitude and latitude refer to southeast corner of claim.	

ADDITIONAL REFERENCES:-

1909: Eighteenth Report of the Ontario Bureau of Mines. Ontario Bur. of Mines, Vol XVIII, pt.1. p.15.

THOMSON, R.  
1961: Preliminary Report on part of Coleman Township, Concession V, Lots 1 to 6, District of Timiskaming, Ontario Dept. of Mines Prelim. Rept 1961-6, p.33-36.

COMMODITY Silver	NAME OF OCCURRENCE CIRCA 19 68 UNITED COBALT MINES LTD. HISTORICAL NAME: VICTORIA SILVER COBALT MINES LTD.	LAT. 47° 23' 18" LONG. 79° 39' 31"	REF. NO. O.D.M.-Ag-04 55033
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YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT Lbs.	\$	SILVER Oz.	\$	Nkl Lbs.	\$	Cprr Lbs.	\$	TOTAL VALUE \$
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COMMODITY		NAME OF OCCURRENCE:		LAT. 04739600	REF. NO.		
Silver	CIRCA 1968 : HISTORICAL NAME: VIOLET MINING CO. LTD.	ANSIL MINES LTD.	VIOLET MINING CO. LTD.	LONG. 07965800	O.D.M.-Ag-0455015		
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.			
TP. or SQUARE	COLEMAN	004550		TIMISKAMING			
LOCATION: 1 1/2 miles a little north of east of town of Cobalt			NTS 031MOSE	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE		
					Con. VI, Lot 3. CLAIM:- NW 1/4 of S 1/2.		
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)			
1905: Handy Mine.		Violet-O'Brien Shaft was sunk to 425' with levels at 330' and 410'; north of shaft sublevels were cut at 250' and 315' to explore No. 5 vein. South of shaft from 410' level winze was sunk with levels at 470', 530' and 600' to explore vein No. 3. New Violet Shaft: levels established at 637' and 689'. From 689' level winze was sunk with levels at 767', 832', 879' and 928'. Shaft No. 1 was sunk to 120' with an extensive level at 90'.		Silver		Vein No.1 (1905-6) produced 33,453 ozs. grade:- 1,672 ozs/ton.	
Circa 1906: The Violet Mining Co.		1961-63 Further exploration was carried out which included: 302' of drifting, 209' of crosscutting, 90' of raising and 76' of diamond drill holes totalling 10,664'.		Veins Nos.3 and 5 (1918-25) (essentially No.3) produced 863,838 ozs.			
Circa 1908: La Rose Consolidated Mines Ltd.				Thomson, R., 1961.			
1918: La Rose Mines Ltd.							
1926: La Rose-Rouyn Mines Ltd.							
1951: Silanco Mining and Refining Co. Ltd.							
1957: Ansil Mines Ltd.							
Circa 1961: Leased to Agnico Mines Ltd.							
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X			

MAJOR ORE MINERALS	Silver and Smaltite	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES	
MINOR ORE MINERALS		Vein No. 3 is blind and extends from 330' level over a vertical depth of 585'. On 637' level it extends over 550' in length. Productive part rakes easterly following Nipissing sill contact.	
ORE FABRIC	Vein.	Vein No. 5 is blind. It extends over a vertical depth of at least 80'. On 330' level it extends 400' in length.	
MAJOR GANGUE MINERALS	Calcite.	Vein No. 1 extends from surface to a depth of not greater than 90', and horizontally over 65'.	
COUNTRY ROCK OR FORMATION	Kewatin volcanics, Cobalt sediments and Nipissing sill.		
AGE: GEOLOGICAL	ABSOLUTE		
	Archean and Aphebian. N.L.T.3100, N.L.T.2150 & 2150 m.y.		

MAIN REFERENCE	THOMSON, R. 1961: O.D.M. Prelim. Rept. 1961-3. p.19-27.	MAP REFERENCE USED FOR LOCATION	FILE STATUS:	DATE	SIGNATURE
		O.D.M. Map 2050, Cobalt Silver Area, 1964.	SKELETAL		
			INCOMPLETE		
			COMPLETED	1968	A.O.S.
			REVISED		

COMMODITY		NAME OF OCCURRENCE:		LAT. 04739600	REF. NO.
Silver	CIRCA 1968 : HISTORICAL NAME: VIOLET MINING CO. LTD.	ANSIL MINES LTD.	VIOLET MINING CO. LTD.	LONG. 07965800	O.D.M.-Ag-0455015
GEOLOGY Most of claim is covered by overburden above Nipissing diabase sill. Lower contact of sill is some 600' below surface in centre of claim. The sill overlies Cobalt sediments in the north and Kewatin volcanics in the south. The O'Brien-Violet Fault with steep S.W. dip strikes N.W. to bisect the claim; vertical displacement is about 15' down on S.W. side. Three productive silver veins occurred: Nos. 3, 5 and 1. Production was restricted to proximity to diabase contact; No. 1, explored by open pit near south margin of claim, to the upper contact, and Nos. 3 and 5 to lower contact of sill. No. 3 vein strikes N.W. parallel to fault.			EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS			
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE	Archean Aphebian and Aphebian			Post Huronian	
ROCK TYPE AND/OR MINERAL	N.L.T. 3100, N.L.T.2150 and 2150 m.y.			N.G.T. 2150 m.y.	
METHOD	Volcanics, Sediments and Diabase	K/Ar	Rb/Sr	Pb/Pb	Cl4
		x		x	
		NAME OF TECTONIC EVENT		X	

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE
	PLAN X SECTION LONGITUDINAL PROJECTION
	Knight, C.W., O.D.M., Vol. XXXI, pt. 2, Map 31A-10 1922.
MAP REFERENCES	ODM FILES
1. O.D.M. Map 2050, 1964.	
2. O.D.M. Map 31a-10.	
3. O.D.M. Map P.97, 1961.	

COMMODITY Silver	NAME OF OCCURRENCE CIRCA 1968: ANSIL MINES LTD. HISTORICAL NAME: VIOLET MINING CO. LTD.	LAT. 47°23'44"	REF. NO. O.D.M.-Ag-0455015
		LONG. 79°39'30"	
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		<p>Latitude and longitude refer to southeast corner of claim.</p> <p>Lawsuit in 1922 established that O'Brien-Violet shaft was situated in O'Brien property.</p>	

ADDITIONAL REFERENCES:-

Knight, C.W.  
1922: Cobalt and South Lorrain Silver Areas, Ontario Dept. of Mines, Vol. XXXI, pt. 2, p.96-97.

Miller, W.G.  
1907: Violet Mine. Ontario Bureau of Mines, Vol. XVI, pt. 2, p.115.

Mines of Ontario.  
1919: La Rose Mines. Ontario Bureau of Mines, Vol. XXVIII, pt. 1, p.139.  
1925: Violet Mine. Ontario Dept. of Mines, Vol. XXXIV, pt. 1, p.137.

Thomson, R.  
1961: Preliminary Report on Part of Coleman Township, Concession VI, Lots 1 to 6, District of Timiskaming, Ontario Dept. of Mines, Prelim. Rept. 1961-3, p.19-27.

COMMODITY Silver	NAME OF OCCURRENCE CIRCA 1968: ANSIL MINES LTD. HISTORICAL NAME: VIOLET MINES CO. LTD.	LAT. 47°23'44"	REF. NO. O.D.M.-Ag-0455015
		LONG. 79°39'30"	

YEAR	ORE	ORE & CONC.	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED	SHIPPED	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	\$
1905					26,953						
1906					6,500						
1918					30,000						
1919					104,487						
1920					81,476						
1921					49,730						
1922					137,061						
1923					180,784						
1924					23,896						
1925					256,404						
					TOTAL	897,291 oz.					





CONSOBILITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: GLEN LAKE SILVER MINES (HIHO) HISTORICAL NAME: CLEOPATRA MINING CO. LTD.		LAT. 04736600 LONG. 07966900	REF. NO. O.D.M.-Ag-0826004
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE GILLIES LIMIT	008260	LOCATION: 2 miles south of town of Cobalt on north shore of Giroux Lake.		Northeastern tip of township. Claims: A 24, A 25, A 38, A 46.	
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1909: Ontario Government. 1909: Cleopatra Mining Co. Ltd. 1922: La Rose Mines Ltd. 1954: Silver Miller Mines Ltd. 1963: Hiho Silver Mines Ltd, (Wholly owned subsidiary of Glen Lake Silver Mines Ltd.)		1909: Main or A-25 Shaft was sunk 100' with level at 90'. A-24 Shaft was sunk about 100'. 1922: Underground workings were extended from Main Shaft of adjacent University claim to A-25 Shaft. 1963-68: Extensive underground development has been carried out: Main Shaft was enlarged and deepened to 343' depth with levels at 118' (1st),		1964-1968. Silver: about 2,500,000 ozs Grade: about 34 ozs/ton	
		OCCURRENCE		RAW PROSPECT	
		DEVELOPED PROSPECT		PRODUCER	
		PAST PRODUCER			

MAJOR ORE MINERALS Silver and smaltite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS Niccolite, chalcopyrite, galena, sphalerite, pyrrhotite, and pyrite.	Patricia Vein: strikes NE, is 300' long and has a vertical depth of 210' with lower 50' in Keewatin volcanics.
ORE FABRIC Vein and Disseminated.	Cadesky Vein: strikes NE, is 300' long and varies from 4" to 18" in width.
MAJOR GANGUE MINERALS Calcite.	D-21 Vein: strikes NE, and is 3" in width.
COUNTRY ROCK OR FORMATION Keewatin Volcanics and Cobalt Series sediments.	14-S Vein: strikes NW. Rich ore occurs within Vein with disseminated Silver over 7' on either side of vein.
AGE: GEOLOGICAL ABSOLUTE	
Archean and Aphebian. N.L.T. 3100 and N.L.T. 2150 m.y.	

MAIN REFERENCE Riddell, G.S.; 1966: O.D.M. Ann. Rept. Vol. 74, p. 126-128.	MAP REFERENCE USED FOR LOCATION	FILE STATUS	DATE	SIGNATURE
	O.D.M. Maps 2051 and 2052, Cobalt Silver Area, 1964. Lat. and Lon. refer to SE corner of claim A-46.	SKELETAL INCOMPLETE COMPLETED REVISED	1968	A.O.S.

CONSOBILITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: GLEN LAKE SILVER MINES (HIHO) HISTORICAL NAME: CLEOPATRA MINING CO. LTD.		LAT. 04736600 LONG. 07966900	REF.NO. O.D.M.-Ag-0826004
GEOLOGY Bedrock, in general covered by deep overburden, is entirely Nipissing diabase; this overlies 50' to 250' of Cobalt Series sediments unconformably above Keewatin volcanics. The Keewatin Cobalt unconformity is intersected by the main shaft just below the 183' level. The lower Nipissing diabase Cobalt Series contact strikes E-W and dips 45°S. The Columbus Fault strikes WNW. Silver producing veins occur essentially in Cobalt Series sediments within a NW trending palaeovalley on the Keewatin surface. The veins strike NE and NW to form a network. Keewatin interflow beds contain base metal sulphides over 14' width.		EXPLORATION AND DEVELOPMENT (Cont) 1963-63 cont. 183' (2nd), 233' (3rd) and 281' (4th) depths. During 1966, about 1,130' of drifting, 436' of crosscutting, 281' of raising and 16,920' of underground diamond drilling was completed.			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	

AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
Archean and Aphebian				Post-Huronian	
N.L.T. 3100, and N.L.T. 2150 m.y. Volcanics and Sediments				N.G.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL		K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	
METHOD		x x		x	

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION
MAP REFERENCES 1. O.D.M. Maps 2051 and 2052, Cobalt Silver Area, 1964. 2. O.D.M. Maps, P.96 and 96A, 1961.	ODM FILES





COMMODITY		NAME OF OCCURRENCE:		LAT. 04736000		REF. NO.	
Silver Cobalt		CIRCA 1968; NU-SILCO MINES LTD. HISTORICAL NAME: COBALT A-53 SILVER MINING CO.		LONG. 07968000		O.D.M.-Ag-0082605	
CO. or DIST.		CODE No.		MINING DIV.		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TIMISKAMING		59		TIMISKAMING		Gillies Limit, Block 2	
TP. or SQUARE		D08260				Claims: 52, 53, 54, 55, 56, 57, 88, 89, 91, 92 and 94.	
LOCATION: About 2 miles S of Cobalt.				NTS		UIM	
				031M05E			
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)			
Claim A-54 1910-1920: (?) 1920-1922: Cobalt A-53 Silver Mining Co.		Claim A-53; 1910: Shaft A-53 was put down 55' 1920: Shaft A-53 was deepened to 108' and levels established at 60' and 100'.		1946: Cobalt 2,251 lbs.			
Claim A-54; 19 -19 : M.J. O'Brien Ltd.		Claim A-88; 1909-19 Shaft A-88 was sunk 55' deep.					
Claim A-91; 1909-19 Shaft A-91 was sunk 85' deep.		Claim A-91; 1909-19 Shaft A-91 was sunk 85' deep.					
Claims A-52, 53, 54, 55, 56, 57, 88, 89, 91, 92, 93 and 94		Claims A-52, 53, 54, 55, 56, 57, 88, 91, 92, 93, and 94					
1943-1948: Silco Mines Ltd.		1943-1949: Lateral work done in Shaft A-53 was about 200' on 60' level and 2067' on 100' level. Diamond drilling done; 1944: 1 hole 329' long on claim A54, 1947; 25 holes totalling 5078' on claims A53, 54, 92, 93.		O.D.M. statistical files			
1948-1968: Nu-Silco Mines Ltd.		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT X PRODUCER FAST PRODUCER			
1950-1951: Optioned to Coniagas Mines Ltd.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES					
1951-1952: Optioned to Yellowknife Bear ML		Mine Fault Veins strike ESE for 800'					
1959 : Optioned to Rayrock Mines Ltd.		Shaft A-53 Veins are short veins with general NE strike.					
1963-1964: Optioned to Copper Man Mines Ltd.		South Silco Fault Vein strikes N80°W.					
1966-1969: Leased to Glen Lake Silver ML.		North Silco Vein located under Giroux Lake strikes NE for 200'.					
MAJOR ORE MINERALS Cobalt arsenides and silver		AGE: CHEMICAL Archean, Aphebian ABSOLUTE N.L.T. 3100 Aphebian, Helikian N.L.T. 2150, 2150, 1000 m.y.					
MINOR ORE MINERALS		MAP REFERENCE USED FOR LOCATION		FILE STATUS		DATE SIGNATURE	
ORE FABRIC Vein.		O.D.M. Map 2051, Cobalt Silver Area, 1964.		SKELETAL INCOMPLETE COMPLETED REVISED		1968 A.O.S.	
MAJOR GANGUE MINERALS Calcite		Lat. and long. refer to SE corner of claim A53.					
COUNTRY ROCK OR FORMATION Keewatin andesite, Cobalt Series, Nipissing diabase, Keweenaw diabase.							
AGE: CHEMICAL Archean, Aphebian ABSOLUTE N.L.T. 3100 Aphebian, Helikian N.L.T. 2150, 2150, 1000 m.y.							
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-7, p. 99-108							
COMMODITY		NAME OF OCCURRENCE:		LAT. 47° 21' 37"		REF. NO.	
Silver Cobalt		CIRCA 1968; NU-SILCO MINES LTD. HISTORICAL NAME: COBALT A-53 SILVER MINING CO.		LONG. 79° 40' 47"		O.D.M.-Ag-0082605	
GEOLOGY Steeply dipping Keewatin pillowed andesite-flows that strike ESE and face NNE are exposed on the W part of the property. Dark intrusive dikes containing granite inclusions intersect the Keewatin rocks. Easterly dipping Cobalt Series conglomerate overlies the Keewatin rocks in the central part of the property. Nipissing diabase occurs in the E part of the property; the dip of the diabase is such that the Cobalt Series conglomerate pinches out below the diabase so that diabase directly overlies Keewatin rock. Maximum thicknesses of the Nipissing diabase and Cobalt series conglomerate are 500' and 190' respectively. A Keweenaw diabase dike 35' wide cuts the Cobalt Series conglomerate on claim A92. The Mine Fault traverses claim A54 for 700' striking N76°W and dipping 70°. The South Silco Fault traverses claim A54 striking N80°W.		EXPLORATION AND DEVELOPMENT (Cont.) 1949, 7 underground holes totalling 780' on claim A54, 1950: Coniagas Mines Ltd. diamond drilled claims A53, A92 and A93. 1951-1952: Yellowknife Bear Mines Ltd. put down 4 diamond drill holes totalling 1,236' from the surface and 9 underground diamond drill holes on claims A92 and 54. An electrical resistivity survey was done on claims: A-52, 53 and 93. 1953-1955: Diamond drilling was done on claims A92, 54 and 53 1959-1961: Rayrock Mines Ltd. drilled 21 diamond drill holes 1964: Copper Man Mines Ltd. completed 8 underground diamond drill holes totalling 2,595' on claims A53 and 54.					
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS			
GEOLOGICAL AGE		AGE OF DEFORMATION:		AGE OF ORE MINERAL			
ABSOLUTE AGE		Archean, Aphebian, Aphebian N.L.T. 3100, N.L.T. 2150, 2150 m.y.		Post-Huronian N.G.T. 2150 m.y.			
ROCK TYPE AND/OR MINERAL		K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14			
METHOD		X X		X			
NAME OF TECTONIC EVENT							
COMPANY REPORTS		METALLURGY REFERENCE					
ECONOMICS REFERENCE		MILLING REFERENCE					
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE					
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE		PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Maps P.96 and P.96A, 1961. O.D.M. Map 2051, Cobalt Silver Area, 1964.		ODM FILES					

VIA CENTRE FILE RESIDENT GEOLOGIST AT FILE	COMMODITY NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME:	LAT. _____ LONG. _____	REF. NO. _____
	HISTORY OF OWNERSHIP (CONT.)	REMARKS	

ADDITIONAL REFERENCES:-

COMMODITY NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME:	LAT. _____ LONG. _____	REF. NO. _____
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YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT Lbs.	\$	SILVER Oz.	\$	Nkl Lbs.	\$	Cppr Lbs.	\$	TOTAL VALUE \$
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COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 19 : SUDBURY CONTACT MINES LTD. HISTORICAL NAME: PROVINCIAL MINE		LAT. 04737500 LONG. 09770100	REF. NO. O.D.M.-Ag-0826001
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE N. end of Gillies Limit	
TP. or SQUARE GILLIES LIMIT	008260			Claim: Provincial (30 acres)	
LOCATION: S end of Cart Lake about 1 mile S of Cobalt		NTS 031M05E	UTM		
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1906-1909: Province of Ontario.		1906: Shaft No.1 was sunk 140' and 600' of development was done on the 65' level.		1908-1940	
1909-192 : Cobalt Provincial Mining Co. Ltd.		1908: Shaft No.2 (Provincial Silver Mine) was sunk 70'.		Cobalt Silver 54,473 lbs. 286,897 oz. \$15,607 \$174,790	
1924: Twin Silver Mines Ltd.		1922: Total work in Shaft No.1 was 1100' of drifting and crosscutting on the 65' level and 450' on the 110' level. Shaft No.2 was deepened to 360' with 300' of crosscutting and drifting on the 100' level, 2800' on 175' level, 360' on 217' level, 150' on 300' level and 300' on 350' level.		Nickel 2,842 lbs. \$ 395	
1924: Leased to Clifton Consolidated Mines Ltd.		1924-1925: Development work comprised of 3100' of drifts cross cuts and raises from shaft No.2.		O.D.M. statistical files.	
1928: Leased to C.D. Lynch					
1930: Leased to R. Sullivan.					
MAJOR ORE MINERALS Silver, cobalt arsenides, niccolite		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS		No.1 shaft vein strikes ENE for 300' extending vertically 150'. No.2 shaft vein strikes ENE for 300' extending vertically 350'. 2 shorter veins strike NNW in the E part of the claim.			
ORE FABRIC Vein					
MAJOR GANGUE MINERALS Calcite.					
COUNTRY ROCK OR FORMATION Keewatin sediments overlain by Cobalt Series conglomerate.					
AGE: GEOLOGICAL Archean, Aphebian		ABSOLUTE N.L.T. 3100, N.L.T. 2150 m.y.			
MAIN REFERENCE Thomson, R. 1961: Prelim. Rept. 1961-6, p. 96-99.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2051 Cobalt Silver Area, 1964. Lat. and Long. refer to SE corner of the claim.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE: 1968 SIGNATURE: A.O.S.
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 19 68: SUDBURY CONTACT MINES LTD. HISTORICAL NAME: PROVINCIAL MINE		LAT. 04737500 LONG. 09770100	REF.NO. O.D.M.-Ag-0826001
GEOLOGY The claim is underlain by Cobalt Series conglomerate interlayered with greywacke. The Cobalt Series which is 50' thick in W part of the claim thickens to 350' in E part of claim where it occupies a paleovalley trending NNE in the Keewatin surface. The Cobalt series is underlain by steeply dipping black carbonaceous Keewatin sediments in the E part of claim in the vicinity of shaft No.2.		EXPLORATION AND DEVELOPMENT (Cont) 1938: Small amount of drifting and raising reported in shaft No.2. 1941-1943: 250' of drifting, crosscutting and raising was done on the 217' level and 350' on the 300' level of the No.2 shaft. 1943: No development but some mining carried out. 1953: 4 diamond drill holes were put down. 1965: Underground diamond drilling was done. 1966-1967: Drifting and stoping carried out on the 175' level 1968: Small scale mining and salvage operations have been continued.			
ALTERATION	METAMORPHISM	MINERAL PARAGENESIS			
GEOLOGICAL AGE Archean, Aphebian	AGE OF FORMATION, ROCK OR MINERAL Archean, Aphebian	AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Huronian	
ABSOLUTE AGE N.L.T. 3100, and N.L.T. 2150 m.y.	N.L.T. 3100, and N.L.T. 2150 m.y.			N.G.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL Keewatin sediments, Cobalt sediments	Keewatin sediments, Cobalt sediments	K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	
METHOD		NAME OF TECTONIC EVENT		X	
COMPANY REPORTS	X X	METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Knight, C.W. 1922: O.D.M. Vol. 31, pt.2, Map sheet 31a-17			
MAP REFERENCES O.D.M. Maps No. P.96 and P.96A, 1961. O.D.M. Map 2051, Cobalt Silver Area, 1964.		ODM FILES			

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 22' 30"	REF. NO.
Silver	CIRCA 1968: SUDBURY CONTACT MINES LTD.	LONG. 97° 42' 05"	O.D.M.-Ag-0826001
Cobalt	HISTORICAL NAME: PROVINCIAL MINE		
HISTORY OF OWNERSHIP (CONT)		REMARKS	
1937-1940: Leased to G. Martin			
1941-1943: Cobalt Products Ltd.			
1943-1953: Silanco Mining and Smelting Co. Ltd.			
19 :			
19 :			
1965-1968: Sudbury Contact Mines Ltd.			

ADDITIONAL REFERENCES:-

Knight, C.W.,  
 1922: Cobalt and South Lorrain Silver areas, Ontario Dept. Mines, Vol.31, pt.2, p. 172-174 and sheet 31a-17.  
 Northern Miner Press,  
 1968: Sudbury Contact Operates Mine on Salvage Basis, Feb.15, 1968.

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 22' 30"	REF. NO.
Silver	CIRCA 1968: SUDBURY CONTACT MINES LTD.	LONG. 97° 42' 05"	O.D.M.-Ag-0826001
Cobalt	HISTORICAL NAME: PROVINCIAL MINE.		

YEAR	ORE RAISED	ORE & CONG. SHIPPED	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	TONS	TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	\$
1908	100	70	12,600	3,533	19,041	9,147					12,680
10	20	33			18,410	9,384					9,344
11	111	101			124,381	59,318					59,218
12	19	21			15,686	8,097					8,086
17		16			7,000	6,018					6,018
18		29	3,972	794	11,634	11,430					12,224
19		46			20,214	30,196					20,196
1920		67	25,423	2,703	29,466	28,003					30,706
24	7	7	1,400	280	12,759	9,117					9,397
28					784	455					455
1930		37	3,818	2,291	6,540	2,485					4,776
38		18	3,489	2,264	14,142	5,483	1,451	145			7,892
39		15	3,523	3,523	6,813	2,758	1,256	226			6,507
1940	1	1	248	219	27	10	135	24			253
	258	461	54,473	15,607	286,897	171,790	2,842	395			187,792

Estimated production from 1943 to 1963 was 40,000 oz. silver, and from 1965 to 1967, 20,000 oz.

COMMODITY		NAME OF OCCURRENCE:		LAT.	04737000	REF. NO.
Silver	CIRCA 19 68 SISCOE METALS OF ONTARIO LTD.			LONG.	07968500	O.D.M.-Ag- 0826002
Cobalt	HISTORICAL NAME: WALDMAN SILVER MINES LTD.					
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.		
TP. or SQUARE	GILLIES LIMIT		008260	TIMISKAMING		
LOCATION: About 1 mile S of Cobalt				NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
				031M05E		North part of Gillies Limit Claims A10, 12, 13, 21, and 22.
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT			PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1909-1920: Waldman Silver Mines Ltd.		1909-1949: Shafts No.1, No.2, and No.3 were put down.			1910-1930	
1918: Leased to Mining Corporation of Canada Ltd.		Shaft No.1 is 85' deep with 800' of cross-cutting and drifting on the 75' level.			Cobalt Silver	
1919: Leased to Camburn Silver Mines Ltd.		Shaft No.2 is 110' deep with 450' of cross-cutting and drifting on the 100' level.			2066 lbs. 33,525 oz.	
1943-1956: (?) Waldag Mining Co. Ltd.		Shaft No.3 is 105' deep with 2750' of cross-cutting and drifting on the 100' level.			\$214 \$18,548	
19 : Siscoe Metals of Ontario Ltd.		1949: 8 diamond drill holes were put down totalling 2000'.			O.D.M. statistical files.	
		OCCURRENCE			RAW PROSPECT DEVELOPED PROSPECT PRODUCER FAST PRODUCER	
MAJOR ORE MINERALS Silver, cobalt arsenides.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES				
MINOR ORE MINERALS		No.1 shaft vein strikes E for 500' with vertical depth of 67' and extends into E adjoining Wyandoh property.				
ORE FABRIC Vein.		No.2 shaft vein is a short easterly striking vein.				
MAJOR GANGUE MINERALS Calcite.		Two other small easterly striking veins occur in SE corners of claims A10 and A22.				
COUNTRY ROCK OR FORMATION Keewatin andesite and Cobalt Series Sediments.		Production was obtained from No.1 shaft vein.				
AGE: GEOLOGICAL Archean and Aphebian. N.L.T. 3100, N.L.T. 2150 m.y.		MAP REFERENCE USED FOR LOCATION		FILE STATUS	DATE	SIGNATURE
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-6, p. 100-102.		O.D.M. Map 2051, Cobalt Silver Area, 1964.		SKELETAL		
		Lat. and Long. refer to SE corner of claim A22		INCOMPLETE	1968	A.G.S.
				COMPLETE		
				REVISED		
COMMODITY		NAME OF OCCURRENCE:		LAT.	04737000	REF. NO.
Silver	CIRCA 19 68 SISCOE METALS OF ONTARIO LTD.			LONG.	07996800	O.D.M.-Ag- 0826002
Cobalt	HISTORICAL NAME: WALDMAN SILVER MINES LTD.					
GEOLOGY Flat lying Cobalt Series conglomerate and greywacke occur in a paleovalley trending NNE in the Keewatin surface. The under lying Keewatin rocks consist of pillowed andesites and interflow sedimentary beds that strike E and face N.		EXPLORATION AND DEVELOPMENT (Cont)				
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS		
GEOLOGICAL AGE Archean, Aphebian		AGE OF DEFORMATION:		AGE OF ORE MINERAL		
ABSOLUTE AGE N.L.T. 3100 N.L.T. 2150				Post-Huronian		
ROCK TYPE AND/OR MINERAL Volcanics and Sediments				N.G.T. 2150 m.y.		
METHOD K/Ar Rb/Sr Pb/Pb CI4		K/Ar Rb/Sr Pb/Pb CI4		K/Ar Rb/Sr Pb/Pb CI4		
				NAME OF TECTONIC EVENT		
				X		
COMPANY REPORTS		METALLURGY REFERENCE				
ECONOMICS REFERENCE		MILLING REFERENCE				
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE				
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE				
		PLAN SECTION LONGITUDINAL PROJECTION				
MAP REFERENCES		ODM FILES				
O.D.M. Maps P.96 and P.96A, 1961						
O.D.M. Map 2051 Cobalt Silver Area, 1964.						

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: SISCOE METALS OF ONTARIO LTD. HISTORICAL NAME: WALDMAN SILVER MINES LTD.	LAT. 47° 22' 11"	REF. NO. O.D.M.-Ag-0826002
		LONG. 79° 41' 5"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Total production was obtained from No.1 shaft vein.	

ADDITIONAL REFERENCES:-

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: SISCOE METALS OF ONTARIO LTD. HISTORICAL NAME: WALDMAN SILVER MINES LTD.	LAT. 47° 22' 11"	REF. NO. O.D.M.-Ag-0826002
		LONG. 79° 41' 5"	

YEAR	ORE	ORE & CONC.	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED	SHIPPED	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1910	58	38	2,051	205	28,858	13,165					13,370
18					163	159					159
1919		4			4,384	5,178					5,178
1930			15	9	120	46					55
	58	42	2,066	214	33,525	18,548					18,762

COMMODITY	NAME OF OCCURRENCE:		LAT. 04736900	REF. NO.
Silver Cobalt	CIRCA 1968: HISTORICAL NAME:	NU-SILCO MINES LTD. WYANDOH SILVER MINES LTD.	LONG. 07967900	O.D.M.-Ag-0826003
CO. or DIST.	CODE No.	MINING DIV.	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TIMISKAMING	59	TIMISKAMING	NE part of Gillies Limit.	
TP. or SQUARE			Claim: A23.	
LOCATION: About 1½ miles S of Cobalt.		NTS 031M05E	UTM	

HISTORY OF OWNERSHIP:	EXPLORATION AND DEVELOPMENT	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1909-1916: Wyandoh Silver Mines Ltd.	1909-1906: Two shafts were put down; Wyandoh No. 1 shaft, 100' deep, located on Vein W-1	1910-1937
1937: Leased to F.M. MacKay.	Wyandoh No. 2 shaft, 100' deep, located on Vein W-3	Silver Cobalt 33,699 os. 1,234 lbs.
1945: Silco Mines Ltd.	1937: Salvage operation was carried out with mill feed from rock dump.	\$17,724 \$ 740
1954: Renamed Nu Silco Mines Ltd.	1947: 8 diamond drill holes were completed.	
1960: Leased to Rayrock Mines Ltd.	1961: A geophysical (ratio-resistivity) survey was done.	
1963-1973: Leased to Copper-Man Mines Ltd.		
		O.D.M. Statistical files

OCCURRENCE      RAW PROSPECT      DEVELOPED PROSPECT      PRODUCER      PAST PRODUCER X

MAJOR ORE MINERALS Silver, cobalt arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS	Vein W-1 strikes WNW for 750' and continues into W adjoining claim, A22. Vertical depth is 100'.
ORE FABRIC Vein.	Vein W-2 strikes W for 375'; S of Vein W-1.
MAJOR GANGUE MINERALS Calcite.	Vein W-3 strikes NE for 200'.
COUNTRY ROCK OR FORMATION Keewatin volcanics, Cobalt Series, and Nipissing diabase.	Vein W-4 strikes NW for 200'.
AGE: GEOLOGICAL Archean, ABSOLUTE Aphebian, Aphebian, N.L.T.3100, N.L.T.2150 and 2150 m.y.	Two other small veins that strike NE occur near Vein W-3.

MAP REFERENCE USED FOR LOCATION	FILE STATUS	DATE	SIGNATURE
O.D.M. Map No. 2051 Cobalt Silver Area 1964.	SKELETAL		
	INCOMPLETE		
	COMPLETED	1968	A.O.S.
	REVISED		

COMMODITY	NAME OF OCCURRENCE:	LAT. 04736900	REF. NO.
Silver Cobalt	CIRCA 1968: HISTORICAL NAME: WYANDOH SILVER MINES LTD.	LONG. 07967900	O.D.M.-Ag-0826003

GEOLOGY Steeply dipping Keewatin pillowed andesitic lavas and tuffs with interflow sedimentary chert bands occur. The flows strike ESE and face NNE. The Keewatin rocks are overlain by Cobalt Series conglomerate from 0' to 100' thick which in turn is overlain by gently E dipping Nipissing diabase in the E part of the claim.	EXPLORATION AND DEVELOPMENT (Cont)
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:
ABSOLUTE AGE	Archean, Aphebian, Aphebian, N.L.T. 3100, N.L.T. 2150, 2150 m.y.	AGE OF ORE MINERAL
ROCK TYPE AND/OR MINERAL	Volcanics, Sediments, Diabase.	Post-Huronian
METHOD	K/Ar Rb/Sr Pb/Pb Cl4	N.G.T. 2150 m.y.
	X X	K/Ar Rb/Sr Pb/Pb Cl4
		X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE
	PLAN SECTION LONGITUDINAL PROJECTION
MAP REFERENCES	ODM FILES
O.D.M. Maps P.96 and P.96A, 1961.	
O.D.M. Map 2051 Cobalt Silver Area, 1964.	



COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: NU-SILCO MINES LTD. HISTORICAL NAME WYANDOH SILVER MINES LTD.	LAT. 47° 22' 10"	REF. NO. O.D.M.-Ag-0826003
		LONG. 79° 40' 46"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Total production obtained from Shaft No. 1. Longitude and latitude refer to SE corner of claim A23.	

ADDITIONAL REFERENCES:-  
Knight C. W.  
1922: Cobalt and South Lorrain Silver Areas, Ontario Dept. Mines, Vol. 31, pt. 2, p. 22, 27.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: NU SILCO MINES LTD. HISTORICAL NAME: WYANDOH SILVER MINES LTD.	LAT. 47° 22' 10"	REF. NO. O.D.M.-Ag-0826003
		LONG. 79° 40' 46"	

YEAR	ORE	ORE & CONC.	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED	SHIPPED	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1910	29	26			26,651	14,284					14,284
11					2,586	1,432					1,432
1937		6	1,234	740	4,462	2,008					2,748
	29	32	1,234	740	33,699	17,724					18,464

Table 16.

COBALT AREA (2)  
LIST OF PROPERTIES

<u>COLEMAN TWP.</u>		<u>COLEMAN TWP.</u>	
(Historical Name)	(Present Owner)	(Historical Name)	(Present Owner)
<u>CON. IV</u>		<u>CON. VI</u>	
* ▲ 81 Lot 1, Brady Claim.	Brady Cross Lake Mines Ltd.	▲ 121 Lot 1, Century Silver Mining Co. Ltd.	Silver Monarch Mines Ltd.
▲ 82 Lot 1, Old Chap Mining Co. Ltd.	C. Reinhardt Estate.	▲ 122 Lot 2, claim 198.	
▲ 83 Lot 1, Fisher-Eplett Claims.	Silver Miller Mines Ltd.	▲ 123 Lot 3, Claims 552 & 671.	Mentor Exploration & Dev. Co. Ltd.
▲ 84 Lot 1, Silver Hill Mining Co. Ltd.	Silver Miller Mines Ltd.	▲ 124 Lot 3, Sycee Cobalt Silver Mines Ltd.	Mentor Exploration & Dev. Co. Ltd.
▲ 85 Lot 1, Shamrock Silver Co. Ltd.	Bursary Silver Mines Ltd.	▲ 125 Lot 3, Silver Bird Cobalt Mines Ltd.	L.I. Cunningham.
▲ 86 Lot 1, Davis Silver Cobalt Mines Ltd.	R.G. Henson.	▲ 126 Lot 6, Wright Silver Mining Co. Ltd.	Ontario Northland Railway.
▲ 87 Lot 1, Claim 356.	Bursary Silver Mines Ltd.	▲ 127 Lot 6, Cobalt Paymaster Mines Ltd.	Coballoy Mines & Refiners Ltd.
▲ 88 Lot 1, Claim 1713.	Bursary Silver Mines Ltd.	▲ 128 Lot 7, claims 847 & T.52202.	P. Babayan.
▲ 89 Lot 1, Claim 645.	Bursary Silver Mines Ltd.	▲ 129 Lot 7, claim 253.	L.A. Timleck.
▲ 90 Lot 1, Claim 532.	Bursary Silver Mines Ltd.	▲ 130 Lot 7, claims 1504 & 1456.	Conmar Exploration Ltd.
▲ 91 Lot 1, Valentine Mines Ltd.	Bursary Silver Mines Ltd.	▲ 138 Lot 7, N.B. Keevil.	
▲ 92 Lot 2, Eastbourne Cobalt Mines Ltd.	Bursary Silver Mines Ltd.	▲ 131 Lot 7, St Lawrence Cobalt Cons. Mining Co.	
▲ 93 Lot 2, Badger Mines Ltd.	C. Bende.	▲ 132 Lot 7, Coballoy Mines & Refiners Ltd.	H.P. Glidden & N. Bigelow.
▲ 94 Lot 2, Belmont Silver Mines of Kerr Lake Ltd.	R.C. McAllister.	▲ 133 Lot 8, claim 1403.	
▲ 95 Lot 2, Cobalt Merger Ltd.		▲ 134 Lot 8, claims 547 & 26.	
▲ 96 Lot 3, Cobalt Gem Mining Co. Ltd.		▲ 135 Lot 8, Great Northern Silver Mines.	
▲ 97 Lot 4, LaRose Mines Ltd.	Hi-Ho Silver Mines Ltd.	▲ 136 Lot 9, Colebucke Mines Ltd.	
98 - not used.		▲ 137 Lot 9, Bonsall Mines Ltd.	
▲ 99 Lot 11, Mohawk Cobalt Silver Mines Ltd.			
▲ 100 Lot 11, Timiskaming Mining Co. Ltd.	Agnico Mines Ltd.	<u>GILLIES LIMIT</u>	
▲ 101 Lot 12, Lumsden Mining Co. Ltd.		(Historical Name)	(Present Owner)
▲ 102 Lot 12, Claim 800.		<u>A-CLAIMS</u>	
<u>CON. V</u>		▲ 7 M.J. O'Brien Ltd.	C.L. Murray.
▲ 103 Lot 1, MacDonell Claim 11.	Deer Horn Mines Ltd.	▲ 8 Coballoy Mines & Refiners Ltd.	C.L. Murry.
▲ 104 Lot 1, Cross Lake Silver Mining Co. Ltd.	Bursary Silver Mines Ltd.	▲ 9 Claim A14.	J. Koza.
▲ 105 Lot 2, Campbell-Crowford Cobalt Silver Mining Co. Ltd.	Keevil Mining Group Ltd.	▲ 10 Sagdola Silver Syndicate Ltd.	J. Koza.
▲ 106 Lot 2, Pontiac Silver Mining Co. Ltd.	Bursary Silver Mines Ltd.	▲ 11 Claims A17, A18, A31, & A32.	
▲ 107 Lot 3, Airgiod Cobalt Mining Co. Ltd.	Mid-North Engineering Services Ltd.	▲ 12 Claims A33, A34, & A35.	Cam Mines Ltd.
▲ 108 Lot 3, Kerr L. Majestic Mines Ltd.	R.J.W. Armstrong.	▲ 13 Claim A36.	F.M. Wallingford.
▲ 109 Lot 3, Imperial Crown Mines Ltd.	J.J. Gray.	▲ 14 Wyandoh Silver Mines Ltd.	Nu-Silco Mines Ltd.
▲ 110 Lot 3, Michigan Cobalt Mines Co. Ltd.	Agnico Mines Ltd.	▲ 15 Claim A48.	Glen Lake Silver Mines Ltd.
▲ 111 Lot 4, Nova Scotia Silver Mining Co.	Trinova Cobalt Silver Mines Ltd.		
▲ 112 Lot 7, N½, Claim: SW½.	Agnico Mines Ltd.		
▲ 113 Lot 7 & 8, Temiskaming & Hudson Bay Mining Co. Ltd.	Hudson Bay Mines Ltd.		
▲ 114 Lot 7, Temiskaming & Hudson Bay Mining Co. Ltd.	Hudson Bay Mines Ltd.		
▲ 115 Lot 8, Claims 1c 67 & 37.	B. Derry.		
▲ 116 Lot 8, Argentite Cobalt Ltd.			
▲ 117 Lot 8, Lake George Cobalt Silver Mining Co. Ltd.			
▲ 139 Lot 9, Claims T52009-008.			
▲ 118 Lot 10, Claims 1479 & 579.	J.A. Underwood.		
▲ 119 Lot 10, Claims 495 & 6.	J.A. Underwood.		
▲ 120 Lot 10, Cobalt Camp Lakewiew Mining Co. of Cobalt Ltd.			

\* Number refers to that on deposit description card; non sequence follows as a consequence of data processing.

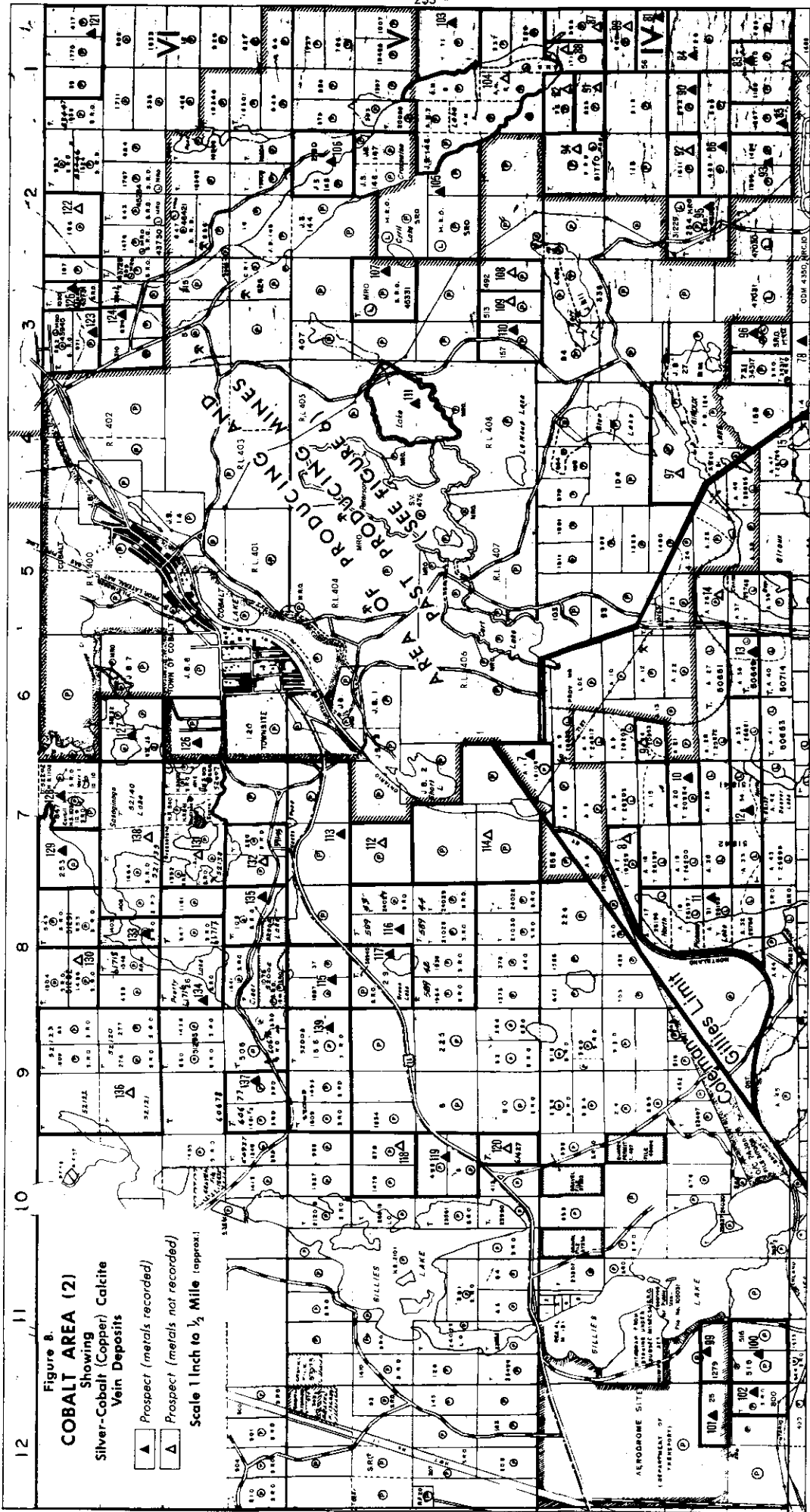


Figure 8.  
**COBALT AREA (2)**  
 Showing  
 Silver-Cobalt (Copper) Calcite  
 Vein Deposits

▲ Prospect (metals recorded)  
 △ Prospect (metals not recorded)

Scale 1 inch to 1/2 Mile (approx.)

ADJOINS FIGURE 9

COMMODITY Cobalt	NAME OF OCCURRENCE: CIRCA 1968: ACONIC MINING CORPORATION. HISTORICAL NAME: CRESCENT SILVER COBALT MINING CO. LTD.		LAT. 04736500	REF. NO.
			LONG. 07991083	O.D.M.-Ag-04550
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
TP. or SQUARE COLEMAN	004550			Con. III, Lots 26 and 27
LOCATION: 10 miles west of COBALT	NTS 031M05W	UTM	Former claims: H.M. 7-8, L.O. 3, L.O. 60, J.S. 61, J.S. 73, H.F. 6-7	
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1923: Crescent Silver Cobalt Mining Co. Ltd.		Prior to 1926: Two shafts had been sunk 45' and 55'.		None recorded.
1954: Aconic Mining Corp. Ltd.		Circa 1926: Adit from near shore of Trout Lake was driven E from greywacke into diabase for 650' and passed beneath S shaft; at 550' from adit entrance main NE vein was drifted on 160' to beneath N shaft, and a SSE drift was developed about 200' to diabase quartzite contact.		
MAJOR ORE MINERALS Cobalt and nickel arsenides.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS Niccolite.		Main vein is a strong calcite vein up to 2' thick that follows an irregular NE fracture; the vein carries pockets of massive arsenides of cobalt and nickel.		
ORE FABRIC Vein.				
MAJOR GANGUE MINERALS Calcite, actinolite.				
COUNTRY ROCK OR FORMATION Nipissing Diabase.				
AGE: GEOLOGICAL Aphebian		ABSOLUTE 2150 m.y.		
MAIN REFERENCE Todd, E.W. 1926: Anima-Nipissing Lake Area, O.D.M. Vol.35, pt.3, p. 101-103.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 35C, Anima-Nipissing Lake Area, 1926. Lat. & long. refer to adit entrance		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED
				DATE 1968
				SIGNATURE A.O.S.
COMMODITY Cobalt	NAME OF OCCURRENCE: CIRCA 1968: ACONIC MINING CORPORATION. HISTORICAL NAME: CRESCENT SILVER COBALT MINING CO. LTD.		LAT. 47° 21' 54"	REF. NO.
			LONG. 79° 54' 39"	O.D.M.-Ag- 04550
GEOLOGY At the property Nipissing diabase, 415' thick in the form of a crescent shaped body with vertical contacts at adit and surface levels, has intruded Lorrain greywacke and quartzite of the Cobalt Series. Within the diabase several calcite veins occur. The main vein strikes NE along an irregular fracture roughly parallel to the diabase contact, and is characterized by local pockets of massive arsenides in a gangue of calcite and actinolite. Gersdorffite, cobaltite and nicolite occur.		EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION	METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase	AGE OF DEFORMATION:	AGE OF ORE MINERAL Post-Huronian N.C.T. 2150 m.y.	
	K/Ar Rb/Sr Pb/Pb CI4	K/Ar Rb/Sr Pb/Pb CI4	K/Ar Rb/Sr Pb/Pb CI4	
	X	NAME OF TECTONIC EVENT	X	
COMPANY REPORTS	METALLURGY REFERENCE			
ECONOMICS REFERENCE	MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION O.D.M. Vol.35, pt.3, p. 102, 1926.			
MAP REFERENCES O.D.M. Map 35C, Anima-Nipissing Lake Area, 1926. O.D.M. Map P.321, Haileybury Sheet, 1965.	ODM FILES			

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968: BRADY CROSS LAKE SILVER MINES LTD. HISTORICAL NAME: BRADY CLAIM	LAT. 04737100 LONG. 07963200	REF. NO. O.D.M.-Ag-0455081
CO. or DIST. TIMISKAMING TP. or SQUARE COLEMAN	CODE No. 59 004550	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. IV, Lot 1, N $\frac{1}{2}$ Claim: S part of SE $\frac{1}{4}$ (No. 56)
LOCATION: About 2 $\frac{1}{2}$ miles SE of Cobalt		NTS 031MOSE UTM	
HISTORY OF OWNERSHIP: 1904: Mr. Brady. 1946: Brady Cross Lake Silver Mines Ltd. 1950: Optioned to Preston East Dome Mines Ltd.		EXPLORATION AND DEVELOPMENT 1904: Surface prospecting including the development of several pits was done. 1950: 5 diamond drill holes and 3 others from the E adjacent claim were put down; total footage from the claim was about 3270'.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
MAJOR ORE MINERALS Silver, niccolite, cobalt arsenides. MINOR ORE MINERALS Chalcopyrite ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite, quartz. COUNTRY ROCK OR FORMATION Keewatin volcanics, Cobalt Series, Nipissing diabase, Keweenawan diabase. AGE: GEOLOGICAL Archean, Aphebian, Helikian. ABSOLUTE N.L.T. 3100, N.L.T. 2150, 2150, 1000 m.y.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Irregular quartz calcite stringers occur locally on the claim.	
MAIN REFERENCE Thomson, R. 1961: Prelim. Rept. 1961-6, p. 16-18. 1960: Prelim. Rept. 1960-1, p. 44-50.		MAP REFERENCE USED FOR LOCATION D.D.M. Map 2052 Cobalt Silver Area 1964. Lat. and Long. refer to SE corner of claim No. 56.	
		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE: 1968 SIGNATURE: A.D.S.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 19 : BRADY CROSS LAKE SILVER MINES LTD. HISTORICAL NAME: BRADY CLAIM	LAT. 47° 22' 15" LONG. 79° 37' 56"	REF. NO. O.D.M.-Ag-0455081
GEOLOGY Nipissing diabase less than 500' thick and dipping 25° ESE overlies 100-150' of Cobalt Series greywacke. The Cobalt greywacke occupies the SW end of a NE trending paleovalley underlain by steeply dipping Keewatin rhyolite. The Cross Lake olivine diabase dike (of Keweenawan age) 50' in width strikes SE across the claim and dips 75° NE. Two branches of the Cross Lake Fault cross the claim one striking SE and the other SSE.		EXPLORATION AND DEVELOPMENT (Cont)	
ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean, Aphebian, Aphebian, Helikian N.L.T. 3100, N.L.T. 2150, 2150, 1000 m.y. Volcanics, Sediments, Diabase, Diabase.	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X
COMPANY REPORTS	METALLURGY REFERENCE		
ECONOMICS REFERENCE	MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Maps P.96 and P.96A, 1961. O.D.M. Map 2052 Cobalt Silver Area, 1964.	ODM FILES		

COMMODITY		NAME OF OCCURRENCE:		LAT. 04737600	REF. NO.
Silver Cobalt		CIRCA 1968: C. REINHARDT ESTATE. HISTORICAL NAME: OLD CHAP MINING CO. LTD.		LONG. 07963700	O.D.M.-Ag-0455082
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	COLEMAN		004550	TIMISKAMING	
LOCATION: About 2 1/2 miles SE of Cobalt.			NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
			031M05E		Con. IV, lot 1, N 1/2.
					Claim: N part of NW 1/4 (No.76)
HISTORY OF OWNERSHIP:			EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1906-1907: Old Chap Mining Co. Ltd.			1906-1907: Surface prospecting was done and the Old Chap shaft was sunk.		
1909: E.T. Mining Co. Ltd.			1909-1920: The Old Chap shaft was deepened to 210 feet with 60 feet of cross-cutting and drifting on the 130' level and 200' of lateral work on the 200' level.		
1920: Cross Lake Silver Mining Co. Ltd.			A pit 30' deep, 170' S60°W from the shaft was dug.		
19 -1968: C. Reinhardt(Estate )			300' of underground work was done on the 70' level from the Cross Lake Silver mine shaft in the adjoining property to the N.		
			OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT X PRODUCER PAST PRODUCER
MAJOR ORE MINERALS Cobalt arsenides, silver.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS Niccolite, bismuth.					
ORE FABRIC Vein.					
MAJOR GANGUE MINERALS Calcite.					
COUNTRY ROCK OR FORMATION Keewatin sediments, Haileyburian lamprophyre, Cobalt Series, Nipissing diabase, Keweenawan diabase.					
AGE: GEOLOGICAL Archean, Archean ABSOLUTE N.L.T. 3100, N.L.T. Aphebian, Aphebian, Helikian 2490, N.L.T. 2150, 2150, 100m.y.					
MAIN REFERENCE			MAP REFERENCE USED FOR LOCATION		FILE STATUS: DATE SIGNATURE
Thomson R. 1961: O.D.M. Prelim. Rept. 1961-6, p. 11-15.			O.D.M. Map 2052 Cobalt Silver Area 1964.		SKELETAL
			Lat. and Long. refer to SE corner of the claim.		INCOMPLETE
					COMPLETE D 1968 A.O.S.
					REVISED
COMMODITY		NAME OF OCCURRENCE:		LAT. 47° 22' 35"	REF. NO.
Silver Cobalt		CIRCA 1968: C. REINHARDT ESTATE. HISTORICAL NAME: OLD CHAP MINING CO. LTD.		LONG. 79° 38' 15"	O.D.M.-Ag-0455082
GEOLOGY Southerly dipping Nipissing diabase less than 50' thick overlies SE dipping Cobalt series sediments less than 100' thick. The Cobalt sediments intersected by WNW striking schistose lamprophyre dikes. The Cross Lake olivine diabase dike (of Keweenawan age) strikes NW across the claim. The Cross Lake Fault strikes N30°W across the claim with the W side displaced downward. A second fault striking N70°W imparts schistosity in the lamprophyre. A mineralized vein striking N52°W occurs at the Old Chap shaft while other N-S veins occur in the W portion of the claim.			EXPLORATION AND DEVELOPMENT (Cont)		
			1951-52: 3 short diamond drill holes were put down.		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:	
ABSOLUTE AGE		Archean, Aphebian, Helikian		Post-Huronian	
ROCK TYPE AND/OR MINERAL		N.L.T. 3100, N.L.T. 2150, 2150, 100m.y.		N.G.T. 2150 m.y.	
METHOD		Volcanics, Sediments, Diabase, Diabase			
		K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4	
		X X		NAME OF TECTONIC EVENT	
				X	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE		
			PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES			ODM FILES		
O.D.M. Maps P.96 and P.96A, 1961. O.D.M. Map 2052, Cobalt Silver Area 1964.					

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968: SILVER-MILLER MINES LTD. HISTORICAL NAME: FISHER-EPLETT CLAIMS.	LAT. 04736300 LONG. 07963500	REF. NO. O.D.M.-Ag-0455083
CO. or DIST. TIMISKAMING TP. or SQUARE COLEMAN TWP.	CODE No. 59 004550	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. IV, Lot 1, S $\frac{1}{2}$ ; Claim: E. part of SW $\frac{1}{4}$ (No.1109, Fisher) W. part of SE $\frac{1}{2}$ (No.1110, Epllett)
LOCATION: About 2 $\frac{1}{2}$ miles SE of Cobalt.	NTS 031M05E UTM		
HISTORY OF OWNERSHIP: 1907: Fisher (Claim No.1109), Epllett (Claim No.1110). 1908: La Rose Consolidated Mines Co. Ltd. 1918: Renamed La Rose Mines Ltd. 1926: Renamed La Rose-Rouyn Mines Ltd. 1952: Silver Miller Mines Ltd.	EXPLORATION AND DEVELOPMENT 1907-1913: 15000' of trenching was done. The Main shaft was sunk 300' with levels established at 100', 200' and 300'; crosscutting and drifting consisted of 650' on the 200' level and 2000' on the 300' level. 1952: 2 diamond drill holes were put down totalling 730'. 1955: The main shaft was dewatered and underground diamond drilling done.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT X    PRODUCER    FAST PRODUCER			
MAJOR ORE MINERALS Silver, Cobalt arsenides, niccolite	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES 3 major veins occur: The Main shaft vein, 400' long, 300' deep striking N10°E and dipping steeply E; and 800' E of the shaft, two 500' long veins less than 300' deep striking N20°E. Several other quartz-calcite veins occur in NE striking rock fractures.		
MINOR ORE MINERALS Galena, sphalerite, chalcopryrite, magnetite			
ORE FABRIC Vein.			
MAJOR GANGUE MINERALS Pyrite, pyrrhotite, quartz, calcite.			
COUNTRY ROCK OR FORMATION Keewatin volcanics, Haileyburian Lamprophyre, Nipissing diabase.			
AGE: GEOLOGICAL Archean, Archean, Apebian.	ABSOLUTE N.L.T. 3100, N.L.T. 2490, 2150 m.y.		
MAIN REFERENCE Thomson, R. 1961: Prelim. Rept., 1961-6, p. 20-23.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052 Cobalt Silver Area, 1964. Lat. and Long. refer to SE corner of claim No.1110.	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968
SIGNATURE A.U.S.			
COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968: SILVER-MILLER MINES LTD. HISTORICAL NAME: FISHER-EPLETT CLAIMS	LAT. 47° 21' 48" LONG. 79° 38' 5"	REF. NO. O.D.M.-Ag-0455083
GEOLOGY Keewatin rocks 500' thick cut by Haileyburian lamprophyre dikes and granitic dikes of the Lorrain granite occur as the hanging wall of the S dipping Nipissing diabase; they form a steeply dipping succession of andesitic pillow lava, breccia, and tuff that grades upward into greywacke and a 120' wide zone of cherty magnetite iron formation. In the sediments, disseminated sphalerite, chalcopryrite, galena, pyrrhotite and pyrite occur. Garnet, chlorite and epidote also occur.	EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean, Archean, Apebian N.L.T. 3100, N.L.T. 2490, 2150 m.y. Volcanics, Lamprophyre, Diabase.	AGE OF DEFORMATION: K/Ar    Rb/Sr    Pb/Pb    C14 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar    Rb/Sr    Pb/Pb    C14 X            X            X
COMPANY REPORTS	METALLURGY REFERENCE		
ECONOMICS REFERENCE	MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN            SECTION            LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Map P.96 and P.96A, 1961. O.D.M. Map 2052 Cobalt Silver Area, 1964.	ODM FILES		

COMMODITY Cobalt		NAME OF OCCURRENCE: CIRCA 1968: SILVER-MILLER MINES LTD. HISTORICAL NAME: SILVER HILL MINING CO. LTD.		LAT. 04736300	REF. NO.
				LONG. 07963200	O.D.M.-Ag-0455084
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	COLEMAN		004550	TIMISKAMING	
LOCATION: About 3 miles SE of Cobalt			NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
			031M05E		Con. IV, Lot 1, S $\frac{1}{2}$ . Claim: NE $\frac{1}{4}$ (No. 788) Claim: E part SE $\frac{1}{4}$ (No. 126)
HISTORY OF OWNERSHIP:			EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1905-1907: Silver Hill Mining Co. Ltd.			1905-1907: Surface prospecting was done.		
1908-1918: LaRose Consolidated Mines Ltd.			1908-1913: Further surface prospecting was done		
1918-1926: LaRose Mines Ltd.			1952: 1 diamond drill hole, 707' long, was put down.		
1926-1952: LaRose-Rouyn Mines Ltd.					
1952: Silver Miller Mines Ltd.					
			OCCURRENCE		RAW PROSPECT X DEVELOPED PROSPECT PRODUCER PAST PRODUCER
MAJOR ORE MINERALS Cobalt arsenides.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS Galena, chalcopyrite.					
ORE FABRIC Vein.					
MAJOR GANGUE MINERALS Calcite, quartz.					
COUNTRY ROCK OR FORMATION Keewatin sediments, Lorrain granite, Nipissing diabase, Keweenaw diabase.					
AGE: GEOLOGICAL Archean, Archean, ABSOLUTE N.L.T. 3100, 2390, Aphebian Helikian 2150, 1000 m.y.					
MAIN REFERENCE Thomson, R. 1951: O.D.M. Prelim. Rept. 1961-6, p. 18-19.			MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052, Cobalt Silver Area, 1964. Lat. and Long. refer to SE corner of claim 126		FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED
COMMODITY Cobalt		NAME OF OCCURRENCE: CIRCA 1968: SILVER-MILLER MINES LTD. HISTORICAL NAME: SILVER HILL MINING CO. LTD.		LAT. 47° 21' 48"	REF. NO.
				LONG. 79° 37' 56"	O.D.M.-Ag-0455084
GEOLOGY Steeply dipping Keewatin greywacke striking NE, is intruded by Lorrain granite (of Kenoran age) in the S part of the property; along the NE striking contact, feldspar and garnet are developed in the greywacke. In the N part, Nipissing diabase dips S under the Keewatin greywacke and Lorrain granite. The Cross Lake olivine diabase dike strikes SE across the NE corner of the property. The Cross Lake Fault strikes NNE across the N part of the property. A second fault strikes NNE in the S part. Several NE and NNE striking quartz calcite veins occur in the S part of the property.			EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Archean, Archean, Aphebian, Helikian N.L.T. 3100, 2390, 2150, 1000 m.y. Volcanics, Granite, Diabase, Diabase K/Ar Rb/Sr Pb/Pb Cl4 X X X		AGE OF DEFORMATION: AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT X	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Maps P.96 and P.96A, 1961 O.D.M. Map 2052 Cobalt Silver Area, 1964.			ODM FILES		



COMMODITY		NAME OF OCCURRENCE:		LAT. 04736300	REF. NO.
Silver Cobalt		CIRCA 1968: BURSARY SILVER MINES LTD. HISTORICAL NAME: SHAMROCK SILVER CO. LTD.		LONG. 07964000	O.D.M.-Ag-0455085
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	COLEMAN	04550	TIMISKAMING		
LOCATION: About 3 miles SE of Cobalt			NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
			031M05E	Con. IV, Lot 1, S $\frac{1}{2}$ ; Claim: W part of SE $\frac{1}{4}$ (No.1547)	
HISTORY OF OWNERSHIP:			EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1907: Shamrock Silver Co. Ltd.			1907: The shamrock shaft was sunk 90'.		A small amount of silver was recovered.
1915: Renamed Shamrock Consolidated Mines Ltd.			1915: The shamrock shaft was deepened to 417' with levels at 102', 200', 300' and 400'. On the 102', 200 and 300' levels, 300', 800' and 900' of crosscutting, drifting and stoping was done respectively.		
1968: Bursary Silver Mines Ltd.					
			OCURRENCE	RAW PROSPECT	DEVELOPED PROSPECT <input checked="" type="checkbox"/>
			PRODUCER	PAST PRODUCER	

MAJOR ORE MINERALS Silver, cobalt arsenides, galena.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS					
ORE FABRIC Vein.					
MAJOR GANGUE MINERALS Calcite.					
COUNTRY ROCK OR FORMATION Keewatin volcanics intruded by Nipissing diabase.					
AGE: GEOLOGICAL Archean, Aphebian		ABSOLUTE N.L.T. 3100, 2150 m.y.			
MAIN REFERENCE Thomson, R.		MAP REFERENCE USED FOR LOCATION		FILE STATUS:	DATE
1961: O.D.M. Prelim. Rept. 1961-6, p. 23-25.		O.D.M. Map 2052 Cobalt Silver Area 1964. Lat. and Long. refer to SE corner of claim No.1547		SKELETAL INCOMPLETE COMPLETED REVISED	1968
				SIGNATURE	A.O.S.

COMMODITY		NAME OF OCCURRENCE:		LAT. 47° 21' 48"	REF. NO.
Silver Cobalt		CIRCA 1968: BURSARY SILVER MINES LTD. HISTORICAL NAME: SHAMROCK SILVER CO. LTD.		LONG. 79° 38' 25"	O.D.M.-Ag-0455085
GEOLOGY The claim is underlain by Nipissing diabase except in the E part of the claim where the diabase rolls (dips) steeply under Keewatin andesite lavas whose beds strike NNE. Along the contact which also strikes NNE, the diabase is fine-grained. The Beaver Fault extends NW into the claim. Three mineralized calcite veins that strike NNE occur in the Keewatin volcanics, two of which extend south into the adjoining Beaver property.			EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION		METAMORPHISM		MINERAL PARAGENESIS			
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE		Archean, Aphebian				Post-Huronian	
ROCK TYPE AND/OR MINERAL		N.L.T. 3100 2150 m.y.				N.G.T. 2150 m.y.	
METHOD		Volcanics, Diabase		K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	
		X X		NAME OF TECTONIC EVENT		X	
COMPANY REPORTS				METALLURGY REFERENCE			
ECONOMICS REFERENCE				MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE				MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE				MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE			
				PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES				ODM FILES			
O.D.M. Maps P.96 and P.96A, 1961.							
O.D.M. Map 2052 Cobalt Silver Area, 1964.							

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968: R.G. HENSON. HISTORICAL NAME: DAVIS SILVER COBALT MINES LTD.	LAT. 04736700 LONG. 07963700	REF. NO. O.D.M.-Ag-0455086
CO. or DIST. TIMISKAMING TP. or SQUARE COLEMAN	CODE No. 59 004550	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. IV, Lot 1, S½; Claim: S part, NW¼ (No.566) Con. IV, Lot 2, S½; Claim: S part NE¼ (No.483)
LOCATION: About 2½ miles SE of Cobalt.		NTS 031M05E UTM	
HISTORY OF OWNERSHIP: 1907: Davis Silver Cobalt Mines Ltd. 1908: Leased to Shamrock Silver Co. Ltd.  1961: C. Reinhardt (Claim No.483 only) 1968: R.G. Henson		EXPLORATION AND DEVELOPMENT 1909: A shaft was sunk 110' on claim No.483	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
		OCCURRENCE	RAW PROSPECT DEVELOPED PROSPECT X PRODUCER FAST PRODUCER

MAJOR ORE MINERALS Silver, Cobalt arsenides, galena.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES The shaft vein strikes NE for 100'; vertical depth is 110'. Silver assays as high as 154 oz/ton were obtained.
MINOR ORE MINERALS	
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Calcite.	
COUNTRY ROCK OR FORMATION Keewatin volcanics, Nipissing diabase.	
AGE: GEOLOGICAL Archean, Apehbian	ABSOLUTE N.L.T. 3100, 2150 m.y.
MAP REFERENCE Thomson R. 1961: O.D.M. Prelim. Rept. 1961-6, p. 31-32.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052 Cobalt Silver Area, 1964. Lat. and Long. refer to SE corner of claims No.483.
	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED
	DATE 1968
	SIGNATURE A.O.S.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968: R.G. HENSON. HISTORICAL NAME: DAVIS SILVER COBALT MINES LTD.	LAT. 47° 22' 2" LONG. 79° 38' 15"	REF.NO. O.D.M.-Ag-0455086
GEOLOGY The claims are underlain by Nipissing diabase greater than 700' thick dipping gently SSW. Keewatin andesite occurs above the Nipissing diabase in the SE corner of claim No.566.  The Badger Fault strikes NE across the claims.		EXPLORATION AND DEVELOPMENT (Cont)	

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE Archean, Apehbian	AGE OF FORMATION, ROCK OR MINERAL Archean, Apehbian	AGE OF DEFORMATION: Post-Huronian
ABSOLUTE AGE N.L.T. 3100, 2150 m.y.	ABSOLUTE AGE N.L.T. 3100, 2150 m.y.	AGE OF ORE MINERAL N.G.T. 2150 m.y.
ROCK TYPE AND/OR MINERAL Volcanics, Diabase.	ROCK TYPE AND/OR MINERAL Volcanics, Diabase.	ROCK TYPE AND/OR MINERAL Volcanics, Diabase.
METHOD K/Ar Rb/Sr Pb/Pb Cl4	METHOD K/Ar Rb/Sr Pb/Pb Cl4	METHOD K/Ar Rb/Sr Pb/Pb Cl4
	X X	X
COMPANY REPORTS	METALLURGY REFERENCE	
ECONOMICS REFERENCE	MILLING REFERENCE	
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE	
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION	
MAP REFERENCES O.D.M. Maps No. P.96 and P.96A, 1961. O.D.M. Map No. 2052 Cobalt Silver Area, 1964.	ODM FILES	

COMMODITY	NAME OF OCCURRENCE:		LAT. 04736300	REF. NO.
Cobalt	CIRCA 1968: C. BENDE. HISTORICAL NAME: BADGER MINES LTD.		LONG. 07964300	O.D.M.-Ag-0455093
CO. or DIST.	TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	
TP. or SQUARE	COLEMAN	004550	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
LOCATION: About 2 1/3 miles SE of Cobalt			Con. IV, Lot 2, S $\frac{1}{2}$ Claims: E Part of SE $\frac{1}{4}$ (No. 1494) W Part of SE $\frac{1}{4}$ (No. 1355)	
			NTS	UTM
			031M05E	

HISTORY OF OWNERSHIP:	EXPLORATION AND DEVELOPMENT	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1908: Badger Mines Ltd. 1968: C. Bende.	1908-1911: Surface trenching and pitting was done and shafts Nos. 3, 4 and 5 were put down. On vein No. 3. Shaft No. 3 was less than 30' deep. Shaft No. 4 was sunk 70' on a 79° incline. Shaft No. 5 was sunk 344' with 33' of drifting on the 75' level, N and S drifts on the 140' level, and a 300' SW drift with 140' of crosscutting at its end on the 344' level. Shaft No. 5 (?) From the 75' level, 120' SW of the shaft a winze was sunk 100' and 320' of drifting done at this level.	
OCCURRENCE      RAW PROSPECT      DEVELOPED PROSPECT X      PRODUCER      PAST PRODUCER		

MAJOR ORE MINERALS	Cobalt arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS		4 veins occur:
ORE FABRIC	Vein.	Vein No. 4 strikes NE 350' in claim 1355.
MAJOR GANGUE MINERALS	Calcite.	Vein No. 5 strikes NE 1200' in claims 1355 and 1494.
COUNTRY ROCK OR FORMATION	Keewatin volcanics; Nipissing diabase	Vein No. 6 strikes NE 200' in claim 1355.
AGE: GEOLOGICAL	Archean, Apehbian	Vein No. 7 strikes NNE 150' in claim 1494.
ABSOLUTE	N.L.T. 3100, 2150 m.y.	

MAIN REFERENCE	MAP REFERENCE USED FOR LOCATION	FILE STATUS	DATE	SIGNATURE
Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-5, p. 32-33.	O.D.M. Map 2052 Cobalt Silver Area 1964. Lat. and Long. refer to SE corner of claim 1494.	SKELETAL INCOMPLETE COMPLETED REVISED	1968	A.O.S.

COMMODITY	NAME OF OCCURRENCE:	LAT. 47° 21' 48"	REF. NO.
Cobalt	CIRCA 1968: C. BENDE. HISTORICAL NAME: BADGER MINES LTD.	LONG. 79° 38' 35"	O.D.M.-Ag-0455093
GEOLOGY	EXPLORATION AND DEVELOPMENT (Cont)		
Nipissing diabase gently dipping S underlies the south boundary of the claims; the diabase dips under Keewatin andesite. Two branches of the Badger Fault cut claim 1355 with NE and ENE strikes; in claim 1494, the Badger Fault continues with NNE strike.			

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:
ABSOLUTE AGE	Archean, Apehbian	AGE OF ORE MINERAL
ROCK TYPE AND/OR MINERAL	N.L.T. 3100, 2150 m.y.	Post-Huronian
METHOD	Volcanics, Diabase.	N.L.T. 2150 m.y.
	K/Ar    Rb/Sr    Pb/Pb    Cl4	K/Ar    Rb/Sr    Pb/Pb    Cl4
	X            X	X
	NAME OF TECTONIC EVENT	

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE
	PLAN      SECTION      LONGITUDINAL PROJECTION
MAP REFERENCES	ODM FILES
O.D.M. Maps P.96 and P.96A, 1961. O.D.M. Map 2052, Cobalt Silver Area, 1964.	

COMMODITY	NAME OF OCCURRENCE:		LAT. 04737500	REF. NO.
Silver	CIRCA 1968: R.C. McALLISTER HISTORICAL NAME: BELMONT SILVER MINES OF KERR LAKE LTD.		LONG. 07964300	O.D.M.-Ag-0455094
CO. or DIST.	TIMISKAMING	CODE No. 59	MINING DIV.	
TP. or SQUARE	COLEMAN	004550	TIMISKAMING	
LOCATION: About 2 miles SE of Cobalt.		NTS 031M05E	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. IV, Lot 2, N $\frac{1}{2}$ ; Claim NE $\frac{1}{2}$ (No. T.51770)
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1907-1912: Belmont Silver Mines of Kerr Lake Ltd.		1908-1911: Two shafts No.1 shaft and No.2 shaft both about 100' deep were sunk.		N/A
1913-1916: North Star Cobalt Mines Ltd.		1948-1949: 5045' of diamond drilling was done.		
1947-1960: Adnew Silver-Cobalt Mines Ltd.		1953: 6 short diamond drill holes were put down in the SE corner of the claim.		
1968: R.C. McAllister.				
OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT <input checked="" type="checkbox"/> PRODUCER    PAST PRODUCER				

MAJOR ORE MINERALS	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS	No.1 shaft vein strikes N for 400'; vertical depth is 100'. No.2 shaft vein is 200' long and strikes E.
ORE FABRIC    Vein.	Other small E-W and N-S veins occur on the property
MAJOR GANGUE MINERALS    Calcite	
COUNTRY ROCK OR FORMATION    Keewatin sediments, Cobalt Series Nipissing diabase	
AGE: GEOLOGICAL Archean,    ABSOLUTE N.L.T. 3100, Aphebian, Aphebian.    N.L.T. 2150, 2150 m.y.	
MAP REFERENCE Thomson, R. 1961: Prelim. Rept. 1961-6, p. 25-27.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052, Cobalt Silver Area, 1964.
	FILE STATUS:    DATE    SIGNATURE
	SKELETAL
	INCOMPLETE
	COMPLETED    1968    A.O.S.
	REVISED

COMMODITY	NAME OF OCCURRENCE:		LAT. 47° 22' 29"	REF. NO.
Silver	CIRCA 1968: R.C. McALLISTER. HISTORICAL NAME: BELMONT SILVER MINES OF KERR LAKE LTD.		LONG. 79° 38' 35"	O.D.M.-Ag-0455094
GEOLOGY In NW part of claim, steeply dipping and tightly folded Keewatin greywacke and chert strikes NE. Cobalt Series sediments unconformably overlie the Keewatin rocks and dip gently E attaining a thickness of less than 50' in the NE part of claim. Nipissing diabase dips S and overlies both Keewatin and Cobalt sedimentary rocks in the S part. Two faults with strikes of N60°E and N10°E occur.		EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION	METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:	AGE OF ORE MINERAL	
ABSOLUTE AGE	Archean Aphebian, Aphebian		Post-Huronian	
ROCK TYPE AND/OR MINERAL	N.L.T. 3100, N.L.T. 2150, 2150 m.y.		N.C.T. 2150 m.y.	
METHOD	Sediments, Sediments, Diabase.			
	K/Ar    Rb/Sr    Pb/Pb    Cl4	K/Ar    Rb/Sr    Pb/Pb    Cl4	K/Ar    Rb/Sr    Pb/Pb    Cl4	
	X            X	NAME OF TECTONIC EVENT	X	
COMPANY REPORTS	METALLURGY REFERENCE			
ECONOMICS REFERENCE	MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN            SECTION            LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Maps P.96 and P.96A, 1961. O.D.M. Map 2052 Cobalt Silver Area.	ODM FILES			

COMMODITY Cobalt	NAME OF OCCURRENCE: CIRCA 1968: HISTORICAL NAME: COBALT MERGER LTD.	LAT. 04736700 LONG. 07964800	REF. NO. O.D.M.-Ag-0455095
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. IV, Lot 2, S $\frac{1}{2}$
TP. or SQUARE COLEMAN	004550	NTS 031M05E	UTM Claim: NW $\frac{1}{2}$ (No. T.31229)
LOCATION: About 3 miles SE of Cobalt.			
HISTORY OF OWNERSHIP: 1907: Cobalt Merger Ltd. 1909: Right-of-Way Mines Ltd. 1925: Cobalt Argyros Mines Ltd. 1950: G.M. Kerry. 1951: Lakefield Porcupine Gold Mines Ltd.		EXPLORATION AND DEVELOPMENT 1907-1911: Surface prospecting was done. 1926: Underground work was carried out from Kerr Lake No.3 shaft for 700' on the 550' (9ch) Level into the claim; 200' of crosscutting was done also. 1952: 2 short diamond drill holes were put down.	
		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
		OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT X    PRODUCER    PAST PRODUCER	

MAJOR ORE MINERALS Cobalt arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS	
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Calcite.	
COUNTRY ROCK OR FORMATION Nipissing diabase	
AGE: GEOLOGICAL ABSOLUTE Aphebian 2150 m.y.	
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-6, p. 30-31.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052 Cobalt Silver Area 1964. Lat. and Long. refer to SE corner of the claim.
	FILE STATUS:    DATE    SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED

COMMODITY Cobalt	NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: COBALT MERGER LTD.	LAT. 47° 22' 2" LONG. 79° 38' 52"	REF. NO. O.D.M.-Ag-0455095
GEOLOGY The claim is underlain by Nipissing diabase 800' thick that dips gently SSW. A fault strikes NE in to the claim from the SW adjoining Cobalt Badger property. The Kerr Lake No.3 vein extends SSE 400' into the claim. A second vein extends SE 200' into the claim from the adjoining Cobalt Badger property.		EXPLORATION AND DEVELOPMENT (Cont)	

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase. K/Ar    Rb/Sr    Pb/Pb    C14 x	AGE OF DEFORMATION: NAME OF TECTONIC EVENT
		AGE OF ORE MINERAL Post-Huronian N.C.T. 2150 m.y. K/Ar    Rb/Sr    Pb/Pb    C14 x

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN    SECTION    LONGITUDINAL PROJECTION
MAP REFERENCES O.D.M. Maps P.96 and P.96A, 1961. O.D.M. Map 2057 Cobalt Silver Area, 1964.	ODM FILES

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: COBALT GEM MINING CO. LTD.			LAT. 04736400	REF. NO.
					LONG. 07965800	O.D.M.-Ag-0455096
CO. or DIST.	TIMISKAMING	CODE No.	MINING DIV.		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE	COLEMAN	59	TIMISKAMING		Con. IV, Lot 3, S $\frac{1}{2}$ ;	
LOCATION: About 2 miles SSE of Cobalt		004550	NTS	UTM	Claim: E part of SW $\frac{1}{4}$	
			031M05E			
HISTORY OF OWNERSHIP: 1907: Cobalt Gem Mining Co. Ltd.		EXPLORATION AND DEVELOPMENT 1907-1909: Work done included trenching, diamond drilling, the excavation of 2 adits and the sinking of a shaft 100' deep.			PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
		OCCURRENCE			RAW PROSPECT DEVELOPED PROSPECT X PRODUCER PAST PRODUCER	
MAJOR ORE MINERALS Silver, Cobalt arsenides.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES				
MINOR ORE MINERALS		A vein that strikes N58°E, and dips 80°N containing minor cobalt mineralization passes through the shaft. Nuggets and pieces of rich silver ore were found loose in the overburden. 1 sample 5'5" x 2'5" x 1'6" containing 9,715 oz. of silver is exhibited in the Parliament Buildings, Toronto.				
ORE FABRIC Vein.						
MAJOR GANGUE MINERALS Calcite.						
COUNTRY ROCK OR FORMATION Nipissing diabase.						
AGE: GEOLOGICAL ABSOLUTE Aphebian 2150 m.y.						
MAIN REFERENCE Thomson, R. 1961: Prelim. Rept., 1961-6; p. 63-64.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052 Cobalt Silver Area, 1964. Lat. and Long. refer to SE corner of the claim.		FILE STATUS	DATE	SIGNATURE
				SKELETAL		
				INCOMPLETE		
				COMPLETED	1968	A.O.S.
				REVISED		
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: COBALT GEM MINING CO. LTD.			LAT. 47° 21' 49"	REF. NO.
					LONG. 79° 39' 30"	O.D.M.-Ag-0455096
GEOLOGY The claim is underlain by Nipissing diabase 600' to 700' thick that dips SE.		EXPLORATION AND DEVELOPMENT (Cont)				
ALTERATION		METAMORPHISM			MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase.		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.
		K/Ar	Rb/Sr	Pb/Pb	Cl4	K/Ar
			X			X
COMPANY REPORTS		METALLURGY REFERENCE				
ECONOMICS REFERENCE		MILLING REFERENCE				
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE				
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION				
MAP REFERENCES O.D.M. Maps Nos. P.96 and P.96A, 1961. O.D.M. Map No.2052, Cobalt Silver Area, 1964.		ODM FILES				

COMMODITY Cobalt	NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: MOHAWK COBALT SILVER MINES LTD.	LAT. 04736900 LONG. 0797490	REF. NO. O.D.M.-Ag- 0455099
CO. or DIST. TIMISKAMING TP. or SQUARE COLEMAN	CODE No. 59 004550	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. IV, Lot 11, S $\frac{1}{2}$ Claim: NW $\frac{1}{4}$ (No.1279)
LOCATION: West of Gillies Lake, 2 $\frac{1}{2}$ miles southwest of Cobalt		NTS 031MOSE	UTM
HISTORY OF OWNERSHIP: 1907: Mohawk Cobalt Silver Mines Ltd.		EXPLORATION AND DEVELOPMENT Cobalt bearing veins were discovered and investigated by several shallow pits (depth unknown) and one shaft. The shaft is about 200' deep with levels at 44', 150' and 200'; on the 200' level a crosscut, some 200' long was driven westward.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  N/A
		OCURRENCE	RAW PROSPECT DEVELOPED PROSPECT X PRODUCER PAST PRODUCER

MAJOR ORE MINERALS Smaltite, silver.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS Chalcopyrite, pyrite.	
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Calcite and quartz.	
COUNTRY ROCK OR FORMATION Nipissing Diabase.	
AGE; GEOLOGICAL Aphebian ABSOLUTE 2150 m.y.	
MAIN REFERENCE Thomson, R. 1960: Ontario Dept. Mines Prelim. Rept. 1960-3, p. 41-42.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2051, Cobalt-silver Area, 1964. Long. and lat. refer to southeast corner of claim 1279.
	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED
	DATE 1968
	SIGNATURE A.O.S.

COMMODITY Cobalt	NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: MOHAWK COBALT SILVER MINES LTD.	LAT. 47° 22' 08" LONG. 79° 44' 56"	REF.NO. O.D.M.-Ag- 0455099
GEOLOGY A vein, traversing the Nipissing sill and striking N73E and dipping 80°S, is exposed in the 44' level drift for 38' from shaft. Aplite dikes associated with calcite and quartz veinlets follow irregular fracture zone some 2' wide. Disseminated cobalt and silver mineralization in small quantity occurs in the wallrock of veinlets. A little chalcopyrite and pyrite can be seen on the dump.		EXPLORATION AND DEVELOPMENT (Cont)	

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase K/Ar Rb/Sr Pb/Pb Cl4 X	AGE OF DEFORMATION: AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT X
COMPANY REPORTS	METALLURGY REFERENCE	
ECONOMICS REFERENCE	MILLING REFERENCE	
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE	
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION	
MAP REFERENCES 1. O.D.M. Map 2051, Cobalt-silver Area, 1964. 2. O.D.M. Map P.81, 1960.	ODM FILES	

COMMODITY Cobalt		NAME OF OCCURRENCE: CIRCA 1968: DEER HORN MINES LTD. HISTORICAL NAME: MACDONELL CLAIM.		LAT. 04741300	REF. NO.
				LONG. 07963200	O.D.M.-Ag- 0455103
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	COLEMAN		004550	TIMISKAMING	
LOCATION: 2½ miles east southeast of town of Cobalt. East of Cross Lake.			NTS 031M05E	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. V, Lot 1, Claim: NE½ of S½, No.11.
HISTORY OF OWNERSHIP: 1904: Macdonell. 1930: M.J. O'Brien Ltd. (option) 1968: Deer Horn Mines Ltd.			EXPLORATION AND DEVELOPMENT 1904-1930: The surface was carefully prospected. 1930: M.J. O'Brien diamond drilled 4 holes totalling 2828'.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  N/A
			OCCURRENCE		RAW PROSPECT X DEVELOPED PROSPECT PRODUCER PAST PRODUCER

MAJOR ORE MINERALS Cobalt arsenides.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS		N/A			
ORE FABRIC Vein.					
MAJOR GANGUE MINERALS Calcite.					
COUNTRY ROCK OR FORMATION Keewatin volcanic and Cobalt Series rocks overlain by Nipissing diabase.					
AGE: GEOLOGICAL ABSOLUTE Archean, Aphebian Aphebian N.L.T. 3100, N.L.T. 2150, 2150m.y.					
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-4, p. 11-12.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050 Cobalt Silver Area, 1964. Lat. and Long. refer to SE corner of claim No.11.		FILE STATUS:	DATE
				SKELETAL	
				INCOMPLETE	
				COMPLETED	1968
				REVISED	
					A.O.S.

COMMODITY Cobalt		NAME OF OCCURRENCE: CIRCA 1968: DEER HORN MINES LTD. HISTORICAL NAME: MACDONELL CLAIM.		LAT. 47° 24' 47"	REF. NO.
				LONG. 79° 37' 56"	O.D.M.-Ag-0455103
GEOLOGY Nipissing diabase overlies Keewatin volcanics and Cobalt Series greywacke. The Cobalt Series occurs in a paleo-valley on the Keewatin surface which causes the greywacke to pinch out in the W part of the claim beneath the easterly dipping limb of the Nipissing diabase arch. The maximum thickness of the greywacke is 60' in the central portion of the claim. An ENE fault crosses the N portion of the claim. S of the fault the Nipissing diabase is 200' thick while N of the fault, it is 700' thick. One calcite vein striking N70°E contains cobalt mineralization.			EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	

GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE		Archean, Aphebian Aphebian				Post-Huronian	
ROCK TYPE AND/OR MINERAL		N.L.T. 3100 N.L.T. 2150 2150 m.y.				N.G.T. 2150 m.y.	
METHOD		Volcanics, Sediments, Diabase.					
		K/Ar	Rb/Sr	Pb/Pb	C14	K/Ar	Rb/Sr
		X		X			X
		NAME OF TECTONIC EVENT					

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION
MAP REFERENCES O.D.M. P.97 and P.97A, 1961. O.D.M. 2050, Cobalt Silver Area, 1964.	ODM FILES



COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968; BURSARY SILVER MINES LTD. HISTORICAL NAME: CROSS LAKE SILVER MINING CO. LTD.		LAT. 04737800	REF. NO.
			LONG. 07963700	O.D.M.-Ag-0455104
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. V, Lot 1, S $\frac{1}{2}$ .
TP. or SQUARE COLEMAN	004550			Claim: SE $\frac{1}{4}$ Nos. 337, 338, A.M.6 SW $\frac{1}{4}$ Nos. A.M.2, A.M.3, Land portion. NW $\frac{1}{4}$ Nos. A.M.5, A.M.7.
LOCATION: South end of Cross Lake, 2 miles ESE of town of Cobalt.		NTS	UTM	Con. V, Lot 2, S $\frac{1}{2}$ NE $\frac{1}{4}$ No. J.S. 148.
HISTORY OF OWNERSHIP: 1907: Cross Lake Silver Mining Co. Ltd. 1968: Bursary Silver Mines Ltd.		EXPLORATION AND DEVELOPMENT 1919-1920: On the SW $\frac{1}{4}$ of the S $\frac{1}{2}$ of lot 1, a shaft 225' deep was sunk with levels at 70' and 210'. On the 70' level 800' of crosscutting and drifting was done in a SSW direction from the shaft; on the 210' level 100' of crosscutting was done ENE of the shaft.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  N/A
		OCCURRENCE	RAW PROSPECT	DEVELOPED PROSPECT
			X	PRODUCER
				PAST PRODUCER

MAJOR ORE MINERALS	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS	N/A			
ORE FABRIC Vein.				
MAJOR GANGUE MINERALS Calcite, quartz.				
COUNTRY ROCK OR FORMATION Keewatin sediments, Haileyburian lamprophyre, Cobalt Series, Nipissing diabase, Keewenawan diabase.				
AGE: GEOLOGICAL Archean, Archean, Aphebian, Aphebian, and Helikian	ABSOLUTE N.L.T. 3100, N.L.T. 2490, N.L.T. 2150, 2150, & 1000 m.y.	No record of metals.		
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-4, p. 13-14.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050 Cobalt Silver Area 1964. Lat. and Long. refer to SE corner of claim A.M.2.	FILE STATUS SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968	SIGNATURE A.O.S.

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968; BURSARY SILVER MINES LTD. HISTORICAL NAME: CROSS LAKE SILVER MINING CO. LTD.		LAT. 47° 22' 39"	REF. NO.
			LONG. 79° 38' 15"	O.D.M.-Ag-0455104
GEOLOGY Rocks of 5 Formations occur; the oldest being steeply dipping bedded Keewatin greywacke and conglomerate intruded by small Haileyburian lamprophyre sills. These are overlain by southerly shallow dipping Cobalt Series conglomerate and argillite in the S part of the property and by Nipissing diabase E of Cross Lake. The Keewatin and Cobalt Series rocks are also cut by the Cross Lake olivine diabase dike (of Keewenawan age) that strikes NW parallel to the Cross Lake Fault. Several veins occur, many striking N and a few striking E.		EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION Spotted chlorite.	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE Archean, Aphebian, Helikian.	AGE OF DEFORMATION:	AGE OF ORE MINERAL Post-Huronian
ABSOLUTE AGE N.L.T. 3100, 2150, 1000 m.y.		N.G.T. 2150 m.y.
ROCK TYPE AND/OR MINERAL Volcanics, Diabase, Diabase.		
METHOD K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14
	X X	X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION
MAP REFERENCES O.D.M. P.97 and P.97A, 1961. O.D.M. Map 2050, Cobalt Silver Area, 1964.	ODM FILES

COMMODITY Cobalt		NAME OF OCCURRENCE: CIRCA 1968: KEEVIL MINING GROUP LTD. HISTORICAL NAME: CAMPBELL-CRAWFORD COBALT SILVER MINING CO. LTD.		LAT. 04738100	REF. NO.
				LONG. 07965300	O.D.M.-Ag-0455105
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. TIMISKAMING	
TP. or SQUARE	COLEMAN	004550		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. V, Lot 2.	
LOCATION: About 1½ miles SW of Cobalt			NTS 031M05E	UTM	Claims: NW¼ of S½ S part of N½
HISTORY OF OWNERSHIP: 1906: Cobalt Silver Prince Ltd. 1906-1931: Campbell-Crawford Cobalt Silver Mining Co. Ltd. 1930: Leased to M.J. O'Brien Ltd. 1968: Keevil Mining Group Ltd.			EXPLORATION AND DEVELOPMENT 1906-1930: Prospecting was concentrated on ENE trending veins. Two shafts were sunk, the East shaft and the West shaft, 800' of workings from an adit connects with the East shaft on the 120' level. The West shaft was sunk an estimated 100'. 1930: Two diamond drill holes totalling 1848' were drilled.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  N/A
			OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT X    PRODUCER    PAST PRODUCER		
MAJOR ORE MINERALS    Cobalt arsenides.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS    Galena.			N/A		
ORE FABRIC    Vein.					
MAJOR GANGUE MINERALS    Calcite, Quartz.					
COUNTRY ROCK OR FORMATION    Keewatin sediments, Nipissing diabase and Keweenawan diabase.					
AGE: GEOLOGICAL    ABSOLUTE Archean, Aphebian, Helikian    N.L.T. 3100, 2150, 1000 m.y.					
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-4, p. 27-28.			MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964. Long. and Lat. refer to SE corner of NW¼ of S½ of lot 2.		FILE STATUS:    DATE    SIGNATURE SKELETAL INCOMPLETE COMPLETED    1968    A.O.S. REVISED
COMMODITY Cobalt		NAME OF OCCURRENCE: CIRCA 1968: KEEVIL MINING GROUP LTD. HISTORICAL NAME: CAMPBELL-CRAWFORD COBALT SILVER MINING CO. LTD.		LAT. 47° 22' 53"	REF. NO.
				LONG. 79° 39' 11"	O.D.M.-Ag-0455105
GEOLOGY    Except for a small area in the SE corner of vertically dipping well bedded Keewatin sediments, the surface bed-rock of the property is composed of Nipissing diabase of the Peterson Lake basin; thickness of the diabase is 800'. Near the NE corner of the property, the NW trending Cross Lake diabase dike (of Keweenawan age) cuts the Nipissing diabase. The NE trending Cyril Lake Fault crosses the property. Known calcite veins strike ENE.			EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:	
ABSOLUTE AGE		Archean, Aphebian, Helikian		AGE OF ORE MINERAL	
ROCK TYPE AND/OR MINERAL		N.L.T. 3100, 2150, 1000 m.y.		Post-Baronian	
METHOD		Volcanics, Diabase, Diabase.		N.G.T. 2150 m.y.	
		K/Ar    Rb/Sr    Pb/Pb    C14		K/Ar    Rb/Sr    Pb/Pb    C14	
		X    X		X	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN    SECTION    LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. P.97 and P.97A, 1961. O.D.M. Map 2050, Cobalt Silver Area, 1964.			ODM FILES		

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: BURSARY SILVER MINES LTD. HISTORICAL NAME: PONTIAC SILVER MINING CO. LTD.	LAT. 04738100	REF. NO. O.D.M.-Ag-0455106
		LONG. 07964300	
CO. or DIST. TIMISKAMING	CODE No. 59	MINING Div. TIMISKAMING	
TP. or SQUARE COLEMAN	004550	LOT, CONCESSION, CLAIMS OR LEASE AGREEMENT Con. V, Lot 2, 5 1/2.	
LOCATION: About 2 miles ESE of Cobalt.		NTS 031M05E	UTM Claim: NE1
HISTORY OF OWNERSHIP: 19 -1908: Flynn. 1908-1943: Pontiac Silver Mining Co. Ltd. 1968: Bursary Silver Mines Ltd.		EXPLORATION AND DEVELOPMENT 19 -1910: Extensive, prospecting including the sinking of several small shafts. Shaft No.1 was 75' deep with some drifting, and cross-cutting. Shaft No.3 was 26' deep. 1954: Geologically mapped by W.H. Hammerstrom and 1 short diamond drill hole completed.	
		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) N/A	
MAJOR ORE MINERALS Silver, Cobalt arsenides.		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER	
MINOR ORE MINERALS Galena, chalcopryrite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Numerous mineralized (quartz) - calcite veins are exposed on the property. Vein No.1: 120' long, strikes N10°E and dips 80°E. Vein No.2: 120' long and strikes N40°E. Vein No.3: 300' long and strikes N40°E. 3 short westerly striking veins occur.	
ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite, quartz.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050 Cobalt Silver Area 1964. Lat. and Long. refer to SE corner of claim.	
COUNTRY ROCK OR FORMATION Keewatin sediments overlain by Nipissing diabase.		FILE STATUS	DATE
AGE: GEOLOGICAL ABSOLUTE Archean, Apehbian N.L.T. 3100, 2150 m.y.		SKELETAL	
MAIN REFERENCE Thomson, R. 1961: Prelim. Rept. 1961-4, p. 29-30.		INCOMPLETE	
		COMPLETE D	1968
		REVISED	A.G.S.
COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: BURSARY SILVER MINES LTD. HISTORICAL NAME: PONTIAC SILVER MINING CO. LTD.	LAT. 47° 22' 52"	REF. NO. O.D.M.-Ag-0455106
		LONG. 79° 38' 36"	
GEOLOGY Steeply dipping WWV trending Keewatin sediments intruded by Haillyburian lamprophyre outcrop in the S part of the property; these are overlain by Nipissing diabase 300' thick in the N. part of the property. In the SW corner, the Cross Lake olivine diabase dike (of Keweenaw age) cuts the Keewatin and Haillyburian rocks in a NW direction. A NNE fault with downward displacement on the E side crosses the property.		EXPLORATION AND DEVELOPMENT (Cont)	
ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean, Archean, Apehbian, Helikian N.L.T. 3100, N.L.T. 2490, 2150, 1000, m.y. Volcanics, Lamprophyre, Diabase, Diabase K/Ar Rb/Sr Pb/Pb C14 X X X	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian N.L.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X
COMPANY REPORTS	METALLURGY REFERENCE		
ECONOMICS REFERENCE	MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Map P.97 and P.97A, 1961 O.D.M. Map 2050, Cobalt Silver Area, 1964.	ODM FILES		

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: MID-NORTH ENGINEERING SERVICES LTD. HISTORICAL NAME: AIRGIOD COBALT MINING CO. LTD.		LAT. 04738500	REF. NO.
			LONG. 07965400	O.D.M.-Ag-0455107
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
TP. or SQUARE COLEMAN	04550			Con. V, Lot 3.
LOCATION: About 1½ miles ESE of Cobalt.		NTS 031M05E	UTM	Claim: SE½, N½, No. T-45331

HISTORY OF OWNERSHIP:	EXPLORATION AND DEVELOPMENT	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1907: Airgiod Cobalt Mining Co. Ltd.	1907-1916: The Airgiod shaft was sunk 225' with levels at 45', 90', 150' and 220'. Work done on the levels was as follows:	N/A
1912: Cyril Lake Mining Co. Ltd.	45' level - 50' east of shaft.	
1915: Calumet and Montana Consolidated Mining Co. Ltd.	90' level - 148' west of shaft.	
1918: Three Star Silver Mines Ltd.	150' level - 30'W, 110'NE and 60'SW.	
1968: Mid-North Engineering Services Ltd.	220' level - 120'N, 55'S.	
	1916-1918: The 45' and 90' levels were extended.	

MAJOR ORE MINERALS Cobalt arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES	
MINOR ORE MINERALS Chalcopyrite.	N/A	
ORE FABRIC Vein.		
MAJOR GANGUE MINERALS Calcite, quartz.		
COUNTRY ROCK OR FORMATION Keewatin volcanics cut by Nipissing		
AGE: GEOLOGICAL Archean, Aphebian	ABSOLUTE N.L.T. 3100, 2150 m.y.	

MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-4, p. 36-37.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964. Lat. and Long. refer to SE corner of the claim.	FILE STATUS:	DATE	SIGNATURE
		SKELETAL		
		INCOMPLETE		
		COMPLETED	1968	A.O.S.
		REVISED		

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: MID-NORTH ENGINEERING SERVICES LTD. HISTORICAL NAME: AIRGIOD COBALT MINING CO. LTD.		LAT. 47° 23' 5"	REF. NO.
			LONG. 79° 39' 13"	O.D.M.-Ag- 0455107
GEOLOGY Keewatin volcanic rock less than 100' thick occurs above Nipissing diabase of the Peterson Lake diabase basin. The diabase is 1000' thick. Several small calcite veins with cobalt mineralization occur in the Keewatin volcanics and Nipissing diabase.		EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS			
	AGE OF FORMATION, ROCK OR MINERAL Archean, Apehbian N.L.T. 3100, 2150 m.y. Volcanics, Diabase.	AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Huronian N.C.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL METHOD	K/Ar Rb/Sr Pb/Pb Cl4 X X	K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4	X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION
MAP REFERENCES O.D.M. Maps p.97 and P.97A, 1961. O.D.M. Map 2050, Cobalt Silver Area, 1964.	ODM FILES

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: R.J.W. ARMSTRONG. HISTORICAL NAME: KERR LAKE MAJESTIC MINES LTD.		LAT. 04737800	REF. NO. O.D.M.-Ag-0455108
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	LONG. 07965400	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. V, Lot 3, S½.
TP, or SQUARE COLEMAN	004550	NTS 031M05E	UTM	Claim: E part of SE½; No.492.
LOCATION: About 1 2/3 miles SE of Cobalt.				
HISTORY OF OWNERSHIP: 1909: Leased by Kerr Lake Majestic Mines Ltd  1961: C. Reinhardt 1968: R.J.W. Armstrong		EXPLORATION AND DEVELOPMENT 1909-1914: Two shafts were sunk and an adit driven. Shaft No.1 was sunk 175' deep with 650' of lateral work on the 175' level. Shaft No.2 was sunk approx. 150' with 400' of lateral work on the 150' level. The adit was driven 500' in a westerly direction.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  N/A
MAJOR ORE MINERALS		OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT X    PRODUCER    PAST PRODUCER		
MINOR ORE MINERALS		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
ORE FABRIC    Vein.		N/A		
MAJOR GANGUE MINERALS    Calcite, quartz.				
COUNTRY ROCK OR FORMATION    Nipissing diabase				
AGE: GEOLOGICAL    ABSOLUTE Aphebian    2150 m.y.		No record of metals.		
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-4, p. 51-52.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964. Lat. and Long. refer to SE corner of claim No.492.	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1958
SIGNATURE A.O.S.				
COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: R.J.W. ARMSTRONG. HISTORICAL NAME: KERR LAKE MAJESTIC MINES LTD.		LAT. 47° 22' 39"	REF. NO. O.D.M.-Ag-0455108
GEOLOGY    The claim is underlain by Nipissing diabase that forms the NW dipping limb of the Peterson Lake diabase basin. Maximum thickness of the diabase is 600' in the NW corner of the claim. The diabase is thought to overlie Keewatin volcanic rock. Numerous calcite veins occur on the claim.		EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION	METAMORPHISM	MINERAL PARAGENESIS		
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase	AGE OF DEFORMATION: K/Ar    Rb/Sr    Pb/Pb    C14		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.
NAME OF TECTONIC EVENT		K/Ar    Rb/Sr    Pb/Pb    C14 X		
COMPANY REPORTS	METALLURGY REFERENCE			
ECONOMICS REFERENCE	MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN    SECTION    LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Maps P.97 and P.97A, 1961. O.D.M. Map 2050, Cobalt Silver Area, 1964.	ODM FILES			

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: J.J. GRAY. HISTORICAL NAME: IMPERIAL CROWN MINES LTD.		LAT. 04737800 LONG. 07965600	REF. NO. O.D.M.-Ag-0455109
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. V, Lot 3, S½.	
TP. or SQUARE COLEMAN	004550	NTS 031M05E UTM	Claim: W part SE½, No.513.	
LOCATION: About 1½ miles SE of Cobalt.				
HISTORY OF OWNERSHIP: 1908-1934: Imperial Crown Mines Ltd. 1927: Leased to Harvie Mining Co. Ltd. 1968: J.J. Gray		EXPLORATION AND DEVELOPMENT 1908-1927: Surface prospecting and diamond drilling were carried out. 4 shafts, the deepest being 100', were sunk. 1927: A cross-cut was made into the claim on the 500' level from the N shaft of the adjoining Silver Leaf property.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  N/A
		OCCURRENCE	RAW PROSPECT	DEVELOPED PROSPECT
		PRODUCER	PAST PRODUCER	

MAJOR ORE MINERALS	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS	N/A			
ORE FABRIC Vein.				
MAJOR GANGUE MINERALS Calcite				
COUNTRY ROCK OR FORMATION Nipissing diabase				
AGE: GEOLOGICAL Aphebian	ABSOLUTE 2150 m.y.	No record of metals		
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-4, p. 52-53.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050 Cobalt Silver Area, 1964. Lat and Long. refer to SE corner of claim No.513.	FILE STATUS: SKELETAL INCOMPLETE	DATE 1968	SIGNATURE A.O.S.
		COMPLETED		
		REVISED		

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: J.J. GRAY. HISTORICAL NAME: IMPERIAL CROWN MINES LTD.		LAT. 47° 22' 39" LONG. 79° 39' 21"	REF. NO. O.D.M.-Ag- 0455109
GEOLOGY The claim is underlain by Nipissing diabase that forms the NW dipping limb of the Peterson Lake diabase basin. Maximum thickness of the diabase is 750' in the NW corner of the claim. The diabase overlies Keewatin volcanic rock. The Cyril Lake Fault cuts the NW corner of the claim in a NE direction. Numerous NW striking veins occur on the claim.		EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION	METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE Aphebian	AGE OF FORMATION, ROCK OR MINERAL 2150 m.y.	AGE OF DEFORMATION:	AGE OF ORE MINERAL Post-Huronian	
ABSOLUTE AGE	Diabase		N.G.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL	K/Ar Rb/Sr Pb/Pb Cl4	K/Ar Rb/Sr Pb/Pb Cl4	K/Ar Rb/Sr Pb/Pb Cl4	
METHOD	x	NAME OF TECTONIC EVENT	x	
COMPANY REPORTS	METALLURGY REFERENCE			
ECONOMICS REFERENCE	MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Maps P.97 and P.97A, 1961. O.D.M. Map 2050, Cobalt Silver Area, 1964.	ODM FILES			

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: MICHIGAN COBALT MINING CO. LTD.		LAT. 04737800 LONG. 07965800	REF. NO. O.D.M.-Ag-0455110
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. V, Lot 3, S $\frac{1}{2}$ .	
TP. or SQUARE COLEMAN	0455	NTS 031MOSE	UTM	Claim: SE $\frac{1}{2}$ , No.157.
LOCATION: About 1 $\frac{1}{2}$ miles SE of Cobalt.				
HISTORY OF OWNERSHIP: 1909: Michigan Cobalt Mining Co. Ltd. 1968: Agnico Mines Ltd.		EXPLORATION AND DEVELOPMENT 1909: A shaft 100' deep was sunk with drifts, E 175' and W 200'.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  N/A
		OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECTX    PRODUCER    PAST PRODUCER		

MAJOR ORE MINERALS Silver, Niccolite and cobalt arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS	N/A			
ORE FABRIC Vein.				
MAJOR GANGUE MINERALS Calcite.				
COUNTRY ROCK OR FORMATION Nipissing diabase.				
AGE: GEOLOGICAL Apehbian	ABSOLUTE 2150 m.y.			
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-4, p.53	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050 Cobalt Silver Area, 1964. Long. and Lat. refer to SE corner of claim No.157.	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968	SIGNATURE A.O.S.

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968; AGNICO MINES LTD. HISTORICAL NAME: MICHIGAN COBALT MINING CO. LTD.		LAT. 47° 22' 39" LONG. 79° 39' 30"	REF.NO. O.D.M.-Ag-0455110
GEOLOGY The claim is underlain by Nipissing diabase that forms the N dipping limb of the Peterson Lake diabase basin. Maximum thickness of the diabase is 850' in the N part of the claim. The diabase overlies Keewatin volcanic rock. The Cyril Lake and Juno Metals Faults strike NE across the claim. A third fault strikes NW near the shaft.		EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION	METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE Apehbian	AGE OF FORMATION, ROCK OR MINERAL 2150 m.y.	AGE OF DEFORMATION:	AGE OF ORE MINERAL Post-Huronian	
ROCK TYPE AND/OR MINERAL Diabase			N.G.T. 2150 m.y.	
METHOD K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14	
	X	NAME OF TECTONIC EVENT	X	
COMPANY REPORTS	METALLURGY REFERENCE			
ECONOMICS REFERENCE	MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN    SECTION    LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Maps P.97 and P.97A, 1961. O.D.M. Map 2050, Cobalt Silver Area, 1964.	ODM FILES			

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968: TRINOVA COBALT SILVER MINES LTD. HISTORICAL NAME: NOVA SCOTIA SILVER COBALT MINING CO. (LEASE)		LAT. 04738500	REF. NO.
			LONG. 07966200	O.D.M.-Ag-0455111
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.V, Lot 4.
TP. or SQUARE COLEMAN	004550	NTS	UTM	Claim: Centre third of E $\frac{1}{2}$ (approx.)
LOCATION: 1 mile SE of Cobalt, under east arm of Peterson Lake.		031M05E		
HISTORY OF OWNERSHIP: 1905: Peterson Lake Silver Cobalt Mining Co. 1909: Leased to Nova Scotia Silver Cobalt Mining Co. Ltd. 1935: Leased to Trinova Cobalt Silver Mines Ltd 1939: Trinova Cobalt Silver Mines Ltd. 1954: Leased to Coballoy Mines and Refiners Ltd. 1963: Leased to Silver Town Mines Ltd.		EXPLORATION AND DEVELOPMENT 1905: Silver bearing veins discovered and underground work was started. 1909-1957: Underground work from the Nova Scotia SCMCL claim shaft No.3 included; 900' on the 105' level, 2750' on the 153' level and 150' on the 227' level. 1926-1929: Underground work from the Peterson Lake Shaft No.3 (Little Nip shaft) was extended on the 320' sublevel into the Nova Scotia SCMCL lease.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) No record of production.
		OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT X    PRODUCER    PAST PRODUCER		

MAJOR ORE MINERALS Silver, Cobalt arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS	N/A			
ORE FABRIC Vein.				
MAJOR GANGUE MINERALS Calcite.				
COUNTRY ROCK OR FORMATION Keewatin volcanics underlain by Nipissing diabase.				
AGE: GEOLOGICAL Archean, Apehbian	ABSOLUTE N.L.T. 3100, 2150 m.y.			
MAP REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-4, p. 38-44.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964. Lat. and Long. refer to SW corner of Nova Scotia SCMCL claim.	FILE STATUS: SKELETAL INCOMPLETE COMPLETE D REVISED	DATE 1968	SIGNATURE A.O.S.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968: TRINOVA COBALT SILVER MINES LTD. HISTORICAL NAME: NOVA SCOTIA SILVER COBALT MINING CO. LTD. (LEASE)		LAT. 47° 23' 4"	REF. NO.
			LONG. 79° 39' 43"	O.D.M.-Ag-0455111
GEOLOGY Keewatin volcanic rock less than 90' thick rests on the upper contact of the Nipissing diabase sill in the E part of the property. The Nipissing diabase is 900' thick; its upper contact with the Keewatin rock strikes NNE with a shallow dip E. A WNW striking fault crosses the property. Vein No.2 of the Nova Scotia SCMCL claim extends 500' WNW into the property. A second arcuate vein 400' long occurs 50' N of Vein No.2.		EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION	METAMORPHISM	MINERAL PARAGENESIS		
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean, Apehbian N.L.T. 3100, 2150 m.y. Volcanics, Diabase.	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X	
COMPANY REPORTS	METALLURGY REFERENCE			
ECONOMICS REFERENCE	MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN                  SECTION                  LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Maps P.97 and P.97A 1961. O.D.M. Map 2050 Cobalt Silver Area, 1964.	ODM FILES			



COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: HUDSON BAY MINES LTD. HISTORICAL NAME: TEMISKAMING AND HUDSON BAY MINING CO. LTD.		LAT. 04738800	REF. NO. O.D.M.-Ag-0455113
				LONG. 07969600	
CO. or DIST. TEMISKAMING	CODE No. 59	MINING DIV. TEMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.V, Lot 7, N $\frac{1}{2}$ Claims: NE $\frac{1}{4}$ and NW $\frac{1}{4}$	
TP. or SQUARE COLEMAN	004550	NTS	UTM	Con.V, Lot 8, N $\frac{1}{2}$ Claim: NE $\frac{1}{4}$ Con.VI, Lot 7, S $\frac{1}{2}$ Claim: SE $\frac{1}{4}$	
LOCATION: About 1/3 mile W from Cobalt town limits		031M05E			
HISTORY OF OWNERSHIP: 1905-1909: Temiskaming and Hudson Bay Mining Co. Ltd. 1909-19 : Hudson Bay Mines Ltd.		EXPLORATION AND DEVELOPMENT Claim: NE $\frac{1}{4}$ , N $\frac{1}{2}$ , Lot 7, Con.V 1906: A shaft 60' deep was sunk.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  N/A	
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT X PRODUCER PAST PRODUCER	
MAJOR ORE MINERALS		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS Galena.		Veins of the E adjoining Townsite claim extend into the property.			
ORE FABRIC Vein.		No.8 Townsite vein extends 250' on a strike of N80 <sup>W</sup> .			
MAJOR GANGUE MINERALS Calcite.		Vein X extends W under Highway No. 11.			
COUNTRY ROCK OR FORMATION Keewatin volcanics		Note: Veins that were productive in the Cobalt Series sediments on the Townsite claim were not productive in the Keewatin rocks of the Hudson Bay property			
AGE: GEOLOGICAL Archean		ABSOLUTE N.L.T. 3100 m.y.			
MAIN REFERENCE 1960: Thomson, R. O.D.M. Prelim. Rept. 1960-3, p. 16.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052, Cobalt Silver Area, 1964. Lat. and long. refer to SE corner of Claim: NE $\frac{1}{4}$ , N $\frac{1}{2}$ , Lot 7, Con.V.		FILE STATUS: SKELETAL INCOMPLETE COMPLETE D REVISED	DATE 1968
				SIGNATURE A.O.S.	
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: HUDSON BAY MINES LTD. HISTORICAL NAME: TEMISKAMING AND HUDSON BAY MINING CO. LTD.		LAT. 47° 33' 16"	REF. NO. O.D.M.-Ag- 0455113
				LONG. 79° 41' 45"	
GEOLOGY Vertically dipping Keewatin sediments and andesitic lava flows that strike WNW and face SSW outcrop on much of the property. The Keewatin rocks are intruded by Archean ultramafic intrusives of two separate ages; the older being small oval sills and the younger being long N striking dikes that extend across the property. Fault X extends WNW from the E adjoining Townsite claim into the property. A second arcuate fault extends WNW from the E adjoining Buffalo claim.		EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE Archean		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Huronian	
ABSOLUTE AGE N.L.T. 3100 m.y.				N.G.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL METHOD		K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14	
		NAME OF TECTONIC EVENT		X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Map P.80, 1960. O.D.M. Map 2050, Cobalt Silver Area, 1964.		ODM FILES			

CONCOMITANT		NAME OF OCCURRENCE:		LAT. 04738000	REF. NO.
Silver		CIRCA 1968: HUDSON BAY MINES LTD. HISTORICAL NAME: TEMISCAMING AND HUDSON BAY MINING CO. LTD.		LONG. 07969800	O.D.M.-Ag- 0455114
CO. or DIST.	TIMISKAMING	CODE No.	MINING DIV.	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
11. or SQUARE	COLEMAN	59	TIMISKAMING	Con. V, Lot 7, S $\frac{1}{2}$	
LOCATION: About 1 mile SE of Cobalt.			NTS	Claims: NW $\frac{1}{4}$ , SW $\frac{1}{4}$ , SE $\frac{1}{4}$ .	
			031M05E	UTM	
HISTORY OF OWNERSHIP:			EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1904: Temiscaming and Hudson Bay Mining Co. Ltd.			1910: No.1 shaft was put down 100'.		
1909: Hudson Bay Mines Ltd.			1911-1916: No.2 shaft was put down 346' on an incline of 75°S. 3 levels were developed; one at 125' (connects with No.1 shaft 600' WNW), a second at 230' consisting of 150' of drifting W with crosscuts extending N and S, 110' from the shaft. A third level was started at 330'.		
1960: Coballoy Mines and Refiners Ltd.			A shaft was sunk 150' on a vein in SW corner of NW claim.		
1965-1966: Optioned to Silver Rock Mines Ltd.			1965: 64 underground diamond drillholes totalling 12,304' were completed.		
1968: Hudson Bay Mines Ltd.					
			OCURRENCE	RAW PROSPECT	DEVELOPED PROSPECT
MAJOR ORE MINERALS			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS			Several calcite veins occur:		
ORE FABRIC Vein.			Shaft No.2 vein strikes N75°W, dips 75°S with a length of 200'.		
MAJOR GANGUE MINERALS Calcite.			Little Nipissing No.1 shaft vein strikes W into the NE corner of NW claim for distance of 400'.		
COUNTRY ROCK OR FORMATION Keewatin andesite, Cobalt series.			SW corner of NW claim vein strikes N50°W for distance of 200'.		
AGE: GEOLOGICAL Archean, Aphebian.			ABSOLUTE N.L.T. 3100, N.L.T.2150m.y.		
MAIN REFERENCE Thomson, R.			MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.		
1960: O.D.M. Prelim. Rept. 1960-3, p. 21-23.			Lat. & long. refer to shaft No.2 on claim SE $\frac{1}{2}$		
			FILE STATUS:	DATE	SIGNATURE
			SKELETAL		
			INCOMPLETE		
			COMPLETE	1968	A.O.S.
			REVISED		
CONCOMITANT		NAME OF OCCURRENCE:		LAT. 47° 22' 48"	REF. NO.
Silver		CIRCA 1968: HUDSON BAY MINES LTD. HISTORICAL NAME: TEMISCAMING & HUDSON BAY MINING CO. LTD.		LONG. 79° 41' 52"	O.D.M.-Ag- 0455114
GEOLOGY Steeply dipping Keewatin pillowed andesite with inter-flo sediments occur and face toward axis of a syncline striking N60°W through the property. The Keewatin rock is unconformably overlain by less than 300' of Cobalt Series conglomerate and greywacke of the Coleman formation.			EXPLORATION AND DEVELOPMENT (Cont)		
The Cobalt Lake Fault strikes NNE across the property.					
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE Archean, Aphebian.		AGE OF FORMATION, ROCK OR MINERAL N.L.T. 3100, N.L.T. 2150 m.y.		AGE OF ORE MINERAL Post-Huronian	
ABSOLUTE AGE N.L.T. 3100, N.L.T. 2150 m.y.				N.G.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL Volcanics, Sediments.					
METHOD K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	
		NAME OF TECTONIC EVENT		X	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE		
			PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Map P.80, 1960. O.D.M. Map 2050, Cobalt Silver Area, 1964.			ODM FILES		

COMMODITY Cobalt Silver	CIRCA 19 : HISTORICAL NAME: ARGENTITE COBALT LTD.	NAME OF OCCURRENCE:	LAT. 0473900 LONG. 0790700	REF. NO. O.D.M.-Ag-0455116
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CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.V, Lot 8, N½; Claim: SE½	
TP. or SQUARE COLEMAN	004550	NTS 031M05E	UTM	Con.V, Lot 8, S½; Claims: SE½, NE½
LOCATION: 1 mile SW of Cobalt; W of Little Nipissing Lake.				

HISTORY OF OWNERSHIP:	EXPLORATION AND DEVELOPMENT	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1906: Argentite Cobalt Ltd.	Three shafts with underground workings: South shaft: depth unknown; 15'N drift and 37'W crosscut were driven on 45' level. 50'S of shaft a pit occurs. Middle shaft was sunk 75'. North shaft was sunk about 150'. 75' SE drift on 106' level connects with a chamber 15' square.	
1938: Page Exploration and Mining Syndicate Ltd.		
1951: Aunite Mining Corporation Ltd.		

MAJOR ORE MINERALS Smaltite, silver.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS Chalcopyrite, pyrite, galena.	
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Calcite.	
COUNTRY ROCK OR FORMATION Keewatin volcanics, Cobalt Series.	
AGE: GEOLOGICAL Archean, Aphebian. N.L.T. 3100, N.L.T.2150 m.y.	
ABSOLUTE	

MAIN REFERENCE THOMSON, R 1960: O.D.M. Prelim. Rept. 1960-3, p. 23-25.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964. Lat. and long. refer to SE corner of claim (SE½, S½, Lot 8).	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1958	SIGNATURE A.O.S.
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COMMODITY Cobalt Silver	CIRCA 19 : HISTORICAL NAME: ARGENTITE COBALT LTD.	NAME OF OCCURRENCE:	LAT. 47° 22' 36" LONG. 79° 42' 24"	REF.NO. O.D.M. Ag -0455116
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GEOLOGY Three veins named after the shafts, traverse the Cobalt Series and Keewatin rocks. The South-shaft vein, essentially cobalt bearing with minor silver, follows a northerly striking and 75°E dipping fault at the contact between conglomerate to the east and Keewatin lavas to the west. The pit south of the shaft on this vein and fault exposes cobalt and galena. The North-shaft vein on the 106-foot level where it traverses deformed Keewatin sediments is made up of calcite, pyrite and chalcopyrite. The Middle-shaft calcite vein strikes east and follows sedimentary bands.	EXPLORATION AND DEVELOPMENT (Cont)
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ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE Archean and Aphebian	AGE OF FORMATION, ROCK OR MINERAL N.L.T. 3100 and N.L.T. 2150 m.y.	AGE OF DEFORMATION: Post-Huronian
ABSOLUTE AGE Volcanics and sediments		N.G.T. 2150 m.y.
ROCK TYPE AND/OR MINERAL	K/Ar Rb/Sr Pb/Pb Cl4	K/Ar Rb/Sr Pb/Pb Cl4
METHOD	X X	X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION

MAP REFERENCES O.D.M. Map 2050, Cobalt-Silver Area, 1964. O.D.M. Map P.80, 1960.	ODM FILES
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COMMODITY Silver	CIRCA 19 : HISTORICAL NAME: LAKE GEORGE COBALT SILVER MINING CO. LTD.	NAME OF OCCURRENCE:	LAT. 04738500	REF. NO.
			LONG. 07978300	D.D.M.-Ag- 0455117
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE COLEMAN	004550		Con. V, Lot 8, claim: SW $\frac{1}{2}$ of N $\frac{1}{2}$ lot 8.	
LOCATION: Surrounds Green Lake just south of Highway 11B, about a mile west of town of Cobalt		NTS 031M05E	UTM	No. T58945
HISTORY OF OWNERSHIP: 1907: Lake George Cobalt Silver Mining Co. Ltd. 1963: Nov. charter cancelled.		EXPLORATION AND DEVELOPMENT 1910: Harrison shaft; 350' west and 100' south of NE claim corner. Depth 25' to 50'. Shaft: 250' east and 400' north of SW claim corner, depth 41'. Shaft: 230' east and 30' north of SW claim corner.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
		OCCURRENCE	RAW PROSPECT	DEVELOPED PROSPECT <input checked="" type="checkbox"/>
			PRODUCER	PAST PRODUCER

MAJOR ORE MINERALS Silver, Cobalt arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS Chalcopyrite.	N/A
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Calcite, quartz-carbonate.	
COUNTRY ROCK OR FORMATION Keewatin basic lava	
AGE: GEOLOGICAL Archean	ABSOLUTE N.L.T. 3100 m.y.

MAIN REFERENCE Thomson, R. 1960: Ontario Dept. Mines, Prelim. Rept. 1960-3, p.25.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area 1964. Long. and lat. refer to southeast corner of claim.	FILE STATUS	DATE	SIGNATURE
		SKELETAL		
		INCOMPLETE		
		COMPLETED	1968	A.O.S.
		REVISED		

COMMODITY Silver	CIRCA 19 : HISTORICAL NAME: LAKE GEORGE COBALT SILVER MINING CO. LTD.	NAME OF OCCURRENCE:	LAT. 47° 22' 08"	REF. NO.
			LONG. 79° 44' 56"	D.D.M.-Ag- 0455117
GEOLOGY Claim is underlain by Keewatin basic lavas containing sedimentary bands, intruded by lamprophyre and quartz diabase dikes, and other basic intrusive rocks.  Numerous lines of breakage, calcite veins, and pyrite-chalcopyrite mineralization in small amount, occur.  Silver and cobalt mineralization thought to be slight.		EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE Archean	AGE OF FORMATION, ROCK OR MINERAL Archean N.L.T. 3100 m.y.	AGE OF DEFORMATION:
ABSOLUTE AGE	Volcanics	AGE OF ORE MINERAL Post-Huronian
ROCK TYPE AND/OR MINERAL	Volcanics	N.G.T. 2150 m.y.
METHOD	K/Ar Rb/Sr Pb/Pb Cl4 X	K/Ar Rb/Sr Pb/Pb Cl4 X
	NAME OF TECTONIC EVENT	

COMPANY REPORTS Not known.	METALLURGY REFERENCE
ECONOMICS REFERENCE Canadian Mines Register 1960.	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION

MAP REFERENCES O.D.M. 2050, Cobalt Silver Area, 1964. O.D.M. P.80, 1960.	ODM FILES
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COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: SILVER MONARCH MINES LTD. HISTORICAL NAME: CENTURY SILVER MINING CO. LTD.		LAT. 04740300 LONG. 07963500	REF. NO. O.D.M.-Ag-0455121
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. VI, Lot 1, N $\frac{1}{2}$ .	
TP. or SQUARE COLEMAN	04550	NTS 031M05E UTM	Claims: NE $\frac{1}{2}$ , Nos. 417, 1770. Claims: E part of NW $\frac{1}{2}$ , No. 59.	
LOCATION: About 2 miles ENE of Cobalt				

HISTORY OF OWNERSHIP: 1906: Century Silver Mining Co. Ltd. 1915: Renamed Cobalt Twentieth Century Mining Co. Ltd. 1968: Silver Monarch Mines Ltd.	EXPLORATION AND DEVELOPMENT 1908-1915: Two shafts were sunk:- Shaft No.1 (claim No.417) 175' deep with 300' of drifting and crosscutting. Shaft No.2 (claim No.59) 365' deep with 200' of drifting east of the shaft. 1926: Shaft No.3 ( Claim 1770), 41' deep, was sunk.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  N/A
OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT <input checked="" type="checkbox"/> PRODUCER    PAST PRODUCER		

MAJOR ORE MINERALS Silver.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS	
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Calcite.	
COUNTRY ROCK OR FORMATION Nipissing diabase underlain by Cobalt Series conglomerate.	N/A
AGE: GEOLOGICAL Aphebian, Aphebian	ABSOLUTE 2150 and N.L.T. 2150 m.y.

MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-3, p. 9-11.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964. Lat. and Long. refer to SE corner of claim 1770.	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968	SIGNATURE A.O.S.
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COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: SILVER MONARCH MINES LTD. HISTORICAL NAME: CENTURY SILVER MINING CO. LTD.	LAT. 47° 24' 11" LONG. 79° 38' 7"	REF. NO. O.D.M.-Ag-0455121
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GEOLOGY 200' to 400' of Nipissing quartz diabase overlies Cobalt Series conglomerate; the contact strikes NW and dips 10°-15° SW. Veins containing silver strike N.	EXPLORATION AND DEVELOPMENT (Cont)
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ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE Aphebian and Aphebian	AGE OF DEFORMATION:	AGE OF ORE MINERAL Post-Huronian
ABSOLUTE AGE 2150 and N.L.T. 2150 m.y.		N.G.T. 2150 m.y.
ROCK TYPE AND/OR MINERAL Diabase, Sediments.	K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14
METHOD	X	X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN                      SECTION                      LONGITUDINAL PROJECTION

MAP REFERENCES 1. O.D.M. Map 2050, Cobalt Silver Area, 1964. 2. O.D.M. Maps P.97 and P.97A, 1961.	ODM FILES
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COMMODITY Cobalt Silver		NAME OF OCCURRENCE: CIRCA 1968: MENTOR EXPL. AND DEV. CO. LTD. HISTORICAL NAME: SYCEE COBALT SILVER MINES LTD.		LAT. 04739900	REF. NO.
				LONG. 07965900	O.D.M.-Ag-0455124
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	COLEMAN	004550		TIMISKAMING	
LOCATION: About 2 miles NE of Cobalt and about 1 mile NNW of Cross Lake.			NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
			031M05E		Con.VI, Lot 3 Claim: S½, NW¼ of N½ (Monarch) No. 671. Claim: W½, SW¼ of N½ (Donegal) No. 310. Claim: E½, SW¼ of N½ (Watash) No. 634.
HISTORY OF OWNERSHIP:			EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1906: Cobalt Monarch Mining Co. (Monarch claim)			1906: Cobalt Monarch drilled 2 holes totalling 217'.		
1909: Watash Cobalt Mines Ltd. (Watash claim)			1909: Watash drilled 2 holes; W-1 and W-2 totalling 1021'.		
1928: Donash Silver Mines Ltd. (Watash and Donegal claims)			1941-1943: Sycee extended the 385' level crosscut from Nipissing No.402 shaft into Sycee claim where a winze was collared and sunk 115'; from a level 100' below winze collar (485' below surface) a crosscut was driven 590'E. 7 underground diamond drill holes totalling 4,261 were also drilled.		
1942: Sycee Cobalt Silver Mines Ltd. (Monarch Watash and Donegal claims)			1954: Big Agaunico Mines drilled the property.		
1954: Big Agaunico Mine Ltd. (Optioned from Sycee)					
1961: Mentor Exploration and Development Co. Ltd.					
			OCCURRENCE		
			RAW PROSPECT		
			DEVELOPED PROSPECT		
			X PRODUCER		
			FAST PRODUCER		

MAJOR ORE MINERALS	Silver, Cobalt arsenides	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS		In hole W-1, a five-inch intersection of massive cobalt mineralization was found, that assayed 12 oz/ton silver.
ORE FABRIC	Vein.	In Sycee hole #3, a nine-inch intersection of 5% cobalt occurred with native silver 80' below the W-1 intersection and also 1.46% cobalt over 5' width.
MAJOR GANGUE MINERALS	Calcite.	
COUNTRY ROCK OR FORMATION	Keewatin volcanics and Cobalt sediments, the latter intruded by Nipissing diabase and the both by Keweenaw diabase.	
AGE: GEOLOGICAL	Archean, ABSOLUTE N.L.T. 3100, Aphebian, Aphebian and Helikian.NLT2150, N.L.T.2150 and 1000 m.y.	

MAP REFERENCE USED FOR LOCATION	FILE STATUS	DATE	SIGNATURE
O.D.M. Map 2050, Cobalt Silver Area, 1964.	SKELETAL		
Long. & lat. refer to SE corner of the Watash claim.	INCOMPLETE		
	COMPLETED	1968	A.O.S.
	REVISED		

COMMODITY	Cobalt Silver	NAME OF OCCURRENCE: CIRCA 19 68 MENTOR EXPL. AND DEV. CO. LTD. HISTORICAL NAME: SYCEE COBALT SILVER MINES LTD.	LAT. 47° 23' 57"	REF.NO.
			LONG. 79° 39' 32"	O.D.M.-Ag-0455124
GEOLOGY		EXPLORATION AND DEVELOPMENT (Cont)		
Flat lying Cobalt conglomerate and argillite about 450' thick overlie Keewatin volcanics and are intruded by the Nipissing quartz diabase sill in the south part of the property. The Cobalt Series-Nipissing diabase sill contact strikes E-W and dips gently S. The major Cross Lake Fault strikes NNW across the property and about 150' west of the Mentor shaft. A Keweenaw olivine diabase dike strikes parallel to the fault, and occurs about 100'W of it. Local mineralization of silver and cobalt occur.		1961-1963: The Mentor shaft was sunk 411' and 1200' of crosscutting done on the 400' level. Diamond drilling consisted of 56 holes totalling 11,521'.		

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:
ABSOLUTE AGE	Archean, Aphebian and Aphebian	
ROCK TYPE AND/OR MINERAL	N.L.T.3100, N.L.T.2150 & 2150 m.y.	AGE OF ORE MINERAL
METHOD	Volcanics, Sediments, Diabase.	Post-Huronian
	K/Ar Rb/Sr Pb/Pb Cl4	N.G.T. 2150 m.y.
	X X	
		K/Ar Rb/Sr Pb/Pb Cl4
		X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE
	PLAN SECTION LONGITUDINAL PROJECTION
MAP REFERENCES	ODM FILES
1. O.D.M. Map 2050, Cobalt Silver Area, 1964.	
2. O.D.M. Map P.97 and P.97A, 1961.	

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: L.J. CUNNINGHAM. HISTORICAL NAME: SILVER BIRD COBALT MINES LTD.		LAT. 04740300	REF. NO.
CO. or DIST. TIMISKAMING		CODE No. 59	MINING DIV. TIMISKAMING	LONG. 07965600	O.D.M.-Ag-0455125
TP. or SQUARE COLEMAN		004550		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. VI, lot 3.	
LOCATION: About 2½ miles NW of Cobalt.			NTS 031M05E	UTM	Claim No. T43731; W part of NW¼ of N½
HISTORY OF OWNERSHIP: 1907: Silver Bird Cobalt Mines Ltd. 1930-1935: M.J. O'Brien, Ltd. 1960: Marcon Mines Ltd. 1966: (Renamed) Conmar Exploration Ltd. 1968: L. J. Cunningham.			EXPLORATION AND DEVELOPMENT 1907: A shaft was sunk 100'. 1930-1935: M.J. O'Brien dewatered and examined the shaft. 1960-1963: Marcon drilled 3 diamond drill holes M-11 to 13, totalling approx. 2225'.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
MAJOR ORE MINERALS			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS Chalcopyrite.			N/A		
ORE FABRIC Vein.					
MAJOR GANGUE MINERALS Calcite, quartz.					
COUNTRY ROCK OR FORMATION Keewatin volcanics overlain by Cobalt series sediments.					
AGE: GEOLOGICAL ABSOLUTE Archean, Aphebian, N.L.T. 3100, N.L.T. 2150 m.y.			MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area 1964. Lat. and Long. refer to SE corner of claim.		
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-3, p. 18-19.			FILE STATUS	DATE	SIGNATURE
COMMODITY Silver			NAME OF OCCURRENCE: CIRCA 1968: L. J. CUNNINGHAM HISTORICAL NAME: SILVER BIRD COBALT MINES LTD.	LAT. 47° 24' 10"	REF. NO.
GEOLOGY The Keewatin rocks consist of well bedded rhyolite tuffs, rhyolite breccia and bedded andesite tuff. Huronian rocks of the Cobalt Series unconformably overlie the Keewatin, and consist of conglomerate and greywacke cut by small, quartz-calcite veins. Only traces of pyrite and chalcopyrite have been found.			EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Archean, Aphebian N.L.T. 3100, N.L.T. 2150 m.y. Volcanics, Sediments.		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	
COMPANY REPORTS		METALLURGY REFERENCE		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.	
ECONOMICS REFERENCE		MILLING REFERENCE		K/Ar Rb/Sr Pb/Pb C14 X X	
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE		X	
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Map 2050, Cobalt Silver Area, 1964. O.D.M. Maps P.97 and P.97A, 1961.		ODM FILES			

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: ONTARIO NORTHLAND RAILWAY HISTORICAL NAME: WRIGHT SILVER MINING CO. LTD.		LAT. 04739500 LONG. 07969000	REF. NO. O.D.M.-Ag-0455126
CO. or DIST. TIMISKAMING TP. or SQUARE COLEMAN	CODE No. 59 004550	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. VI, Lot 6; Claim: NW $\frac{1}{2}$ , S $\frac{1}{2}$
LOCATION: Adjacent and NW of Cobalt town limits.		NTS 031MOSE	UTM	
HISTORY OF OWNERSHIP: 1906: Wright Silver Mining Co. Ltd. 1906: Leased to Cobalt Central Mines Ltd. 1907: Standard Cobalt Mines Ltd. 19 : Coniagas Mines Ltd. held 396' from E boundary. 19 : Buffalo Mines Ltd. 19 : Temiskaming and Northern Ontario Railroad 1933: Optioned to Windsor Cobalt Silver Mines Ltd. 1934: Windsor Cobalt Silver Mines Ltd. 1954: Leased to Northalloy Mines & Refiners Ltd. 1968: Ontario Northland Railway.		EXPLORATION AND DEVELOPMENT 1906: Buffalo North Shaft was started. 1907-1920: Work was continued on the shaft. The shaft was sunk to a depth of 78'. At 49' level an 8' drift was made; at the 62' level 102' of lateral work was done. A connection was later made with the Buffalo No.6 shaft. 1933-1935: No.1 shaft was sunk to 95' with 1000' of lateral work and No.2 shaft to 137' with 750' of lateral work on 65' and 123' levels. 1954: Shaft No.2 was dewatered and examined.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  N/A
MAJOR ORE MINERALS Silver, Cobalt arsenides.		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT * PRODUCER PAST PRODUCER		

MINOR ORE MINERALS Chalcopyrite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Buffalo North Shaft vein strikes W for a length of 150' No.2 shaft vein strikes NW for a distance of 200'.
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Calcite, quartz, arsenopyrite.	
COUNTRY ROCK OR FORMATION Keewatin volcanics, Cobalt Series.	

AGE: GEOLOGICAL Archean, Apehian	ABSOLUTE N.L.T.3100, N.L.T. 2150 m.y.
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MAP REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-3, p. 171-173. Northern Miner Press. 1943: Canadian Mines Handbook, p.192.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050 Cobalt Silver Area, 1964. Lat. & Long. refer to SE corner of claim.	FILE STATUS SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968	SIGNATURE A.O.S.
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COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: ONTARIO NORTHLAND RAILWAY. HISTORICAL NAME: WRIGHT SILVER MINING CO. LTD.	LAT. 47° 23' 43" LONG. 79° 41' 24"	REF.NO. O.D.M.-Ag-0455126
GEOLOGY Steeply dipping Keewatin volcanics and sediments that strike NW and face SW occur intruded by Hailyburian lamprophyric sills. The Keewatin volcanics are andesitic pillowed lavas associated with felsic volcanics and carbonaceous sediments. In the SE corner of the claim Cobalt Series conglomerate unconformably overlies the Keewatin volcanics. The Coniagas Fault strikes SSW through the SE part of the claim.		EXPLORATION AND DEVELOPMENT (Cont)	

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean, Archean N.L.T. 3100, N.L.T. 2150 m.y. volcanics and conglomerate K/Ar Rb/Sr Pb/Pb Cl4 X X	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post Huronian N.C.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb Cl4 X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION
MAP REFERENCES O.D.M. Map P.97 and P.97A, 1961. O.D.M. Map 2050 Cobalt Silver Area, 1964.	ODM FILES





COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 19 68 CONMAR EXPLORATION LTD. HISTORICAL NAME: CLAIMS 1504 AND 1456		LAT. 04740300	REF. NO.
				LONG. 07971200	O.D.M.-Ag- 0455130
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. TIMISKAMING	
TP. or SQUARE	COLEMAN		004550	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.VI, Lot 8 N½ Claim: N part of NW¼ (No.1504) Claim S part of NW¼ (No.1456)	
LOCATION: About 1½ miles NE of Cobalt			NTS	UTM	
			031M05E		
HISTORY OF OWNERSHIP: Not reported.  1968: Conmar Exploration Ltd.			EXPLORATION AND DEVELOPMENT Claim No. 1504: An adit was driven westerly 115' into hill to investigate the downward extension of a fracture.  Claim No. 1456: 2 shafts were sunk on a calcite vein, one 25' deep, the second 100' deep.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
			OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER

MAJOR ORE MINERALS		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS Pyrite.		Claim No.1504: A fracture strikes N80°W on the hill 150' west of the adit portal.			
ORE FABRIC Vein.		Claim No.1456 The shaft vein strikes N34°W for a length of 250' in Keewatin slate.			
MAJOR GANGUE MINERALS Calcite, quartz.		No record of metals.			
COUNTRY ROCK OR FORMATION Keewatin, volcanics, Cobalt Series.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050 Cobalt Silver Area 1964. Lat. & Long. refer to SE corner of claim No. 1456			
AGE: GEOLOGICAL Archean, Aphebian		ABSOLUTE N.L.T. 3100, N.L.T. 2150		FILE STATUS:	DATE
MAIN REFERENCE Thomson, R. 1960: O.D.M. Prelim. Rept. 1960-3, p.12.				SKELETAL	
				INCOMPLETE	
				COMPLETED	1968 A.D.S.
				REVISED	

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: CONMAR EXPLORATION LTD. HISTORICAL NAME: CLAIMS 1504 AND 1456		LAT. 47° 24' 9"	REF. NO.
				LONG. 79° 42' 44"	O.D.M.-Ag- 0455130
GEOLOGY Steeply dipping Keewatin light grey tuff and black carbonaceous slate that strike NW occur in the E part of the claims. The Keewatin rocks are overlain in the W part of claims by a thin veneer of Cobalt Series conglomerate and quartzite (Coleman formation) dipping gently NW.  A fault striking NNE crosses the E part of the claims.			EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION		METAMORPHISM				MINERAL PARAGENESIS			
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL			
ABSOLUTE AGE		Archean, Aphebian N.L.T. 3100, N.L.T. 2150 m.y.							
ROCK TYPE AND/OR MINERAL		Volcanics, Sediments.		K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14			
METHOD		K/Ar Rb/Sr Pb/Pb C14		NAME OF TECTONIC EVENT					
		X X							
COMPANY REPORTS					METALLURGY REFERENCE				
ECONOMICS REFERENCE					MILLING REFERENCE				
GEOCHEMICAL DATA REFERENCE					MINING REFERENCE				
GEOPHYSICAL DATA REFERENCE					MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION				
MAP REFERENCES O.D.M. Map P.80, 1960. O.D.M. Map 2050, Cobalt Silver Area, 1964.					ODM FILES				

District of		TIMISKAMING		N.T.S. or Townships		COLEMAN					
NAME	WORK DONE	VEIN	DESCRIPTION	METALS PRESENT						REFERENCE	
Con. III, Lot 16, S½ Claim: S part SW¼ 47°20'57" 79°47'28"	Shaft X	CALCITE QUARTZ APLITE	The calcite vein strikes N68°E across Nipissing diabase.	Ag	Co	Cu	Ni	Bi	Zn	Pb	O.D.M. Prel. Rept. 1960-3 p.53, 1960.  COLEMAN
	Adit										
	Pit										
	Trench										
	D. Drill										
Geophys	MAPS	O.D.M. 2052, 1964.									
1968: Bursary SML Claim: No. 356 Con. IV, Lot 1, N½ Claim: E part NE¼ 47°22'28" 79°37'53"	Shaft	CALCITE QUARTZ APLITE	Several short veins occur in Nipissing diabase in SW corner of claim. Cross Lake Fault strikes NNW across claim.								O.D.M. Prelim. Rept. 1961-6 p.11, 1961.  COLEMAN 87
	Adit										
	Pit X										
	Trench										
	D. Drill										
Geophys	MAPS	ODM P.96 & P.96A, 1961 ODM 2051, 1964.									
1968: Bursary SML Dean-Price. Claim No.1713 Con. IV, Lot 1, N½ Claim: W part NE¼ 47°22'28" 79°38'06"	Shaft	CALCITE QUARTZ APLITE	1950: A geophysical survey was made. A cribbed pit 15' deep was put down on a calcite vein.								O.D.M. Prelim. Rept. 1961-6 p.16, 1961.  COLEMAN 88
	Adit										
	Pit X										
	Trench										
	D. Drill										
Geophys X	MAPS	ODM P.96 & P.96A, 1961 ODM 2051, 1964.									
1968: Bursary SML. Claim: No.645 Con. IV, Lot 1, N½ Claim: N part SE¼ 47°22'22" 79°37'53"	Shaft	CALCITE QUARTZ APLITE	Several pits were sunk on outcrops of Nipissing diabase								O.D.M. Prelim. Rept. 1961-6, p.11, 1961.  COLEMAN 89
	Adit										
	Pit X										
	Trench										
	D. Drill										
Geophys	MAPS	ODM P.96 & P.96A, 1961 ODM 2051, 1964.									
1968: Bursary SML Claim No. 532 Con. IV, Lot 1, S½; Claim: N part NW¼ 47°21'37" 79°44'56"	Shaft	CALCITE QUARTZ APLITE	Nipissing diabase outcrops on the claim. The Badger Fault strikes NE.								O.D.M. Prelim. Rept. 1961-3, p.31, 1961.  COLEMAN 90
	Adit										
	Pit										
	Trench										
	D. Drill										
Geophys	MAPS	ODM P.96 & P.96A, 1961 ODM 2051, 1964.									

District of		TIMISKAMING		N.T.S. or Townships		COLEMAN					
NAME	WORK DONE	VEIN	DESCRIPTION	METALS PRESENT						REFERENCE	
1910: Ventine Mines L 19 -1961: C. Reinhardt 1968: Bursary SML Con. IV, Lot 1, N½ Claim: S part of NW¼ (No.823) 47°22'28" 79°38'15"	Shaft X	CALCITE QUARTZ APLITE	1911: Valentine shaft was sunk 197' deep with 60' of lateral work on 100' level.	Ag	Co	Cu	Ni	Bi	Zn	Pb	O.D.M. Prelim. Rept. 1961-6, p. 11-15, 1961.  COLEMAN 91  2½ miles SE of Cobalt.
	Adit										
	Pit										
	Trench										
	D. Drill										
Geophys	MAPS	ODM P.96 & P.96A, 1961 O.D.M. 2052, 1964.									
1908: Eastbourne Cobalt ML. 1961: C. Reinhardt 1968: Bursary SML Con. IV, Lot 2, S½. Claim: N part of NE¼ (No.1611). 47°22'08" 79°38'33"	Shaft X	CALCITE QUARTZ APLITE	1909: Eastbourne shaft was sunk 100'								O.D.M. Prelim. Rept. 1961-6, p. 11-15, 1961.  COLEMAN 92  2½ miles SE of Cobalt
	Adit										
	Pit										
	Trench										
	D. Drill										
Geophys	MAPS	O.D.M. 2052, 1964. O.D.M. P.96 & P.96A, 1961.									
1968: HI-Ho SML. 1907: Silver Hill MCL 1908: LaRose Cons. ML 1918: LaRose ML 1926: LaRose-Rouvyn ML 1946: Silver Miller MCo Con. IV, Lot 4, S½. 47°21'49" 79°39'49"	Shaft X	CALCITE QUARTZ APLITE	190 : Shaft sunk 200' with some lateral work.								O.D.M. Prelim. Rept. 196106, p.83, 1961.  COLEMAN 97  2 miles SSE of Cobalt.
	Adit										
	Pit										
	Trench										
	D. Drill										
Geophys	MAPS	O.D.M. 2052, 1964. O.D.M. P.96 & P.96A, 1961.									
1907: Timiskaming MCo.L. 1968: Agnico ML Con. IV, Lot 11, S½ Claim: SW¼ (Nos. 515 & 516) 47°21'51" 79°44'38"	Shaft	CALCITE QUARTZ APLITE	Circa 1907: 50' pit was sunk. 25' pit was sunk.								O.D.M. Prelim. Rept. 1960-3, p.42, 1960.  COLEMAN 100  2½ mi. SW of Cobalt
	Adit										
	Pit										
	Trench										
	D. Drill										
Geophys	MAPS	O.D.M. 2051, 1964. O.D.M. P.81, 1960.									
1906: Lumsden MCo.L. Con. IV, Lot 12, S½. Claim: NE¼ (No.25) 47°22'05" 79°44'57"	Shaft	CALCITE QUARTZ APLITE	1906: A 12' pit, 300' N and 200' W of SE corner of claim was put down.								O.D.M. Prelim. Rept. 1960-3, p.43, 1960.  COLEMAN 101  W of Gillies L
	Adit										
	Pit X										
	Trench										
	D. Drill										
Geophys	MAPS	O.D.M. 2051, 1964. O.D.M. P.81, 1960.									

District of TIMISKAMING

N.T.S. or Townships COLEMAN

NAME	WORK DONE		VEIN	DESCRIPTION	METALS PRESENT							REFERENCE
					Ag	Co	Cu	Ni	Bi	Zn	Pb	
Claim No 800 Con. IV, Lot 12, S½ Claim E part SE½ 47°21'50" 79°44'56"	Shaft	X	CALCITE QUARTZ APLITE	Calcite veins occur striking NNW in Nipissing diabase. Chalcopyrite occurs in the veins.	native	arsenides	X	X				O.D.M. Prelim. Rept. 1960-3 p.42, 1960. COLEMAN 102 MAPS O.D.M. P.81, 1960. O.D.M. 2052, 1964.
	Adit	X										
	Pit											
	Trench											
	D. Drill											
1968: Agnico Mines Ltd. Con. V, Lot 7, N½ Claim: SW¼ 47°23'03" 79°42'04"	Shaft	X		Steeplly dipping Keewatin pillowed andesite that strikes WNW and faces SSW occurs on the claim.								O.D.M. Prelim. Rept. 1960-3 p.17, 1960. COLEMAN 112 MAPS O.D.M. P.81, 1960. O.D.M. 2051, 1964.
	Adit	X										
	Pit	X										
	Trench											
	D. Drill											
1968: B. Derry Con. V, Lot 8, N½ Claims: NW¼ 47°23'16" 79°42'41"	Shaft	X		Keewatin pillowed andesite that strikes W and faces S occurs with interflow slaty sedimentary bed. Pyrite, pyrrhotite and chalcopyrite occur.			X					O.D.M. Prelim. Rept. 1960-3 p.26, 1960. COLEMAN 115 MAPS O.D.M. P.80, 1960. O.D.M. 2050, 1964.
	Adit	X										
	Pit	X										
	Trench											
	D. Drill											
Con. V, Lot 9, N½, NW¼ 47°23'03" 79°43'20"	Shaft	X	CALCITE QUARTZ APLITE	Keewatin pillowed volcanics striking W & facing S occur with interflow slaty sediments Small quartz-carbonate veins cut the Keewatin rock also. Chalcopyrite.				X				O.D.M. Prelim. Rept. 1960-3 p.26, 1960. COLEMAN 139 MAPS O.D.M. P.80, 1960. O.D.M. 2050, 1964.
	Adit	X										
	Pit	X										
	Trench	X										
	D. Drill											
1968: J.A. Underwood Con. V, Lot 10, N½, Claim: SE¼ 47°23'03" 79°43'39"	Shaft	X	CALCITE QUARTZ APLITE	The calcite veinlets occur in Cobalt Series conglomerate along fracture zones. Pyrite occurs in the calcite veins.								O.D.M. Prelim. Rept. 1960-3 p.27, 1960. COLEMAN 118 MAPS O.D.M. P.80, 1960. O.D.M. 2050, 1964.
	Adit	X										
	Pit	X										
	Trench	X										
	D. Drill											

District of TIMISKAMING

N.T.S. or Townships COLEMAN

NAME	WORK DONE		VEIN	DESCRIPTION	METALS PRESENT							REFERENCE
					Ag	Co	Cu	Ni	Bi	Zn	Pb	
1968: J.A. Underwood (cl; 495) C. Reinhardt (cl; 6) Con. V, Lot 10, S½ Claim: N part NE¼ 47°22'56" 79°43'39"	Shaft	X	CALCITE QUARTZ APLITE	The vein strikes N75°S in Cobalt Series conglomerate. The vein contains galena and pyrite.	native	arsenides					X	O.D.M. Prelim. Rept. 1960-3 p.27, 1960. COLEMAN 119 MAPS O.D.M. P.80, 1960. O.D.M. 2050, 1964.
	Adit	X										
	Pit	X										
	Trench											
	D. Drill											
Prior 1910: Cobalt Camp Lakeview Mining Co. of Cobalt Ltd. Con. V, Lot 10, S½ Claim: E part of SE¼ 47°22'36" 79°43'39"	Shaft	X		The vein is 2½" wide & strikes NE for length of 150' in Keewatin pillowed andesite.								O.D.M. Prelim. Rept. 1960-3 p.27, 1960. COLEMAN 120 MAPS O.D.M. P.80, 1960. O.D.M. 2050, 1964.
	Adit	X										
	Pit	X										
	Trench											
	D. Drill											
Con. VI, Lot 2, N½, Claim: NW¼ 47°22'36" 79°38'54"	Shaft	X	CALCITE QUARTZ APLITE	The vein strike S52°E & dips 80°N in Nipissing diabase.								O.D.M. Prelim. Rept. 1960-3 p.27, 1960. COLEMAN 122 MAPS O.D.M. P.97 & 97A, 1961. O.D.M. 2050, 1964.
	Adit	X										
	Pit	X										
	Trench											
	D. Drill											
1968: Mentor Expl. & Dev. Co. Ltd. Con. VI, Lot 3, N½, Claim: NW¼ 47°24'17" 79°39'31"	Shaft	X	CALCITE QUARTZ APLITE	The vein occurs in Cobalt Series conglomerate. Chalcopyrite occurs in the vein.								O.D.M. Prelim. Rept. 1961-3 p.17, 1961. COLEMAN 123 MAPS ODM P.97 & P.97A, 1964 ODM 2050, 1964.
	Adit	X										
	Pit	X										
	Trench											
	D. Drill											
Susaginaga Lake 1968: P. Babayan Con. VI, Lot 7, N½ Claim: NE¼ 47°24'10" 79°41'47"	Shaft	X	CALCITE QUARTZ APLITE	The veins occur in Keewatin rock. Chalcopyrite occurs on Island 9.								O.D.M. Prelim. Rept. 1960-3 p.10, 1960. COLEMAN 128 MAPS O.D.M. P.80, 1960. O.D.M. 2050, 1964.
	Adit	X										
	Pit	X										
	Trench											
	D. Drill											

District of TIMISKAMING

N.T.S. or Townships

COLEMAN

NAME	WORK DONE	VEIN	DESCRIPTION	METALS PRESENT	REFERENCE
Sasaginaga Lake. 1968: L.A. Timleck  Con. VI, Lot 7, N½ Claim: NW¼ 47°24'09" 79°42'07"	Shaft X	CALCITE QUARTZ APLITE	The calcite veinlets occur in breccia zone cutting Cobalt Series rock. Pyrite, pyrrhotite and chalcocopyrite occur in minor amounts.	Ag Co Cu Ni Bi Zn Pb	O.D.M. Prelim. Rept. 1960-3 p.10, 1960. COLEMAN 129
	Adit				
	Pit X				
	Trench				
	D. Drill Geophys				
1952: N.B. Keevil Claims: T.31767, 8 & 9 Sasaginaga Lake.  Con. VI, Lot 7, N½ Claims SW¼ & SE¼. 47°23'55" 79°41'47"	Shaft		Keewatin andesitic lava with interflow beds of carbonaceous slaty greywacke occur. Pyrite occurs.		O.D.M. Prelim. Rept. 1960-3 p.11, 1960. COLEMAN 138
	Adit				
	Pit				
	Trench				
	D. Drill Geophys X				
Prior 1910: St. Lawrence Cobalt Cons. Mining Co. Sasaginaga Lake.  Con. VI, Lot 7, S½ Claims: NW¼ & NE¼ 47°23'43" 79°41'47"	Shaft X		Calcite veins 2" wide occur in Keewatin volcanic breccia. Pyrite is observed.		O.D.M. Prelim. Rept. 1960-3 p.11, 1960. COLEMAN 131
	Adit				
	Pit				
	Trench				
	D. Drill Geophys				
1959: Cobalt Mines & Refiners Ltd. 1968: H.P. Glidden (29) N. Bigelow (1603) Con. VI, lot 7, S½ Claim: SW¼ 47°23'16" 79°42'04"	Shaft X		Minor calcite veinlets occur in Keewatin lavas and tuffs		O.D.M. Prelim. Rept. 1960-3 p.11, 1960. COLEMAN 132
	Adit				
	Pit				
	Trench				
	D. Drill X Geophys				
Claim: 1403  Con. VI, Lot 8, N½ Claim: W part of SE¼ 47°23'56" 79°42'33"	Shaft		Calcite veins occur in fault striking N50°E and dipping 75°SE in Keewatin tuff and breccia. Minor galena occurs.		O.D.M. Prelim. Rept. 1960-3 p. 12-13, 1960. COLEMAN 133
	Adit				
	Pit X				
	Trench				
	D. Drill Geophys				

District of TIMISKAMING

N.T.S. or Townships

COLEMAN

\* native not necessarily applicable

NAME	WORK DONE	VEIN	DESCRIPTION	METALS PRESENT	REFERENCE
Former claims: 547 and 26 Con. VI, Lot 8, S½ 547 (NE¼), 26 (NW¼) 47°23'30" 79°42'33"	Shaft X	CALCITE QUARTZ APLITE	WNW Keewatin andesitic lavas are cut by SSW Keweenaw diabase dike 200' wide. On claim 547, 2 parallel WSW veins traced 250' occur. A quartz vein occurs on claim 26. Sulphides occur.	Ag Co Cu Ni Bi Zn Pb	O.D.M. Prelim. Rept. 1960-3 p.13, 1960. COLEMAN 134 1 mile W of Cobalt. MAPS O.D.M., 2050, 1964. O.D.M., P.80, 1960.
	Adit				
	Pit				
	Trench				
	D. Drill Geophys				
Prior 1908: Clear Lake M Co. L. 1908-1958: Great Northern Silver Mines Con. VI, Lot 8, S½ Claim: SE¼ (No. 105). 47°23'32" 79°42'26"	Shaft X		WNW Keewatin andesitic & rhyolitic tuffs are intruded by lamprophyre sills. Interbedded sediments carry sulphides and vein occur in the tuff. Chalcocopyrite occurs.	* Co X	O.D.M., Prelim. Rept. 1960-3 p. 13-14, 1960. COLEMAN 135 1 mile W of Cobalt. MAPS O.D.M., P.80, 1960. O.D.M. 2050, 1964.
	Adit				
	Pit				
	Trench				
	D. Drill X Geophys				
1948: Colbucke ML  Con. VI, Lot 9, N½ 47°23'56" 79°43'02"	Shaft		Cobalt series sediments 700' thick overlies the Keewatin rock.		O.D.M. Prelim. Rept. 1960-3 p.14, 1960. COLEMAN 136
	Adit				
	Pit				
	Trench				
	D. Drill X Geophys				
1909: Bonsall ML  Con. VI, Lot 9, S½ Claim SW¼	Shaft X		Calcite vein material occurs at all three shafts. Pyrite, pyrrhotite and chalcocopyrite occurs.		O.D.M. Prelim. Rept. 1960-3 p. 14-15, 1960. COLEMAN 137
	Adit				
	Pit				
	Trench				
	D. Drill X Geophys				
					MAPS O.D.M. P.80, 1960. O.D.M. 2050, 1964.
					MAPS

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: C.L. MURRAY HISTORICAL NAME: M.J. O'BRIEN LTD.		LAT. 04737700	REF. NO.
				LONG. 07969100	O.D.M.-Ag-0826007
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. TIMISKAMING	
TP. or SQUARE	GILLIES LIMIT		008260	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Gillies Limit, N part. Claims A-1, A-2.	
LOCATION: About 1 mile south of COBALT			NTS 031M05E	UTM	
HISTORY OF OWNERSHIP: 1915: M.J. O'Brien Ltd.  1936: The Cobalt Silver Syndicate Ltd.  1960: Coballoy Mines and Refiners Ltd.  1968: C.L. Murray.			EXPLORATION AND DEVELOPMENT 1915: The York-O'Brien shaft was sunk 210' with levels at 100' and 200'. On the 200' level 1000' of drifting was done. 1936-1937: The Cobalt Syndicate shaft is 100' deep with 340' of lateral work at this depth.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
			OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT <input checked="" type="checkbox"/> PRODUCER    PAST PRODUCER		

MAJOR ORE MINERALS Silver, Cobalt arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES York-O'Brien shaft-vein strikes ENE for 200' along an interflow sedimentary bed in the Keewatin rocks.
MINOR ORE MINERALS Galena.	Cobalt Silver Syndicate shaft-vein strikes ENE 150' along the same sedimentary bed in the Keewatin rocks.
ORE FABRIC Vein	A third vein occurs striking NW for 150', 500'SW of the north post.
MAJOR GANGUE MINERALS Calcite	
COUNTRY ROCK OR FORMATION Keewatin volcanics, Cobalt series.	
AGE: GEOLOGICAL Archean, Aphebian	ABSOLUTE N.L.T. 3100, 2150.
MAIN REFERENCE Thomson, R. 1960: O.D.M. Prelim. Rept. 1960-3, p. 35-39.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area 1964. Lat. and long. refer to SE corner of claim A-1.
	FILE STATUS:    DATE    SIGNATURE SKELETAL INCOMPLETE COMPLETE D    1968    A.O.S. REVISED

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: C.L. MURRAY HISTORICAL NAME: M.J. O'BRIEN LTD.		LAT. 47° 22' 37"	REF. NO.
				LONG. 79° 41' 27"	O.D.M.-Ag- 0826007
GEOLOGY Keewatin andesitic lava and interflow sediments occur in a synclinal fold whose axis trends and plunges WNW. On the N limb of the fold these rocks strike SE and face SW, on the S limb ENE and face NNW. In the southeast corner of the claim, Cobalt Series conglomerate faulted off by the NNE striking Cobalt Lake Fault unconformably overlies the Keewatin volcanics.			EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION		METAMORPHISM				MINERAL PARAGENESIS							
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL				AGE OF DEFORMATION:				AGE OF ORE MINERAL			
ABSOLUTE AGE		Archean, Aphebian								Post-Huronian			
		N.L.T. 3100, N.L.T. 2150 m.y.								N.G.T. 2150 m.y.			
ROCK TYPE AND/OR MINERAL		Volcanics, Sediments											
METHOD		K/Ar	Rb/Sr	Pb/Pb	Cl4	K/Ar	Rb/Sr	Pb/Pb	Cl4	K/Ar	Rb/Sr	Pb/Pb	Cl4
		X	X								X		
COMPANY REPORTS						METALLURGY REFERENCE							
ECONOMICS REFERENCE						MILLING REFERENCE							
GEOCHEMICAL DATA REFERENCE						MINING REFERENCE							
GEOPHYSICAL DATA REFERENCE						MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION    LONGITUDINAL PROJECTION Thompson R. 1960: O.D.M. Map P 81 inset.							
MAP REFERENCES O.D.M. Map P.80, 1960. O.D.M. Map 2050, Cobalt Silver Area, 1964.						ODM FILES							

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: F.M. WALLINGFORD, HISTORICAL NAME: CLAIM: A36,	LAT. 04736600 LONG. 07968500	REF. NO. O.D.M.-Ag-0826013
CO. or DIST. TIMISKAMING TP. or SQUARE GILLIES LIMIT	CODE No. 59 08260	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE N. part of Gillies Limit Claim: A36
LOCATION: About 1 1/2 mile S of Cobalt.		NTS 031M05E	UTM
HISTORY OF OWNERSHIP: 1968: F.M. Wallingford	EXPLORATION AND DEVELOPMENT 1909-1913: A shaft 70' deep with a cross-cut at 70' was put down.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
OCCURRENCE      RAW PROSPECT      DEVELOPED PROSPECT      X PRODUCER      PAST PRODUCER			

MAJOR ORE MINERALS Silver, cobalt arsenides. MINOR ORE MINERALS Chalcopyrite. ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite. COUNTRY ROCK OR FORMATION Keewatin andesite, Cobalt series, Keweenaw diabase. AGE: GEOLOGICAL      ABSOLUTE Archean, Aphebian, Helikian. N.L.T. 3100, N.L.T. 2150, 1000 m.y.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES The shaft vein strikes E for 100-150' and extends vertically 70'.
MAP REFERENCE USED FOR LOCATION O.D.M. Map 2051 Cobalt Silver Area, 1960 Lat. and Long. refer to SE corner of claim A36.	FILE STATUS:      DATE      SIGNATURE SKELETAL INCOMPLETE COMPLETE D      1968      A.O.S. REVISED
MAIN REFERENCE Thomson, R. 1961: Prelim. Rep. 1961-6, p. 102-103.	

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: F.M. WALLINGFORD. HISTORICAL NAME: CLAIM: A36.	LAT. 47° 21' 58" LONG. 79° 41' 5"	REF. NO. O.D.M.-Ag-0826013
GEOLOGY Steeply dipping pillowed Keewatin andesite lava striking ESE, and facing NNE underlies most of the claim. In the SE corner the Keewatin rocks are overlain by Cobalt series conglomerate that strikes NNE and gently dips MNW. Both the conglomerate and andesite are cut by a NW striking Keweenaw diabase dike.		EXPLORATION AND DEVELOPMENT (Cont)	

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean, Aphebian, Hukikian N.L.T. 3100, N.L.T. 2150, 1000 m.y. Volcanics, Sediments, Diabase K/Ar      Rb/Sr      Pb/Pb      Cl4 X              X	AGE OF DEFORMATION: Post-Huronian N.G.T. 2150 K/Ar      Rb/Sr      Pb/Pb      Cl4 NAME OF TECTONIC EVENT      X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN      SECTION      LONGITUDINAL PROJECTION
MAP REFERENCES O.D.M. Maps No. P.96 and P.96A, 1961. O.D.M. Map No. 2051 Cobalt Silver Area, 1964.	ODM FILES





COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: NU-SILCO MINES LTD. HISTORICAL NAME: WYANDOH SILVER MINES LTD.	LAT. 04736400 LONG-07967900	REF. NO. O.D.M.-Ag-0826014
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE AGREEMENT NE part of Gillies Limit. Claims: A26, A37 and A39.
TP. or SQUARE GILLIES LIMIT	008260	NTS 031M05E UTM	
LOCATION: About 2 miles S of Cobalt			
HISTORY OF OWNERSHIP: 1909-1916: Wyandoh Silver Mines Ltd. owned A26, and A37. 1937: Leased to F.M. MacKay. 1945: Silco Mines Ltd. 1954: Renamed Nu Silco Mines Ltd. 1960: Leased to Rayrock Mines Ltd. 1963-1973: Leased to Copper Min Mines Ltd. 1968: Louada Explor. & Dev. Co. Ltd. owned A26 and A39.	EXPLORATION AND DEVELOPMENT 1947: 3 diamond drillholes were put down on claim A26. 1954: 1 diamond drillhole was put down on claim A39. 1955: 3 diamond drillholes were put down on claims A37 and A39. 1961: A geophysical survey (ratio-resistivity) was made, and 4 diamond drill holes put down on claims A37 and A39.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY) N/A	
MAJOR ORE MINERALS	MINOR ORE MINERALS	ORE FABRIC Vein.	MAJOR GANGUE MINERALS Calcite.
COUNTRY ROCK OR FORMATION Keewatin volcanics, Cobalt Series Nipissing diabase, Keweenawan diabase.	AGE: GEOLOGICAL Archean, Aphebian, Aphebian, Helikian. ABSOLUTE NLT 3100, NLT 2150, 2150, 1000 m.y.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES N/A	
MAIN REFERENCE Thomson R. 1961: O.D.M. Prelim. Rept. 1961-6, p. 103-105.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2051, Cobalt Silver Area 1964. Lat. and Long. refer to SE corner of claim A39.	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968 SIGNATURE A.O.S.
COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968 NU-SILCO MINES LTD. HISTORICAL NAME: WYANDOH SILVER MINES LTD.	LAT. 47° 21' 59" LONG. 79° 40' 46"	REF. NO. O.D.M.-Ag-0826014
GEOLOGY Steeply dipping Keewatin pillowed andesitic lavas and tuffs with interflow sedimentary chert bands occur in the NW part of the claims. The flows strike ESE and face NNE. The Cobalt Series conglomerate overlies a paleo-hill in the Keewatin surface from which it dips gently WNW and ENE in the central part of the claims. Nipissing diabase that dips gently east overlies Cobalt conglomerate in the E parts of claims A26 and A39. The Columbus quartz diabase dike (of Keweenawan age) cuts the Cobalt conglomerate and Nipissing diabase with ESE strike.	EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean, Aphebian, Aphebian, Helikian N.L.T. 3100, N.L.T. 2150, 2150, 1000 m.y. Volcanics, Sediments, Diabase, Diabase	AGE OF DEFORMATION: NAME OF TECTONIC EVENT	AGE OF ORE MINERAL K/Ar Rb/Sr Pb/Pb Cl4
COMPANY REPORTS	ECONOMICS REFERENCE	METALLURGY REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	GEOLOGICAL DATA REFERENCE	MINING REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION
MAP REFERENCES O.D.M. Maps No. P.96 and P.96A, 1961 O.D.M. Map No. 2051, Cobalt Silver Area, 1964.	ODM FILES		



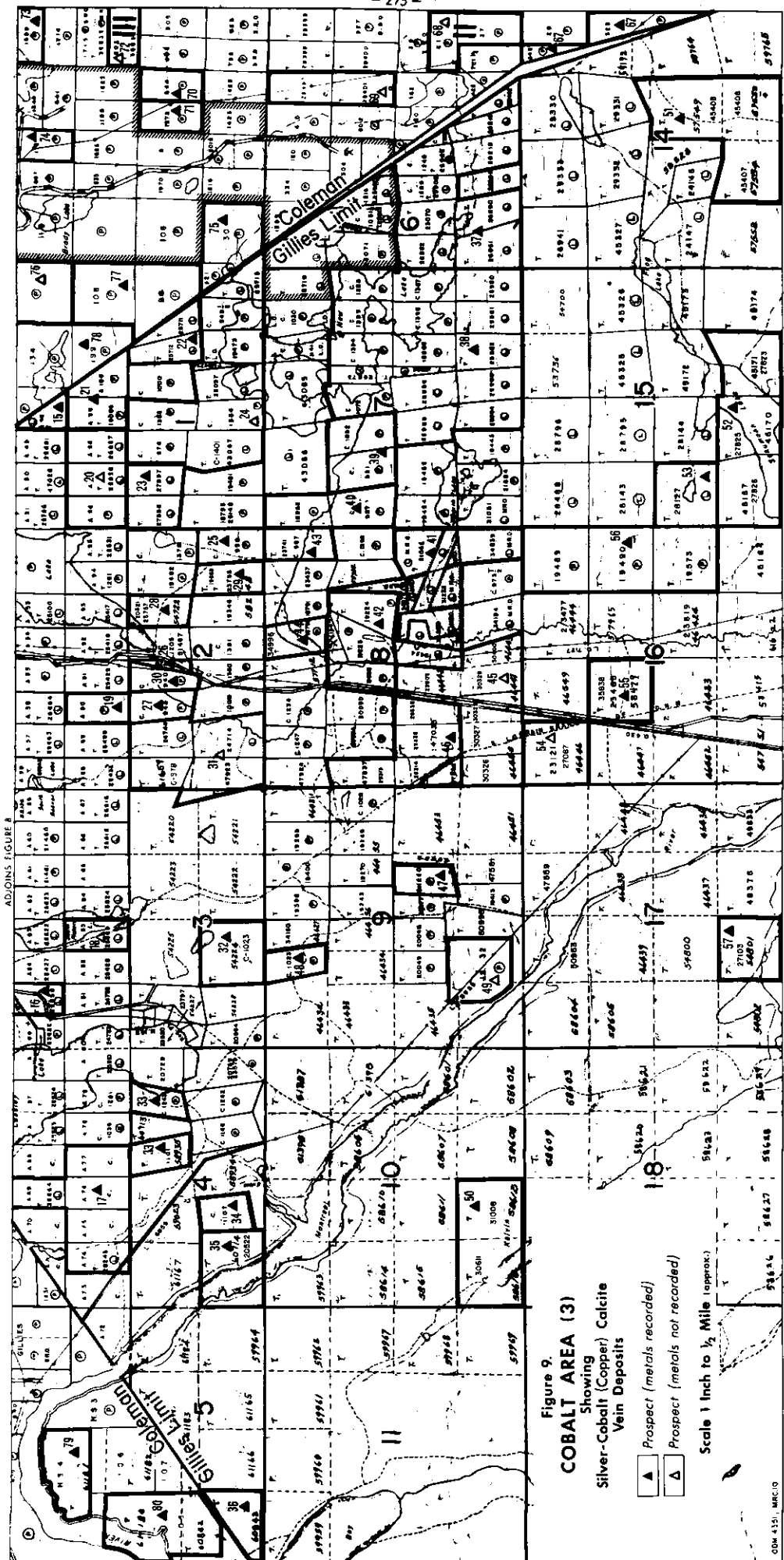


Table 17.

COBALT AREA (3)  
LIST OF PROPERTIES

<u>COLEMAN TWP.</u>		<u>GILLIES LIMIT</u>	
(Historical Name)	(Present Owner)	(Historical Name)	(Present Owner)
<u>CON. II</u>		<u>BLOCK 4</u>	
* ▲ 67 Lot 1, Ontario Dev. & Mining Co. Ltd.	Coballoy Mines & Refiners Ltd.	▲ 33 Hector Silver Mines Ltd.	W. Gutzman.
▲ 68 Lot 1, Maple Leaf Mines Ltd.	V.J. Adams.	▲ 34 Claim C.1107.	Gilbert Intrests Ltd.
▲ 69 Lot 1, Silver George Mines Ltd.		▲ 35 Claim T.20522.	
<u>CON. III</u>		<u>BLOCK 5</u>	
▲ 70 Lot 1, Progress Silver Cobalt Mining Co. Ltd.	Patricia Silver Mines Ltd.	▲ 36 Brester Silver & Lead Syndicate Ltd.	
▲ 71 Lot 1, Duchess Silver Mining Co. Ltd.	C. Reinhardt Estate.		
▲ 72 Lot 1, Quaker City Cobalt Mines Ltd.	Agnico Mines Ltd.	<u>BLOCK 6</u>	
▲ 73 Lot 1, Gifford Extension Mines Ltd.	Agnico Mines Ltd.	▲ 37 Claims C.1353, T.25905, D2, T.23070, T.26860-61-62-63, & T.26218-19.	Mayfair Mines Ltd.
▲ 74 Lot 2, Prince-Davis Cobalt Mining Co. Ltd.	Agnico Mines Ltd.	<u>BLOCK 7</u>	
▲ 75 Lot 2 & 3, Eureka Silver Mining Co. Ltd.	Ibsen Cobalt Silver Mines Ltd.	▲ 38 Claims C.1385-6-7, C.1394-5, T.18868-9, T.26873, C.1092, T.25980-1-2-3-4-5-6.	Silver Lake Mines Ltd.
▲ 76 Lot 3, Gillies Silver Mining Co. Ltd.	Silver-Miller Mines Ltd.	▲ 39 Sloan-Olsen Group; Claims. C.951 & C.1092.	Sisco Metals of Ontario.
▲ 77 Lot 3, Cobalt Central Mines Co.	Silver-Miller Mines Ltd.	▲ 40 Gauthier Group; Claims T.18968 & C.987.	Sisco Metals of Ontario.
▲ 78 Lot 3 & 4, Dreadnought Mines Ltd.	C. Reinhardt Estate.	▲ 41 Trainmen Silver Mining Co. Ltd.	Bomont Mines Ltd.
▲ 79 Lot 12, claim T.61181.			
▲ 80 Lot 12, claim T.61180.			
<u>GILLIES LIMIT</u>		<u>BLOCK 8</u>	
(Historical Name)	(Present Owner)	(Historical Name)	(Present Owner)
<u>A CLAIMS</u>		<u>BLOCK 9</u>	
▲ 15 Claim A48.	Glen Lake Silver Mines Ltd.	▲ 42 Kirk-Badd Mining Co.	Jones, Jones & Roberts.
▲ 16 Claim A65.	P. Villa.	▲ 43 Conroy-McAndrew Mining Co. Ltd.	
▲ 17 Claims A69, A74, A75, A76 & A77.	H. Fernhalm.	▲ 44 J. Burke; claim T.34996.	
▲ 18 Claim A83.	Craskie Mines Ltd.	▲ 45 Penn-Cobalt Silver Mines Ltd.	
▲ 19 Webb Claim A90.	N.A. Cambell.	▲ 46 Cobalt Lode Silver Mines Ltd.	
▲ 20 Webb Claim A96, A97, & A98.	Consolidated Professor Mines Ltd.	<u>BLOCK 10</u>	
<u>BLOCK 1</u>		▲ 47 South Keora Mines Ltd.	J.J. Gray.
▲ 21 Oxford Cobalt Silver Mines Ltd.	Consolidated Professor Mines Ltd.	▲ 48 Newton Limit Syndicate.	T.J. Newton.
▲ 22 Claims T.25711 & T.25712.	Mayfair Mines Ltd.	▲ 49 Patridge Con. Expl. Ltd.	C. Moss.
▲ 23 South Ciroux Mines Ltd.	Consolidated Professor Mines Ltd.	<u>BLOCK 14</u>	
▲ 24 Claims C.13834, C.976, C.949½, T.19473-3A, C.1401, T.28097.	Consolidated Professor Mines Ltd.	▲ 50 J. Burke-Kelvin Lake Group.	
<u>BLOCK 2</u>		<u>BLOCK 15</u>	
▲ 25 Conroy-McAndrew Silver Mining Co. Ltd.	J.J. McAndrew.	▲ 51 Fleming Group	White Falcon Mines Ltd.
▲ 26 J. McGarry, G.W. Craig & A. McGarry.	E. Elliot.	<u>BLOCK 16</u>	
▲ 27 Rowell Claim C.948.		▲ 52 Claims T.27823-5-6.	
▲ 28 Claim T.19689.		▲ 53 H.W. Knight.	H.W. Knight.
▲ 29 Claim T.20321.		<u>BLOCK 17</u>	
▲ 30 Stone Claim C.940.	R.M. Box.	▲ 54 Durex Mines Ltd.	Mentor Expl. & Dev. Co. Ltd
▲ 31 Claims C.978, 47923, 24714 & 44.		▲ 55 J. Burke: Claim T.35838.	
<u>BLOCK 3</u>		▲ 56 J. Burke: Claims T.19489, T.19490, & 19573.	H. Kelly.
▲ 32 Claim C.1023.	T.J. Newton.	▲ 57 Claim T.27103.	

\* Number refers to that on deposit description card; non sequence follows as a consequence of data processing.



ADONIS FIGURE 1

Figure 9.  
**COBALT AREA (3)**

Showing  
 Silver-Cobalt (Copper) Calcite  
 Vein Deposits

- ▲ Prospect (metals recorded)
- △ Prospect (metals not recorded)

Scale 1 inch to 1/2 Mile (approx.)

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: COBALLOY MINES AND REFINERS LTD. HISTORICAL NAME: ONTARIO DEVELOPMENT AND MINING CO. LTD.		LAT. 04733100 LONG. 07963400	REF. NO. O.D.M.-Ag-0455067
CO. or DIST. TIMISKAMING	CODE No. 50	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. II, Lot 1, S part.	
TP. or SQUARE COLEMAN	004550	NTS 031M05E	UTM	Claims: Nos. 323 and 349.
LOCATION: About 5 miles SE of Cobalt.				
HISTORY OF OWNERSHIP: 1908-1958: Ontario Development and Mining Co. Ltd.  1968: Coballoy Mines & Refiners Ltd.		EXPLORATION AND DEVELOPMENT 1908: After trenching and diamond drilling were done, the Ontario Development shaft was sunk 265' with levels at 155' and 250'; 148' of drifting was done on the 155' level.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
		OCCURRENCE	RAW PROSPECT	DEVELOPED PROSPECT
			PRODUCER	PAST PRODUCER

MAJOR ORE MINERALS

MINOR ORE MINERALS Chalcopyrite.

ORE FABRIC Vein.

MAJOR GANGUE MINERALS Calcite

COUNTRY ROCK OR FORMATION Lorrain granite, Nipissing diabase

AGE: GEOLOGICAL ABSOLUTE  
Archean, Aphebian 2390, 2150 m.y.

DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES

MAIN REFERENCE  
Thomson, R.  
1961: O.D.M. Prelim. Rept. 1961-2, p. 25-26.

MAP REFERENCE USED FOR LOCATION	FILE STATUS	DATE	SIGNATURE
O.D.M. Map 2052, Cobalt Silver Area, 1964.	SKELETAL		
Lat. and long. refer to SE corner of claim 349.	INCOMPLETE		
	COMPLETED	1966	A.O.S.
	REVISED		

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: COBALLOY MINES AND REFINERS LTD. HISTORICAL NAME: ONTARIO DEVELOPMENT AND MINING CO. LTD.		LAT. 47° 19' 50" LONG. 79° 38' 4"	REF. NO. O.D.M.-Ag-0455067
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GEOLOGY Nipissing diabase is exposed in the N part of the property. In the S part of the property, Nipissing diabase dips southward under Lorrain granite.

EXPLORATION AND DEVELOPMENT (Cont)

ALTERATION		METAMORPHISM				MINERAL PARAGENESIS			
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:				AGE OF ORE MINERAL			
	ABSOLUTE AGE	Archean, Aphebian						Post-Huronian	
ROCK TYPE AND/OR MINERAL	2390, 2150 m.y.							N.G.T. 2150	
METHOD	Granite, Diabase	K/Ar	Rb/Sr	Pb/Pb	Cl4	K/Ar	Rb/Sr	Pb/Pb	Cl4
		X	X				X		

COMPANY REPORTS

ECONOMICS REFERENCE

GEOCHEMICAL DATA REFERENCE

GEOPHYSICAL DATA REFERENCE

MAP REFERENCES  
O.D.M. Map Nos. P.95 and P.95A, 1961.  
O.D.M. Map No. 2052 Cobalt Silver Area, 1964.

METALLURGY REFERENCE

MILLING REFERENCE

MINING REFERENCE

MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE  
PLAN SECTION LONGITUDINAL PROJECTION

ODM FILES







COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: QUAKER CITY COBALT MINES LTD.		LAT. 04736200	REF. NO.
				LONG. 07963200	O.D.M.-Ag-0455072
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	COLEMAN		004550	TIMISKAMING	
LOCATION: About 3½ miles SE of Cobalt				NTS	UTM
				031M05E	
				LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. III, Lot 1, N½; Claim: N part of SE¼, No. T-36835.	
HISTORY OF OWNERSHIP: 1908: Quaker City Cobalt Mines Ltd. 1933: Alert Cobalt Mines Ltd. 1968: Agnico Mines Ltd.			EXPLORATION AND DEVELOPMENT 1908-1935: A shaft was sunk 300' with levels at 145' and 275'. 500' of drifting and crosscutting was done on the 145' level		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) N/A
OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT <input checked="" type="checkbox"/> PRODUCER    PAST PRODUCER					

MAJOR ORE MINERALS	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS	A quartz vein occurs 5' wide, striking N along the contact.
ORE FABRIC    Vein.	
MAJOR GANGUE MINERALS    Quartz.	
COUNTRY ROCK OR FORMATION    Keewatin volcanics, Lorrain granite.	
AGE: GEOLOGICAL    Archean, Archean.	ABSOLUTE    N.L.T. 3100, 2390 m.y.
	No. record of metals.

MAP REFERENCE	MAP REFERENCE USED FOR LOCATION	FILE STATUS	DATE	SIGNATURE
Thomson, R. 1961: Prelim. Rept. 1961-7, p. 35-36.	O.D.M. Map No. 2052 Cobalt Silver Area, 1964. Lat. and Long. refer to SE corner of claim.	SKELETAL INCOMPLETE COMPLETED REVISED	1968	A.O.S.

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: QUAKER CITY COBALT MINES LTD.		LAT. 47° 21' 42"	REF. NO.
				LONG. 79° 37' 56"	O.D.M.-Ag-0455072
GEOLOGY    Steeply dipping Keewatin volcanics striking NNW occur intruded by Lorrain granite. The volcanic-granite contact strikes NNE. Nipissing diabase is presumed to cut subhorizontally the Lorrain granite and Keewatin volcanics at depth.  A NNE striking fault occurs along the contact.			EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:
ABSOLUTE AGE	Archean, Archean	
ROCK TYPE AND/OR MINERAL	N.L.T. 3100, 2390.	
METHOD	volcanics, Granite.	
	K/Ar    Rb/Sr    Pb/Pb    Cl4	K/Ar    Rb/Sr    Pb/Pb    Cl4
	X	X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN    SECTION    LONGITUDINAL PROJECTION

MAP REFERENCES	ODM FILES
O.D.M. Maps Nos. P.96 and P.96A, 1961. O.D.M. Maps No. 2052, Cobalt Silver Area.	

COMMODITY Cobalt	NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: GIFFORD EXTENSION MINES LTD.	LAT. 04736100 LONG. 07963200	REF. NO. O.D.M.-Ag- 0455073
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	
TP. or SQUARE COLEMAN	004550	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. III, Lot 1, N $\frac{1}{2}$ . Claim: N part of NE $\frac{1}{4}$ (No. 1688)	
LOCATION: About 3 miles SE of Cobalt.		NTS 031M05E	UIM

HISTORY OF OWNERSHIP: 1908-1927: Gifford Extension Mines Ltd.  1968: Agnico Mines Ltd.	EXPLORATION AND DEVELOPMENT 1908-1918: A shaft was sunk 200' with approx. 475' of lateral work on the 200' level. A winze was sunk 150' from this level and 300' of lateral work was done on this sub level.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
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MAJOR ORE MINERALS Cobalt, nickel arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Vein No. 5 on the 350' level of shaft contained niccolite and cobalt mineralization.
MINOR ORE MINERALS	
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Quartz (calcite).	
COUNTRY ROCK OR FORMATION Keewatin volcanics intruded by Lorrain granite.	
AGE: GEOLOGICAL Archean, Archean ABSOLUTE N.L.T. 2490, 2390m.y.	

MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052 Cobalt Silver area 1964. Lat. and Long. refer to SE corner of claim No. 1688.	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968	SIGNATURE A.O.S.
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COMMODITY Cobalt	NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: GIFFORD EXTENSION MINES LTD.	LAT. 47° 21' 42" LONG. 79° 37' 56"	REF. NO. O.D.M.-Ag- 0455073
GEOLOGY Keewatin rhyolite, rhyolite breccia, and greywacke outcrop in the E part of the claim. Granite of the Lorrain granite batholith is exposed in the W part of the claim. The Keewatin-Lorrain granite contact strikes NNE and dips WNW under the Keewatin Volcanics. A Fault striking NNE crosses the claim and a branch of the Gross Lake Fault extends NW into the claim. Several NNE trending quartz veins occur.	EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean, Archean. N.L.T. 3100, 2390 m.y. Volcanics, Diabase	AGE OF DEFORMATION:	AGE OF ORE MINERAL
	K/Ar Rb/Sr Pb/Pb C14 X X	K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	K/Ar Rb/Sr Pb/Pb C14

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION
MAP REFERENCES O.D.M. Maps P.96 and P.96A, 1961 O.D.M. Map 2052 Cobalt Silver Area, 1964.	ODM FILES

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 19 68; AGNICO MINES LTD. HISTORICAL NAME: PRINCE-DAVIS COBALT MINING CO.		LAT. 04736000	REF. NO.
				LONG. 07964300	O.D.M.-Ag-0455074
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. TIMISKAMING	
TP. or SQUARE	COLEMAN	004550		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.III, Lot 2, N½:	
LOCATION: About 3 miles SE of Cobalt			NTS	UTM	Claim: E part of NE½ (No.15)
			031N05E		
HISTORY OF OWNERSHIP: 1909-1942: Prince-Davis Cobalt Mining Co. 1922: Optioned to Beaver Consolidated Mines Ltd. 1923-1924: Optioned to Contagas Mines Ltd. 1968: Agnico Mines Ltd.			EXPLORATION AND DEVELOPMENT 1909-1916: Surface prospecting was done. 1916-1917: A cross-cut extending E across the claim was made from the Lumsden (Silver-Miller No.1) Shaft on the 250' level. 1922-1924: A crosscut extending W across the claim was made from the Beaver shaft on the 1200' level.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  N/A
			OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT * PRODUCER PAST PRODUCER

MAJOR ORE MINERALS Silver, Cobalt and nickel arsenides.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES The Beaver-Timikaming vein system extends a short distance into the claim as a pattern of northerly striking arcuate fractures.			
MINOR ORE MINERALS					
ORE FABRIC Vein.					
MAJOR GANGUE MINERALS Calcite.					
COUNTRY ROCK OR FORMATION Keewatin andesite, Hallyburian lamprophyre and Nipissing diabase.					
AGE: GEOLOGICAL Archean, Archean & Aphebian.		ABSOLUTE N.L.T. 3100 N.L.T 2490, 2150 m.y.			
MAIN REFERENCE Thomson, R. 1961: Prelim. Rept. 1961-7, p. 36-37.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052 Cobalt Silver Area 1964. Lat. and long. refer to SE corner of the claim.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968
				SIGNATURE A.O.S.	

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 19 68; AGNICO MINES LTD. HISTORICAL NAME: PRINCE-DAVIS COBALT MINING CO.		LAT. 47° 21' 35"	REF. NO.
				LONG. 79° 38' 33"	O.D.M.-Ag-0455074
GEOLOGY Steeply dipping Keewatin pillowed andesite that faces NE, occurs intruded by Hallyburian lamprophyre dikes. The Keewatin andesite is underlain by Nipissing diabase in the form of an arch that plunges S, the upper contact is exposed in the N part of the claim. In the E adjoining property the diabase is over 1000' thick.			EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION		METAMORPHISM		MINERAL PARAGENESIS			
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE		Archean Archean Aphebian				Post-Huronian.	
ROCK TYPE AND/OR MINERAL		N.L.T. 3100 N.L.T. 2490, 2150 m.y.				N.G.T. 2150 m.y.	
METHOD		Volcanics, lamprophyre, Diabase.		K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4	
		X X X		NAME OF TECTONIC EVENT		X	
COMPANY REPORTS				METALLURGY REFERENCE			
ECONOMICS REFERENCE				MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE				MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE				MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Maps Nos. P.96 and P.96A, 1961. O.D.M. Map No. 2052, Cobalt Silver Area, 1964.				ODM FILES			

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 19 68: IBSEN COBALT SILVER MINES LTD. HISTORICAL NAME: EUREKA SILVER MINING CO. LTD.		LAT. 04734900	REF. NO.
			LONG. 07965600	O.D.M.-Ag-0455075
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. III, Lot 2, S½ Claim: SW½ (no.30)
TP. or SQUARE COLEMAN	004550			Con. III, Lot 3 S½ Claim: NE part of SE½ (no.321)
LOCATION: 3½ miles SE of Cobalt.		NTS 031M05E	UTM	
HISTORY OF OWNERSHIP: 1906-1907: Eureka Silver Mining Co. Ltd. 1945-1953: Mayfair Mines Ltd. 1953- : Ibsen Cobalt Silver Mines Ltd. 1957- : Leased to Agnico Mines Ltd.		EXPLORATION AND DEVELOPMENT 1906: Extensive surface prospecting was done 1949: 3 diamond drill holes totalling 3,070' were put down. 1955: 1,500' of surface trenching was done and 2 diamond drill holes totalling 2,240' were put down. 1957: 1 diamond drill hole was made from the Christopher 600' level. 1961-1965: 32' of drifting and 654' of crosscutting was done from the 600' level of the Christopher property from which 9 diamond drill holes totalling 1,845' were completed.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
MAJOR ORE MINERALS Silver.		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT * PRODUCER PAST PRODUCER		
MINOR ORE MINERALS Chalcopryrite, galena, sphalerite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Several small calcite veins that strike NNE-NE occur.		
ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite, pyrite, quartz, albite, epidote.				
COUNTRY ROCK OR FORMATION Keewatin andesite and basalt, Hallyburian lamprophyre dikes, Nipissing diabase.				
AGE: GEOLOGICAL Archean, ABSOLUTE N.L.T. 3100, Archean & Aphebian N.L.T. 2490, 2150 m.y.				
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-7, p. 80-82. Riddell, C.S. 1968: O.D.M Ann. Rept. for 1965, Vol.75, p.120.		MAP REFERENCE USED FOR LOCATION O.D.M. Map No.2052, Cobalt Silver Area, 1964.		FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED
COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: IBSEN COBALT SILVER MINES LTD. HISTORICAL NAME: EUREKA SILVER MINING CO. LTD.		LAT. 47° 20' 56"	REF.NO.
			LONG. 79° 39' 23"	O.D.M.-Ag-0455075
GEOLOGY Keewatin pillowed andesite and basalt striking NW with steep NE dip and facing NE is intruded by irregular Hallyburian biotite lamprophyre dikes. The upper contact of the Nipissing diabase occurs 700' below the surface. A NNW striking fault occurs in the NE corner of claim No.30.		EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION Chlorite		METAMORPHISM		MINERAL PARAGENESIS
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF DEFORMATION: NAME OF TECTONIC EVENT		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.
Archean, Archean, Aphebian N.L.T. 3100, N.L.T. 2490, 2150 m.y. Volcanics, Lamprophyre, Diabase		K/Ar Rb/Sr Pb/Pb C14 K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14 X
COMPANY REPORTS		METALLURGY REFERENCE		
ECONOMICS REFERENCE		MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Maps No. P.96 and No. P.96A, 1961. O.D.M. Map No. 2052, Cobalt Silver Area, 1964.		ODM FILES		

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: SILVER MILLER MINES LTD. HISTORICAL NAME: GILLIES SILVER MINING CO. LTD.		LAT. 04738000	REF. NO.
			LONG. 07965400	O.D.M.-Ag-0455076
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE COLEMAN	004550		Con. III, Lot 3, N½;	
LOCATION: About 2½ miles SE of Cobalt.		NTS 031M05E	UTM	Claim: NE½

HISTORY OF OWNERSHIP:	EXPLORATION AND DEVELOPMENT	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1906: Gillies Silver Mining Co. Ltd.	1906: A shaft 25' to 50' deep was put down.	
1946: Silver Miller Mines Ltd.	1946-1968: Crosscutting and drifting was extended into the S part of the claim from the Lumsden shaft on the 285' level.	
1961: Optioned to Agnico Mines Ltd.		
OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT *    PRODUCER    PAST PRODUCER		

MAJOR ORE MINERALS	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS	No record of metals.		
ORE FABRIC Vein.	MAP REFERENCE USED FOR LOCATION		
MAJOR GANGUE MINERALS Calcite, pyrite, epidote.	O.D.M. Map 2052, Cobalt Silver Area, 1964.		
COUNTRY ROCK OR FORMATION Keewatin andesite, Nipissing diabase.	FILE STATUS	DATE	SIGNATURE
AGE: GEOLOGICAL ABSOLUTE	SKELETAL		
Archean, Aphebian	INCOMPLETE	1968	A.O.S.
	COMPLETED		
	REVISED		
MAIN REFERENCE			
Thomson, R.			
1961: Prelim. Rept. 1961-7, p. 38-51.			

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968 SILVER MILLER MINES LTD. HISTORICAL NAME: GILLIES SILVER MINING CO. LTD.	LAT. 47° 21' 35"	REF. NO.
		LONG. 79° 39' 13"	O.D.M.-Ag-0455076
<p>GEOLOGY Nipissing diabase occurs in NW½ of the claim. In SE½ of the claim, the diabase dips gently SE from a NE trending contact under steeply dipping Keewatin pillowed andesite that strikes NW and faces NE.</p> <p>The claim is cut by NE striking and NNW striking faults.</p>	EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:	AGE OF ORE MINERAL
ABSOLUTE AGE	Archean, Aphebian		Post-Huronian
ROCK TYPE AND/OR MINERAL	N.L.T. 3100, 2150 m.y.		N.G.T. 2150
METHOD	Volcanics, Diabase.	K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14
		X X	X
		NAME OF TECTONIC EVENT	

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE
	PLAN SECTION LONGITUDINAL PROJECTION
MAP REFERENCES	ODM FILES
O.D.M. Maps No. P.96 and P.96A, 1961.	
O.D.M. Map No. 2052.	

COMMODITY	NAME OF OCCURRENCE:		LAT.	04735300	REF. NO.
Silver	CIRCA 1968: SILVER-MILLER MINES LTD. HISTORICAL NAME: COBALT CENTRAL MINES CO.		LONG.	07965300	O.D.M.-Ag-0455077
CO. or DIST.	TIMISKAMING	CODE No.	MINING DIV.		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
TP. or SQUARE	COLEMAN	59	TIMISKAMING		Con. III, Lot 3
LOCATION:	About 2½ miles SE of Cobalt		NTS	UTM	Claim: SE½, N½ (No.108) Claim: NE½, S½ (No.98)
			031M05E		
HISTORY OF OWNERSHIP:			EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1906-1909: Cobalt Central Mines Co.			1906-1909: A shaft was sunk about 50' in the NE corner of claim No.108. and a pit was sunk 25' deep in the NE part of claim No.98.		N/A
1946- : Silver-Miller Mines Ltd.			1946: Exploratory crosscutting and drifting was extended into N part of claim No.108 from the Lumsden shaft on the 285' level, and into S part of claim No.108 from Silver-Miller shaft No.4, 600' on the 610' level. Exploratory underground work was also done in the SE and NE corners of claims Nos. 108 and 98 from Silver-Miller No.4 shaft on the 500' level.		
1961: Optioned to Agnico Mines Ltd.					
			OCCURRENCE	RAW PROSPECT	DEVELOPED PROSPECT

MAJOR ORE MINERALS	Silver.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS	Galena, sphalerite, chalcopryrite	NNW striking vein group C4 extends from E adjoining Pan Silver property into claim No.108 and short NE striking veins occur in the NE part of claim No.98.
ORE FABRIC	Vein.	
MAJOR GANGUE MINERALS	Calcite, quartz	
COUNTRY ROCK OR FORMATION	Keewatin volcanics and sediments, Hailyburian mafic intrusions, Nipissing diabase, Keweenawan diabase.	
AGE: GEOLOGICAL	Archean, Aphebian, Helikian	ABSOLUTE N.L.T. 3100, N.L.T. 2490, 2150, 1000 m.y.
MAP REFERENCE	Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-7, p. 38-51.	MAP REFERENCE USED FOR LOCATION O.D.M. Map No.2052, Cobalt Silver Area, 1964. Lat. and Long. refer to SE corner of claim 98
		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED
		DATE: 1968
		SIGNATURE: A.O.S.

COMMODITY	NAME OF OCCURRENCE:		LAT.	47° 21' 10"	REF. NO.
Silver	CIRCA 1968: SILVER MILLER MINES LTD. HISTORICAL NAME: COBALT CENTRAL MINES CO.		LONG.	79° 39' 11"	O.D.M.-Ag-0455077
GEOLOGY	Steeply dipping Keewatin pillowed andesite that faces NE with interflow sedimentary beds of chert and tuff occur striking NW. Pyrite and pyrrhotite along with epidote and zoisite are wide spread. Numerous Hailyburian hornblende-rich sills intrude the Keewatin rock. Nipissing diabase undercuts the Keewatin rocks; the contact dips S from less than 200' to greater than 600' below the surface. The Columbus quartz diabase dike (of Keweenawan age) strikes NW across claim No.108. Several faults occur; the Columbus Fault striking NW across claim No.108, the Badger Fault striking NNE and two smaller faults E and parallel to the Badger Fault.		EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION	METAMORPHISM		MINERAL PARAGENESIS		

GEOLOGICAL AGE	Archean, Aphebian, Helikian.	AGE OF DEFORMATION:	AGE OF ORE MINERAL
ABSOLUTE AGE	N.L.T. 3100, 2150, 1000 m.y.		Post-Huronian.
ROCK TYPE AND/OR MINERAL	Volcanics, Diabase, Diabase.		N.G.T. 2150 m.y.
METHOD	K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14	
	X X		X
COMPANY REPORTS		METALLURGY REFERENCE	
ECONOMICS REFERENCE		MILLING REFERENCE	
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE	
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE	
		PLAN SECTION LONGITUDINAL PROJECTION	
MAP REFERENCES	O.D.M. Map Nos. P.96 and P.96A, 1961. O.D.M. Map No.2052, Cobalt Silver Area, 1964.	ODM FILES	



COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: JONES, JONES & ROBERTS. HISTORICAL NAME: KIRK-BUDD MINING CO.	LAT. 04734200 LONG. 07968300	REF. NO. O.D.M.-Ag-0826042
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	
TP. or SQUARE GILLIES LIMIT	008260	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Gillies Limit, Block 8 Claims T 19595, 19225, 19224	
LOCATION: About 3½ miles S of Cobalt		NTS 031M05E	UTM
HISTORY OF OWNERSHIP: 1921-1927: Kirk-Budd Mining Co. 1927-19 : Windsor-Cobalt Silvers Ltd. 1952-19 : Coballoy Mines and Refiners Ltd. 1968: Jones, Jones & Roberts.		EXPLORATION AND DEVELOPMENT 1922-1928: A shaft was sunk 170' and a level established at 158'. 520' of lateral work was done E of shaft and 250'W of shaft. Two adits were driven E into a W-facing scarp. Total lateral work done on property is about 1,400'.	
		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
		OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT    x    PRODUCER    PAST PRODUCER	
MAJOR ORE MINERALS		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES	
MINOR ORE MINERALS    Chalcopyrite, sphalerite and galena.		Shaft veins are small veinlets that strike N. Adit veins are WNW striking quartz-calcite veins up to 10" wide.	
ORE FABRIC    Vein. MAJOR GANGUE MINERALS    Quartz, calcite, pyrite.			
COUNTRY ROCK OR FORMATION    Keewatin andesite, Cobalt Series, and Nipissing diabase.			
AGE: GEOLOGICAL    Archean,    ABSOLUTE N.L.T. 3100, Aphebian and Aphebian    N.L.T. 2150, and 2150 m.y.			
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-2, p. 49-50 .		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2051, Cobalt Silver Area, 1964. Lat. and long. refer to SE corner of claim T 19225.	
		FILE STATUS:	DATE
		SKELETAL	
		INCOMPLETE	
		COMPLETED	1968
		REVISED	
		SIGNATURE	A.U.S.
COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: JONES, JONES & ROBERTS. HISTORICAL NAME: KIRK-BUDD MINING CO.	LAT. 47° 20' 30" LONG. 79° 41' 00"	REF.NO. O.D.M.-Ag-0826042
GEOLOGY    Cobalt Series conglomerate that gently dips E occurs in the W part of the property. In the central part of the property the conglomerate is cut off by Nipissing diabase which gently dips E under steeply dipping Keewatin pillowed andesite striking WNW and facing SSW.		EXPLORATION AND DEVELOPMENT (Cont)	
ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:	AGE OF ORE MINERAL
ABSOLUTE AGE	Archean, Aphebian, Aphebian.		Post-Huronian
ROCK TYPE AND/OR MINERAL	N.L.T. 3100, N.L.T. 2150, 2150 m.y.		N.G.T. 2150 m.y.
METHOD	Volcanics, Sediments, Diabase.		
	K/Ar    Rb/Sr    Pb/Pb    Cl4	K/Ar    Rb/Sr    Pb/Pb    Cl4	K/Ar    Rb/Sr    Pb/Pb    Cl4
	X            X		X
COMPANY REPORTS	METALLURGY REFERENCE		
ECONOMICS REFERENCE	MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN            SECTION            LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Maps P.95 and P.95A, 1961. O.D.M. Map 2051, Cobalt Silver Area, 1964.	ODM FILES		



COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: BOMONT MINES LTD. HISTORICAL NAME: TRAINMEN SILVER MINING CO. LTD.	LAT. 04733800 LONG. 07968100	REF. NO. O.D.M.-Ag- 0826041
CO. or DIST. TIMISKAMING TP. or SQUARE GILLIES LIMIT	CODE No. 59 008260	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Gillies Limit, Block 7, Claim: T 31051 Gillies Limit, Block 8, Claims: T 31230, T 31233, T 34875, T 31052, T 34539, T 31230
LOCATION: About 3 1/2 miles S of Cobalt.	NTS 031M05E	UTM	
HISTORY OF OWNERSHIP: 19 -1922: J. McAndrew. 1922-195 : Trainmen Silver Mining Co. Ltd. 1954-1966: Bomont Mines Ltd. 1960: Leased to Chimo Gold Mines Ltd. 1968: Bomont Mines Ltd.	EXPLORATION AND DEVELOPMENT 1925: A shaft was sunk 78' on claim T 31230 1926: Shaft was deepened to 107' and an eastward crosscut of 236' made on the 100' level. 1927: Drifts of 76'N and 80 S were made on 100' level. 1952: 1 diamond drill hole was put down on claim T 31230. 1954: A detailed geological survey was made, and 2 drill holes put down. 1958: 2 diamond drill holes totalling 200' were drilled. 1960: 5 diamond drill holes totalling 2,554' were completed.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
OCCURRENCE		RAW PROSPECT	DEVELOPED PROSPECT X PRODUCER PAST PRODUCER
MAJOR ORE MINERALS Silver, Cobalt nickel arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Trainman Shaft vein is a quartz-calcite vein 2' wide that strikes N and dips vertically for a length of 500'. 5 small calcite veins all less than 150' long and striking NW occur ENE of the shaft.		
MINOR ORE MINERALS Chalcopyrite, galena			
ORE FABRIC Vein.			
MAJOR GANGUE MINERALS Quartz, calcite, feldspar, chlorite			
COUNTRY ROCK OR FORMATION Keewatin volcanics, Cobalt series, Nipissing diabase.			
AGE: GEOLOGICAL Archean, Aphebian, Aphebian.	ABSOLUTE N.L.T. 3100, N.L.T. 2150, 2150 m.y.		
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prel. Rept. 1961-2, p. 51-54.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2051, Cobalt Silver Area, 1964. Lat. and long. refer to SE corner of claim T 31233.	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968
COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: BOMONT MINES LTD. HISTORICAL NAME: TRAINMEN SILVER MINING CO. LTD.	LAT. 47° 20' 15" LONG. 79° 40' 52"	REF. NO. O.D.M.-Ag- 0826041
GEOLOGY Cobalt Series conglomerate dipping E20° occurs in the W part of the property. The conglomerate is cut off by Nipissing diabase in the central part of the property. The Nipissing diabase dips in a general E direction under steeply dipping Keewatin andesite and chert that strikes NW and faces SW. In the Nipissing diabase a small 'roll' occurs east of the shaft along the Nipissing-Keewatin contact.	EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean, Aphebian, Aphebian N.L.T. 3100, N.L.T. 2150, 2150 m.y. Volcanics, Sediments, Diabase K/Ar Rb/Sr Pb/Pb C14 X X	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X
COMPANY REPORTS	METALLURGY REFERENCE		
ECONOMICS REFERENCE	MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Maps P.95 and P.95A, 1961. O.D.M. Map 2051, Cobalt Silver Area, 1964.	ODM FILES		

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: H. KELLY. HISTORICAL NAME: J. BURKE.	LAT. 04732700 LONG. 07967500	REF. NO. O.D.M.-Ag- 0826056
CO. or DIST. TIMISKAMING TP. or SQUARE GILLIES LIMIT	CODE No. 59 008260	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Gillies Limit, Block 16 Claims: T 19489, 19490, 19573
LOCATION: About 4 1/2 miles S of Cobalt.		NTS 031M05E	UTM
HISTORY OF OWNERSHIP: 1922-19: J. Burke. 1922-1925: Optioned to Mining Corporation of Canada, Ltd. 1968: H. Kelly.		EXPLORATION AND DEVELOPMENT 1923-1925: The Mining Corporation shaft was sunk 300' with levels at 98' (a crosscut extending SW 40'), 204' (a crosscut that extends SW 25') and 275' (a crosscut that extends S 500' with E and W drifts 145' from the shaft).	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT    X PRODUCER    PAST PRODUCER			
MAJOR ORE MINERALS Silver, Cobalt arsenides. MINOR ORE MINERALS Chalcopyrite, galena. ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite, quartz, pyrite. COUNTRY ROCK OR FORMATION Keewatin volcanics, Cobalt Series, Nipissing diabase. AGE: GEOLOGICAL Archean, Aphebian, Aphebian    ABSOLUTE N.L.T.3100, N.L.T.2150, 2150 m.y.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Shaft vein strikes N55°W for distance of 500' and depth of 60'. South vein strikes N75°W for distance of 800'. A third vein striking E occurs on the 275' level, 145'S of the shaft. The vein was traced for 300'.	
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-2, p. 65-67.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2051, Cobalt Silver Area, 1964. Lat. and long. refer to SE corner of claim, T 19490.	FILE STATUS:    DATE    SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968    A.O.S. REVISED
COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: H. KELLY. HISTORICAL NAME: J. BURKE.	LAT. 47° 19' 38" LONG. 79° 40' 29"	REF. NO. O.D.M.-Ag- 0826056
GEOLOGY Steeply dipping Keewatin andesite and interflow sedimentary beds that strike NW and face SW, outcrop on most of the property. The Keewatin rocks are underlain by intrusive Nipissing diabase that gently dips NE toward the New Lake Diabase Basin. A thin layer of Cobalt Series conglomerate overlies the Keewatin rocks in NW corner of the property.		EXPLORATION AND DEVELOPMENT (Cont)	
ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean, Aphebian, Aphebian. N.L.T. 3100; N.L.T. 2150; 2150 m.y. Volcanics, Sediments, Diabase.	AGE OF DEFORMATION: K/Ar    Rb/Sr    Pb/Pb    Cl4 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian N.C.T. 2150 m.y. K/Ar    Rb/Sr    Pb/Pb    Cl4
COMPANY REPORTS		METALLURGY REFERENCE	
ECONOMICS REFERENCE		MILLING REFERENCE	
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE	
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN    SECTION    LONGITUDINAL PROJECTION	
MAP REFERENCES O.D.M. Maps P.95 and P.95A, 1961. O.D.M. Map 2051, Cobalt Silver Area, 1964.		ODM FILES	



COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968 CONSOLIDATED PROFESSOR MINES LTD. HISTORICAL NAME: SOUTH GIROUX MINES LTD.		LAT. 04735300	REF. NO.
				LONG. 07966900	O.D.M.-Ag-0826023
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. TIMISKAMING	
TP. or SQUARE	GILLIES LIMIT		008260	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Gillies Limit, Block 1; Claims: T.27896, T.27897	
LOCATION: About 2 1/2 miles SSE of Cobalt			NTS	UTM	
			031M05E		
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1949-1960: South Giroux Mines Ltd.		1954: 7 diamond drill holes were put down on claim T.27897.			
1960-1964: Professor Silver Mines Ltd.		1961: An adit was driven 920'E with 1930' of lateral work.			
1964- : Consolidated Professor Mines Ltd.		1962: 865' of further drifting and 1 underground diamond drill hole 510' long was completed.			
1965: Leased to Agnico Mines Ltd.		1963: 70' of further drifting, 8 underground diamond drill holes totalling 3,470 and 5 surface drill holes totalling 3,030' were completed.			
		OCCURRENCE		RAW PROSPECT	
		DEVELOPED PROSPECT		X PRODUCER	
		PAST PRODUCER			
MAJOR ORE MINERALS Silver, Cobalt and nickel arsenides.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS		Professor Veins:			
ORE FABRIC Vein.		P-1: 4 inches wide and strikes N27°E			
MAJOR GANGUE MINERALS Calcite, quartz.		P-2: Strikes N70°E for 200'			
COUNTRY ROCK OR FORMATION Keewatin andesite, Nipissing diabase.		P-3: Strikes NE for 150'			
		P-4: Strikes E, dips N60°-75°, 8" wide, and is 100' long.			
AGE: GEOLOGICAL Archean, Apehbian.		ABSOLUTE N.L.T. 3100, 2150 m.y.			
MAIN REFERENCE Thomson, R. O.D.M. Prelim. Rept. 1961-7, p. 86-93.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052 Cobalt Silver Area 1964. Lat. and long. refer to SE corner of claim T27897.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE: 1968
				SIGNATURE: A.O.S.	
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: CONSOLIDATED PROFESSOR MINES LTD. HISTORICAL NAME: OXFORD COBALT SILVER MINES LTD.		LAT. 47° 21' 11"	REF.NO.
				LONG. 79° 39' 39"	O.D.M.-Ag-0826023
GEOLOGY Steeply dipping Keewatin pillowed andesite that strikes NW and faces NE occurs intruded by irregular mafic intrusives less than 20' thick and dipping less than 30°W. Haileyburian biotite and hornblende lamprophyre dikes also cut the Keewatin andesite. Nipissing diabase as part of the S dipping N limb of the New Lake Diabase basin occurs below the Keewatin andesite from 0' to 600' below the surface. Small fractures contain epidote, calcite, red feldspar and minor sulphides.		EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE	Archean, Archean, Apehbian.	AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE	N.L.T. 3100, N.L.T. 2490 and 2150 m.y.			Post-Huronian	
ROCK TYPE AND/OR MINERAL	Volcanics, Lamprophyre, Diabase.			N.G.T. 2150 m.y.	
METHOD	K/Ar Rb/Sr Pb/Pb Cl4	K/Ar	Rb/Sr	Pb/Pb	Cl4
	X X X			X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Maps No. P.96 and No. P.96A, 1961. O.D.M. Map No. 2052, Cobalt Silver Area, 1964.		ODM FILES			

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: J.J. McANDREW HISTORICAL NAME: CONROY-McANDREW SILVER MINING CO. LTD.		LAT. 04734900	REF. NO. D.D.M.-Ag-0826025
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	LONG. 07967400	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Gillies Limit, Block 2
TP. or SQUARE GILLIES LIMIT	008260	NTS 031M05E	UTM	Claim: No. C950
LOCATION: About 3 miles S of Cobalt				
HISTORY OF OWNERSHIP: 1920: Conroy-McAndrew Silver Mining Co. Ltd. 1968: J.J. McAndrew.		EXPLORATION AND DEVELOPMENT 1920: A shaft was sunk 100' deep with 170' of crosscutting on the 100' level. Diamond drilling was also carried out.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
OCCURRENCE      RAW PROSPECT      DEVELOPED PROSPECT      X      PRODUCER      PAST PRODUCER				

MAJOR ORE MINERALS Cobalt and nickel arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES A calcite vein occurs that strikes N80°E and dips 70°N for 200' long and 100' deep along a fault.
MINOR ORE MINERALS	
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Calcite.	
COUNTRY ROCK OR FORMATION Keewatin andesite and Nipissing diabase	
AGE: GEOLOGIC/L Archean and Apebian.	ABSOLUTE N.L.T. 3100, 2150 m.y.

MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-7, p. 93-94.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2051, Cobalt Silver Area, 1964. Lat. and Long. refer to SE corner of claim No. C950.	FILE STATUS SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968	SIGNATURE A.O.S.
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COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: J.J. McANDREW HISTORICAL NAME: CONROY-McANDREW SILVER MINING CO. LTD.	LAT. 47° 20' 56"	REF. NO. O.D.M.-Ag-0826025
GEOLOGY In the east part of the claim steeply dipping Keewatin pillowed andesite that strikes NW and faces NE outcrops; this is underlain by Nipissing diabase that dips ESE from the contact which crosses the claim striking NNE. A fault occurs near the shaft striking N80°E and dipping 70°N.	EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean, Apebian N.L.T. 3100, 2150 m.y. Volcanics, Diabase K/Ar    Rb/Sr    Pb/Pb    C14 X        X	AGE OF DEFORMATION: K/Ar    Rb/Sr    Pb/Pb    C14 NAME OF TECTONIC EVENT
		AGE OF ORE MINERAL Post-Huronian N.L.T. 2150 m.y. K/Ar    Rb/Sr    Pb/Pb    C14 X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN      SECTION      LONGITUDINAL PROJECTION
MAP REFERENCES O.D.M. Map P.96 and P.96A, 1961. O.D.M. Map 2051, Cobalt Silver Area, 1964.	ODM FILES

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: CONSOLIDATED PROFESSOR MINES LTD. HISTORICAL NAME: OXFORD COBALT SILVER MINES LTD.		LAT. 04735300	REF. NO.
				LONG. 07966100	O.D.M.-Ag-0826021
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE GILLIES LIMIT	008260			Gillies Limit, N of block 1; Claims: A99, A100, Gillies Limit, Block 1; Claim: A1000	
LOCATION: About 3 miles SSE of Cobalt.		NTS	UTM		
		031M05E			
HISTORY OF OWNERSHIP: 1919-1949: Oxford Cobalt Silver Mines. 1949-1960: South Giroux Mines Ltd. 1960-1964: Professor Silver Mines Ltd. 1964- : Consolidated Professor Mines Ltd.		EXPLORATION AND DEVELOPMENT 1920-1924: Development consisted of trenching, diamond drilling and the sinking of 3 shafts. Oxford No.1 shaft: A pit was sunk 20' deep. Oxford No.2 shaft: was sunk 163' with a level at 150' on which 44' crosscut and 138' drift were driven. Oxford No.3 shaft was sunk 150' with levels at 75' and 150'. From 400'-500' of lateral work was done on 75' level and 170' on 150' level. 1949-1950: Diamond drilling was done on claims A90 and A100.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
		OCCURRENCE		RAW PROSPECT	DEVELOPED PROSPECT
MAJOR ORE MINERALS Silver,		MINOR ORE MINERALS Galena, sphalerite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Oxford No.2 shaft veins occur with strikes of N60°E. Oxford No.3 shaft vein: strikes N85°E for 250'.	
ORE FABRIC Vein. MAJOR GANGUE MINERALS Quartz, calcite		COUNTRY ROCK OR FORMATION Keewatin andesite, Hallyburian lamprophyre and Nipissing diabase.			
AGE: GEOLOGICAL Archean, Archean & Apebian. ABSOLUTE N.L.T. 3100, N.L.T. 2490, 2150 m.y.					
MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-7, p. 86-93.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052, Cobalt Silver Area, 1964. Lat. and Long. refer to SE corner of claim A1000.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968
				SIGNATURE A.O.S.	
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: CONSOLIDATED PROFESSOR MINES LTD. HISTORICAL NAME: OXFORD COBALT SILVER MINES LTD.		LAT. 47° 21' 11"	REF. NO.
				LONG. 79° 39' 39"	O.D.M.-Ag-0826021
GEOLOGY Steeply dipping Keewatin pillowed andesite that strikes NW and faces NE occurs intruded by irregular mafic intrusives less than 20' thick and dipping less than 30°W. Hallyburian biotite and hornblende lamprophyre dikes also cut the Keewatin andesite. Nipissing diabase as part of the S dipping N limb of the New Lake Diabase Basin occurs below the Keewatin andesite from 0' to 600' below the surface Small fractures contain epidote calcite, red feldspar and minor sulphides		EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE Archean, Archean, Apebian ABSOLUTE AGE N.L.T. 2490, N.L.T. 2490, 2150 m.y. ROCK TYPE AND/OR MINERAL Volcanics, Lamprophyre, Diabase.		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb Cl4 X	
METHOD X X X					
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Maps No. P.96 and No. P.96A, 1961. O.D.M. Map No. 2052, Cobalt Silver Area, 1964.		ODM FILES			

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: W. GUTZMAN HISTORICAL NAME: HECTOR SILVER MINES LTD.		LAT. 04735300	REF. NO.
				LONG. 07972100	O.D.M.-Ag- 0826033
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	TIMISKAMING
TP. or SQUARE	GILLIES LIMIT		008260	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	Gillies Limit, Block 4 Claims: C-1243, C-1101
LOCATION: About 3 miles SE of Cobalt				NTS	UTM
				031M05E	
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1924: Hector Silver Mines Ltd.		1924-1929: On claim C-1243 a shaft was sunk 500' with levels developed at 60', 125', 490'. Lateral work was as follows: 400' on 60' level, 70' on 125' level, 160' on 250' level and 300' on 490' level.		About 5 tons of cobalt ore of unknown grade was produced from claim C-1101	
1930's: James Dolan		An open cut 15' deep was made on claim C-1101			
1968: W. Gutzman.					
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT X PRODUCER PAST PRODUCER	

MAJOR ORE MINERALS	Silver, smaltite, niccolite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS	Bismuth.	Shaft Vein: strikes N85°W and dips southerly for a distance of 150'.
ORE FABRIC	Vein.	Claim C-1101: A vein strikes NE for 300'.
MAJOR GANGUE MINERALS	Calcite.	
COUNTRY ROCK OR FORMATION	Cobalt Series conglomerate, Nipissing diabase.	
AGE: GEOLOGICAL	ABSOLUTE	
Aphebian Aphebian	N.L.T. 2150, 2150 m.y.	

MAIN REFERENCE	Thomson, R. 1960: O.D.M. Prelim. Rept. 1960-3, p. 43-44.	MAP REFERENCE USED FOR LOCATION	FILE STATUS	DATE	SIGNATURE
		O.D.M. Map 2051 Cobalt Silver Area 1964.	SKELETAL		
		Lat. and long. refer to SE corner of claim, C-1243	INCOMPLETE		
			COMPLETED	1968	A.O.S.
			REVISED		

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: W. GUTZMAN. HISTORICAL NAME: HECTOR SILVER MINES LTD.		LAT. 47° 21' 11"	REF. NO.
				LONG. 79° 43' 14"	O.D.M.-Ag- 0826033
GEOLOGY Cobalt Series conglomerate occurs 480' below the shaft collar beneath Nipissing diabase. A fault striking SE extends into claim C-1101.			EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE	AGE OF FORMATION ROCK OR MINERAL	AGE OF DEFORMATION:
ABSOLUTE AGE	Aphebian Aphebian	AGE OF ORE MINERAL
ROCK TYPE AND/OR MINERAL	N.L.T. 2150, 2150 m.y.	Post-Huronian
METHOD	Sediments, Diabase.	N.G.T. 2150 m.y.
	K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14
	X	X
COMPANY REPORTS	NAME OF TECTONIC EVENT	

ECONOMICS REFERENCE	METALLURGY REFERENCE
GEOCHEMICAL DATA REFERENCE	MILLING REFERENCE
GEOPHYSICAL DATA REFERENCE	MINING REFERENCE
MAP REFERENCES	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE
O.D.M. Map P.81A, 1960.	PLAN SECTION LONGITUDINAL PROJECTION
O.D.M. Map 2051, 1964.	ODM FILES

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: J. McGARRY, G.W. CRAIG AND A. McGARRY.		LAT. 04735300	REF. NO. O.D.M.-Ag-0826026
			LONG. 07968300	
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Gillies Limit, Block 2,	
TP. or SQUARE GILLIES LIMIT	008260		Claim: C. 1228	
LOCATION: About 2½ miles S of Cobalt.		NTS 031M05E	UTM	
HISTORY OF OWNERSHIP: 1937: J.M. McGarry, G.W. Craig and A McGarry.		EXPLORATION AND DEVELOPMENT 1937: A two compartment vertical shaft was put down 117' and 150' of diamond drilling was completed from it.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)

MAJOR ORE MINERALS	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS	
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS	
COUNTRY ROCK OR FORMATION Nipissing diabase,	
AGE: GEOLOGICAL Aphebian ABSOLUTE 2150 m.y.	No record of metals.

MAIN REFERENCE Thomson, R. 1961: O.D.M. Prelim. Rept. 1961-7, p. 96-97.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2051, Cobalt Silver Area, 1964. Lat. and long. refer to SE corner of claim.	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968	SIGNATURE A.O.S.
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COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: J. McGARRY, G.W. CRAIG, AND A. McGARRY,	LAT. 47° 21' 10"	REF.NO. O.D.M.-Ag- 0826026
		LONG. 79° 40' 58"	
GEOLOGY Nipissing diabase underlies the claim. Probably the lower contact of the Nipissing diabase occurs less than 500' below the surface striking NNE and dipping ESE against Cobalt sediments.		EXPLORATION AND DEVELOPMENT (Cont)	

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION Aphebian 2150 m.y. Diabase. K/Ar Rb/Sr Pb/Pb CI4	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb CI4 NAME OF TECTONIC EVENT
COMPANY REPORTS	METALLURGY REFERENCE	AGE OF ORE MINERAL K/Ar Rb/Sr Pb/Pb CI4
ECONOMICS REFERENCE	MILLING REFERENCE	
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE	
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION	
MAP REFERENCES O.D.M. Maps P.96 and P.96A, 1961. O.D.M. Map 2051, Cobalt Silver Area, 1964.	ODM FILES	



COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: T.J. NEWTON, HISTORICAL NAME: NEWTON LIMIT SYNDICATE		LAT. 04734600	REF. NO.
			LONG. 7970900	O.D.M.-Ag-0826048
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Gillies Limit, Block 9 Claim: C-1023
TP. or SQUARE GILLIES LIMIT	008260	NTS	UTM	
LOCATION: About 3½ miles south southwest of COBALT		031M05E		
HISTORY OF OWNERSHIP: 1927: Newton Limit Syndicate. 1953-1956: Optioned to Quebec Metallurgical Industries Ltd. 1968: T.J. Newton.		EXPLORATION AND DEVELOPMENT 1927: A shaft was put down 156' with cross-cuts driven 40'NE, 40'SE, 30'E and 30'W at the 150' level. 1953-1956: 9 diamond drill holes were put down. The shaft was dewatered to a depth of 50' and a crosscut was driven 37'SW.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT    PRODUCER    PAST PRODUCER				

MAJOR ORE MINERALS Silver. Cobalt arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES The shaft-vein is 200' long 7" wide and strikes NW. A second vein occurs NE of the shaft-vein and parallel to it.			
MINOR ORE MINERALS				
ORE FABRIC Vein.				
MAJOR GANGUE MINERALS Calcite.				
COUNTRY ROCK OR FORMATION Keewatin andesite.				
AGE: GEOLOGICAL Archean	ABSOLUTE N.L.T. 3100 m.y.			

MAIN REFERENCE Thomson R. 1960: O.D.M. Prelim. Rept. 1960-3, p. 49-51.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2051, Cobalt Silver Area 1964.	FILE STATUS:	DATE	SIGNATURE
	Lat. & long. refer to SE corner of claim C1023.	SKELETAL		
		INCOMPLETE		
		COMPLETED	1968	A.O.S.
		REVISED		

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: T.J. NEWTON, HISTORICAL NAME: NEWTON LIMIT SYNDICATE		LAT. 47° 20' 44"	REF. NO.
			LONG. 79° 42' 32"	O.D.M.-Ag-0826048
GEOLOGY Steeply dipping Keewatin pillowed andesite strikes NW and faces SW. A NW striking schistosity occurs in the Keewatin rocks.		EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION	METAMORPHISM				MINERAL PARAGENESIS							
GEOLOGICAL AGE Archean	AGE OF FORMATION, ROCK OR MINERAL				AGE OF DEFORMATION:				AGE OF ORE MINERAL			
ABSOLUTE AGE N.L.T. 3100 m.y.									Post-Huronian			
ROCK TYPE AND/OR MINERAL Volcanics									N.C.T. 2150 m.y.			
METHOD	K/Ar	Rb/Sr	Pb/Pb	Cl4	K/Ar	Rb/Sr	Pb/Pb	Cl4	K/Ar	Rb/Sr	Pb/Pb	Cl4
			X									X
COMPANY REPORTS					METALLURGY REFERENCE							
ECONOMICS REFERENCE					MILLING REFERENCE							
GEOCHEMICAL DATA REFERENCE					MINING REFERENCE							
GEOPHYSICAL DATA REFERENCE					MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE				PLAN    SECTION    LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Map P.83, 1960. O.D.M. Map 2051 Cobalt Silver Area, 1964.					ODM FILES							

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: J.J. GRAY HISTORICAL NAME: SOUTH KEORA MINES LTD.	LAT. 04733800 LONG. 07966900	REF. NO. O.D.M.-Ag-0826047
CO. or DIST. TIMISKAMING TP. or SQUARE GILLIES LIMIT	CODE No. 59 008260	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Gillies Limit, Block 9
LOCATION: About 3 1/2 miles SSW of Cobalt	NTS 031M05E	UTM	Claim: C-1220

HISTORY OF OWNERSHIP: 1913: N. Oslund. 1926: South Keora Mines Ltd. 1951: Optioned to Audley Gold Mines Ltd. 1968: J.J. Gray.	EXPLORATION AND DEVELOPMENT 1927-1928: A shaft put down 109' and 143' of drifting done on the 100' level. An open cut 30' deep was made NE of the shaft.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT*    PRODUCER    PAST PRODUCER		

MAJOR ORE MINERALS Silver. Cobalt arsenides. MINOR ORE MINERALS Gold. ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite COUNTRY ROCK OR FORMATION Keewatin andesite. AGE: GEOLOGICAL Archean    ABSOLUTE N.L.T. 3100 m.y.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES The South Keora Shaft-vein is 300' long and 4 inches wide. The vein strikes N25°E and dips 70°W. A second vein 100' long occurs E of and parallel to the shaft vein.
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MAIN REFERENCE Thomson, R. 1960-3: O.D.M. Prelim. Rept. 1960-3, p. 48-49.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2051, Cobalt Silver Area 1964. Lat. and long. refer to SE corner of claim, C-1220.	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968	SIGNATURE A.O.S.
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COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: J.J. GRAY HISTORICAL NAME: SOUTH KEORA MINES LTD.	LAT. 47° 20' 18" LONG. 79° 42' 07"	REF. NO. O.D.M.-Ag-0826047
GEOLOGY Steeply dipping Keewatin andesitic lava strikes NW and faces SW on the claim. The present ground surface was presumably less than 200' below the bottom of the Nipissing diabase contact prior to erosion of the latter.		EXPLORATION AND DEVELOPMENT (Cont)	

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean N.L.T. 3100 m.y. Volcanics.	AGE OF DEFORMATION: K/Ar    Rb/Sr    Pb/Pb    Cl4 NAME OF TECTONIC EVENT
		AGE OF ORE MINERAL Post-Huronian N.C.T. 2150 m.y.
		K/Ar    Rb/Sr    Pb/Pb    Cl4

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN    SECTION    LONGITUDINAL PROJECTION
MAP REFERENCES O.D.M. P. 83, 1960. O.D.M. 2051, Cobalt Silver Area, 1964.	ODM FILES

District of TIMISKAMING N.T.S. or Townships COLEMAN

NAME	WORK DONE	VEIN			DESCRIPTION	METALS PRESENT							REFERENCE
		CALCITE	QUARTZ	APLITE		Ag	Co	Cu	Ni	Bi	Zn	Pb	
1952: Silver George M Ltd. Con. II, Lot 1, N½; Claims T.28397-T.28401 47°20'43" 79°38'04"	Shaft	1952: A magnetometer survey was done and 4 D. drill holes were completed.	X		The area is extensively covered by overburden. Nipissing diabase cuts the Lorrain granite 470' below surface. Pink calcite veinlets occur.	Ag	Co	Cu	Ni	Bi	Zn	Pb	O.D.M. Prelim. Rept. 1961-2 p.24, 1961. COLEMAN 69 MAPS ODM P.95 & P.95A, 1961. ODM 2052, 1964.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													
1908: Maple Leaf Mines Ltd. 1968: V.J. Adams Con. II, Lot 1, S½; Claims: 21 & 27. 47°20'04" 79°37'53"	Shaft	Nipissing diabase outcrops on the claims.			Nipissing diabase outcrops on the claims.								O.D.M. Prelim. Rept. 1961-2 p.27, 1961. COLEMAN 68 MAPS ODM P.95 & P.95A, 1961. ODM 2052, 1964.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													
Con. II, Lot 16, N½; Claim: W part NW½ 47°20'44" 79°46'59"	Shaft	A 15' pit was put down on a quartz-calcite vein.	X	X	The quartz-calcite vein that strikes NW occurs in Nipissing diabase.								O.D.M. Prelim. Rept. 1960-3 p.53, 1960. COLEMAN MAPS ODM P.82, 1960. ODM 2052, 1964.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													
Con. III, Lot 12, N½; Claim: NE½ 47°21'37" 79°44'56"	Shaft	2 pits have been put down on aplite veinlets.		X	Aplite veinlets occur in Nipissing diabase								O.D.M. Prelim. Rept. 1960-3 p.43, 1960. COLEMAN 79 MAPS O.D.M. P.81, 1960. O.D.M. 2051, 1964.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													
Con. III, Lot 12, S½ Claim SW part. 79°21'05" 79°45'26"	Shaft	3 pits and a 100' shaft were sunk.	X	X	A quartz-calcite vein strikes N32°E in the Nipissing diabase.								O.D.M. Prelim. Rept. 1960-3, p.43, 1960. COLEMAN 80 MAPS O.D.M. P.81, 1960 O.D.M. 2051, 1964
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													

District of TIMISKAMING N.T.S. or Townships GILLIES LIMIT

NAME	WORK DONE	VEIN			DESCRIPTION	METALS PRESENT							REFERENCE
		CALCITE	QUARTZ	APLITE		Ag	Co	Cu	Ni	Bi	Zn	Pb	
1968: P. Villa Gillies Limit (N Part) Claim: A65 47°21'38" 79°42'42"	Shaft	Several pits and trenches were put down on a calcite vein that strikes NW.	X		Keewatin andesite occurs unconformably overlain by Cobalt series conglomerate.	Ag	Co	Cu	Ni	Bi	Zn	Pb	O.D.M. Prelim. Rept. 1960-3 p.40, 1960. GILLIES LIMIT 16 MAPS O.D.M. P.81, 1960. O.D.M. 2051, 1964.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													
1960: J. Dolan 1968: H. Fernholm Gillies Limit N Part Claims: A69, A74, A75, A76, A77. 47°21'24" 79°43'30"	Shaft	A pit was put down on junction of 2 veins one striking N58°E for length of 450' and the other S60°E for 700'.	X	X	The veins occur in Nipissing diabase.								O.D.M. Prelim. Rept. 1960-3 p.40-41, 1960. GILLIES LIMIT 17 MAPS O.D.M. P.81, 1960. O.D.M. 2051, 1964.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													
1956: J. Armstrong 1968: Craskie ML Gillies Limit N Part Claim A83 47°21'25" 79°42'23"	Shaft	One short diamond drill hole was put down on a topographic depression.			Cobalt Series conglomerate and greywacke occurs on the claim.								O.D.M. Prelim. Rept. 1960-3 p.39, 1960. GILLIES LIMIT 18 MAPS O.D.M. P.81, 1960. O.D.M. 2051, 1964.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													
Webb claim 1968: N.A. Cambell Gillies Limit N Part Claim A90 47°21'24" 79°41'16"	Shaft	1910-1920: The Webb shaft was sunk 100' on a vein striking N72°W	X	X	The vein is associated with an interflow sedimentary band between andesite flows. Chalcopyrite, pyrrhotite, galena sphalerite and cobalt bloom occur.								O.D.M. Prelim. Rept. 1961-7 p.98, 1961. GILLIES LIMIT 19 MAPS O.D.M. P.81, 1960. O.D.M. 2051, 1964.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													
1968: Consolidated Professor ML Gillies Limit N Part Claims: A96, A97, A98. 47°21'24" 79°39'59"	Shaft	D. Drilling was reported.			Steeply dipping pillowed andesite that strikes NW and faces NE occur intruded by Nipissing diabase.								O.D.M. Prelim. Rept. 1961-7 p.86-93, 1961. GILLIES LIMIT 20 MAPS ODM P.96 & P.96A, 1961. ODM 2052, 1964.
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													

District of TIMISKAMING

N.T.S. or Townships GILLIES LIMIT

NAME	WORK DONE	VEIN	DESCRIPTION	METALS PRESENT						REFERENCE	
				Ag	Co	Cu	Ni	Bi	Zn		Pb
1968: MayFair ML  Gillies Limit Block 1 Claims: T25711, T25712 47°21'10" 79°39'20"	Shaft	CALCITE QUARTZ APLITE	The vein strikes N25°W, and dips 75°E in Keewatin andesite. Sphalerite and pyrite occur in the vein.	Ag native	Co arsenides	Cu	Ni	Bi	Zn	Pb	O.D.M. Prelim. Rept. 1961-7 p.85, 1961.  GILLIES LIMIT 22  MAPS ODM P.96 & P.96A, 1961 ODM 2052, 1964
	Adit										
	Pit										
	Trench X										
	D. Drill X										
Geophys											
1968: Consolidated Professor ML Gillies Limit, Block 1 Claims: C.1383A, C.976, C.949A, T.19473-3A, C.1401, T.28097 47°20'56" 79°39'21"	Shaft	CALCITE QUARTZ APLITE	Keewatin volcanics occur striking NW and facing NE.	Ag	Co	Cu	Ni	Bi	Zn	Pb	O.D.M. Prelim. Rept. 1961-7 p.86-93.  GILLIES LIMIT 24  MAPS ODM P.96 & P.96A, 1961 ODM 2052, 1964.
	Adit										
	Pit X										
	Trench										
	D. Drill										
Geophys											
Gillies Limit, Block 2 Claim: T 19689 47°20'53" 79°40'39"	Shaft	CALCITE QUARTZ APLITE	Nipissing diabase occurs on the claim gently dipping ESE.	Ag	Co	Cu	Ni	Bi	Zn	Pb	O.D.M. Prelim. Rept. 1961-7 p.95, 1961.  GILLIES LIMIT 28  MAPS ODM P.96 & P.96A, 1961 ODM 2051, 1964.
	Adit										
	Pit X										
	Trench X										
	D. Drill X										
Geophys											
Gillies Limit, Block 2 Claim: T.20321 47°21'10" 79°40'49"	Shaft	CALCITE QUARTZ APLITE	The calcite vein is 1 foot wide strikes S85°E, dips 15°S and contains massive galena. Ag assay returned 30 oz/t	Ag	Co	Cu	Ni	Bi	Zn	Pb	O.D.M. Prelim. Rept. 1961-7 p.95, 1961.  GILLIES LIMIT 29  MAPS ODM P.96 & P.96A, 1961 ODM 2051, 1964.
	Adit X										
	Pit										
	Trench										
	D. Drill										
Geophys											
Stone claim. 1968: R.M. Box Gillies Limit Block 2, Claim C.940. 47°21'09" 79°41'12"	Shaft	CALCITE QUARTZ APLITE	The vein strikes N85°E and dips 85°N in Nipissing diabase. Chalcopyrite with traces of Co and Ag occur in the vein.	Ag	Co	Cu	Ni	Bi	Zn	Pb	O.D.M. Prelim. Rept. 1961-7 p.96, 1961.  GILLIES LIMIT 30  MAPS ODM P.96 & P.96A, 1961 ODM 2051, 1964.
	Adit										
	Pit X										
	Trench X										
	D. Drill X										
Geophys											

District of TIMISKAMING

N.T.S. or Townships GILLIES LIMIT

NAME	WORK DONE	VEIN	DESCRIPTION	METALS PRESENT						REFERENCE	
				Ag	Co	Cu	Ni	Bi	Zn		Pb
Claims: C978, 47923, 24714 & 44. Gillies Limit Block 2 & 4 western claims, 47°20'57" 79°41'23"	Shaft	CALCITE QUARTZ APLITE	Cobalt series conglomerate with a poorly defined set of N striking fractures outcrops on the property	Ag native	Co arsenides	Cu	Ni	Bi	Zn	Pb	O.D.M. Prelim. Rept. 1961-7 p.98, 1961.  GILLIES LIMIT 31  MAPS ODM P.96 & P.96A, 1961 ODM 2052, 1964.
	Adit										
	Pit										
	Trench X										
	D. Drill X										
Geophys											
1968: T.J. Newton  Gillies Limit Block 3 Claim C-1023 47°20'57" 79°42'25"	Shaft	CALCITE QUARTZ APLITE	Quartz veins occur in Keewatin pillowed andesite that strikes NW and faces SW. Silver, cobalt arsenides and specularite are reported	Ag	Co	Cu	Ni	Bi	Zn	Pb	O.D.M. Prelim. Rept. 1960-3 p.43, 1960.  GILLIES LIMIT 32  MAPS O.D.M. P.81, 1960, O.D.M. 2052, 1964.
	Adit										
	Pit										
	Trench										
	D. Drill X										
Geophys											
1968: Gilbert Interests Ltd.  Gillies Limit Block 4 Claim C.1107 47°21'00" 79°43'42"	Shaft	CALCITE QUARTZ APLITE	The vein strikes N65°E and dips 70°S in Nipissing diabase.	Ag	Co	Cu	Ni	Bi	Zn	Pb	O.D.M. Prelim. Rept. 1960-3 p.45, 1960.  GILLIES LIMIT 34  MAPS O.D.M. P.81, 1960, O.D.M. 2052, 1964.
	Adit X										
	Pit										
	Trench										
	D. Drill										
Geophys											
Gillies Limit Block 4 Claim T.20522 47°20'58" 79°43'50"	Shaft	CALCITE QUARTZ APLITE	The vein strikes E and dips vertically in Nipissing diabase. Chalcopyrite is present.	Ag	Co	Cu	Ni	Bi	Zn	Pb	O.D.M. Prelim. Rept. 1960-3 p.45, 1960.  GILLIES LIMIT 35  MAPS O.D.M. P.81, 1960, O.D.M. 2052, 1964.
	Adit										
	Pit X										
	Trench										
	D. Drill										
Geophys											
1947: Brewster Silver & Lead Syndicate Ltd.  Gillies Limit Block 5 West extremity. 47°20'57" 79°45'15"	Shaft	CALCITE QUARTZ APLITE	The vein strikes N22°E & dips vertically in Nipissing diabase. The vein contains chalcopyrite and cobalt arsenides.	Ag	Co	Cu	Ni	Bi	Zn	Pb	O.D.M. Prelim. Rept. 1960-3 p.45, 1960.  GILLIES LIMIT 36  MAPS O.D.M. P.81, 1960, O.D.M. 2052, 1964.
	Adit X										
	Pit										
	Trench										
	D. Drill X										
Geophys											

District of TIMISKAMING

N.T.S. or Townships

GILLIES LIMIT

NAME	WORK DONE	VEIN			DESCRIPTION	METALS PRESENT							REFERENCE	
		CALCITE	QUARTZ	APLITE		Ag	Co	Cu	Ni	Bi	Zn	Pb		
1968: Mayfair ML Gillies Limit Block 6 Claims: C.153, T.25905 T.25902, T.23070 T.26860-61-62-26463 T.26218-19	Shaft Adit Pit Trench D. Drill Geophys		X		Keewatin pillowed andesite occurs in an anticline that trends WNW. The anticlinorium is cut off by Nipissing diabase in SE part of property.	native								O.D.M. Prelim. Rept. 1961-2 p.36, 1961  GILLIES LIMIT 37
47°20'04" 79°38'13"		X					X							MAPS ODM P.95 & P.95A, 1961. ODM 2052, 1964.
1968: Silver Lake ML Gillies Limit, Block 7 Claims: C.1385-6-7, C.1394-5, T.18868-9 T.26873, C.1072 T.25980-1-2-3-4-5-6	Shaft Adit Pit Trench D. Drill Geophys		X		Keewatin pillowed andesite occurs in an anticline that trends WNW. Cobalt Series conglomerate unconformably overlies the Keewatin. At depth the Keewatin is cut by Nipissing diabase.									O.D.M. Prelim. Rept. 1961-2 p. 42-44, 1961.  GILLIES LIMIT 38
47°20'04" 79°39'13"		X				X	X							MAPS ODM P.95 & P.95A, 1961. ODM 2052, 1964.
Sloan-Olsen Group 1968: Sisco Metals of Ontario.	Shaft Adit Pit Trench D. Drill Geophys	X			The veins strike N20°W & N75°E resp. and occur in Keewatin pillowed andesite near the axis of an anticline. Best silver assays - 60 oz/t.									O.D.M. Prelim. Rept. 1961-2 p.44, 1961.  GILLIES LIMIT 39
Gillies Limit Block 7 Claims: C.951 & C.1092		X				X								MAPS ODM P.95 & P.95A, 1961 ODM 2052, 1964.
47°20'30" 79°39'53"		X	X			X								
Gauthier Group 1968: Sisco Metals of Ontario. Block 7. Claims T.18968 & C.987	Shaft Adit Pit Trench D. Drill Geophys	X			The veins strike NW and occur in the axis of the WNW trending Keewatin anticline. Keewatin cherty sediments occur in the pillowed andesite. Best silver assays = 100 oz./t									O.D.M. Prelim. Rept. 1961-2 p. 44-46, 1961.  GILLIES LIMIT 40
47°20'31" 79°40'19"		X	X			X	X				X	X		MAPS ODM P.95 & P.95A, 1961. ODM 2052, 1964.
1911: J. Burke, MCL. 1922: Conroy-McAndrew  1951: Cordon Gillies Limit Block 8 Claim T.23747	Shaft Adit Pit Trench D. Drill Geophys				The vein strikes N65°W & dips steeply N in Keewatin sediments. At depth the Keewatin is cut by Nipissing diabase. Chalcopyrite.									O.D.M. Prelim. Rept. 1961-2 p.46, 1961.  GILLIES LIMIT 43
47°20'43" 79°40'29"		X	X			X	X	X						MAPS ODM P.95 & P.95A, 1961 ODM 2051, 1964.

District of TIMISKAMING

N.T.S. or Townships

GILLIES LIMIT

NAME	WORK DONE	VEIN			DESCRIPTION	METALS PRESENT							REFERENCE	
		CALCITE	QUARTZ	APLITE		Ag	Co	Cu	Ni	Bi	Zn	Pb		
J. Burke  Gillies Limit Block 8 Claim: T.34996	Shaft Adit Pit Trench D. Drill Geophys		X		The veinlets strike N70°E in Cobalt Series conglomerate and Nipissing diabase. Chalcopyrite, pyrite, magnetite and hematite occur.	native								O.D.M. Prelim. Rept. 1961-2 p.48, 1961.  GILLIES LIMIT 44
47°20'45" 79°41'05"		X					X							MAPS ODM P.95 & P.95A, 1961. ODM 2051, 1964.
1950: Penn-Cobalt SML 1965: Mentor Expl. Ltd	Shaft Adit Pit Trench D. Drill Geophys				Cobalt Series sediments strike WNW and gently dip ENL.									O.D.M. Prelim. Rept. 1961-2 p.54, 1961.  GILLIES LIMIT 45
Gillies Limit Block 8 Claims: T.29502, T.30600 T.30326-7-8-9		X												MAPS ODM P.95 & P.95A, 1961. ODM 2051, 1964.
47°20'04" 79°41'00"		X	X											
1950: Cobalt Lode SML 1965: Mentor Expl. & Dev. Ltd. Gillies Limit Block 8 Claim: T.29313-4 T.29335-6	Shaft Adit Pit Trench D. Drill Geophys	X			The vein strikes NW in Nipissing diabase. The Nipissing diabase dips gently E under Cobalt Series sediments. Sphalerite.									O.D.M. Prelim. Rept. 1961-2 p.54, 1961.  GILLIES LIMIT 46
47°20'15" 79°41'16"		X				X	X			X				MAPS ODM P.95 & P.95A, 1961. ODM 2051, 1964.
1957: Partridge Can. Expl. Ltd.  1968: C. Moss. Gillies Limit Block 9 Claim: J.S. 32	Shaft Adit Pit Trench D. Drill Geophys				A pyrite band strikes N48°NE for a distance of 450' and a vertical depth of 800' in tuff.									O.D.M. Prelim. Rept. 1960-3 p.51, 1960.  GILLIES LIMIT 49
47°20'06" 79°41'16"		X												MAPS O.D.M. P.83, 1960. O.D.M. 2051, 1964.
J. Burke Kelvin Lake Group  Gillies Limit Block 10 T.31008 and Claims: T.30611	Shaft Adit Pit Trench D. Drill Geophys				The dikes strike N20°E in Nipissing diabase that gently dips SW.									O.D.M. Prelim. Rept. 1960-3 p. 51-52.  GILLIES LIMIT 50
47°20'04" 79°43'40"		X				X								MAPS O.D.M. P.83, 1960. O.D.M. 2051, 1964.





Table 18.

C O B A L T A R E A (4)  
P R O D U C T I O N T A B L E

*	(Historical Name)	(Present Owner)	Silver (Troy ozs)	Cobalt (lbs)
	<u>BUCKE TWP.</u>			
○1	Agaunico and Reuthel mine.	Agnico Mines Ltd.	980,000	4,350,000
▲22	Arabella Mining Co.			
▲19	Argyle Claim.			
▲16	Agotte Claim.	R. Agotte.		
▲25	Beanland prospect.			
▲15	Brydges, J. prospect.	A. Groom.		
○3	Cobalt Contact mine.	Pittsonto Mining Co. Ltd.	26,000	31,000
▲8	Curry Claim.	Pittsonto Mining Co. Ltd.		
▲21	Con. II, Lot 11, S½, SW¼.	C. Smitheram.		
▲26	Con. III, Lot 7, N½, NW¼.	V. Arney.		
▲24	Dickson Creek Mining Co.			
▲13	Dominion Gulf Co.	J.H. Price.		
○6	Dotsee mine.	Agnico Mines Ltd.	125	8,000
○7	Genesee Mining Co.	United Cobalt Mines Ltd.	66,236	12,063
○4	Green-Meehan & Red Rock mine.	Pittsonto Mining Co. Ltd.	498,000	27,000
○5	Harrison-Hibbert & Ruby mine.	Pittsonto Mining Co. Ltd.	876,500	214,600
▲17	Hiawatha Cobalt-Silver mine.			
▲11	Law mine.	Silvermague Mining Ltd.		
▲23	McKinnon mine.			
○2	North Cobalt and Hunter mine.		1,453	
▲12	Stanmac Ltd.	A. Townson.		
▲14	Stanmac Ltd.			
▲18	Stellar Silver-Cobalt mine.	C. McCrea.		
▲9	Strathcona Silver Mining Co.	A. Johnson.		
▲20	Temiskaming Mining Co.	Agnico Mines Ltd.		
▲10	Thompson-North Cobalt mine.	E.H. Lumsden.		
	<u>CASEY TWP.</u>			
●1	Casey Cobalt-Silver Mines Ltd.	Langis Silver & Cobalt Mining Co. Ltd.	9,373,085	356,418
▲2	Casey Mountain Cobalt Mining Co. & Dev., Ltd.	Quincy Creek Mines Ltd.	20 tons of silver-cobalt ore	
	<u>HARRIS TWP.</u>			
▲2	Benner-Harris Property.			
●1	Harmak Mining Co.	Dolphin-Miller Mines Ltd.	4,625	12,925

\* Number refers to that on deposit description card; non sequence follows as a consequence of data processing.





COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: AGAUNICO & REUTHEL MINES.		LAT. 04741444	REF. NO.																
				LONG. 07960100	O.D.M.-Ag-0289001																
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.																	
TP. or SQUARE	BUCKE		002890	TIMISKAMING																	
LOCATION: 4 1/2 miles northeast of COBALT on east shore of Lake Timiskaming.			NTS 031M05E	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. I, Lot 15.																
			claims: With Workings		<table border="1"> <tr> <td>N<sub>1</sub></td> <td>S<sub>1</sub></td> <td>Lake</td> <td>Lake</td> </tr> <tr> <td>2623</td> <td>T30589</td> <td>696</td> <td>T31897</td> </tr> <tr> <td>388</td> <td>T30938</td> <td>833</td> <td>T31904</td> </tr> <tr> <td>897</td> <td></td> <td></td> <td></td> </tr> </table>	N <sub>1</sub>	S <sub>1</sub>	Lake	Lake	2623	T30589	696	T31897	388	T30938	833	T31904	897			
N <sub>1</sub>	S <sub>1</sub>	Lake	Lake																		
2623	T30589	696	T31897																		
388	T30938	833	T31904																		
897																					
HISTORY OF OWNERSHIP: 1905: Temiskaming Cobalt Co.  1908:  1926: Northern Extension Mines.  1929: Agaunico Cobalt Mines  1930: D.L. Jemmett Ltd.  1932: Estate of D.L. Jemmett Ltd.  1936: Russell, Presse and McCready Syndicate.  1943: Silanco Mining and Smelting Corp.			EXPLORATION AND DEVELOPMENT 1905-1960 Agaunico shaft (only one) was sunk 400' with levels at depths of 55', 100', 136', 200' and 275'; the 200' and 275' levels extend for several thousand feet. Winze No.1 (inclined) collared on 275' level, descends to 325' sublevel. Winze No.2 (collared on 275' level) descends to 450' sublevel with another sublevel at 375'. 1961: Mine filled with water. 1965: Diamond drilling at south end of property failed to give encouraging results.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1905-1961 Silver: About 980,000 ozs. Cobalt: About 4,350,000 lbs. Nickel: At least 418,717 lbs. Copper: At least 216,767 lbs.																
MAJOR ORE MINERALS Smaltite, silver.			OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER*																		
MINOR ORE MINERALS Chalcopyrite, pyrite, galena, sphalerite.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Veins belong to two groups:- (a) Group that includes veins Nos.1 and 2, and others with NE to N strikes. Veins Nos.1 and 2, over 1200' in length, occur in a reverse fault; they were rich in cobalt with grades up to 20%, but poor in silver. (b) Group that includes veins Nos. 7, 12 and 14 with NNW strike adjacent and parallel to the Agaunico diabase dike that probably occupies a fault; some of these veins are 1200' in length. Most cobalt and silver production was obtained from Gowganda rocks above and within 200' of the Keewatin unconformity, well beneath the Nipissing diabase.																		
ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite. COUNTRY ROCK OR FORMATION Gowganda conglomerate and greywacke.			MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.																		
AGE: GEOLOGICAL Aphebian		ABSOLUTE N.L.T. 2150 m.y.		FILE STATUS:	DATE																
MAIN REFERENCE Thomson, R. 1964: O.D.M. Prelim. Rept. 1960-2, p. 91-101			SIGNATURE																		
			SKELETAL																		
			INCOMPLETE																		
			COMPLETED 1968 A.O.S.																		
			REVISED																		
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: AGAUNICO & REUTHEL MINES.		LAT. 04741444	REF. NO.																
				LONG. 07960100	O.D.M.-Ag-0289001																
GEOLOGY Nipissing quartz diabase up to 250' thick conformably overlies up to 450' of shallow S dipping Gowganda conglomerate and greywackes of the Cobalt Series that unconformably overlies the steeply dipping Keewatin volcanics and sediments. The major Lake Timiskaming Fault which forms a zone several hundred feet wide strikes NNW along the W shore of the Lake, about 500'E of the shaft. Subsidiary faults which contain important cobalt-silver producing veins strike SW and NNW to NW; the Agaunico diabase dike of uncertain age occupies a NNW fault. Chlorite spotting has locally developed in the Gowganda rocks. Narrow calcite veins with cobalt-silver mineralization occur in Gowganda, Agaunico diabase dike and Keewatin rocks; disseminated cobalt occurs in Gowganda rocks.			EXPLORATION AND DEVELOPMENT (Cont)																		
ALTERATION Chlorite spotting.		METAMORPHISM		MINERAL PARAGENESIS																	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Aphebian N.L.T. 2150 m.y. Sediments	AGE OF DEFORMATION:	AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.																	
		K/Ar Rb/Sr Pb/Pb Cl4 X	K/Ar Rb/Sr Pb/Pb Cl4	NAME OF TECTONIC EVENT X																	
COMPANY REPORTS			METALLURGY REFERENCE																		
ECONOMICS REFERENCE			MILLING REFERENCE																		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE																		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN * SECTION * LONGITUDINAL PROJECTION O.D.M. Map, P.67A, 1960.																		
MAP REFERENCES O.D.M. Map 2050, Cobalt Silver Area, 1964. O.D.M. Maps P.67 and P.67A, 1960. O.D.M. Map P.321, Haileybury sheet, 1965.			ODM FILES																		

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 19 68 AGNICO MINES LTD. HISTORICAL NAME : AGAUNICO & REUTHEL MINES.	LAT. 47° 24' 52"	REF. NO. O.D.M.-Ag-0289001
		LONG. 79° 36' 03"	
HISTORY OF OWNERSHIP (CONT)		REMARKS	
1945: Silanco Mining and Refining Co. Ltd. 1953: Cobalt Consolidated Mining Corp. Ltd. 1957: Agnico Mines Ltd.		Latitude and longitude refer to southeast corner of claim No.697.	

ADDITIONAL REFERENCES:-

Thomson, R.  
1964: Preliminary Report on Bucke Township, District of Timiskaming, Ontario Department of Mines, prelim. Rept. 1960-2, p. 91-101.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 19 68 AGNICO MINES LTD. HISTORICAL NAME : AGAUNICO & REUTHEL MINES.	LAT. 47° 24' 52"	REF. NO. O.D.M.-Ag-0289001
		LONG. 79° 36' 03"	

YEAR	ORE		COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED TONS	ORE & CONC. SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1905	15		3,200	132							132
06	45	20	7,600	4,583							4,583
07	60	67	20,872	11,675							11,675
09	7	7			1,453	725					725
17		26	10,733	1,073	36	29	4,058	203			1,305
26		121	42,480	19,322	100	35					19,357
29	650	100	45,521	43,609							43,609
1930	11,310		159,448	150,342			2,567	250			150,592
31		384	85,455	43,849							43,849
32		64	24,162	7,707							7,707
33		74	19,233	7,680			1,861	350			7,430
34		26	6,105	2,564							2,564
36	5,191	455	114,988	73,772			110,654	11,131			84,903
37		1,678	18,609	13,969	770	331					14,300
37		93	23,427	16,399	633	285					16,684
1948		661	106,003	174,905	37,456	24,895			7,645	1,442	201,242
49	4,307	126	28,382	21,943	40,452	32,444					54,387
1950	24,461	401	11,122	9,676	185,234	153,301			12,186	3,104	166,081
51	21,464	337	45,461	104,106	187,561	177,339			2,539	703	282,148
52	5,808	953	200,599	471,408	62,722	52,369			2,656	758	524,535
53					90,477				25,524	185	1,604,734
54		(52,918	429,011		273,670				92,277	65,262	
55		(61,593	526,128		146,049				116,829	81,297	
56		(35,905	292,180		67,324				64,947	39,997	
57	Milled	(28,600									
58		(32,518									
59		(22,578									
60		(9,667									

N.B. Also: 1939-1943 Probable production of Cobalt about 1,000,000 lbs.  
1957-1961 Production of Cobalt of the order of 750,000 lbs.; of silver 185,000 ozs.

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: PITTSOINTO MINING COMPANY LTD. HISTORICAL NAME: COBALT CONTACT MINE.		LAT. 04741400	REF. NO.
				LONG. 07961200	O.D.M.-Ag-0289003
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. TIMISKAMING	
TP. or SQUARE	BUCKE		002890	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.I, Lot 14	
LOCATION: 3 miles northeast of COBALT		NTS	UTM	Claim: SE½ of N½, No.59 Claim: NE½ of S½, No.585	
			031M05E		
HISTORY OF OWNERSHIP: 1905: Cobalt Contact Mining Co. Ltd. 1924: Optioned to Cobalt Contact Mines Ltd. 1933: Cobnor Silver Mines Ltd. 1937: York-Bousquet. 1942: Windsor-Cobalt Mines. 1951: Cob-Sil-Ore Mines Ltd. 1963: Silvermaque Mining Ltd. 1964: Pittsonto Mining Co. Ltd.		EXPLORATION AND DEVELOPMENT 1905-1965: Main shaft was sunk 215' with levels at depths of 120' and 195' that extend for several hundred feet. No.1 shaft (45'N of Main shaft) is destroyed having been stoped out to 70'. Ross or No.3 shaft was sunk 45' on No.3 vein. 1951-52: Extensive diamond drilling was carried out: 6 underground holes totalling 1,529' and 18 surface holes totalling 4,000' were completed.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1912-1944 Silver About: 26,000 ozs. Cobalt About: 31,000 lbs.	
MAJOR ORE MINERALS Silver, Fe,Co,Ni-arsenides.		MINOR ORE MINERALS		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER*	
ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite. COUNTRY ROCK OR FORMATION Keewatin Volcanics		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Grade: Silver; of the order of 1 oz./ton. Cobalt; of the order of 1 lb./ton. No.1 vein: drifted on for 400' on 120' level, extends to 195' level. No.2 vein: drifted on for 350' on 120' level. No.3 or Ross vein: drifted on for 500' on 120' level, and for 300' on 195' level; it dips 75°W with N strike.			
AGE: GEOLOGICAL Archean ABSOLUTE N.L.T. 3100 m.y.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964. Lat. and Long. refer to SE corner of claim.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968
MAIN REFERENCE Thompson, R. 1964: O.D.M. Prelim. Rept. 1960-2, p. 78-82.				SIGNATURE A.O.S.	
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: PITTSOINTO MINING COMPANY LTD. HISTORICAL NAME: COBALT CONTACT MINE.		LAT. 04741400	REF.NO.
				LONG. 07961200	O.D.M.-Ag-0289003
GEOLOGY Steeply dipping Keewatin andesitic volcanics and interflow chert beds that strike about NNW are unconformably overlain by gently dipping Gowanda conglomerate and greywacke of the Cobalt Series up to 350' thick, and then by Nipissing quartz diabase in the form of a sill or sheet up to 120' thick that dips and thickens to the SE. Three important silver-cobalt bearing calcite veins occur viz: Nos. 1, 2 and 3 which strike N to NNW; production was from the veins in the volcanics within about 150' vertically below the Keewatin-Cobalt unconformity.		EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean N.L.T. 3100 m.y. Volcanics	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN* SECTION LONGITUDINAL PROJECTION Thomson, R. 1960: O.D.M. Map P.67A.			
MAP REFERENCES O.D.M. Map 2050, Cobalt Silver Area, 1964. O.D.M. Maps P.67 and P.67A, 1960. O.D.M. Map P.321, Haileybury Sheet, 1965.		ODM FILES			

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 24' 52"	REF. NO.
Silver	CIRCA 1968: PITTSOFTO MINING COMPANY LTD.	LONG. 79° 36' 42"	O.D.M.-Ag-0289003
Cobalt	HISTORICAL NAME: COBALT CONTACT MINE.		
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Underground workings are restricted to SE $\frac{1}{4}$ of N $\frac{1}{2}$ of lot 14, con. I, claim No.59. On claim No.585 considerable diamond drilling was carried out.	

ADDITIONAL REFERENCES:-

Thomson, R.  
1964: Preliminary Report on Bucke Township, District of Timiskaming. Ontario Dept. Mines, Prelim. Rept. 1960-2, p. 78-82.

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 24' 52"	REF. NO.
Silver	CIRCA 1968: PITTSOFTO MINING COMPANY LTD.	LONG. 79° 36' 42"	O.D.M. -Ag-0289003
Cobalt	HISTORICAL NAME: COBALT CONTACT MINE.		

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1912	5,187	50			2,560		1,626				1,626
24	800	142	500	50	2,795		1,956				2,006
25		3			1,596		939				939
26			3,000*		10,000*						
31		2	2,129	921	1,386		340				1,261
35	3,000	8	1,795	717	435		265				982
36		54	11,847	5,900	1,011		450				6,350
37	1,000	24	6,000	4,070	1,650		230				4,300
38		26	4,285	2,770	2,754		1,184				3,954
39	157	157	95	95	9		2				97
40		1	190	171	272		190				361
42	130	130			1,584		668				668
43	800	3	673	740							740
44		3	613	576	50		22				598

\* Reference: Estimated

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968: PITTSOINTO MINING COMPANY LTD. HISTORICAL NAME: CURRY CLAIM.	LAT. 04740700 LONG. 07962200	REF. NO. O.D.M.-Ag-0289008
CO. or DIST. TIMISKAMING TP. or SQUARE BUCKE	CODE No. 59 02890	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. I, Lot 13, S½ claim: SE¼
LOCATION: 3 miles northeast of COBALT.		NTS 031M05E	UTM
HISTORY OF OWNERSHIP: Circa 1909: Canuck Silver Mines.  Circa 1948: Pittsonto Mining Co.  1952: Operated by Harrison-Hibbert Mines.		EXPLORATION AND DEVELOPMENT 1909: Pitting and trenching was carried out; two pits, one 25' deep, occur in NE corner of claim. 1948: Ten surface diamond drill holes were completed. 1951: Electromagnetic survey was carried out. 1952: Underground work on 190' level was extended south into it where a small shape of milling grade silver-cobalt ore was mined. The level was extended 150' south into the claim. A shaft 150' deep with 30' of drifting is also reported to exist.	
		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  Small quantity of silver and cobalt ore was mined.	
MAJOR ORE MINERALS Silver, Fe, Co, Ni-arsenides. MINOR ORE MINERALS Chalcopyrite, pyrite. ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite, apatite. COUNTRY ROCK OR FORMATION Cobalt Series sediments.		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES 1" wide pink carbonate veins of variable strike show cobalt mineralization.	
AGE: GEOLOGICAL Aphebian ABSOLUTE N.L.T. 2150 m.y.		MAP REFERENCE USED FOR LOCATION O.D.M. Map P.67, 1960. Lat. and long. refer to SE corner of claim.	
MAIN REFERENCE Thompson, R. 1964: O.D.M. Prelim. Rept. 1960-2, p. 60-2.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968 SIGNATURE A.O.S.
COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968: PITTSOINTO MINING COMPANY LTD. HISTORICAL NAME: CURRY CLAIM.	LAT. 47° 24' 26" LONG. 79° 37' 20"	REF. NO. O.D.M.-Ag- 0289008
GEOLOGY The claim is overlain by a level farmed clay plain with overburden ranging up to 100' thick. Beneath this; flat lying Gowganda greywacke and conglomerate of the Cobalt Series up to about 300' thick occurs, partly overlain near the east boundary by E dipping Nipissing quartz diabase about 100' thick. The McKenzie Fault strikes NNW across the property. Narrow one inch cobalt bearing carbonate veins of variable strike are found in the Cobalt Series about 50' above the Keewatin-Cobalt unconformity.		EXPLORATION AND DEVELOPMENT (Cont)	
ALTERATION Chloritic alteration in Nipissing diabase.	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Aphebian N.L.T. 2150 m.y. Sediments	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian N.C.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb Cl4
COMPANY REPORTS	METALLURGY REFERENCE		
ECONOMICS REFERENCE	MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN * SECTION LONGITUDINAL PROJECTION O.D.M. Map P.67 and P.67A, 1960.		
MAP REFERENCES O.D.M. Map 2050, Cobalt Silver Area, 1964. O.D.M. Maps P.67 and P.67A, 1960. O.D.M. Map P.321, Haileybury Sheet, 1965.	ODM FILES		

COMMODITY Cobalt Silver		NAME OF OCCURRENCE: CIRCA 19 6a AGNICO MINES LTD. HISTORICAL NAME: DOTSEE MINE.		LAT. 04742600	REF. NO.
				LONG. 07975400	O.D.M.-Ag-0289006
CO. or DIST.	TIMISKAMING	CODE No.	52	MINING DIV. TIMISKAMING	
TP. or SQUARE	BUCKE		02890	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. II, Lot 1, S½	
LOCATION: 1½ miles northwest of COBALT.			NTS	UTM	Claim: NW¼
			O31M05W		
HISTORY OF OWNERSHIP:			EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1906: Floyd Silver Mines.			1906-1939		Cobalt
1930: Yorkshire Cobalt Mining Co.			A shaft was sunk 210' deep with levels at 45', 125', 156' and 207' depths.		About: 8000 lbs.
1938: Leased to Dotsee Cobalt Mines.			Drifts driven from the shaft include:-		Silver
1939: Operated by Wm. Seed and E.H. Todd.			On 45' level, 335'E and 550'W drifts.		At least: 125 ozs.
1943: Silanco Mining and Smelting Corp.			On 125' level, 40'E and 40'W drifts.		
19 : Silanco Mining and Refining Co. Ltd.			On 156' level, 260'E and 570'W drifts.		
1957: Agnico Mines Ltd.			On 207' level, 33'E and 12'W drifts.		
			Stopping was carried out near the shaft.		
			1939-60: Diamond drilling was done from surface.		
			OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER *
MAJOR ORE MINERALS Fe, Co, Ni-arsenides, silver.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS Bismuth.			Cobalt: Average grade was about 4 lbs./ton, but a little high grade ore of about 100-400 lbs./ton was also mined.		
ORE FABRIC Vein dissemination.			Silver: Grade was very low at about 1/8 oz./ton.		
MAJOR GANGUE MINERALS Calcite, quartz.			Dotsee vein system extends for over 1000' in E-W direction and shows a steep dip both to N and S; it is up to 5' wide and occurs within a fault with slickensided ore.		
COUNTRY ROCK OR FORMATION Nipissing Diabase.			Most of the ore occurred as fine disseminations of cobaltite within Nipissing diabase over 2' to 5' widths.		
AGE: GEOLOGICAL Aphebian		ABSOLUTE 2150 m.y.		MAP REFERENCE USED FOR LOCATION	
MAIN REFERENCE				O.D.M. Map 1956a, Township of Bucke 1956.	
Thomson, R.				FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	
1964: O.D.M. Prelim. Rpt. 1960-2, p. 23-26.				DATE 1968	
				SIGNATURE A.O.S.	
COMMODITY Cobalt Silver		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: DOTSEE MINE.		LAT. 47° 25' 32"	REF. NO.
				LONG. 79° 45' 15"	O.D.M.-Ag-0289006
GEOLOGY Nipissing quartz diabase occurs as a steeply dipping (70°N) intrusion, about 1/4 mile wide, and is intrusive into NW striking shallow dipping Gowganda greywacke of the Cobalt Series about 1000' thick. A N striking fault that dips 50°W occurs as well as the E-W fault in which the Dotsee vein system was formed.			EXPLORATION AND DEVELOPMENT (Cont)		
Production of cobalt was restricted to the vein system in the diabase but mineralization of Cobalt continued into the Gowganda greywacke-beneath. The shaft is collared within the diabase but near its lower and south contact.					
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:	
ABSOLUTE AGE		Aphebian		AGE OF ORE MINERAL	
ROCK TYPE AND/OR MINERAL		2150 m.y.		Post-Huronian	
METHOD		Diabase		N.G.T. 2150 m.y.	
		K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4	
		NAME OF TECTONIC EVENT		*	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Map 1956a, Township of Bucke, 1956.			ODM FILES		

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: UNITED COBALT MINES LTD. HISTORICAL NAME: GENESEE MINING COMPANY.		LAT. 04742400	REF. NO. O.D.M.-Ag-0289007
CO. or DIST. TIMISKAMING		CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. I, Lot 9, S $\frac{1}{2}$ . Claims: SW $\frac{1}{2}$ (all underground work)
TP. or SQUARE BUCKE		002890	NTS 031M05E		UTM SE $\frac{1}{2}$ NW $\frac{1}{2}$ NE $\frac{1}{2}$
LOCATION: 1 mile northeast of COBALT.					
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT			PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1915: Genesee Mining Co.		Mostly done before 1925.			Essentially 1924
1944: Ausic Mining and Development Co.		1915-1965: Shaft was sunk 572' with levels at 55', 225', 350', 450', 500' and 550'. No. 2 Winze was sunk 40' from 350' level. Footage includes: 1145' of drifts, 4,470' of crosscuts and 390' of raises. The 350' and 500' levels are the most extensive.			Silver 66,236 ozs. possibly 158,139 ozs.
1951, United Cobalt Mines Ltd.		1923-1926: Actively mined.			1923-26 Cobalt 12,063 lbs.
196 : Leased to Tower Financial Corp. who reassigned it to Silver Regent Mines Ltd.		1943-1945: Actively mined.			
		1965-1967: Shaft has been rehabilitated. Diamond drilling has indicated three silver zones. Silver widths were spread over a strike length of 80' and varied from 36' to 101' below the 350' level. A 550' crosscut			O.D.M. statistical files.
		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT			PRODUCER PAST PRODUCER
MAJOR ORE MINERALS Silver, smaltite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS		No. 11 vein yielded in 1924 nearly all the silver and cobalt mined from the property; its strike is about E. The vein was followed on 300' sublevel easterly to the Cross Lake olivine diabase dike and Fault.			
ORE FABRIC Vein.		No. 3 vein striking nearly E and occurring within a strong fault contained little silver.			
MAJOR GANGUE MINERALS Calcite.					
COUNTRY ROCK OR FORMATION Cobalt Series Gowganda conglomerate and greywacke.					
AGE: GEOLOGICAL Aphebian		ABSOLUTE N.L.T. 2150 m.y.			
MAIN REFERENCE Thomson, R. 1964: O.D.M. Prelim. Rept. 1960-2, p. 45-49.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968
SIGNATURE A.O.S.					
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968 UNITED COBALT MINES LTD. HISTORICAL NAME: GENESEE MINING COMPANY.		LAT. 04742400	REF. NO. O.D.M.-Ag-0289007
LONG. 07966900					
GEOLOGY Shallow southerly dipping and exceptionally thick, up to 526', Gowganda conglomerate and greywacke unconformably overlies steeply dipping Timiskaming slates intruded by Halleyburian dikes. The Cross Lake Fault and parallel Olivine Diabase Dike of Keweenaw age strike NNW across the property. Silver cobalt bearing narrow calcite veins occur in the Gowganda rocks; but nearly all production came from one vein; the No. 11 locally recorded as 3" wide, and within about 200' of the Gowganda-Timiskaming unconformity.		EXPLORATION AND DEVELOPMENT (Cont) has been driven from which a limited amount of drifting has been completed.			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE Aphebian		AGE OF FORMATION, ROCK OR MINERAL N.L.T. 2150 m.y.		AGE OF DEFORMATION:	
ABSOLUTE AGE		Sediments		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL		METHOD K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	
		X		NAME OF TECTONIC EVENT X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION Knight, C.W. 1922: O.D.M. Vol. 31, pt. 2, p. 182, 182.			
MAP REFERENCES O.D.M. Map 2050, Cobalt Silver Area, 1964. O.D.M. Map P.66, 1960.		ODM FILES			



COMMODITY Silver	NAME OF OCCURRENCE CIRCA 1968: UNITED COBALT MINES LTD. HISTORICAL NAME: GENESEE MINING COMPANY.	LAT. 47° 25' 25" LONG. 79° 40' 10"	REF. NO. O.D.M.-Ag-0289007
HISTORY OF OWNERSHIP (CONT)		REMARKS Latitude and longitude refer to SE corner of claim, SW $\frac{1}{4}$ .	

ADDITIONAL REFERENCES:-

Knight, C.W.  
1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas. Ontario Dept. of Mines, Vol.31, pt.2, p. 181-183.

Thomson, R.  
1964: Preliminary Report on Bucke Township, District of Timiskaming Ontario Dept. Mines, Prelim. Rept. 1960-2, p. 45-49.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: UNITED COBALT MINES LTD. HISTORICAL NAME: GENESEE MINING COMPANY.	LAT. 47° 25' 25" LONG. 79° 40' 10"	REF. NO. O.D.M.-Ag-0289007
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YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1923	1	1			1,439	899					899
24		64	10,683	1,866	66,236	48,800					50,666
25		5	1,080	249	1,102	841					1,090
26		1	300	143							143
	1	71	12,063	2,258	68,777	50,540					52,798
1965			5	10	627	878	32	26			914

N.B.  
A further 91,000 ozs. of silver may have been mined during 1924.

COMMODITY		NAME OF OCCURRENCE:		LAT.	04741200	REF. NO.
Silver Cobalt		CIRCA 1968: PITTSO TO MINING COMPANY LTD. HISTORICAL NAME: GREEN-MEEHAN AND RED ROCK MINES.		LONG.	07961700	O.D.M.-Ag-0289004
CO. or DIST.	TIMISKAMING	CODE No.	59	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE		
TP. or SQUARE	BUCKE	002890		Con. I. Lot 14. Green-Meehan claim: Most of SW $\frac{1}{4}$ of N $\frac{1}{2}$ Red Rock claim: Most of NW $\frac{1}{4}$ of S $\frac{1}{2}$ .		
LOCATION:		NTS		UTM		
3 miles northeast of COBALT.		031M05E				
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)		
1905: Mr. Philip Green.		1905-1928: The Green-Meehan No.1 (Main)		1905-1965		
1906: Green-Meehan Mining Co. Ltd.		Shaft was sunk 200' and extensive levels were developed at 100' and 200' depths. The 200' level connects with the 150' level workings and shaft of the Ruby claim to the SW.		Silver about: 498,000 ozs.		
1906: Red Rock Silver Mining Co. Ltd.		Green-Meehan No.2 shaft (200' NW of No.1) was sunk 85' and little lateral work was done from it; no connection was made to the No.1 shaft workings.		Cobalt about: 27,000 lbs.		
1917: Edward and Wright Ltd.		Red Rock No.1 shaft (in NW part of claim) was sunk with a level at 110' depth on which over 500' of lateral work was carried out.		Copper about: 6,700 lbs.		
1925: Cobalt Contact Mines Ltd.		Red Rock No.2 shaft (in south central part				
1963: Silvermague Mining Ltd.						
1964: Pittsonto Mining Co. Ltd.						
MAJOR ORE MINERALS		Silver, Fe, Co, Ni-arsenides.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS		Chalcopyrite, galena, sphalerite.		1905-11: Grade was 251 ozs./ton of silver. 1905-65: Production was essentially from veins in Keewatin rocks. Vein No.1: Important ore shoot extended N-S for 200' and pitched S at 45°; it was stoped over a vertical height of about 250'. Most production was obtained from this vein.		
ORE FABRIC		Vein.				
MAJOR GANGUE MINERALS		Calcite.				
COUNTRY ROCK OR FORMATION		Keewatin volcanics.				
AGE: GEOLOGICAL		ABSOLUTE				
Archean		N.L.T. 3100 m.y.				
MAIN REFERENCE		Thomson, R. 1964: O.D.M. Prelim. Rept. 1960-2, p. 85-88.		MAP REFERENCE USED FOR LOCATION		FILE STATUS: DATE SIGNATURE
				O.D.M. Map 2050, Cobalt Silver Area, 1964. Lat. and long. refer to SE corner of Red Rock claim.		SKELETAL INCOMPLETE COMPLETED REVISED
						1968 A.O.S.
COMMODITY		NAME OF OCCURRENCE:		LAT.	04741200	REF. NO.
Silver Cobalt		CIRCA 1968 PITTSO TO MINING COMPANY LTD. HISTORICAL NAME: GREEN-MEEHAN AND RED ROCK MINES LTD.		LONG.	07961700	O.D.M.-Ag-0289004
GEOLOGY		Keewatin andesitic lavas, pyroclastics and chert beds strike N to NE with steep SE dip. They are overlain unconformably in the south part of the property by up to 50' of shallow S dipping Gowganda conglomerate and greywacke of the Cobalt Series, and locally south of No.1 vein by a small dome of Nipissing quartz diabase about 50' thick. Silver-cobalt bearing calcite veins occur in two groups striking N-S and NE, and in part follow the Keewatin interflow beds.		EXPLORATION AND DEVELOPMENT (Cont)		
				of claim) was sunk about 75' Red Rock No.3 shaft (about 250'S of Green-Meehan No.1 shaft) was sunk 75' and a level developed at 60' depth.		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS		
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL
ABSOLUTE AGE		Archean N.L.T. 3100 m.y.				Post-Huronian N.G.T. 2150 m.y.
ROCK TYPE AND/OR MINERAL METHOD		K/Ar Rb/Sr Pb/Pb Cl4 X		K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4 X
COMPANY REPORTS				METALLURGY REFERENCE		
ECONOMICS REFERENCE				MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE				MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE				MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN * SECTION * LONGITUDINAL PROJECTION Knight, C.W., O.D.M. Vol.31, pt.2, p.176, 1922. Thomson, R., O.D.M. Map P.67A, 1960.		
MAP REFERENCES		O.D.M. Map 2050, Cobalt Silver Area, 1964. O.D.M. Maps P.67 and P.67A, 1960. O.D.M. Map P.321, Haileybury Sheet, 1965.		ODM FILES		

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: PITTSO TO MINING COMPANY LTD. HISTORICAL NAME: GREEN-MEEHAN AND RED ROCK MINES.	LAT. 47° 24' 43"	REF. NO. O.D.M.-Ag-0289004
		LONG. 79° 37' 01"	
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		<p style="text-align: center;"><u>SHAFTS</u></p> <p style="text-align: center;">Thomson                      Knight</p> <p>Red Rock No.1            =    Red Rock No.3</p> <p>Red Rock No.3            =    Green-Meehan No.2</p>	

ADDITIONAL REFERENCES:-

- Knight, C.W.  
1922: Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas, Ontario Dept. Mines, Vol.31, pt.2, p. 174-177.
- Thomson, R.  
1964: Preliminary Report on Bucke Township, District of Timiskaming, Ontario Dept. Mines, Prelim. Rept. 1960-2, p. 85-88.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: PITTSO TO MINING COMPANY LTD. HISTORICAL NAME: GREEN-MEEHAN AND RED ROCK MINES	LAT. 47° 24' 43"	REF. NO. O.D.M. -Ag-0289004
		LONG. 79° 37' 01"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cpnr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1905	1				200	120					120
1907	42	42			4,000	1,343					1,343
07	109	94			73,996	56,420					56,420
11	200	71			10,286	4,651					4,651
18		4,796			74,066	61,642					61,642
19		1,218			72,569	80,000					80,000
20		1,710			44,274	39,846					39,846
26					4,000*	34,000*					
27					16,000*	160,000*					
28					6,000*	24,000*					
39		5	886	886	720	292	368	66			1,244

\* Reference - Estimated

COMMODITY		NAME OF OCCURRENCE:		LAT. 04741100	REF. NO.
Silver Cobalt		CIRCA 1968: PITTSOINTO MINING COMPANY LTD. HISTORICAL NAME: HARRISON-HIBBERT, RUBY MINES.		LONG. 07962200	O.D.M.-Ag-0289005
CO. or DIST.	TIMISKAMING	CODE No.	MINING DIV.	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE	BUCKE	59	TIMISKAMING	Con. I, Lot 13.	
LOCATION: 3 miles northeast of COBALT.			NTS	Harrison-Hibbert claim: SE 1/4 of N 1/4	
			031M05E	Ruby claim: NE 1/4 of S 1/4	
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT 1907-1965		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1907-1965	
Ruby Claim		1907: Ruby shaft was sunk 68'.		Silver	
1907: Ruby Silver Mining and Development Co.		1965: Underground workings include: 161' deep Ruby Shaft with levels of very limited extent at 68' and 102' and an important 150' level; on this level crosscut extends E-W; to the E it connects with the Green-Meehan workings; to the W it extends 1,056' from shaft, and at 960' No. 4 Ruby winze descends to the 220' Ruby level where drifts extend N and S and a crosscut extends 859' W into McKenzie claim.		About: 876,500 ozs.	
1920: Ruby Operative Cobalt Mines Ltd.		Harrison-Hibbert shaft (collar 25' below that of Ruby) is 258' deep with levels at 146', 190', 240' and sublevels at 120' (150' Ruby level) and		Cobalt	
1922: Optioned to Coniagas Alkali and Reduction Co.		OCCURRENCE		About: 214,600 lbs.	
Ruby and other claims		RAW PROSPECT		Copper	
1927: Cobalt Contact Mines Ltd.		DEVELOPED PROSPECT		At least: 69,458 lbs.	
Ruby and Harrison-Hibbert claims etc.		PRODUCER			
1935: Harrison-Hibbert Mines Ltd.		PAST PRODUCER			
1950: Optioned to Ranrouyn Mines Ltd.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MAJOR ORE MINERALS Silver, Fe, Co, Ni-arsenides.		Grade, 1907-1965: Silver: 13 ozs./ton. Cobalt: 3.4 lbs./ton.			
MINOR ORE MINERALS Chalcopyrite, pyrite, galena, sphalerite, chalcocite and bornite.		Production essentially came from Ruby Main Vein system that strikes N-S for 1800' averages 50' in width and was stoped over a vertical height of about 150' through the Cobalt-Keewatin unconformity; the vein system branches off the parallel Main shear or fault into its hanging wall. Some indication of zoning exists, suggesting occurrence of silver above cobalt, above sulphides best developed in Keewatin rocks.			
ORE FABRIC Vein.		MAP REFERENCE USED FOR LOCATION		FILE STATUS: DATE SIGNATURE	
MAJOR GANGUE MINERALS Calcite.		O.D.M. Map P.67, 1960.		SKELETAL	
COUNTRY ROCK OR FORMATION Cobalt Series and Keewatin volcanics.		Lat. and long. refer to SE corner of Ruby claim.		INCOMPLETE	
AGE: GEOLOGICAL ABSOLUTE				COMPLETE D 1968 A.O.S.	
Aphebian and Archean		N.L.T. 2150 and N.L.T. 3100 m.y.		REVISED	
MAJOR REFERENCE					
Thomson, R.					
1964: O.D.M. Prelim. Rept. 1960-2, p. 64-77.					
COMMODITY		NAME OF OCCURRENCE:		LAT. 04741100	REF. NO.
Silver Cobalt		CIRCA 1968 PITTSOINTO MINING COMPANY LTD. HISTORICAL NAME: HARRISON-HIBBERT, RUBY MINES		LONG. 07962200	O.D.M.-Ag-0289005
GEOLOGY The property is largely covered by a flat clay plain used for farming, with rock outcrop restricted to its E side; overburden is about 65' thick. Flat lying Gowganda conglomerate and greywacke up to 200' thick of the Cobalt Series is in part overlain by shallow dipping Nipissing quartz diabase less than 100' thick. The Gowganda sediments unconformably overlie steeply dipping Keewatin andesitic lavas and interflow tuff and chert beds that strike S to SSW. The Main Shear that strikes S with steep E dip is strongly developed where it lies in the interflow beds. The Ruby Fault occurs about 20' above and subparallel to the Cobalt-Keewatin unconformity.		EXPLORATION AND DEVELOPMENT (Cont)			
		170'. The 190' level is continuous with the 220' Ruby level. Harrison-Hibbert levels essentially run N-S along main or No.1 vein system.			
		1907: Developed and some mining was carried out			
		1922-24: Developed and limited mining was carried out.			
		1927-30: Actively mined.			
		1948: Some mining tookplace.			
		1951-54: Actively mined.			
		1963-64: Developed and some mining was carried out.			
		1965: Workings were allowed to flood.			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE				Post-Huronian	
ROCK TYPE AND/OR MINERAL		N.L.T. 3100 and N.L.T. 2150 m.y.		N.G.T. 2150	
METHOD		K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4	
		* *		X	
NAME OF TECTONIC EVENT					
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE			
		PLAN * SECTION * LONGITUDINAL PROJECTION			
		O.D.M. Map P.67A, 1960.			
MAP REFERENCES		ODM FILES			
O.D.M. Map 2050, Cobalt Silver Area, 1964.					
O.D.M. Maps P.67 and P.67A, 1960.					
O.D.M. Maps P.321, Halleybury sheet, 1965.					

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 24' 39"	REF. NO.
Silver	CIRCA 1968: PITTSANTO MINING COMPANY LTD.	LONG. 79° 37' 20"	O.D.M.-Ag-0289005
Cobalt	HISTORICAL NAME: HARRISON-HIBBERT, RUBY MINES.		
HISTORY OF OWNERSHIP (CONT)		REMARKS	
1963: Silvermaque Mining Ltd.			
1964: Pittsanto Mining Co. Ltd.			

ADDITIONAL REFERENCES:-

Thomson, R.  
1964: Preliminary Report on Bucke Township, District of Timiskaming, Ontario Dept. Mines, Prelim. Rept. 1960-2, p. 64-77.

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 24' 39"	REF. NO.
Silver	CIRCA 1968: PITTSANTO MINING COMPANY LTD.	LONG. 79° 37' 20"	O.D.M. -Ag-0289005
Cobalt	HISTORICAL NAME: HARRISON-HIBBERT, RUBY MINES.		

YEAR	ORE RAISED TONS	ORE & CONG. SHIPPED TONS	COBALT		SILVER		Nkl		CpPr		TOTAL VALUE
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	\$
1920		232			8,702	6,038					6,038
24	75	75	15,068	4,531	13,276	8,028					12,559
	75	307	15,068	4,531	21,978	14,066					18,597
27			6,000*		56,645†						
28			6,000*		24,000*						
29	1,562	1,562	21,988	11,118	100,042	48,484					59,602
30	4,000	2,283	18,270	9,591	111,514	34,750					44,341
48					500*						
51	2,735	74	2,989	6,845	7,080	6,694		2,619	725		14,264
52	16,046	577	36,996	86,870	284,887	237,938		33,321	9,510		334,318
53	19,750	580	57,600	144,000	41,563	34,917		22,002	8,787		187,704
54	17,127	683	34,656	91,838	190,560	151,304		11,516	3,307		246,449
63					15,800**						

† Reference : Thomson R.  
\* Reference : Estimated.  
\*\* Reference : Timiskaming Testing Laboratory.

COMMODITY	NAME OF OCCURRENCE:		LAT. 04742200	REF. NO.
Silver Cobalt	CIRCA 1968: SILVERMAQUE MINING LTD. HISTORICAL NAME: LAW MINE.		LONG. 07962700	O.D.M.-Ag-0289011
CD. or DIST.	TIMISKAMING	CODE No.	MINING DIV.	
TP. or SQUARE	BUCKE	59	TIMISKAMING	
LOCATION:		002890	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
3 1/2 miles northeast of COBALT.		NTS	Con. II, Lot 13, S 1/2	
		031MOSE	Claim: 5 1/2	
		UTM		

HISTORY OF OWNERSHIP: 1909: Canuck Silver Mines. 1925: Cobalt Contact Mines. 1952: Leased to Harrison-Hibbert Mines. 1968: Silvermaque Mining Ltd.	EXPLORATION AND DEVELOPMENT 1909-1960 A shaft was sunk 130' with levels at 48' 70' and 120'. On 48' level 15'SE crosscut was driven to test a vein exposed at surface a little SE of shaft. On 70' level 75'NE and 70'SW drifts were driven. On 120' level a 280'W crosscut was driven; from this at 80' from shaft a working was extended 180'S and then 55'E. Surface diamond drilling was also completed.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  Nil
	OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT *    PRODUCER    PAST PRODUCER	

MAJOR ORE MINERALS    Silver, Fe, Co, Ni-arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS    Chalcopyrite.	Veins are narrow, about 1" to 2" in width, and strike NE with 80°NW dip; they occur in Cobalt Series Sediments.
ORE FABRIC    Vein, dissemination.	Cobalt mineralization occurs only within the narrow calcite veins, by contrast silver only as leaves in the wall rock.
MAJOR GANGUE MINERALS    Calcite.	
COUNTRY ROCK OR FORMATION    Cobalt Series sediments.	
AGE: GEOLOGICAL    ABSOLUTE	
Aphebian    N.L.T. 2150 m.y.	

MAP REFERENCE Thomson, R. 1964: O.D.M. Prelim. Rept. 1960-2, p.35.	MAP REFERENCE USED FOR LOCATION	FILE STATUS:	DATE	SIGNATURE
	O.D.M. Map 2050, Cobalt Silver Area, 1964. Lat. and long. refer to SE corner of claim.	SKELETAL INCOMPLETE COMPLETED REVISED	1968	A.O.S.

COMMODITY	NAME OF OCCURRENCE:	LAT. 47° 25' 19"	REF. NO.
Silver Cobalt	CIRCA 1968: SILVERMAQUE MINING LTD. HISTORICAL NAME: LAW MINE.	LONG. 79° 37' 39"	O.D.M.-Ag-0289011
GEOLOGY    Steeply dipping Keewatin volcanics and sediments that strike NW are unconformably overlain by 30°W dipping Gowganda conglomerate and sediments of the Cobalt Series up to about 300' thick. Lamprophyre and quartz feldspar porphyry sills about 200' thick and intrusive into the Keewatin volcanics also strike NW. Several narrow calcite veins strike NE.		EXPLORATION AND DEVELOPMENT (Cont)	

ALTERATION Chlorite Spotting	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Apehbian N.L.T. 2150 m.y. Sediments	AGE OF DEFORMATION:  AGE OF ORE MINERAL Post-Huronian N.C.T. 2150 m.y.
	K/Ar    Rb/Sr    Pb/Pb    Cl4 *	K/Ar    Rb/Sr    Pb/Pb    Cl4 *
	NAME OF TECTONIC EVENT	

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN * SECTION    LONGITUDINAL PROJECTION Thomson, R. 1960: O.D.M. Map P.67A.
MAP REFERENCES O.D.M. Map 2050, Cobalt Silver Area, 1964. O.D.M. Maps P.67 and P.67A, 1960. O.D.M. Map P.321, Halleybury sheet, 1965.	ODM FILES

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: NORTH COBALT AND HUNTER MINES.	LAT. 04742100 LONG. 07962200	REF. NO. O.D.M.-Ag-0289002
CO. or DIST. TIMISKAMING TP. or SQUARE BUCKE	CODE No. 59 002890	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. I, Lot 13, N½. claim: Part of NE½, No.1537 (North Cobalt) Con. I, Lots 13 and 14, N½. Claims: Part of N½, Nos. T28085 and T30514 (Hunter)
LOCATION: 3½ miles northeast of COBALT.	NTS 031M05E	UTM	
HISTORY OF OWNERSHIP: North Cobalt Mine 1909: North Cobalt Silver Mines.  Hunter Mine 1906: Hunter Cobalt Silver Mining Co. 1925: Optioned to Cobalt Contact Mines. 1952: Diamond drilled by Waldo Brown.	EXPLORATION AND DEVELOPMENT North Cobalt Mine 1909: Shaft was sunk 135' with levels at 75' and 135' depths. A winze, 75'W of shaft was collared on 135' level and sunk 75'. Lateral work includes 250' on 135' level and 500' on 75' level. Pits up to 30' deep were dug in NE corner of claim on two veins of pink calcite. Hunter Mine 1906-1926 No.2 shaft was sunk about 100' and 13' cross-cut was driven to the vein on this level. No.3 shaft (SE of No.2) was sunk about 50' on	PRODUCTION ORE RESERVES (DATE AND AUTHORITY) North Cobalt Mine - 1909 Production:- 1,453 ozs. of silver. Grade:- 207 ozs./ton. Hunter Mine Production:- Nil Thomson, R. 1964.	
OCCURRENCE: <input type="checkbox"/> RAV PROSPECT <input type="checkbox"/> DEVELOPED PROSPECT <input type="checkbox"/> PRODUCER <input type="checkbox"/> PAST PRODUCER			

MAJOR ORE MINERALS Silver, Fe,Co,Ni-arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES North Cobalt Mine Shaft-Vein, striking NW with steep SW dip, is probably a continuation of the No.2 shaft-vein of adjacent Hunter mine. Pink carbonate veins up to 3" wide contain chalcopryrite as well as silver. Hunter Mine: Mineralization of silver and cobalt occurs in narrow pink carbonate veins but that of copper & zinc essentially in sulphide rich volcanic interflow beds. No.2 shaft-vein striking NW with dip 75SW is parallel & adjacent to a Keewatin interflow bed that is rich in sulphides over widths up to 15' but not of economic value; it extends for at least 700'.
MINOR ORE MINERALS Chalcopryrite, sphalerite, pyrite.	
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Calcite, quartz.	
COUNTRY ROCK OR FORMATION Cobalt Series sediments and Keewatin volcanics.	
AGE: GEOLOGICAL Archean and Archean	ABSOLUTE N.L.T. 2150 and N.L.T. 3100 m.y.
MAIN REFERENCE Thomson, R. 1964: O.D.M. Prelim. Rept. 1960-2, p.56 and 83-85.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050, Cobalt Silver Area, 1964. Lat. and Long. refer to SE corner of North Cobalt claim, No.1537.
	FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: NORTH COBALT AND HUNTER MINES	LAT. 47° 25' 14" LONG. 79° 37' 20"	REF.NO. O.D.M.-Ag-0289002
GEOLOGY Keewatin andesitic volcanics and chert beds rich in sulphides strike NW with steep SW dip; they are in part unconformably overlain by shallow W dipping Cobalt Series sediments and intruded by a quartz feldspar porphyry sill about 200' thick that also strikes NW. Narrow pink carbonate veins with silver-cobalt mineralization strike NW across the property for several hundred feet.		EXPLORATION AND DEVELOPMENT (Cont) The No.2 shaft-vein. Two other shafts were sunk on the same vein to the NW. No.1 shaft was sunk on a separate vein about 400' SW of No.2 shaft and striking also about NW. 1952: Two diamond drill holes were put down to test previously known veins on the east half of the property.	
ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	

GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:	AGE OF ORE MINERAL
ABSOLUTE AGE	Archean and Archean		Post-Huronian
ROCK TYPE AND/OR MINERAL	N.L.T. 3100 and N.L.T. 2150 m.y. Volcanics and sediments		N.G.T. 2150 m.y.
METHOD	K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14
	* *	NAME OF TECTONIC EVENT	X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION
MAP REFERENCES O.D.M. Map 2050, Cobalt Silver Area, 1964. O.D.M. Maps P.67 and P.67A, 1960. O.D.M. Map 321, Halleybury Sheet, 1965.	ODM FILES

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: A. JOHNSON. HISTORICAL NAME: STRATHCONA SILVER MINING COMPANY.		LAT. 04742900 LONG. 07965400	REF. NO. O.D.M.-Ag-0289009
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE	BUCKE		002890	TIMISKAMING Con. II, Lot 10, N $\frac{1}{2}$ claim: SE $\frac{1}{4}$	
LOCATION: 3 miles northeast of COBALT.			NTS 031M05E	UTM	
HISTORY OF OWNERSHIP: 1910: Strathcona Silver Mining Co.  1960: A. Johnson.			EXPLORATION AND DEVELOPMENT 1910: Shaft had been sunk 75' with 205' of drifting on 75' level. The shaft was put down on a vein striking N30°E exposed in a trench about 60' south of shaft. A 16' pit and a 28' cribbed pit were put down 30' apart on an E-W vein.  More recently: Pits were deepened slightly and some diamond drilling carried out.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  NIL

MAJOR ORE MINERALS Silver, Fe, Co, Ni-arsenides.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS Chalcopryrite, chalcocite, bornite, pyrite.		At shaft, 3 veins of pink calcite with an aggregate width of 6" occur over 18" width.			
ORE FABRIC Vein.		Near the vein at the pits are beds in the Timiskaming sediments up to 2" wide of massive pyrite or marcasite.			
MAJOR GANGUE MINERALS Calcite with some quartz.		Cobalt-silver mineralization is present in the calcite veins.			
COUNTRY ROCK OR FORMATION Timiskaming sediments and Nipissing diabase.					
AGE: GEOLOGICAL ABSOLUTE Archean and Apehbian N.L.T. 2490 and 2150 m.y.					

MAIN REFERENCE Thomson, R. 1964: O.D.M. Prelim. Rept. 1960-2, p.29.		MAP REFERENCE USED FOR LOCATION O.D.M. Map P.66, 1960 Lat. and long. refer to SE corner of claim.	FILE STATUS SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968	SIGNATURE A.O.S.
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COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: A. JOHNSON. HISTORICAL NAME: STRATHCONA SILVER MINING COMPANY.		LAT. 47° 25' 44" LONG. 79° 39' 14"	REF. NO. O.D.M.-Ag-
GEOLOGY The McKenzie Fault of several hundred feet displacement strikes NW to bisect the claim diagonally. SW of the fault, steeply NE dipping Timiskaming sediments of Archean age are intruded by 700' thick Nipissing diabase in the form of a N dipping sheet with irregular E-W strike; the sediments are also intruded by mafic dikes up to 100' thick.  NE of the fault Paleozoic sediments occur.			EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION		METAMORPHISM		MINERAL PARAGENESIS			
GEOLOGICAL AGE Archean and Apehbian		AGE OF FORMATION, ROCK OR MINERAL N.L.T. 2490 and 2150 m.y.		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post Huronian	
ABSOLUTE AGE N.L.T. 2490 and 2150 m.y.		ROCK TYPE AND/OR MINERAL Sediments and Diabase.				N.G.T. 2150 m.y.	
METHOD K/Ar Rb/Sr Pb/Pb C14 X X				K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT		K/Ar Rb/Sr Pb/Pb C14 X X	
COMPANY REPORTS				METALLURGY REFERENCE			
ECONOMICS REFERENCE				MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE				MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE				MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Map 2050, Cobalt Silver Area, 1964. O.D.M. Map P.66, 1960. O.D.M. Map P.321, Haileybury sheet, 1965.				ODM FILES			



COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968: E. H. LUMSDEN. HISTORICAL NAME: THOMPSON-NORTH COBALT MINE.	LAT. 04742900 LONG. 07964900	REF. NO. O.D.M.-Ag-0289010
CO. or DIST. TIMISKAMING TP. or SQUARE BUCKE	CODE No. 59 002890	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. II, Lot 11, N½ Claim: SW¼
LOCATION: 3 miles northeast of COBALT.		NTS 031M05E	UTM
HISTORY OF OWNERSHIP: 19 : Thompson.  1919: Optioned to Mining Corp. of Canada Ltd.  1968: E. H. Lumsden	EXPLORATION AND DEVELOPMENT Prior to 1922. No. 1 shaft was sunk to 300'; at this depth a 275' SE crosscut was driven, from which, at 160' SE from the shaft, a 70' WSW drift was driven along a vein. At SE end of crosscut a diamond drill hole was extended 427' easterly at - 72° dip. No. 2 shaft was sunk about 50' with a short level at that depth.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  Nil	

MAJOR ORE MINERALS Silver, Fe, Co, Ni-arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS Chalcopyrite.	Small quartz and pink carbonate veins occur, locally with chalcopyrite.
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Calcite, quartz.	
COUNTRY ROCK OR FORMATION Timiskaming sediments and Nipissing diabase	
AGE: GEOLOGICAL ABSOLUTE Archean and Apehbian N.L.T. 2490 and N.L.T. 2150 m.y.	
MAP REFERENCE Thomson, R. 1964: O.D.M. Prelim. Rept. 1960-2, p.31.	MAP REFERENCE USED FOR LOCATION O.D.M. Map P.66, 1960. Lat. and Long refer to SE corner of claim.
	FILE STATUS: SKELTAL INCOMPLETE COMPLETED REVISED
	DATE: 1968 SIGNATURE: A.O.S.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968: E. H. LUMSDEN. HISTORICAL NAME: THOMPSON-NORTH COBALT MINE.	LAT. 47° 25' 44" LONG. 79° 38' 56"	REF. NO. O.D.M.-Ag-0289010
GEOLOGY Paleozoic sediments occur northeast of the McKenzie Fault of several hundred feet displacement that strikes NW across the claim near its southwest corner; in the southwest corner about 250' of steeply dipping Timiskaming sediments of Archean age are underlain by Nipissing quartz diabase in the form of a NE dipping sheet about 700' thick.		EXPLORATION AND DEVELOPMENT (Cont)	

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean and Apehbian N.L.T. 2490 and 2150 m.y. Sediments and Diabase K/Ar Rb/Sr Pb/Pb Cl4 * *	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian N.C.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb Cl4 X
COMPANY REPORTS	METALLURGY REFERENCE		
ECONOMIC REFERENCE	MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN * SECTION LONGITUDINAL PROJECTION Knight, C.W. 1922: O.D.M. Vol.31, pt.2, p.180.		
MAP REFERENCES O.D.M. Map 2050, Cobalt Silver Area, 1964. O.D.M. Map P.66, 1960. O.D.M. Map P.321, Haileybury sheet, 1965.	ODM FILES		

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968; LANGIS SILVER AND COBALT MINING CO. LTD. HISTORICAL NAME: CASEY COBALT SILVER MINES LTD.	LAT. 04758300 LONG. 07957300	REF. NO. O.D.M.-Ag- 0365001
CO. or DIST. TIMISKAMING TP. or SQUARE CASEY	CODE No. 59 005650	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE CASEY TWP., CON.I Lot 6: SW $\frac{1}{4}$ , N $\frac{1}{2}$ , T26545. Lot 5: SW $\frac{1}{4}$ , S $\frac{1}{2}$ , T1733. NW $\frac{1}{4}$ , S $\frac{1}{2}$ , T1474 SE $\frac{1}{4}$ , S $\frac{1}{2}$ , T354 SW $\frac{1}{4}$ , S $\frac{1}{2}$ , T11110 SE $\frac{1}{4}$ , S $\frac{1}{2}$ , T42973 HARRIS TWP., CON.VI, Lot 5, N $\frac{1}{2}$
LOCATION: 12 miles north of COBALT at north end of Lake Timiskaming.	NTS 031M12E	UTM	
HISTORY OF OWNERSHIP: 1906: Casey Cobalt Silver Mining Co. Ltd. 19 : Casey-Rismet Mining Co. (NE $\frac{1}{4}$ of N $\frac{1}{2}$ lot 5, con.VI, Harris twp.) 19 : Harris Consolidated Mines Ltd. (SW $\frac{1}{4}$ of S $\frac{1}{2}$ , Lot 6, Con.I, Casey Twp.) 1912-20: Operated by Mining Corp. of Canada. 1946: Messrs. J.Koza, R. Garcau, R. McAllister and H. Korsan (area of mine workings).	EXPLORATION AND DEVELOPMENT 1906: Discovered by D. Bucknell. 1907-1911: Shafts Nos.1 and 2 were sunk. Shaft No.1 (inclined) was sunk to 260' with levels at 33', 100', 160', 210' and 260'; several hundred feet of drifting and cross-cutting was completed but no silver in profitable amounts was found. 1911-65: No.3 shaft was sunk 360' with levels at 171', 235', 285' and 355'. 1912-65: No.6 shaft (2,100' NNE of No.3 shaft) was sunk 410' with levels at 275', 335', 371' and 401'. No.4 winze connects 371' level to 398' and 420' levels. 1920-46: Mine was dormant.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY) Silver 9,373,085 ozs. Cobalt 358,340 lbs. O.D.M. statistical files.	
MAJOR ORE MINERALS Silver, Fe,Co,Ni-arsenides and sulpharsonides. MINOR ORE MINERALS Argentite, bismuth, chalcopyrite, bornite tetrahedrite, sphalerite and marcasite. ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite. COUNTRY ROCK OR FORMATION Keewatin volcanics, Cobalt Series, Nipissing diabase. AGE: GEOLOGICAL ABSOLUTE Archean, Aphebian, Aphebian, N.L.T.3100, N.L.T.2150, 2150 m.y. MAIN REFERENCE Thomson, R. 1965: Casey and Harris Townships, O.D.M. Geol. Report, No.36, p.65-69.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Veins productive essentially within 150' of Keewatin-Cobalt unconformity; of length up to 600' and width up to 6". Disseminated leaf silver occurs locally in wall rock up to 2' from vein. Grade 1956-65 Silver: 24 ozs/ton. Cobalt: 1.2 lbs/ton.		
COMMODITY Cobalt	NAME OF OCCURRENCE: CIRCA 1968; LANGIS SILVER AND COBALT MINING CO. LTD. HISTORICAL NAME: CASEY COBALT SILVER MINES LTD.	LAT. 04758300 LONG. 07957300	REF.NO. O.D.M.-Ag- 0365001
GEOLOGY The lower part, now remaining up to 500' thick, of a Nipissing diabase subhorizontal sill or sheet in the form of a basin outcrops over an oval shaped area with a N-S length of 3 miles and E-W width of up to 1 mile. The sill is intrusive into flat lying Cobalt series conglomerate and greywacke up to about 450' thick that overlies unconformably steeply dipping Keewatin volcanics. The Casey-Fault dips about 20° SE and steep dipping faults of up to 5' displacement occur as some of the calcite vein that strike NW, NE and near the No.6 shaft N-S and E-W. Mineralized veins occur in all three rock types but ore shoots are restricted to Cobalt sediments within 150' of the Keewatin-Cobalt unconformity.	EXPLORATION AND DEVELOPMENT (Cont) 1946-47: No.1 shaft was dewatered and small scale mining operations carried out. 1947: 8 diamond drill holes were put down in SW $\frac{1}{4}$ of N $\frac{1}{2}$ lot 6, con.I, Casey twp. 1948-54: Small scale mining was carried out. 1955: Underground exploration program was begun. 1959-68: Shafts Nos.3 and 6 were deepened and exploration carried out from them. At No.3 shaft a vein is being developed on 171' level. 1965-68: Exploration has been advanced to join the old Casey Seneca shaft workings in the Murray claim where development is being carried out.		
ALTERATION Chlorite spotting	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Aphebian N.G.T. 2150 m.y. Sediments K/Ar Rb/Sr Pb/Pb Cl4 X	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb Cl4 X
COMPANY REPORTS	METALLURGY REFERENCE		
ECONOMICS REFERENCE	MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN * SECTION * LONGITUDINAL PROJECTION Thomson, R. 1965: O.D.M. Geol. Report, No.36, figs. nos. 4 and 5.		
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1963. O.D.M. Map 2066, Casey and Harris Townships, 1964.	ODM FILES		

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 35' 00"	REF. NO.
Cobalt	CIRCA 1968: LANGIS SILVER AND COBALT MINING CO. LTD. HISTORICAL NAME: CASEY COBALT SILVER MINES LTD.	LONG. 79° 34' 22"	O.D.M.-Ag-0365001
HISTORY OF OWNERSHIP (CONT)		REMARKS	
1947: Cocase Prospecting Syndicate (SW $\frac{1}{4}$ of N $\frac{1}{2}$ , lot 6, con. I, Casey Twp.)		Longitude and latitude refer to No. 6 shaft.	
1948: New Casey Cobalt Silver Mines. Ltd.		1963-65: Operated Dolphin-Miller Mines Ltd. (claims: SW $\frac{1}{4}$ of N $\frac{1}{2}$ lot 5, con.VI) under lease.	
1953: Langis Silver and Cobalt Mining Co. Ltd.		Production from this property was:	
1958: Several claims optioned to Stadacona Mines Ltd.		1964: Nil.	
1965: Leased Murray claim (Casey-Seneca Silver Mines Ltd.) NW $\frac{1}{4}$ , N $\frac{1}{2}$ , lot 6, con.VI, Harris twp.		1965: 4,625 ozs. silver; 12,925 lbs. Cobalt.	
		1966: Nil.	

ADDITIONAL REFERENCES:-

- Burrows, A.G. and Hopkins, P.E.  
1922: Blanche River Area, Ontario Department of Mines, Vol.31, pt.3, p.15.
- Miller, W.G.  
1913: The Cobalt-Nickel Arsenides and Silver Deposits of Timiskaming, Ontario Department of Mines, Vol.19, pt.2, p.148
- Thomson, R.  
1965: Casey and Harris Townships, Ontario Department of Mines, Geological Report, No.36.

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 35' 00"	REF. NO.
Cobalt	CIRCA 1968: LANGIS SILVER AND COBALT MINING CO. LTD. HISTORICAL NAME: CASEY COBALT SILVER MINES LTD.	LONG. 79° 34' 22"	O.D.M.-Ag-0365001

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cpnr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1908	14	10			500	240					240
09	14,889	14,889			26,185	11,643					11,643
10	43	43	1,922	192	92,544	44,302					44,494
11	277	277			114,789	53,820					53,820
12	226	215			253,824	144,915					144,915
13	417	384			825,107	468,678					468,678
14	563	620			499,642	236,298					236,298
15	257	226			223,939	105,846					105,846
16	295	334			445,900	270,092					270,092
18		139			143,901	144,994					144,994
19		162			171,278	182,811					182,811
21	3	3			1,101	745					745
22		7			1,028	700					700
1940	1	1			504	183					183
46	11	11			34,090	21,623					21,623
47	50	11			30,790	21,622					21,622
1956	6,869	76	14,027	24,547	88,673	50,856	6,446	3,700	1,506	410	79,513
57	19,122	240	26,556	53,112	483,769	379,130	5,000	3,400	5,577	1,506	437,148
58	25,203	231	48,757	97,514	594,436	516,030	12,160	8,268	8,235	2,057	623,869
59	25,206	719	77,937	155,874	1,007,526	884,607	17,912	12,180	13,015	3,254	1,055,815
1960	23,662	498	101,456	184,345	1,137,233	1,011,114	60,366	61,090	1,069	322	1,256,871
61	29,434	522	24,175	36,263	626,497	590,536	4,790	3,660	13,083	3,820	634,279
62	36,750	573	11,602	17,403	619,906	722,190	6,078	5,075	11,763	3,646	748,314
63	36,589	519	9,764	19,919	511,885	708,449	11,686	9,583	10,644	3,300	741,251
* 64	36,551	568	11,049	18,783	604,096	845,735	772	629	5,043	1,684	866,831
65	30,332	431	6,304	11,548	477,740	668,836	5,003	4,077	6,460	2,429	686,890
66	34,760	519	24,791	40,698	356,202	498,327	11,520	9,539	12,042	5,407	553,970
	321,530	22,234	358,340	660,198	9,373,085	8,584,322	141,733	121,201	88,437	27,835	9,393,455

COMMODITY	NAME OF OCCURRENCE:		LAT.	04760800	REF. NO.
Silver	CIRCA 19 68 QUINCY CREEK MINES LTD. HISTORICAL NAME: CASEY MOUNTAIN COBALT MINING AND DEVELOPMENT CO. LTD.		LONG.	07956900	D.D.M.-Ag-0365002
CO. or DIST.	TIMISKAMING	CODE No.	MINING DIV.		
TP. or SQUARE	CASEY	003650	TIMISKAMING		
LOCATION: 15 miles north of COBALT, north of Lake Timiskaming.		NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
		031M12E		Con. II, Lot 6 Con. III, Lot 6, S $\frac{1}{2}$ Con. I, Lot 6, N $\frac{1}{2}$ (optioned)	
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1907: Casey Mountain Cobalt Mining and Development Co. Ltd.		1915: No.1 shaft was 135' deep with 90' of drifting on 50' level. No.2 shaft was 160' deep with 30' of drifting on 90' level.		1908: At least 20 tons of silver-cobalt ore were shipped.	
1915: Operated by Casey Mountain Syndicate.		1922: No.1 shaft had been deepened to 415' with a short drift on 90' (100'?) level, a crosscut on 135' level and 116' of crosscutting on 400' level.			
Circa 1917: Casey Mountain Mining Co. Ltd.		1926: No.2 shaft had been deepened to 300' with development on the 270' (235'?) level; this included: crosscuts, 100'E and 285'W; and drifts 125'S, 90'SW and 180' SW from west crosscut. A winze was sunk			
1920: Casey Mountain Operating Syndicate Ltd.					
1950: Quincy Creek Mines Ltd.					
1959: Optioned to Murray Mining Corp. Ltd.					
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT * PRODUCER PAST PRODUCER	

MAJOR ORE MINERALS	Silver.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS		No.1 shaft was sunk on E-W fracture zone containing fractures filled with calcite and subordinate quartz. Low silver assays are reported from veins near shaft.			
ORE FABRIC	Vein.	No.2 shaft was sunk on NE-SW fracture zone. On 270' level, 7 veins are reported, one No.7, with high grade ore on which winze was sunk.			
MAJOR GANGUE MINERALS	Calcite, quartz.				
COUNTRY ROCK OR FORMATION	Algonian syenite, Cobalt series, Nipissing diabase.				
AGE: GEOLOGICAL	ABSOLUTE				
	Archean, Aphebian, Aphebian. 2390, N.L.T. 2150 and 2150 m.y.				
MAIN REFERENCE	Thomson, R. 1965: Casey and Harris Townships, O.D.M. Geol. Report No.36 p.70-72.	MAP REFERENCE USED FOR LOCATION	FILE STATUS:	DATE	SIGNATURE
		O.D.M. Map 2066, Casey and Harris Townships, 1964.	SKELETAL		
			INCOMPLETE		
			COMPLETED	1968	A.O.S.
			REVISED		

COMMODITY	NAME OF OCCURRENCE:		LAT.	47° 36' 29"	REF.NO.
Silver	CIRCA 19 68 QUINCY CREEK MINES LTD. HISTORICAL NAME: CASEY MOUNTAIN COBALT MINING AND DEVELOPMENT CO. LTD.		LONG.	79° 34' 10"	O.D.M.-Ag-0365002
GEOLOGY Mine occurs at north end of a Nipissing diabase sub-horizontal sill or sheet, 320' thick at No.1 shaft and in the form of an elongated basin 3 miles N-S in length and 1 mile E-W in width. The sill is intrusive into and overlies 180' of flat lying Cobalt series conglomerate and greywacke that rests unconformably on Algonian hornblende syenite. Calcite veins, 3" to 36" wide, with silver mineralization occur both in the diabase and Cobalt series but no major ore shoots have been recorded.		EXPLORATION AND DEVELOPMENT (Cont) about 100' on a calcite vein where it showed high grade ore on the 270' level. 1947: Survey of claims was made by W.R.M. Williamson. 1949: No.1 shaft was dewatered to 135' level for sampling. 1959: On NW $\frac{1}{4}$ of N $\frac{1}{2}$ of lot 6, con. I resistivity survey was completed and 2 diamond drill holes were put down near No.2 shaft.			

ALTERATION		METAMORPHISM		MINERAL PARAGENESIS			
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE		Aphebian N.C.T. 2150 m.y.				Post-Huronian N.C.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL		K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	
METHOD		X		NAME OF TECTONIC EVENT		X	
COMPANY REPORTS				METALLURGY REFERENCE			
ECONOMICS REFERENCE				MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE				MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE				MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN * SECTION * LONGITUDINAL PROJECTION Thomson, R. 1965: O.D.M. Geol. Report No.36, figs. Nos 2 and 3.			
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1963. O.D.M. Map 2066, Casey and Harris Townships, 1964.				ODM FILES			

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1965: BENNER-HARRIS PROPERTY. HISTORICAL NAME:		LAT. 04755900 LONG. 07956300	REF. NO. O.D.M.-Ag-0930002
CO. or DIS. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.V, Lot 8: Six claims Lot 9: One claim	
TP. or SQUARE HARRIS	009300				
LOCATION: 12 miles north of COBALT, at north end of Lake Timiskaming.		NTS	UTM		
		031M12E			
HISTORY OF OWNERSHIP:  1960: K.J. Benner.		EXPLORATION AND DEVELOPMENT  1910-20: Carefully prospected; pitting and trenching was carried out. 1957: 3 diamond drill holes were put down. 1960-61: 29 diamond drill holes were put down totalling 9,500'. Magnetometer and ratio-resistivity surveys were also carried out. Early pitting: On claim T.49415 5 small pits occur. On claim T.49414, one pit, 650'S and 700'W of NE corner of claim is between 25' and 50' deep. A second pit over 12' deep occurs 600'S and 1150'W of NE corner of claim; it		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  None	
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT * PRODUCER PAST PRODUCER	
MAJOR ORE MINERALS Silver, smaltite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Silver-cobalt-nickel mineralization discovered is insufficient both in grade and size to constitute ore. Numerous calcite veins occur mostly less than 1/2" wide, but some up to 4" in width. Massive cobalt mineralization occurs locally up to 4" widths.			
MINOR ORE MINERALS Chalcopyrite, pyrite, sphalerite, galena.					
ORE FABRIC Vein.					
MAJOR GANGUE MINERALS Calcite.					
COUNTRY ROCK OR FORMATION Keewatin volcanics and Cobalt Series.					
AGE: GEOLOGICAL ABSOLUTE Archean and Aphebian N.L.T. 3100 and N.L.T. 2150 m.y.					
MAIN REFERENCE Thomson, R. 1965: Casey and Harris Townships, O.D.M. Geol. Rept. No.36 p. 59-63.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2066, Casey and Harris townships, 1964. Long. and lat. refer to point where east boundary of property joins lake.		FILE STATUS: SKELETAL INCOMPLETE COMPLETE D REVISED	DATE 1968 SIGNATURE A.O.S.
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1965: BENNER-HARRIS PROPERTY. HISTORICAL NAME:		LAT. 47° 33' 33" LONG. 79° 33' 47"	REF. NO. O.D.M.-Ag-0930002
GEOLOGY The property is situated just south of a Nipissing diabase subhorizontal sill or sheet up to 500' thick in the form of an elongated basin 3 miles N-S in length and 1 mile E-W in width. The sill is intrusive into and overlies Cobalt Series conglomerate and greysacke (outcropping on property) up to 450' thick that rests unconformably on steeply dipping Keewatin iron formation and volcanics; these strike SW at the property. Spotted chlorite alteration is locally well developed in the Cobalt Series rocks. Mineralized calcite veins strike N15°W and SW.		EXPLORATION AND DEVELOPMENT (Cont) was sunk on a NE striking fracture zone.			
ALTERATION Spotted chlorite.		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Archean and Aphebian. N.L.T. 3100 and N.L.T. 2150 m.y. Volcanics and Sediments. K/Ar Rb/Sr Pb/Pb Cl4 X	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian. N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb Cl4 X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Thomson, R. 1965: O.D.M. Geol. Rept. No. 36, fig. No. 6.			
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1963. O.D.M. Map 2066, Casey and Harris Townships, 1964.		ODM FILES			

COMMODITY		NAME OF OCCURRENCE:		LAT.	04757600	REF. NO.	
Silver Cobalt		CIRCA 1968: DOLPHIN-MILLER MINES LTD. HISTORICAL NAME: HARMAK MINING CO.		LONG.	07958300	D.D.M.-Ag-0930001	
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.			LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
TP. or SQUARE	HARRIS		00930	TIMISKAMING			Con. VI, Lot 5.
LOCATION: 12 miles north of COBALT at north end of Lake Timiskaming.				NTS	UTM	Claim: SW $\frac{1}{2}$ of N $\frac{1}{2}$	
				031M12E			
HISTORY OF OWNERSHIP:				EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
Circa 1914: Harmak Mining Co.				1914: Harmak shaft was sunk 40'.		1908-18:	
1918: Casey Cobalt Silver Mining Co. Controlled by Mining Corp. of Canada Ltd.				1918: Casey No.5 (Harmak) shaft was deepened to 375', with levels at 220' and 360' horizons.		1964 :	
1958: Dolphin-Miller Mines, controlled by Candore Explorations Ltd. (1960).				1958-60: Dolphin-Miller (Harmak) shaft was dewatered and diamond drilling carried out from 220' and 360' levels; a rich $\frac{1}{2}$ " silver vein was intersected from 220' level.		1965 : 4,625 ozs./silver, 12,925 lbs./Cobalt.	
1963: Leased to Langis Silver and Cobalt Mining Co. Ltd.				1964-65: Development and mining was carried out.		1966 : Nil.	
				OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER <sub>x</sub>	
MAJOR ORE MINERALS Silver, Fe,Co,Ni-arsenides and sulpharsenides.				DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS				1965			
ORE FABRIC Vein.				Grade 3.5 ozs./ton silver.			
MAJOR GANGUE MINERALS Calcite.				10.0 lbs./ton Cobalt.			
COUNTRY ROCK OR FORMATION Keewatin volcanics, Cobalt series, Nipissing diabase.							
AGE: GEOLOGICAL ABSOLUTE							
Archean, Aphebian, Aphebian. N.L.T. 3100, N.L.T.2150,2150 m.y.							
MAIN REFERENCE				MAP REFERENCE USED FOR LOCATION		FILE STATUS:	DATE
Thompson, R.				O.D.M. Map 2066, Casey and Harris Townships, 1964.		SKELETAL	
1965: Casey and Harris townships, O.D.M. Geol. Report No.36, p. 65-69.				Long. and lat. refer to Dolphin-Miller shaft.		INCOMPLETE	
						COMPLETED	1968
						REVISED	A.O.S.
COMMODITY		NAME OF OCCURRENCE:		LAT.	47° 34' 35"	REF.NO.	
Silver Cobalt		CIRCA 1968: DOLPHIN-MILLER MINES LTD. HISTORICAL NAME: HARMAK MINING CO.		LONG.	79° 35' 00"	O.D.M.-Ag-0930001	
GEOLOGY The lower part, now remaining up to 500' thick, of a Nipissing diabase subhorizontal sill or sheet in the form of a basin outcrops over an oval shaped area with N-S length of 3 miles and E-W width of up to 1 mile. The sill is intrusive into flat lying Cobalt series conglomerate and greywacke up to 450' thick that overlies unconformably steeply dipping Keewatin volcanics. The mine occurs in the Cobalt series near a paleovalley on the Keewatin surfaces. The Casey Fault dips about 20°SE and a vertical fault strikes NW. A silver bearing calcite vein strikes NE.				EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS			
Chlorite spotting.							
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE		Aphebian				Post-Huronian	
ROCK TYPE AND/OR MINERAL		N.G.T. 2150 m.y.				N.G.T. 2150 m.y.	
METHOD		Sediments		K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	
		K/Ar Rb/Sr Pb/Pb C14		NAME OF TECTONIC EVENT		X	
COMPANY REPORTS				METALLURGY REFERENCE			
ECONOMICS REFERENCE				MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE				MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE				MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE			
				PLAN X SECTION LONGITUDINAL PROJECTION			
				Thompson, R.			
				1965: O.D.M. Geol. Report, No.36, figs. nos. 4 and 5.			
MAP REFERENCES				ODM FILES			
O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1963.							
O.D.M. Map 2066, Casey and Harris Townships, 1964.							







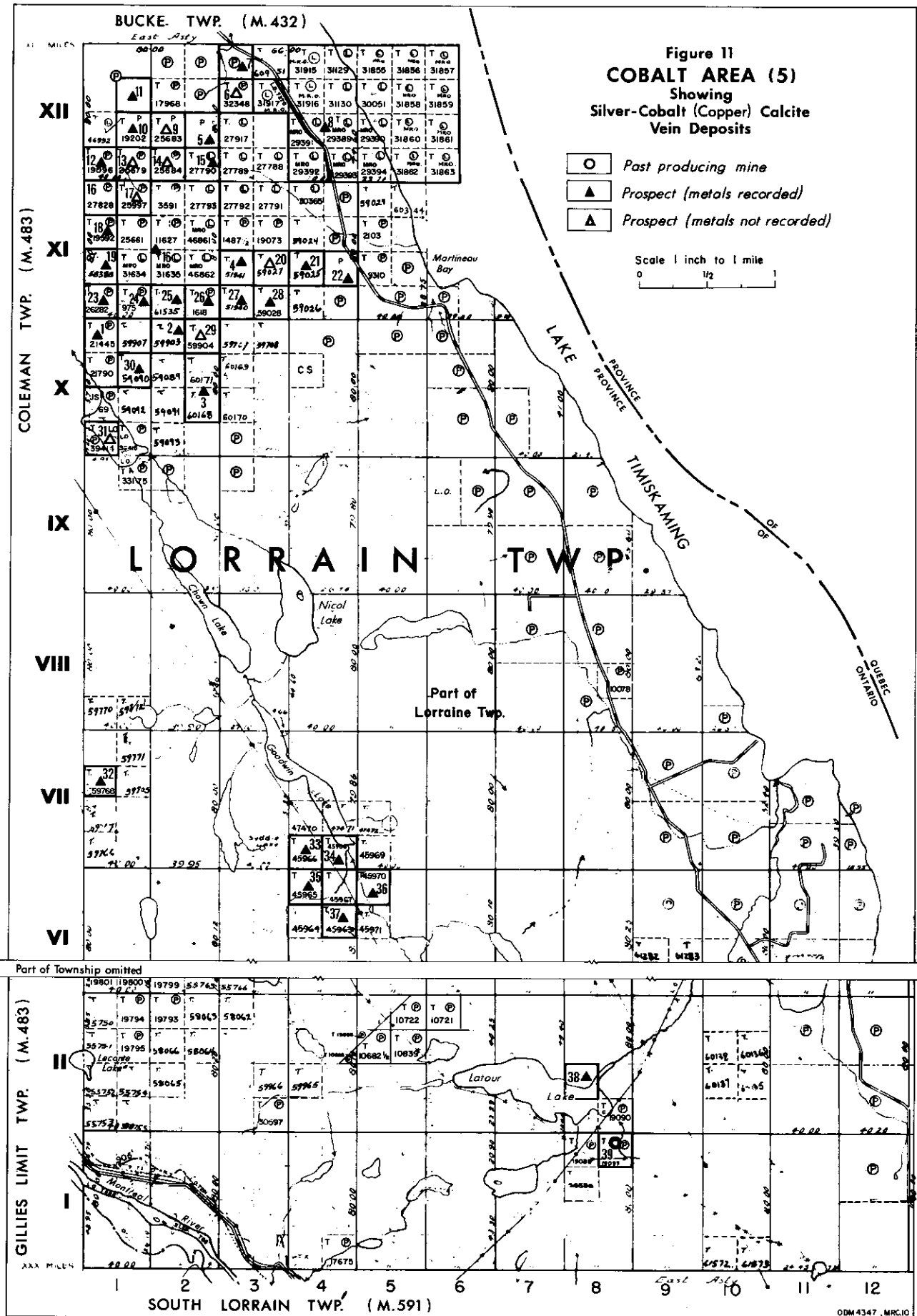


Table 19.

COBALT AREA (5)  
P R O D U C T I O N T A B L E

(Historical Name)	(Present Owner)	Silver (Troy ozs)	Cobalt (lbs)
* <u>LORRAIN TWP.</u>			
▲ 6 Big Agaunico Mines Ltd.			
▲ 4 Big Fissure Mining Co. Ltd.			
▲ 15 Brosher-Porcupine Mines Ltd.	East Cobalt Mines Ltd.		
▲ 28 Brown prospect.			
▲ 25 Brown-Howes prospect.			
▲ 35 Con. VI, Lot 4, N½, NW¼.			
▲ 37 Con. VI, Lot 4, N½, SE¼.			
▲ 36 Con. VI, Lot 5, N½, NW¼.			
▲ 32 Con. VII, Lot 1, N½, SW¼.			
▲ 34 Con. VII, Lot 4, S½, SW¼.			
▲ 33 Con. VII, Lot 4, S½, SE¼.			
▲ 30 Con. X, Lot 1, N½, SE¼.			
▲ 31 Con. X, Lot 1, S½, SW¼.	Silver Miller Mining Co. Ltd.		
▲ 29 Con. X, Lot 2, N½, NE¼.			
▲ 17 Con. XI, Lot 1, N½, NE¼.	East Cobalt Mines Ltd.		
▲ 23 Con. XI, Lot 1, S½, SW¼.			
▲ 24 Con. XI, Lot 1, S½, SE¼.	S.W. Armstrong.		
▲ 19 Con. XI, Lot 1, S½, NW¼.			
▲ 16 Con. XI, Lots 1 & 2, 9 claims.	East Cobalt Mines Ltd.		
▲ 26 Con. XI, Lot 2, S½, SE¼.	L. Lang.		
▲ 11 Con. XII, Lot 1, N½, SE¼.	Silverside Mines Ltd.		
▲ 10 Con. XII, Lot 1, S½, NE¼.	Silverside Mines Ltd.		
▲ 13 Con. XII, Lot 1, S½, SE¼.	Silverside Mines Ltd.		
▲ 12 Con. XII, Lot 1, S½, SW¼.	Silverside Mines Ltd.		
▲ 3 Chrysler-Niles Mining Co. Ltd.			
▲ 2 Empire Cobalt Mines Ltd.			
▲ 1 Erie Cobalt Silver Mining Co. Ltd.	Brady Cross Lake Silver Mines Ltd.		
▲ 20 Frederick Yellow Knife Mines Ltd.			
▲ 21 Frederick Yellowknife Mines Ltd.			
▲ 9 Gaffney Claim	Silverside Mines Ltd.		
▲ 7 German-American Mining Co. Ltd.			
○ 39 Lang-Caswell mine.	Taylor-Pipe.	1,503	4,932
▲ 38 La Tour Lake Mines Ltd.			
▲ 27 Little Fissure Claim.	W. Frank.		
▲ 8 Nasco Cobalt Silver Mining Co.	Nasco Cobalt Silver Mining Co.		
▲ 18 Smith-Cobalt Mines Ltd.	Rock zone Mines Ltd.		
▲ 14 Timiskaming Project Syndicate Ltd.	Silverside Mines Ltd.		
▲ 22 Wabi Cobalt Silver Mining Co. Ltd.			
▲ 5 Wolst-Rees Cobalt Silver Mining Co. Ltd.	East Cobalt Mines Ltd.		

\* Number refers to that on deposit description card; non sequence follows as a consequence of data processing.



COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: BIG FISSURE MINING CO. LTD.		LAT. 04738100 LONG. 07960600	REF. NO. O.D.M.-Ag-1228004
CO. or DIST. TIMISKAMING TP. or SQUARE LORRAIN	CODE No. 59 012280	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.XI, Lot 3, S½ Claim: NW½	
LOCATION: About ¾ miles E of Cobalt.		NTS 031M05E	UTM	
HISTORY OF OWNERSHIP: 1908: Big Fissure Mining Co. Ltd. 1946: Frederick Yellowknife Mines Ltd. 1951-19 : Glenor Mining Co. Ltd.		EXPLORATION AND DEVELOPMENT 1906-1909: Three shafts were put down: The Big Fissure shaft about 100' deep, a second shaft SW of the Big Fissure shaft, about 50' deep and a third shaft NW of the Big Fissure shaft, about 50' deep. 1946: Surface exploration was done. 1951: One pit was dewatered and re-examined.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
MAJOR ORE MINERALS Silver, Cobalt arsenides MINOR ORE MINERALS Chalcopyrite. ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite, quartz. COUNTRY ROCK OR FORMATION Nipissing Diabase.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Several veins occur: 1. Big Fissure shaft vein strikes S80E for length of 500'. 2. A vein strikes E, SW of the Big Fissure shaft. 3. A vein strikes N25W traversing a large Keewatin tuff inclusion WNW of the Big Fissure shaft. 4. A microbrecciated quartz vein occupies a fissure striking N50W in Nipissing diabase SE of the Big Fissure shaft.		
AGE: GEOLOGICAL Aphebian	ABSOLUTE 2150 m.y.	OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER		
MAIN REFERENCE Thomson, R. 1962: O.D.M. Prelim. Rept. 1960-1 (Revised 1962) p. 40-41.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2050 Cobalt Silver Area 1964. Lat. and Long. refer to SE corner of claim.	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968
COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: THE BIG FISSURE MINING CO. LTD.		LAT. 47° 22' 52" LONG. 79° 36' 21"	REF.NO. O.D.M.-Ag-1228004
GEOLOGY Nipissing diabase occurs on the claim. A large inclusion of Keewatin tuff occurs in the Nipissing diabase WNW of the shaft. N of the claim the Nipissing diabase dips NW under Cobalt Series conglomerate.		EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION	METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Apehbian 2150 m.y. Diabase	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14	AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14	
COMPANY REPORTS	METALLURGY REFERENCE		NAME OF TECTONIC EVENT	
ECONOMICS REFERENCE	MILLING REFERENCE		*	
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Map P.61, 1960. O.D.M. Map 2050, Cobalt Silver Area, 1964.	ODM FILES			



COMMODITY Cobalt		NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: EMPIRE COBALT MINES LTD.		LAT. 04737400 LONG. 07961600	REF. NO. O.D.M.-Ag-1228002
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.X, Lot 2, N½; Claim: NW½.	
TP. or SQUARE LORRAIN	012280	NTS	UIM		
LOCATION: 3½ miles ESE of Cobalt.		031M05E			
HISTORY OF OWNERSHIP: 1907: Empire Cobalt Mines Ltd.  1963-1964: Optioned to Trend Exploration and Development Ltd.		EXPLORATION AND DEVELOPMENT 1908-1909: A shaft was sunk 125' deep  1964: Geophysical survey and diamond drilling were done.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT <input checked="" type="checkbox"/> PRODUCER PAST PRODUCER	
MAJOR ORE MINERALS Cobalt arsenides		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Shaft vein strikes E, dips 80°S and is 9" wide.			
MINOR ORE MINERALS Chalcopyrite.					
ORE FABRIC Vein.					
MAJOR GANGUE MINERALS Quartz, calcite.					
COUNTRY ROCK OR FORMATION Nipissing diabase.					
AGE: GEOLOGICAL ABSOLUTE Aphebian. 2150 m.y.					
MAIN REFERENCE Thomson, R. 1962: O.D.M. Prelim. Rept. 1960-1, p. 50-51 (revised 1962).		MAP REFERENCE USED FOR LOCATION O.D.M. Map 2052 Cobalt Silver Area 1964. Lat. and long. refer to SE corner of claim NW½, N½, Lot 2, Con.X.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968
				SIGNATURE A.O.S.	
COMMODITY Cobalt		NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: EMPIRE COBALT MINES LTD.		LAT. 47° 22' 28" LONG. 79° 36' 59"	REF.NO. O.D.M.-Ag- 1228002
GEOLOGY Nipissing diabase outcrops on the property.		EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase. K/Ar Rb/Sr Pb/Pb C14 X		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	
				AGE OF ORE MINERAL Post Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Map P.63, 1960. O.D.M. Map 2052, Cobalt Silver Area, 1964.		ODM FILES			



COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: HISTORICAL NAME: TAYLOR PIPE - CASWELL MINE.		LAT. 04724444	REF. NO.
				LONG. 07955000	O.D.M.-Ag-1228039
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. TIMISKAMING	
TP. or SQUARE	LORRAIN		012280	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.I, Lot 8, N $\frac{1}{2}$	
LOCATION: 12 miles southeast of COBALT.			NTS 031M04E	UTM	claim: NE $\frac{1}{4}$
HISTORY OF OWNERSHIP: 1909: Lang-Caswell Cobalt Mines Ltd. 1968: Taylor Pipe.			EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1936  Silver 1,503 ozs.  Cobalt 4,932 lbs.  O.D.M. statistical files.
			OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X
MAJOR ORE MINERALS Silver, smaltite.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS					
ORE FABRIC Vein.					
MAJOR GANGUE MINERALS Calcite.					
COUNTRY ROCK OR FORMATION Lorrain granite, Nipissing diabase.					
AGE: GEOLOGICAL ABSOLUTE Archean, Aphebian. 2390, 2150 m.y.					
MAIN REFERENCE			MAP REFERENCE USED FOR LOCATION O.D.M. Map 19E, 1910.	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968 A.O.S.
SIGNATURE					
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: HISTORICAL NAME: TAYLOR PIPE - CASWELL MINE.		LAT. 47° 14' 40"	REF. NO.
				LONG. 79° 33' 00"	O.D.M.-Ag-1228039
GEOLOGY Nipissing quartz diabase in the form of a thick shallow dipping sheet intrudes Lorrain quartzite of the Cobalt Series. The property occurs across the contact of the above rocks.			EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION		METAMORPHISM		MINERAL PARACENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Archean, Aphebian. N.G.T. 2490, 2150 m.y. Granite and Diabase.	AGE OF DEFORMATION:	AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.	
		K/Ar Rb/Sr Pb/Pb C14 X X	K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	K/Ar Rb/Sr Pb/Pb C14 X	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMIC'S REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Map 19E, Cobalt-Nickel-Arsenic-Silver Area, near Lake Timiskaming, 1910. O.D.M. Map P.321, Haileybury Sheet, 1965.			ODM FILES		



COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 19 68 EAST COBALT MINES LTD. HISTORICAL NAME: WOLST-REES COBALT SILVER MINING CO. LTD.		LAT. 04739600 LONG. 07961200	REF. NO. O.D.M.-Ag-1228005
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.XII, Lot 2, S $\frac{1}{2}$	
TP. or SQUARE LORRAIN	012280	NTS 031M05E UTM	Claim: NE $\frac{1}{2}$	
LOCATION: About 3 1/3 miles E of Cobalt, 3500' W of Highway 560.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) Silver assay 60 oz./ton.  Thomson, R., (1962).		
HISTORY OF OWNERSHIP: 1906: Wolst-Rees Cobalt Silver Mining Co. Ltd 1960-1968: East Cobalt Mines Ltd.		EXPLORATION AND DEVELOPMENT 1906-1909: Two shafts were sunk, No.1 shaft 68' deep and No.2 shaft 45' deep. 1960: Surface exploration was done.		
OCCURRENCE      RAW PROSPECT      DEVELOPED PROSPECT      PRODUCER      PAST PRODUCER				

MAJOR ORE MINERALS Silver.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS Chalcopyrite, hematite, bismuth, galena.	Shaft No.1 vein consists of calcite breccia that strikes N.
ORE FABRIC Vein.	Shaft No.2 vein
MAJOR GANGUE MINERALS Calcite, pyrite.	
COUNTRY ROCK OR FORMATION Cobalt Series, Nipissing diabase	
AGE: GEOLOGICAL Aphebian, Aphebian	ABSOLUTE N.L.T. 2150, 2150 m.y.

MAIN REFERENCE Thomson, R. 1962: O.D.M. Prelim. Rept. 1960-1 (revised 1962) p. 30-31.	MAP REFERENCE USED FOR LOCATION	FILE STATUS	DATE	SIGNATURE
	O.D.M. Map 2050, Cobalt Silver Area, 1964. Lat. and long. refer to SE corner of claim.	SKELETAL INCOMPLETE COMPLETE REVISED	1968	A.O.S.

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 19 68 EAST COBALT MINES LTD. HISTORICAL NAME: WOLST-REES COBALT SILVER MINING CO. LTD.	LAT. 47° 23' 45" LONG. 79° 36' 42"	REF.NO. O.D.M.-Ag-1228005
GEOLOGY Nipissing diabase dips SE under Cobalt Series conglomerate towards the Lorrain Diabase Basin in NW part of claim. The Cobalt Series conglomerate strikes ENE with shallow SSE dip.		EXPLORATION AND DEVELOPMENT (Cont)	

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:	AGE OF ORE MINERAL
ABSOLUTE AGE	Aphebian Aphebian N.L.T. 2150, 2150 m.y.		Post-Huronian N.C.T. 2150 m.y.
ROCK TYPE AND/OR MINERAL	Sediments and Diabase		
METHOD	K/Ar Rb/Sr Pb/Pb C14 X	K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14 X
NAME OF TECTONIC EVENT			

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION
MAP REFERENCES O.D.M. Map P.61, 1960. O.D.M. Map 2050, Cobalt Silver Area, 1964.	ODM FILES



District of		TIMISKAMING			N.T.S. or Townships		LORRAIN						
NAME		WORK DONE		VEIN	DESCRIPTION	METALS PRESENT						REFERENCE	
		Shaft				Ag	Co	Cu	Ni	Bi	Zn	Pb	
		Adit				native	arsenides						
		Pit											
		Trench											
		D. Drill											
		Geophys											
				CALCITE									
				QUARTZ									
				APLITE									
Con.X, Lot 1, N½ Claim SE¼. 47°22'15" 79°37'18"		Shaft			A trench exposes a quartz-calcite vein								O.D.M. Prelim. Rept. 1960-1 p.50, 1960 (Revised 1962). LORRAIN 30
		Adit											
		Pit											
		Trench	X										
		D. Drill											
		Geophys						X	X				MAPS O.D.M. P.62, 1960. O.D.M. 2052, 1964.
1952: Optioned to H.G. Miller 1968: Silver Miller M Co. Ltd Con.X, Lot 1, S½; Claim: SW¼. 47°21'49" 79°37'37"		Shaft	X		A 50' shaft and a trench was sunk on a quartz vein. 1952: 2 D. drill holes totalling 527' were put down.								O.D.M. Prelim. Rept. 1960-1 p.50, 1960 (Revised 1962). LORRAIN 31
		Adit											
		Pit											
		Trench	X										
		D. Drill	X										
		Geophys											MAPS O.D.M. P.62, 1960. O.D.M. 2052, 1964.
Con.X, Lot 2, N½ Claim: NE¼. 47°22'28" 79°36'40"		Shaft			A pit was sunk on a vein. 1951: A D. drill hole 160' long was put down under the pit.								O.D.M. Prelim. Rept. 1960-1 p.52, 1960 (Revised 1962). LORRAIN 29
		Adit											
		Pit	X										
		Trench											
		D. Drill	X										
		Geophys											MAPS O.D.M. P.62, 1960. O.D.M. 2052, 1964.
1968: East Cobalt ML. Con.XI, Lot 1, N½ Claim NE¼. 47°22'39" 79°36'40"		Shaft			A 15' pit and 3 D. drill holes totalling 240' were sunk on a small vein.								O.D.M. Prelim. Rept. 1960-1 p.36, 1960 (Revised 1962). LORRAIN 17
		Adit											
		Pit	X										
		Trench											
		D. Drill	X										
		Geophys											MAPS O.D.M. P.61, 1960. O.D.M. 2050, 1964.
Con.XI, Lot 1, S½; Claim: SW¼. 47°23'31" 79°35'01"		Shaft			Shallow pits and trenches have been sunk on quartz-calcite veins.								O.D.M. Prelim. Rept. 1960-1 p.37, 1960 (Revised 1962). LORRAIN 23
		Adit											
		Pit	X										
		Trench	X										
		D. Drill											
		Geophys								X		X	MAPS O.D.M. P.61, 1960. O.D.M. 2050, 1964.

District of		TIMISKAMING			N.T.S. or Townships		LORRAIN						
NAME		WORK DONE		VEIN	DESCRIPTION	METALS PRESENT						REFERENCE	
		Shaft				Ag	Co	Cu	Ni	Bi	Zn	Pb	
		Adit				native	arsenides						
		Pit											
		Trench											
		D. Drill											
		Geophys											
				CALCITE									
				QUARTZ									
				APLITE									
1968: S.W. Armstrong; Con.XI, Lot 1, S½ Claim SE¼. 47°23'06" 79°36'04"		Shaft			A 25' pit was sunk on a 1½-inch quartz calcite vein.								O.D.M. Prelim. Rept. 1960-1 p.37, 1960 (Revised 1962). LORRAIN 24
		Adit											
		Pit	X										
		Trench											
		D. Drill											
		Geophys											MAPS O.D.M. P.61, 1960. O.D.M. 2050, 1964.
Con.XI, Lot 1, S½ Claim: NW¼. 47°22'39" 79°36'40"		Shaft	X		Numerous pits and trenches and 2 shafts, 50' and 30' deep were sunk to prospect a quartz-calcite vein.								O.D.M. Prelim. Rept. 1960-1 p.36, 1960 (Revised 1962). LORRAIN 19
		Adit	X										
		Pit	X										
		Trench	X										
		D. Drill											
		Geophys											MAPS O.D.M. P. 61, 1960. O.D.M. 2050, 1964.
1968: East Cobalt ML. Con.XI, Lot 1, N½ (NW¼, SE¼); S½ (NE¼). Con.XI, Lot 2, N½ (4 claims); S½, (NW¼, NE¼). 47°23'05" 79°37'37"		Shaft			1959-60: Temiskaming Project Syndicate did an electromagnetic survey and D. drilling. 1933: 3 short D. drill holes were drilled on Con.XI, Lot 2, S½ (NW¼).								O.D.M. Prelim. Rept. 1960-1 p.39, 1960 (Revised 1962). LORRAIN 16
		Adit											
		Pit											
		Trench											
		D. Drill	X										
		Geophys	X										MAPS O.D.M. P.61, 1960 O.D.M. 2050, 1964.
1968: L. Lang. Con.XI, Lot 2, S½; Claim: SE¼. 47°22'52" 79°37'37"		Shaft			A 15' pit was sunk on an 8-inch vein.								O.D.M. Prelim. Rept. 1960-1 p.39, 1960 (Revised 1962). LORRAIN 26
		Adit											
		Pit	X										
		Trench											
		D. Drill											
		Geophys											MAPS O.D.M. P.61, 1960. O.D.M. 2050, 1964.
1968: Silverside ML. Con.XII, Lot 1, N½; Claim: SE¼. 47°23'58" 79°37'19"		Shaft			2 pits, one 40' deep, were sunk on calcite vein.								O.D.M. Prelim Rept. 1960-1 p.29, 1960 (Revised 1962). LORRAIN 11
		Adit											
		Pit	X										
		Trench											
		D. Drill											
		Geophys											MAPS O.D.M. P.61, 1960 O.D.M. 2050, 1964.

District of		TIMISKAMING		N.T.S. or Townships		LORRAIN						
NAME	WORK DONE	VEIN	DESCRIPTION	METALS PRESENT						REFERENCE		
1968: Silverside ML. Con.XII, Lot 1, S½; Claim: NE½. 47°23'45" 79°37'19"	Shaft	CALCITE QUARTZ APLITE	A 12' pit and a x-ray D drill hole were put down to investigate a vein.	The vein is a calcite breccia vein that strikes N20°W and dips 80°W in Nipissing diabase. Chalcopyrite occurs in the vein.	Ag	Co	Cu	Ni	Bi	Zn	Pb	O.D.M. Prelim. Rept. 1960-1 p.29, 1960 (Revised 1962). LORRAIN 10 MAPS O.D.M. P.61, 1960. O.D.M. 2050, 1964.
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												
1968: Silverside ML. Con.XII, Lot 1, S½; Claim: SE½. 47°23'32" 79°37'37"	Shaft		Trenching was done near the Keewatin Nipissing diabase contact.	Nipissing diabase dips SE under Keewatin volcanic rock.								O.D.M. Prelim. Rept. 1960-1 p.30, 1960 (Revised 1962). LORRAIN 13 MAPS O.D.M. P.61, 1960. O.D.M. 2050, 1964.
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												
1968: Silverside ML. Con.XII, Lot 1, S½; Claim: SW½. 47°23'32" 79°37'19"	Shaft	CALCITE QUARTZ APLITE	A 30' pit and a 25' pit were sunk on calcite veins.	One calcite vein strikes N80°E and dips 85°N, the other strikes N25°E; both occur in Nipissing diabase. Chalcopyrite occurs in the vein.								O.D.M. Prelim. Rept. 1960-1 p.30, 1960 (Revised 1962). LORRAIN 12 MAPS O.D.M. P.61, 1960. O.D.M. 2050, 1964.
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												
1948: Frederick Yellowknife ML. Con.XI, Lot 3, S½; Claim: NE½. 47°22'52" 79°36'04"	Shaft	CALCITE QUARTZ APLITE	A pit and 2 short D. drill holes were put down to explore quartz-calcite veins	The veins strike NW in Nipissing diabase.								O.D.M. Prelim. Rept. 1960-1 p.42, 1960 (Revised 1962). LORRAIN 20 MAPS O.D.M. P.61, 1960. O.D.M. 2050, 1964.
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												
1948: Frederick Yellowknife ML. Con.XI, Lot 4, S½; Claim: NW½. 47°22'52" 79°35'44"	Shaft	CALCITE QUARTZ APLITE	A 60' shaft was sunk on a vein. 1948: 2 short D. drill holes were put down near the shaft.	The vein strikes NW and dips 80°W in Nipissing diabase. Sparse chalcopyrite, pyrite and cobalt mineralization occur.								O.D.M. Prelim. Rept. 1960-1 p.42, 1960 (Revised 1962). LORRAIN 21 MAPS O.D.M. P.61, 1960. O.D.M. 2050, 1964.
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												

District of		TIMISKAMING		N.T.S. or Townships		LORRAIN						
NAME	WORK DONE	VEIN	DESCRIPTION	METALS PRESENT						REFERENCE		
Gaffney Claim. 1968: Silverside ML. Con.XII, Lot 2, S½; Claim: NW½. 47°23'45" 79°37'00"	Shaft	CALCITE QUARTZ APLITE	A 20' pit was sunk on a quartz-calcite vein.	The vein strikes NW across the Keewatin-Nipissing diabase contact.	Ag	Co	Cu	Ni	Bi	Zn	Pb	O.D.M. Prelim. Rept. 1960-1 p.31, 1960 (Revised 1962). LORRAIN 9 MAPS O.D.M. P.61, 1960. O.D.M. 2050, 1964.
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												
German-American MCL. Con.XII, Lot 3, N½; Claim: NW½. 47°24'12" 79°36'59"	Shaft	CALCITE QUARTZ APLITE	Two shafts 60' deep were sunk on NNW striking quartz-calcite veins.	The veins occur in Nipissing diabase that gently dips S. Chalcopyrite occurs in the veins.								O.D.M. Prelim. Rept. 1960-1 p.32, 1960 (Revised 1962). LORRAIN 7 MAPS O.D.M. P.61, 1960 O.D.M. 2050, 1964.
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												
19 :La Tour Lake ML 47°15' 79°33'	Shaft		Shaft was sunk 50' with 24' of cross-cutting on that level. 1940: Production Silver: 53 ozs. Cobalt: 26 lbs.	Property occurs about contact of Nipissing diabase with Lorrain quartzite.								LORRAIN 38 N shore of Latour Lake MAPS O.D.M. P.321, 1965.
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												
Little Fissure Claim. 1968: W. Frank. Con.XI, Lot 3, S½; Claim: SW½. 47°22'38" 79°36'21"	Shaft	CALCITE QUARTZ APLITE	Pits and trenches have been sunk on a calcite quartz vein.	The vein strikes N25°W and dips 75°E in Nipissing diabase. Pyrite and chalcopyrite occurs.								O.D.M. Prelim. Rept. 1960-1 p.41, 1960 (Revised 1962). LORRAIN 27 MAPS O.D.M. P.61, 1960. O.D.M. 2050, 1964.
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												
1907: Devil's Rock SML. 1909: L. Tmskg. SMCL. 1952-1968: Nasoc Cobalt SML. Con.XII, Lot 3, N½, SE½ Con.XII, Lot 4 & Lot 5 47°22'39" 79°37'37"	Shaft	CALCITE QUARTZ APLITE	1907: Four adits were driven W from shore of Lake Timiskaming. 1952: 8 D. drill holes 1955: 1 D. drill hole 1,126' in length.	Best assay - 5% chalcopyrite, 5% cobalt minerals, and 1.5 oz/t silver.	Ag	Co	Cu	Ni	Bi	Zn	Pb	O.D.M. Prelim. Rept. 1960-1 p.34-35, (Revised 1962). LORRAIN 8 MAPS O.D.M. P.61, 1960. O.D.M. 2050, 1964.
	Adit											
	Pit											
	Trench											
	D. Drill											
Geophys												



Table 20.

E L K L A K E A R E A (1)  
L I S T O F P R O P E R T I E S

(Historical Name)	(Present Owner)	(Historical Name)	(Present Owner)
* <u>AULD TWP.</u> (see Fig.13)		<u>KLOCK TWP.</u> (see Fig.13)	
<u>CANE TWP.</u> (see Fig.13)		<u>MICKLE TWP.</u>	
<u>DANE TWP.</u> (see Fig.13)		▲ 5 Fahrenheit Mining Co. Ltd.	Vermont Mines Ltd.
<u>FARR TWP.</u>		○ 1 Mapes-Johnston Mining Co. Ltd.	K.S. Oliver.
○ 1 Roy Silver Mines Ltd.	Tiara Mines Ltd.	▲ 6 Mickle Silver Mines Ltd.	McAuley-Rotondo Claims.
<u>JAMES TWP.</u>		▲ 3 North American Silver Mining Co. Ltd.	
▲ 6 Beacon Consolidated Mines Ltd.	M. Romaniuk.	○ 2 Otisse Mining Co.	B.L. Morrison.
▲ 3 Beaver Auxiliary Mining Co. Ltd.	J.J. Gray.	○ 4 Shane-Darragh (cl. No. WD 904).	Cotley Mines Ltd.
▲ 14 Big Six Silver-Cobalt Mines Ltd.	J.J. Gray.	<u>SMYTH TWP.</u>	
▲ 8 Cole Property-Patricia Mines Ltd.		▲ 1 Cobalt Union Mines Ltd.	Silver-Men Mines Ltd.
▲ 5 Devlin Mining Co. Ltd.	W.L. Powell	<u>SPEIGHT TWP.</u> (see Fig.13)	
▲ 17 Elk Lake Cobalt Mines of Ontario.	Ethel Copper Mines Ltd.	<u>TUDHOPE TWP.</u>	
▲ 16 Elk Lake Discovery Mines Ltd.		▲ 3 Jackpot Silver mines.	
● 1 Ethel Copper Mines Ltd.	Ethel Copper Mines Ltd.	▲ 2 Paramount Syndicate.	
▲ 13 German Development Co. Ltd.		▲ 1 Silver Alliance Mines Ltd.	
▲ 12 Giles, D., prospect.		▲ 4 United States Silver Mines Ltd.	
▲ 10 Langham Cobalt Mines Ltd.		<u>VAN NOSTRAND TWP.</u> (see Fig.13)	
▲ 21 Marvel Silver Mines Ltd.	G.S. Welsh.	<u>WHITSON TWP.</u> (see Fig.13)	
▲ 9 McWenzie Mining & Explor. Co.	M. Mallinson.	<u>WILLET TWP.</u>	
▲ 22 Montreal River International Mines Ltd.	Montreal River International Mines Ltd.	▲ 4 Accra Explor., Ltd. (Barnet).	T.F. Barnet.
▲ 18 Moose Horn Mines Ltd.	Laurin-Welsh.	▲ 5 Floyd property (A. Mosher).	E.W.J. Floyd.
▲ 15 Mother Lode Mining Co. Ltd.	G.S. Welsh prospect.	○ 1 Lucky Godfrey Silver Mines.	
○ 2 Mother Lode Mining Co. Ltd.		▲ 3 Tichbourne prospect.	
▲ 7	Norton-McMahon prospect.	▲ 2 Willet Silver Mines Ltd.	
▲ 20 Prudential Mines Ltd.			
▲ 19 Regal Mining Co. Ltd.			
▲ 4 Regent Mines Ltd.	G.S. Welsh.		
▲ 11 Tee Arr Mining Co. Ltd.	Bermead Mining Corporation Ltd.		

\* Number refers to that on deposit description card; non sequence follows as a consequence of data processing.

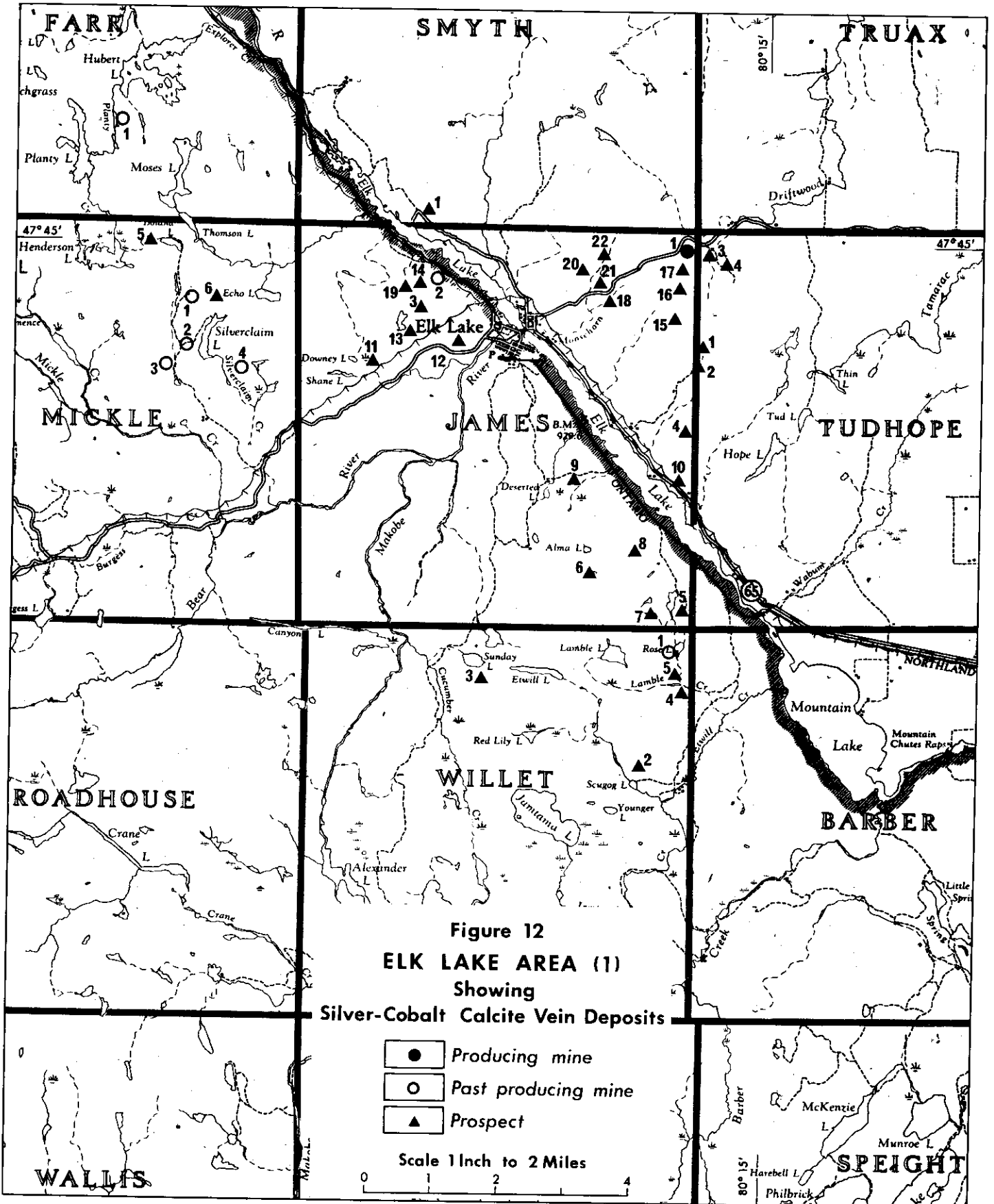


Table 20a

ELK LAKE AREA (1)  
PRODUCTION TABLE

(Historical Name)	Production		(Historical Name)	Production	
	Silver (Troy oz)	Cobalt (lbs)		Silver (Troy oz)	Cobalt (lbs)
* <u>AULD TWP.</u> (see fig. 13)			<u>KLOCK TWP.</u> (see fig. 13)		
<u>CANE TWP.</u> (see fig. 13)			<u>MICKLE TWP.</u> ▲ 5 Fahrenheit Mining Co. Ltd.		
<u>DANE TWP.</u> (see fig. 13)			○ 1 Mapes-Johnson Mining Co. Ltd.	1,000	870
<u>FARR TWP.</u> ○ 10 Roy Silver Mines Ltd.	1,888	3,007 tons Co Ore	▲ 6 Mickle Silver Mines Ltd		
<u>JAMES TWP.</u> ▲ 6 Beacon Consolidated Mines Ltd.			▲ 3 North American Silver Mining Co. Ltd.		
▲ 3 Beaver Auxilliary Mining Co. Ltd.			○ 2 Otisse Mining Co.	2,380	026
▲ 14 Big Six Silver-Cobalt Mines Ltd.			○ 4 Shane-Darragh (cl. No. WD.904)	64,471	2,367
▲ 8 Cole Property-Patricia Mines Ltd.			<u>SMYTH TWP.</u> ▲ 1 Cobalt Union Mines Ltd.		
▲ 5 Devlin Mining Co. Ltd.	132		<u>SPEIGHT TWP.</u> (see fig. 13)		
▲ 17 Elk Lake Cobalt Mines of Ontario Ltd.			<u>TUDHOPE TWP.</u> ▲ 3 Jackpot Silver mine.		
▲ 15 Elk Lake Discovery Mines Ltd.			▲ 2 Paramount Syndicate	242	
● 1 Ethel Copper Mines Ltd.	6,061		▲ 1 Silver Alliance Mines Ltd.	510	
▲ 13 German Development Co. Ltd.			▲ 4 United States Silver Mines Ltd.		
▲ 12 Giles, D., prospect.			<u>VAN NOSTRAND TWP.</u> (see fig. 13)		
▲ 10 Langham Cobalt Mines Ltd.			<u>WHITSON TWP.</u> (see fig. 13)		
▲ 21 Marvel Silver Mines Ltd.			<u>WILLET TWP.</u> ▲ 4 Accra Explor., Ltd. (Barnet).		
▲ 9 McKenzie Mining & Explor. Co.			▲ 5 Floyd property (A. Mosher).		
▲ 22 Montreal River International Mines Ltd.			○ 1 Lucky Godfrey Silver Mines.	9,835	592
▲ 18 Moose Horn Mines Ltd.			▲ 3 Tichbourne prospect.		
▲ 15 Mother Lode Mining Co. Ltd.			▲ 2 Willet Silver Mines Ltd.		
○ 2 Mother Lode Mining Co. Ltd.	1,581				
▲ 7 Norton-McMahon prospect.					
▲ 20 Prudential Mines Ltd.					
▲ 19 Regal Mining Co. Ltd.					
▲ 4 Regent Mines Ltd.	117				
▲ 11 Tee Arr Mining Co. Ltd.					

\* Number refers to that on deposit description card; non sequence follows as a consequence of data processing.



COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: TIARA MINES LTD. HISTORICAL NAME: ROY SILVER MINES LTD. (Lease)		LAT. 04778300	REF. NO.
				LONG. 08046700	O.D.M.-Ag-0716001
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. MONTREAL RIVER	
TP. or SQUARE	FARR	007160		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
LOCATION: SW side of Hubert Lake, 7 miles northwest of ELK LAKE.		NTS	UTM	Includes claims: MR 12898-12900 and MR 14960.	
		041P16W			
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1912:		1912: No.1 inclined shaft in claim MR 12898 was sunk 75'.		1953: 2,209 tons of development ore were stockpiled.	
1950: Leased to Roy Silver Mines Ltd.*		No.2 shaft in claim MR 12899 was sunk 125'.		1954: 3007 tons of cobalt ore were mined.	
1955: Leased to Tiara Mines Ltd.*		No.3 shaft (17'S of No.2 shaft) was sunk 100'.		1964: 1084 ozs. of silver (T.T.L.)	
1961: Leased to Tormont Mines Ltd.*		1950-54: No.1 shaft was deepened to 390' with levels at 66', 135', 205' and 300'.		1966: 804 ozs. of silver (T.T.L.)	
1964: Leased to D. Culhame.		Underground work includes:-			
1966: Leased to H. Tomson.		Level 66': drifts 107' crosscuts 92', raises 94'.			
1968: Tiara Mines Ltd.		" 135': " 67' " " 70' " 18'			
* Reorganization of company with change of name.		" 205': " 37' " " 110' " Nil			
		" 300 " Nil " " 98' " 117'			
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER	
MAJOR ORE MINERALS Silver, Co-arsenides.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS Chalcopyrite, bornite.		April 1954: A carload of Cobalt-copper concentrate was said to average better than 7% cobalt and 6% copper.			
ORE FABRIC Vein.		No.1 shaft vein is exposed at surface for 175'NE, dips 80° for 75' depth and is from 7" to 8" wide.			
MAJOR GANGUE MINERALS Calcite.		No.2 shaft vein at 8' below collar of shaft is 4" wide and assayed 3,562 oz./ton silver.			
COUNTRY ROCK OR FORMATION Nipissing Diabase.					
AGE: GEOLOGICAL Aphebian		ABSOLUTE 2150 m.y.		MAP REFERENCE USED FOR LOCATION	
LITERATURE REFERENCE		1955: O.D.M. Annual Rept. Vol.64, pt.2, p.132.		O.D.M. Map 2046, Timmins-Kirkland Lake Sheet, 1964.	
				FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE: 1968
				SIGNATURE: A.O.S.	
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: TIARA MINES LTD. HISTORICAL NAME: ROY SILVER MINES LTD. (Lease)		LAT. 47° 47'	REF. NO.
				LONG. 80° 28'	O.D.M.-Ag-0716001
GEOLOGY		EXPLORATION AND DEVELOPMENT (Cont)			
Nipissing diabase in the form of a sheet or sill, probably about 500' thick dips W off Algonan granite to underlie gently W dipping Gowganda conglomerate and quartzite on east side of property.		Diamond drilling includes:-			
The Montreal River Fault strikes nearly NW two miles north-east of the property.		8 holes, totalling 835' were drilled from surface.			
In the diabase several narrow calcite veins occur that show silver-cobalt-copper mineralization.		10 holes, totalling 1,178' were drilled underground.			
		Some production was obtained.			
		1964-66: Small scale mining took place.			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE	AGE OF FORMATION	ROCK OR MINERAL		AGE OF DEFORMATION:	
ABSOLUTE AGE	Aphebian	2150 m.y.		AGE OF ORE MINERAL	
ROCK TYPE AND/OR MINERAL	Diabase			Post-Huronian	
METHOD	K/Ar Rb/Sr Pb/Pb Cl4	X		N.C.T. 2150 m.y.	
COMPANY REPORTS		METALLURGY REFERENCE		NAME OF TECTONIC EVENT	
ECONOMICS REFERENCE		MILLING REFERENCE		X	
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE			
		PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES		ODM FILES			
O.D.M. Map 2046, Timmins-Kirkland Lake Sheet; 1964.					
O.D.M. Map P.159, Elk Lake-New Liskeard Sheet, 1962.					

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: C.L. MURRAY AND J.J. GRAY HISTORICAL NAME: BEAVER AUXILIARY MINES CO. LTD.		LAT. 04773750	REF. NO. O.D.M.-Ag-1065003	
CO. or DIST. TIMISKAMING		CODE No. 59	MINING DIV. MONTREAL RIVER		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.V, Lot 9, N $\frac{1}{2}$ Claims: NE $\frac{1}{4}$ , No. M.R. 12352 formerly: TR 529 or MR 87	
TP. or SQUARE JAMES		010650	NTS	UTM		
LOCATION: 1 $\frac{1}{2}$ miles west of ELK LAKE, 35 miles northwest of Cobalt and 90 miles northeast of Sudbury.			04LP09W			
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT			PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1910: J.G. Donaldson.		1910: No.2 shaft was sunk on N-S vein to 150' with 40'S drift on 100' level.			None recorded.	
1912: Beaver Auxiliary Mines Co. Ltd.		1913-26: No.1 shaft was sunk over 670', possibly to 785'. Several levels were established:				
1947: Port Coldwell Mines and Metals Ltd.		200' level with at least 65' of N-S drifts and 65' of crosscuts.				
1956: Lenwood Mining & Explorations Ltd.		300' level with at least 164' of drifts and 40' of crosscuts.				
1963: C.L. Murray and J.J. Gray		600' level with at least 291' of drifts, 285' of crosscuts and 12' of raises. 800' level: lateral work was prevented by heavy flow of water.				
		OCCURRENCE	KAW PROSPECT	DEVELOPED PROSPECT	PRODUCER	PAST PRODUCER
MAJOR ORE MINERALS Silver, Fe,Co,Ni-arsenides.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES				
MINOR ORE MINERALS Niccolite, galena, chalcopryrite and bornite		South drift from No.1 shaft on 200' level encountered rich ore shoot assaying 5000 to 6000 oz./ton silver over 2 $\frac{1}{2}$ " to 3".				
ORE FABRIC Vein.		South drift from No.2 shaft on 100' level encountered mineralization with assays of 2000 oz./ton silver.				
MAJOR GANGUE MINERALS Calcite.		N-S vein broadens up to 8" in width.				
COUNTRY ROCK OR FORMATION Nipissing Diabase.						
AGE: GEOLOGICAL Aphebian		ABSOLUTE 2150 m.y.				
MAIN REFERENCE MacKean, B.E. 1967: O.D.M. Open File 5006, p. 65-70.		MAP REFERENCE USED FOR LOCATION O.D.M. Map P.239, 1964. Lat. and long. refer to No.1 shaft		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968	SIGNATURE A.O.S.
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: C.L. MURRAY AND J.J. GRAY HISTORICAL NAME: BEAVER AUXILIARY MINES CO. LTD.		LAT. 47° 44' 15"	REF. NO. O.D.M.-Ag-1065003	
GEOLOGY Nipissing diabase in the form of a SE dipping sill or sheet 760' thick overlies Gowganda conglomerate of the Cobalt Series dipping gently SE. Several mineralized calcite veins were explored; three strike NE but the one on which shafts Nos.1 and 2 were sunk strikes N-S. This vein contains ore shoots south of each of the shafts.		EXPLORATION AND DEVELOPMENT (Cont) Shaft No.2 is 300' NNE of No.1. Shaft No.3 of unknown depth is at 400' S33E from No.1. Trench on No.3 vein extends N60E from No.3 shaft. Pit was sunk 6' on 3" calcite vein with associated chalcopryrite and bornite at 500' S63W from No.1 shaft.				
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS		
GEOLOGICAL AGE Aphebian		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Huronian		
ABSOLUTE AGE 2150 m.y.				N.G.T. 2150 m.y.		
ROCK TYPE AND/OR MINERAL Diabase		K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4		
METHOD X		NAME OF TECTONIC EVENT		X		
COMPANY REPORTS		METALLURGY REFERENCE				
ECONOMICS REFERENCE		MILLING REFERENCE				
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE				
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION				
MAP REFERENCES O.D.M. Map P.239, James Township, 1964. O.D.M. Map 2046, Timmins-Kirkland Lake Sheet, 1964. O.D.M. Map P.159, Elk Lake-New Liskeard Sheet, 1962.		ODM FILES				

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968: W.L. POWELL. HISTORICAL NAME: DEVLIN MINING COMPANY LTD.		LAT. 04767100 LONG. 08027600	REF. NO. O.D.M.-Ag-1065005
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. MONTREAL RIVER	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. I, Lot 1. Leased claims: SE½ of N½, No. M.R.18962 NE½ of S½, No. M.R.12529 SE½ of S½, No. M.R.12530	
TP. or SQUARE JAMES	010560	NTS 041P09W	UTM	
LOCATION: 5 miles southeast of ELK LAKE, 35 miles northwest of Cobalt and 90 miles north east of Sudbury.		HISTORY OF OWNERSHIP:		
1908: Delvin Mining Co. Ltd. 1926: Enright Mining Co. Ltd. Circa 1942: Elco Group. 1968: W.L. Powell.		EXPLORATION AND DEVELOPMENT 1908-10: Pitting and trenching was carried out. No.1 shaft (shown on map P.239) was sunk 215', and 125' of drifting and crosscutting on the 100' level was also done. No.2 shaft (about 500' north of No.1 shaft) was sunk 30'. No.3 shaft (possibly the pit 1,470' NNW of No.1 shaft) was sunk 20'. 1926: On 100' level, 430' of drifting and crosscutting and 15' of winzing was carried out; on 200' level 280' of drifting was done. Some diamond drilling was also completed.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1920:  132 ozs. of silver.
OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT    X    PRODUCER    PAST PRODUCER				

MAJOR ORE MINERALS Silver, Fe, Co, Ni-arsenides	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Silver bearing calcite veins from 1" to 10" in width strike WNW and NE.
MINOR ORE MINERALS Chalcopyrite.	
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Calcite, aphte.	
COUNTRY ROCK OR FORMATION Nipissing Diabase.	
AGE: GEOLOGICAL Aphebian	ABSOLUTE 2150 m.y.
MAIN REFERENCE Mackean, B.E. 1967: Geology of the Elk Lake Area, Ontario Dept. Mines, Open File, No.5006, p.54.	MAP REFERENCE USED FOR LOCATION O.D.M. Map P.239, James Township, 1964. Lat. and long. refer to No.1 shaft.
	FILE STATUS: SKELETAL, INCOMPLETE, COMPLETED, REVISED
	DATE: 1968
	SIGNATURE: A.O.S.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968: W.L. POWELL. HISTORICAL NAME: DEVLIN MINING COMPANY LTD.	LAT. 47° 40' 14" LONG. 80° 16' 35"	REF. NO. O.D.M.-Ag-1065005
GEOLOGY In the area the basement rocks consist of Algomian hornblende granodiorite intrusive into steeply dipping Keewatin volcanics which are locally highly metamorphosed, strongly sheared and carbonatized; flat lying Gowanda conglomerate, pink and grey greywacke and arkose, and Lorrain arkose of the Cobalt Series unconformably overlie these basement rocks. At the property coarse grained Nipissing diabase possibly in the form of a broad feeder dike that extends westwards from Tudhope twp. is intrusive into the Cobalt Series. A granophyric fault zone strikes NW near No.1 shaft. Silver bearing narrow calcite veins strike both WNW and NE.		EXPLORATION AND DEVELOPMENT (Cont)	

ALTERATION Granophyric	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase K/Ar Rb/Sr Pb/Pb C14 X	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X
COMPANY REPORTS	METALLURGY REFERENCE		
ECONOMICS REFERENCE	MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Map P.239, James Township, 1964. O.D.M. Map P.159, Elk Lake-New Liskeard sheet, 1962. O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1964.	ODM FILES		

COMMODITY		NAME OF OCCURRENCE:		LAT. 04774900	REF. NO.
Silver Copper		CIRCA 19 68: ETHEL COPPER MINES LTD. HISTORICAL NAME: ETHEL COPPER MINES LTD.		LONG. 08027500	O.D.M.-Ag-1065001
CO. or DIST.	TMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	JAMES	010650		MONTREAL RIVER	
LOCATION: 2½ miles east northeast of ELK LAKE, 35 miles northwest of Cobalt and 90 miles northeast of Sudbury.			NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
			041P09W		Con.VI, Lot 1, Claims: SE¼ of N½, No.10316 SW¼ of N½, No.10036, NE¼ of S½, No.9431 NW¼ of S½, No.6165, SW¼ of S½, No.9331, SE¼ of S½, No.3748.
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT			PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
Claims: Nos.9331 and 3748 1908: ElkLake-Cobalt Mines of Ontario Ltd. (See also "short", No.-17). Claim: No.9431 1911: Fenwick Ellis.		19 : In early days adit and/or inclined shaft at 20° was driven 350'. Shaft on west boundary was sunk 70' on 8" calcite vein. 1961-62: Base and picket lines were cut by Sheridan Geophysics Ltd; induced polarization and electromagnetic surveys by McPhar Geophysics Ltd. and 27 diamond drill holes were completed. Underground workings include: 350' inclined shaft to 125' level where 25'S crosscut extends to main vein zone that has been drifted on east- westwards for over 600'. Property was also actively mined. 1966: Property was actively mined.			1962 and 1966 Copper 443,132 lbs. Silver 6,061 ozs. Gold 110 ozs.
Claim 10036 1909: Henry Dickson. All claims: 1952: Ethel Copper Mines Ltd. 19 : G.S. Welsh 1962: Leased to St. Lucie Exploration Co. Ltd. (expired 1965). 1968: Ethel Copper Mines Ltd.		OCCURRENCE			PRODUCER * PAST PRODUCER
MAJOR ORE MINERALS Chalcopyrite, bornite and silver mineral		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS		1960's: Silver grade: Less than 1 oz./ton.			
ORE FABRIC Vein.		Main vein zone striking about WSW extends over 600' in length; in 1966 this zone was thought to contain 32,000 tons of 2.64% Cu above 150' level.			
MAJOR GANGUE MINERALS Calcite.		Ore minerals reported are chalcopyrite and bornite.			
COUNTRY ROCK OR FORMATION Nipissing diabase, and Gowganda conglomerate and arkose.		Production from claim No.10316.			
AGE: GEOLOGICAL ABSOLUTE Apehbian and Apehbian-2150 and N.L.T. 2150 m.y.		MAP REFERENCE USED FOR LOCATION		FILE STATUS:	DATE
MAIN REFERENCE Mackean, B.E. 1967: Geology of the Elk Lake Area, Ontario Dept. of Mines, Open File No.5006, p.58.		O.D.M. Map P.239, James Township, 1964. Lat. and long. refer to adit portal		SKELETAL INCOMPLETE COMPLETE REVISED	1968
					A.O.S.
COMMODITY		NAME OF OCCURRENCE:		LAT. 47° 44' 55"	REF. NO.
Silver Copper		CIRCA 1968: ETHEL COPPER MINES LTD. HISTORICAL NAME: ETHEL COPPER MINES LTD.		LONG. 80° 16' 29"	O.D.M.-Ag-1065001
GEOLOGY In the area the basement rocks consist of Algonian hornblende granodiorite intrusive into steeply dipping Keewatin volcanics which are locally highly metamorphosed, strongly sheared and carbonatized; flat lying Gowganda conglomerate, pink and grey shales, pink arkose and Lorrain arkosic sandstone of the Cobalt Series unconformably overlie these basement rocks. At the property Nipissing (olivine hypersthene)diabase in the form of a shallow dipping sill or sheet, here dipping E and about 150' thick, is intrusive into Gowganda conglomerate and arkose near the basement. The copper silver bearing veins that occur are richest in the diabase but also occur in the underlying Gowganda sediments.			EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
Granophyre					
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:	
ABSOLUTE AGE		Apehbian, Apehbian 2150 N.L.T. 2150 m.y.		Post-Huronian N.G.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL		Diabase, Sediments			
METHOD		K/Ar Rb/Sr Pb/Pb Cl4 X		K/Ar Rb/Sr Pb/Pb Cl4 X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE		PLAN SECTION LONGITUDINAL PROJECTION	
MAP REFERENCES O.D.M. Map P.239, James Township, 1964. O.D.M. Map P.159, Elk Lake-New Liskeard Sheet, 1962. O.D.M. Map 2046, Timmins-Kirkland Lake Sheet, 1964.		ODM FILES			

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: MOTHER LODE MINING CO. LTD.	LAT. 04774400 LONG. 08035900	REF. NO. O.D.M.-Ag- 1065002
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. MONTREAL RIVER	
TP. or SQUARE JAMES	010650	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. VI, Lot 8. Claim: NW¼ of S½ No. M.R.17 (T.R.522)	
LOCATION: 1½ miles northwest of ELK LAKE, 35 miles northwest of Cobalt and 90 miles northeast of Sudbury.		NTS 041P09W	UM
HISTORY OF OWNERSHIP: 1907: Herbert Gates. 1908: Mother-Lode Mining Co. Ltd. (charter cancelled 1958). 1923: Leased to W.A. Laycock and M.J. Galvin.		EXPLORATION AND DEVELOPMENT 1908-10: An adit and workings were driven 365' to encounter a SE striking ½" wide calcite vein; this vein was drifted on for a further 32' to where it pinches out; here No.2 vein striking E-W was encountered and drifted on W for over 200'. At 8' W along No.2 vein a third vein striking N20°W was drifted on for 45'; this vein is in line with the shaft. At 18'W along No.2 vein a winze was sunk 50' on the vein dipping 68°N. At 24' along No.2 vein a raise was put up 60'. O.D.M. statistical files.	
		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1923:- 1,581 ozs. of silver.	
OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER			

MAJOR ORE MINERALS Silver, argenite, Fe,Ni,Co-arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Grade: 226 ozs./ton of silver. First calcite vein: width, ½" to 2"; length 32', strike, SE. No.2 calcite vein: width, 1½"; length 218'; strike E-W; minerals silver, argenite, Fe, Ni, Co-arsenides and chalcocopyrite. Third calcite vein: width, ½" to 2"; length 45'; strike, N20W; Minerals, specularite and chalcocopyrite.		
MINOR ORE MINERALS Chalcocopyrite.			
ORE FABRIC Vein.			
MAJOR GANGUE MINERALS Calcite.			
COUNTRY ROCK OR FORMATION Nipissing Diabase.			
AGE: GEOLOGICAL Aphebian	ABSOLUTE 2150 m.y.		
MAIN REFERENCE Mackean, B.E. 1967: Geology of the Elk Lake Area, Ontario Dept. of Mines, Open File, No.5006, p.82.	MAP REFERENCE USED FOR LOCATION O.D.M. Map P.239, James Township, 1964 Lat and long refer to shaft.	FILE STATUS SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968
		SIGNATURE A.O.S.	

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: MOTHER LODE MINING CO. LTD.	LAT. 47° 44' 38" LONG. 80° 21' 31"	REF. NO. O.D.M.-Ag-1065002
GEOLOGY In the area the basement rock consists of Algomian hornblende granodiorite; this is overlain unconformably by flat lying Cobalt Series rocks, including Gowganda conglomerate, pink and grey greywacke and arkose, and Lorrain arkose. At the property Nipissing quartz diabase in the form of a shallow dipping sill or sheet about 700' thick is intrusive into Gowganda conglomerate just above the basement granodiorite. Silver and Cobalt arsenide bearing calcite veins occur in the lower part of the diabase sill.		EXPLORATION AND DEVELOPMENT (Cont) The shaft was sunk 100', at about 30'NW of the adit. 700' trench was cut westwards from adit. A second parallel trench at top of the hill to the south was also cut; Probably the pit at its eastern end contained silver values to a depth of 15'.	

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase K/Ar Rb/Sr Pb/Pb Cl4 X	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb Cl4 X
COMPANY REPORTS	METALLURGY REFERENCE		
ECONOMICS REFERENCE	MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Map P.239, James Township, 1964. O.D.M. Map P.159, Elk Lake-New Liskeard Sheet, 1962. O.D.M. Map 2046, Timmins-Kirkland Lake Sheet; 1964.	ODM FILES		

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1967: G.S. WELSH. HISTORICAL NAME: REGENT MINES LTD.	LAT. 04771100	REF. NO. O.D.M.-Ag-1065004
		LONG. 08027500	
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. MONTREAL RIVER	
TP. or SQUARE JAMES	010650	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con. IV, Lot 1.	
LOCATION: 3 miles east southeast of ELK LAKE 35 miles northwest of Cobalt and 90 miles northeast of Sudbury.		NTS 041P08W	UTM Former claims: SE½ of S½
HISTORY OF OWNERSHIP:  1920: Regent Mines Ltd.  19 : G.S. Welsh.		EXPLORATION AND DEVELOPMENT 1920: Inclined shaft was sunk 30'.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  117 ozs. of silver.
MAJOR ORE MINERALS Silver.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Grade: 5 ozs./ton silver.	
MINOR ORE MINERALS			
ORE FABRIC Vein.			
MAJOR GANGUE MINERALS			
COUNTRY ROCK OR FORMATION Nipissing Diabase			
AGE: GEOLOGICAL ABSOLUTE Aphebian 2150 m.y.			
MAIN REFERENCE		MAP REFERENCE USED FOR LOCATION O.D.M. Map P.239, James Township, 1964. Lat. and long. refer to shaft.	FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE 1968 A.O.S. COMPLETED REVISED
COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1967: G.S. WELSH. HISTORICAL NAME: REGENT MINES LTD.	LAT. 47° 42' 40"	REF. NO. O.D.M.-Ag-1065004
		LONG. 80° 16' 29"	
GEOLOGY In the area the basement rocks consist of Algonian hornblende granodiorite intrusive into steeply dipping Keewatin volcanics which are locally highly metamorphosed, strongly sheared and carbonatized; flat lying Gowganda conglomerate, pink and grey greywacke and pink arkose of the Cobalt Series unconformably overlie these basement rocks. At the property Nipissing diabase in the form of a shallow SW dipping sill or sheet about 500' thick is intrusive into Gowganda conglomerate near the basement. The silver bearing veins occur in the diabase.		EXPLORATION AND DEVELOPMENT (Cont)	
ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase K/Ar Rb/Sr Pb/Pb C14 X	AGE OF DEFORMATION: NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X
COMPANY REPORTS	METALLURGY REFERENCE		
ECONOMICS REFERENCE	MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Map P. 239, James Township, 1964. O.D.M. Map P.159, Elk Lake-New Liskeard sheet, 1962. O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1964.	ODM FILES		

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: K.S. OLIVER. HISTORICAL NAME: MAPES-JOHNSTON MINING CO. LTD.		LAT. 04773700	REF. NO.
				LONG. 08043900	O.D.M.-Ag-1433001
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. MONTREAL RIVER		LOT, CONCESSION CLAIMS OR LEASE ACREAGE Leased claims: RSC 79 or MR 423 (Mapes- M.R. 176623, M.R.18417, MR.18650. Johnston) Surveyed claims: MR.21087-88 and 21129.	
TP. or SQUARE MICKLE	014330			Unsurveyed claims: M.R.22207, 28915-16, 34307, 37273, 38048-49, 41272-73.	
LOCATION: 5 miles west of ELK LAKE, 40 miles northwest of Cobalt and 90 miles north northeast of Sudbury.		NTS 041P09W	UTM		
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1908: F.L. Mapes, E.E. Johnston and D.J. Sellers		1909-1917: Prospect shaft was sunk 90' (110' SW of main shaft). Main shaft was sunk 208'. The 65' level follows vein 40' SW, then for some feet NW on cross veins where a raise reaches to surface; the drift continues SW on 45' level - 210' SW from main shaft raise was driven to surface from 65' level. At 50' NE of shaft drift on 65' level encountered solid niccolite in vein. On 100' level 14' of crosscutting and 160' of drifting with a raise to 65' level were carried out. On 200' level 14' of cross-cutting and 90' of drifting was done with a 65' raise to 40' long sublevel NE of shaft; and a wing was sunk 176' with levels at 265'		Possibly: <u>Silver</u> 1000 ozs. <u>Cobalt</u> 870 lbs.	
1909: Mapes Johnston Mining Co. Ltd.					
1917: Brant Mines Ltd.					
1936: J. Oliver and J. Cameron.					
1940: Leased to Symass Mining Syndicate.					
1962: Alsof Mines Ltd.					
1968: K.S. Oliver.					
MAJOR ORE MINERALS Silver, Fe, Co, Ni-arsenides.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS Niccolite, chalcopyrite, specularite, bismuth.		Claim M.R.423: Main Vein; Surface pitted and drifted on for about 350' in a SW-NE direction over a vertical depth of 400' it occurs in diabase above sedimentary contact. Production essentially from this vein.			
ORE FABRIC Vein.		M.R. 17663: 250' trench follows a vein system up to 30' wide that strikes N10°E and mineralized with chalcopyrite, bornite, and specularite.			
MAJOR GANGUE MINERALS Calcite.		M.R. 18650: Chalcopyrite mineralized vein strikes N by lake for 60' in trench. Curved vein in SW corner, pitted, trenched and d.d.; high silver assays obtained.			
COUNTRY ROCK OR FORMATION Nipissing Diabase.		Other claims: Pits and trenches on small veins, see file 5006.			
AGE: GEOLOGICAL Aphebian		ABSOLUTE 2150 m.y.			
MAIN REFERENCE Mackean, B.E. 1967: Geology of the Elk Lake Area, O.D.M. Open File Rept. No.5006, p. 104-115.		MAP REFERENCE USED FOR LOCATION O.D.M. Map Mickle Twp. 1964. Long. and lat. refer to shaft.		FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED	
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: K.S. OLIVER. HISTORICAL NAME: MAPES-JOHNSTON MINING CO. LTD.		LAT. 47° 44' 15"	REF. NO.
				LONG. 80° 26' 22"	O.D.M.-Ag-1433001
GEOLOGY Nipissing diabase in the form of a sill or sheet about 750' thick dips SW off Algoman granite and Gowganda conglomerate to underlie gently dipping Gowganda Conglomerate, banded greywacke and Lorrain arkosic sandstone; the diabase shows marked columnar jointing and varies locally into its granophyric phase. At the Mapes-Johnston shaft the diabase is about 400' thick. Shallow dipping faults strike SE and WSW. The Main vein on Mapes-Johnston claim strikes NE, other veins on the claims strike NW and about N, some are curved. Silver occurs in a calcite matrix but the veins are characterized by high cobalt, copper and locally nickel assays from the common presence of Fe, Co, Ni arsenides, chalcopyrite and niccolite respectively.		EXPLORATION AND DEVELOPMENT (Cont) 300' and 370'. On 370' level, 150' drift in slate encountered nothing of value. 1940: 25' of raising was driven from 65' level. 1962-63: On 65' level 230' of drifting and 131' of raising; and on 100' level 38' of raising were carried out. Total drifting includes: 65' level, 330'; 100' level, 155'; 200' level, 105'; 265' level, 60'; 300' level, 100'; and 370' level, 300'. 8 diamond drill holes totalling 1,337' were also completed. CLAIM M.R.18650; 19 : Hasaga Gold Mines Ltd drilled 8 diamond drill holes on curved vein. 1950's: Pickle Crow Gold Mines drilled 4 holes to intersect vein on a prospect shaft near E boundary of claim.			
ALTERATION Granophyre		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE Aphebian		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Huronian	
ABSOLUTE AGE 2150 m.y.				N.G.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL Diabase		K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4	
METHOD X		NAME OF TECTONIC EVENT			
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake Sheet, 1963. O.D.M. Map 159, Elk Lake-New Liskeard sheet, 1962. O.D.M. Map P.240, Mickle Township, 1964.		ODM FILES			

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1964: WELSH G.S. HISTORICAL NAME: NORTH AMERICAN SILVER MINING CO. LTD.		LAT. 04772400	REF. NO.	
				LONG. 08044700	D.D.M.-Ag-1433003	
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	MONTREAL RIVER	
TP. or SQUARE	MICKLE		014330			
LOCATION: 5 miles west of ELK LAKE, 40 miles northwest of Cobalt and 90 miles north northeast of Sudbury.			NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Former claims: J.S. 174 to 178.	
HISTORY OF OWNERSHIP: 1908: Clinton. 1908: Clinton and Steindler Syndicate. 1909: North American Silver Mining Co. Ltd. 19 : Welsh G.S. 1961: Optioned to Le Mans Exploration Ltd. 1962: Optioned to Majortrans Oil and Mines Ltd. 1963: Optioned to Candore Explorations Ltd.			041P09W		Unsurveyed claims: M.R. 32764 M.R. 29938-41	
			EXPLORATION AND DEVELOPMENT 1908-10: Main adit was driven 200'W from east side of diabase cliff. Main shaft (100' east of adit) was sunk with a 350'W drift and a 240'N crosscut on 70' level. A shaft (220'N 67°E from Main shaft) was sunk. A shaft (400'N 71°E from Main shaft) was sunk from top of E diabase hill. Trench (80' north of above shaft) was cut for 175' on a strike of N85°W; and a small adit developed near its west end.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  None recorded.	
			OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT X PRODUCER PAST PRODUCER	
MAJOR ORE MINERALS Silver, Fe,Co,Ni-arsenides.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS Galena, chalcopyrite, specularite.			Narrow calcite and aplite veins generally less than 6" wide that strike mostly ENE, E and ESE were exposed for lengths up to 100' on surface. In 1963 low silver assays were obtained from vein in 70' level drift.			
ORE FABRIC Vein.			Silver, Fe,Co,Ni-arsenide, galena, chalcopyrite and specularite mineralization occurs generally in calcite gangue but locally in barite, quartz and aplite.			
MAJOR GANGUE MINERALS Calcite, (quartz), (aplite).						
COUNTRY ROCK OR FORMATION Nipissing Diabase.						
AGE: GEOLOGICAL Aphebian		ABSOLUTE 2150 m.y.				
MAIN REFERENCE Mackean, B.E. 1967: Geology of the Elk Lake Area, O.D.M. Open File Rept. No. 5006, p. 125-130.			MAP REFERENCE USED FOR LOCATION O.D.M. Map P.240 Mickle Twp, 1964 Long. and lat. refer to portal of adit.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED DATE: 1968 SIGNATURE: A.O.S.	
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1964; WELSH, G.S. HISTORICAL NAME: NORTH AMERICAN SILVER MINING CO. LTD.		LAT. 47° 43' 25"	REF.NO.	
				LONG. 80° 26' 48"	O.D.M.-Ag-1433003	
GEOLOGY Nipissing diabase in the form of a sill or sheet and 750' thick dips SW off Algoman granite and Gowganda conglomerate to underlie gently dipping Gowganda conglomerate, banded greywacke and Lorrain arkosic sandstone. The main adit on the east side of diabase cliff follows the contact between the diabase and its granophyric phase, here thought to be in part-sedimentary rock replaced by granophyric solutions.			EXPLORATION AND DEVELOPMENT (Cont) Small shaft - (just south of claim T.R.224) was sunk about 50' on a small vein that was trenced for 100' on a strike of N60°W to a small pit exposing two small aplite dikes. Other small trenches and pits were also developed. 1963: Timbers of Main shaft were replaced.			
ALTERATION Granophyre		METAMORPHISM		MINERAL PARAGENESIS		
		AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb CI4		
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD				AGE OF ORE MINERAL Post-Huronian N.C.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb CI4		
		X		X		
COMPANY REPORTS			METALLURGY REFERENCE			
ECONOMICS REFERENCE			MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake Sheet; 1963. O.D.M. Map P.159, Elk Lake-New Liskeard Sheet, 1962 O.D.M. Map P.240, Mickle Township, 1964.			ODM FILES			



COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: B.L. MORRISON. HISTORICAL NAME: OTISSE MINING COMPANY (CLAIM TR224)		LAT. 04772600	REF. NO.
				LONG. 08044200	O.D.M.-Ag-1433002
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	MICKLE		014330	MONTREAL RIVER	
LOCATION: 5 miles west of ELK LAKE, 40 miles northwest of Cobalt and 90 miles north northeast of Sudbury.			NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Claim: T.R.224, formerly E.B.21(Leased) M.R.752, formerly RSC 125 (Otisse-Currie) and 22 unsurveyed contiguous claims. See also North American Silver Mining Co. Ltd (MR 32764, MR 29938-41)
HISTORY OF OWNERSHIP: 1908: Claim T.R.224, Sam Otisse. 1909: Claim M.R.752, Otisse-Currie Consolidated Silver Mines Ltd. 1909: Claim T.R.224, Otisse Mining Co. 1909: 5 unsurveyed claims, North American Silver Mining Co. 19 : Welsh G.S. 1961: Optioned to Le Mans Exploration Ltd. 1962: Optioned to Majortrans Oil and Mines Ltd 1963: Optioned to Candore Explorations Ltd. 1968: B.L. Morrison.			EXPLORATION AND DEVELOPMENT 1908-10: No.1 shaft (T.R.224) was sunk to 86'. No.2 or Main shaft (centre of T.R.224) was sunk 150' with 1,165' on 75' level and 350' on 150' level of development work; and in addition 5,200' of surface trenching. On claim M.R.29942 North American S.M.C. sunk 3 shallow shafts and drove an adit 200'. On claim M.R.752 shaft was sunk with 250' of drifting. 1962: High grade ore shoots were examined on 75' level of main shaft in 4 parallel calcite veins. Diamond drilling was		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) At least: <u>Silver</u> 2,380 ozs. <u>Cobalt</u> 26 lbs.
MAJOR ORE MINERALS Silver, Fe, Co, Ni-arsenides.			OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X		
MINOR ORE MINERALS			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES In 1962 it was estimated that W ore shoot on No.4 Vein contained 1000 tons of ore grading 60 ozs./ton of silver.		
ORE FABRIC Vein and disseminated. MAJOR GANGUE MINERALS Calcite.					
COUNTRY ROCK OR FORMATION Nipissing Diabase.					
AGE: GEOLOGICAL Apehbian		ABSOLUTE 2150 m.y.			
MAIN REFERENCE Mackean, B.E. 1967: Geology of the Elk Lake Area, O.D.M. Open File Report No. 5006, p. 125-133.			MAP REFERENCE USED FOR LOCATION O.D.M. Map P.240, Mickle Twp. 1964. Longitude and latitude refer to main shaft.		FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: B.L. MORRISON. HISTORICAL NAME: OTISSE MINING COMPANY (CLAIM TR 224).		LAT. 47° 43' 33"	REF. NO.
				LONG. 80° 26' 33"	O.D.M.-Ag-1433002
GEOLOGY Nipissing diabase in the form of a sill or sheet about 750' thick dips SW off Algoman granite and Gowganda conglomerate to underlie gently dipping Gowganda conglomerate, banded greywacke and Lorrain arkosic sandstone; the diabase shows marked columnar jointing and varies locally into its granophyric phase. Other joints in the diabase dip 10° to 17°E and strike N to N10°W. Aplite dikes occur. Calcite veins, 3" to 4" wide, strike E-W and contain patches of rich silver mineralization that locally are present at depth; some dissemination of silver in the diabase also occurs.			EXPLORATION AND DEVELOPMENT (Cont) done and raising on W ore shoot of No.4 vein. 1963: Exploration work included: On 75' level, 33 diamond drill holes totalling 1,665'; and 23 other underground diamond drill holes totalling 2,950'. 1964-68: Mining has been carried out on a small scale.		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Apehbian 2150 m.y. Diabase K/Ar Rb/Sr Pb/Pb Cl4 X		AGE OF DEFORMATION: NAME OF TECTONIC EVENT K/Ar Rb/Sr Pb/Pb Cl4	
				AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb Cl4 X	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake Sheet, 1964. O.D.M. Map 159, Elk Lake - New Liskeard Sheet, 1962. O.D.M. Map 240, Mickle Township, 1964.			ODM FILES		

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: COTLEY MINES LTD. HISTORICAL NAME: SHANE-DARRAGH CLAIM W.D. 904.		LAT. 04772100 LONG. 08042300	REF. NO. O.D.M.-Ag- 1433004
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. MONTREAL RIVER		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Claims: MR 12890 MR 18466 16294 18504 16319 18505 17600 18506 18460 19649 18461 19650	
TP. or SQUARE MICKLE	014330	NTS 041P09W	UTM	LOCATION: 5 miles west of Elk Lake, 40 miles northwest of Cobalt and 90 miles north northwest of Sudbury.	
HISTORY OF OWNERSHIP: 1908: Shane-Darragh (Former claim WD 904, equivalent to MR 12890 and MR 16294) 19 : Downey (MR 12890 by litigation), 1952: Calcourt Mines Ltd. 1953: Cotley Mines Ltd. 1954-55: Leased to Silverclaim Lake Mines Ltd. (subsidiary of Siscoe Gold Mines)		EXPLORATION AND DEVELOPMENT 1908-13: Surface trenching and open pitting was carried out. Shaft was sunk to about 50'. An open pit 30' long and 15' deep produced 11 tons of ore. 1953: A former test pit was deepened to 79' and became No. 1 shaft. 71' of drifting on 75' level & 26 diamond drill holes totalling 3,452'. 437 tons of ore were hoisted. No. 1 shaft was deepened to 84' and 30' of raising was done from 75' level. Diamond drilling included 5 surface holes totalling 881' and 8 underground holes totalling 554'. O.D.M. statistical files.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1953 to 1955 Silver 63,471 ozs. \$54,396 Cobalt 1,214 lbs. \$ 2,367	
MAJOR ORE MINERALS Silver, Fe,Co,Ni-arsenides.		MINOR ORE MINERALS Chalcopyrite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Original calcite vein described as being 6" to 8" wide and carrying 25% silver. At shaft: No. 1 Vein strikes N10°E. No. 2 Vein branches off No. 1 at 30' north of shaft to strike N for 60'. Downey Vein strikes N80°E for 70'. 400'S 28°W from shaft: No. 4 vein occurs near an aplite dike that strikes S10°E., a second aplite dike there strikes N80°W. Grade 1953-55 Silver: 24 ozs/ton Cobalt: 0.46 lbs/ton.	
ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite, granophyre. COUNTRY ROCK OR FORMATION Nipissing diabase.		AGE: GEOLOGICAL ABSOLUTE Aphebian 2150 m.y.		MAP REFERENCE USED FOR LOCATION O.D.M. Map P.240 Mickle Twp. 1964. Long. and lat. refer to shaft.	
MAIN REFERENCE Mackean B.E. 1967: Geology of the Elk Lake Area, O.D.M. Open File Report No. 5006, p. 115-118.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED		DATE: 1968	
SIGNATURE: A.O.S.		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER			
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: COTLEY MINES LTD. HISTORICAL NAME: SHANE-DARRAGH CLAIM WD 904.		LAT. 47° 43' 15" LONG. 80° 25' 22"	REF. NO. O.D.M.-Ag-1433004
GEOLOGY Nipissing diabase in the form of a sill or sheet about 750' thick dips SW off Algomian granite and Cowganda conglomerate to underlie gently dipping Gowganda conglomerate, banded greywacke and Lorrain arkosic sandstone. The diabase within the claims is partly as its granophyric phase. 3 prominent topographic linears reflecting shear or fault zones strike NW across the property. Calcite veins with silver, arsenide and sulphide mineralization strike about N, W and NNE.		EXPLORATION AND DEVELOPMENT (Cont) 2,210 tons of ore were hoisted.			
ALTERATION Granophyre		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase K/Ar Rb/Sr Pb/Pb Cl4 X		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT X	
AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.		K/Ar Rb/Sr Pb/Pb Cl4 X			
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake Sheet, 1964. O.D.M. Map P.159, Elk Lake-New Liskeard Sheet, 1962. O.D.M. Map P.240, Mickle Township, 1964.		ODM FILES			

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 19 68 E. THICLE ESTATE. HISTORICAL NAME: PARAMOUNT SYNDICATE.	LAT. 04772900	REF. NO. O.D.M.-Ag-2068002
CO. or DIST. TIMISKAMING	CODE No. 59	LONG. 08027300	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.V, Lot 12 Former claim: SW $\frac{1}{4}$ of S $\frac{1}{2}$ , No. M.R.6195. Con.IV, Lot 12 Former claims: N $\frac{1}{2}$ , Nos. M.R. 9,648, 6196 6,197, 6198
TP. or SQUARE TUDHOPE	020680	MINING DIV. MONTREAL RIVER	
LOCATION: 3 miles east of ELK LAKE, 35 miles northwest of Cobalt and 90 miles northeast of Sudbury.		NTS 041P09W	UTM
HISTORY OF OWNERSHIP: 1908: Tudhope Silver Mining Co. Circa 1928: Paramount Syndicate. 1968: E. Thicle Estate.		EXPLORATION AND DEVELOPMENT 1909: Tudhope Silver Mining Co. sank a shaft to 300' depth and drifting was carried out. 1929: Small scale mining was carried out.	
		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1 ton of ore produced 242 ozs. of <u>silver</u> .	
O.D.M. statistical files.			

MAJOR ORE MINERALS Silver, Fe,Co,Ni-arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Grade: 242 ozs./ton of silver. Con.V: Two calcite veins by shaft strike NW and are mineralized with cobalt bearing minerals, chalcopyrite and galena in a gangue of quartz and calcite. Con.IV: 330' long copper vein up to 10" wide strikes N80°E and dips subvertically south; hanging wall is thin aplite or granophyre dike. Bornite with other copper minerals occurs in a gangue of quartz, aplite and calcite.
MINOR ORE MINERALS Bornite, chalcopyrite, malachite, covellite, chalcocite and galena.	
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Calcite, aplite quartz.	
COUNTRY ROCK OR FORMATION Nipissing diabase.	
AGE: GEOLOGICAL Aphebian	ABSOLUTE 2150 m.y.
MAP REFERENCE USED FOR LOCATION Moorhouse, W.W. 1941: Geology of the Bryce-Robillard Area, Ontario Dept. of Mines, Vol.50, pt.4, p. 41-42.	FILE STATUS: SKETAL INCOMPLETE COMPLETED REVISED DATE: 1968 SIGNATURE: A.O.S.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968: E. THICLE HISTORICAL NAME: PARAMOUNT SYNDICATE.	LAT. 47° 43' 43"	REF.NO. O.D.M.-Ag-2068002
GEOLOGY In the area the basement rocks consist of Algomian hornblende granodiorite intrusive into steeply dipping Keewatin volcanics which are locally highly metamorphosed, strongly sheared and carbonatized; flat lying Gowganda conglomerate, pink and grey shales and pink arkose of the Cobalt Series unconformably overlie these basement rocks. At the property Nipissing quartz diabase in the form of a shallow SW dipping sill or sheet about 300' thick is intrusive into Gowganda conglomerate near the basement. The silver, cobalt and copper mineralized calcite-aplite veins occur in the diabase.		EXPLORATION AND DEVELOPMENT (Cont)	

ALTERATION Granophyre	METAMORPHISM AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase	MINERAL PARAGENESIS AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD K/Ar	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X
COMPANY REPORTS	METALLURGY REFERENCE	
ECONOMICS REFERENCE	MILLING REFERENCE	
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE	
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN * SECTION LONGITUDINAL PROJECTION Moorhouse, W.W. 1941: O.D.M. Vol.50, pt.4, p.42.	
MAP REFERENCES O.D.M. Map 50j, Bryce-Robillard Area, 1941. O.D.M. Map P.159, Elk Lake-New Liskeard sheet, 1962. O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1964.	ODM FILES	

COMMODITY Silver	CIRCA 19 : HISTORICAL NAME: SILVER ALLIANCE MINES LTD.	NAME OF OCCURRENCE:	LAT. 04773800 LONG. 08026900	REF. NO. O.D.M.-Ag-2068001
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. MONTREAL RIVER	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Con.V, Lot 12.	
TP. or SQUARE TUDHOPE	020680	NTS 041P09W UTM	Former claim: NW¼ of N½	
LOCATION: 3 miles east of ELK LAKE, 35 miles northwest of Cobalt and 90 miles northeast of Sudbury.		HISTORY OF OWNERSHIP: 1906: Silver Lion Mining and Development Co. 1908: Silver Alliance Mines Ltd. 1919: Worked by Lt. Col. McKee of Elk Lake. Circa 1940: F. Sobol.		
EXPLORATION AND DEVELOPMENT 1909: No.1 shaft was sunk to a depth of 100' and 200' of drifting and crosscutting was carried out. 1911: Small scale mining was carried out. 1919: A small amount of work was done.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 2 tons of ore produced 510 ozs. of silver.		
OCCURRENCE		RAW PROSPECT	DEVELOPED PROSPECT	PRODUCER PAST PRODUCER

MAJOR ORE MINERALS Silver, Fe,Co,Ni-arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Grade: 255 ozs./ton of silver.
MINOR ORE MINERALS Bornite, chalcocopyrite.	
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Calcite.	
COUNTRY ROCK OR FORMATION Nipissing Diabase.	
AGE: GEOLOGICAL Aphebian	ABSOLUTE 2150 m.y.
MAP REFERENCE	MAP REFERENCE USED FOR LOCATION Lat. and long. refer to shaft. O.D.M. Map 50j, Bryce-Robillard Area, 1941.
	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED
	DATE 1968
	SIGNATURE A.O.S.

COMMODITY Silver	CIRCA 19 : HISTORICAL NAME: SILVER ALLIANCE MINES LTD.	NAME OF OCCURRENCE:	LAT. 47° 44' 17" LONG. 80° 16' 07"	REF.NO. O.D.M.-Ag-2068001
GEOLOGY In the area the basement rocks consist of Algonian hornblende granodiorite intrusive into steeply dipping Keewatin volcanics which are locally highly metamorphosed, strongly sheared and carbonatized; flat lying Gowganda conglomerate, pink and grey shales and pink arkose of the Cobalt Series unconformably overlies these basement rocks. At the property Nipissing quartz diabase in the form of a shallow SW dipping sill or sheet about 300' thick is intrusive into Gowganda conglomerate near the basement. The silver, cobalt and copper mineralization veins occur in the diabase.		EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase K/Ar Rb/Sr Pb/Pb C14	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT
		AGE OF ORE MINERAL Post-Huronian N.C.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X
COMPANY REPORTS	METALLURGY REFERENCE	
ECONOMICS REFERENCE	MILLING REFERENCE	
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE	
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION	
MAP REFERENCES O.D.M. Map 50j, Bryce-Robillard Area, 1941. O.D.M. Map P.159, Elk Lake-New Liskeard Sheet, 1962. O.D.M. Map 2046, Timmins-Kirkland Lake Sheet, 1964.	ODM FILES	

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: LUCKY GODFREY SILVER MINE.	LAT. 04766100 LONG. 08028056	REF. NO. O.D.M.-Ag-2174001
CO. or DIST. TIMISKAMING TP. or SQUARE WILLET	CODE No. 59 021740	MINING DIV. MONTREAL RIVER	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Former claims: J.S. 202 J.S. 203 J.S. 204 J.S. 205 J.S. 206 J.S. 207
LOCATION: 6 miles southeast of ELK LAKE, 90 miles north of Sudbury and 40 miles northwest of Cobalt.		NTS 041P09W	UTM
HISTORY OF OWNERSHIP: 1908: Richard Godfrey. 1908: Lucky Godfrey Cobalt Mines Co. Ltd. 1964: E.C. Pritchard and A. Bastien of Elk Lake.		EXPLORATION AND DEVELOPMENT 1908: Trenching and surface pitting was carried out. 1909-11: Shaft (300' W of Rose Lake) was sunk 102'. On 100' level, 300' of drifting and crosscutting was carried out; this included a 68' W drift and crosscuts N and S each 120' in length	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  Silver Cobalt 9,835 ozs. 592 lbs. \$5,123 \$592  Grade 578 ozs./ton of silver.  O.D.M. statistical files.
OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT    PRODUCER    PAST PRODUCER X			

MAJOR ORE MINERALS Silver, Fe,Co,Ni-arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS Chalcopyrite, pyrite.	Vein system No.1 Strikes N75°E with 85°N dip, and consists of several sub parallel fractures over a width of 2' to 3'; the hanging wall is a chlorite covered slip surface. The vein system was formerly exposed in surface trench SW of shaft 50' long and 15' deep, from which the production of 17 tons was obtained.
ORE FABRIC Vein.	Vein No.2 Dips from 0° to 43°SE and is 2½' thick including inclusions of schists. It is composed of coarse carbonate with some quartz in wallrocks of chloritic schist. Mineralization is mostly chalcopyrite and pyrite.
MAJOR GANGUE MINERALS Calcite, quartz.	MAP REFERENCE USED FOR LOCATION O.D.M. Map P.313, Willet Township, 1965.
COUNTRY ROCK OR FORMATION Nipissing Diabase.	FILE STATUS:    DATE    SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED
AGE: GEOLOGICAL    ABSOLUTE Aphebian    2150 m.y.	
MAIN REFERENCE Mackean, B.E. 1966: O.D.M. Open File Report No. 5006.	

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME: LUCKY GODFREY SILVER MINE.	LAT. 47° 39' 41" LONG. 80° 16' 50"	REF.NO. O.D.M.-Ag-2174001
GEOLOGY Nipissing diabase occurs as a sheet or sill about 750' thick intrusive into banded siltstone of the Gowganda formation and into arkosic sandstone of the Lorrain formation (both formations being Cobalt Series rocks). The Mine is situated within the diabase where it varies from its coarse grained phase to that of granophyre and near its contact with the sediments. The diabase contact 500'E of the mine strikes NNE to the major Montreal River Fault within 1½ miles.		EXPLORATION AND DEVELOPMENT (Cont)	

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase K/Ar    Rb/Sr    Pb/Pb    C14 X	AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar    Rb/Sr    Pb/Pb    C14 X
COMPANY REPORTS	METALLURGY REFERENCE	
ECONOMICS REFERENCE	MILLING REFERENCE	
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE	
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN    SECTION    LONGITUDINAL PROJECTION	
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake Sheet, 1963. O.D.M. Map P.159, Elk Lake-New Liskeard Sheet, 1962. O.D.M. Map P.313, Willet Township, 1965. O.D.M. Map 2152, Roadhouse and Willet Townships, 1967.	ODM FILES	

District of TIMISKAMING N.T.S. or Townships JAMES

NAME	WORK DONE		VEIN		DESCRIPTION	METALS PRESENT							REFERENCE
			CALCITE	APLITE		Ag	Co	Cu	Ni	Bi	Zn	Pb	
1909: Beacon Consol. ML. 1963: Solomino GML. 1968: M. Romaniuk. Claims: MR 28868-69 etc.	Shaft X Adit X Pit X Trench X D. Drill X Geophys X	By 1915: Beacon shaft was sunk to 370' with levels at 100', 200' & 300'. 6 D. drill holes were completed beneath pit, 450' E of shaft.	X	X	Numerous calcite veins occur in granophyric and normal Nipissing diabase. Best assay: 5,213 oz/t silver over 5" width. 3.42% Cobalt. Chalcopyrite.	native	arsenides	X	X				ODM Open File 5006, p.90, 1967 Mackean, B.E. JAMES 6 South of Alma Lake MAPS O.D.M. P.239, 1964. O.D.M. 2046, 1964.
1906: Big Six Silver Cobalt ML. 1952: Lenwood Mining & Explorations Ltd 1968: J.J. Gray.	Shaft X Adit X Pit X Trench X D. Drill X Geophys X	1910: Shaft was sunk 194' with 60' of drifting on 100' level.			Property occurs in Nipissing diabase adjacent to Mother Lode Mine that produced 1,581 ozs. of silver.								ODM Open File 5006, p.64, 1967 Mackean, B.E. JAMES 14 Con. VI, Lot 8, S $\frac{1}{2}$ , SW $\frac{1}{4}$ MAPS O.D.M. P.239, 1964. O.D.M. 2046, 1964.
Cole Property Patricia Mines Ltd.	Shaft X Adit X Pit X Trench X D. Drill X Geophys X	Shaft was sunk 96' on N side of hill.			12" aplite dike and 8" calcite vein strike W for 200' in Nipissing diabase. Chalcopyrite, specularite								ODM Open File 5006, p.86, 1967 Mackean B.E. JAMES 8 Con. II, Lot 2, S $\frac{1}{2}$ MAPS O.D.M. P.239, 1964 O.D.M. 2046, 1964.
1908: Elk Lake Cobalt Mines of Ontario. 1968: G.S. Welsh prspc	Shaft X Adit X Pit X Trench X D. Drill X Geophys X	Two shafts were sunk, 40' & 25' deep.			See Ethel Copper Mines Ltd. for general geological setting.								JAMES 17 Con. VI, Lot 1, S $\frac{1}{2}$ , SW $\frac{1}{4}$ , SE $\frac{1}{4}$ MAPS O.D.M. P.239, 1964 O.D.M. 2046, 1964.
1908: Elk Lake Discovery ML. 1964: R.H. Waddell prspc.	Shaft X Adit X Pit X Trench X D. Drill X Geophys X	1908: Shaft was sunk 150' with 75' NE & 287' NW drifts.			Calcite and aplite veins occur in Nipissing diabase.								ODM Open File 5006, p.95, 1967, Mackean B.E. JAMES 16 Con. V, Lot 1, N $\frac{1}{2}$ , SE $\frac{1}{4}$ MAPS O.D.M. P.239, 1964 O.D.M. 2046, 1964.

District of TIMISKAMING N.T.S. or Townships JAMES

NAME	WORK DONE		VEIN		DESCRIPTION	METALS PRESENT							REFERENCE
			CALCITE	APLITE		Ag	Co	Cu	Ni	Bi	Zn	Pb	
1968: Montreal River International SML.	Shaft X Adit X Pit X Trench X D. Drill X Geophys X	Shaft sunk on vein at rock contact.			NNE calcite vein up to 20" wide occurs for 400' along Nipissing diabase Cobalt Serles contact. Niccolite.	native	arsenides	X	X				ODM Open File 5006, p.81, 1967 Mackean, B.E. JAMES 22 Con. VI, Lot 3, N $\frac{1}{2}$ , SW $\frac{1}{4}$ MAPS O.D.M. P.239, 1964. O.D.M. 2046, 1964.
1907: Moose Horn ML. 19 : Min-Ore ML. 1968: Laurin-Welsh. Claims: 6666-7 MR 38997-8	Shaft X Adit X Pit X Trench X D. Drill X Geophys X	Main shaft by Highway sunk 125' with 1000' of drifting on this level. Winzes to 175' & 200' levels. 2 shafts by creek, one 100' deep.			Granophyric Nipissing diabase contains ENE & N-S veins up to 10" wide. Local rich silver ore shoots; 3 tons shipped. Niccolite.				X				ODM Open File 5006, p.72, 1967 Mackean, B.E. JAMES 18 Con. V, Lot 4, N $\frac{1}{2}$ MAPS O.D.M. P.239, 1964. O.D.M. 2046, 1964.
1953: Mother-Lode Mining Co. Ltd. 1957: R.H. McManns & Co. 1967: G.S. Welsh prspc.	Shaft X Adit X Pit X Trench X D. Drill X Geophys X	Shaft was sunk 30', 450' WNW from shaft 600' NNE trench with 18' deep pit exposes 6" calcite vein. 10' pit 500' NNW of shaft on small vein.			Granophyric Nipissing diabase encloses 6" vein in trench with abundant niccolite etc. Other veins occur. Chalcopyrite, bornite, bismuth.			X	X	X	X	X	ODM Open File 5006, p.99, 1967 Mackean, B.E. JAMES 15 Con. IV, Lot 1, NE $\frac{1}{4}$ , NW $\frac{1}{4}$ MAPS O.D.M. P.239, 1964. O.D.M. 2046, 1964.
1968: Norton-McMahon prspc.	Shaft X Adit X Pit X Trench X D. Drill X Geophys X	20' pit was sunk at S end of NNE 100' trench exposing 2 $\frac{1}{2}$ " calcite vein. Second trench 100' SE exposes parallel 4" vein for 50'.			NNE calcite veins occur in columnar jointed Nipissing diabase. Chalcopyrite, specularite			X	X	X	X		ODM Open File 5006, p.85, 1967 Mackean, B.E. JAMES 7 Con. I, Lot 2, S $\frac{1}{2}$ , NE $\frac{1}{4}$ MAPS O.D.M. P.239, 1964. O.D.M. 2046, 1964.
1908: Prudential ML.	Shaft X Adit X Pit X Trench X D. Drill X Geophys X	1910: A shaft was sunk to 125' on aplite dike. 19 : Shaft on E boundary of claim is on 10" carbonate vein.			Smaltite vein occurs within aplite dike in Nipissing diabase.								ODM Open File 5006, p.87, 1967 Mackean, B.E. JAMES 20 Con. VI, Lot 5, S $\frac{1}{2}$ , SE $\frac{1}{4}$ , NE $\frac{1}{4}$ MAPS O.D.M. P.239, 1964. O.D.M. 2046, 1964.

District of TIMISKAMING

N.T.S. or Townships JAMES, MICKLE, SMYTH

NAME	WORK DONE	VEIN			DESCRIPTION	METALS PRESENT							REFERENCE	
		CALCITE	QUARTZ	APLITE		Ag	Co	Cu	Ni	Bi	Zn	Pb		
1908: Regal Mining Co. Ltd.	Shaft	X			Property is underlain by Nipissing Diabase.	Ag	Co	Cu	Ni	Bi	Zn	Pb	ODM Open File 5006, p.88, 1967 Mackean, B.E.	
	Adit													
	Pit													
	Trench													
	D. Drill													
Geophys												JAMES 19		
47°44'23"   80°21'44"													Con. VI, Lot 9, S $\frac{1}{2}$ , SE $\frac{1}{4}$ MAPS O.D.M. P.239, 1964. O.D.M. 2046, 1964.	
1909: Tee Arr MCo. Ltd Elk Lake Cobalt SMCo.	Shaft	X			Veins up to 1' wide strike variously in Nipissing Diabase. Shearing strikes ENE. Niccolite, bornite, chalcopyrite, specularite								ODM Open File 5006, p.48, 1967 Mackean, B.E.	
	Adit	X												
	Pit	X												
	Trench	X												
	D. Drill	X												
Geophys												JAMES 11		
47°43'33"   80°22'41"													Con. IV & V, Lot 10. MAPS O.D.M. P.239, 1964. O.D.M. 2046, 1964.	
1909: Boland-Thomson Silver Mining Co. Ltd. 1946: Fahrenheit Mining Co. Ltd. 1968: Vermont ML Claims: 20364-5 MR 20911-12, etc.	Shaft	X			Many veins occur in granophytic Nipissing Diabase. One, 2" wide strikes N & is exposed in trench for 100'. Best assay: 1,100 oz/t silver Argentite.								ODM Open File 5006, p.123, 1967, Mackean, B.E.	
	Adit	X												
	Pit	X												
	Trench	X												
	D. Drill	X												
Geophys												MICKLE 5		
47°44'58"   80°27'00"													West of Boland L. MAPS O.D.M. P.240, 1964. O.D.M. 2046, 1964.	
1925: Mickle SML. 1968: McAuley-Rotondo.	Shaft	X			Calcite veins occur in Nipissing Diabase. Assays: 5000 oz/t silver reported.								ODM Vol.36, pt.1, p.163, 1927.	
	Adit	X												
	Pit	X												
	Trench	X												
	D. Drill	X												
Geophys												MICKLE 6		
Claims: MR 45492, 45596.													North of Silver (claim) L. MAPS O.D.M. P.240, 1964. O.D.M. 2046, 1964.	
47°44'20"   80°25'47"														
Montreal R. Int. SML. 1912: Cobalt Union ML 1953: G. Silverman. 1968: Silver-Men ML.	Shaft	X			5 thin calcite veins are exposed in Nipissing Diabase that dips E; one N-S aplite vein also. Best assay: 3,650' oz/t Ag & 11% Co over 1 $\frac{1}{2}$ " in vein, 10 oz/t Ag over 1' in wall.								ODM Open File 5006, p.123, 1967, Mackean, B.E.	
	Adit	X												
	Pit	X												
	Trench	X												
	D. Drill	X												
Geophys												SMYTH 1		
Claims: MR 20001-03 47°45'30"   80°21'00"													Con. I, Lot 7, S $\frac{1}{2}$ , Lot 8, N $\frac{1}{2}$ . MAPS O.D.M. P.240, 1964. O.D.M. 2046, 1964.	

District of TIMISKAMING

N.T.S. or Townships JAMES

NAME	WORK DONE	VEIN			DESCRIPTION	METALS PRESENT							REFERENCE	
		CALCITE	QUARTZ	APLITE		Ag	Co	Cu	Ni	Bi	Zn	Pb		
1906: German Development Co. Ltd.	Shaft	X			"Big Vein" occurs as an 18" calcite vein in Nipissing Diabase.	Ag	Co	Cu	Ni	Bi	Zn	Pb	ODM Open File 5006, p.62, 1967 Mackean, B.E.	
	Adit													
	Pit													
	Trench													
	D. Drill													
Geophys												JAMES 13		
47°44'03"   80°21'52"													Con. V, Lot 9, N $\frac{1}{2}$ , SE $\frac{1}{4}$ . MAPS O.D.M. P.239, 1964. O.D.M. 2046, 1964.	
1950: D. Giles prspc.	Shaft	X			Irregular quartz vein up to 16" wide occurs in 4' wide shear zone that strikes N65°E in Gowanda greywacke & sandstone. Chalcopyrite, specularite and galena.								ODM Open File 5006, p.63, 1967 Mackean, B.E.	
	Adit													
	Pit	X												
	Trench	X												
	D. Drill	X												
Geophys												JAMES 12		
47°43'49"   80°20'45"													Con. V, Lot 7, S $\frac{1}{2}$ , NW $\frac{1}{4}$ . MAPS O.D.M. P.239, 1964. O.D.M. 2046, 1964.	
1908: Gavin Hamilton MCo. 1909: Langham Cobalt ML. 1963: L. Craig, McAdam Min. Corp. Ltd.	Shaft	X			About 12 veins mostly striking E-W occur, No.3 at E shaft up to 2' wide, NE one at W shaft 10" wide in bx'd & granophytic Nipissing Diabase. Chalcopyrite, niccolite.								ODM Open File 5006, p.70, 1967 Mackean, B.E.	
	Adit	X												
	Pit	X												
	Trench	X												
	D. Drill	X												
Geophys												JAMES 10		
47°41'57"   80°16'45"													Con. III, Lot 1, S $\frac{1}{2}$ . MAPS O.D.M. P.239, 1964. O.D.M. 2046, 1964.	
1908: Marvel SML. 1968: G.S. Welsh prspc.	Shaft	X			Calcite & aplite veins up to 10" wide occur in Nipissing Diabase. Shear trends NW. Niccolite.								ODM Open File 5006, p.97, 1967 Mackean, B.E.	
	Adit	X												
	Pit	X												
	Trench	X												
	D. Drill	X												
Geophys												JAMES 21		
47°44'20"   80°18'44"													Con. VI, Lot 4, S $\frac{1}{2}$ , SW $\frac{1}{4}$ . MAPS O.D.M. P.239, 1964. O.D.M. 2046, 1964.	
1908: McKenzie Mining & Exploration Co. 1968: Mallinson.	Shaft	X			Slightly granophytic Nipissing Diabase has NE and E-W fracturing. Thin calcite veins strike mostly NW. Chalcopyrite occurs.								ODM Open File 5006, p.78, 1967 Mackean, B.E.	
	Adit	X												
	Pit	X												
	Trench	X												
	D. Drill	X												
Geophys												JAMES 9		
47°41'52"   80°18'32"													Con. III, Lot 4, S $\frac{1}{2}$ , SE $\frac{1}{4}$ . MAPS O.D.M. P.239, 1964. O.D.M. 2046, 1964.	

District of TIMISKAMING

N.T.S. or Townships TUDHOPE, WILLET

NAME	WORK DONE	VEIN	DESCRIPTION	METALS PRESENT							REFERENCE
				Ag	Co	Cu	Ni	Bi	Zn	Pb	
1952: Jackpot Silver Mines Ltd. 47°45' 80°16'	Shaft X	CALCITE QUARTZ APLITE	Shaft was sunk 100' in early days of century. 1952: Shaft was unwatered.	X							TUDHOPE 3 Near Charlton Highway. MAPS O.D.M. P.159, 1962. O.D.M. 2046, 1964.
	Adit										
	Pit										
	Trench										
	D. Drill										
Geophys											
1909: United States Silver Mines Ltd. 1951: Don Hard. Con.VI, Lot 11 47°45' 80°15'	Shaft X	X	Narrow quartz veins occur in Nipissing diabase. Good grade ore occurs at bottom of shaft.	X	X						TUDHOPE 4 Near Charlton Highway. MAPS O.D.M. P.159, 1962. O.D.M. 2046, 1964.
	Adit										
	Pit										
	Trench										
	D. Drill										
Geophys											
1963: Leased to Accra Explorations Ltd. 1968: Barnet. Claim: JS 209 etc. 47°39'06" 80°16'37"	Shaft X	X X	Coarse granophyric & columnar jointed Nipissing diabase enclose 6" wide calcite-granophyre veins that strike E to NE. Chalcopyrite.								ODM Open File 5006, p.136, 1967, Mackean, B.E. WILLET 4 NE corner of Twp. MAPS O.D.M. P.313, 1965. O.D.M. 2046, 1964.
	Adit										
	Pit										
	Trench X										
	D. Drill X										
Geophys											
1950: A. Mosher. 1968: Floyd property. Claim: RSC 81 47°39'13" 80°16'50"	Shaft X		Property is underlain by Nipissing diabase. D. drill hole intersects broken granophyric zone. N-S vein along adit.	X	X						ODM Open File 5006, p.137, 1967, Mackena, B.E. WILLET 5 NE corner of Twp. MAPS O.D.M. P.313, 1965. O.D.M. 2046, 1964.
	Adit										
	Pit										
	Trench X										
	D. Drill X										
Geophys											
Tichbourne prspc. 1963: Ganda SML Option Claim: DG 63 & area 47°39'25" 80°20'23"	Shaft	X	Several NNE calcite veins up to 4" wide are exposed over 150' in Nipissing diabase. Argentite and leaf silver occur.								ODM Open File 5006, p.141 1967. Mackean, B.E. WILLET 3 Near Sunday L. MAPS O.D.M. P.313, 1965. O.D.M. 2046, 1964.
	Adit										
	Pit X										
	Trench X										
	D. Drill										
Geophys											

District of TIMISKAMING

N.T.S. or Townships WILLET

NAME	WORK DONE	VEIN	DESCRIPTION	METALS PRESENT							REFERENCE
				Ag	Co	Cu	Ni	Bi	Zn	Pb	
1909: Willet SML. 1912: Paragon SM Co. 1963: Ganda SML Option 47°38'14" 80°17'26"	Shaft X	CALCITE QUARTZ APLITE	Narrow veins occur in fractured contact zone of dike & elsewhere in Lorrain sandstone & Nipissing diabase.	X	X						ODM Open File 5006, p.138, 1967, Mackean, B.E. WILLET 2 N of Scugog L., NE of Twp. MAPS O.D.M. P.313, 1965. O.D.M. 2047, 1964.
	Adit										
	Pit X										
	Trench X										
	D. Drill										
Geophys											
	Shaft										MAPS
	Adit										
	Pit										
	Trench										
	D. Drill										
Geophys											
	Shaft										MAPS
	Adit										
	Pit										
	Trench										
	D. Drill										
Geophys											
	Shaft										MAPS
	Adit										
	Pit										
	Trench										
	D. Drill										
Geophys											
	Shaft										MAPS
	Adit										
	Pit										
	Trench										
	D. Drill										
Geophys											



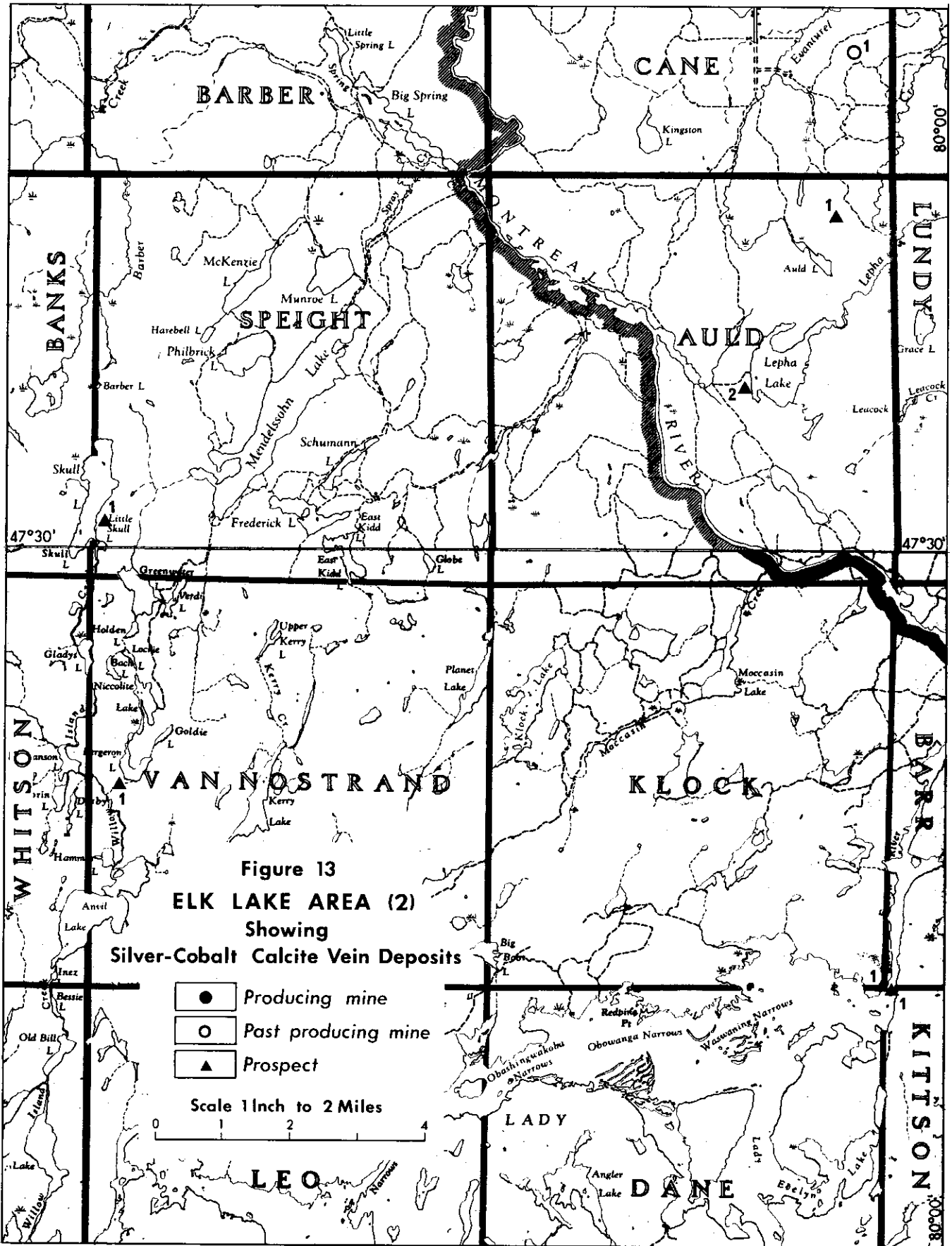


Table 21

ELK LAKE AREA (2)  
LIST AND PRODUCTION OF PROPERTIES

(Historical Name)	(Present Owner)	Production Silver (Troy ozs.)	Cobalt (lbs.)
<u>AULD TWP.</u>			
▲ 2 Bradley-Donaldson prospect.	H.G. Walton.		
▲ 1 Triangle Silver Mines Ltd.	B.M. Welsh.		
<u>CANE TWP.</u>			
○ 1 Cane Silver Mines Ltd.	Windy Hill Mining Corp.	3,100	
<u>DANE TWP.</u>			
▲ 1 Claim H.B.I.			
<u>KLOCK TWP.</u>			
▲ 1 Haycock mine.			
<u>SPEIGHT TWP.</u>			
▲ 1 Skull Lake Prospect.			
<u>VAN NOSTRAND TWP.</u>			
▲ 1 Bergeron prospect.			
<u>WHITSON TWP.</u>			
▲ 1 White Reserve Mines Ltd.	Argentium Silver Mines Ltd.	19,775	452

\* Number refers to that on deposit description card; non sequence follows as a consequence of data processing.



COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: WELSH, HISTORICAL NAME: TRIANGLE SILVER MINES LTD.		LAT. 04757167	REF. NO.
				LONG. 08003444	O.D.M.-Ag-0099001
CO. or DIST.	TIMISKAMING	CODE No.	MINING DIV.	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE	AULD	59	MONTREAL RIVER	Con. VI, Lots 2 and 3, S½. Con.V, Lot 2, N½; Lot 3 N½, NE½	
LOCATION: 18 miles southeast of ELK LAKE, 22 miles northwest of COBALT and 90 miles northeast of Sudbury.			NTS 041P09E	UTM	
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1912: Hitchcock (Location). 1916: Kenabek Silver Mines Ltd. 1917: Kenabek Consolidated Silver Mines Ltd. 1919: Triangle Silver Mines Ltd. 1923: Silver Sill Mining Company Ltd. 1959: Miss B.M.Welsh. 1961: Kordol Explorations Ltd. (optioned to) 1963: Mattagami Explorers Corp. (optioned to)		1917-24: Inclined shaft was sunk to 250' level Lateral work included: 300' on 132' level 100' on 182' level and 304' of drifting and 72' of crosscutting on 250' level. Adit (290'W of shaft) was driven 125'W into hill on the Tunnel vein. 1959: 5 diamond drill holes, totalling 1620' were put down. 1961: 15 diamond drill holes, totalling 3,089' were put down.		Circa 1918: Some silver ore was raised.	
MAJOR ORE MINERALS Silver, Fe,Co,Ni-arsenides.		MINOR ORE MINERALS Niccolite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES	
ORE FABRIC Vein.		MAJOR GANGUE MINERALS Calcite.		Two vein systems, about 70' apart, known as the Shaft and Tunnel veins, show ore mineralization over a length of 1,700'.	
COUNTRY ROCK OR FORMATION Nipissing Diabase.		AGE: GEOLOGICAL Aphebian		ABSOLUTE 2150 m.y.	
MAIN REFERENCE Hopkins, P.E. 1922: Blanche River Area, O.D.M. Vol.31, pt.3, p. 14-15.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 31b, Blanche River Area 1922. Lat and long. refer to shaft.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968
SIGNATURE A.O.S.		COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: WELSH, HISTORICAL NAME: TRIANGLE SILVER MINES LTD.	
				LAT. 47° 34' 18"	REF.NO.
				LONG. 80° 02' 04"	O.D.M.-Ag-0099001
GEOLOGY Nipissing diabase in the form of a sill or sheet dipping E and intrusive into Lorrain sandstone or quartzite forms a N trending topographical ridge. On the east side of the ridge in the upper part of the sill a number of silver bearing veins up to 6" wide strike approximately at right angles to the diabase contact. The diabase shows marked granophyric alteration and silver with cobalt arsenides and niccolite occurs in segregations with dendritic form.		EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION Granophyric	METAMORPHISM		MINERAL PARAGENESIS		
GEOLOGICAL AGE Aphebian	AGE OF FORMATION, ROCK OR MINERAL 2150 m.y.		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Huronian
ABSOLUTE AGE 2150 m.y.	ROCK TYPE AND/OR MINERAL Diabase		K/Ar Rb/Sr Pb/Pb Cl4		N.G.T. 2150 m.y.
METHOD K/Ar Rb/Sr Pb/Pb Cl4	NAME OF TECTONIC EVENT		K/Ar Rb/Sr Pb/Pb Cl4		
COMPANY REPORTS	METALLURGY REFERENCE		ECONOMICS REFERENCE		
ECONOMICS REFERENCE	MINING REFERENCE		GEOCHEMICAL DATA REFERENCE		
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE		GEOPHYSICAL DATA REFERENCE		
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE		PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake Sheet, 1964. O.D.M. Map P.159, Elk Lake-New Liskeard Sheet, 1962. O.D.M. Map 31b, Blanche River Area, 1922.	ODM FILES				

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 19 68: WINDY HILL MINING CORP. HISTORICAL NAME: CANE SILVER MINES LTD. (Extant)		LAT. 04760600	REF. NO.
				LONG. 08002700	O.D.M.-Ag-033001
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	
TP. or SQUARE	CANE	003330		MONTREAL RIVER	
LOCATION: 16 miles southeast of ELK LAKE, 22 miles northeast of Cobalt and 90 miles northwest of Sudbury.			NTS 041P09E	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Concs. I and II, Lots 1,2,3 and 4. Claims: total 31, 16 held by company, 17 held under option, including 7 of Cane Silver Mines Ltd. Con. II, lot 2 E <sub>3</sub>
HISTORY OF OWNERSHIP:			EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1912-27: Ontario Solid Silver Mines Ltd.			Cane SML		
1917: Cane Silver Mines Ltd.			1921: Shaft was sunk 42' on No.8 vein, up to 16' wide and largest of 8 veins that had been exposed.		About:
1949: Ontigan Explorations Ltd. took lease on Cane SML property.			1927: A second shaft was sunk 45' on an aplite dike thought to intersect under swamp east on extensions of veins Nos. 1 and 4.		Silver
1951: Canconti Mines Ltd. acquired above lease and Ontario Solid SML property			19 : A third shaft was sunk to a shallow depth. Ontario Solid SML (at north end of Cane SML property)		3,100 ozs.
1958: Windy Hill Mining Corp. acquired above lease and properties.			1921-24: Shaft was sunk 150' with levels at 50', 75', 100' and 150' depths with 823' of lateral development.		Cobalt
1963: Solid Silver Mines holds option on above properties.			1927: 146' of drifting was done on 100' level.		?
MAJOR ORE MINERALS Silver, Fe, Co, Ni-arsenides, Pitchblende.			OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER
MINOR ORE MINERALS Argentite, chalcopyrite, niccolite, bismuth.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
ORE FABRIC Vein, disseminated.			Aplitic veins or dikes up to 3' wide locally contain ore shoots of small size. In No.8 vein a pocket 300 lbs. in weight reportedly assayed 2,500 ozs./ton of silver and 16% cobalt.		
MAJOR GANGUE MINERALS Aplite, (calcite).			Pitchblende.		
COUNTRY ROCK OR FORMATION Nipissing Diabase.					
AGE: GEOLOGICAL Apehbian		ABSOLUTE 2150 m.y.			
MAIN REFERENCE Burrows, A.G. and Hopkins, P.E. 1922: Blanche River Area. Ontario Dept. Mines, Vol.31, pt.3, p. 13-14.			MAP REFERENCE USED FOR LOCATION O.D.M. Map 31b, Blanche River Area, 1922. Long. and lat. refer to shaft on No.8 vein.		FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.D.S. REVISED
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: WINDY HILL MINING CORP. HISTORICAL NAME: CANE SILVER MINES LTD. (Extant)		LAT. 47° 36' 21"	REF. NO.
				LONG. 80° 01' 36"	O.D.M.-Ag-0333001
GEOLOGY Nipissing diabase in the form of a sill or sheet dipping E and intrusive into Lorrain sandstone or quartzite forms a NE trending topographical ridge. On the east side of the ridge in the upper part of the sill a number of silver bearing veins or dikes occur; they strike approximately at right angles to the diabase contact with strikes varying from E20°N to E20°S. The veins are aplitic (up to 3' wide) in character with the ore mineralization associated with calcite as streaks and lenses that trend parallel and diagonal to the vein walls. Leaf silver also occurs disseminated in the diabase.			EXPLORATION AND DEVELOPMENT (Cont) 1939: 300 lbs of ore that assayed 2,500 ozs./ton of silver and 16% Co was extracted from No.8 (now No.38) vein. 1948-50: Veins examined and found to be radioactive. 1951-57: 5 out of 73 veins were found to contain pitchblende. 1958 : Solid SML shaft was dewatered and 698' of diamond drilling failed to locate extension of main vein. 1963-65: Diamond drilling, geological and geochemical surveys were carried out.		
ALTERATION Granophyre		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Apehbian 2150 m.y. Diabase K/Ar Rb/Sr Pb/Pb Cl4 X		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT	
				AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb Cl4 X	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake Sheet, 1964. O.D.M. Map P.159, Elk Lake-New Liskeard Sheet, 1962. O.D.M. Map 31b, Blanche River Area, 1922.			ODM FILES		

COMMODITY		NAME OF OCCURRENCE:		LAT. 04743600	REF. NO.
Silver Cobalt		CIRCA 1968: ARGENTIUM SILVER MINES LTD. HISTORICAL NAME: WHITE RESERVE MINES LTD.		LONG. 08027300	O.D.M.-Ag-2164001
CO. or DIST.	TIMISKAMING	CODE No.	59	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE	WHITSON		021640	Former claims: R.S.C. 55 J.S. 167	
LOCATION: MAPLE MOUNTAIN, 30 miles west of Cobalt and 70 miles northeast of Sudbury.			MINING DIV.	R.S.C. 56 R.S.C. 57 J.S. 168, L.O. 36	
			NTS 041P08W	L.O. 53 L.O. 54 H.F. 23 H.F. 24	
			UTM	J.S. 161 J.S. 162 H.F. 25 H.F. 46	
HISTORY OF OWNERSHIP:			EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1907: White Brothers (Former claim R.S.C. 56).			1908: Trenching and pitting were carried out; from open cut on a vein 10 tons of ore were taken out. (Main) shaft was sunk to 125'.		1909 Probably 18,002 ozs. of silver.
1908: Canadian Ores Ltd.			1909-10: Shaft was deepened to 140'. On 70' level crosscut was driven 200' south to cut vein No.7 on which 100' of drifting was done. On 140' level crosscut was driven 125' north. Adit was run 200' on vein No.21.		1920 to 1940 Silver: 1,773 ozs. Cobalt: 452 lbs.
1909: White Reserve Mines Ltd.			1918: Main shaft is 150' deep. Development of crosscutting and drifting includes: On 70' level 215'; on 140' level north of shaft 492', and south of the shaft 330'. No.21 shaft is 90' deep with 110' of		Reviews. O.D.M. statistical files and
1914: White Reserve Mining Co.					PRODUCER PAST PRODUCER
1921: Leased to a group of English capitalists					
1942: Niki Silver-Cobalt Ltd.					
1946: Ni-ag-co Mines Ltd.					
1968: Argentium Silver Mines Ltd.					
MAJOR ORE MINERALS Silver, Fe, Co, Ni-arsenides.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS			1909 Grade was probably: 2,770 ozs./ton of silver.		
ORE FABRIC Vein.					
MAJOR GANGUE MINERALS Calcite.					
COUNTRY ROCK OR FORMATION Nipissing Diabase.					
AGE: GEOLOGICAL		ABSOLUTE			
Aphebian		2150 m.y.			
MAP REFERENCE				MAP REFERENCE USED FOR LOCATION	FILE STATUS: DATE SIGNATURE
				O.D.M. Map 16f, Montreal River and Temagami Forest Reserve, 1967.	SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED
COMMODITY		NAME OF OCCURRENCE:		LAT. 04743600	REF. NO.
Silver Cobalt		CIRCA 1968: ARGENTIUM SILVER MINES LTD. HISTORICAL NAME: WHITE RESERVE MINES LTD.		LONG. 08027300	O.D.M.-Ag-2164001
GEOLOGY Nipissing diabase in the form of a sill possibly about 500' thick is intrusive into cream coloured Lorrain arkosic quartzite or sandstone at least 900' thick. A major N-S fault is reported to cross the property.			EXPLORATION AND DEVELOPMENT (Cont)		
Over 15 exposures of silver-cobalt-bearing veins occur in the diabase at the surface.			drifting on 30' level. No.10 shaft is 50' deep. No.14 shaft is 30' deep.		
			1945: Mine workings were dewatered.		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF ORE MINERAL	
ABSOLUTE AGE		Aphebian		Post-Huronian	
ROCK TYPE AND/OR MINERAL		2150 m.y.		N.G.T. 2150 m.y.	
METHOD		Diabase			
		K/Ar Rb/Sr Pb/Pb Cl4		K/Ar Rb/Sr Pb/Pb Cl4	
		X		X	
COMPANY REPORTS Ontario Securities Commission Prospectus Report by M.B.R. Gordon, Jan.6, 1949.			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES			ODM FILES		
O.D.M. Map P.301, Maple Mountain sheet, 1965.					
O.D.M. Map 16F, (out of print) Montreal River and Temagami Forest Reserve, 1967.					

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: ARGENTIUM SILVER MINES LTD. HISTORICAL NAME: WHITE RESERVE MINES LTD.	LAT. 47° 26' 10"	REF. NO. O.D.M.-Ag-2164001
		LONG. 80° 16' 24"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to southeast corner of claim R.S.C. 56. Property is situated adjacent to and northeast of Anvil Lake along diabase outcrop just west of Whitson Van-Nostrand township boundary.  Published information about this property is scarce although it appears to have produced a significant quantity of silver.	

ADDITIONAL REFERENCES:-

Gibson, T.W.  
1910: Statistical Review Ontario Dept. Mines, Vol.19, pt.1, p.21.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: ARGENTIUM SILVER MINES LTD. HISTORICAL NAME: WHITE RESERVE MINES LTD.	LAT. 47° 26' 10"	REF. NO. O.D.M.-Ag-2164001
		LONG. 80° 16' 24"	

YEAR	ORE RAISED	ORE & CONC. SHIPPED	COBALT		SILVER		Nkl		Cpnr		TOTAL VALUE
	TONS	TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	\$
1920					154	135					135
1930					1,217	462					462
1939	1	1	329	329	239	97	267	27			453
1940		1	123	123	163	72					195
	1	2	452	452	1,773	766	267	27			1,245

N.B. From O.D.M. reports it would appear that in 1909, 6½ tons of ore were shipped containing 18,002 ozs. of silver.







Table 22

G O W G A N D A A R E A (1)

L I S T O F P R O P E R T I E S

(Historical Name)	(Present Owner)	(Historical Name)	(Present Owner)
<u>CHARTERS TWP.</u>			
* ▲ 1 Garvey Prospect (Cl No. 123½).		▲ 8 Bishop Mining Co. of Canada.	Silver Ore Zone Mines Ltd.
▲ 2 Haines Prospect (Cl. No. HR. 439).		○ 3 Boyd Gordon mine.	Manridge Mines Ltd. (Zenmac).
<u>CORKILL TWP.</u>			
▲ 2 Kell Prospect.		▲ 7 Gowganda Lake Prospect.	
○ 1 Kell Silver Mines	Ourgold Mining Co. Ltd.	▲10 Hewitt Lake Mining Co.	
<u>DONOVAN TWP.</u> (see Fig. 15 and Table 23)			
<u>HAULTAIN TWP.</u>			
▲12 Barbara Claims.	W.R. Olmsted Jr. & Sr.		
● 5 Bonsall mine.	Siscoe Mines Ltd.	<u>MOREL TWP.</u>	
● 4 Capitol mine.	McIntyre Porcupine Mines Ltd.	▲ 2 Bloom Lake Silver Mines Ltd.	
○ 3 Castle-Tretheway Mines.	McIntyre Porcupine Mines Ltd.	▲ 1 Silver Mines of Canada Ltd.	
▲ 7 Cobalt Nugget mine.		<u>NICOL TWP.</u>	
▲11 Haultain Mining Co. Ltd.	Tormont Mines Ltd.	▲ 8 Big Four Prospect.	
▲13 McRae Lake prospect.		▲12 Blair-Gowganda Silver Mines Ltd.	Blair-Gowganda Silver Mines Ltd.
▲ 9 Millcrest Mining Co.	Castlebar Silver and Cobalt Mines Ltd.	▲11 Camburn Prospect.	McIntyre Porcupine Mines Ltd.
○ 2 Miller Lake Everett Mine.	McIntyre Porcupine Mines Ltd.	● 9 Castle No. 1 Shaft mine.	McIntyre Porcupine Mines Ltd.
○ 6 Millerett mine.	Siscoe Mines Ltd.	▲ 6 Chapelle mine.	Silver Bar Mines Ltd.
▲ 8 Ottawa-Gowganda Mining Corp. Ltd.	Castlebar Silver and Cobalt Mines Ltd.	▲ 4 Coleroy-Gowganda mine.	Silver Bar Mines Ltd.
○ 1 Wigwam Silver Mines Ltd.	Tormont Mining Ltd.	▲10 Millcrest Mining Co. Ltd.	Castle Bar Silver & Cobalt Mines Ltd.
▲10	Silverplace Mines Ltd.	● 1 Miller Lake O'Brien mine.	Siscoe Mines Ltd.
<u>LAWSON TWP.</u>			
○ 1 Bishop, Calata, & Kenora Mine.	Levege Mines Ltd.	○ 3 Morrison mine.	Consolidated Morrison Explor. Ltd.
▲ 2 Powerfull (Cl. No. HR. 397).		▲ 7 Plata Mines Ltd.	
<u>LEITH TWP.</u>			
○ 1 Hudson Bay Silver Mines Ltd.	Rustex Mining Corp.	▲ 5 Silver Bullion mine.	Silver Bar Mines Ltd.
<u>LEONARD TWP.</u> (see Fig. 15 and Table 23)			
<u>MILNER TWP.</u>			
○ 1 Bartlett mine.	Manridge Mines Ltd. (Zenmac).	○ 2 Walsh mines.	McIntyre Porcupine Mines Ltd.
<u>TYRRELL TWP.</u>			
<u>VAN HISE TWP.</u>			
		▲ 2 Bevan mine (1964).	
		▲ 1 Currie Prospect.	
		▲ 2 Hedland mine.	Tribay Mining Co. Ltd.
		▲ 1 Holwood Mines Ltd.	Holwood Mines Ltd.

\* Number refers to that on deposit description Card; non sequence follows as a consequence of data processing.

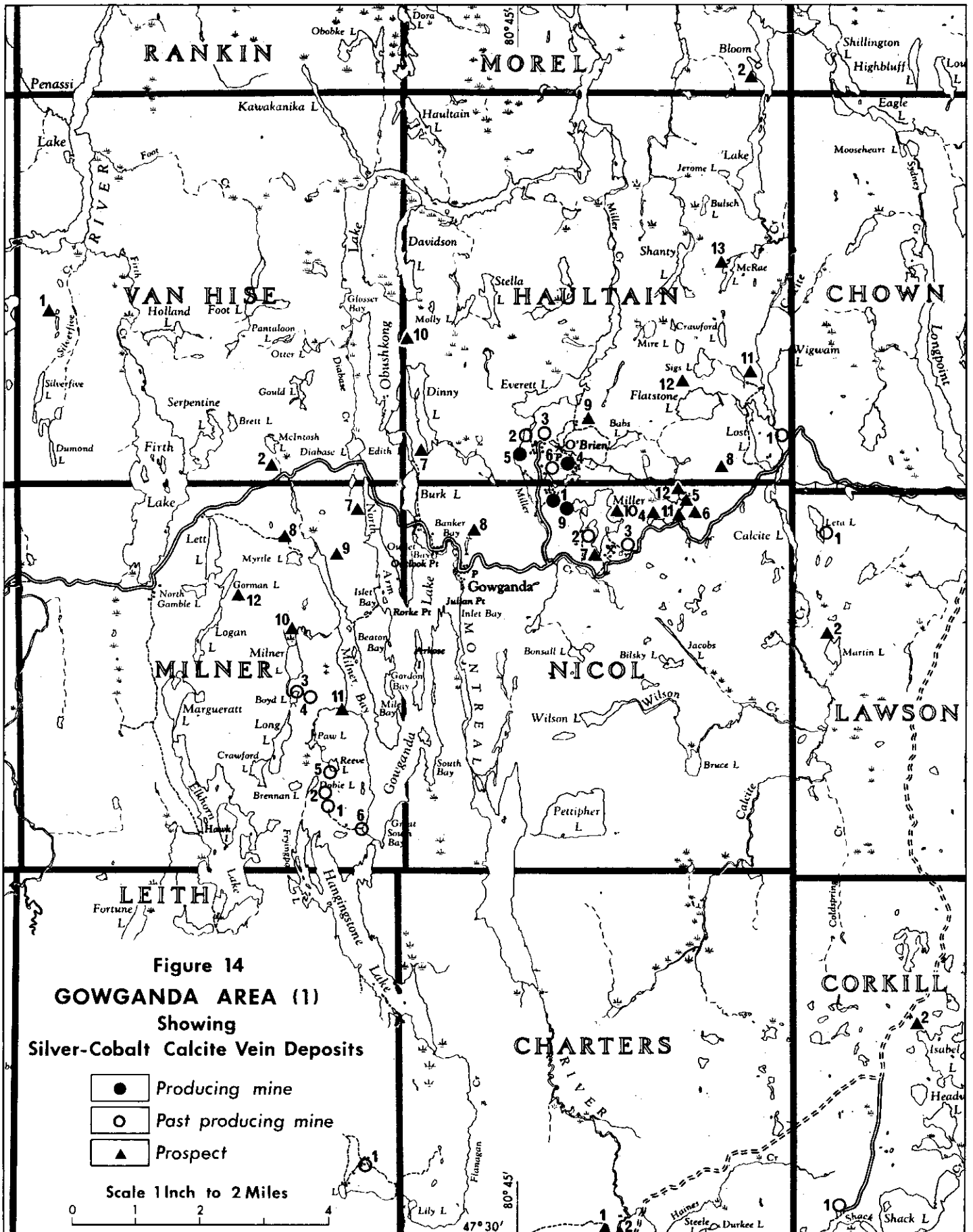


Table 22a.

G O W G A N D   A R E A   (1)  
P R O D U C T I O N   T A B L E

(Historical Name)	Production		(Historical Name)	Production	
	<u>Silver (Troy ozs.)</u>	<u>Cobalt (Lbs.)</u>		<u>Silver (Troy ozs)</u>	<u>Cobalt (lbs.)</u>
<u>CHARTERS TWP.</u>			▲ 8 Bishop Mining Co. of Canada.		
* ▲ 1 Garvey Prospect (Cl No. 123½)			○ 3 Boyd Gordon mine	4,678	
▲ 2 Haines Prospect (Cl No. HR 439).			▲ 7 Gowganda Lake Prospect.		
			▲10 Hewitt Lake Mining Co.		
<u>CORKILL TWP.</u>			○ 4 Mann mine.	***118,942	
▲ 2 Kell Prospect.			▲11 Milne Claim (Schumacher).		
○ 1 Kell Silver Mines	1,621		▲ 9 Northcliff Prospect.		
			○ 5 Reeve-Dobie mine.	88,584	
<u>DONOVAN TWP.</u> (see Fig. 15 and Table 23)			○ 6 South Bay mine.	1,500	
			▲12 Tego Silver-Cobalt Mines Ltd.		
			○ 2 Welch mine.	1,000	
<u>HAULTAIN TWP.</u>			<u>MOREL TWP.</u>		
▲ 12 Barbara Claims.			▲ 2 Bloom Lake Silver Mines Ltd.		
● 5 Bonsall mine.	141,856		▲ 1 Silver Mines of Canada Ltd.		
● 4 Capitol mine.	10,837,181	209,474			
○ 3 Castle-Tretheway Mines.	6,461,021	299,847	<u>NICOL TWP.</u>		
▲ 7 Cobalt Nugget mine.			▲ 8 Big Four Prospect.		
▲ 11 Haultain Mining Co. Ltd.			▲12 Blair-Gowganda Silver Mines Ltd.		
▲ 13 McRae Lake prospect.			▲11 Camburn Prospect.		
▲ 9 Millcrest Mining Co.			● 9 Castle No.1 Shaft mine.		
○ 2 Miller Lake Everett mine.	**(1924) 3,461		▲ 6 Chapelle mine.		
○ 6 Millereff mine.	611,822	5,000	▲ 4 Coleroy-Gowganda mine.		
▲ 8 Ottawa-Gowganda Mining Corp.			▲10 Millcrest Mining Co. Ltd.		
▲10 Wigwam Silver Mines Ltd.	896		● 1 Miller Lake O'Brien mine.	36,834,404	785,760
<u>LAWSON TWP.</u>			○ 3 Morrison mine.	719,201	22,018
○ 1 Bishop, Caleta, & Kenora Mine.	42,400		▲ 7 Plata Mines Ltd.		
▲ 2 Powerfull (cl. No. HR. 397).			▲ 5 Silver Bullion mine.		
			○ 2 Walsh mine.	453,424	3,555
<u>LEITH TWP.</u>			<u>TYRRELL TWP.</u>		
○ 1 Hudson Bay Silver Mines Ltd.	80,186	565	▲ 2 Bevan mine (1964)		
			▲ 1 Currie Prospect		
<u>LEONARD TWP.</u> (see Fig. 15 and Table 23)			<u>VAN HISE TWP.</u>		
			▲ 2 Hedland mine.		
			▲ 1 Holwood Mines Ltd.		
<u>MILNER TWP.</u>					
○ 1 Bartlett mine.	20,	20,219			

\* Number refers to that on deposit description Card; non sequence follows as a consequence of data processing.

\*\* 8.35 tons of ore (1910).

\*\*\* 700,000 ozs. (Reserves 1968).



COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: OURGOLD MINING CO. LTD. HISTORICAL NAME: KELL SILVER MINE.		LAT. 04750300	REF. NO.
				LONG. 08064300	O.D.M.-Ag-0479001
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. MONTREAL RIVER		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Former claims: G.G. 3449 G.G. 3786 G.G. 4079	
TP. or SQUARE CORKILL	004790				
LOCATION: 12 miles by air SSE of GOWGANDA, 70 miles north of Sudbury and 45 miles west northwest of Cobalt.		NTS 041P10E	UTM		
HISTORY OF OWNERSHIP: 1909: Hugh Kell.  1919-1920: Optioned to J.G. Smith.  1946: Silver Chest Mines Ltd.  1962: Optioned to Ourgold Mining Co. Ltd.  1968: Ourgold Mining Co. Ltd.		EXPLORATION AND DEVELOPMENT 1909: Silver was discovered on outcrop.  1919-20: An inclined (58°) shaft was sunk to 104'. Development included 275' of drifting on the 54' level and 50' on 100' level. A raise from the 54' level was made to an outcrop 25' south of the shaft.  An important open cut was developed south of the shaft, and another 700' north of the shaft. Prospecting pits were sunk at intervals along the main fracture  1947: The shaft was dewatered and 900' of surface trenching was carried out. 3 diamond drill		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  Silver  1,621 ozs.  \$1,624  O.D.M. statistical files.	
MAJOR ORE MINERALS Silver, argentite.		MINOR ORE MINERALS Smaltite, millerite, niccolite, magnetite, specularite, and pyrrhotite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Main fracture a calcite-quartz vein up to 18" wide, extends NW over several claims on E side of diabase near footwall contact with quartzite. Parallel veinlets of quartz and calcite occur mostly on footwall side of fracture. Diagonal subsidiary veins extending from Main Fracture locally contain high grade silver ore. In open pit south of shaft 1,584 lbs. of ore yielded 1,621 ozs. of silver.	
ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite. COUNTRY ROCK OR FORMATION Nipissing Diabase.		AGE: GEOLOGICAL ABSOLUTE Apehbian 2150 m.y.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 30b, Gowganda Silver Area, 1921.	
MAIN REFERENCE 1926: O.D.M. Annual Report, Vol.35, pt.3, p. 58-60.				FILE STATUS:	DATE SIGNATURE
				SKELETAL	
				INCOMPLETE	
				COMPLETED	1968 A.O.S.
				REVISED	
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: OURGOLD MINING CO. LTD. HISTORICAL NAME: KELL SILVER MINE.		LAT. 47° 30' 11"	REF.NO.
				LONG. 80° 38' 36"	O.D.M.-Ag-0479001
GEOLOGY A 55°SW dipping and 250' thick limb of a Nipissing quartz diabase sheet intrusive into Lorrain Quartzite strikes NW as a topographical ridge across the SW corner of Corkill township near Shack Lake. A strong fracture or calcite-quartz vein occurs within the diabase near and parallel to its lower contact and extends over several claims. The fracture and subsidiary veins are locally mineralized with silver, Fe,Co,Ni-arsenides, sulphides and specularite and magnetite.		EXPLORATION AND DEVELOPMENT (Cont) holes totalling 120' were drilled from surface.  1966: Diamond drilling was carried out by Ourgold Mining Co. Ltd.			
ALTERATION Granophyre	METAMORPHISM		MINERAL PARAGENESIS		
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Apehbian 2150 m.y. Diabase	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb Cl4 X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION X LONGITUDINAL PROJECTION Burrows, A.G. 1926: O.D.M. Annual Rept. Vol.35, pt.3, p.60.			
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake Sheet, 1964. O.D.M. Map 30b, Gowganda Silver Area, 192.		ODM FILES			

COMMODITY	NAME OF OCCURRENCE:	LAT.	REF. NO.
	CIRCA 19 : HISTORICAL NAME:	LONG.	
FILE RESIDENT GEOLOGIST AT VTA CENTRE FILE	HISTORY OF OWNERSHIP (CONT.)	REMARKS	

ADDITIONAL REFERENCES:-

COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
	CIRCA 19 : HISTORICAL NAME:	LONG.	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT Lbs. \$	SILVER Oz. \$	Nkl Lbs. \$	Cprr Lbs. \$	TOTAL VALUE \$
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COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968: SISCOE MINES LTD. HISTORICAL NAME: BONSALL MINE.		LAT. 04767300	REF. NO.
				LONG. 08075000	O.D.M.-Ag-0942005
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. MONTREAL RIVER	
TP. or SQUARE	HAULTAIN		009420	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
LOCATION: About one and a half miles northwest of Miller lake near COWGANDA. 80 miles north of Sudbury and 50 miles west-northwest of Cobalt.			NTS	UTM	Claims: RSC 82 RSC 83 RSC 84
HISTORY OF OWNERSHIP: 1908: Mr. Percy Bonsall. 1909: Bonsall Mines Ltd. 19 : Miller Lake O'Brien Co. 1945: Siscoe Metals of Ontario Ltd. (Wholly-owned subsidiary of Siscoe Mines Ltd.)			EXPLORATION AND DEVELOPMENT 1909: NE vein trenched by E boundary of RSC 83. Shaft was sunk 25' and a drift run N. No. 1 Main shaft was sunk 125' on EW vein; drift on 25' level followed EW vein 60' & NE vein 40'. On 75' level NS drift followed faulted zone 60'; On 120' level 186' of drifting and crosscutting was carried out. 19 : EW vein followed further 130' on 120' level, another vein was followed 26'. 1920: Shafts were dewatered. EW vein followed 71' on 120' level, another vein followed 108'. On 75' level 33' of crosscutting and 83' of drifting on NE vein; raise developed to 25' level at intersection of veins.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) Silver 1910 and 1920: 10,406 ozs.  1967: 131,450 ozs.  O.D.M. statistical files.
MAJOR ORE MINERALS Silver, Fe, Co, Ni-arsenides.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS Chalcopyrite, galena.			Initial veins discovered were 1 to 4 inches in width. E-W vein was followed underground for over 200'.		
ORE FABRIC Vein.			Grade 1910: 1,570 ozs./ton of silver.		
MAJOR GANGUE MINERALS Calcite, quartz.			1967: 31 ozs/ton of silver.		
COUNTRY ROCK OR FORMATION Nipissing diabase.					
AGE: GEOLOGICAL Aphebian		ABSOLUTE 2150 m.y.			
MAIN REFERENCE Burrows, A.G. 1926: O.D.M. Annual Rept. Vol.35, pt.3, p. 25-27.			MAP REFERENCE USED FOR LOCATION O.D.M. Map 1955-3, Gowganda Silver Area, 1955.		FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968 SISCOE MINES LTD. HISTORICAL NAME: BONSALL MINE.		LAT. 04767300	REF. NO.
				LONG. 08075000	O.D.M.-Ag-0942005
GEOLOGY For general geological setting see Castle-Trethewey Mine. Bonsall mine occurs on W side of basin. A strong fault strikes NS and dips 45°E, with fracturing over 12' wide in Nipissing quartz diabase sill. Initially two prominent veins were discovered, one strikes N 34°E, the other E-W, one and four inches wide respectively; an ore shoot occurred at junction of veins. At the surface, NE vein was oxidised with black silver and secondary cobalt and nickel minerals. At depth silver mineralization occurs in a gangue with quartz, chalcopyrite and galena.			EXPLORATION AND DEVELOPMENT (Cont) 1910-1920: claim 84:- 2 shafts were sunk, first 60' deep was too wet, second 100' deep had 75' drift on 100' level. 1965-67: Near E boundary of claim 83. Bonsall shaft was sunk to 515' with levels at 230', 350', 425' and 500'. Development work has met with only minor success up to Dec. 1967: ore shoots found have proved to be small, and no pattern of distribution has been recognized.		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:	
ABSOLUTE AGE		Aphebian		Post-Huronian	
ROCK TYPE AND/OR MINERAL		2150 m.y.		N.C.T., 2150 m.y.	
METHOD		Diabase		NAME OF TECTONIC EVENT	
		K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	
		X		X	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake Sheet, 1964. O.D.M. Map 1955-3, Gowganda Silver Area, 1955. O.D.M. Map 35d, Gowganda Silver Area, 1926.			ODM FILES		



COMMODITY	NAME OF OCCURRENCE	LAT. 47° 40' 23"	REF. NO.
Silver	CIRCA 1968: SISCOE MINES LTD. HISTORICAL NAME: BONSALL MINE.	LONG. 80° 45' 00"	O.D.M.-Ag-0942005
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Longitude and Latitude refer to Bonsall shaft.	
ADDITIONAL REFERENCES:-			
Burrows, A.C. 1926: Gowganda Silver Area, Ontario Department Mines, Annual Rept., Vol.35, pt.3, p. 25-27. Moore, E.S. 1956: Geology of the Miller Lake Portion of the Gowganda Silver Area, Ontario Dept. Mines, Annual Rept., Vol.64, pt.5, p. 31-35. Hester, B.W. 1967: Geology of the Silver Deposits near Miller Lake, Gowganda, C.I.M.M., Trans. Vol.70, p. 277-286.			
COMMODITY	NAME OF OCCURRENCE	LAT. 47° 40' 23"	REF. NO.
Silver	CIRCA 19 68 SISCOE MINES LTD. HISTORICAL NAME: BONSALL MINE.	LONG. 80° 45' 00"	O.D.M.-Ag-0942005

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1910	5	4			7,840	4,018					4,018
1920		13			2,566	2,150					2,150
	5	17			10,406	6,168					6,168
1967		4,193			131,450						

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: McINTYRE PORCUPINE MINES LTD. HISTORICAL NAME: CAPITOL MINE (Castle-Trethewey Mine).		LAT. 04767200	REF. NO. O.D.M.-Ag-0942004
CO. or DIST. TIMISKAMING		CODE No. 59	MINING DIV. MONTREAL RIVER	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE HAULTAIN		00942		Claims: HS 351 HS 355 LM 111 (Nicol Twp)	
LOCATION: About half a mile northwest of Miller lake near GOWGANDA, 80 miles north of Sudbury and 50 miles west northwest of Cobalt.			NTS 041P10E	UTM	
HISTORY OF OWNERSHIP: 1908: Mr. Kilpatrick (?) 19 : Symmes-Young (?) 1924: Capitol Silver Mines Ltd. 1929: Castle-Trethewey Mines Ltd. 1959: McIntyre Porcupine Mines Ltd. 1967: Leased to Siscoe Metals of Ontario Ltd. (Siscoe Mines Ltd.)			EXPLORATION AND DEVELOPMENT 1908: Kilpatrick vein discovered on claim HS 351 and several hundred feet of trenching done; later a shaft was sunk 44' on the vein 1924-25: Capitol shaft was sunk 819'. Under-ground development included 455' long E-W crosscut on 800' level. 1929: Capitol shaft was dewatered. 1929-1955: Development included: 1500' long S25W draft on 800' level; from this level winze was sunk to 1125' level from which an inclined haulage way was sunk to 1425' level.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1951 to 1966 <u>Silver</u> <u>Cobalt</u> 10,837,181 ozs. 209,474 lbs. \$9,830,988 \$387,326  <u>Nickel</u> 18,826 lbs. \$9,992 Total Value: \$10,228,206  O.D.M. statistical files.
			OCURRENCE	RAW PROSPECT	DEVELOPED PROSPECT

MAJOR ORE MINERALS Silver, Fe, Co, Ni-arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS	No.112 Vein (about 800' level) produced 150,000 ozs. of silver from 2000 tons milled.
ORE FABRIC Vein.	No.113 vein in 1200' level produced 800,000 oxs. of silver from an ore shoot 250' long and of similar height.
MAJOR GANGUE MINERALS Calcite and quartz.	Grade 1951 to 1962.
COUNTRY ROCK OR FORMATION Ripissing diabase.	Silver: 51 ozs./ton Cobalt 1 lb./ton
AGE: GEOLOGICAL Aphebian	ABSOLUTE 2150 m.y.
MAIN REFERENCE Moore, E.S. 1956: O.D.M. Annual Rept. Vol.64, pt.5, p. 30-35.	MAP REFERENCE USED FOR LOCATION O.D.M. Map 1955-3, Gowganda Silver Area, 1955.
	FILE STATUS: SKELETAL INCOMPLETE COMPLETED 1968 REVISED
	DATE 1968
	SIGNATURE A.O.S.

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: McINTYRE PORCUPINE MINES LTD. HISTORICAL NAME: CAPITOL MINE (Castle-Trethewey Mine).		LAT. 04767200	REF.NO. O.D.M.-Ag-0942004
GEOLOGY For general geological setting see Castle-Trethewey Mine In the Capitol mine the quartz diabase sill occurs below 800' depth and dips 16 into the basin. Major faults strike N and dip 40°E. The steeply dipping silver-cobalt producing veins up to 6" wide mainly occur in the hanging wall side of the faults and strike from NE to SE. Ore shoots up to 300' long within the veins mostly occur in the diabase within 400' of its upper contact, that is at least 800' below surface. The Kilpatrick vein on surface was up to 13" wide and locally rich in cobalt and nickel arsenides but poor in silver. Vein gangue is calcite.			EXPLORATION AND DEVELOPMENT (Cont) 1929-1963: Underground development included about: 30,000' of drifts, 12,000' of crosscuts and 6,900' of raises. 1949-1963: Actively mined. 1964: Little work was done. 1965: Some development was done on 1025', 1200' and 1275' levels 1966: Little mining and development was carried out. 1967-1968: Diamond drilling program on 1125' & 1275' levels has outlined extension of productive 22 Vein System.		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	

GEOLOGICAL AGE Aphebian		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Huronian	
ABSOLUTE AGE 2150 m.y.				N.G.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL Diabase					
METHOD K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	
X		NAME OF TECTONIC EVENT		X	

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Moore, E.S. 1956: O.D.M. Annual Rept. Vol.64, pt.5, p.30 and 33 (plate).
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1964. O.D.M. Map 1955-3, Gowganda Silver Area, 1955. O.D.M. Map 35d, Gowganda Silver Area, 1926.	ODM FILES

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: McINTYRE PORCUPINE MINES LTD. HISTORICAL NAME: CAPITOL (Castle-Trethewey Mine).	LAT. 47° 40' 19"	REF. NO. O.D.M.-Ag-0942004
		LONG. 80° 43' 50"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to Capitol shaft.	
ADDITIONAL REFERENCES:- Burrows, A.G. 1926: Gowganda Silver Area, Ontario Dept. Mines Annual Rept., Vol.35, pt.3, p. 32-33.  Hester, B.W. 1967: Geology of the Silver Deposits near Miller Lake, Gowganda, C.I.M.M. Trans. Vol.70, p. 277-286.  Moore, E.S. 1956: Geology of the Miller Lake Portion of the Gowganda Silver Area, Ontario Dept. of Mines Annual Rept. Vol.64, pt.5, p. 30-35.			
COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: McINTYRE PORCUPINE MINES LTD. HISTORICAL NAME: CAPITOL MINE (Castle-Trethewey Mine).	LAT. 47° 40' 19"	REF. NO. O.D.M.-Ag-0942004
		LONG. 80° 43' 50"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cpnr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1951	10,513	180	14,894	34,107	480,214	454,042					488,149
52	14,562	258	12,181	28,625	731,172	610,675					639,300
53	18,005	455	25,638	62,300	1,011,730	849,954					912,254
54	18,088	794	29,637	32,538	992,017	787,100					819,638
55	15,284	638	24,450	46,081	775,663	683,943					730,024
56	8,924	513	31,362	41,325	885,845	739,229	4,657	2,223			780,554
57	17,079	491	20,569	41,133	657,403	574,373	4,638	3,223			618,734
58	16,956	547	22,055	44,110	684,005	593,785	3,667	2,594			640,489
1959	14,892	563	27,303	55,606	1,026,218	900,917	5,312	3,718			960,241
1960	23,291	643			1,419,258	1,261,862					1,261,802
61	23,386	500			1,008,669	950,771					950,771
62	20,760	640			879,052	1,024,096					1,024,096
63											
64	2,030	1,701			217,410	304,374					304,374
65											
66							552	457			97,820
			209,474	387,326	10,837,181	9,830,988	18,826	9,992			10,228,206

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: McINTYRE PORCUPINE MINES LTD. HISTORICAL NAME: CASTLE-TRETHEWEY MINE.			LAT. 04767700	REF. NO.	
					LONG. 08074200	O.D.M.-Ag-0942003	
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE		
TP. or SQUARE	HAULTAIN		009420	MONTREAL RIVER	Claims: RSC 99 RSC 100 RSC 101		
LOCATION: About one and a quarter miles northwest of Miller Lake near GOWGANDA. 80 miles north of Sudbury and 50 miles west-northwest of Cobalt.				NTS 041F10E	UIM		
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT			PRODUCTION ORE RESERVES (DATE AND AUTHORITY)		
1917: Castle Mining Co. Ltd.		1919: No.2 shaft was sunk 109' and 6 tons of ore shipped.			Silver Cobalt		
1918: Trethewey Silver Cobalt Mining Co. Ltd.		1920: No.2 shaft was deepened to 160'. Cross-cutting and drifting included 790' on 100' level and 70' on 150' level. No.3 shaft was sunk 82' with development on 70' level.			6,461,021 ozs. 299,847 lbs. \$3,672,760 \$38,958		
1922: Castle-Trethewey Mines Ltd.		1920-1930: No.3 shaft was deepened to 850' with eleven levels spaced every 50' to 100'. Total development included: 6,323' of drifts, 4,096' of crosscuts and 1,915' of raises.			Total value: \$3,711,718		
1959: McIntyre Porcupine Mines Ltd.							
1967: Leased to Siscoe Metals of Ontario Ltd. (Siscoe Mines Ltd.)					O.D.M. statistical files.		
MAJOR ORE MINERALS Silver, Fe, Co, Ni-arsenides.		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X					
MINOR ORE MINERALS		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES					
ORE FABRIC Vein.		Ore shoots up to about 300' in length occur.					
MAJOR GANGUE MINERALS Calcite and quartz.		1923-1930					
COUNTRY ROCK OR FORMATION Nipissing Diabase.		Grade: Silver 25 ozs./ton. Cobalt 1 lb./ton.					
AGE: GEOLOGICAL ABSOLUTE Aphebian 2150 m.y.		MAP REFERENCE USED FOR LOCATION					
MAIN REFERENCE Burrows, A.G. 1926: O.D.M. Annual Rept. Vol.35, pt.3, p. 33-38.		O.D.M. Map 1955-3, Gowganda Silver Area, 1955.			FILE STATUS:	DATE	SIGNATURE
					SKELETAL		
					INCOMPLETE		
					COMPLETED	1968	A.O.S.
					REVISED		
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: McINTYRE PORCUPINE MINES LTD. HISTORICAL NAME: CASTLE-TRETHEWEY MINE.			LAT. 04767700	REF. NO.	
					LONG. 08074200	O.D.M.-Ag-0942003	
GEOLOGY Steeply dipping and E striking amphibolitized Keewatin volcanics partly overlain unconformably by flat lying Gowganda conglomerate and sediments are intruded by Nipissing quartz diabase up to 900' thick in the form of a basin or saucer about 5 miles across. The mine lies on NW side of basin where dip of diabase is 30°. Major faults strike N with 40°E dip, E-W with shallow N dip and NW with shallow NE dip. Steep veins up to 6" wide strike from NE to SE and contain mostly in the diabase ore shoots up to 300' long that generally occur within 400' of the upper contact where it shows a warp or roll. Silver with cobalt arsenides occurs in a gangue of calcite.				EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS			
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.	
		K/Ar Rb/Sr Pb/Pb C14 X		K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT		K/Ar Rb/Sr Pb/Pb C14 X	
COMPANY REPORTS				METALLURGY REFERENCE			
ECONOMICS REFERENCE				MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE				MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE				MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION X LONGITUDINAL PROJECTION Burrows, A.G. 1926: O.D.M. Annual Rept. Vol.35, pt.3, p.34, 35.			
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1964. O.D.M. Map 1955-3, Gowganda Silver Area, 1955. O.D.M. Map 35d, Gowganda Silver Area, 1926.				ODM FILES			

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968 McINTYRE PORCUPINE MINES LTD. HISTORICAL NAME: CASTLE-TRETHEWEY MINE.	LAT. 47° 40' 39"	REF. NO. O.D.M.-Ag-0942003
		LONG. 80° 44' 31"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Latitude and longitude refer to No.3 shaft.	

ADDITIONAL REFERENCES:-

Burrows, A.C.  
1926: Gowganda Silver Area, Ontario Dept. Mines, Annual Rept. Vol.35, pt.3, p. 33-38.  
Hester, B.W.  
1967: Geology of the Silver Deposits near Miller Lake, Gowganda, C.I.M.M. Trans. Vol.70, p. 277-286.  
Moore, E.S.  
1956: Geology of the Miller Lake Portion of the Gowganda Silver Area, Ontario Dept. Mines, Annual Rept., Vol.64, pt.5, p. 31-35.  
McIlwaine, W.H.  
19 : Ontario Dept. Mines

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: McINTYRE PORCUPINE MINES LTD. HISTORICAL NAME: CASTLE-TRETHEWEY MINE.	LAT. 47° 40' 39"	REF. NO. O.D.M.-Ag-0942003
		LONG. 80° 44' 31"	

YEAR	ORE	ORE & CONC.	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED TONS	SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	\$
1920		45	254	7	48,373	42,824					42,831
21		30			33,952	19,252					19,252
22		9	1,530	275	40,098	27,359					27,634
23	44	44	5,295	530	146,981	94,397					94,927
24	16,785	163	15,994	2,360	544,575	364,240					366,600
25	39,689	346	32,708	5,225	961,950	662,454					667,679
26	35,980	313	32,443	4,951	979,890	604,896					609,847
27	38,324	312	32,536	3,824	932,806	527,163					530,987
28	42,690	310	33,557	4,618	900,968	468,064					472,682
29	45,071	272	34,453	4,925	879,505	472,193					477,118
1930	35,728	238	47,125	6,209	723,226	278,522					284,731
31		144	63,952	6,034	368,697	111,396					117,430
	254,311	2,226	299,847	38,958	6,461,021	3,672,760					3,711,718

COMMODITY		NAME OF OCCURRENCE:		LAT.		REF. NO.	
Silver Cobalt		CIRCA 1968; McINTYRE PORCUPINE MINES LTD. HISTORICAL NAME: MILLER LAKE EVERETT MINE.		04767800		O.D.M.-Ag-0942002	
CO. or DIST.		CODE No.	MINING DIV.		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE		
TIMISKAMING		59	MONTREAL RIVER		Claim: R.S.C. 102		
TP. or SQUARE		09420	NTS 041P10E		UTM		
LOCATION: About a mile and a half northwest of Miller lake near COWGANDA, 80 miles north of Sudbury and 50 miles west-northwest of Cobalt.							
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT				PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
Circa 1910: Everett Mining Co.		19 : Long open cut on a series of silver bearing veins was made. Ore was sorted by hand.				1910: 8.35 tons of ore were shipped.	
19 : Miller Lake and Everett Mines Ltd		1910: 8.35 tons of ore were shipped.					
19 : Capitol Silver Mines Ltd. (?)		1922: Castle No.1 Shaft (Castle-Trethewey No.2 shaft) was leased, and the 150' level north drift continued 120' into Everett property. 30' of crosscutting was carried out.				1924: 1 ton of ore yielded 3,461 ozs. of silver.	
19 : Castle-Trethewey Mines Ltd.		1924: Winze was sunk 105' below 150' level with stations at 50' and 100'. Other development included: 56' of drifting 310' of crosscutting and 35' of raising.					
1959: McIntyre Porcupine Mines Ltd.							
1967: Leased to Siscoe Metals of Ontario (Siscoe Mines Ltd.)							
		OCCURRENCE		RAW PROSPECT		DEVELOPED PROSPECT	
MAJOR ORE MINERALS Silver, Fe, Co, Ni-arsenides.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES					
MINOR ORE MINERALS		Silver ore exposed in drift over a length of 40'.					
ORE FABRIC Vein.							
MAJOR GANGUE MINERALS Calcite and quartz.							
COUNTRY ROCK OR FORMATION Nipissing diabase.							
AGE: GEOLOGICAL ABSOLUTE							
Apehlian 2150 m.y.							
MAIN REFERENCE		MAP REFERENCE USED FOR LOCATION		FILE STATUS:	DATE	SIGNATURE	
Burrows, A.G. 1926: O.D.M. Annual Rept. Vol.35, pt.3, p.38.		O.D.M. Map 1955-3, Gowganda Silver Area 1955. Longitude and latitude refer to Castle-Trethewey No.2 shaft.		SKELETAL			
				INCOMPLETE			
				COMPLETED	1968	A.O.S.	
				REVISED			
COMMODITY		NAME OF OCCURRENCE:		LAT.		REF. NO.	
Silver Cobalt		CIRCA 19 68 McINTYRE PORCUPINE MINES LTD. HISTORICAL NAME: MILLER LAKE EVERETT MINE.		47° 40' 40"		O.D.M.-Ag-0942002	
GEOLOGY For general geological setting see Castle-Trethewey Mine which is situated adjacent and east of Everett mine. The Everett mine occurs near lower contact of the Nipissing quartz diabase sill in which pronounced fissuring occurs. A series of silver bearing veins strike N35°W. Burrows (1926) reported that on the mine dump fragments of diabase show scales of silver.		EXPLORATION AND DEVELOPMENT (Cont) 1925: Mine was operated for first 4 months.					
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS			
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE		Apehlian 2150 m.y.				Post-Huronian	
ROCK TYPE AND/OR MINERAL		Diabase				N.G.T. 2150 m.y.	
METHOD		K/Ar	Rb/Sr	Pb/Pb	C14	K/Ar	Rb/Sr
			X				X
COMPANY REPORTS		METALLURGY REFERENCE					
ECONOMICS REFERENCE		MILLING REFERENCE					
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE					
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION					
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1964. O.D.M. Map 1955-3, Gowganda Silver Area, 1955. O.D.M. Map 35d, Gowganda Silver Area, 1926.		ODM FILES					

FILE	COMMODITY	NAME OF OCCURRENCE: CIRCA 19 : HISTORICAL NAME:	LAT. LONG.	REF. NO.
RESIDENT GEOLOGIST AT	HISTORY OF OWNERSHIP (CONT.)		REMARKS	
U/A CENTRE FILE	ADDITIONAL REFERENCES: -			
U/A CENTRE FILE	COMMODITY	NAME OF OCCURRENCE CIRCA 19 : HISTORICAL NAME:	LAT. LONG.	REF. NO.

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT Lbs.	\$	Oz.	SILVER \$	Nkl Lbs.	\$	Cprr Lbs.	\$	TOTAL VALUE \$
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COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: SISCOE MINES LTD. HISTORICAL NAME: MILLERETT MINE.		LAT. 04767100	REF. NO.
				LONG. 08074000	O.D.M.-Ag-0942006
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV.		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE HAUTAIN	009420	MONTREAL RIVER		Claim: RSC 95	
LOCATION: Three quarters of a mile northwest of Miller Lake near GOWGANDA, 80 miles north of Sudbury and 50 miles west-northwest of Cobalt.			NTS 041P10E	UTM	
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1910-1912	
1908: Blackburn claim.		1908 - Discovered; silver found as nuggets in vein.		Silver Cobalt	
1909: Millerett Silver Mining Co.		1909-12 - Adit in NE corner of claim was driven 253' for development of main NW vein; from adit 150' crosscut was driven W to No.2 vein. No.1 shaft by adit mouth was sunk 83'; on 70' level 290' SW and 150' NE drifts were driven.		611,822 ozs. 5000 lbs. \$305,581. \$492.	
1913: Miller Lake O'Brien Co.		No.2 shaft on W side of claim was sunk 60' with 50' level on which 55'N and 145'S drifts were driven.			
1945: Siscoe Metals of Ontario Ltd. (wholly-owned subsidiary of Siscoe Mines Ltd.)		1914-15: No.10 shaft, in south central part of claim was sunk 128' with 60' level on		O.D.M. statistical files.	
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X	
MAJOR ORE MINERALS Silver, Fe, Co, Ni-arsenides.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS		Dre shoot on Main Vein: about 150' in length, 100' in vertical depth and 2' wide. Produced about 500,000 ozs. of silver.			
ORE FABRIC Vein, disseminated.		No.7 E-W vein: Occurred over 200' in vertical depth and up to 18" wide; produced about 200,000 ozs. of silver.			
MAJOR GANGUE MINERALS Calcite.		Grade 1910-1912: Silver, 39 ozs./ton (ore raised) Silver, 1000+ ozs./ton (ore shipped.)			
COUNTRY ROCK OR FORMATION Nipissing diabase and Cobalt Series sediments.		MAP REFERENCE USED FOR LOCATION			
AGE: GEOLOGICAL ABSOLUTE		Aphebian and Aphebian		2150 and N.L.T. 2150 m.y.	
MAIN REFERENCE		Burrows, A.G. 1913: O.D.M. Annual Rept. Vol.19, pt.2, p. 182-183.		O.D.M. Map 1955-3, Gowganda Silver Area, 1955.	
				FILE STATUS:	DATE SIGNATURE
				SKELETAL	
				INCOMPLETE	
				COMPLETED	1968 A.O.S.
				REVISED	
COMMODITY		NAME OF OCCURRENCE:		LAT. 04767100	REF.NO.
Silver Cobalt		CIRCA 1968 SISCOE MINES LTD. HISTORICAL NAME: MILLERETT MINE.		LONG. 08074000	O.D.M.-Ag-0942006
GEOLOGY For general geological setting see Castle-Trethewey Mine. Claim 95 occurs about upper contact of Nipissing diabase on W side of basin where diabase dips 30°E. Cobalt Series conglomerate occurs as a tongue that strikes SW into claim, probably following palaeovalley on Keewatin volcanics surface; it dips from 15° to vertical.			EXPLORATION AND DEVELOPMENT (Cont)		
Two principal veins are known: Main vein, with NW strike occurs within the conglomerate and the No.7 E-W vein within the diabase. These are narrow veins about 2" wide, with fine leaflets of silver that impregnate the host rock over a width of up to 2'. Gangue is calcite.			which were driven 80' N and 90'S drifts, and 15'W and 25'E crosscuts. Another level was developed at bottom of shaft.		
			1965-67: Development included diamond drilling and 150' raise from 450' level of Miller Lake O'Brien mine workings to 300' sub level, from which 80' of raising, and crosscutting has been done to high grade ore area.		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:	
ABSOLUTE AGE		Aphebian and Aphebian		Post-Huronian	
ROCK TYPE AND/OR MINERAL		2150 and N.L.T. 2150 m.y.		N.G.T. 2150 m.y.	
METHOD		Diabase, Conglomerate		K/Ar Rb/Sr Pb/Pb C14	
		K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	
		X		X	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE		
			PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES			ODM FILES		
O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1964.					
O.D.M. Map 1955-3, Gowganda Silver Area, 1955.					
O.D.M. Map 35D, Gowganda Silver Area, 1926.					



COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: SISCOE MINES LTD. HISTORICAL NAME: MILLERETT MINE.	LAT. 47° 40' 17"	REF. NO. O.D.M.-Ag-0942006
		LONG. 80° 44' 25"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to No.1 shaft or Millerett mine shaft.	
ADDITIONAL REFERENCES:- Burrows, A.G. 1909: Gowganda and Miller Lakes Silver Area, (Blackburn), Ontario Dept. Mines, Vol.18, pt.2, p. 1, 15-16. Mines of Ontario 1910: Ontario Dept. Mines, Vol.19, pt.1, p.118. Burrows, A.G. 1913: Outlying Cobalt-Silver Areas, Ontario Dept. Mines. Vol.19, pt.2, p.182, 183. 1926: Gowganda Silver Area, Ontario Dept. Mines, Vol.35, pt.3, p. 3, 4, 22, 25.			

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968 SISCOE MINES LTD. HISTORICAL NAME: MILLERETT MINE.	LAT. 47° 40' 17"	REF. NO. O.D.M.-Ag-0942006
		LONG. 80° 44' 25"	

YEAR	ORE	ORE & CONC.	COBALT		SILVER		Nkl		Cprr	TOTAL VALUE
	RAISED	SHIPPED	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$
1910	250	347	5000	492	322,000	156,000				156,492
11	5,800	53			130,687	64,363				64,363
12	9,500	192			159,135	85,218				85,218
	15,550	592	5000	492	611,822	305,581				306,073



COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: TORMONT MINES LTD. HISTORICAL NAME: WIGWAM SILVER MINES LTD.	LAT. 47° 40' 42"	REF. NO. O.D.M.-Ag- 0942001
		LONG. 80° 39' 47"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to adit portal.	

ADDITIONAL REFERENCES:-

Burrows, A.G.  
1926: Gowganda Silver Area. Ontario Department of Mines Annual Report, Vol.35, pt.3, p.39.  
Moore, E.S.  
1956: Geology of the Miller Lake Portion of the Gowganda Silver Area, Ontario Department of Mines, Annual Rept. Vol.64, pt.5, p.19.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: TORMONT MINES LTD. HISTORICAL NAME: WIGWAM SILVER MINES LTD.	LAT. 47° 40' 42"	REF. NO. O.D.M.-Ag-0942001
		LONG. 80° 39' 47"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl lbs	Cprr lbs	TOTAL VALUE \$
			lbs.	\$	oz.	\$			
1923		602				896	584		584

COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968 LEVEGA MINES LTD. HISTORICAL NAME: BISHOP, CALETA AND KEORA MINES.				LAT. 04765700 LONG. 08064800		REF. NO. O.D.M.-Ag-1176001					
CO. or DIST. TIMISKAMING		CODE No. 59		MINING DIV. MONTREAL RIVER		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE 11 claims in NW corner of Lawson twp., Chown and Haultain twps.							
TP. or SQUARE LAWSON		011760		NTS 041P10E		UTM							
LOCATION: 6 miles east of GOWGANDA, 80 miles north of Sudbury and 50 miles west northwest of Cobalt.				EXPLORATION AND DEVELOPMENT By 1912: Shaft was sunk 275' with stations at 100', 150', 200' and 270', and some lateral work was carried out. Circa 1915: On Bishop property, adit driven eastwards 515'. At 216' from portal 464'N drift and 177' S drift were driven on calcite vein. At 300' from portal, No.1 winze was sunk 18'; No.2 winze at end of main drift was sunk 100' where 100' of lateral work was completed. By 1926: Shaft had been deepened to 285' with 160' of drifting on 100' level; 290' of drifting and crosscutting on 150' level, 1440' of drifting and crosscutting and 60' of raising on 200' level; and 530' of drifting				PRODUCTION ORE RESERVES (DATE AND AUTHORITY) Silver 1911: Ore valued at \$7,000 shipped, possibly about 12,000 ozs. 1926: 760 tons of ore reported to have averaged 40 ozs./ton.					
HISTORY OF OWNERSHIP: Former claims: L.O. 357 and 358. 1907: Calcite Lake Mining Co. 1913: Caleta Silver Mines Ltd. 1923: Porcupine Keora Mining Co. Ltd. 1926: Keora Mines Ltd. 1950: Central Milner Mines Ltd. Former claim L.O. 313 Circa 1915: Bishop Silver Mines of Canada Ltd. Present Property 1962: Optioned to New West Amulet Mines Ltd. 1963: Fleetwood Financial Corp. Ltd. 1963: Levega Mines Ltd.				OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER *									
MAJOR ORE MINERALS Silver.				DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Main vein strikes N35°E, is up to 6" wide and was drifted on for over 150' on 100', 150' and 200' levels. Native silver occurs as flakes in sugary white calcite.									
MINOR ORE MINERALS													
ORE FABRIC Vein.													
MAJOR GANGUE MINERALS Calcite.													
COUNTRY ROCK OR FORMATION Nipissing Diabase.													
AGE: GEOLOGICAL Aphebian		ABSOLUTE 2150 m.y.		MAP REFERENCE USED FOR LOCATION O.D.M. Map P.311, Lawson Township 1965. Lat. and long. refer to shaft.				FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED		DATE: 1968		SIGNATURE: A.O.S.	
MAIN REFERENCE Burrows, A.G. 1926: O.D.M. Ann. Rept. Vol.35, pt.3, p.48.													
COMMODITY Silver		NAME OF OCCURRENCE: CIRCA 1968; LEVEGA MINES LTD. HISTORICAL NAME: BISHOP, CALETA AND KEORA MINES.				LAT. 47° 39' 25" LONG. 80° 38' 54 "		REF. NO. O.D.M.-Ag-1176001					
GEOLOGY Nipissing quartz diabase several hundred feet thick occurs in the form of a gently arched sheet with N-S axis and intrusive into shallow E dipping Cobalt Series sediments. A probable fault strikes a little W of N along Calcite Lake. Narrow silver bearing calcite veins occur in the diabase.				EXPLORATION AND DEVELOPMENT (Cont) and crosscutting on 290' level. 1950: 4 diamond drill holes were completed on Caleta property. 1962: 1,500' of diamond drilling was completed.									
ALTERATION				METAMORPHISM				MINERAL PARAGENESIS					
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14				AGE OF ORE MINERAL Post-Huronian N.C.T. 2150 m.y.					
		K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14				K/Ar Rb/Sr Pb/Pb C14					
		X		NAME OF TECTONIC EVENT				X					
COMPANY REPORTS				METALLURGY REFERENCE									
ECONOMICS REFERENCE				MILLING REFERENCE									
GEOCHEMICAL DATA REFERENCE				MINING REFERENCE									
GEOPHYSICAL DATA REFERENCE				MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION									
MAP REFERENCES O.D.M. Map 35d, Gowganda Silver Area, 1926. O.D.M. Map P.159, Elk Lake-New Liskeard Sheet, 1962. O.D.M. Map P.311, Lawson Township, 1965.				ODM FILES									

COMMODITY	NAME OF OCCURRENCE:	LAT.	REF. NO.
	CIRCA 19 : HISTORICAL NAME:	LONG.	
HISTORY OF OWNERSHIP (CONT.)		REMARKS	

ADDITIONAL REFERENCES:-

COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
	CIRCA 19 : HISTORICAL NAME:	LONG.	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT Lbs.	\$	SILVER Oz.	\$	Nkl Lbs.	\$	Cppr Lbs.	\$	TOTAL VALUE \$
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TA CENTRE FILE  
RESIDENT GEOLOGIST AT  
FILE

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: RUSTEX MINING CORP. HISTORICAL NAME: HUDSON BAY SILVER MINES LTD.		LAT. 04751500	REF. NO. O.D.M.-Ag-1190001
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. MONTREAL RIVER		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Claim: MR 30005(H.S.693) (Silverado) Patented claims: HS 695 ) HS 696 ) (Hudson Bay) HS 716 ) and surrounding claims.	
TP. or SQUARE LEITH	011900	NTS 041P10W	UTM		
LOCATION: 10 miles south by air from GOWGANDA, 70 miles north of Sudbury and 55 miles west of Cobalt.					
HISTORY OF OWNERSHIP: 1908: Dan O'Gorman. 1910: Hudson Bay Silver Mines Ltd. 1929: Pioneer Prospectors Consolidated Mines Ltd. 1935: Silverado-Gowganda Mines Ltd. 1937: Silver Valley Mines Ltd. 1956: Leith Mines Ltd. 1960: Rusty Lake Mining Corp. Ltd. 1968: Rustex Mining Corp. Ltd.		EXPLORATION AND DEVELOPMENT 1908: Silver discovered on claims. 1910-13: No.1 inclined shaft (HS.696) was sunk to 190' with 120' of drifting (was sunk 100' with 150' of NE drifting on 100' level, Gledhill, 1929). No.2 Inclined shaft (550'NNE of No.1) was sunk 110' with 330' of development on 54' level and 270' on 80' level. No.3 shaft (about 500'NNE of No.2) was sunk to 225' with 1600' of development on 76' level and 950' on 176' level. No.4 shaft (HS693, about 600'NE of No.3) was sunk 100'. Surface trenching and pitting was also		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1910-1966 At least:- <u>Silver</u> 80,186 ozs. <u>Cobalt</u> 565 lbs. O.D.M. statistical files.	
MAJOR ORE MINERALS Silver, Fe,Co,Ni-arsenides.		OCCURRENCE		RAW PROSPECT	DEVELOPED PROSPECT
MINOR ORE MINERALS		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		PRODUCER	PAST PRODUCER X
ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite. COUNTRY ROCK OR FORMATION Nipissing Diabase.		Ore shoot at No.2 shaft is thought to have produced about 10,000 ozs. of silver; locally 3" to 5" widths of silver occurred. At No.1 shaft calcite vein was 16" wide, striking NE. Grade possibly averages about 20 ozs./ton of silver. 1967: Surface stockpiles and underground broken ore reserves reported at 10,400 tons grading 12.2 ozs/ton silver.			
AGE: GEOLOGICAL ABSOLUTE Aphebian 2150 m.y.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 30b, Gowganda Silver Area, 1921.		FILE STATUS	DATE
MAIN REFERENCE Burrows, A.G. 1926: O.D.M. Annual Report, Vol.35, pt.3, p.57.				SKELETAL	SIGNATURE
				INCOMPLETE	
				COMPLETED	1968 A.O.S.
				REVISED	
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: RUSTEX MINING CORP. HISTORICAL NAME: HUDSON BAY SILVER MINES LTD.		LAT. 04751500	REF.NO. O.D.M.-Ag-1190001
GEOLOGY Nipissing diabase about 500' thick in the form of a sill or sheet dipping about 5°SW intrudes flat lying Gowganda conglomerate and greywacke (with adinole alteration) and Lorrain arkosic quartzite; the diabase shows marked columnar jointing and varies locally into its granophyric phase. A shear zone with a vein system strikes NNE for ½ mile; within the zone narrow NE striking calcite veins contain ore shoots up to 100' in length near their intersection with transverse veins that strike NW,W and N-S. Silver and arsenides occur in a gangue of calcite.		EXPLORATION AND DEVELOPMENT (Cont) carried out, and several tons of ore were mined from underground. 1929: No.3 shaft was dewatered and two ore shoots on No.3 vein were developed and 17 tons of cobbed ore were shipped. 1935-36: No.3 shaft was dewatered, diamond drilling was done and some high grade ore shipped. 1937: Nos.2 and 3 shafts were dewatered and some underground work was done. 1960: 7 diamond drill holes were completed between shafts Nos.3 and 4. 1963: No.3 shaft was dewatered. 1964-68: Diamond drilling development and exploration work was carried out on 176' level of No.3 shaft. Ore shipped contained 40,000 ozs. of silver.			
ALTERATION Granophyre		METAMORPHISM Adinole in the Gowganda greywacke.		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase K/Ar Rb/Sr Pb/Pb C14 X		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	
				AGE OF ORE MINERAL Post-Huronian N.C.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake Sheet, 1964. O.D.M. Map P.159, Elk Lake-New Liskeard Sheet, 1962. O.D.M. Map 30b, Gowganda Silver Area, 1921.		ODM FILES			

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 19 68 RUSTEX MINING CORP. HISTORICAL NAME: HUDSON BAY SILVER MINES LTD.	LAT. 47° 30' 53"	REF. NO.  O.D.M.-Ag-1190001
		LONG. 80° 47' 57"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Claims include: MR 31980-82 MR 31985 MR 31988-97 MR 30005-10 MR 27215,14,16,17 MR 34500, 01	

ADDITIONAL REFERENCES:-  
Burrows, A.G.  
1926: Gowganda Silver Area, Ontario Department of Mines, Vol.35, pt.3, p.57.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: RUSTEX MINING CORP. HISTORICAL NAME: HUDSON BAY SILVER MINES LTD.	LAT. 47° 31' 53"	REF. NO.  O.D.M.-Ag-1190001
		LONG. 80° 47' 57"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1936		1	113	30							30
37					283	127					127
38		2	371	167	1,029	442					609
1964	1,022	4			22,399	31,359					31,359
65			81	159	28,790	40,306					40,465
66					27,685	38,731					38,731
	1,022	7	565	356	80,186	110,965					111,321

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968; MANRIDGE MINES LTD. (Zenmac) HISTORICAL NAME: BARTLETT MINE.	LAT. 04759700	REF. NO. O.D.M.-Ag-1444001
CO. or DIST. TIMISKAMING	CODE No. 59	LONG. 08081200	
TP. or SQUARE MILNER	014440	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
LOCATION: West of south end of Gowganda lake, southwest of GOWGANDA, 80 miles north of Sudbury and 50 miles west-northwest of Cobalt.		Former Claims: HF 221 222 223 224	
HISTORY OF OWNERSHIP: 1909: Bartlett Mines Co. 1912: Scottish Nigeria Mining Co. 1917: Crews-McFarlan Mining Co. 1952: 1960: Yellowknife Bear Mines Ltd. (claims restaked) 1961: Manridge Mines Ltd. 1965: Optioned to Zenmac Metal Mines Ltd.		MINING DIV. MONTREAL RIVER NTS 041PLOW UTM	PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1918-1919 Silver 20,219 ozs. \$21,316 1940 Cobalt 18 lbs \$18. O.D.M. statistical files.
MAJOR ORE MINERALS Silver, Fe, Ni, Co-arsenides. MINOR ORE MINERALS Argentite, niccolite and chalcopyrite. ORE FABRIC Vein disseminated. MAJOR GANGUE MINERALS Calcite, granophyre. COUNTRY ROCK OR FORMATION Nipissing Diabase.		EXPLORATION AND DEVELOPMENT 1908: Spectacular silver ore was discovered on surface. Shaft No.1 was sunk 115' on a lens of high grade silver ore which ended at 25' depth. Short drifts were made on the 30' level; on 100' level crosscuts were developed for 135'N and 135'S. No.2 shaft (1000' SW of No.1) was sunk 110' with 230' of crosscutting on 100' level. SW of No.1 shaft open cuts were made on a vein (strike S52°W) for 350'. 1917-19: No.1 shaft was deepened to 300' with 1000' of workings on 30', 100', 200' and	
AGE: GEOLOGICAL Aphebian ABSOLUTE 2150 m.y.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Near No.1 shaft, open cuts on lenses of ore were made on aplite (granophyre (?)) dike over a length of 350'; from these most of the ore was obtained. At No.1 shaft high grade ore shoot occurred over 25' vertical depth from surface; the ore was massive "smaltite" and silver in a calcite vein two to three inches wide.	
MAIN REFERENCE Burrows A.G. 1926: O.D.M. Annual Rept., Vol.35, pt.3, p.49-50.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 1955-3, Gowganda Silver Area, 1956.	FILE STATUS: SKELETAL INCOMPLETE COMPLETED 1968 REVISED DATE SIGNATURE A.O.S.
COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968; MANRIDGE MINES LTD. (Zenmac) HISTORICAL NAME: BARTLETT MINE.	LAT. 04759700	REF.NO. O.D.M.-Ag-1444001
GEOLOGY Nipissing quartz diabase occurs as topographic ridges running N-S a little W of south part of Gowganda lake; the diabase is arched to dip E and W under flat lying Cobalt Series conglomerate and quartzite but centrally overlies Lorrain Quartzite. The diabase locally shows alteration to granophyre (aplite) and is often much fractured. Locally scales of silver enrich the diabase over inches to feet in width. Massive ore occurs as silver and smaltite in narrow calcite veins, with minor argentite, niccolite and chalcopyrite, and also disseminated magnetite.		EXPLORATION AND DEVELOPMENT (Cont) and 300' levels. In claim H.F. 224 shaft No.3 was sunk 75' with a SW crosscut on the 30' level. An open cut 40' S of shaft was made on a high grade ore shoot; other trenching in the area was also carried out.	
ALTERATION Granophyre	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase K/Ar Rb/Sr Pb/Pb C14 X	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X
COMPANY REPORTS	METALLURGY REFERENCE		
ECONOMICS REFERENCE	MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1964. O.D.M. Map 1955-3, Gowganda Silver Area, 1956. O.D.M. Map 30b, Gowganda Silver Area, 1921.	ODM FILES		



COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: MANRIDGE MINES LTD. (Zenmac) HISTORICAL NAME: BARTLETT MINE.	LAT. 47° 35' 48"	REF. NO. O.D.M.-Ag-1444001
		LONG. 80° 48' 45"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Longitude and latitude refer to No.1 shaft. Claim numbers refer to original property.	

ADDITIONAL REFERENCES:-

Burrows, A.G.  
1926: Gowganda Silver Area, Ontario Dept. Mines, Annual Rept., Vol.35, pt.3, p. 49-50.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: MANRIDGE MINES LTD. HISTORICAL NAME: BARTLETT MINE.	LAT. 47° 35' 48"	REF. NO. O.D.M.-Ag-1444001
		LONG. 80° 48' 45"	

YEAR	ORE	ORE & CONC.	COBALT		SILVER		Nkl		Cprr	TOTAL VALUE
	RAISED	SHIPPED	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	
1918		30			6,527	6,316				6,316
19		42			13,692	15,000				15,000
1940	1	1	18	18						18
	1	73	18	18	20,219	21,316				21,334

COMMODITY		NAME OF OCCURRENCE:		LAT.	04762400	REF. NO.
Silver Cobalt		CIRCA 19 68 MANRIDGE MINES LTD. (Zenmac) HISTORICAL NAME: BOYD GORDON MINE.		LONG.	08081900	O.D.M.-Ag-1444003
CO. or DIST.	TMISKAMING	CODE No.	59	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE		
TP. or SQUARE	MILNER	014440		MONTREAL RIVER		
LOCATION: West shore of Milner Bay, Gowganda Lake, southwest of GOWGANDA, 80 miles north of Sudbury and 50 miles northwest of Cobalt.				NTS	UTM	Former claim: HS 371
				041P10W		
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT			PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1909: Boyd Gordon Mining Co. Ltd.		1908: High grade silver ore discovered on outcrop.			1910	
1912: Mann Mines Ltd.		1909-10: A shaft was sunk to a depth of 150'. On the 75' level crosscuts were driven N and S, each for a distance of 140'. 150' of drilling was done on the veins. A sublevel was established at a depth of 40' from which some stoping was done. An open cut west of the shaft was developed over a length of 50' to 100'.			Silver	
1952: Optioned to Siscoe Metals of Ontario Ltd.					4,678 ozs.	
1960: Yellowknife Bear Mines Ltd. (claims restaked)					52,532	
1961: Manridge Mines Ltd.					O.D.M. statistical files.	
1965: Optioned to Zenmac Metal Mines Ltd.						
OCCURRENCE				RAW PROSPECT	DEVELOPED PROSPECT	PRODUCER
MAJOR ORE MINERALS Silver, Fe, Co, Ni-arsenides.				DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS				Small but rich ore shoots near surface.		
ORE FABRIC Vein disseminated.				1910. Grade 156 ozs./ton silver.		
MAJOR GANGUE MINERALS Calcite (quartz).						
COUNTRY ROCK OR FORMATION Nipissing Diabase.						
AGE: GEOLOGICAL		ABSOLUTE				
Apehbian		2150 m.y.				
MAIN REFERENCE				MAP REFERENCE USED FOR LOCATION	FILE STATUS:	DATE
Burrows, A.G.				O.D.M. Map 1955-3, Gowganda Silver Area, 1956.	SKELETAL	
1909: O.D.M. Annual Rept. Vol.18, pt.2, p.16.					INCOMPLETE	
					COMPLETED	1968
					REVISED	A.O.S.
COMMODITY		NAME OF OCCURRENCE:		LAT.	04762400	REF. NO.
Silver Cobalt		CIRCA 1968: MANRIDGE MINES LTD. (Zenmac) HISTORICAL NAME: BOYD GORDON MINE.		LONG.	08081900	O.D.M.-Ag-1444003
GEOLOGY Nipissing quartz diabase occurs as a topographical ridge ½ to ½ mile wide, running N-S a little W of the NW arm (Milner Bay) of Gowganda Lake; the diabase is arched to dip E and W under shallow E dipping Cobalt Series conglomerate and quartzite; it is locally altered to granophyre. A strong N-S fault with 45° W dip occurs just E of the property. Calcite veins with rich but short silver ore shoots strike a little south of W. At the shaft three silver bearing veins occur within a width of 6'. One fissure extends horizontally for a distance of 250'. Locally the diabase is enriched in silver.				EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS		
Granophyre						
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL
ABSOLUTE AGE		Apehbian				Post-Huronian
ROCK TYPE AND/OR MINERAL		2150 m.y.				N.G.T. 2150 m.y.
METHOD		Diabase				
		K/Ar	Rb/Sr Pb/Pb C14	K/Ar	Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14
			X	NAME OF TECTONIC EVENT		X
COMPANY REPORTS				METALLURGY REFERENCE		
ECONOMICS REFERENCE				MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE				MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE				MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE		
				PLAN x SECTION LONGITUDINAL PROJECTION		
				Burrows, A.G.		
				1926: O.D.M. Annual Report, Vol.35, pt.3, p.52.		
MAP REFERENCES				ODM FILES		
O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1964.						
O.D.M. Map 1955-3, Gowganda Silver Area, 1956.						
O.D.M. Map 30b, Gowganda Silver Area, 1921.						

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968 MANRIDGE MINES LTD. (Zenmac) HISTORICAL NAME: BOYD GORDON MINE	LAT. 47° 37' 27"	REF. NO. O.D.M.-Ag-1444003
		LONG. 80° 49' 10"	
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		<p>Longitude and latitude refer to shaft.</p> <p>Claim number refers to original property.</p> <p>Shaft appears to be on vein No.2 although stated as No.3 vein in O.D.M. Ann. Rept. 1909.</p> <p>Fe, Co, Ni-arsenides were not recovered.</p>	
ADDITIONAL REFERENCES:-			
<p>Burrows, A.G.</p> <p>1909: The Gowganda and Miller Lakes Silver Area, Ontario Dept. Mines, Annual Report, Vol.18, pt.2, p. 1, 16.</p> <p>1926: Gowganda Silver Area, Ontario Department of Mines, Annual Report, Vol.35, pt.3, p. 22, 52-53.</p>			
COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968; MANRIDGE MINES LTD. (Zenmac) HISTORICAL NAME: BOYD GORDON MINE,	LAT. 47° 37' 27" LONG. 80° 49' 10"	REF. NO. O.D.M.-Ag-1444003

YEAR	ORE	ORE & CONC.	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED	SHIPPED	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
	TONS	TONS									\$
1910	30	27			4,678	2,532					2,532

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 19 6& MANRIDGE MINES LTD. (Zenmac) HISTORICAL NAME: MANN MINE.		LAT. 04762200	REF. NO.
				LONG. 08081800	O.D.M.-Ag-1444004
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. MONTREAL RIVER		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE MILNER	014440			Former Claims: HR 249 250 251 252	
LOCATION: West shore of Milner Bay, Gowganda Lake, southwest of GOWGANDA, 80 miles north of Sudbury and 50 miles west-northwest of Cobalt.		NTS	UTM		
		041P10W			
HISTORY OF OWNERSHIP: 1908: Mann-Ryan Interests. 1909: Mann Mines Ltd. 19 : H. Wright. 1952: Optioned to Sisco Metals of Ontario Ltd. 1960: Yellowknife Bear Mines Ltd. (claims restaked). 1961: Manridge Mines Ltd. 1965: Optioned to Zenmac Metal Mines Ltd.		EXPLORATION AND DEVELOPMENT 1908: Native silver discovered by Robt. Mann. 1912-14: No.3 shaft was sunk to 200' with levels at 80', 120', 200'. No.4 shaft (350' E of No.3 shaft) was sunk to 80' level which connected with No.3 shaft. On No.3 vein on the 80' level three stope were opened up W of No.3 shaft and one stope 250'E; this stope connected with an open cut just W of No.4 shaft. 450' of drifting was carried out on No.3 vein on 200' level 1952: Shaft was dewatered and about 3000' of diamond drilling was done. Tailings were milled.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1912-1914. Essentially No.3 Vein. <u>Silver</u> 98,792 ozs. \$56,733 1952: Tailings produced 20,150 ozs. of silver. 1968: Reserves: 700,000 ozs. silver. O.D.M. statistical files.	
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PAST PRODUCER X	
MAJOR ORE MINERALS Silver, Fe, Ni, Co-arsenides.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES 1912-1914: No.3 vein enclosed several ore shoots. Vein width = 5 1/2". Open cut near No.4 shaft ore shoot: 30' long, pitched 45°W, included 14 tons of high grade ore. (A) Just west of No.3 shaft - ore shoot: 50' long on 80' level pitched W vertical height 95' (B) 130' West of No.3 shaft - ore shoot: 60' long on 80' level and 85' in vertical height. (D) 225' West of No.3 Shaft - ore shoot: 15' long on 80' level. Grade 1453 ozs./ton. Ore was hand sorted at surface. 1968: See end of Exploration and Development section.			
MINOR ORE MINERALS					
ORE FABRIC Vein.					
MAJOR GANGUE MINERALS Calcite, (quartz).					
COUNTRY ROCK OR FORMATION Nipissing Diabase.					
AGE: GEOLOGICAL ABSOLUTE Apehbian 2150 m.y.					
MAIN REFERENCE Burrows, A.G. 1926: O.D.M. Annual Rept. Vol.35, pt.3, p. 51-53.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 1955-3, Gowganda Silver Area, 1956.		FILE STATUS	DATE SIGNATURE
				SKELETAL	
				INCOMPLETE	
				COMPLETED	1968 A.O.S.
				REVISED	
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 19 6& MANRIDGE MINES LTD. (Zenmac) HISTORICAL NAME: MANN MINE.		LAT. 04762200	REF.NO.
				LONG. 08081800	O.D.M.-Ag-1444004
GEOLOGY Nipissing quartz diabase occurs as a topographical ridge, 1/2 to 1/2 a mile wide, running N-S a little W of the NW arm (Milner Bay) of Gowganda Lake; the diabase dips both to the E and W under flat lying Cobalt Series conglomerate and quartzite but overlies Lorrain quartzite, i.e. it is arched but the sediments are not. A strong N-S fault with 45°W dip and gouge over 4" wide bisects the property. Numerous calcite veins strike WSW on both sides of the fault and also N on E side of fault. Principal vein No.3 strikes WSW across the fault. Silver occurs in part as skeletal crystals on which arsenide minerals form radiating growths.		EXPLORATION AND DEVELOPMENT (Cont) 1966-67: Diamond drilling and trenching was carried out. A 600' E-W trending zone was located just south of No.3 shaft; 2000 tons grading 54 ozs./ton silver were indicated over a 200' length and 100' depth. 1968: Reserves estimated at 19000 tons grading 35 ozs./ton silver to a depth of 200'.			
ALTERATION Granophyre		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Apehbian 2150 m.y. Diabase		AGE OF DEFORMATION: AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.	
		K/Ar Rb/Sr Pb/Pb C14 X		K/Ar Rb/Sr Pb/Pb C14 X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN x SECTION x LONGITUDINAL PROJECTION Burrows, A.G. 1926: O.D.M. Annual Rept., Vol.35, pt.3, p.51 and 52.			
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1963. O.D.M. Map 1955-3, Gowganda Silver Area, 1956. O.D.M. Map 30b, Gowganda Silver Area, 1921.		ODM FILES			

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 19 67 MANRIDGE MINES LTD. (Zenmac) HISTORICAL NAME : MANN MINE.	LAT. 47° 37' 20"	REF. NO. O.D.M. -Ag-1444004
		LONG. 80° 49' 06"	
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		<p>Longitude and latitude refer to No.3 shaft. Fe, Co, Ni-arsenides are a major mineral of the veins but cobalt was not recovered.</p> <p>Claim numbers refer to original property.</p>	

ADDITIONAL REFERENCES:-

- Burrows, A.G.  
1926: Gowganda Silver Area, Ontario Dept. Mines, Annual Rept., Vol.35, pt.3, p. 4,17,22,23,24,25,51-53, and 71.  
Moore, E.S.  
1956: Geology of the Miller Lake Portion of the Gowganda Silver Area, Ontario Dept. Mines, Annual Rept., Vol.64, pt.5, p. 22, 24 and 36.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 19 68: MANRIDGE MINES LTD. (Zenmac) HISTORICAL NAME: MANN MINE.	LAT. 47° 37' 20"	REF. NO. O.D.M. -Ag-1444004
		LONG. 80° 49' 06"	

YEAR	ORE		COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED TONS	SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1912		34			36,589	20,910					20,910
13		16			32,477	19,468					19,468
14	18	18			29,756	16,355					16,355
		68			98,792	56,733					56,733

1952 3,094 tons of tailings produced 20,150 ozs. of silver.

COMMODITY		NAME OF OCCURRENCE:		LAT.	04760200	REF. NO.
Silver Cobalt		CIRCA 1967: MANRIDGE MINES LTD. (Zenmac) HISTORICAL NAME: REEVE-DOBIE MINE.		LONG.	08081400	O.D.M.-Ag-1444005
CO. or DIST.	TTMISKAMING	CODE No.	59	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE		
TP. or SQUARE	MTLNER	014440	MINING DIV.		Former claims: SW 3 SW 4 SW 5	
LOCATION: West of south end of Gowganda Lake, southwest of GOWGANDA, 80 miles north of Sudbury and 50 miles west northwest of Cobalt.			NTS 041P10W	UTM		
HISTORY OF OWNERSHIP:			EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1908:			1908: High grade silver ore discovered on outcrop.		1910-1920	
1910: Dobie Reeves Silver Mines Ltd.			1910-1920: A series of open cuts were made on high grade silver ore shoots along a mineralized zone of 700' in length. Several shafts were sunk; the main shaft to 200'. Levels were developed from the 50' to the 200' one.		Silver 88,584 ozs. \$54,123	
1915: Messrs. Skobba, C. Moore, F.C. Moore and Christopherson.			1966-68: Diamond drilling and trenching was carried out in the area. Several narrow NNW striking veins assaying 10.5 ozs./ton silver were found between Reeve and Dobie lakes.			
1917: Reeve-Dobie Mines Ltd.					O.D.M. statistical files	
1928: Optioned to Gowganda Grand Mines.						
1960: Yellowknife Bear Mines Ltd. (claims restaked).						
			OCCURRENCE	RAW PROSPECT	DEVELOPED PROSPECT	PRODUCER
MAJOR ORE MINERALS Silver, Fe, Co, Ni-arsenides.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS			A set of rich but short ore shoots occurred in the veins over a horizontal length of 700' in a NE direction. Vertical depth of mine workings was 200'. The diabase locally contained zones enriched in silver occurring as minute veinlets.			
ORE FABRIC Vein, disseminated.			Grade (1910) 91 ozs./ton of silver.			
MAJOR GANGUE MINERALS Calcite (quartz).						
COUNTRY ROCK OR FORMATION Nipissing Diabase.						
AGE: GEOLOGICAL		ABSOLUTE				
Apehbian		2150 m.y.				
MAIN REFERENCE			MAP REFERENCE USED FOR LOCATION		FILE STATUS:	DATE
Burrows, A.G.			O.D.M. Map 1955-3, Gowganda Silver Area, 1956.		SKELETAL	
1926: O.D.M. Annual Report, Vol.35, pt.3, p. 53-54.					INCOMPLETE	
					COMPLETED	1968
					REVISED	A.D.S.
COMMODITY		NAME OF OCCURRENCE:		LAT.	04760200	REF.NO.
Silver Cobalt		CIRCA 1967: MANRIDGE MINES LTD. (Zenmac) HISTORICAL NAME: REEVE-DOBIE MINE.		LONG.	08081400	O.D.M.-Ag-1444005
GEOLOGY Nipissing quartz diabase occurs as topographic ridges running N-S a little W of south part of Gowganda Lake; the diabase is arched to dip E and W under flat lying Cobalt Series conglomerate and quartzite but centrally overlies Lorrain quartzite. North of the property a strong fault strikes N-S and dips 45°W; within the property several strong faults occur. The diabase locally shows alteration to granophyre and is generally much fractured. Numerous veins strike NE, N, NW and E-W and locally contain short but rich ore shoots.			EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS		
Granophyre						
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL
ABSOLUTE AGE		Apehbian				Post-Huronian
ROCK TYPE AND/OR MINERAL		2150 m.y.				N.G.T. 2150 m.y.
METHOD		Diabase				
		K/Ar	Rb/Sr	Pb/Pb	Cl4	K/Ar
		X				X
COMPANY REPORTS			METALLURGY REFERENCE			
ECONOMICS REFERENCE			MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE			
			PLAN X SECTION LONGITUDINAL PROJECTION			
			Burrows, A.G.			
			1926: O.D.M. Annual Rept. Vol.35, pt.3, p.54.			
MAP REFERENCES			ODM FILES			
O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1964.						
O.D.M. Map, 1955-3, Gowganda Silver Area, 1956.						
O.D.M. Map 30B, Gowganda Silver Area, 1921.						

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 19 67: MANRIDGE MINES LTD. (Zenmac) HISTORICAL NAME: REEVE-DOBIE MINE.	LAT. 47° 36' 9"	REF. NO. O.D.M.-Ag-1444005
		LONG. 80° 48' 50"	
HISTORY OF OWNERSHIP (CONT)		REMARKS	
1961: Manridge Mines Ltd.		Longitude and latitude refer to shaft near original main buildings.	
1965: Optioned to Zenmac Metal Mines Ltd.		Claim numbers refer to original property.	
		Cobalt was not recovered.	
ADDITIONAL REFERENCES:-			
Burrows, A.G. 1926: Gowganda Silver Area, Ontario Dept. Mines, Annual Rept., Vol.35, pt.3, p. 53-54. Moore, E.S. 1956: Geology of the Miller Lake Portion of Gowganda Silver Area, Ontario Dept. Mines, Annual Rept. Vol.64, pt.5, p.23.			
COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 19 68: MANRIDGE MINES (Zenmac). HISTORICAL NAME: REEVE-DOBIE MINE.	LAT. 47° 36' 9"	REF. NO. O.D.M.-Ag-1444005
		LONG. 80° 48' 50"	

YEAR	ORE	ORE & CONC.	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED	SHIPPED	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
	TONS	TONS									\$
1910	500	54			45,800	21,562					21,562
16	11	11			22,723	16,402					16,402
17		6			14,486	12,173					12,173
19					1,200	1,200					1,200
1920		10			4,375	2,786					2,786
	511	81			88,584	54,123					54,123

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 19 68: MANRIDGE MINES LTD. (Zenmac) HISTORICAL NAME: SOUTH BAY MINE.		LAT. 04759100	REF. NO.
				LONG. 08080600	O.D.M.-Ag- 1444006
CO. or DIST.	TMISKAMING	CODE No.	59	MINING DIV. MONTREAL RIVER	
TP. or SQUARE	MILNER		014440	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
LOCATION: Southwest tip of Gowganda lake, southwest of GOWGANDA, 80 miles north of Sudbury and 50 miles west-northwest of Cobalt.			NTS	UTM	Former claims: HS 723 HS 724 HS 225 or HS 602
HISTORY OF OWNERSHIP:			EXPLORATION AND DEVELOPMENT (claim H.F. 225)		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1910: Burke-Remy (HS 723, HS 724).			1910-1913: Main shaft was sunk to 100' depth and N and S crosscuts were developed. Much surface trenching was also carried out with the development of several large open cuts near the shaft.		1910
19 : O'Brien (HS 225).					Silver
1912: South Bay Mining Co. Ltd.					1.8 tons of concentrate.
19 : Gowganda Grand Mines Ltd.			A second shaft was sunk 50' just south of north boundary of claim.		Possibly of the order of 1,500 ozs. of silver.
1929: Great Lakes Mines Ltd.			1929-30: Main(?) shaft was deepened to 200' depth.		
1960: Yellowknife Bear Mines Ltd.(claim restored)					
1961: Manridge Mines Ltd.					
1965: Optioned to Zenmac Metal Mines Ltd.					
MAJOR ORE MINERALS Silver. Fe. Co, Ni-arsenides.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS			Production was probably from open cuts on veins striking northwest.		
ORE FABRIC Vein, disseminated.					
MAJOR GANGUE MINERALS Calcite, granophyre.					
COUNTRY ROCK OR FORMATION Nipissing Diabase.					
AGE: GEOLOGICAL Aphebian			ABSOLUTE 2150 m.y.		
MAIN REFERENCE			MAP REFERENCE USED FOR LOCATION		
A.G. Burrows			Burrows, A.G., 1921: Location map, Ann. Rept., Vol.30, pt.3, p.22.		
1921: O.D.M. Annual Report, Vol.30, pt.3, p. 40-41.			Long. and lat. refer to main shaft		
			FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED		
			DATE 1968		
			SIGNATURE A.O.S.		
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 19 68: MANRIDGE MINES LTD. (Zenmac) HISTORICAL NAME: SOUTH BAY MINE.		LAT. 47° 35' 29"	REF.NO.
				LONG. 80° 48' 23"	O.D.M.-Ag-1444006
GEOLOGY Nipissing quartz diabase occurs as topographic ridges running N-S a little W of South part of Gowganda Lake; the diabase is arched to dip E and W under flat lying Cobalt Series conglomerate and quartzite but centrally as at the mine overlies Lorrain Quartzite. Locally the diabase is altered to reddish granophyre and is much fractured and jointed; columnar structure is pronounced. Locally scales of silver enrich the diabase over inches to feet in width. Much of the granophyric phase (aplike) is strongly stained with cobalt and nickel bloom. Veins occur along faults.			EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:	
ABSOLUTE AGE		2150 m.y.		AGE OF ORE MINERAL	
ROCK TYPE AND/OR MINERAL		Diabase		Post-Huronian	
METHOD		K/Ar Rb/Sr Pb/Pb C14		N.G.T. 2150 m.y.	
		X		K/Ar Rb/Sr Pb/Pb C14	
				NAME OF TECTONIC EVENT	
				X	
COMPANY REPORTS			METALLURGY REFERENCE		
ECONOMICS REFERENCE			MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE		
			PLAN SECTION LONGITUDINAL PROJECTION		
MAP REFERENCES			ODM FILES		
O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1964.					
O.D.M. Map 1955-3, Gowganda Silver Area, 1956.					
O.D.M. Map 30b, Gowganda Silver Area, 1921.					



COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968 : MANRIDGE MINES LTD. (Zenmac) HISTORICAL NAME: WELCH MINE.		LAT. 04759700	REF. NO.
			LONG. 08081200	O.D.M.-Ag- 1444002
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. MONTREAL RIVER		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Former Claims P.B. 154 (original property) 155
TP. or SQUARE MILNER	014440			
LOCATION: West of south end of Gowganda Lake, southwest of GOWGANDA, 80 miles north of Sudbury and 500 miles west-northwest of Cobalt.		NTS 041F10W	UTM	
HISTORY OF OWNERSHIP: 1909: Welch (?).  1960: Yellowknife Bear Mines Ltd. (claims restaked)  1961: Manridge Mines Ltd.  1965: Optioned to Zenmac Metal Mines.		EXPLORATION AND DEVELOPMENT 1909-1910: Trenching and test pitting followed by active mining was carried out.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  1910 <u>Silver</u> 1000 ozs.  Burrows, A.G., 1926.
OCCURRENCE      RAW PROSPECT      DEVELOPED PROSPECT      PRODUCER      FAST PRODUCER X				

MAJOR ORE MINERALS Silver.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Presumably ore was obtained from open cuts on surface veins.  Grade 1000 ozs./ton of silver.  N.B. only 1 ton of ore was shipped.
MINOR ORE MINERALS	
ORE FABRIC Vein, disseminated. MAJOR GANGUE MINERALS Calcite, granophyre.	
COUNTRY ROCK OR FORMATION Nipissing Diabase.	
AGE: GEOLOGICAL ABSOLUTE Aphebian 2150 m.y.	

MAIN REFERENCE	MAP REFERENCE USED FOR LOCATION	FILE STATUS:	DATE	SIGNATURE
	O.D.M. Map 1955-3, Gowganda Silver Area, 1956. Long. and lat. refer to Bartlett No.1 shaft.	SKELETAL		
		INCOMPLETE		
		COMPLETED	1968	A.O.S.
	REVISED			

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968 MANRIDGE MINES LTD. (Zenmac) HISTORICAL NAME: WELCH MINE.	LAT. 47° 35' 48"	REF.NO.
		LONG. 80° 48' 45"	O.D.M.-Ag-1444002

GEOLOGY Nipissing quartz diabase occurs as topographic ridges running N-S a little W of south part of Gowganda lake; the diabase is arched to dip E and W under flat lying Cobalt Series conglomerate and quartzite but centrally overlies Lorrain Quartzite. The diabase locally shows alteration to granophyre (aplite) and is often much fractured. Locally scales of silver enrich the diabase over inches to feet in width.	EXPLORATION AND DEVELOPMENT (Cont)
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ALTERATION Granophyre	METAMORPHISM	MINERAL PARAGENESIS
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GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:	AGE OF ORE MINERAL
	Aphebian 2150 m.y. Diabase		Post-Huronian N.G.T., 2150 m.y.
	K/Ar Rb/Sr Pb/Pb Cl4 X	K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT	K/Ar Rb/Sr Pb/Pb Cl4 X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION

MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake Sheet, 1963. O.D.M. Map 1955-3, Gowganda Silver Area, 1956. O.D.M. Map 30b, Gowganda Silver Area, 1921.	ODM FILES
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COMMODITY		NAME OF OCCURRENCE:		LAT.	04766361	REF. NO.
Silver	CIRCA 19 68 McINTYRE PORCUPINE MINES LTD.			LONG.	08073222	O.D.M.-Ag-01537009
Cobalt	HISTORICAL NAME: CASTLE NO.1 SHAFT MINE.					
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.		
TP. or SQUARE	NICOL	015370		MONTREAL RIVER		
LOCATION: Northwest shore of Miller Lake near Gowganda, 80 miles north of Sudbury and 50 miles west northwest of Cobalt.				NTS	UTM	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
				041P10E		Claim:- R.S.C. 106 (R.S.C. 92)
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT			PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1918: Trethewey Silver Cobalt Mining Co. Ltd. 1922: Castle-Trethewey Mines Ltd. 1959: McIntyre Porcupine Mines Ltd. 1967: Leased to Siscoe Metals of Ontario Ltd. (Siscoe Mines Ltd.)		Circa 1917: A Shaft(Castle No.1) was sunk to 300' level where 400' E crosscut was driven to diabase contact; also encountered in 500' N drift on the level; at 130' N of shaft N-S vein was drifted on for 230' N and also on 360' level connected by inclined winze. 1917-28: Shaft was deepened to 450' level and about 5,000' of lateral work was done on 200', 300', 360' and 450' levels. 1967: 525' level of Miller Lake O'Brien Mine (Main Siscoe Mine) was extended.				
		OCCURRENCE			RAW PROSPECT DEVELOPED PROSPECT <input checked="" type="checkbox"/> PRODUCER PAST PRODUCER	
MAJOR ORE MINERALS Silver. Fe, Co, Ni- arsenides.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES				
MINOR ORE MINERALS Bismuth, chalcopyrite, niccolite, pyrite.		1967: Claim R.S.C. 106 is considered by Siscoe Mines Ltd. to be an important potential ore locality.				
ORE FABRIC Vein.						
MAJOR GANGUE MINERALS Calcite.						
COUNTRY ROCK OR FORMATION Nipissing diabase						
AGE: GEOLOGICAL ABSOLUTE						
Aphebian 2150 m.y.						
MAIN REFERENCE		MAP REFERENCE USED FOR LOCATION		FILE STATUS:	DATE	SIGNATURE
		O.D.M. Map 1955-3, Gowganda, Silver Area, 1955.		SKELETAL		
				INCOMPLETE		
				COMPLETE D	1968	A.O.S.
				REVISED		
COMMODITY		NAME OF OCCURRENCE:		LAT.	47° 39' 49"	REF. NO.
Silver	CIRCA 19 68 McINTYRE PORCUPINE MINES LTD.			LONG.	80° 43' 56"	O.D.M.-Ag-01537009
Cobalt	HISTORICAL NAME: CASTLE NO.1 SHAFT MINE.					
GEOLOGY		EXPLORATION AND DEVELOPMENT (Cont)				
For general geological setting see Castle Trethewey Mine. In claim R.S.C. 106 the 1,000' thick Nipissing diabase sheet strikes NW and dips at about 15° NE below 130' depth in shaft; above this the contact is vertical with the Keewatin volcanics. Several strong faults occur that dip 30° NE. Silver-cobalt bearing calcite veins strike N-S and also E-W; they vary up to 6" in width and locally contain niccolite, bismuth chalcopyrite and pyrite.		1967: South into claim R.S.C. 106 where 50' of high grade silver ore has been developed along N-S vein; an E-W silver ore bearing vein has also been encountered.				
ALTERATION		METAMORPHISM			MINERAL PARAGENESIS	
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL
ABSOLUTE AGE		Aphebian 2150 m.y.				Port Huronian
ROCK TYPE AND/OR MINERAL		Diabase				N.G.T. 2150 m.y.
METHOD		K/Ar	Rb/Sr	Pb/Pb	C14	K/Ar Rb/Sr Pb/Pb C14
		X				X
COMPANY REPORTS		1967 Siscoe Mines Ltd.			METALLURGY REFERENCE	
ECONOMICS REFERENCE		MILLING REFERENCE				
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE				
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE				
		PLAN SECTION LONGITUDINAL PROJECTION				
MAP REFERENCES		ODM FILES				
O.D.M. Map 2046, Timmins - Kirkland Lake Sheet, 1964. O.D.M. Map 1955-3, Gowganda Silver Area, 1955. O.D.M. Map 35-d, Gowganda Silver Area, 1926.						

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: SILVER BAR MINES LTD. HISTORICAL NAME: COLEROY-GOWGANDA MINES.		LAT. 04766200 LONG. 08070100	REF. NO. O.D.M.-Ag-1537004
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. MONTREAL RIVER		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Former claims: T.C. 220 (Collins) A.N. 7 (Daley) W.J. 6 W.J. 7 ) Leroy Lake W.J. 8 ) Syndicate W.J. 10 )	
TP. or SQUARE NICOL	015370	NTS 041P10E	UTM		
LOCATION: Southwest of Leroy Lake near Gowganda 80 miles north of Sudbury and 50 miles west northwest of Cobalt.					
HISTORY OF OWNERSHIP: 19 : F.H. Collins (T.C. 220). 19 : Daley (A.N. 7). 19 : Leroy Lake Syndicate (W.J. 6,7,8 & 10). 1924: Coleroy-Gowganda Mines. 1927: Coleroy Mining Co. 1943: Silver Bar Mines Ltd.		EXPLORATION AND DEVELOPMENT Claim: T.C. 220 by 1927: No.1 shaft was sunk 663', initial 50' on calcite quartz vein in Keewatin volcanics on east side of a Matachewan dike, following 238' on the dike, and then in Nipissing diabase; levels were cut at 180', 300', 488', 563' and 650'. No.2 shaft (375' north of No.1 shaft) was sunk 50' on vein on west side of Matachewan dike. Claims: W.J. 6,7,8 & 10 3 shafts were sunk to depths of 100', 45' and 35'. 1946: Some diamond drilling was done.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  Production: Nil	
MAJOR ORE MINERALS Silver, argentite, Fe,Co,Ni-arsenides.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Thin calcite veins with silver-cobalt mineralization strike a little east of north, essentially in Nipissing diabase but in part in the N-S Matachewan dike. The vein system has been drifted on for over 600' in length and at least 200' in vertical height. No.1 vein: up to 12" wide. No high grade ore was discovered.			
MINOR ORE MINERALS Chalcopyrite, pyrite.					
ORE FABRIC Vein.					
MAJOR GANGUE MINERALS Calcite, quartz.					
COUNTRY ROCK OR FORMATION Keewatin volcanics, Matachewan diabase and Nipissing diabase.					
AGE: GEOLOGICAL ABSOLUTE Archean, Archean and Aphebian, N.L.T.3100, 2485, 2150 m.y.					
MAIN REFERENCE Burrows, A.G. 1926: O.D.M. Annual Rept. Vol.35, pt.3, p. 44-46.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 1955-3, Gowganda Silver Area, 1956. Lat. and long. refer to No.1 shaft.		FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968
				SIGNATURE A.O.S.	
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: SILVER BAR MINES LTD. HISTORICAL NAME: COLEROY-GOWGANDA MINES.		LAT. 47° 39' 42" LONG. 80° 42' 04"	REF.NO. O.D.M.-Ag-1537004
GEOLOGY Steeply dipping and N60E striking Keewatin volcanics are intruded by Nipissing quartz diabase about 900' thick in the form of a basin or saucer. The mine occurs on the SE side of the basin where the diabase dips 30°NW. An 80' wide Matachewan diabase dike strikes N across the property along which two calcite veins occur but the main vein system lies below the 288' level in the younger Nipissing diabase independent of the dike.		EXPLORATION AND DEVELOPMENT (Cont)			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD		AGE OF FORMATION, ROCK OR MINERAL Aphebian 2150 m.y. Diabase K/Ar Rb/Sr Pb/Pb C14 X		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT X	
AGE OF ORE MINERAL Post-Huronian N.L.T. 2150 m.y.		K/Ar Rb/Sr Pb/Pb C14 X			
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION LONGITUDINAL PROJECTION Burrows, A.G. 1926: O.D.M. Annual Rept. Vol.35, pt.3, p.45.			
MAP REFERENCES O.D.M. Map P.374, Nicol Township, 1966. O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1964. O.D.M. Map 1955-3, Gowganda Silver Area, 1956. O.D.M. Map 35d, Gowganda Silver Area, 1926.		ODM FILES			

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968: SISCOE MINES LTD. HISTORICAL NAME: MILLER LAKE O'BRIEN MINE.	LAT. 04766700 LONG. 08073300	REF. NO. O.D.M.-Ag-1537001
CO. or DIST. TIMISKAMING TP. or SQUARE NICOL	CODE No. 59 015370	MINING DIV. MONTREAL RIVER	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Claims: RSC 90 RSC 91 RSC 92 RSC 94
LOCATION: About 1/2 mile west of north end of Miller Lake near GOWGANDA. 80 miles north of Sudbury and 50 miles west-northwest of Cobalt.		NTS 041P10E	UTM
HISTORY OF OWNERSHIP: 1908: Claims RSC 90 and 91 - Gates. 1909: Miller Lake Mining Co. 19 : Miller Lake O'Brien. Co. 1940-44: Leased. 1945: Siscoe Metals of Ontario Ltd. (Wholly owned subsidiary of Siscoe Mines Ltd.).		EXPLORATION AND DEVELOPMENT 1908: Rich shoots of silver were discovered. 1909: Shafts Nos. 1 and 2 were begun and veins were trenched for several hundred feet. 1910-13: No.2 vein system striking N-S near (old) Main or No.2 shaft and cross-vein system were mined on 6 levels down to 450' level from several hundred feet of drifts and crosscuts. 1914-23: Flynn vein system striking N-S about No. 4 winze about 800'E of (old) main shaft was mined from about 460' to 525' levels. 1924-64: Extensive development in a general ESE	
		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1910-1965 Silver 36,834,404 ozs. Cobalt 785,760 lbs. \$28,279,724 \$485,299 O.D.M. statistical files.	
		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER X PAST PRODUCER	
MAJOR ORE MINERALS Silver, Fe, Co, Ni-arsenides. MINOR ORE MINERALS Chalcopyrite, pyrite, galena, sphalerite, bismuth, niccolite and argentite. ORE FABRIC Vein, dissemination. MAJOR GANGUE MINERALS Calcite, (quartz) COUNTRY ROCK OR FORMATION Essentially Nipissing diabase but also Matachewan diabase dike.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES High grade silver ore is common. Ore shoots occur in lengths over 200' in length and locally have reached 3' in width. Ore occurs over a vertical range of about 1400', following upper diabase contact to depth.	
AGE: GEOLOGICAL Aphebian and Archean ABSOLUTE 2150 and 2485 m.y.		MAP REFERENCE USED FOR LOCATION O.D.M. Map P. 374, Nicol Twp. 1966 Lat. and Long. refer to New Main Shaft, No.6.	
MAIN REFERENCE Burrows, A.G. 1926: O.D.M. Annual Report, Vol.35, pt.3, p. 27-32. Hester, B.W. 1967: Geol. of Silver Deposits, near Miller Lake C.I.M.M. Trans. Vol. 70, P. 277-286.		FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED	
COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968 SISCOE MINES LTD. HISTORICAL NAME: MILLER LAKE O'BRIEN MINE.	LAT. 04766700 LONG. 08073300	REF.NO. O.D.M.-Ag-1537001
GEOLOGY For general geological setting see Castle-Trethewey Mine. Mine lies on W side of basin and occurs mostly within upper 400' of Nipissing diabase, whose contact dips 20°E. The strong C Fault strikes N-S and dips 40°E, above which most of ore occurs; strong E-W faults dip 30°N. No.2 and Flynn vein systems strike N-S in upper part of mine; in lower part veins strike in various directions, E and ESE being important. Individual veins dip steeply and mostly are less than 6" wide locally they have reached 3'. Ore is generally confined to vein but leaf silver in host rock may occur over 18' widths.		EXPLORATION AND DEVELOPMENT (Cont) 1924-64: direction with thousands of feet of drifting and crosscutting on about 13 levels from 525' to 1475' levels; several winzes were developed, and No.6 winze, 1200' ESE from (old) Main shaft, was raised to surface and sunk to 1620' to become New Main shaft. 1964-67: Flynn vein system was mined on 350' and 400' levels. "19" vein on 400' level has become a major producer. A short ore shoot on the "64" vein has been developed on 850' level.	
ALTERATION		METAMORPHISM	
		MINERAL PARAGENESIS	
GEOLOGICAL AGE Aphebian and Archean ABSOLUTE AGE 2150 and 2485 m.y. ROCK TYPE AND/OR MINERAL Diabase and Diabase METHOD K/Ar Rb/Sr Pb/Pb Cl4		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT	
		AGE OF ORE MINERAL Post-Huronian N.G.T., 2150 m.y. K/Ar Rb/Sr Pb/Pb Cl4 X	
COMPANY REPORTS		METALLURGY REFERENCE	
ECONOMICS REFERENCE		MILLING REFERENCE	
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE	
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION O.D.M. 1926, Annual Rept. Vol.35, pt.3, p. 31 and 32. O.D.M. 1955, Annual Rept. Vol.64, pt.5, p. 34-35.	
MAP REFERENCES O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1964. O.D.M. Map 1955-3, Gowganda Silver Area, 1956. O.D.M. Map 35d, Gowganda Silver Area, 1926. O.D.M. Map P.374, Nicol Township, 1966.		ODM FILES	

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 19 68; SISCOE MINES LTD. HISTORICAL NAME: MILLER LAKE O'BRIEN MINE.	LAT. 47° 40' 00"	REF. NO. O.D.M.-Ag-1532001
		LONG. 80° 44' 00"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1942	69	69	7,194	1,587	191,526	67,910					69,497
43	70	60	5,205	883	172,698	67,697					68,580
44	105	71	9,000	2,264	250,676	100,270					102,534
45	75	11	1,185	194	44,585	18,896					19,090
47	95				94,301	63,795					63,795
48	3,068	507			183,163	169,883					169,883
49	20,714	723	6,000	1,900	626,254	491,342					493,242
1950	22,972	1,182	18,470	1,370	836,047	711,020					712,390
51	23,029	1,247	23,115	52,933	879,506	831,567					884,500
52	43,371	1,454	20,369	49,042	1047,037	874,485					923,527
53	21,981	871	13,400	32,562	640,100	537,748					570,310
54	24,542	1,542	17,500	25,350	1,097,563	800,207			19,610	5,786	831,293
55	26,461	1,073	24,917	44,285	1,039,162	888,704			10,010	3,641	936,680
56	20,349	787	17,036	23,953	722,236	611,061			7,507	3,109	688,113
57	55,000	963	17,040	34,080	903,177	789,106					828,185
58	51,617	1,239	23,740	47,430	1,215,651	1,055,301	2,997	1,120	2,746	698	1,105,605
59	61,401	1,352	34,374	63,748	1,379,650	1,211,195	4,529	3,170	5,361	1,587	1,284,700
60	64,534	1,317			1,346,534	1,197,515			25,527	7,699	1,205,214
61	67,215	1,419	23,527	35,291	1,440,433	1,357,804	2,668	2,038			1,395,133
62	68,665	1,185	9,088	13,632	1,382,440	1,610,543	3,054	2,550	1,778	551	1,627,276
63	54,060	1,287			1,333,825	1,844,678					1,844,678
64	64,019	1,272			1,331,580	1,872,612			347	116	1,872,728
65	58,049	1,159			1,080,561	1,512,786					1,512,786
1966	111,986	26,664	785,700	485,299	36,834,404	28,279,724	13,248	9,878	72,946	23,187	28,798,088
					1,153,363	1,613,554					1,613,554

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 19 68; SISCOE MINES LTD. HISTORICAL NAME: MILLER LAKE O'BRIEN MINE.	LAT. 47° 40' 00"	REF. NO. O.D.M.-Ag- 1532001
		LONG. 80° 44' 00"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1910	53	31			91,730	50,000					50,000
11	121	135			338,000	175,000					175,000
12	123	112			354,252	213,000					213,000
13	56	167			469,923	274,196					274,196
14	3,602	114			369,544	194,825					194,825
15	6,790	110			242,229	116,856					116,856
16	9,880	171			360,670	236,816					236,816
17		350			1,050,149	876,220					876,220
18		160	26,994	4,049	631,671	611,281					615,330
19		184	27,404	3,886	708,872	809,727					813,613
1920		115	14,982	1,982	376,417	372,927					374,909
21	11,703	103	9,187	950	224,340	157,505					158,455
22	11,322	76	6,948	637	130,553	86,004					86,641
23	1,103	24	2,199	220	12,844	8,220					8,440
24	3,062	26	2,154	263	50,021	34,327					34,590
25	8,398	150	7,226	728	347,909	236,721					237,449
26	5,465	33	3,007	424	70,764	40,070					40,494
27	13,980	260	15,768	2,118	588,216	325,544					327,662
28	24,165	285	26,303	2,833	876,461	498,958					501,791
29	26,920	359	35,880	4,468	1,197,634	567,151					571,619
30	25,715	358	52,005	7,820	1,188,390	406,238					414,058
31	28,542	350	38,411	5,061	1,289,742	409,493					414,554
32	30,130	530	72,081	10,469	1,374,660	422,412					432,881
33	30,932	366	40,729		1,244,812	497,799					497,499
34	21,680	270	32,273		1,039,565	506,494					506,494
35	20,690	214	20,818		800,669	519,660					519,660
36	22,432	234	24,241		637,411	287,378					287,378
37	21,519	201	20,818	674	521,633	234,698					235,372
38	25,665	196	15,457	394	501,821	217,998					218,392
39	20,877	200	19,185	2,769	498,043	206,086					208,855

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 19 68: CONSOLIDATED MORRISON EXPLORATIONS LTD. HISTORICAL NAME: MORRISON MINE.				LAT. 04765300	REF. NO. O.D.M.-Ag-1537003
						LONG. 08071500	
CO. or DIST.	TIMISKAMING	CODE No.	MINING DIV.		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE		
TP. or SQUARE	NICOL	59	MONTREAL RIVER		Claims: TC 204		
LOCATION: 1/2 mile southeast of Miller Lake near GOWGANDA, 80 miles north of Sudbury and 50 miles west-northwest of Cobalt.			NTS 041P10E	UTM	TC 315 HR 204 HR 205		
HISTORY OF OWNERSHIP:			EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)		
1909: General Morrison.			1912: Shaft was sunk 95' on claim T.C.315 and 175' of drifting was done on 90' level.		1930-1954		
1909: Northern Mining Co. (claims:TC 204,315)			1912: Shaft was sunk on claim HR 204.				
1909: Canadian Gowganda Silver Mines Ltd. (claims: HR 204,205)			1925: Main shaft on claim TC315 was sunk 300'. 300' level was developed with a raise level at 250' and two winze levels at 375', exposing several ore shoots.		Silver Cobalt 719,201 ozs. 22,018 \$484,288 \$39,865		
1925-27: Optioned to Tonopah Canadian Mines Ltd.			1927: 175' level was drifted on for several hundred feet but failed to show ore.				
1927-51: Morrison Mines Ltd.			1928-36: Main shaft was deepened to 600' with levels at 425', 500' and 575'; actively mined.				
1951-53: New Morrison Mines Ltd.			1936-51: Mine was idle.		O.D.M. statistical files.		
			OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X		
MAJOR ORE MINERALS Silver; Fe, Co, Ni-arsenides.			DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES				
MINOR ORE MINERALS			Narrow veins occur within an ore zone about 400' in horizontal length, 25' in width and 250' in vertical height.				
ORE FABRIC Vein.			Grade 1952-1954				
MAJOR GANGUE MINERALS Calcite, quartz, granophyre.			Silver: 26 ozs./ton. Cobalt: .8 lbs./ton.				
COUNTRY ROCK OR FORMATION Nipissing Diabase.							
AGE: GEOLOGICAL Aphebian		ABSOLUTE 2150 m.y.		MAP REFERENCE USED FOR LOCATION		FILE STATUS: SKELETAL	
MAIN REFERENCE		Moore, E.S.		O.D.M. Map 1955-3, Gowganda Silver Area, 1956.		INCOMPLETE	
1956: O.D.M. Annual Rept. Vol.64, pt.5, p.35.						COMPLETED 1968	
						REVISED	
SIGNATURE						A.O.S.	
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: CONSOLIDATED MORRISON EXPLORATIONS LTD. HISTORICAL NAME: MORRISON MINE.				LAT. 04765300	REF.NO. O.D.M.-Ag-1537003
						LONG. 08071500	
GEOLOGY Steeply dipping and E striking amphibolitized Keewatin volcanics are intruded by Nipissing quartz diabase about 900' thick in the form of a basin or saucer. The mine occurs on the S side of the basin where the diabase dips about 20°N. A strong fault strikes NW and dips 24°NE; it passes near the main shaft on 175' level, and occurs above the ore body. Silver bearing veins form a narrow zone that strikes E-W parallel to diabase contact and dips steeply S; the veins have a banded structure where a calcite core with ore minerals lies within quartz that is within granophyre next to the diabase walls.			EXPLORATION AND DEVELOPMENT (Cont)				
			1951-53: Actively mined and developed.				
			1954 : Further exploration and mining was done above 500' level.				
ALTERATION Granophyre		METAMORPHISM		MINERAL PARAGENESIS			
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE		Aphebian				Post-Huronian	
ROCK TYPE AND/OR MINERAL		2150 m.y.				N.G.T. 2150 m.y.	
METHOD		Diabase					
		K/Ar	Rb/Sr	Pb/Pb	Cl4	K/Ar Rb/Sr Pb/Pb Cl4	
		X				X	
COMPANY REPORTS			METALLURGY REFERENCE				
ECONOMICS REFERENCE			MILLING REFERENCE				
GEOCHEMICAL DATA REFERENCE			MINING REFERENCE				
GEOPHYSICAL DATA REFERENCE			MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE				
			PLAN x SECTION LONGITUDINAL PROJECTION				
			Moore, E.S.				
			1955: O.D.M. Annual Report, Vol.64, pt.5, p.36.				
MAP REFERENCES			ODM FILES				
O.D.M. Map 2046, Timmins-Kirkland Lake sheet, 1964.							
O.D.M. Map 1955-3, Gowganda Silver Area, 1956.							
O.D.M. Map 35d, Gowganda Silver Area, 1926.							
O.D.M. Map 374, Nicol Township, 1966.							

COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver Cobalt	CIRCA 19 68 CONSOLIDATED MORRISON EXPLORATIONS LTD. HISTORICAL NAME : MORRISON MINE.	47° 39' 10" 80° 42' 53"	O.D.M.-Ag-1537003
HISTORY OF OWNERSHIP (CONT)		REMARKS	
1953-55: Lost Lake Mines Ltd. (Siscoe Metals Ltd.)		Longitude and latitude refer to main shaft.	
1955: Consolidated Morrison Explorations Ltd.			
ADDITIONAL REFERENCES:-			
Burrows, A.G. 1926: Gowganda Silver Area, Ontario Dept. Mines, Annual Rept. Vol.35, pt.3, p.44.			
Moore, E.S. 1956: Geology of the Miller Lake Portion of the Gowganda Silver Area, Ontario Dept. Mines, Annual Rept., Vol.64, pt.5, p.35.			
COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver Cobalt	CIRCA 19 68: CONSOLIDATED MORRISON EXPLORATIONS LTD. HISTORICAL NAME: MORRISON MINE.	47° 39' 10" 80° 42' 53"	O.D.M.-Ag-1537003

YEAR	ORE	ORE & CONC.	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED TONS	SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	\$
1930	4,024	50	5,397	698	154,799	50,606					
31											
32					120	34					
35	712	593			28,526	12,800					
36	100	45			2,688	1,075					
1940		2	96	29	3,794	1,239					
1952	2,998	121	3,504	8,261	91,284	76,260					
53	11,090	235	9,660	23,545	293,000	231,455					
54	6,021	243	3,358	7,352	144,990	110,739					
	24,945		22,018	39,865	719,201	484,288					

COMMODITY	NAME OF OCCURRENCE:		LAT. 04766200	REF. NO.
Silver	CIRCA 1968: SILVER BAR MINES LTD.		LONG. 08069200	O.D.M.-Ag-1537005
Cobalt	HISTORICAL NAME: SILVER BULLION MINE.			
CO. or DIST.	TIMISKAMING	CODE No.	MINING DIV.	
TP. or SQUARE	NICOL	015370	MONTREAL RIVER	
LOCATION: North end of Leroy Lake near Gowganda 80 miles north of Sudbury and 50 miles west northwest of Cobalt.			NTS	UTM
			041P10E	W.J. 1 (Dodds) GC 4077 (Island)

HISTORY OF OWNERSHIP:	EXPLORATION AND DEVELOPMENT	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
19 : Dodds (claim W.J. 1)	Dodds claim: W.J. 1	
1920: Silver Bullion Mines Ltd.	By 1926: Shaft had been sunk to 300' with levels at 40', 115' with 110' of drifting, 200' with 520' of drifting and 275' with 70' of drifting; shaft was destroyed by fire in 1926.	A few bags of silver ore were taken from open cut.
1943: Silver Bar Mines Ltd.	Claim G.G. 4077	
	1920: Island shaft was sunk 100' with a 90' long S crosscut to 6" calcite vein.	

MAJOR ORE MINERALS Silver, Fe,Co, Ni-arsenides.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS Bismuth, chalcopyrite, bornite.	E-W vein was followed by shaft to 50' depth and found to be repeatedly faulted by small N-S faults; at 30' depth it is 6" wide. Some ore was taken from it on open cut at surface.
ORE FABRIC Vein.	NNE vein system occurs over a length of 400' in the Nipissing diabase between 100' and 275' levels; 2 en echelon veins, one up to 18" wide, occur over a width of 80'.
MAJOR GANGUE MINERALS Calcite.	
COUNTRY ROCK OR FORMATION Keewatin volcanics and Nipissing diabase.	
AGE: GEOLOGICAL Archean and Aphebian.	ABSOLUTE N.L.T. 3100 and 2150 m.y.

MAP REFERENCE USED FOR LOCATION	FILE STATUS:	DATE	SIGNATURE
O.D.M. Map 35d, Gowganda Silver Area, 1926.	SKELETAL INCOMPLETE		
Lat. and long refer to Dodds shaft.	COMPLETED	1968	A.O.S.
	REVISED		

COMMODITY	NAME OF OCCURRENCE:	LAT. 47° 39' 53"	REF.NO.
Silver	CIRCA 1968: SILVER BAR MINES LTD.	LONG. 80° 41' 32"	O.D.M.-Ag-1537005
Cobalt	HISTORICAL NAME: SILVER BULLION MINE.		
GEOLOGY Steeply dipping and N60°E striking Keewatin volcanics are intruded by Nipissing quartz diabase in the form of a 900' thick sheet. The sheet dips 30E to make a small basin or saucer-like structure. Small N-S faults displace the thin calcite veins that are mineralized with bismuth, chalcopyrite, and bornite as well as silver and cobalt-arsenides.		EXPLORATION AND DEVELOPMENT (Cont)	

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE	AGE OF FORMATION	AGE OF ORE MINERAL
ABSOLUTE AGE	ROCK OR MINERAL	
ROCK TYPE AND/OR MINERAL	AGE OF DEFORMATION:	
METHOD		
	K/Ar Rb/Sr Pb/Pb Cl4	K/Ar Rb/Sr Pb/Pb Cl4
	X X	X
	NAME OF TECTONIC EVENT	

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOFYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE
MAP REFERENCES	PLAN X SECTION X LONGITUDINAL PROJECTION
O.D.M. Map P.374, Nicol Township, 1966.	Burrows, A.G.
O.D.M. Map 2046, Timmins-Kirkland Lake Sheet, 1964.	1926: O.D.M. Annual Rept. Vol.35, pt.3, p. 46-47.
O.D.M. Map 1955-3, Gowganda Silver Area, 1956.	
O.D.M. Map 35d, Gowganda Silver Area, 1926.	ODM FILES



COMMODITY	NAME OF OCCURRENCE:	LAT.	REF. NO.
	CIRCA 19 : HISTORICAL NAME:	LONG.	
HISTORY OF OWNERSHIP (CONT.)	REMARKS		

ADDITIONAL REFERENCES :-

COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
	CIRCA 19 : HISTORICAL NAME:	LONG.	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT Lbs. \$	SILVER Oz. \$	Nkl Lbs. \$	Cprr Lbs. \$	TOTAL VALUE \$
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VIA CENTRE FILE  
 RESIDENT GEOLOGIST AT  
 FILE

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968 : McINTYRE PORCUPINE MINES LTD. HISTORICAL NAME: WALSH MINE.		LAT. 04765800	REF. NO.
			LONG. 08072700	O.D.M.-Ag-1537002
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. MONTREAL RIVER	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE NICOL	15370	NTS 041P10E	Claims: RSC 98 GG 3879 RSC 136	
LOCATION: Southwest shore of Miller Lake near GOWGANDA, 80 miles north of Sudbury and 50 miles west-northwest of Cobalt.		UTM		
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT	PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1925 to 1927 with some in 1940.	
1912: Walsh Mines Ltd. (claims 98 and 3879)		1913: Shaft: - was sunk 50' in Matachewan diabase dike.	Silver Cobalt	
1917-18: Crown Reserve Mining Co. held option on claims 98 and 3879.		1917-18: Shaft was deepened to 200' and N drifts were developed on 100' and 180' levels.	453,424 ozs. 3,555 lbs.	
1924: Leased(?) to Victoria Syndicate Ltd. (claims 98 and 3879)		1920: Drift on 180' level was extended to Keewatin contact, with a total development of 850' on the level.	\$254,480 \$291	
1912-24: Miller Lake Silver Lodes Mining Co. (Hart claims: 135, 136)		1924: Mine was dewatered and sampled.		
1924: Tonopah Canadian Mines Co. (all claims)		1925-27: Shaft was deepened to 480' depth. Exploration work was carried out on several veins on 330' level and 500' NNW of shaft an ore zone was found. An inclined winze was sunk on No. 8 vein to	O.D.M. statistical files.	
		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT	PRODUCER PAST PRODUCER	
MAJOR ORE MINERALS Silver, Fe, Co, Ni-arsenides.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS Niccolite, bismuth, chalcopyrite.		Ore zone strikes NNW; it is about 300' in length by 150' in width and occurs over a vertical height of about 100' as a series of narrow calcite veins that strike NW, E-W, and N-S. It lies 400' NNW of shaft about the 300' and 400' level.		
ORE FABRIC Vein.		Grade 1925-1927: Silver:- 22 ozs./ton (approx.). Cobalt:- .18 lbs./ton (approx.).		
MAJOR GANGUE MINERALS Calcite.				
COUNTRY ROCK OR FORMATION Keewatin volcanics intruded by Nipissing diabase.		MAP REFERENCE USED FOR LOCATION		
AGE: GEOLOGICAL ABSOLUTE		FILE STATUS DATE SIGNATURE		
Archean and Apehbian N.L.T. 3100 and 2150 m.y.		O.D.M. Map 1955-3, Gowganda Silver Area, 1956.		
MAIN REFERENCE		SKELETAL		
Burrows, A.G.		INCOMPLETE		
1926: O.D.M. Annual Rept, Vol.35, pt.3, p. 41-44.		COMPLETED 1968 A.O.S.		
		REVISED		
COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968 : McINTYRE PORCUPINE MINES LTD. HISTORICAL NAME: WALSH MINE.		LAT. 04765800	REF. NO.
			LONG. 08072700	O.D.M.-Ag-1537002
GEOLOGY Steeply dipping and E striking amphibolitized Keewatin volcanics are intruded by Nipissing quartz diabase about 900' thick in the form of a basin or saucer. The mine occurs on the SW side of the basin where the diabase dips about 35°E. A 30' wide Matachewan diabase dike in which the shaft was sunk strikes N-S across the property; the Nipissing diabase was reached in the shaft at 210' depth. Silver bearing veins with rich ore shoots occur 400' NNW of the shaft about the 330' and 400' levels where the Nipissing diabase is more strongly cylindrically jointed than elsewhere. The veins strike E-W, N-S and NW, the direction of the No.8 principal vein, and occur both in the upper part of the Nipissing diabase and hanging wall Keewatin volcanics.		EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION Hematite		400' level and 1000' of development work. 1925-27: (Cont) was done from the winze, 460' of it in ore.		
METAMORPHISM		1935: Some diamond drilling was carried out.		
MINERAL PARAGENESIS		1940: Some mining was done.		
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:	AGE OF ORE MINERAL	
ABSOLUTE AGE	Archean and Apehbian		Post-Huronian	
ROCK TYPE AND/OR MINERAL	N.L.T. 3100 and 2150 m.y.		N.G.T. 2150 m.y.	
METHOD	Volcanics and Diabase			
	K/Ar Rb/Sr Pb/Pb Cl4	K/Ar Rb/Sr Pb/Pb Cl4	K/Ar Rb/Sr Pb/Pb Cl4	
	X X	NAME OF TECTONIC EVENT	X	
COMPANY REPORTS	METALLURGY REFERENCE			
ECONOMICS REFERENCE	MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION X LONGITUDINAL PROJECTION Burrows, A.G. 1926: O.D.M. Annual Rept. Vol.35, pt.3, p. 42-43.			
MAP REFERENCES	ODM FILES			
	O.D.M. Map 2046, Timmins-Kirkland Lake Sheet, 1964. O.D.M. Map 1955-3, Gowganda Silver Area, 1956. O.D.M. Map 35d, Gowganda Silver Area, 1926.			

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: McINTYRE PROCUPINE MINES LTD. HISTORICAL NAME: WALSH MINE.	LAT. 04765800	REF. NO. O.D.M.-Ag-1537002
		LONG. 08072700	
HISTORY OF OWNERSHIP (CONT)		REMARKS	
1943: Tonopah Mining Co. of Nevada.		Longitude and latitude refer to shaft.	
19 : McIntyre-Porcupine Mines Ltd.		1924-26, Tonopah Canadian Mines Co. acquired claim AK 18, adjacent and west of RSC 98 into which workings on 330' level extend.	
1967: Leased to Siscoe Metals of Ontario Ltd.			

ADDITIONAL REFERENCES:-

- Burrows, A.G.
- 1926: Gowganda Silver Area, Ontario Dept. Mines Annual Rept. Vol.35, pt.3, p. 41-44.
- Moore, E.S.
- 1956: Geology of the Miller Lake Portion of the Gowganda Silver Area, Ontario Dept. Mines, Annual Rept. Vol.64, pt.5, p.27.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: McINTYRE PORCUPINE MINES LTD. HISTORICAL NAME: WALSH MINE.	LAT. 47° 39' 30"	REF. NO. O.D.M.-Ag-1537002
		LONG. 80° 43' 39"	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1925	3,000*	13	1,201	73	45,297	32,404					32,477
26	6,660	95	1,281	128	185,986	97,568					97,696
27	10,017	126	980	90	220,592	123,936					124,026
1940		2	93		1,549	572					572
	19,677	236	3,555	291	453,424	254,480					254,771

\* Includes small production from Morrison mine.

District of TIMISKAMING

N.T.S. or Townships CHARTERS, CORKILL, HAULTAIN

NAME	WORK DONE	VEIN	DESCRIPTION	METALS PRESENT							REFERENCE
				Ag	Co	Cu	Ni	Bi	Zn	Pb	
1920: Garvey prspc.	Shaft Adit Pit Trench X D. Drill Geophys	CALCITE QUARTZ APLITE	Several veins occur in Nipissing diabase. 2" calcite vein strikes N60°E for 125'. 6" aplite vein strikes NE.	native	arsenides						O.D.M. Vol.35,pt.3,p.56,1926 CHARTERS 1 West of Montreal R. MAPS O.D.M. 30b, 1921. O.D.M. P.159, 1962.
Former claim: 123½ 47°30'10" 80°43'00"		X X		X	X		X				
1926: Haines prspc.	Shaft X Adit Pit Trench D. Drill Geophys		Calcite vein strikes NE in Nipissing diabase.								O.D.M. Vol.35,pt.3,p.57,1926. CHARTERS 2 West of Montreal R. MAPS O.D.M. 30b, 1921 O.D.M. P.159, 1962.
Former claim: HR 439 47°29'46" 80°43'16"		X		X	X						
1910: Kell prspc.	Shaft Adit Pit X Trench D. Drill Geophys		Nipissing diabase forms NW trending ridge at right angles to which 3" ribboned quartz veins with calcite occur. Galena.								O.D.M. Vol.35,pt.3,p.60,1926 CORKILL 2 West shore of Isabel L. MAPS O.D.M. P.159, 1962. O.D.M. 30b, 1921.
Former claims:- GG 4124-25. 47°31'10" 80°35'37"		X X		X		X				X	
1908: Barbara Claims. 1966: Gerrie Group. 1968: W.R. Olmsted Jr. & Sr.	Shaft X Adit Pit X Trench X D. Drill Geophys		Several veins exposed in Nipissing diabase. 2" N15E vein on claim S.W. 8 trenched for several hundred feet. Chalcopyrite, bornite & galena present.								O.D.M. Vol.35,pt.3,p.38,1926 HAULTAIN 12 Near Sigs L. MAPS ODM Haultain Twp. 1969. O.D.M. 30b, 1921.
Former claims SW 8 etc 47°42' 80°41'		X X X		X	X	X				X	
Circa 1925: Cobalt Nugget prspc.	Shaft X Adit Pit Trench D. Drill Geophys		Heavy fracturing occurs near E side of diabase ridge near Dinny Lake. Calcite vein later faulted along its length. Vugs occur.								O.D.M. Vol.35,pt.3,p.40,1926 HAULTAIN 7 SW corner of Twp. MAPS O.D.M. 35d, 1926. O.D.M. Haultain Twp. 1969.
3 former claims:- H.F. 243-5 47°40'30" 80°46'51"		X X		X	X						

District of TIMISKAMING

N.T.S. or Townships HAULTAIN

NAME	WORK DONE	VEIN	DESCRIPTION	METALS PRESENT							REFERENCE
				Ag	Co	Cu	Ni	Bi	Zn	Pb	
1925: Haultain Mining Co. Ltd.	Shaft X Adit	CALCITE QUARTZ APLITE	Upper portion of Nipissing diabase sheet exposed with H.W. contact to E & W. Several N20E veins occur in crest of fractured sheet. Chalcopyrite, bornite.	native	arsenides						O.D.M. Vol.35,pt.3,p.38,1926 HAULTAIN 11 SW shore of Wigwam L. MAPS O.D.M. 35d, 1926. O.D.M. Haultain Twp. 1969.
1949: Roy Silver Mines 5 former claims 47°41'27" 80°40'07"	Pit Trench X D. Drill Geophys	X X X		X	X	X					
McRae Lake prspc. 1966: Castlebar Silver & Cobalt Mines Ltd.	Shaft X Adit Pit Trench X D. Drill Geophys		Nipissing diabase is cut by strong E-W vert. fractures filled with aplite dikes, calcite & calcite-quartz veins. Chalcopyrite, chalcocite.								O.D.M. Vol.35,pt.3,p.39,1926 HAULTAIN 9 SE of Everett L. MAPS ODM Haultain Twp. 1969. O.D.M. 1955-3, 1955.
Former claims:29764 etc 47°43' 80°41'		X X X		X	X	X					
1925: Millcrest Mining Co. 1968: Castlebar Silver & Cobalt Mines Ltd.	Shaft X Adit Pit Trench D. Drill Geophys		Property straddles Nipissing diabase on N side of Miller L. basin; includes granite and Keewatin rocks. Chalcopyrite, specularite								O.D.M. Vol.35,pt.3,p.38,1926 HAULTAIN 8 ¼ mile west of Lost L. MAPS ODM Haultain Twp. 1969 O.D.M. 35d, 1926.
Former claims HS 330-2 47°41'01" 80°43'30"		X		X	X	X					
1925: Ottawa Gowganda Mining Corp. Ltd. 1968: Castlebar Silver & Cobalt Mines Ltd.	Shaft X Adit Pit Trench X D. Drill X Geophys		Calcite veins in diabase. Silver erratic in occurrence. Chalcopyrite, bornite, niccolite, specularite, argentite and pyrite.								O.D.M. Vol.35,pt.3,p.38,1926 HAULTAIN 8 ¼ mile west of Lost L. MAPS ODM Haultain Twp. 1969 O.D.M. 35d, 1926.
Former claims: LO 74-6 47°40'17" 80°40'50"		X X		X	X	X	X	X			
1968: Silverplace Mines Ltd.	Shaft Adit Pit Trench X D. Drill X Geophys X		At N part Nipissing diabase as 400' wide dike in Cobalt Series sediments. Veins 8" to 24" wide strike N-S & NE. Chalcopyrite, bornite.								O.D.M. Vol.35,pt.3,p.38,1926 HAULTAIN 10 near Dinny L. West boundary of Twp. MAPS ODM Haultain Twp. 1969. O.D.M. 30b, 1921.
20 claims. 47°41'45" 80°47'00"		X		X	X	X					

District of TIMISKAMING

N.T.S. or Townships LAWSON, MILNER

NAME	WORK DONE	VEIN	DESCRIPTION	METALS PRESENT						REFERENCE			
Circa 1920: Powerful prspc. Former claim: HR 397 47°38'00" 80°38'42"	Shaft		NE adit enters hill with 700' of lateral work; at end of adit 158', 45° raise to surface. At face of adit 145' winze to 50' level with 75' of work; to 90'	Ag	Co	Cu	Ni	Bi	Zn	Pb	O.D.M. Vol.35,pt.3,p.48,1926.  LAWSON 2  1 mile SE of Calcite L. MAPS O.D.M. 35d, 1926. O.D.M. P.159, 1962.		
	Adit											CALCITE QUARTZ APLITE	native arsenides
	Pit												
	Trench												
	D. Drill												
Geophys													
1910: Bishop Mining Co. of Canada 1968: Silver Ore Zone Mines Ltd. Former claim: TC 136 claims: MR 33798 etc. 47°39'16" 80°49'45"	Shaft		Shaft on MR 33798, on 33796 on 36622 and 2 other shafts. Bishop shaft 130' deep with 20' of drifting at bottom. 10 D. drill holes of 1700'								D.D.M. Vol.35, pt.3,p.49,1926 D.D.M. Vol.64, pt.5,p. ,1955  MILNER 8  Between Stuart & Myrtle L's MAPS O.D.M. 30b, 1926. O.D.M. P.159, 1962.		
	Adit	X											
	Pit												
	Trench	X											
	D. Drill	X											
Geophys													
Gowganda Lake prspc. 1963: Utopia Gold ML Claims:- MR 35183-92 47°39'50" 80°49'47"	Shaft		2 shafts were sunk near lake shore.								MILNER 7 West shore of lake opposite Gowganda township. MAPS O.D.M. 30b, 1926. O.D.M. P.159, 1962.		
	Adit	X											
	Pit												
	Trench												
	D. Drill												
Geophys													
1917: Crews-McFarlan MCO. 1920: Hewitt Lake MCO. Former claim JS 280 etc. 47°38'10" 80°49'15"	Shaft		2 or 3 shafts sunk to 150', one possibly to 300' depth with some lateral work.								O.D.M. Vol.35,pt.3,p.50,1926  MILNER 10  North of Milner L. MAPS O.D.M. 30b, 1926. O.D.M. P.159, 1962.		
	Adit	X											
	Pit												
	Trench												
	D. Drill												
Geophys													
1913: Milne claim (Schumacher) 1968: Montreal R. Inter. SML. Former claim TC 118 47°37'10" 80°48'18"	Shaft		High silver values reported in 1" vein. Argentite occurs.								MILNER 11 West shore, south end of NW arm of Gowganda L. MAPS O.D.M. 30b, 1926. O.D.M. P.159, 1926.		
	Adit												
	Pit												
	Trench												
	D. Drill												
Geophys													

District of TIMISKAMING

N.T.S. or Townships MILNER, MOREL, NICOL

NAME	WORK DONE	VEIN	DESCRIPTION	METALS PRESENT						REFERENCE			
1919: Northcliff prspc. Former claim: JS 282 47°39'00" 80°48'18"	Shaft		Adit was driven E for 285' into hill from near lake. 25' open cut on NNE vein on top of ridge	Ag	Co	Cu	Ni	Bi	Zn	Pb	O.D.M. Vol.35,pt.3,p.53,1926  MILNER 9 Between North and Northwest arms of Gowganda L. MAPS O.D.M. 30b, 1926 O.D.M. P.159, 1962.		
	Adit	X										CALCITE QUARTZ APLITE	native arsenides
	Pit												
	Trench	X											
	D. Drill												
Geophys													
1915: F. Lorn prspc. 1965: Tego Silver Cobalt ML.	Shaft		3 shafts of 50' deep were sunk.								MILNER 12  Surrounding Gorman L. MAPS O.D.M. 30b, 1926. O.D.M. P. 159, 1962.		
	Adit	X											
	Pit												
	Trench												
	D. Drill												
Geophys													
1910: Bishop SML 1923: Bloom Lake SML 1926: Bloom Lake Consol. ML 1946: Culver GML. Claim LO 305 etc. 47°45'30" 80°40'15"	Shaft		Shaft was sunk 50' E-W vein trenced for several hundred feet.								O.D.M. Vol.35,pt.3,p.58,1926  MOREL 2  West of Bloom L. MAPS O.D.M. 30b, 1921. O.D.M. P. 159, 1962.		
	Adit	X											
	Pit												
	Trench	X											
	D. Drill												
Geophys													
Silver Mines of Canada Ltd. (1914). Shaynee Consolidated Mines Ltd. (1961). 47°47' 80°40'30"	Shaft		100' shaft was sunk about 1914.								MOREL 1  West shore of Donaldson L. MAPS O.D.M. P. 159, 1962. O.D.M. P. 159, 1962.		
	Adit	X											
	Pit												
	Trench												
	D. Drill												
Geophys													
Big Four prspc. Former claims:- W.D. 961-64 47° 39'13" 80°45'41"	Shaft		Shaft sunk 50'E of showing. 20' open cut along N-S 6" wide vein.								O.D.M. Vol.35,pt.3,p.40, 1926  NICOL 8  NE of Gowganda L. MAPS O.D.M. 35d, 1926 O.D.M. P. 374, 1926		
	Adit	X											
	Pit												
	Trench	X											
	D. Drill												
Geophys													

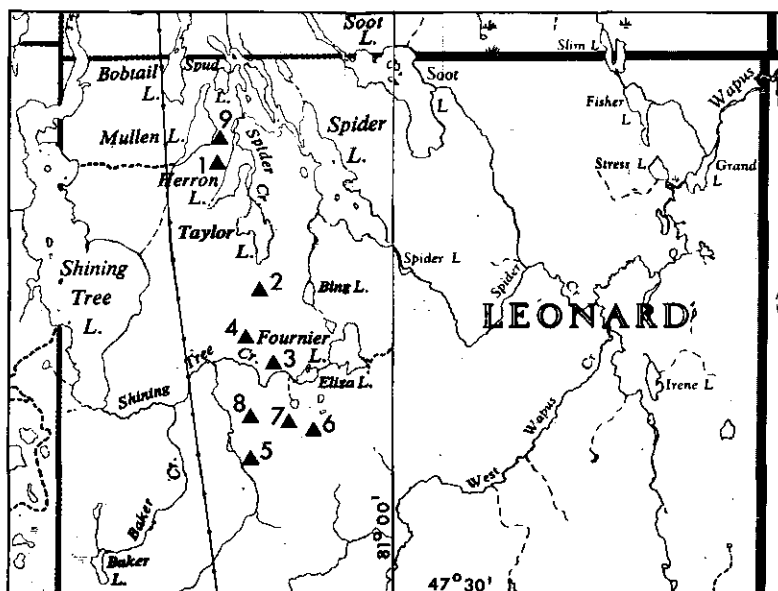
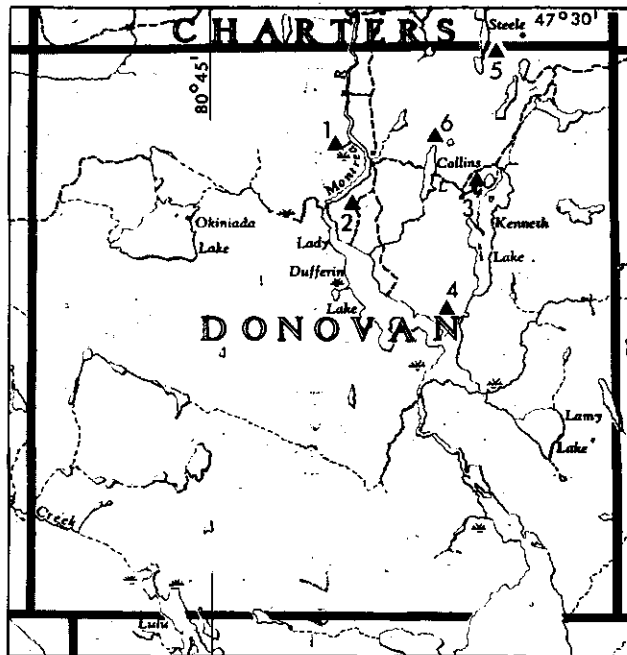




Table 23

GOWGANDA AREA (2)  
LIST OF PROPERTIES

(Historical Name)	(Present Owner)
<b>DONOVAN TWP.</b>	
▲ 2 Duggain prospect.	
▲ 4 Gowganda-Duggain Silver Mines Ltd.	
▲ 1 Haines prospect.	
▲ 3 Miller Lake O'Brien Mines Ltd.	F. Wilder.
▲ 5 Siconor Mines Ltd. (Williams).	
▲ 6 Siconor Mines Ltd.	
<b>LEONARD TWP.</b>	
▲ 6 Archibald-Pope prospect.	E.B. Archibald.
▲ 3 Caswell-Eplett prospect.	
▲ 5 Greave prospect.	
▲ 8 Leonard Silver mine.	
▲ 4 Neelands prospect.	
▲ 2 Nellie Lake Syndicate.	Silver Pack Mines Ltd.
▲ 7 Saville Explor. Syndicate.	
▲ 1 Steep-Thompson prospect.	Silver Pack Mines Ltd.
▲ 9 Walker Silver Mines Ltd.	Paymaster Consolidated Mines Ltd.

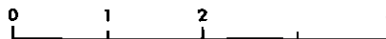


ODM 4357, MRC.10

▲ Prospect.

Figure 15.

Scale 1 Inch to 2 Miles





District of TIMISKAMING N.T.S. or Townships DONOVAN

NAME	WORK DONE		VEIN		DESCRIPTION	METALS PRESENT							REFERENCE
			CALCITE	QUARTZ		Ag	Co	Cu	Ni	Bi	Zn	Pb	
(1920) Duggain prspc. Former Claim: HR720. 47°28' 00" 80°42' 47"	Shaft Adit Pit Trench D. Drill Geophys	X X X X X X	1909 to 1920 Several trenches and open pits were dug.	X X	On claim H.R. 720, 3" calcite vein strikes N71W for 600' with smaltite, niccolite and silver.	native arsenides	X X	X					O.D.M. Vol. 35, pt.3, p58, 1926. DONOVAN 2 Near bend on Montreal R. MAPS O.D.M. 30b, 1921 O.D.M. P. 301, 1965.
Gowanda-Duggan silver ML. (1924) 18 claims incl. GG 4062, 4063 and 4145 47° 26' 80° 42'	Shaft Adit Pit Trench D. Drill Geophys	X X X X X X	Shaft: 312' deep with levels at 150' and 300'; 918' of lateral work. Several pits 4' to 30' deep.	X	Narrow calcite veins occur in Nipissing diabase. Main vein 3" to 6" wide was traced for 600'. Niccolite.		X X	X					O.D.M. Vol.33,pt.7,p.87,1924 Vol.34,pt.1,p.156,1925 Vol.35,pt.1,p.143,1926 DONOVAN 4 East of Dufferin L. MAPS O.D.M. P. 301, 1965
1920: Hains prspc. Former claim: GG 2606 47°28'30" 80°42'56"	Shaft Adit Pit Trench D. Drill Geophys	X X X X X X	Shallow shaft.	X	2½ wide calcite vein strikes N62E in Nipissing diabase showing granophytic alteration.		X X	X					O.D.M. Vol.35,pt.3,p.57,1926 DONOVAN 1 In bend of Montreal R. MAPS O.D.M. 30b, 1921. O.D.M. P. 301, 1965.
1912 Wilder F. prspc. (1930) Miller L. O'Brien ML. 1968: F. Wilder Former claims: GG3541 3542, 4117 and 4118 47°28'14" 80°41'07"	Shaft Adit Pit Trench D. Drill Geophys	X X X X X X	50' shaft. Adit: 560' NNW to vein, then EW 500' on vein 130' below surface. 28' trench Siconor ML. (1960) did geophys. survey	X	In Nipissing diabase 2" NE vein is exposed for 28' in trench. 5' adit vein followed 230' ENE. Assay 14 oz/t silver over 3".		X X	X					O.D.M. Vol.35,pt.3,p.59,1926 DONOVAN 3 East of Collins L. Adit at common corner of claim MAPS O.D.M. 30b, 1921 O.D.M. P. 301, 1965.
Williams prspc. (1961) Siconor ML Former claim: GG 17 47°29'30" 81°41'00"	Shaft Adit Pit Trench D. Drill Geophys	X X X X X X		X	Narrow silver bearing calcite veins occur.		X						DONOVAN 5 East shore of Steele L. MAPS O.D.M. P. 301, 1965 O.D.M. 30b, 1921.

District of TIMISKAMING N.T.S. or Townships DONOVAN, LEONARD

NAME	WORK DONE		VEIN		DESCRIPTION	METALS PRESENT							REFERENCE
			CALCITE	QUARTZ		Ag	Co	Cu	Ni	Bi	Zn	Pb	
1920: Thompson-Lund- mark Mines Ltd. 1951: McWatters CML 1956: Hasaga CML 1960: Siconor ML Former claim: MR21970 47°29' 81°42'	Shaft Adit Pit Trench D. Drill Geophys	X X X X X X	Shaft: 30' deep. 1951-56: 17 shallow D. drill holes completed. 1960: Geophys. survey.	X X	Several intersecting silver bearing calcite veins up to 4" wide occur in Nipissing diabase. Assays: up to 2000 oz/t silver and 5% cobalt.	native arsenides	X X	X					DONOVAN 6 Near Collins L. MAPS O.D.M. P.301, 1965. O.D.M. 30b, 1921.
Archibald-Pope prspc. 1968: E.B. Archibald Incl. former claim GG 3243 47°31'25" 81°00'48"	Shaft Adit Pit Trench D. Drill Geophys	X X X X X X	In 1926 shaft was sunk which showed silver for a depth of 18' over widths of 6" to 8".	X X	1909-12: 3 N-S veins 3" to 6" wide were exposed in Nipissing diabase that dips gently E. Main vein in shaft. Chalcopyrite, galena.		X X	X			X		O.D.M. Vol.36,pt.2,p.97,1927 LEONARD 6 South of Wapus (Fournier) L. MAPS O.D.M. 36c, 1927. O.D.M. P.151, 1962.
Caswell-Eplett prspc. Incl. former claims: WD 1145-46 47°32'08" 81°01'33"	Shaft Adit Pit Trench D. Drill Geophys	X X X X X X	In 1912 shaft was sunk 100' with 200' E-W crosscut on claim WD 1146.	X	Nipissing diabase, near contact to Cobalt Series sediments, occurs. Underground, E of shaft, 5" niccolite and 18" calcite veins cut. Many veins occur.		X X	X					O.D.M. Vol.36,pt.2,p.96,1927 LEONARD 3 West of Wapus (Fournier) L. MAPS O.D.M. 36c, 1927. O.D.M. P.151, 1962.
Greave prospect Former claims: 3507-9 47°31'00" 81°01'27"	Shaft Adit Pit Trench D. Drill Geophys	X X X X X X		X X	In Nipissing diabase several quartz calcite veins, 3" to 6" wide occur. Chalcopyrite, galena.		X X	X			X		O.D.M. Vol.36,pt.2,p.96,1927 LEONARD 5 2 mile SE of Shiningtree L. MAPS O.D.M. 36c, 1927. O.D.M. P.151, 1962.
1927: Leonard Silver Mines (Turnbull) Former claims: TC 395-6 47°31'40" 81°01'27"	Shaft Adit Pit Trench D. Drill Geophys	X X X X X X		X	3'-4' wide N30°E vein in Nipissing diabase was uncovered for 200'. Second parallel vein up to 10" wide occurs.		X						O.D.M. Vol.36,pt.2,p.96,1927 LEONARD 8 1½ miles SE of Shiningtree L. MAPS O.D.M. 36c, 1927. O.D.M. P.151, 1962.





Table 24

NORTH PART OF SOUTH LORRAIN TWP.  
LIST AND PRODUCTION OF PROPERTIES

(Historical Name)	(Present Owner)	Silver (Troy oz.)	Production Cobalt (lbs.)
* SOUTH LORRAIN TWP.			
○ 8 Bellellen mine.	Price, J.A.		
○ 4 Canadian Lorrain mine.	Agnico Mines Ltd.	38,027	28,481
▲ 13 Caribou Lorrain Mines Ltd.	Pennaque Mining Corp. Ltd.	276,825	16,678
▲ 20 Claim: HR 56.	Coo, C.W.		
▲ 26 Claim: RL 458, HR 113-116.	Coo, C.W.		
▲ 23 Claim: HR 616.	Ramardo Mines Ltd.		
▲ 21 Claim: RL 458.	Ramardo Mines Ltd.		
▲ 25 Claim: TC 73.	Veinlode Silver Mines Ltd.		
▲ 18 Claims: T28472 & (F84).	United Macfle Mines Ltd.		
▲ 22 Claims: T29994 & T29995.	McMahon, J.E.		
▲ 27 Clifton Consolidated Mines Ltd.	Ox-Bow Silver Mining Co. Ltd.		
▲ 29 Cunningham prospect.			
○ 3 Curry mine.	Agnico Mines Ltd.	49,821	7,691
▲ 28 Elite Cobalt Mines Ltd.	Silver Tower Mines Ltd.		
▲ 12 Friday Mines Ltd.			
○ 1 Gilgreer mine.	Agnico Mines Ltd.	446	1,732
○ 9 Harris Mines Ltd.	Levy, G.W.	13,659	26,286
○ 5 Keeley & Frontier mines.	Canadian Keeley Mines Ltd.	19,197,413	3,310,556
○ 11 Lorrain Lake Mines Ltd.	Ramardo Mines Ltd.	1,093,404	64,458
▲ 6 Marathon Silver Mines Ltd.	Cooper, J.F.		
▲ 30 McRea prospect. (cl: HF 409).			
▲ 17 Miller H.G. prospect.	de Camps E.B.E.		
▲ 15 Mining Corp. of Canada Ltd. (Former).	Mining Corp. of Canada 1964 Ltd.		
▲ 19 Mining Corp. of Canada Ltd.	Mining Corp. of Canada 1964 Ltd.		
○ 7 Nipissing Lorrain mine.	Millerfields Silver Corp. Ltd.	350,000	5,521
▲ 14 Norbay Lorrain Silver Mines Ltd.			
▲ 31 Ogistoh mine.	Kerr Addison Mines Ltd.	about 12 tons of 5% Co ore (92 ozs./ton Ag Best Assay)	
▲ 10 Silver Eagle Claim (HR 97)	Byberg, A.	7,989	
▲ 24 Tallen Mining Co.	Gray, J.J.		
▲ 16 Taylor prospect.	Larum Mining Ltd.		
○ 2 Wettlaufer mine.	Agnico Mines Ltd.	2,593,041	23,910

\* Number refers to that on deposit description card; non sequence follows as a consequence of data processing.

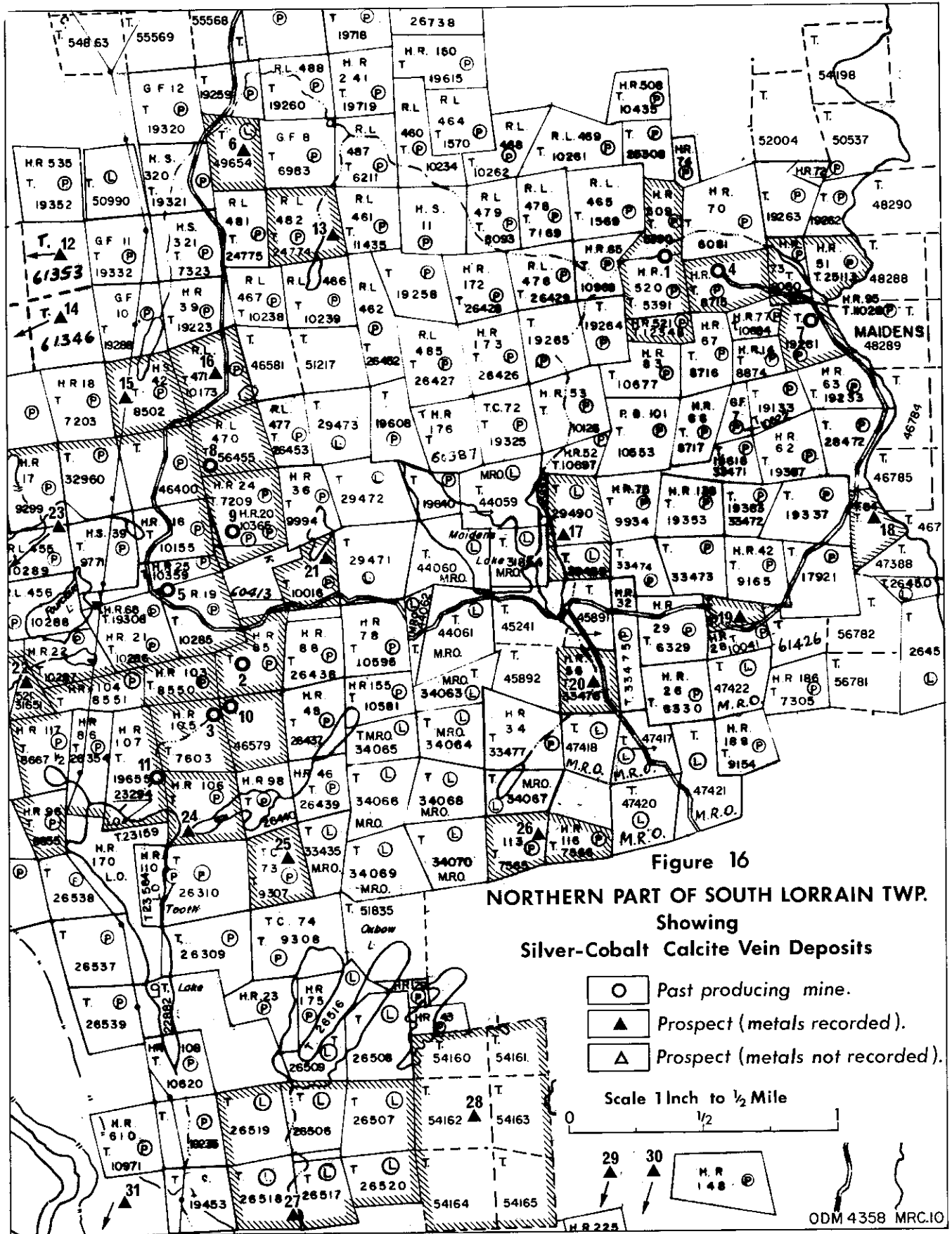
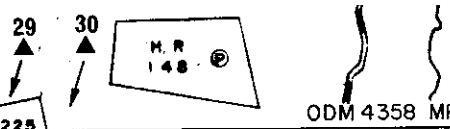
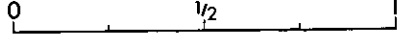


Figure 16  
NORTHERN PART OF SOUTH LORRAIN TWP.  
Showing  
Silver-Cobalt Calcite Vein Deposits

- Past producing mine.
- ▲ Prospect (metals recorded).
- △ Prospect (metals not recorded).

Scale 1 Inch to 1/2 Mile



COMMODITY		NAME OF OCCURRENCE:		LAT.	04720400	REF. NO.
Silver	CIRCA 19 68 PRICE J.A.			LONG.	07950500	O.D.M.-Ag-1929008
Cobalt	HISTORICAL NAME: BELLELLEN MINE.					
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV.		
TP. or SQUARE	SOUTH LORRAIN	019290		TIMISKAMING		
LOCATION:				LOT, CONCESSION, CLAIMS OR LEASE ACREAGE		
16 miles southeast of COBALT.				Claim: T 56455 (R.L. 470).		
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT			PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1910-1943	
1909: Newman		Prior to 1909: Considerable trenching was carried out.			Silver	
19 : Bellellen Silver Mines Ltd.		1909-17: No.1 shaft was sunk 80' with 114' of N-S drifting at that level.			38,027 ozs.	
1931: Leased to I. Mosher.		No.2 shaft was sunk 100' with 100'N, 120'S and 56'W drifts at that level. At 100'S of No.2 shaft a winze was sunk 275'; on the 200' winze level 199'S drift was driven; on the 145' winze level 75'N drift was driven. At 100'N of No.2 shaft a winze was sunk 75' with 125'S drift at that level and 30' drift on 40' winze level.			Cobalt	
1935-37: Bellorain Mines Ltd.		N.B. The above description taken from O.D.M. Vol. 31, does not agree with figure showing O.D.M. statistical files.			28,481 lbs.	
1942: Leased to J.W. Brydges and D.J. Leahy.		OCCURRENCE			Nickel - 13,404 lbs.	
1943: Bellagre Mineral Interests Ltd.		RAW PROSPECT				
1949: Silba Silver Mines Ltd.		DEVELOPED PROSPECT			PRODUCER PAST PRODUCER X	
19 : J.A. Price.						
MAJOR ORE MINERALS Silver, chloanthite, smaltite.				DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS				Calcite vein, up to 15" wide extends 300' N-S. Ore is characterized by high nickel content.		
ORE FABRIC Vein.				Grade 1916; Nickel: 275 lbs/ton. (35 tons mined)		
MAJOR GANGUE MINERALS Calcite.				1916; Cobalt: 159 lbs/ton. (35 tons mined)		
COUNTRY ROCK OR FORMATION Keewatin volcanics.				1916; Silver: 43 ozs/ton (35 tons mined)		
				1910-11; Silver; 1,259 ozs/ton (24 tons mined)		
AGE: GEOLOGICAL		ABSOLUTE				
Archean		N.L.T. 3100 m.y.				
MAIN REFERENCE				MAP REFERENCE USED FOR LOCATION		FILE STATUS: DATE SIGNATURE
McIlwaine, W.H.				O.D.M. Map P.289, revised, South Lorrain Twp. (North Part), 1968.		SKELETAL
19 : O.D.M. Geol. Rept. , Geol. of South Lorrain Twp. Knight, C.W.				Lat. and long. refer to No.2 shaft		INCOMPLETE
1922: O.D.M. Vol.31, pt.2, p. 229-230.						COMPLETED 1968 A.U.S.
						REVISED
COMMODITY		NAME OF OCCURRENCE:		LAT.	47° 12' 14"	REF.NO.
Silver	CIRCA 1968: PRICE, J.A.			LONG.	79° 30' 07"	O.D.M.-Ag-1929008
Cobalt	HISTORICAL NAME: BELLELLEN MINE.					
GEOLOGY Steeply dipping Keewatin volcanics that strike N are intruded by the west side of a domed Nipissing quartz diabase sheet up to 1000' thick that dips about 40°W beneath the mine workings. Lamprophyre and feldspar porphyry dikes occur locally underground. No faults are recorded. Calcite veins up to 15" wide occur that are mineralized with chloanthite, the diarsenide of nickel, as well as silver and cobalt.				EXPLORATION AND DEVELOPMENT (Cont)		
				mine section of McIlwaine.		
				1931-43: Some development and mining was carried out intermittently.		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS		
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL		AGE OF DEFORMATION:		AGE OF ORE MINERAL
ABSOLUTE AGE		Archean				Post-Huronian
		N.L.T. 3100 m.y.				N.G.T. 2150 m.y.
ROCK TYPE AND/OR MINERAL		Volcanics				
METHOD		K/Ar	Rb/Sr	Pb/Pb	C14	K/Ar
						Rb/Sr
						Pb/Pb
						C14
						X
COMPANY REPORTS				METALLURGY REFERENCE		
ECONOMICS REFERENCE				MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE				MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE				MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE		
				PLAN X SECTION X LONGITUDINAL PROJECTION		
				McIlwaine, W.H.		
				19 : O.D.M. Geol. Rept. , Geology of South Lorrain Twp.		
MAP REFERENCES				ODM FILES		
O.D.M. Map P.289, revised, South Lorrain Twp. (North Part) 1968.						
O.D.M. Map P.321, Haileybury sheet, 1965.						

COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: CANADIAN LORRAIN MINE.	LAT. 04721400 LONG. 07946200	REF. NO. O.D.M.-Ag-1929004
CO. or DIST. TIMISKAMING TP. or SQUARE SOUTH LORRAIN	CODE No. 59 019290	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Claim H.R. 69.
LOCATION: Near Maidens Bay on Lake Timiskaming 16 miles southeast of town of Cobalt.		NTS 031M03W	UTM
HISTORY OF OWNERSHIP: 1909: Maidens Silver Mining Co. 1924: Canadian Lorrain Silver Mines Ltd. 1935: Dumps leased to H.C. Miller. 1938: Millwright Mines Ltd. 1952: Gilgreer Mines Ltd. 1953: Cobalt Consolidated Mining Corp. Ltd. 1957: Agnico Mines Ltd. 1963: Leased to Kirkland Townsite Gold Mines Ltd.		EXPLORATION AND DEVELOPMENT Circa 1909: No.1 adit was driven 198'S. No.2 adit (300'NW of No.1) was driven 50'S. Prior to 1913: No.1 adit was driven 285'S on No.3 vein; at 100', winze sunk to 60'. No.2 adit was driven 225'S on No.4 vein. Circa 1915: No.1 shaft was sunk 80' with level at 72' from which winze was sunk 71' on No.1 vein to sub-level. On 72' level 300' of drifting and crosscutting were carried out, and in sublevel 125'. No.2 shaft on No.2 vein was sunk 91' with development on 71' level. 1924: No.1 shaft was deepened to 250'. 1926-27: Actively mined. 1935-37: Production from dumps.	PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1926-1940  Silver 276,825 ozs.  Cobalt 16,678 lbs.  1953: 2,396 tons of previously broken ore were raised.  O.D.M. statistical files.
MAJOR ORE MINERALS Silver, smaltite. MINOR ORE MINERALS Pyrite. ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite. COUNTRY ROCK OR FORMATION Keewatin volcanics, felsic and mafic intrusives.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Production has mostly been obtained from Nos. 5 and 10 veins Ore shoots along No.5 vein (that trends WNW in a fault) occur for 400' from junction with No.10 vein. Along No.10 vein that strikes NE, ore shoots occur for 150' from the junction. Structure:- Between No.5 vein-fault and a parallel fault 250'N, numerous crossfaults occur with mineralized veins.	
AGE: GEOLOGICAL ABSOLUTE Archean N.L.T. 3100 m.y.		MAP REFERENCE USED FOR LOCATION O.D.M. Map P.289, revised, South Lorrain Twp. (North Part) 1968. Lat. and long. refer to main shaft.	
MAIN REFERENCE McIlwaine, W.H. 19 : O.D.M. Geol. Rept., Geology of South Lorrain Twp. Knight, C.W. 1922: O.D.M. Vol.31, pt.2, p. 230-233.		FILE STATUS SKELETAL INCOMPLETE COMPLETED REVISED	DATE 1968
SIGNATURE A.O.S.			
COMMODITY Silver Cobalt	NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: CANADIAN LORRAIN MINE.	LAT. 47° 12' 50" LONG. 79° 27' 45"	REF.NO. O.D.M.-Ag-1929004
GEOLOGY Claim H.R.69 which occurs against the northern E-W lower contact of the Nipissing diabase sheet that here dips gently SE, is underlain by Keewatin volcanics, diorite and narrow lamprophyre dikes cut by sills and dikes of granophyre and diabase probably older than the Nipissing diabase. A granophyre sill about 55' thick dips 35°S across the 250' level of the mine workings. A Keewenawan olivine diabase dike strikes NW across the property. The Cross Lake Fault strikes NW through the NE corner of claim H.R.69. Numerous other faults occur. Mineralized calcite veins up to 1' wide occur.		EXPLORATION AND DEVELOPMENT (Cont) 1938-40: Actively mined. 1952: No.1 shaft was dewatered to 410'. Levels occur at 70', 150', 250', 350' and 410' depths, and include 12,975' of lateral work and 402' of raising. 1963: No.1 shaft and headframe were rebuilt. Five surface and 6 underground diamond drill holes were completed.	
ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE ABSOLUTE AGE ROCK TYPE AND/OR MINERAL METHOD	AGE OF FORMATION, ROCK OR MINERAL Archean N.L.T. 3100 & N.L.T. 2490 m.y. Volcanics and Intrusives K/Ar Rb/Sr Pb/Pb C14 X X	AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb C14 NAME OF TECTONIC EVENT	AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb C14 X
COMPANY REPORTS	METALLURGY REFERENCE		
ECONOMICS REFERENCE	MILLING REFERENCE		
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE		
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN X SECTION X LONGITUDINAL PROJECTION McIlwaine, W.H. 19 : O.D.M., Geol. Rept., Geology of South Lorrain Twp.		
MAP REFERENCES O.D.M. Map P.289, revised, South Lorrain Township (North Part) 1968. O.D.M. Map P.321, Haileybury Sheet, 1965.	ODM FILES		

COMMODITY	NAME OF OCCURRENCE:		LAT.	04719000	REF. NO.
Silver Cobalt	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: CURRY MINE.		LONG.	07950200	O.D.M.-Ag-1929003
CO. or DIST.	TIMISKAMING	CODE No.	59	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE	SOUTH LORRAIN	019290	TIMISKAMING		Claim: HRI05
LOCATION: 16 miles southeast of town of Cobalt.			NTS	UTM	
			031M04E		

HISTORY OF OWNERSHIP:	EXPLORATION AND DEVELOPMENT	PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1916-1938
1912: Pittsburgh Lorrain Syndicate.	1912: No.1 shaft - was sunk 175' at 45°, then 96' at 85°. A crosscut was driven 45' on the 175' level to connect with the Wettlaufer Vein.	<u>Silver</u> <u>Cobalt</u>
19 : Silanco Mining and Refining Co.	1913-1918: No.1 shaft was sunk to 400'. Winze 500' SE of No.1 shaft on 175' level, was sunk 115' at 80°, with levels at 500 and 100'.	49,821 ozs.    7,691 lbs.
1951: Leased to Keylobe Cobalt Silver Mines Ltd	175' level from No.1 shaft is the main and 4th level.	\$40,895      \$2,690
19 : Cobalt Consolidated Mining Corp. Ltd.	No.2 shaft, 900' SW of No.1 shaft was sunk 110' and 500' of drifting was carried out. Total drifting and cross-cutting from both shafts and winze is	Total value: \$43,585
1957: Agnico Mines Ltd.		O.D.M. statistical files
	OCCURRENCE	RAW PROSPECT    DEVELOPED PROSPECT    PRODUCER    PAST PRODUCER X

MAJOR ORE MINERALS Silver, smaltite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS	Production was essentially obtained from the Keewatin volcanics near the upper contact of the diabase.
ORE FABRIC Vein.	
MAJOR GANGUE MINERALS Calcite.	
COUNTRY ROCK OR FORMATION Keewatin volcanics intruded by Nipissing quartz diabase.	
AGE: GEOLOGICAL      ABSOLUTE Archean and Apebian N.L.T. 3100 + and 2150 m.y.	

MAP REFERENCE	MAP REFERENCE USED FOR LOCATION	FILE STATUS:	DATE	SIGNATURE
McIlwaine, W.H.	O.D.M. Map 289 revised, South Lorrain Township (North Part), 1968.	SKELETAL		
19 : O.D.M. Geol. Rept., Geology of South Lorrain Twp.		INCOMPLETE		
		COMPLETED	1968	A.O.S.
		REVISED		

COMMODITY	NAME OF OCCURRENCE:	LAT.	04719000	REF. NO.
Silver Cobalt	CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: CURRY MINE.	LONG.	07950200	O.D.M.-Ag-1929003
GEOLOGY Steeply dipping Keewatin volcanics are intruded by the west-side of a domed Nipissing quartz diabase sheet up to 1000' thick. Faults with their associated veins that cross the property include the reverse Wood's Fault that strikes N with steep E dip and the Wettlaufer Fault that strikes SW with with steep dip; these faults should intersect in SW corner of property. Silver-cobalt production came from a length of 20' of the Wettlaufer Vein before it feathered out; from an ore shoot 60' long and 85' high above the winze in another vein, in Keewatin volcanics near diabase contact; and from elsewhere. Massive smaltite and silver occur in the calcite veins on the property.	EXPLORATION AND DEVELOPMENT (Cont)			
	about 2,500'.			
	1951: No.1 shaft was dewatered to 210' level. 710' of surface trenching was carried out and also several thousand feet of surface and underground diamond drilling, in part to locate Wood's Vein.			

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:
ABSOLUTE AGE	Archean and Apebian	AGE OF ORE MINERAL
ROCK TYPE AND/OR MINERAL	N.L.T. 3100, 2150 m.y.	Post-Huronian
METHOD	Volcanics, Diabase.	N.G.T. 2150 m.y.
	K/Ar    Rb/Sr    Pb/Pb    C14	K/Ar    Rb/Sr    Pb/Pb    C14
	X            X	X
	NAME OF TECTONIC EVENT	

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE
	PLAN      SECTION      LONGITUDINAL PROJECTION
	McIlwaine, W.H.
	19 : O.D.M. Geol. Rept., Geology of South Lorrain Twp.
MAP REFERENCES	ODM FILES
O.D.M. Map 289 revised, South Lorrain Township (North Part) 1968	
O.D.M. Map P.321, Haileybury sheet, 1965.	



COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: CURRY MINE.	LAT. 47° 11' 24"	REF. NO. O.D.M.-Ag-1929003
		LONG. 79° 30' 06"	
HISTORY OF OWNERSHIP (CONT)		REMARKS Latitude and longitude refer to No.1 shaft in NE corner of property.	

ADDITIONAL REFERENCES:-

Knight, C.W.  
1922: Geology of the mine workings of Cobalt and South Lorrain Areas, Ontario Department of Mines, Vol.XXXI, pt.2 p. 228-229.

McIlwaine, W.H.  
19 : Geology of South Lorrain Township, Ontario Dept. Mines, Geol. Rept. , p.

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 19 68 AGNICO MINES LTD. HISTORICAL NAME: CURRY MINE	LAT. 47° 11' 24"	REF. NO. O.D.M.-Ag-1929003
		LONG. 79° 30' 06"	

\* Includes production from Wettlaufer mine also.

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1916*	19	16			7,629	5,020					5,020
17*		10			10,000	8,142					8,142
18*		46	3,000	450	25,000	25,000					25,450
1930					7,192	2,733					2,733
31		9	3,236	1,294							1,294
38		6		946							946
		87		2,690	49,821	40,895					43,585



FILE RESIDENT GEOLOGIST AT VIA CENTRE FILE	COMMODITY	NAME OF OCCURRENCE:	LAT.	REF. NO.
		CIRCA 19 : HISTORICAL NAME:	LONG.	
HISTORY OF OWNERSHIP (CONT.)			REMARKS	

ADDITIONAL REFERENCES:-

COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
	CIRCA 19 : HISTORICAL NAME:	LONG.	

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT Lbs. \$	SILVER Oz. \$	Nkl Lbs. \$	Cprr Lbs. \$	TOTAL VALUE \$
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COMMODITY		NAME OF OCCURRENCE:		LAT. 04720000	REF. NO.
Silver Cobalt		CIRCA 1968: LEVY G.W. HISTORICAL NAME: HARRIS MINES LTD.		LONG. 07950000	O.D.M.-Ag-1929009
CO. or DIST. TIMISKAMING		CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE SOUTH LORRAIN		019290		Claim: HR 24.	
LOCATION: 16 miles southeast of town of Cobalt.		NTS 031M03W	UTM		
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)	
1908: Mark Harris.  Harris Mines Ltd.		1908: Pitting and trenching of veins. 1917: No.1 Shaft was sunk 263' with about 800' of drifting and crosscutting on no.3 level (230' depth).		Silver: 13,659 ozs. Cobalt: 26,286 lbs.	
Circa 1917: Lorrain Consolidated Mines Ltd.		1924-26: Development work and mining was carried out on no.1 level (100' depth) and on no.2 level (175' depth). Production came mostly from no.1 level. Total footage of drifts and crosscuts is about 2500'.		Nickel: 17,342 lbs.	
1938-1939: Leased to J.V. Legris and H. Brockelbank.		No.2 Shaft and No.3 Shaft were also sunk; these connect with No.1 Shaft.		Total value: \$26,174.	
1939: Cobalt Mining Syndicate.		1938-39: Production mainly from the dumps.		O.D.M. statistical files.	
1952: Norbert Silver Mines Ltd.					
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X	
MAJOR ORE MINERALS Silver, smaltite and niccolite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS		1925 - 1926			
ORE FABRIC Vein.		Grade: Silver 27 ozs./ton.			
MAJOR GANGUE MINERALS Calcite.		Cobalt 31 lbs./ton.			
COUNTRY ROCK OR FORMATION Keewatin volcanics and Nipissing quartz diabase.					
AGE: GEOLOGICAL ABSOLUTE Archean and Apehbian N.L.T. 3100 and 2150 m.y.					
MAIN REFERENCE McIlwaine, W.H., 19 : O.D.M. Geol. Rept., Geology of South Lorrain Twp.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 289 revised, South Lorrain Township (North Part) 1968.		FILE STATUS:	DATE
				SKELETAL	
				INCOMPLETE	
				COMPLETED	1968 A.O.S.
				REVISED	
COMMODITY		NAME OF OCCURRENCE:		LAT. 04720000	REF.NO.
Silver Cobalt		CIRCA 1968: LEVY, G.W. HISTORICAL NAME: HARRIS MINES LTD.		LONG. 07950000	O.D.M.-Ag-1929009
GEOLOGY Steeply dipping Keewatin volcanics are intruded by the west side of a domed Nipissing quartz diabase sheet up to 1000' thick. A fault that strikes NE with NW dip occurs near shafts No.1 and No.3. 11 calcite veins* are known on the property of which no.1 was an important producer of silver, cobalt and nickel. This vein which is up to 4' wide strikes E and locally contains massive smaltite over a length of 20' on 100' level. No.2 vein over 1' in width strikes N for 1200' and is also locally rich in cobalt and nickel.  * The veins and mine workings occur in the volcanics above the upper contact of the diabase that dips about 22°W.		EXPLORATION AND DEVELOPMENT (Cont) 1952: Some underground development with drifting and diamond drilling was done, also surface diamond drilling.			
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE Archean and Apehbian		AGE OF DEFORMATION:		AGE OF ORE MINERAL Post-Huronian	
ABSOLUTE AGE N.L.T. 3100, 2150 m.y.				N.G.T. 2150 m.y.	
ROCK TYPE AND/OR MINERAL Volcanics, Diabase.					
METHOD K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14		K/Ar Rb/Sr Pb/Pb C14	
		NAME OF TECTONIC EVENT		X	
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION McIlwaine, W.H. 19 : O.D.M. Geol. Rept., Geology of South Lorrain Twp.			
MAP REFERENCES O.D.M. Map 289 revised, South Lorrain Township (North Part) 1968. O.D.M. Map P.321, Haileybury Sheet, 1965.		ODM FILES			

COMMODITY	NAME OF OCCURRENCE	LAT. 47° 12' 00"	REF. NO.
Silver Cobalt	CIRCA 1968: LEVY G.W. HISTORICAL NAME HARRIS MINES LTD.	LONG. 79° 30' 00"	O.D.M.-Ag-1929009
HISTORY OF OWNERSHIP (CONT)		REMARKS	
19 : Slutsky, R.L. 1968: Levy, G.W.		Latitude and longitude refer to No.1 shaft.	
ADDITIONAL REFERENCES:-			
McIlwaine, W.H. 19 : Geology of South Lorrain Township, District of Timiskaming, Ontario Dept. of Mines, Geological Rept.			
COMMODITY	NAME OF OCCURRENCE	LAT. 47° 12' 00"	REF. NO.
Silver Cobalt	CIRCA 19 68 LEVY G.W. HISTORICAL NAME: HARRIS MINES LTD.	LONG. 79° 30' 00"	O.D.M.-Ag-1929009

YEAR	ORE RAISED TONS	ORE & CONC. SHIPPED TONS	COBALT		SILVER		Nkl		Cpnr		TOTAL VALUE \$
			Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1925	345	315	8,884	3,087	8,840	6,000					9,087
26	117	117	5,293	3,289	3,654	2,390					5,679
1937		1			187	84					84
38		39	7,618	3,429	586	252	11,268	2,028			5,709
39		13	2,439	2,310	375	153	3,279	590			3,053
39		11	2,052	2,052	17	7	2,795	503			2,562
	462	496	26,286	14,167	13,659	8,886	17,324	3,121			26,174

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: CANADIAN KEELEY MINES LTD. HISTORICAL NAME: KEELEY AND FRONTIER MINES.		LAT. 04719700 LONG. 07950600	REF. NO. O.D.M.-Ag-1929005	
CO. or DIST.	TIMISKAMING	CODE No.	59	MINING DIV. TIMISKAMING		
TP. or SQUARE	SOUTH LORRAIN	019290	NTS 031M04E		UTM	
LOCATION: 16 miles southeast of town of COBALT.			LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Claims: -H.R. 19 & 21 (Keeley Mine). H.R. 16 & 25 (Frontier Mine). Also claims: H.R. 17, 20, 68 & H.S. 39 and H.R. 22, R.L. 455-6 & H.S. 40 (T 32960 & T.46400).			
HISTORY OF OWNERSHIP: Claim H.R. 19 1907: C. Keeley, R.J. Jowsey & J.M. Wood. 1908: Keeley Mine Ltd. 1913-19: Associated Gold Mines of Western Australia Ltd. (Option).  Claim H.R. 21 (Beaver L.) 1908: J.M. Wood & R.J. Jowsey (?)  Claims: H.R. 19 & 21 Circa 1921: Keeley Silver Mines Ltd. (Controlled by Anglo-Huronian Ltd.) Claim H.R. 16 Circa 1910: Haileybury Silver Mining Co. 1914: Joseph Nabourger of Memphis, Tenn.		EXPLORATION AND DEVELOPMENT KEELEY MINE 1908-1942 SHAFT DEPTHS VEIN CLAIM No.1 0' to 240' No.1 HR 19 No.2 (Prospect) 0' to 100' No.1 HR 19 No.3 (Main) 0' to 570' Nos.6, Woods, 26,16 HR 19 No.4 (Prospect) 0' to 55' Woods HR 21 No.5 (Prospect) 0' to Woods HR 21 Winze 828 560' to 910' Nos. 16 & 18 HR 21 Winze 830 560' to 705' HR 19 (Winze 826) 560' to 620' HR 21 (Winze 1162) 822' to 930' HR 21 Little Keeley No.2 0' to 90' HS 40 In 1962 Main haulage way was on connected Keeley 6th and Frontier 8th levels.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1908-1965 Silver 19,197,413 ozs.  Cobalt 3,310,556 lbs.  Nickel 27,252 lbs.  Copper 10,292 lbs.		
MAJOR ORE MINERALS Silver, argentite, smaltite.		MINOR ORE MINERALS Niccolite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Grade 1908-1909. Silver: 234 oz/ton; Cobalt: 241 lb/ton. 1921-1931 " 56 oz/ton; " 10 lb/ton. 12 levels extend over 3000' in N-S direction and in south part of of property 2000' in E-W direction. Veins: Woods extends 2,500' N-S, No.16 1300' E-W and No.28, 1200' E-W. Production came from veins in both Keewatin volcs. & Nipissing diabase from 100' below to 200' above upper contact of diabase. Ore shoots were common of from 10' to 100' in length & 6" to 3' wide. One shoot: 102' x 35' to 57' high & up to 40" wide produced 900,000 ozs. silver. MAP REFERENCE USED FOR LOCATION FILE STATUS: DATE SIGNATURE O.D.M. Map P.289 revised, South SKELETAL Lorrain Township (North Part)1968 INCOMPLETE Lat. & long. refer to NW corner of COMPLETED 1968 A.O.S. claim H.R.19, that is about centre REVISED of ore body.		
ORE FABRIC Vein.		MAJOR GANGUE MINERALS Calcite.		COUNTRY ROCK OR FORMATION Keewatin volcanics and Nipissing diabase.		
AGE: GEOLOGICAL Archean & Aphebian		ABSOLUTE N.L.T. 3100 & 2150 m.y.		MAIN REFERENCE McIlwaine, W.H. 19 : O.D.M. Geol. Rept. , Geology of South Lorrain Twp.		
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 19 68 CANADIAN KEELEY MINES LTD. HISTORICAL NAME: KEELEY AND FRONTIER MINES		LAT. 04719700 LONG. 07950600	REF.NO. O.D.M.-Ag-1929005	
GEOLOGY Major structure consists of Keewatin volcs, intruded by the west side of a domed Nipissing quartz diabase sheet up to 1000' thick; but also of importance are the intrusions of Haileyburian lamprophyre dikes & a granodiorite stock about whose contacts reverse faults have occurred in which ore bearing veins formed. The main ore structure is the Woods vein which occurs in a reverse fault, the Woods vein and its branches form the vein system of the property. Preglacial weathering on part of the Woods vein extends to 480' depth; ore deposition in consequence is partly secondary and the vein vuggy. Silver is in leaf, wire, ruby & spongy forms, smaltite is both massive and vuggy in grape-like form.		EXPLORATION AND DEVELOPMENT FRONTIER MINE 1921-1965 SHAFT DEPTHS VEIN CLAIM No.1 0' to 376' No.1 HR 15 No.2 0' to 62' Woods HR 16 No.3 (Main) 0' to 641' Woods & Watson HR 16 Crompton 0' to 40' HR 25 (Winze 8) 540' to 1,360' HR 25 (Winze 9) 1,360' to 1,455' HR 25		ALTERATION Preglacial weathering with supergene enrichment in part.		METAMORPHISM
GEOLOGICAL AGE Archean & Aphebian		ABSOLUTE AGE N.L.T. 3100 & 2150 m.y.		ROCK TYPE AND/OR MINERAL Volcanics & Diabase		
METHOD K/Ar Rb/Sr Pb/Pb C14		NAME OF TECTONIC EVENT		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y.		
COMPANY REPORTS		METALLURGY REFERENCE		ECONOMICS REFERENCE		
HISTORY OF OWNERSHIP (CONT) Claim H.R. 16, cont. 1921: Mining Corporation of Canada Ltd.  Present claims 1959: Keeley-Frontier Mines Ltd. 1964: Canadian Keeley Mines Ltd.		MILLING REFERENCE		MINING REFERENCE		
MAP REFERENCES O.D.M. P.289, revised, South Lorrain Township (North Par) 1968. O.D.M. P.321, Haileybury Sheet, 1965.		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION McIlwaine, W.H. 19 : O.D.M. Geol. Rept. , figs. Knight, C.W. 1922: O.D.M. Vol.31, pt.2, p.193, 207, 216, 219. and map sheets 31a-15, 31a-16.		ODM FILES		

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: CANADIAN KEELEY MINES LTD. HISTORICAL NAME: FRONTIER MINE.	LAT. 47° 11' 48"	REF. NO. O.D.M.-Ag-1929005
		LONG. 79° 30' 20"	

YEAR	ORE	ORE & CONC.	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED	SHIPPED	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
<u>FRONTIER MINE</u>											
1921	18	17			47,227	32,196					32,196
22	3,820	268	31,529	7,094	508,958	343,610					350,704
23	6,811	248	143,545	57,575	1,300,323	847,684					905,259
24	6,762	254	54,687	18,989	466,047	318,408					337,397
25	7,919	1,221	253,191	80,984	1,158,854	808,568					889,552
26	6,940	6,940	80,582	22,857	1,104,597	705,338					728,195
27	2,862	2,862	88,980	23,091	902,591	535,551					558,642
28	3,980	3,980	117,418	42,631	395,692	233,190					275,821
29	75	75	7,162	4,049	14,295	7,954					12,003
1930	9,616	1,490	292,351	163,111	404,903	301,502					464,613
31	35,084	2,494	550,773	318,455	320,302	94,901					413,356
32		61	6,517	2,737	22,144	6,789					9,523
35		203	2,000	800	14,000	6,750					7,550
36		44	10,253	5,705	7,306	3,237					8,942
37		20	3,804	2,930	8,368	3,767					6,697
38		25	5,235	2,617	2,097	902	3,157	316			3,835
39	62	67	15,881	15,881	5,278	2,137	7,954	795			18,813
1940		92	1,470	1,470	4,327	1,618	1,047	105			3,193
41		37	7,910	4,792	4,233	1,761					6,553
42	29	29	7,516	6,229	3,007	1,298					7,527
43	13	13	2,965	3,344	866	235					3,579
1963			9,003		136,274		14,322		10,292		
64					93,609		26				
65					117,762						
			1,692,772		7,043,060		26,516		10,292		

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: CANADIAN KEELEY MINES LTD. HISTORICAL NAME: KEELEY MINE.	LAT. 47° 11' 48"	REF. NO. O.D.M.-Ag-1929005
		LONG. 79° 30' 20"	

YEAR	ORE	ORE & CONC.	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED	SHIPPED	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1908	62	16	24,800	124	13,124	6,438					6,562
09	42	40	236	19	11,213	5,232					5,251
14	30	1			3,524	2,020					2,020
18	38		2,410	406	39,199	38,579					38,985
19		17	3,160	626	4,586	5,675					6,301
1920		61	9,897	4,889	8,253	5,660					10,549
21	7,918	303	16,167	6,564	281,659	198,784					205,348
22	28,078	951	167,062	53,583	775,349	528,400					581,983
23	28,040	1,015	175,689	48,028	1,655,323	1,063,597					1,111,625
24	46,252	1,309	231,005	74,945	1,903,793	1,282,840					1,357,785
25	25,590	1,017	167,020	54,978	1,446,679	998,298					1,053,276
26	24,237	1,120	210,764	43,611	1,705,531	1,030,835					1,074,446
27	22,420	647	99,402	17,161	1,153,024	646,821					663,982
28	15,460	499	99,841	20,086	690,168	401,782					421,868
29	18,824	450	119,766	12,837	837,331	416,372					429,209
1930	15,798	685	91,700	18,209	1,351,121	476,312					494,521
31	15,291	931	196,089	104,883	265,458	73,892					178,775
35		80		2,776	2,412	1,227					1,227
1942		15	2,776	2,776	6,606	2,785	736	132			5,693
	248,080	9,157	1,617,784	463,725	12,154,353	7,185,549	736	132			7,649,406

COMMODITY	NAME OF OCCURRENCE:		LAT. 04719100	REF. NO.
Silver Cobalt	CIRCA 1968: RAMARDO MINES LTD. HISTORICAL NAME: LORRAIN LAKE MINES LTD.		LONG. 07950700	O.D.M.-Ag-1929011
CO. or DIST.	CODE No.	MINING DIV.	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TIMISKAMING	59	TIMISKAMING	Claims: HR 103, 104, 107 and	
TP. or SQUARE	019290	NTS	HR 86, 96, 117, T23294.	
LOCATION:	16 miles southeast of town of Cobalt.		UTM	
		031M04E		

HISTORY OF OWNERSHIP:	EXPLORATION AND DEVELOPMENT	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1923: Lorrain Trout Lake Mines Ltd. (controlled by Mining Corporation of Canada Ltd.).	Claim HR 103:- 1923-25: Shaft No.1 was sunk on Wood's Vein 475' with 5 levels. In 1923 220' of drifting took place on the 240' level. Ore was found on all levels. Production began on the 100' level in 1924. About 600' of drifting was done on each level.	Silver: 1,093,404 ozs. Cobalt: 64,458 lbs.
1938-1943: Leased to various individuals.	1926-27: Drifting from Keeley Mine carried out unsuccessfully to find ore below 475' level.	Total value: \$740,879
1946: Ramardo Mines Ltd.	Claim HR. 107:- 1925: No.2 shaft was sunk 850' with extensive levels of several hundred feet at	O.D.M. statistical files.
	OCCURRENCE	RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER*

MAJOR ORE MINERALS Silver, Smaltite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES
MINOR ORE MINERALS Niccolite, Cismuth, Chalcopyrite.	Wood's Vein: About 700' in length (continues into Keeley Property).
ORE FABRIC Vein.	No.2 Vein: About 800' in length.
MAJOR GANGUE MINERALS Calcite.	1924 to 1929 Grade Silver:- 48 ozs./ton. Cobalt:- 2 lbs./ton.
COUNTRY ROCK OR FORMATION Keewatin volcanics and Nipissing quartz diabase.	
AGE: GEOLOGICAL ABSOLUTE Archean and Apehbian N.L.T. 3100 and 2150 m.y.	

MAP REFERENCE	MAP REFERENCE USED FOR LOCATION	FILE STATUS:	DATE	SIGNATURE
McIlwaine, W.H.	O.D.M. Map 289 revised, South Lorrain Township (North Part) 1968.	SKELETAL		
19 : O.D.M. Geol. Rept., Geology of South Lorrain Twp.		INCOMPLETE		
		COMPLETED	1968	A.O.S.
		REVISED		

COMMODITY	NAME OF OCCURRENCE:	LAT. 04719100	REF.NO.
Silver Cobalt	CIRCA 1968: RAMARDO MINES LTD. HISTORICAL NAME: LORRAIN TROUT LAKE MINES LTD.	LONG. 07950700	O.D.M.-Ag-1929011

GEOLOGY Keewatin volcanics are intruded by the west side of a domed Nipissing quartz diabase sheet up to 1000' thick. Two major silver producing calcite veins occur in the volcanics above the upper contact of the diabase; viz: The Wood's Vein in HR 103 occurs in a reverse fault that strikes N with 65°E dip; it is about 6" wide, and silver deposition may in part be supergene from preglacial weathering. The No.2 Vein in HR 107 lies in a fault with NW strike and steep SW dip that follows a trap dike. Silver production came from the top of the diabase and the volcanics. Cobalt arsenides are also present. Barren calcite occurs lower in the diabase.	EXPLORATION AND DEVELOPMENT (Cont) 350', 650', 750' and 850' depths. 1954: Extensive survey of underground workings, including 3 diamond drill holes totalling 1800'.
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ALTERATION	METAMORPHISM	MINERAL PARAGENESIS
GEOLOGICAL AGE Archean and Apehbian	AGE OF DEFORMATION:	AGE OF ORE MINERAL Post-Huronian
ABSOLUTE AGE N.L.T. 3100, 2150 m.y.		N.G.T. 2150 m.y.
ROCK TYPE AND/OR MINERAL Volcanics and Diabase.		
METHOD K/Ar Rb/Sr Pb/Pb Cl4	K/Ar Rb/Sr Pb/Pb Cl4	K/Ar Rb/Sr Pb/Pb Cl4
	NAME OF TECTONIC EVENT	
		X

COMPANY REPORTS 1954: Geology of Trout Lake Mine. Ramardo Mines Ltd.	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION McIlwaine, W.H. 19 : O.D.M. Geol. Rept., Geology of South Lorrain Twp.
MAP REFERENCES O.D.M. Map 289, revised, South Lorrain Township (North Part)1968 O.D.M. Map P.321, Haileybury Sheet, 1965.	ODM FILES



COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver Cobalt	CIRCA 1968: RAMARDO MINES LTD. HISTORICAL NAME: LORRAIN TROUT LAKE MINES LTD.	47° 11' 26" 79° 30' 25"	O.D.M.-Ag-1929011
HISTORY OF OWNERSHIP (CONT)		REMARKS	
		Latitude and longitude refer to southeast corner of claim HR 104, about half way between and west of shafts nos. 1 and 2 in claims 103 and 107 respectively.	
ADDITIONAL REFERENCES:-			
McIlwaine, W.H. 196 : Geology of South Lorrain Township, District of Timiskaming, Ontario Dept. Mines, Geol. Rept.			
COMMODITY	NAME OF OCCURRENCE	LAT.	REF. NO.
Silver Cobalt	CIRCA 1968: RAMARDO MINES LTD. HISTORICAL NAME: LORRAIN TROUT LAKE MINES LTD.	47° 11' 26" 79° 30' 25"	O.D.M.-Ag-1929011

YEAR	ORE & CONC.		COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED TONS	SHIPPED TONS	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1924	3,430	172	10,881	1,510	263,218	180,250					181,760
25	10,063	12,955	18,883	3,906	485,591	335,292					339,198
26	7,119	7,119	1,087	175	143,399	92,128					92,303
27	1,329	1,329	6,226	1,220	109,941	62,972					64,192
28	420	420	6,949	3,001	48,093	28,297					31,298
29	8	659	378	215	24,380	11,793					12,008
1930		32	6,575	3,616	499	190					3,806
31		7	441		8,600	307					307
38		18	2,756	1,240	5,499	2,365	280	50			3,655
39	36	38	3,885	3,885	2,850	1,154					5,039
1940		14	2,610	2,610	451	173					2,783
42		9	1,796	1,796	305	129	305	55			1,980
43		12	2,081	2,289	578	261					2,550
	22,405	22,784	64,548	25,463	1,093,404	715,311	585	105			740,879

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: COOPER J.F. HISTORICAL NAME: MARATHON SILVER MINES LTD.		LAT. 04722056	REF. NO.
				LONG. 07949833	O.D.M.-Ag-1929006
CO. or DIST.	TIMISKAMING	CODE No.	MINING DIV.	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE	SOUTH LORRAIN	59	TIMISKAMING	Claim: T49654 (G.F.9).	
LOCATION: 16 miles southeast of COBALT.			NTS	UTM	
			031M04E		
HISTORY OF OWNERSHIP:		EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1939	
Circa 1911: Marathon Silver Mines		Circa 1911: Considerable trenching and pitting was carried out. 87' shaft was sunk at the junction of two fractures striking NE and E. 100'E of shaft. E-W trench on vein is 10' deep. 35' inclined shaft was sunk on N quartz-calcite vein that dips 75°E. 1961: Diamond drill hole (530' at 125° from No.4 post) cut aplite dikes in diabase.		Cobalt 16 lbs.	
1967: Cooper J.F.				O.D.M. statistical files.	
		OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT X PRODUCER PAST PRODUCER	
MAJOR ORE MINERALS Smaltite.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS Chalcopyrite.		Two zones that show many fractures with seams of calcite and carry cobalt and nickel ores strike E-W across almost the entire width of the claim. Secondary fractures extend N-S.			
ORE FABRIC Vein.					
MAJOR GANGUE MINERALS Calcite, quartz.					
COUNTRY ROCK OR FORMATION Nipissing diabase.					
AGE: GEOLOGICAL Aphebian		ABSOLUTE 2150 m.y.			
MAIN REFERENCE		MAP REFERENCE USED FOR LOCATION		FILE STATUS:	DATE
McIlwaine, W.H.		O.D.M. Map P.289, revised, South Lorrain Twp. (North Part) 1968.		SKELETAL	
19 : Geol. Rept. , Geology of South Lorrain Twp.		Lat. and long. refer to 87' shaft.		INCOMPLETE	
				COMPLETED	1968
				REVISED	A.O.S.
COMMODITY		NAME OF OCCURRENCE:		LAT. 47° 13' 14"	REF.NO.
Silver		CIRCA 1968: COOPER J.F.		LONG. 79° 29' 54"	
Cobalt		HISTORICAL NAME: MARATHON SILVER MINES LTD.		O.D.M.-Ag-1929006	
GEOLOGY The property occurs across the NW apex of a domed Nipissing quartz diabase sheet up to 1000' thick and whose upper and lower contacts here are steeply dipping. In the NE part of the property the diabase cuts massive pink, Lorrain quartzite of the Cobalt Series. Two faults strike SW and a little south of W. Veins of calcite up to 4" wide, aplite and quartz occur within the diabase.			EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE		AGE OF DEFORMATION:		AGE OF ORE MINERAL	
ABSOLUTE AGE		NAME OF TECTONIC EVENT		Post-Huronian	
ROCK TYPE AND/OR MINERAL				N.G.T. 2150 m.y.	
METHOD					
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMIC'S REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE			
		PLAN SECTION LONGITUDINAL PROJECTION			
MAP REFERENCES		ODM FILES			
O.D.M. Map P.289, revised, South Lorrain Twp. (North Part) 1968.					
O.D.M. Map P.321, Haileybury Sheet, 1965.					

COMMODITY	NAME OF OCCURRENCE:		LAT. 04721100	REF. NO.
Silver Cobalt	CIRCA 19 68 MILLERFIELDS SILVER CORPORATION LTD. HISTORICAL NAME: NIPISSING LORRAIN MINE.		LONG. 07945500	O.D.M.-Ag-1929007
CO. or DIST.	TIMISKAMING	CODE No.	MINING DIV.	
TP. or SQUARE	SOUTH LORRAIN	59	TIMISKAMING	
LOCATION: Maidens Bay on Lake Timiskaming, 16 miles southeast of town of COBALT.		NTS	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
		031M03W	UTM	
		Claims: T19261, H.R. 95, H.R. 73 and H.R. 51.		

HISTORY OF OWNERSHIP:	EXPLORATION AND DEVELOPMENT	PRODUCTION ORE RESERVES (DATE AND AUTHORITY)
1925-29: Nipissing Mining Co. Ltd.	1925-29: Main shaft (claim T 19261) was sunk over 276' with levels at 200' and 276' depths. The 276' level straddles claim T 19261 where near south boundary winze was sunk to 387' and 452' levels which were driven E-W across claim. Adit (claim H.R. 73) was driven 700'S from Maidens Creek with 5 other levels and sublevels developed to the 276' level (of the shaft) to mine the Staples Vein. 1961: Shaft was dewatered. 2 diamond drill holes were put down from lake shore; diabase dike and Cobalt sediments were intersected. 1965: Further diamond drilling was carried	Silver About:- 350,000 ozs.  Cobalt 135 tons of ore and 5,521 lbs. of cobalt.
Circa 1935: Leased to H.G. Miller.		
1961: Miller Lorrain Mines Ltd.		
1966: Millerfields Silver Corp. Ltd.		
OCCURRENCE		RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X

MAJOR ORE MINERALS Silver, argentite, smaltite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES		
MINOR ORE MINERALS Niccolite.	Production came essentially from the Staples Vein which was mined for a horizontal length of 300' and a vertical depth of 250'.		
ORE FABRIC Vein.			
MAJOR GANGUE MINERALS Calcite.			
COUNTRY ROCK OR FORMATION Keewatin volcanics and Cobalt Series conglomerate.			
AGE: GEOLOGICAL Archean and Aphebian N.L.T. 3100 and N.L.T. 2150 m.y.	ABSOLUTE		

MAIN REFERENCE McIlwaine, W.H. 19 : O.D.M. Geol. Rept. ; Geology of South Lorrain Twp.	MAP REFERENCE USED FOR LOCATION O.D.M. Map P.289, revised, South Lorrain Twp. (North Part), 1968. Lat. and long. refer to shaft.	FILE STATUS:	DATE	SIGNATURE
		SKELETAL		
		INCOMPLETE		
		COMPLETE	1968	A.O.S.
		REVISED		

COMMODITY	NAME OF OCCURRENCE:	LAT. 47° 12' 40"	REF.NO.
Silver Cobalt	CIRCA 19 68 MILLERFIELDS SILVER CORPORATION LTD. HISTORICAL NAME: NIPISSING LORRAIN MINE.	LONG. 79° 27' 17"	O.D.M.-Ag-1929007
GEOLOGY Nipissing quartz diabase in the form of a gently SE dipping sheet overlies flat lying Gowganda conglomerate of the Cobalt Series up to 100' thick and steeply dipping Keewatin volcanics that strike NW. In the mine workings the Nipissing diabase contact locally shows variation in dip or contains "rolls". A Keewatin diabase dike a little southwest and subparallel to the Cross Lake Fault strikes NW through the shaft across claim T 1926. Calcite veins with ore over 10" widths and many smaller ones occur in both the Keewatin and Cobalt Series rocks.		EXPLORATION AND DEVELOPMENT (Cont) out on lake claims (T 46784). 1966: Shaft was dewatered. 7,868' of diamond drilling was carried out, including 2 holes into claim T 48284. Geophysical surveys were carried out on the lake claims.	

ALTERATION	METAMORPHISM	MINERAL PARAGENESIS	
GEOLOGICAL AGE	AGE OF FORMATION, ROCK OR MINERAL	AGE OF DEFORMATION:	AGE OF ORE MINERAL
ABSOLUTE AGE	Archean and Aphebian		Post-Huronian
ROCK TYPE AND/OR MINERAL	N.L.T. 3100 and N.L.T. 2150 m.y.		N.L.T. 2150 m.y.
METHOD	Volcanics and Conglomerate		
	K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14	K/Ar Rb/Sr Pb/Pb C14
	X X	NAME OF TECTONIC EVENT	X

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION McIlwaine, W.H. 19 : O.D.M. Geol. Rept. , Geol. of South Lorrain Twp.
MAP REFERENCES O.D.M. Map P.289, Revised, South Lorrain Township (North Part) 1968. O.D.M. Map P.321, Haileybury sheet, 1965.	ODM FILES

COMMODITY		NAME OF OCCURRENCE:		LAT. 04705944	REF. NO.
Silver Cobalt		CIRCA 1968: KERR ADDISON MINES LTD. HISTORICAL NAME: OGISTOH MINE.		LONG. 07952917	O.D.M.-Ag-1929031
CO. or DIST. TIMISKAMING		CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE	
TP. or SQUARE SOUTH LORRAIN		019290		Claims: 17688-89	
LOCATION: 24 miles south southeast of COBALT.			NTS 031M04E	UTM	
HISTORY OF OWNERSHIP:			EXPLORATION AND DEVELOPMENT		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1921
1913: Leo Beland.			1913-1920: Shaft on claim 17688 was sunk 80' with 40' NW drift.		Cobalt
1921: Optioned to Ontario Smelters and Refiners Ltd.			Shaft near northwest corner of claim 17689 was sunk 40'.		Sample shipment of ore weighing 25,000 lbs. said to contain 5% cobalt.
1925: Huronian Belt Co. Ltd.			Several pits were also put down.		Silver
1968: Kerr Addison Mines Ltd.					Best assay: 92 ozs./ton.
			OCCURRENCE	RAW PROSPECT	DEVELOPED PROSPECT
				PRODUCER	PAST PRODUCER

MAJOR ORE MINERALS	Silver, cobaltite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES			
MINOR ORE MINERALS	Arsenopyrite, pyrite.	Claim 17688. Calcite vein up to 3" wide, traced by a number of pits strikes WNW. In the shaft an assay of 92 ozs./ton silver was obtained across a width of 6'.			
ORE FABRIC	Vein.				
MAJOR GANGUE MINERALS	Calcite, quartz.				
COUNTRY ROCK OR FORMATION	Quartz Diorite.				
AGE: GEOLOGICAL	Archean	ABSOLUTE	N.L.T. 2390 m.y.		
MAIN REFERENCE		MAP REFERENCE USED FOR LOCATION		FILE STATUS:	DATE
Todd, E.W.		O.D.M. Map P.325, South Lorrain Twp. (South Part) 1965. Lat and Long. refer to shaft on claim 17688.		SKELETAL	
1925: The Matabitchuan Area. O.D.M. Vol.34, pt.3, p.33-34.				INCOMPLETE	
				COMPLETED	1968
				REVISED	A.O.S.

COMMODITY		NAME OF OCCURRENCE:		LAT. 47° 03' 34"	REF. NO.
Silver Cobalt		CIRCA 1968: KERR ADDISON MINES LTD. HISTORICAL NAME: OGISTOH MINE.		LONG. 79° 31' 45"	O.D.M.-Ag-1929031

GEOLOGY				EXPLORATION AND DEVELOPMENT (Cont)			
Nipissing quartz diabase in the form of an intrusive sheet strikes SSW across the southeast corner of claim 17688 and probably dips W beneath older quartz diorite that outcrops across the property. A silver-cobalt mineralized calcite vein in the diorite strikes approximately perpendicular to the diorite-dabase contact.							

ALTERATION		METAMORPHISM			MINERAL PARAGENESIS				
GEOLOGICAL AGE		AGE OF FORMATION, ROCK OR MINERAL			AGE OF DEFORMATION:				
ABSOLUTE AGE		Archean			Post-Huronian				
ROCK TYPE AND/OR MINERAL		N.L.T. 2390 m.y.			N.G.T. 2150 m.y.				
METHOD		K/Ar	Rb/Sr	Pb/Pb	C14	K/Ar	Rb/Sr	Pb/Pb	C14
		X					X		

COMPANY REPORTS	METALLURGY REFERENCE
ECONOMICS REFERENCE	MILLING REFERENCE
GEOCHEMICAL DATA REFERENCE	MINING REFERENCE
GEOPHYSICAL DATA REFERENCE	MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE
	PLAN SECTION LONGITUDINAL PROJECTION
MAP REFERENCES	ODM FILES
O.D.M. Map P.325, South Lorrain Twp. (South Part) 1965.	
O.D.M. Map P.321, Haileybury Sheet, 1965.	
O.D.M. Map 34b, Matabitchuan Area, 1925.	

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: BYBERG, A. HISTORICAL NAME: SILVER EAGLE CLAIM		LAT. 04719100 LONG. 07950100	REF. NO. O.D.M.-Ag-1929010
CO. or DIST. TIMISKAMING	CODE No. 59	MINING DIV. TIMISKAMING	LOT, CONCESSION, CLAIMS OR LEASE ACREAGE Leased claim T 46579 (HR 97).	
TP. or SQUARE SOUTH LORRAIN	019290	NTS 031M04E	UTM	
LOCATION: 16 miles southeast of COBALT,				
HISTORY OF OWNERSHIP:  1968: A. Byberg.		EXPLORATION AND DEVELOPMENT Pits and trenches occur on the claim but no shaft is recorded. Access to underground workings was obtained through the Wettlaufer shaft and the 180' and 230' levels of that mine.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY)  1918  Silver 7,989 ozs.
O.D.M. statistical files.				
OCCURRENCE    RAW PROSPECT    DEVELOPED PROSPECT    PRODUCER    PAST PRODUCER X				

MAJOR ORE MINERALS Silver, smaltite.	DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Production came from the Wettlaufer Fault vein that strikes NE across the northwest corner of the claim.			
MINOR ORE MINERALS				
ORE FABRIC Vein.				
MAJOR GANGUE MINERALS Calcite.				
COUNTRY ROCK OR FORMATION Keewatin volcanics intruded by Nipissing diabase,				
AGE: GEOLOGICAL Archean and Aphebian	ABSOLUTE N.L.T. 3100, and 2150 m.y.			
MAP REFERENCE Knight, C.W. 1922: O.D.M. Ann. Rept. 31, pt.2, p.229.	MAP REFERENCE USED FOR LOCATION O.D.M. map P.289, revised, South Lorrain twp. (North Part) 1968. Lat. and long. refer to NW corner of claim.	FILE STATUS: SKELETAL INCOMPLETE COMPLETED REVISED	DATE  1968	SIGNATURE  A.G.S.

COMMODITY Silver	NAME OF OCCURRENCE: CIRCA 1968: BYBERG, A. HISTORICAL NAME: SILVER EAGLE CLAIM		LAT. 47° 11' 27" LONG. 79° 30' 05"	REF. NO. O.D.M.-Ag-1929010
GEOLOGY Steeply dipping Keewatin volcanics are intruded by the west side of a domed Nipissing quartz diabase sheet up to 1000' thick. The Wettlaufer Fault vein strikes SW across the northwest corner of the claim and is intersected or joined by a second fault that strikes SE. Production came from the Wettlaufer vein near the upper contact of the diabase in probably both the volcanics and diabase.		EXPLORATION AND DEVELOPMENT (Cont)		

ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE	Archean and Aphebian	AGE OF DEFORMATION:		AGE OF ORE MINERAL	Post-Huronian
ABSOLUTE AGE	N.L.T. 3100 and 2150 m.y.				N.G.T. 2150 m.y.
ROCK TYPE AND/OR MINERAL	Volcanics and Diabase				
METHOD	K/Ar    Rb/Sr    Pb/Pb    C14 X            X	K/Ar    Rb/Sr    Pb/Pb    C14		K/Ar    Rb/Sr    Pb/Pb    C14	X
COMPANY REPORTS		METALLURGY REFERENCE			
ECONOMICS REFERENCE		MILLING REFERENCE			
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE			
GEOPHYSICAL DATA REFERENCE		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN                      SECTION                      LONGITUDINAL PROJECTION Knight, C.W. 1922: O.D.M. Vol.31, pt.2, p.226.			
MAP REFERENCES O.D.M. Map P.289, revised, South Lorrain (North part) 1968. O.D.M. Map P.321, Haileybury sheet, 1965.		ODM FILES			

COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: WETTLAUFER MINE.		LAT. 04719200	REF. NO.
				LONG. 07950000	O.D.M.-Ag-1929002
CO. or DIST. TIMISKAMING		CODE No. 59	MINING DIV. TIMISKAMING		LOT, CONCESSION, CLAIMS OR LEASE ACREAGE
TP. or SQUARE SOUTH LORRAIN		019290			
LOCATION: 16 miles southeast of town of Cobalt.			NTS 031M03W	UTM	Claim: H.R. 85.
HISTORY OF OWNERSHIP: 1908: Wettlaufer Lorrain Silver Mines Ltd. 1916: Leased to Comfort Mining and Leasing Co. 1917-1919: Leased to Pittsburgh Lorrain Syndicate. 1935: Leased to Messrs. Dean and Downey. 1937: Leased to C.E. Caine. 1946: Silanco Mining and Refining Co. Ltd. 1950: Leased to Keylode Cobalt Silver Mines Ltd.		EXPLORATION AND DEVELOPMENT Mostly carried out between 1908 and 1916. 1908: Stripping and pitting was done. 1909: Shaft was put down 150' with development on two levels. 1911: Shaft reached 250' depth with development on four levels. Underground workings include:- One shaft with levels at 50', 130' and 180'; and a winze from 180' level which gives access to three levels at 230', 260' and 360'. Each of the upper four levels extends over 500' in length.		PRODUCTION ORE RESERVES (DATE AND AUTHORITY) 1909-1940  Silver Cobalt 2,593,041 ozs. 23,910 lbs. \$1,387,465 \$11,664  Total value: \$1,399,176  O.D.M. statistical files.	
MAJOR ORE MINERALS Silver, smaltite.		MINOR ORE MINERALS		OCCURRENCE RAW PROSPECT DEVELOPED PROSPECT PRODUCER PAST PRODUCER X	
ORE FABRIC Vein. MAJOR GANGUE MINERALS Calcite. COUNTRY ROCK OR FORMATION Nipissing quartz diabase.		AGE: GEOLOGICAL Aphebian ABSOLUTE 2150 m.y.		DIMENSIONS AND GRADE, QUALITY, ECONOMIC FEATURES Production came entirely from vein in Nipissing diabase from a depth of from 100' to 250' below the Keewatin contact, over a horizontal length of 550'. Width of vein is up to 6 inches. 1909-1913 Grade: Silver 664 ozs./ton	
MAIN REFERENCE McIlwain, W.H. 19 : O.D.M. Geol. Rept., Geology of South Lorrain Twp.		MAP REFERENCE USED FOR LOCATION O.D.M. Map 289 revised, South Lorrain Township (North Part) 1968		FILE STATUS: DATE SIGNATURE SKELETAL INCOMPLETE COMPLETED 1968 A.O.S. REVISED	
COMMODITY Silver Cobalt		NAME OF OCCURRENCE: CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: WETTLAUFER MINE.		LAT. 04719200	REF. NO.
				LONG. 07950000	O.D.M.-Ag-1929002
GEOLOGY The Wettlaufer mine or vein occurs entirely within the Nipissing diabase sheet where this dips about 22°W with NNW strike, on the west side of the diabase dome. A reverse fault that strikes N with 20°W dip may have acted as a channel for mineralizing solutions; the Wettlaufer Fault strikes NE and is only subparallel to the vein. The vein strikes ENE with subvertical dip, extends over 1000' in length and feathers out at each end. Ore shoots occur essentially SE of shaft over a horizontal length of 550' and from a depth of from 100' to 250' below the Keewatin contact to which they are parallel			EXPLORATION AND DEVELOPMENT (Cont)		
ALTERATION		METAMORPHISM		MINERAL PARAGENESIS	
GEOLOGICAL AGE Aphebian ABSOLUTE AGE 2150 m.y. ROCK TYPE AND/OR MINERAL Diabase METHOD K/Ar Rb/Sr Pb/Pb Cl4		AGE OF DEFORMATION: K/Ar Rb/Sr Pb/Pb Cl4 NAME OF TECTONIC EVENT		AGE OF ORE MINERAL Post-Huronian N.G.T. 2150 m.y. K/Ar Rb/Sr Pb/Pb Cl4	
COMPANY REPORTS		METALLURGY REFERENCE		ECONOMICS REFERENCE	
GEOCHEMICAL DATA REFERENCE		MINING REFERENCE		GEOPHYSICAL DATA REFERENCE	
MAP REFERENCES O.D.M. Map 289 revised, South Lorrain Township (North Part) 1968 O.D.M. Map P.321, Haileybury sheet, 1965.		MORPHOLOGY REFERENCE OF ORE ZONE OR MINERALIZED ZONE PLAN SECTION LONGITUDINAL PROJECTION Knight, C.W. 1922: O.D.M. Vol. XXXI, pt.2, p.224 and 226 McIlwaine, W.H. 19 : O.D.M. Geol. Rept.		ODM FILES	

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: WETTLAUFER MINE.	LAT. 47° 11' 30"	REF. NO. O.D.M.-Ag-1929002
		LONG. 79° 30' 00"	
HISTORY OF OWNERSHIP (CONT)		REMARKS	
1953: Cobalt Consolidated Mining Corp. Ltd.		Longitude and latitude refer to location of shaft.	
1957: Agnico Mines Ltd.			

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19 : Geology of South Lorrain Township, Ontario Department of Mines, Geological Report,

COMMODITY Silver Cobalt	NAME OF OCCURRENCE CIRCA 1968: AGNICO MINES LTD. HISTORICAL NAME: WETTLAUFER MINE.	LAT. 47° 11' 30"	REF. NO. O.D.M.-Ag-1929002
		LONG. 79° 30' 00"	

YEAR	ORE	ORE & CONC.	COBALT		SILVER		Nkl		Cprr		TOTAL VALUE
	RAISED	SHIPPED	Lbs.	\$	Oz.	\$	Lbs.	\$	Lbs.	\$	
1909	2,186	111	7,060	707	183,742	94,627					95,334
10	224	224			199,920	98,944					98,944
11	510	496			925,017	464,666					464,666
12	513	478			834,119	479,951					479,951
13	171	133			248,991	138,074					138,074
14		94			104,665	54,310					54,310
16	3,175	46			68,129	43,481					43,481
1927		10	312	41	4,146	2,200					2,241
1935		234			7,496	4,702					4,702
1937	82	82	2,984	2,007	3,387	1,199					3,206
1938		43	9,653	5,792	7,142	3,071					8,863
1939		12	2,676	2,309	2,035	764	312	16			3,089
1940		6	1,225	808	4,252	1,476	614	31			2,315
	6,861	1,969	23,910	11,664	2,593,041	1,387,465	926	47			1,399,176







Table 25

DISTRICT OF TIMISKAMING  
Miscellaneous Deposits (see fig. 2)  
LIST OF PROPERTIES

(Historical Name)	(Present Owner)
<u>ALMA TWP.</u>	
▲ Al Brookbank prospect.	W. H. Brookbank.
<u>BADEN TWP.</u>	
▲ Ba French prospect.	Floyd prospect.
<u>BLACK TWP.</u>	
▲ Bl Monpre Mining Co. Ltd.	
<u>BOSTON TWP.</u>	
▲ Bo Ivanhoe-Boston prospect.	M. L. Kennedy Estate.
<u>HEARST TWP.</u>	
▲ He Former Claim: B.C. 219	
<u>HOLMES TWP.</u>	
▲ Ho Loki Mines Ltd.	Loki Mines Ltd.
<u>INGRAM TWP.</u>	
▲ In Hamason Mines Ltd.	
<u>LANGMUIR TWP.</u>	
▲ La Premier Langmuir Mining Co. Ltd.	Peerless Canadian Explor., Ltd.



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