



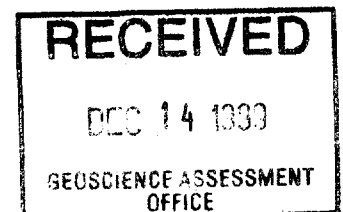
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**Report on the**  
**GEOLOGICAL MAPPING**  
**and**  
**LITHOGEOCHEMICAL & MMI SAMPLING PROGRAM**  
**for**  
**SYNERGY EXPLORATIONS LTD.**  
**PD BLOCK PROPERTY**  
**PATRICIA MINING DIVISION, ONTARIO**  
**52F/16NW 52K/01SW**

**Lynda Bloom, M.Sc.**  
**December 10, 1999**



## **SUMMARY AND RECOMMENDATIONS**

Synergy Exploration Ltd.'s ("Synergy") 1998 exploration program focussed largely on preliminary geological mapping and sampling of the PD Block Property in the Sioux Lookout area in Northwestern Ontario, Canada. Synergy's initial exploration program, completed in August 1998, entailed linecutting, geological mapping, lithogeochemical and MMI sampling. Further lithogeochemical sampling and geological reconnaissance mapping was conducted in 1999. Results from this evaluation indicate a high potential for the discovery of volcanogenic massive sulphide deposits.

The property comprises a total of 9 claim units (137 ha) in the Patricia Mining Division. Synergy has an option to purchase agreement with Stuarton Resources Ltd., the claim holder.

The property is near the top of the Abram Lake Greenstone Belt, where a succession of basalt is overlain by rhyolites, which are in turn truncated and overlain by alluvial sedimentary rocks. The lower basalt formation is host to disseminated and massive sulphide mineralization as well as iron formation. Between the rhyolite and basalt there are disseminated sulphides in a tuffaceous member. The upper rhyolites contain previously drill-intersected, base metal massive sulphide horizons. The overlying coarse sediments contain sulphide clasts presumably derived from an eroded sulphide source.

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## **1.0 INTRODUCTION**

This report summarizes results and provides recommendations for future work based on the 1998 exploration program completed for Synergy Explorations Ltd. (“Synergy”) on its PD Block property. The exploration targets are volcanogenic massive sulphide deposits, similar to economic deposits mined by Noranda Mines and Falconbridge Ltd. in the Mattabi Camp (total production, 18.38 million tons of 8.48% Zn, 1.05% Cu, 0.91% Pb).

Synergy engaged Andreas Lichtblau of Touchstone Consulting (an independent consulting geologist) to carry out its 1998 exploration program and Terrence Bottrill of Bottrill Geological Services to carry out its 1999 exploration program. Previous exploration and research data available in the public record were reviewed

## **2.0 LOCATION, ACCESS AND PHYSIOGRAPHY**

The property is situated in McIlraith Township, Patricia Mining Division, Ontario. The towns of Dryden (to the southwest) and Hudson (to the northeast) are situated approximately 30 km equidistant from the property. Thunder Bay is approximately 360 road-km to the southeast (Fig. 1).

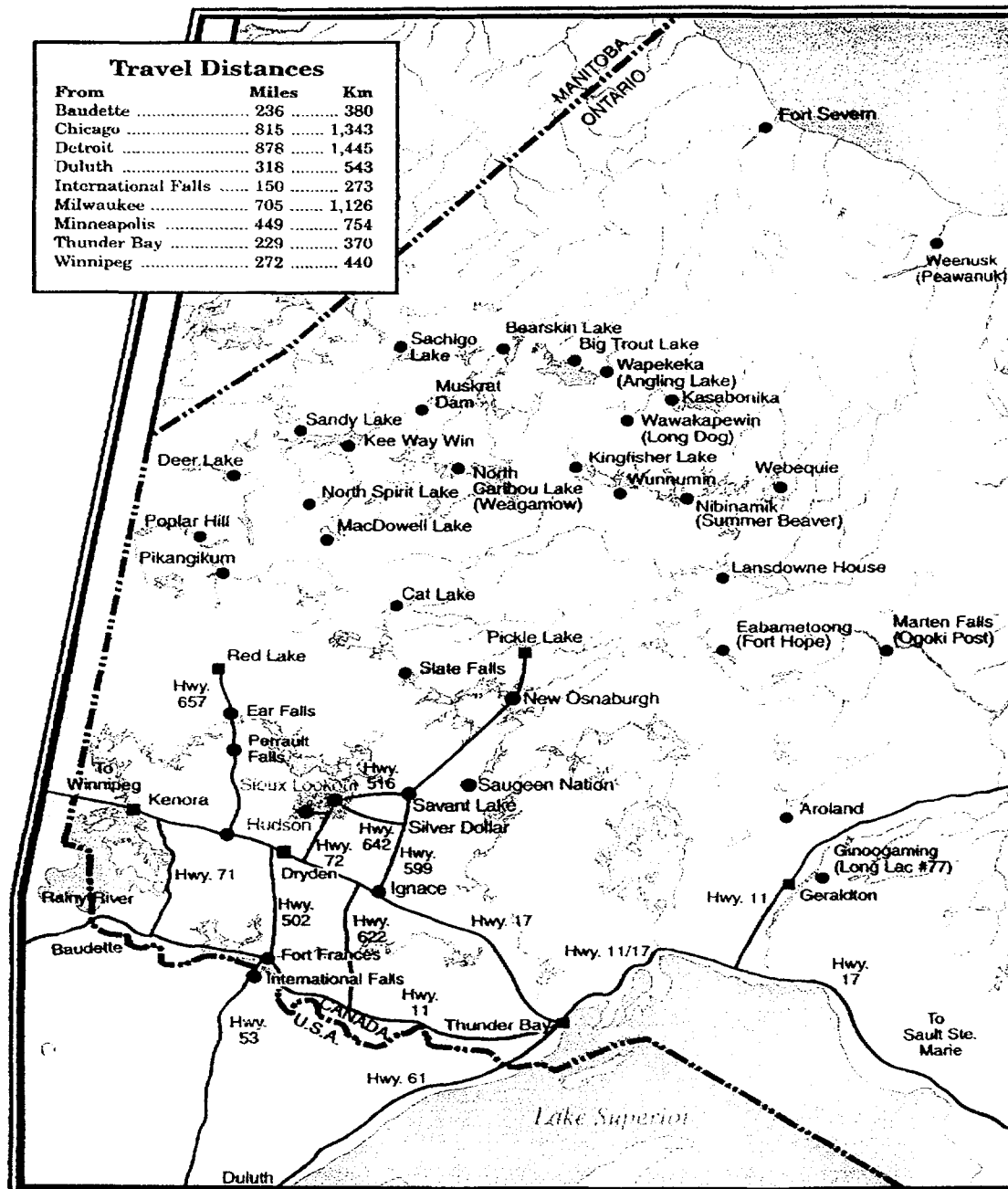
The property is easily accessed either by forestry roads southwest from Hudson (at the termination of Hwy #664); or from the Kathlyn Lake Road, which terminates in the south at Hwy #72, the Sioux Lookout Highway.

The area is generally underlain by glacial deposits of sand and gravel with outcrop exposures not exceeding 10%. The PD Block property is relatively flat lying, with most exposure being in the north and sand plains to the south.

The entire area has been logged over, probably twice, since the mid-forties. The latest logging on the PD Block would appear to have been before the 1970's, since tree cover is extensive.

## **3.0 CLAIM STATUS AND OWNERSHIP**

The claim number 1216293 (9 units) is recorded 100% under Stuarton Resources Ltd. The claims are subject to an Option to Purchase Agreement between Synergy Explorations Ltd. and Stuarton Resources Ltd.



map courtesy of Town of Sioux Lookout

Fig. 1. Location Map, Sioux Lookout area, Ontario, Canada

#### **4.0      EXPLORATION HISTORY**

A ground geophysical survey was undertaken by the Phelps Dodge Corporation in 1968. The results indicate that the magnetics can be roughly separated into 3 main zones, all trending approximately east-west. Zone 1 is characterized by erratic sharp high amplitude positive and negative anomalies usually continuous on only 2 or 3 adjacent lines. The anomalies are strongest in the East half of the area and weaken to the west. Zone 2 is similar to Zone 1 (e.g. magnetic amplitude and sharpness) but it has a definite continuity across the length of the property. Zone 2 is characterized by parallel anomalous highs and lows. Zone 3 is characterized by 2 broad continuous anomalies continuous across 5/6 lines.

The magnetics in Zone 1 and possibly Zone 2 are caused mainly by presence of iron formation (magnetite and pyrrhotite) covered by shallow overburden. Zone 3 is a different character and caused by magnetic material occurring at a greater depth than the formations to the north. It is possibly caused by an intrusive rather than formational structure.

Drilling by the Phelps Dodge Corporation in 1970 gives a good picture of the extensive nature of the mineralization. Holes 70-1, 2, 3 and 7 intersected identical sulphide mineralization; hole 70-3 was sampled in 3 m (10 ft) lengths from surface to 84.4 m (277 ft), the hole terminated at 94.2 m (309 ft). An average of 0.16% Cu was obtained in this 79.2 m (260 ft) length; including a 15.2 m (50 ft) section of 0.39% Cu. Biotite-mica schist zones were frequently intersected in core, probably representing strongly altered pillow rims and interpillow material.

Copper-rich sulphide mineralization is known between BL1000N and 1400N, across the grid. Phelps Dodge holes 70-4, 5, 6 and 9 tested the area lying south of grid 700N, underneath the sand plain. Sulphide mineralization intersected here was directly related to argillaceous and graphitic horizons, and magnetite iron formation.

Government Airborne Electromagnetic and Total Intensity Magnetic surveys were published for the region in 1987. The following Geophysical/Geochemical Series maps cover the Centrefire Property and surrounding area: 80953, 80954, 80955, 80956 and 80957.



## **5.0 SYNERGY 1998 PRELIMINARY PROGRAM**

During the period August 19, 1998 to August 31, 1998, Synergy performed a preliminary program of limited linecutting, lithogeochemical and MMI sampling, and geological mapping on the property. A total of 3918 m of line were cut, chained and picketed; a total of 20 rock samples were taken for lithogeochemical analysis, and 61 soil samples were taken for MMI analysis.

Locations of all lithogeochemical sample points were determined with a Trimble Geoexplorer GPS unit (Appendix 3). Points on base and grid lines, claim posts and topographic features were also referenced. Field data was reduced and plotted on 1:5000 scale maps by Geo-Sat Enterprises, Thunder Bay, Ontario.

Contract personnel involved during this period were:

Andreas Lichtblau, Geologist (807) 473-8172  
RR#1, Nolalu, Ontario, P0T 2K0  
Prospector's Licence #E33626

James Martin, Linecutter, Prospector (807) 475-9138  
RR# 7, Site 1, Comp. 12  
Thunder Bay, Ontario, P7C 5V5

Ben Whitney, Geological Assistant  
Box 250  
21 Classic Ave.  
Toronto, Ontario, M5S 2Z3

Contract personnel for the 1999 reconnaissance geological mapping and lithogeochemical sampling were:

Terrence Bottrill, Senior Geologist  
192 Weldon Ave.  
Oakville, ON L6K 2H6 (905) 842-9884

Peter Eunson, Geological Assistant  
99 Harbour Square, Suite 130B  
Toronto, ON M4J 2H2 (416) 861-1469

## **5.1 LINECUTTING**

Baseline 1000N was cut and chained for 900 m, on Azimuth N070°E, in part parallelling the old Dryden-Hudson road. Cross lines were turned-off every 100 m, and chained/flagged for the lengths shown below, for a total of 3,918 m.

Cut, chained, picketed:

Base Line            0+00E- 9+00E            Azimuth N070°E

Chained, flagged:

L0+00E	10+00N-13+64N
L1+00E	10+00N-13+55N
L2+00E	10+00N-13+49N
L3+00E	7+50N-13+47N
L4+00E	10+00N-13+45N
L5+00E	10+00N-13+43N
L6+00E	7+50N-13+50N
L7+00E	10+00N-13+90N
L8+00E	10+00N-13+25N
L9+00E	10+00N-12+50N

## **5.2 LITHOGEOCHEMICAL SAMPLING**

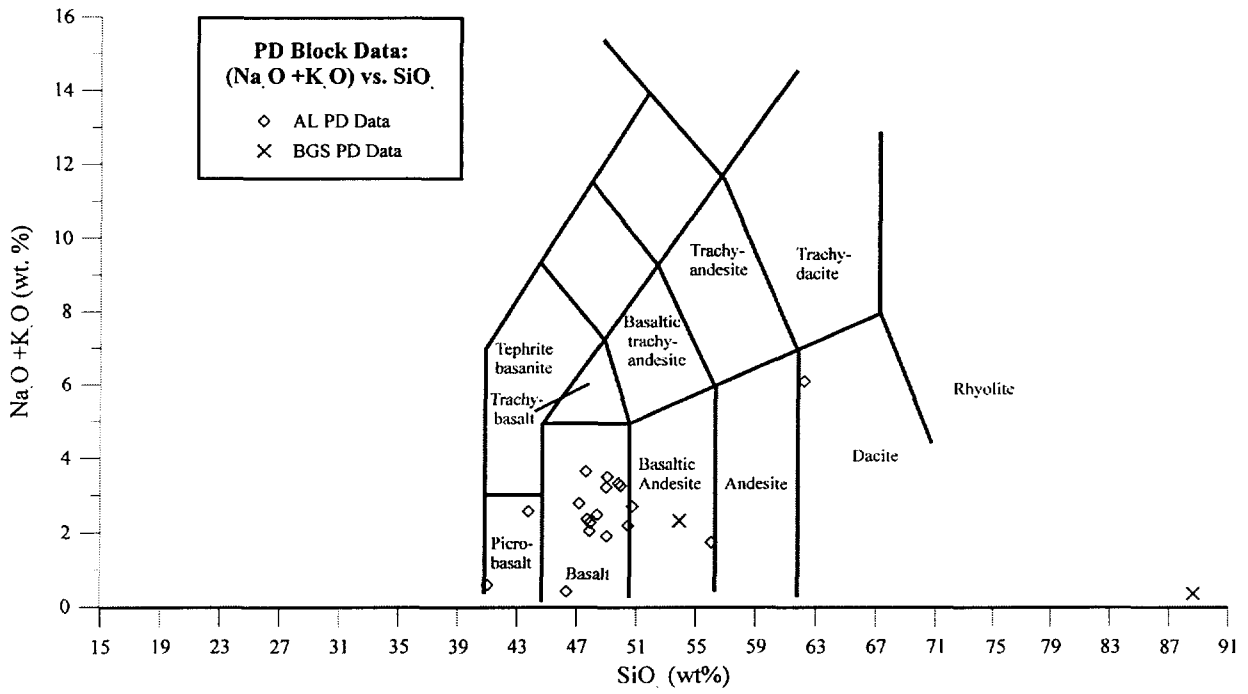
A total of 20 samples of variably mineralized pillow lava were collected on the property (Table 1).

Geochemical data for the PD Block property are presented in Figures 2 to 5. Data are plotted as  $(\text{Na}_2\text{O} + \text{K}_2\text{O})$  vs  $\text{SiO}_2$  (Fig. 2) and as  $\text{SiO}_2$  vs  $\text{Log} (\text{Zr}/\text{TiO}_2)$  (Fig. 3). These classification diagrams indicate that the PD Block property samples are primarily basalts or basaltic andesites. Two samples classify as micro-basalts and one classifies as a dacite. Sample BGS/8-99/014, described as a siliceous gossanous inter-pillow cannot be classified according to these diagrams. Figure 4 is an Y vs Nb tectonic discrimination diagram for several of the PD Block samples. All samples, except for BGS/8-99/014 plot within the subalkaline field. Figure 5 is a  $\text{Log Zr}/\text{Y}$  vs  $\text{Log Zr}$  tectonic discrimination diagram which indicates that the majority of the samples analyzed for these elements have geochemical signatures comparable to Island Arc and Ocean-Floor basalts.

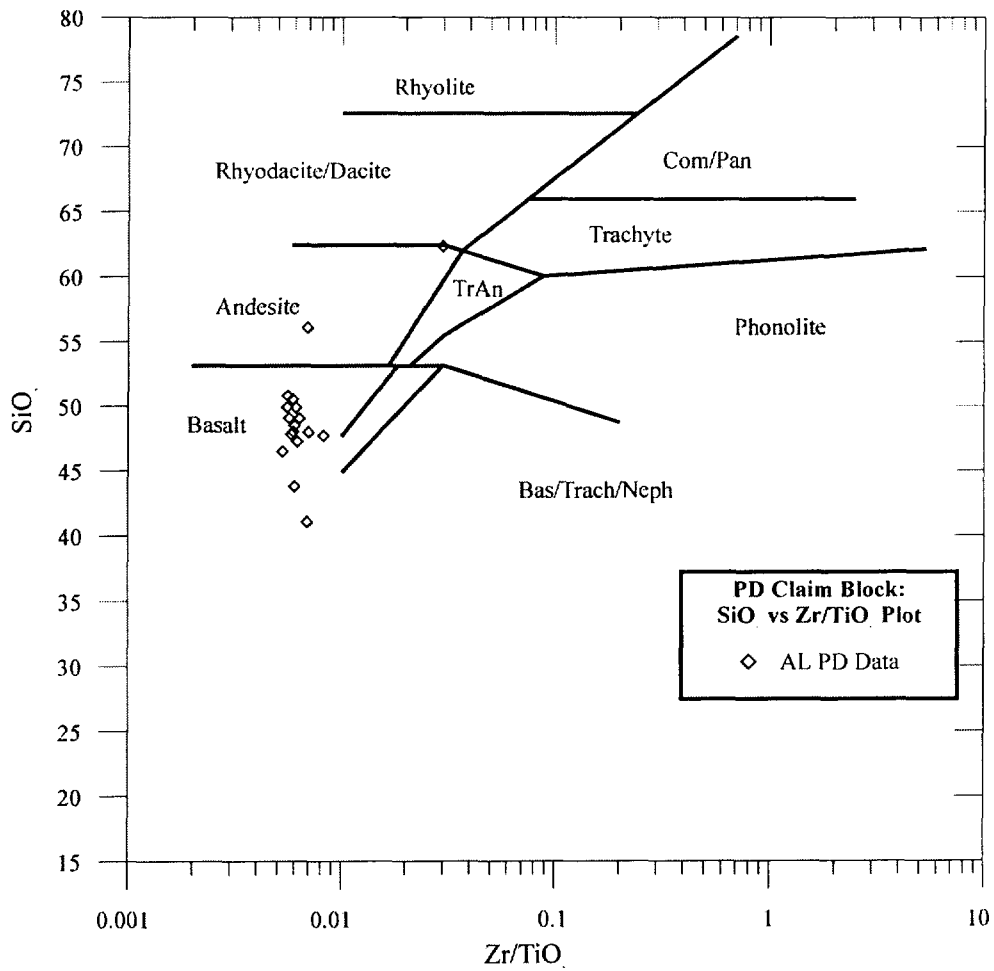
**TABLE 1:  
PD BLOCK SAMPLE DATA**

CLAIM BLOCK	SAMPLE #	UTM E	UTM N	DESCRIPTION
PD	2497	540920	5541129	Litho #2497: 80% sil rim, amphib seams; Photo3/11
PD	2498	540940	5541097	Litho #2498: Bslt, pillowed, Si-alt rims, weakly rusty
PD	2499	540956	5540889	Litho #2499: Gabbro, glomeroporphyritic
PD	2500	540959	5540855	Litho #2500: Bslt, massive
PD	2501	540973	5540676	Litho #2501: Bslt, anthophyllite?, rusty, Calcite vesic, at Post 2, #1216293
PD	2502	540620	5541923	Litho #2502: Bslt, pillow core and rim, siliceous rusty rims, "putty" weathered Interior
PD	2503	540342	5541779	Litho #2503: FP intermediate dyke, massive
PD	2504	540342	5541779	Litho #2504: siliceous, anthophyllitic interpillow, 2.5% Cpy
PD	2505	540342	5541779	Litho #2505: Bslt, massive pillow core, amphibolitic
PD	2506	540311	5541683	Litho #2506: Bslt, pillow core, weakly chl
PD	2507	540311	5541683	Litho #2507: interstitial, rusty, cherty; 20%Py, 1% Cpy
PD	2508	540260	5541693	Litho #2508: Bslt, rusty pillow core
PD	2509	540260	5541693	Litho #2509: AQ split core, basalt; rotten core box
PD	2510	540222	5541760	Litho #2510: Bslt, pillow core, not altered
PD	2511	540148	5541820	Litho #2511: Bslt, pillow core, not altered
PD	2512	540065	5541684	Litho #2512, Basalt, weakly chl, rusty selvages
PD	2513	539924	5541710	Litho #2513: Bslt, weakly chl core of pillow
PD	2514	539924	5541710	Litho #2514: interpillow material, siliceous, 20%Py, tr Cpy; Py massive over 2-4mm
PD	BGS/8-99/013	539924	5541710	Gossanous fractures in basalt; unit 1d (pillowed basalt)
PD	BGS/8-99/014	539924	5541710	Siliceous gossanous inter-pillow; unit 1d (pillowed basalt)

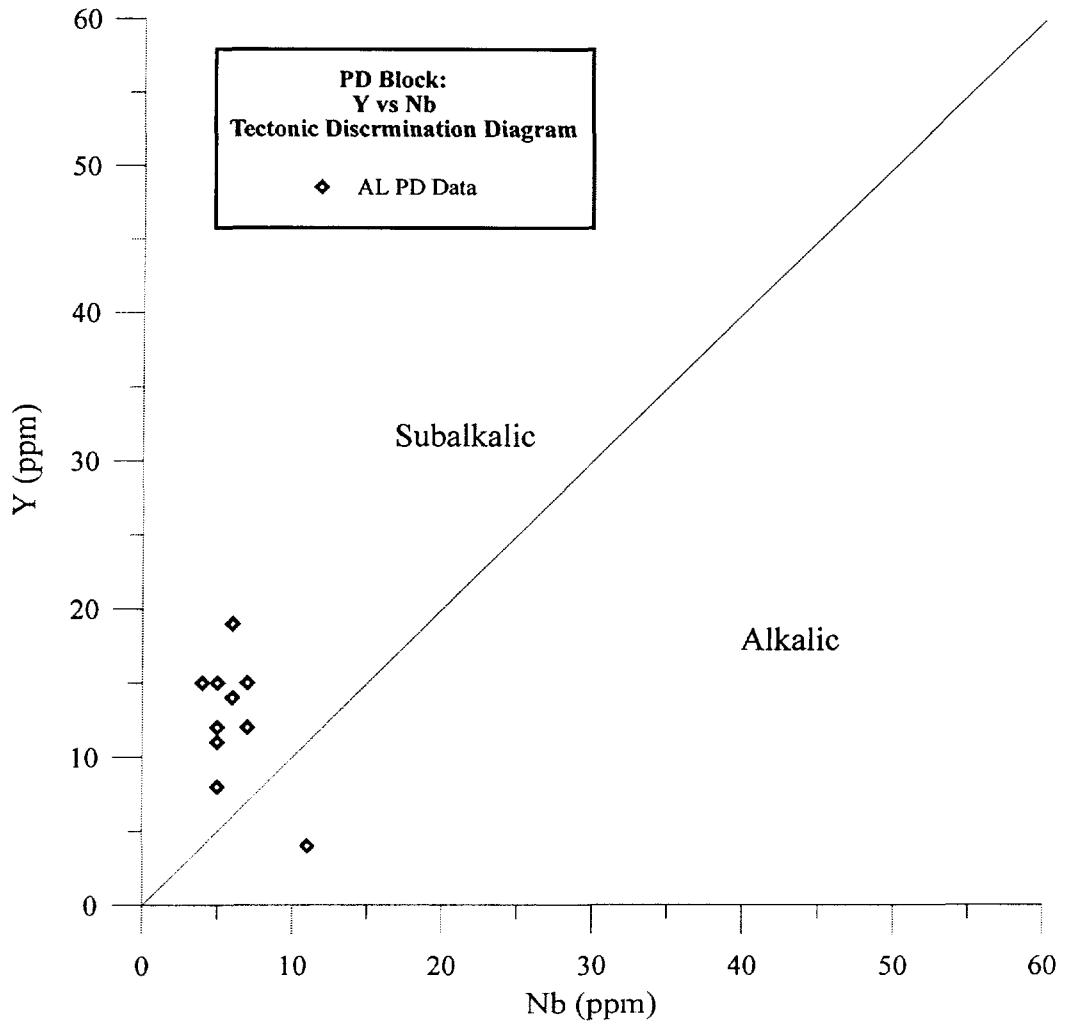
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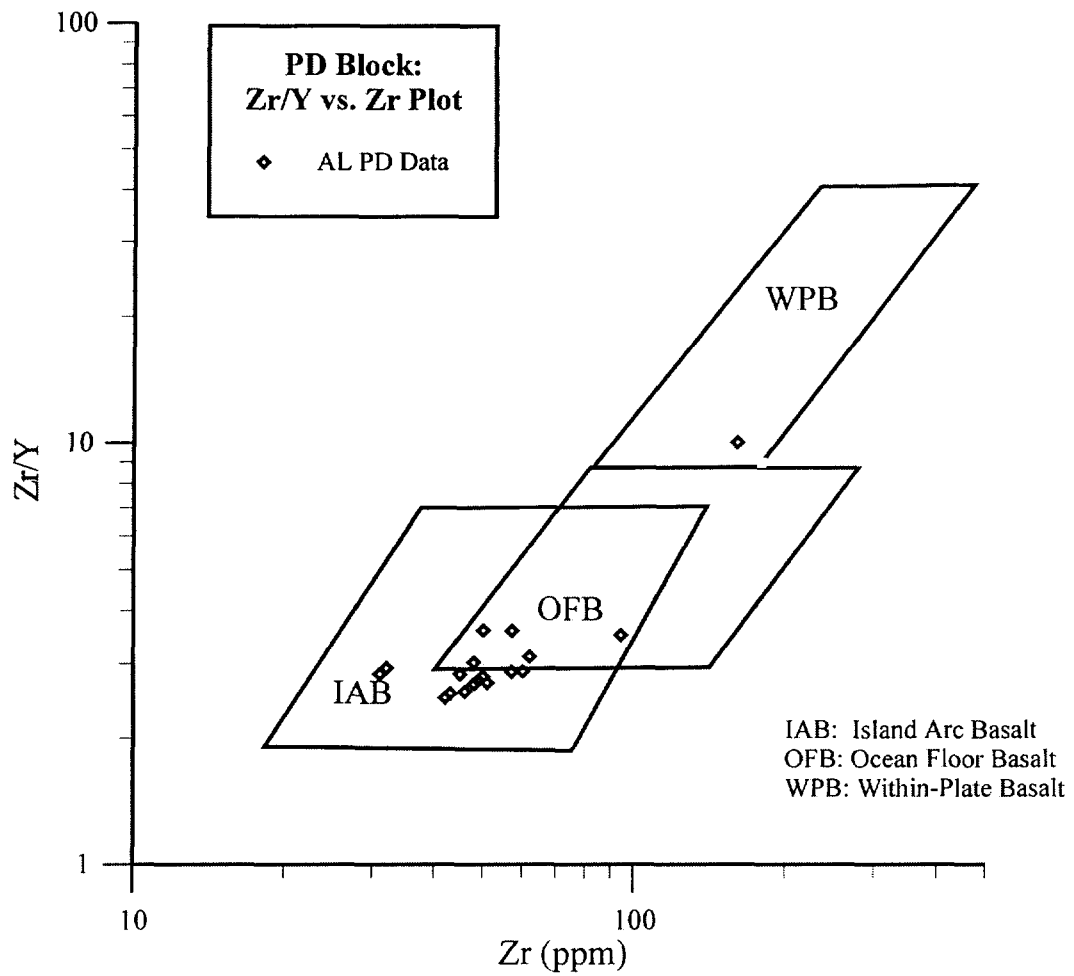
**Figure 2.** (Na<sub>2</sub>O + K<sub>2</sub>O) vs SiO<sub>2</sub> plot of samples collected from the PD Block property



**Figure 3.** SiO<sub>2</sub> vs Log Zr/TiO<sub>2</sub> plot of samples taken from the PD Block property



**Figure 4.** Y vs Nb tectonic discrimination diagram from samples taken from the PD Block property



**Figure 5.** Log Zr/Y vs Log Zr tectonic discrimination diagram for samples taken from the PD Block property

### 5.3

### **MMI SAMPLING & PROCEDURE**

A total of 61 soil samples were collected for eventual MMI (Mobile Metal Ion) analysis (Appendix 2). The MMI geochemical soil survey can be an effective tool over deep, glacially derived overburden. Sampling was done of the soil layer at a constant depth of 10 cm-15 cm, below the whitish leached layer ('Ae') situated at the base of the 'A' horizon. A minimum 500 g (1 lb.) sample was collected, if possible every 50 m along the grid line. Samples were kept in securi-sealed plastic bags, and stored before processing, along with the lithochemical samples, at the facilities of Clark-Eveleigh Consulting, Thunder Bay, Ontario.

Particular care was paid to MMI sampling techniques. A stainless steel shovel (which had all traces of paint and preservative removed) was used to dig the hole and collect the sample at a constant depth of 10 cm-15 cm. The soil was sieved through a coarse plastic mesh, allowing for passage of 5 mm soil clumps, but retaining all leaves and forest litter, root mats, etc. The site was assessed according to vegetation type (i.e. tree species, thickness of moss or other cover) sometimes moss cover was too thick (>20 cm) so that sampling was aborted. Several photographs were taken to catalogue forest cover (see Photographs in separate volume). No samples were taken in clear-cut areas since no soil was available. Mechanized tree harvesting techniques were such that the first 20 cm consisted of powdered and mixed dead moss/organics in a jumble of decaying tree roots and newly sprouting shrubs.

It was subsequently recognized that the MMI samples had been collected in areas of relatively thin overburden. The MMI technique is not applicable for shallow overburden areas and it was determined that the samples would not be analyzed.



## **6.0 REGIONAL GEOLOGY**

The property is underlain by rocks of the Wabigoon Subprovince of the Canadian Shield. This is a 900 km long by 150 km wide granite-greenstone terrain in the NW Superior Province. The greenstone belt has been mapped on many occasions (cited in Turner and Walker, 1973). Particular attention was paid by early researchers to the sedimentary stratigraphy of the area, within the context of defining terms such as Keewatin and Coutchiching. Later authors (cited by Blackburn et al, 1992) defined stratigraphic relationships within belts and, using geochronology, relationships between belts within the subprovince.

In the area of Sioux Lookout, granitoid gneisses of the 3.00 Ga Winnipeg River Subprovince are basement to the lowermost volcanic stratigraphy of the Abram Lake Greenstone Belt, dated at between 2.73 Ga and 2.80 Ga (Blackburn et al, 1992). The Synergy property lies within the Northern Volcanic rocks of the Abram Lake Belt (Fig. 6).

Development of volcanic belts within the eastern portion of the Wabigoon Subprovince, particularly the Sioux Lookout portion and South Sturgeon Lake-Mattabi Camp area 100 km to the east (Fig. 7), was essentially coeval. At Sturgeon Lake, predominantly mafic volcanic rocks overlie the Central Wabigoon Gneiss terrain; felsic ash flow tuffs hosting the VMS Deposits of the Mattabi Camp are dated at 2.73 Ga. The volcanic rocks are overlain by the Sturgeon Lake sedimentary package, indicating a cessation of volcanic activity. A similar sequence of events is recorded in Sioux Lookout, at similar times.

The Sioux Lookout succession begins with a mafic volcanic sequence (lower Northern Volcanics) in fault (?) contact with underlying Winnipeg River gneiss. The southward facing mafic volcanic rocks are overlain by an upper mixed unit of intermediate and felsic units. Minor felsic intrusive activity was followed by erosion and deposition of alluvial sediments of the Ament Bay formation (Turner and Walker, 1973). The Sioux Lookout property are underlain by the prospective mafic and felsic portions of the succession (Fig. 8).

The most recent mapping in the Sioux Lookout area was by Page and Christie (1980). Of structural importance to the current exploration program is their interpretation of an overturned, westerly plunging syncline paralleling the east-west line between McIlraith and Lomond Townships to the north, and Webb and Echo Townships to the south. The PD Block property lies on the northern limb. The core of the syncline is occupied by late alluvial fan sediments: erosional products of the underlying volcanic pile.

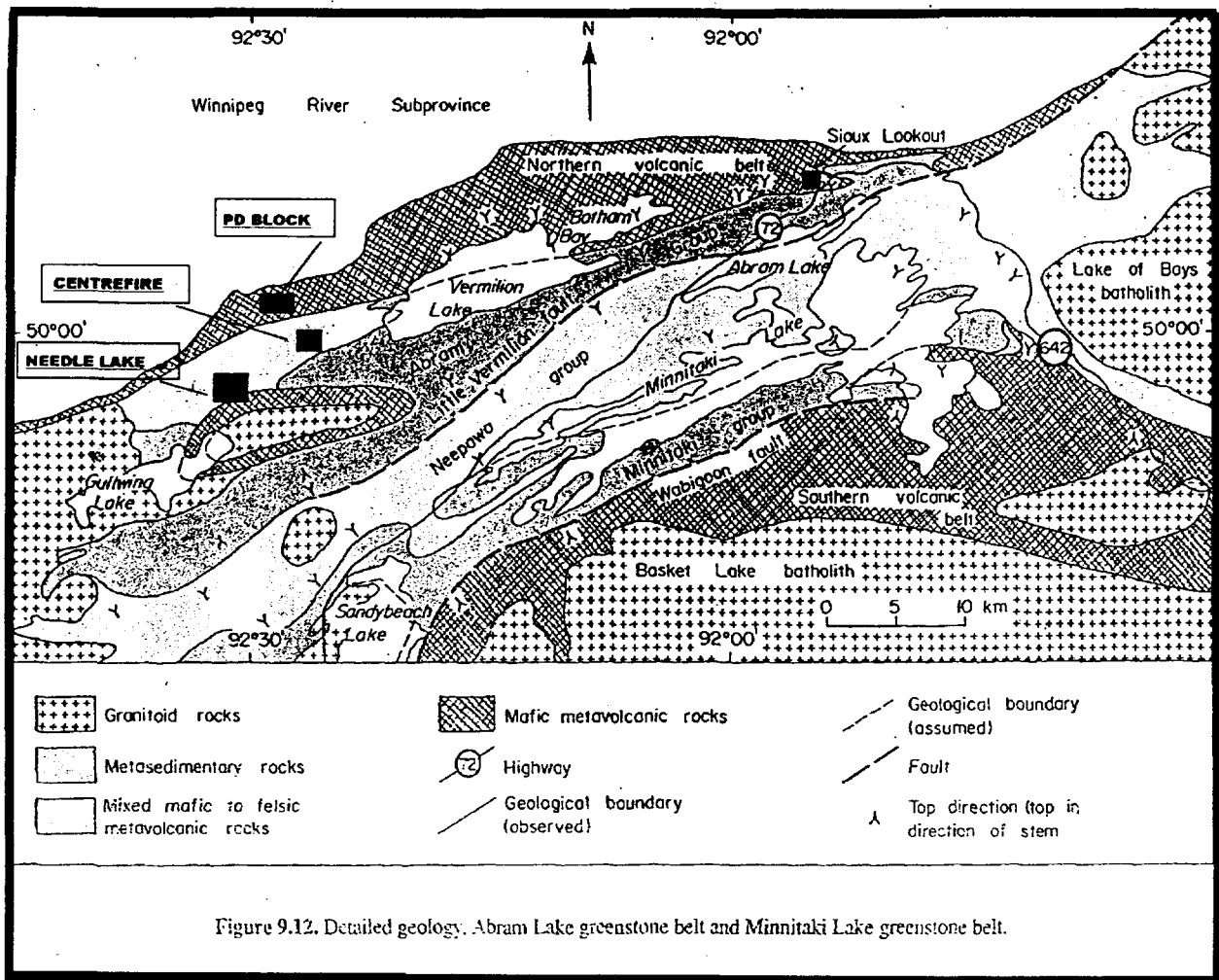


Figure 9.12. Detailed geology. Abram Lake greenstone belt and Minnitaki Lake greenstone belt.

from Blackburn et al (1992)

Fig. 6. Property Location, Abram Lake Greenstone Belt, Sioux Lookout, Ontario

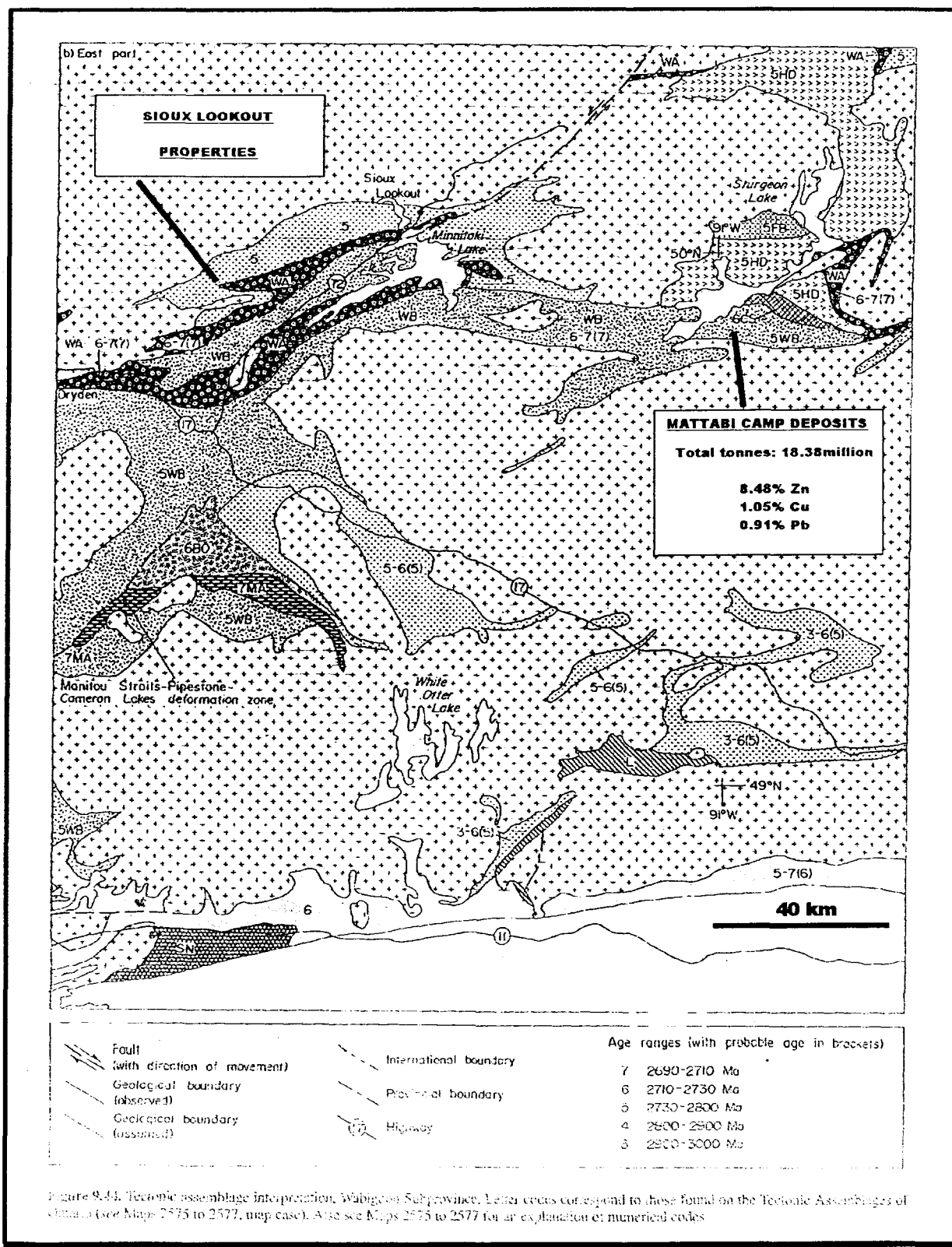


Figure 9.44. Tectonic assemblage interpretation, Wabigoon Subprovince. Letter codes correspond to those found on the Tectonic Assemblages of Canada (see Maps 2575 to 2577, imp case). Also see Maps 2575 to 2577 for an explanation of numerical codes

from Blackburn et al. (1992)

Fig. 7. Sioux Lookout-Mattabi Belt, Wabigoon Subprovince

## **7.0    PROPERTY GEOLOGY**

The property is predominantly underlain by weakly vesicular pillow basalt. Most exposures are concentrated in the northern third of the block, north of BL1000N, and south of the Hydro line. A sand plain covers most of the southern portions, however a few scattered outcrops of basaltic flow, and one of glomeroporphyritic gabbro, were mapped in the SE corner (Map I).

Pillows are small (approximately 1 m x 0.30 m) and moderately stretched along the general strike of N075°E. Hence, top determinations were not possible, except for an equivocal southerly top (overturned) from exposures under the Hydro line in the NW corner of the property. Dips are generally 75°N.

Most pillowed outcrops have development of rusty selvages, often with siliceous, sulphide-bearing interpillow material. Often a black amphibole mineral is present in the interstitial material, rarely anthophyllite. Sample# 2504 (Table 1) is of weakly anthophyllitic siliceous interpillow material, with 2%-3% disseminated and laminated coarse chalcopyrite.

On polished/glaciated outcrops it is evident that pillow rims are somewhat more resistant than the cores, implying at least incipient silicification. Broken rock does not reveal appreciable evidence of a strong alteration event. Rarely however, pillow cores exhibit a "putty" type alteration reminiscent of chlorite altered pillows in the Noranda Camp.

### ***Mineralization & Alteration***

Mineralization of pyrite, chalcopyrite and pyrrhotite is concentrated in interpillow sites. Both disseminated and laminated sulphides were noted. Massive sulphides occur as centimetre-scale pods in two shallow pits (Map I) presumably blasted in the 60's by prospectors E. Ranta and W. Young of Thunder Bay. Sulphide mineralization, as evidenced by rusty selvages and gossanous interpillow material, is exposed across the breadth of the property along the Hydro line, for a minimum distance of 750 m. Surface exposures indicate a north-south width of mineralization to be at least 300 m; drillhole information (see further below) extends the mineralized package to 450 m horizontal thickness.

The presence of silicified pillow rims and siliceous interpillow material indicates a replacement origin for the sulphides and silica. Circulation of hydrothermal fluids through relatively permeable interpillow hyaloclastic debris led to incipient silicification of pillow rims, and replacement and sulfidation of interpillow material. Laminated sulphides may reflect replacement of originally bedded hyaloclastite or tuffaceous beds. The pillowed basalt unit acted as conduit for the hydrothermal solutions, but it is not presently known whether fluid flow was across (as in typical alteration pipes) or lateral, along a particular stratigraphic unit (as is well represented in Snow Lake, Manitoba).

A significant thickness and lateral extent of mineralization and alteration is known on the

property. If the basaltic pillows face south, then the graphitic sediments/iron formation package represents a possible cap to the system, as in the same way that Tetsusekiei iron formation occurs stratigraphically above massive sulphide horizons/deposits of the Kuroko district, Japan. The distance separating these units is only in the order of one metre to 100 metres, and represent the waning stage of hydrothermal activity.

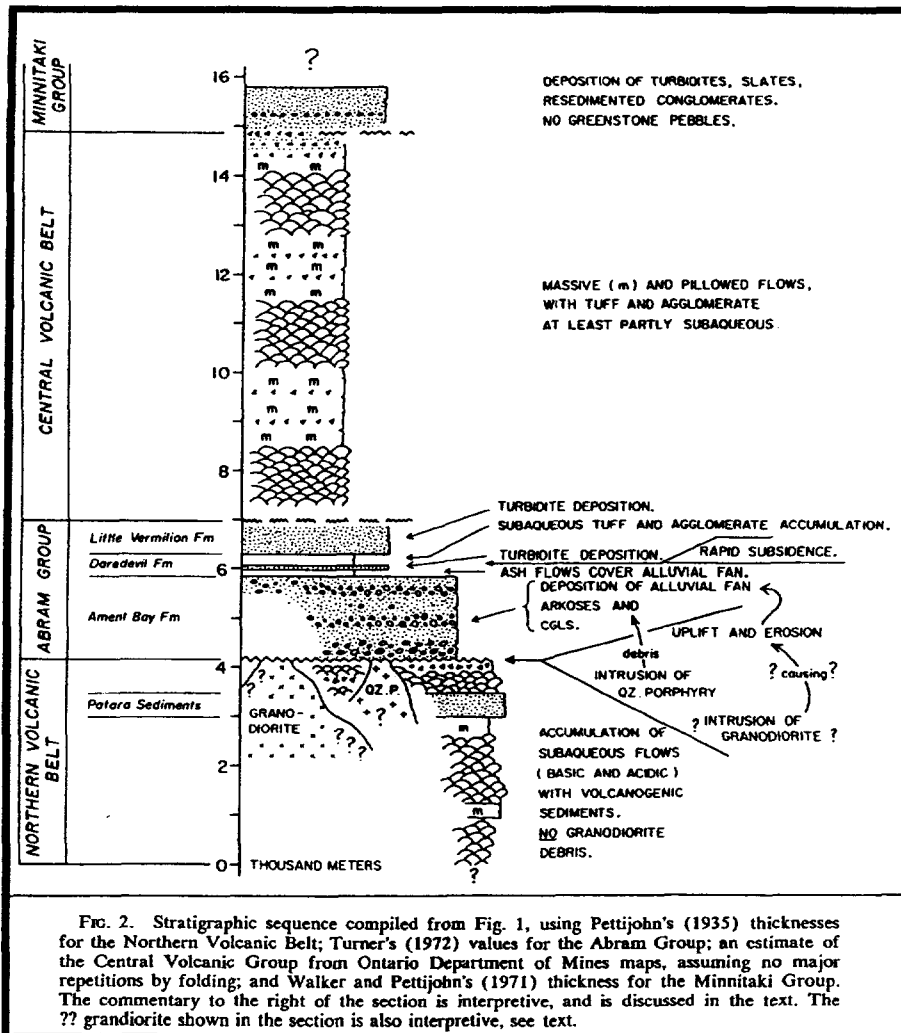


FIG. 2. Stratigraphic sequence compiled from Fig. 1, using Pettijohn's (1935) thicknesses for the Northern Volcanic Belt; Turner's (1972) values for the Abram Group; an estimate of the Central Volcanic Group from Ontario Department of Mines maps, assuming no major repetitions by folding; and Walker and Pettijohn's (1971) thickness for the Minnitaki Group. The commentary to the right of the section is interpretive, and is discussed in the text. The ?? granodiorite shown in the section is also interpretive, see text.

from Turner and Walker (1973)

Fig. 8. Stratigraphic location of Sioux Lookout Properties

## **8.0 CONCLUSIONS**

The geological setting of the PD Block property is prospective in terms of its potential for hosting volcanogenic massive base metal sulphide deposits. The Mattabi Camp exhibits a similar succession of volcanic units deposited at a similar time in the development of this portion of the eastern Wabigoon Greenstone Belt. The nature and scale of alteration and mineralization in this area indicate the presence of a significant VMS-style hydrothermal system. Whether mineralization on the PD Block represents part of a cross-cutting pipe leading up to the iron formation horizon or whether the pillowed basalt unit acted as a permeable horizon, with lateral hydrothermal fluid flow, is not presently known.

Lateral flow, confined to permeable volcanic units has been well documented in the Snow Lake Camp, Manitoba (Galley et al., 1990). These semi-conformable zones of alteration may attain a thickness of 300 m-700 m comparable to PD Block and a length of up to 12 km. Break-out eventually occurs at local syn-volcanic structures, and a more typical cross-cutting relationship is established. The semi-conformable zone of alteration may be found within 500 m to 3000 m stratigraphically below the ore-producing horizon.

## **9.0 RECOMMENDATIONS**

Work on the PD Block property should include a detailed mapping program to define potential horizons unrecognised by the cursory nature of previous surveys. Some additional sampling for lithochemistry could enhance knowledge of the generally weak alteration found to date. The flagged grid on PD Block is sufficient for the mapping program.

Geophysical surveying (HLEM or TEM) of selected targets is recommended. Broad-scale lithochemical alteration and/or base metal enrichment anomalies would define the larger setting for potential mineralization.



## **10.0 REFERENCES**

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**APPENDIX 1:**

**PD BLOCK LITHOGEOCHEMICAL DATA**

**APPENDIX 1:  
PD BLOCK LITHOGEOCHEMICAL DATA**

Claim Block	Sample #	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MgO	CaO	Na <sub>2</sub> O	K <sub>2</sub> O	TiO <sub>2</sub>	P <sub>2</sub> O <sub>5</sub>	MnO	Cr <sub>2</sub> O <sub>3</sub>	LOI	TOTAL
PD	2497	56.11	11.44	12.07	6.99	9.14	1.59	0.16	0.6	0.05	0.2	<0.01	0.81	99.16
PD	2498	47.8	14.73	13.83	8.77	9.57	2.21	0.16	0.81	0.06	0.15	<0.01	1.24	99.33
PD	2499	47.72	24.4	6.48	4.13	10.54	3.12	0.53	0.39	0.04	0.1	<0.01	1.51	98.96
PD	2500	47.94	12.46	13.45	8.34	12.06	1.9	0.15	0.71	0.07	0.22	0.02	1.43	98.75
PD	2501	50.55	15.55	11.44	4.51	10.61	1.99	0.21	0.96	0.08	0.22	<0.01	3.04	99.16
PD	2502	48.46	15.49	11.25	7.19	12.29	1.89	0.6	0.81	0.07	0.22	0.02	0.89	99.18
PD	2503	62.28	16.12	4.91	2.88	5.34	4.45	1.65	0.54	0.31	0.09	<0.01	0.91	99.48
PD	2504	46.43	14.92	13.36	2.87	14.46	<0.01	0.38	0.96	0.06	0.22	0.01	1.28	94.95
PD	2505	49.13	16.64	13.28	3.45	10.06	2.44	1.08	1.08	0.13	0.25	<0.01	1.59	99.13
PD	2506	49.09	15.65	11.99	6.72	12.32	1.56	0.36	0.76	0.14	0.17	0.01	0.62	99.39
PD	2507	41.07	9.51	25.26	5.69	8.71	0.12	0.48	0.45	0.07	0.2	<0.01	4.69	96.25
PD	2508	49.07	14.85	13.47	5.5	10.65	2.85	0.37	1.45	0.07	0.23	<0.01	0.68	99.19
PD	2509	47.28	14.06	12.56	7.33	11.73	1.76	1.04	0.72	0.08	0.2	0.02	1.75	98.53
PD	2510	49.99	13.1	12.39	7.49	10.42	2.43	0.83	1.07	0.07	0.22	0.01	0.76	98.78
PD	2511	48.01	16.24	11.34	6.78	12.75	1.71	0.56	0.77	0.08	0.19	0.02	0.61	99.06
PD	2512	49.89	14.92	11.92	6.66	10.68	2.69	0.66	0.81	0.08	0.21	0.02	0.66	99.2
PD	2513	50.79	15.17	11.4	6.34	11.03	2.05	0.67	1.01	0.09	0.25	0.02	0.58	99.4
PD	2514	43.82	14.46	18.7	4.31	9.24	1.87	0.72	0.8	0.06	0.21	<0.01	5.25	99.44
PD	BGS/8-99/013	53.97	13.51	12.42	4.64	9.82	1.75	0.58	0.73	0.06	0.24	<0.01	1.29	99.01
PD	BGS/8-99/014	88.48	2.33	4.11	0.92	1.7	0.25	0.13	0.2	0.03	0.06	<0.01	0.71	98.92

**APPENDIX 1:  
PD BLOCK LITHOGEOCHEMICAL DATA**

Claim Block	Sample #	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	CO2 %	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	
PD	2497					41																	
PD	2498					27																	
PD	2499					234																	
PD	2500					59																	
PD	2501					104																	
PD	2502					44																	
PD	2503					348																	
PD	2504					161																	
PD	2505					162																	
PD	2506					38																	
PD	2507					47																	
PD	2508					37																	
PD	2509					100																	
PD	2510					50																	
PD	2511					50																	
PD	2512					69																	
PD	2513					46																	
PD	2514					83																	
PD	BGS/8-99/013	<0.2	1.32	<2	<10	110	<0.5	<2	0.21	<0.5	7		108	6	2.16	<10	<1	0.59	10	0.66	105	<1	
PD	BGS/8-99/014	0.2	0.38	<2	<10	<10	<0.5	8	0.41	<0.5	4		274	353	2.12	<10	<1	0.06	<10	0.24	170	8	

**APPENDIX 1:  
PD BLOCK LITHOGEOCHEMICAL DATA**

Claim Block	Sample #	Na %	Nb ppm	Ni ppm	P ppm	Pb ppm	Rb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
PD	2497		7				10				71						17		42
PD	2498		5				12				94						18		48
PD	2499		5				23				141						11		32
PD	2500		5				10				89						14		50
PD	2501		7				11				121						16		57
PD	2502		5				32				89						18		49
PD	2503		11				100				809						16		160
PD	2504		6				26				124						19		51
PD	2505		6				38				157						20		62
PD	2506		4				21				118						17		43
PD	2507		3				34				33						11		31
PD	2508		8				14				89						27		94
PD	2509		4				81				92						16		45
PD	2510		5				59				92						21		60
PD	2511		4				31				106						18		46
PD	2512		5				45				76						18		50
PD	2513		5				45				60						20		57
PD	2514		5				87				50						16		48
PD	BGS/8-99/013	0.08		22	580	8		0.4	2	2	29	0.06	<10	<10	22	<10		44	
PD	BGS/8-99/014	0.04		11	60	2		0.1	<2	3	3	0.07	<10	<10	26	30		14	



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 5175 Timberlea Blvd., Mississauga  
 Ontario, Canada L4W 2S3  
 PHONE: 905-624-2806 FAX: 905-624-6163

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 Account : PIE

Project :  
 Comments: ATTN: LYNDA BLOOM FAX: ANDREAS LICHTBLAU

31 Strike Point / 10 Centrifuge / 18 PD

## CERTIFICATE OF ANALYSIS A9926703

SAMPLE	PREP CODE	Al2O3 % XRF	CaO % XRF	Cr2O3 % XRF	Fe2O3 % XRF	K2O % XRF	MgO % XRF	MnO % XRF	Na2O % XRF	P2O5 % XRF	SiO2 % XRF	TiO2 % XRF	LOI % XRF	TOTAL %	Ba ppm	Rb ppm	Sr ppm	Nb ppm	Zr ppm	Y ppm
2481	208 226	9.01	13.52	< 0.01	11.73	0.21	5.88	0.37	0.12	0.08	54.29	0.31	3.52	99.04	70	12	43	5	68	15
2482	208 226	13.95	5.18	< 0.01	10.38	1.37	2.86	0.17	0.46	0.09	61.00	0.57	2.63	98.66	217	53	71	7	67	19
2483	208 226	12.18	9.50	0.02	9.78	0.46	8.44	0.16	1.26	0.06	46.30	0.57	9.88	98.61	48	17	70	5	39	15
2484	208 226	13.16	8.80	0.01	12.19	0.71	6.45	0.17	1.41	0.07	45.71	0.81	9.27	98.76	116	22	102	7	57	14
2485	208 226	16.95	3.88	< 0.01	4.09	1.59	2.02	0.06	4.32	0.12	63.48	0.46	2.34	99.31	370	35	207	9	151	17
2486	208 226	15.86	1.82	< 0.01	5.83	0.81	3.98	0.09	4.71	0.13	62.46	0.63	2.37	98.69	111	20	104	10	127	15
2488	208 226	14.54	1.26	< 0.01	2.03	2.25	0.84	0.04	5.27	0.08	71.12	0.23	1.27	98.93	1075	72	467	8	168	15
2489	208 226	15.40	1.51	< 0.01	1.83	3.20	1.16	0.04	4.37	0.07	69.94	0.23	1.47	99.22	1600	88	289	8	161	15
2490	208 226	14.92	1.95	< 0.01	2.11	3.23	1.32	0.06	3.78	0.09	69.64	0.24	1.71	99.05	1250	93	228	8	169	12
2491	208 226	14.81	2.83	< 0.01	3.09	1.42	1.54	0.04	5.12	0.16	67.98	0.35	1.89	99.23	596	33	569	7	123	8
2492	208 226	15.73	2.95	< 0.01	2.99	3.35	1.55	0.04	2.74	0.17	66.25	0.39	3.32	99.48	627	72	357	6	131	12
2493	208 226	10.83	5.86	< 0.01	16.66	2.63	3.80	0.38	0.24	0.10	50.90	0.33	7.11	98.84	241	70	216	8	84	11
2494	208 226	3.90	1.92	< 0.01	48.22	0.09	1.43	0.10	0.14	0.04	19.34	0.20	23.06	98.44	22	22	< 2	6	42	4
2495	208 226	14.74	3.39	< 0.01	3.71	2.91	1.72	0.07	3.49	0.12	65.12	0.49	3.60	99.36	460	82	379	7	107	14
2496	208 226	15.76	2.60	< 0.01	3.44	4.43	1.60	0.06	2.64	0.29	65.98	0.43	2.19	99.42	1050	96	218	8	160	19
2497	208 226	11.44	9.14	< 0.01	12.07	0.16	6.99	0.20	1.59	0.05	56.11	0.60	0.81	99.16	41	10	71	7	42	17
2498	208 226	14.73	9.57	< 0.01	13.83	0.16	8.77	0.15	2.21	0.06	47.80	0.81	1.24	99.33	27	12	94	5	48	18
2499	208 226	24.40	10.54	< 0.01	6.48	0.53	4.13	0.10	3.12	0.04	47.72	0.39	1.51	98.96	234	23	141	5	32	11
2500	208 226	12.46	12.06	0.02	13.45	0.15	8.34	0.22	1.90	0.07	47.94	0.71	1.43	98.75	59	10	89	5	50	14
2501	208 226	15.55	10.61	< 0.01	11.44	0.21	4.51	0.22	1.99	0.08	50.55	0.96	3.04	99.16	104	11	121	7	57	16
2502	208 226	15.49	12.29	0.02	11.25	0.60	7.19	0.22	1.89	0.07	48.46	0.81	0.89	99.18	44	32	89	5	49	18
2503	208 226	16.12	5.34	< 0.01	4.91	1.65	2.88	0.09	4.45	0.31	62.28	0.54	0.91	99.48	348	100	809	11	160	16
2504	208 226	14.92	14.46	0.01	13.36	0.38	2.87	0.22	< 0.01	0.06	46.43	0.96	1.28	94.95	161	26	124	6	51	19
2505	208 226	16.64	10.06	< 0.01	13.28	1.08	3.45	0.25	2.44	0.09	49.13	1.08	1.59	99.09	162	38	157	6	62	20
2506	208 226	15.65	12.32	0.01	11.99	0.36	6.72	0.17	1.56	0.06	49.09	0.76	0.62	99.31	38	21	118	4	43	17
2507	208 226	9.51	8.71	< 0.01	25.26	0.48	5.69	0.20	0.12	0.13	41.07	0.45	4.69	96.31	47	34	33	3	31	11
2508	208 226	14.85	10.65	< 0.01	13.47	0.37	5.50	0.23	2.85	0.14	49.07	1.45	0.68	99.26	37	14	89	8	94	27
2509	208 226	14.06	11.73	0.02	12.56	1.04	7.33	0.20	1.76	0.07	47.28	0.72	1.75	98.52	100	81	92	4	45	16
2510	208 226	13.10	10.42	0.01	12.39	0.83	7.49	0.22	2.43	0.07	49.99	1.07	0.76	98.78	50	59	92	5	60	21
2511	208 226	16.24	12.75	0.02	11.34	0.56	6.78	0.19	1.71	0.08	48.01	0.77	0.61	99.06	50	31	106	4	46	18
2512	208 226	14.92	10.68	0.02	11.92	0.66	6.66	0.21	2.69	0.08	49.89	0.81	0.66	99.20	69	45	76	5	50	18
2513	208 226	15.17	11.03	0.02	11.40	0.67	6.34	0.25	2.05	0.09	50.79	1.01	0.58	99.40	46	45	60	5	57	20
2514	208 226	14.46	9.24	< 0.01	18.70	0.72	4.31	0.21	1.87	0.06	43.82	0.80	5.25	99.44	83	87	50	5	48	16
2981	208 226	15.81	3.57	< 0.01	4.55	2.05	2.01	0.06	4.02	0.22	63.69	0.57	2.02	98.57	935	73	711	6	132	14
2982	208 226	13.78	2.48	< 0.01	2.26	1.45	1.07	0.05	4.41	0.14	70.82	0.39	1.86	98.71	645	55	544	7	122	12
2983	208 226	13.75	2.52	< 0.01	2.13	1.40	0.99	0.05	4.47	0.12	70.85	0.36	1.99	98.63	614	53	564	8	119	12
2984	208 226	16.42	3.20	< 0.01	4.99	2.66	2.05	0.05	3.50	0.23	63.65	0.61	1.51	98.87	1150	109	792	9	135	15
2985	208 226	12.68	8.18	< 0.01	3.66	1.73	1.63	0.09	2.74	0.19	61.47	0.38	5.93	98.68	949	69	864	7	101	12
2986	208 226	11.09	4.95	< 0.01	4.45	1.96	2.05	0.10	2.33	0.21	67.59	0.45	4.00	99.18	725	70	616	7	99	13
2987	208 226	8.99	14.09	< 0.01	8.29	1.19	6.34	0.30	2.19	0.19	38.21	0.37	19.05	99.21	440	39	917	6	95	17

*Trific*  
*Look out*

CERTIFICATION: \_\_\_\_\_



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

5175 Timberlea Blvd., Mississauga  
 Ontario, Canada L4W 2S3  
 PHONE: 905-624-2806 FAX: 905-624-6163

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 Account : PIE

Project :  
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## CERTIFICATE OF ANALYSIS A9926703

SAMPLE	PREP		Al2O3	CaO	Cr2O3	Fe2O3	K2O	MgO	MnO	Na2O	P2O5	SiO2	TiO2	LOI	TOTAL	Ba	Rb	Sr	Nb	Zr	Y
	CODE		% XRF	% XRF	% XRF	% XRF	% XRF	% XRF	% XRF	% XRF	% XRF	% XRF	% XRF	% XRF	%	ppm	ppm	ppm	ppm	ppm	ppm
2988	208	226	14.48	4.45	< 0.01	17.00	0.52	2.88	0.24	1.65	0.09	52.68	0.93	4.65	99.57	136	26	142	6	71	15
2989	208	226	15.50	5.36	< 0.01	14.19	0.87	3.50	0.17	2.54	0.11	50.51	1.49	4.98	99.22	312	37	108	8	87	22
2991	208	226	15.13	3.90	0.01	7.47	0.63	4.01	0.11	3.43	0.12	60.59	0.61	3.06	99.07	102	20	168	10	134	16
2992	208	226	14.25	9.91	0.01	14.49	0.28	6.24	0.21	2.19	0.15	47.74	1.36	2.40	99.23	46	10	83	7	76	29
2993	208	226	15.81	6.91	< 0.01	4.51	0.37	2.19	0.10	3.45	0.12	62.73	0.54	2.53	99.26	83	15	188	6	129	16
2994	208	226	14.69	9.65	0.02	11.99	0.22	7.65	0.21	1.87	0.10	49.37	0.93	2.41	99.11	34	9	99	6	64	20
2995	208	226	14.42	10.66	0.03	11.76	0.16	7.95	0.19	1.51	0.08	49.17	0.88	2.36	99.17	56	12	103	7	58	18
2996	208	226	12.52	10.39	< 0.01	10.37	0.35	6.97	0.16	1.63	0.09	44.26	0.75	11.78	99.27	19	9	55	6	53	19
2997	208	226	10.68	1.74	< 0.01	2.29	1.43	0.46	0.04	2.62	0.09	77.36	0.22	1.41	98.34	252	46	77	10	151	15
2998	208	226	9.34	0.78	< 0.01	9.99	1.13	3.08	0.34	0.78	0.16	68.74	0.48	4.37	99.19	175	28	18	9	105	12
2999	208	226	15.18	2.00	< 0.01	8.01	0.98	3.69	0.21	4.02	0.13	61.59	0.59	2.89	99.29	153	31	144	7	138	13
3000	208	226	13.40	1.74	< 0.01	1.08	0.87	0.49	0.02	5.22	0.02	75.55	0.08	0.63	99.10	174	21	61	7	113	13
3001	208	226	14.11	10.97	0.01	11.85	0.29	7.42	0.19	1.82	0.09	49.95	0.86	1.47	99.03	55	8	86	6	57	19
3002	208	226	13.33	1.73	< 0.01	1.69	0.94	0.21	0.02	4.90	0.04	75.50	0.12	0.60	99.08	207	20	111	12	145	20
3003	208	226	14.31	10.08	< 0.01	13.37	0.20	7.14	0.21	1.89	0.09	48.24	0.98	2.75	99.26	25	10	103	7	64	20
3004	208	226	14.75	1.92	< 0.01	6.80	0.95	3.84	0.10	3.28	0.14	63.71	0.55	2.46	98.50	256	27	82	8	133	14
3005	208	226	14.93	4.41	< 0.01	5.47	0.98	3.03	0.15	2.91	0.12	64.30	0.55	2.46	99.31	199	31	174	11	143	18
3006	208	226	15.32	5.17	< 0.01	6.16	0.92	3.25	0.14	3.12	0.14	61.81	0.57	2.43	99.03	296	27	162	11	139	16
3007	208	226	15.39	3.64	< 0.01	4.10	0.96	1.80	0.06	4.43	0.15	66.81	0.48	1.45	99.27	157	25	216	10	131	15

2994  
 2998

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# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
5175 Timberlea Blvd., Mississauga  
Ontario, Canada L4W 2S3  
PHONE: 905-624-2806 FAX: 905-624-6163

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## CERTIFICATE OF ANALYSIS

### A9926737

SAMPLE	PREP CODE	Cu ppm	Zn ppm								
2494	299 238	1155	4170								
2502	299 238	57	25								
2503	299 238	922	34								
2504	299 238	>10000	90								
2507	299 238	>10000	127								
2514	299 238	683	30								
2998	299 238	77	186								
3002	299 238	22	12								
3004	299 238	135	107								

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## CERTIFICATE OF ANALYSIS A9927521

SAMPLE	PREP CODE	Cu %									
2504	212 --	2.62									
2507	212 --	3.15									

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 PHONE: 905-624-2806 FAX: 905-624-6163

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 Account : PIE

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<b>CERTIFICATE OF ANALYSIS</b>	<b>A9927928</b>
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SAMPLE	PREP CODE	A1203 % XRF	CaO % XRF	Cr203 % XRF	Fe203 % XRF	K2O % XRF	MgO % XRF	MnO % XRF	Na2O % XRF	P205 % XRF	SiO2 % XRF	TiO2 % XRF	LOI % XRF	TOTAL %
BGS/8-99/001	205 226	14.95	6.00	< 0.01	4.35	2.40	2.41	0.11	3.13	0.19	60.36	0.43	4.27	98.60
BGS/8-99/002	205 226	13.86	3.50	< 0.01	7.22	1.78	3.25	0.11	2.66	0.13	64.92	0.66	1.34	99.43
BGS/8-99/003	205 226	17.01	3.58	< 0.01	3.44	2.37	1.32	0.07	3.44	0.22	65.46	0.51	1.44	98.86
BGS/8-99/004	205 226	14.99	2.11	< 0.01	2.04	2.83	0.83	0.06	3.25	0.08	70.74	0.31	1.58	98.82
BGS/8-99/005	205 226	16.78	1.97	< 0.01	1.79	3.34	1.29	0.03	3.33	0.16	67.37	0.43	2.14	98.63
BGS/8-99/006	205 226	15.67	2.55	< 0.01	2.39	2.06	1.52	0.06	4.93	0.17	66.60	0.41	2.76	99.12
BGS/8-99/007	205 226	15.19	2.54	< 0.01	2.88	1.78	1.35	0.04	4.51	0.14	68.65	0.35	1.80	99.23
BGS/8-99/008	205 226	17.45	1.33	< 0.01	2.81	2.09	1.19	0.02	4.49	0.11	66.92	0.41	1.72	98.54
BGS/8-99/009	205 226	16.30	1.65	< 0.01	2.76	2.52	0.96	0.03	4.59	0.15	68.07	0.38	1.68	99.09
BGS/8-99/010	205 226	15.39	2.86	< 0.01	3.50	2.35	1.67	0.05	4.27	0.15	66.71	0.42	2.05	99.42
BGS/8-99/011	205 226	14.62	2.26	< 0.01	3.31	2.18	1.29	0.05	3.99	0.13	68.78	0.36	1.75	98.72
BGS/8-99/012	205 226	13.51	9.82	< 0.01	12.42	0.58	4.64	0.24	1.75	0.06	53.97	0.73	1.29	99.01
BGS/8-99/013	205 226	15.28	1.65	< 0.01	3.55	1.90	1.21	0.02	4.13	0.17	69.46	0.35	1.71	99.43
BGS/8-99/014	205 226	2.33	1.70	< 0.01	4.11	0.13	0.92	0.06	0.25	0.03	88.48	0.20	0.71	98.92

CERTIFICATION: *[Signature]*

**APPENDIX 2:**  
**MMI SAMPLING DATA**

**APPENDIX 2****SYNERGY EXPLORATIONS LTD.****PD BLOCK PROPERTY****MMI SAMPLING**

Sample #	Northing	Easting	Description
	3283	1000	0 Spruce forest, thin sphagnum, brown sand
	3284	1050	0 Spruce & poplar, thin sphagnum, brown sand
	3285	1100	0 Spruce & poplar, thin sphagnum, brown & gray sand
	3286	1150	0 Spruce & poplar, thin sphagnum, brown & gray sand
	3287	1200	0 Spruce & poplar, thin sphagnum, gray sand
	3288	1250	0 Spruce & poplar, thin sphagnum, brown & gray sand
	3289	1300	0 Spruce & poplar, thin sphagnum, brown sand
	NS	1350	0 Shallow Rock
	3290	1000	100 Spruce, thin sphagnum, brown sand
	3291	1050	100 Spruce, thin sphagnum, brown sand
	3292	1100	100 Spruce & poplar, thin sphagnum, brown & gray sand
	3293	1150	100 Spruce & poplar, thin cover, gray sand
	3294	1200	100 Spruce, thin cover, brown sand
	3295	1250	100 Spruce, thin sphagnum, brown sand
	NS	1300	100 Outcrop
	NS	1350	100 Spruce bog
	NS	1350	200 Spruce bog
	3296	1300	200 Spruce, medium sphagnum, brown sand
	NS	1250	200 Outcrop
	3297	1200	200 Spruce, thin cover, brown sand
	3298	1150	200 Spruce, thin cover, brown sand
	3299	1100	200 Spruce, thin cover, brown sand
	NS	1050	200 Outcrop
	3300	1000	200 Spruce & poplar, thin cover, brown sand
DUP	3301	1000	200 Spruce & poplar, thin cover, brown sand
	3302	975	300 Spruce, thin sphagnum, brown sand
	3303	950	300 Spruce, thin sphagnum, brown sand
	3304	900	300 Spruce, thin sphagnum, brown sand
	3305	850	300 Spruce, thin sphagnum, brown sand
	3306	800	300 Spruce, thin sphagnum, brown sand
	3307	1000	300 Spruce, thin cover, brown sand
	3308	1050	300 Spruce, thin sphagnum, brown sand
	3309	1100	300 Spruce, thin sphagnum, brown sand
	NS	1150	300 Outcrop
	NS	1200	300 Outcrop
	NS	1250	300 Outcrop
	NS	1300	300 Outcrop
	NS	1350	400 Outcrop
	NS	1300	400 Deep Sphagnum, shallow rock
	NS	1250	400 Outcrop
	3310	1200	400 Spruce, thin cover, brown sand
	3311	1150	400 Spruce, near outcrop, brown sand
	3312	1100	400 Spruce & poplar, thin cover, loose rocks, brown sand
	3313	1050	400 Spruce & poplar, thin cover, brown sand
	NS	1000	400 Roadway
	NS	1000	500 Roadway
	3314	1050	500 Spruce, medium sphagnum, brown sand
	3315	1100	500 Spruce, deep sphagnum, gray sand

**APPENDIX 2****SYNERGY EXPLORATIONS LTD.****PD BLOCK PROPERTY****MMI SAMPLING**

Sample #	Northing	Easting	Description
	3316	1150	500 Spruce, medium sphagnum, brown & gray sand
	3317	1200	500 Spruce & alder, medium sphagnum, gray sand
	NS	1250	500 Medium sphagnum, outcrop
	NS	1300	500 Outcrop
	NS	1350	500 Outcrop
	NS	1350	600 Bog
	3318	1300	600 Spruce, thin sphagnum, brown & gray sand
	NS	1250	600 Spruce bog
	NS	1200	600 Spruce bog
	3319	1150	600 Spruce & poplar, thin cover, brown sand
	3320	1100	600 Spruce & poplar, thin cover, brown sand
	3321	1050	600 Spruce, near old road, med. sphagnum, gray sand
	NS	1000	600 Roadway
	3322	950	600 Spruce, thin sphagnum, brown sand
	3323	900	600 Spruce, thin sphagnum, brown sand
	3324	850	600 Spruce, thin sphagnum, brown sand
	3325	800	600 Spruce, thin sphagnum, brown sand
DUP	3326	800	600 Spruce, thin sphagnum, brown sand
	NS	750	600 Outcrop just below surface
	3327	1050	700 Spruce, medium sphagnum, brown sand
	3328	1100	700 Spruce, medium sphagnum, brown & gray sand
	3329	1150	700 Spruce, thin sphagnum, gray sand
	3330	1200	700 Spruce, grasses, black sandy soil
	NS	1250	700 Grassy spruce bog
	995	1300	700 Old roadway, spruce & firs, no cover, brown sand
	996	1350	700 Spruce & poplar, thin cover, brown sand
	3331	1050	800 Spruce & poplar, thin sphagnum, brown sand
	3332	1100	800 Spruce & poplar, thin cover, brown sand
	NS	1150	800 Spruce bog
	NS	1200	800 Spruce bog
	3333	1250	800 Spruce, thin sphagnum, brown sand
	3334	1300	800 Spruce & alder, medium sphagnum, brown & gray sand
	3335	1300	900 Spruce & poplar, thin cover, brown sand
	NS	1250	900 Outcrop just below surface
	3336	1200	<del>900</del> Spruce & alder bog, medium sphagnum, gray sand
	3337	1150	900 Spruce, thin cover, brown sand
	3338	1100	<del>900</del> Spruce & poplar, thin sphagnum, brown sand
	3339	1050	900 Spruce & poplar, thin sphagnum, brown sand
	3340	1000	<del>900</del> Spruce, thin sphagnum, brown sand
DUP	3341	1000	900 Spruce, thin sphagnum, brown sand
	TOTAL 61		

**APPENDIX 3:**

**GPS DATA FILE**

Feature Name	Comment 1	Comment 2	GPS File #	GRID E	GRID N	UTM EAST	UTM NORTH
<b>PD PROPERTY</b>							
<b>GPS FILE DATA</b>				<b>FIELD DATA &amp; DESCRIPTIONS</b>			
						<b>CORRECTED GPS</b>	
Feature Name	Comment 1	Comment 2	GPS File #	GRID E	GRID N	UTM EAST	UTM NORTH
<b>LITHOGEOCHEMICAL SAMPLES</b>							
SampleS	2497		A082814a.cor	-	-	540920	5541129
SampleS	2498		A082814a.cor	-	-	540940	5541097
SampleS	2499		A082814a.cor	-	-	540956	5540889
SampleS	2500		A082814a.cor	-	-	540959	5540855
-	2501			-	-	540973	5540676
-	700	1390		700	1390	540620	5541923
-				-	-	540342	5541779
-				-	-	540342	5541779
SampleS	2505	JIM'S	A082814a.cor	-	-	540342	5541779
SampleS	2507.2506		A082713a.cor	-	-	540311	5541683
-	2506		-	-	-	540311	5541683
SampleS	2508.2509		A082713a.cor	300	1250	540260	5541693
-	2509		-	300	1250	540260	5541693
SampleS	2510		A082713a.cor	275	1325	540222	5541760
SampleS	2511		A082713a.cor	220	1400	540148	5541820
-	100	1300		100	1300	540065	5541684
SampleS	2513		A082713a.cor	0	1364	539924	5541710
-				0	1364	539924	5541710
<b>CLAIM INFORMATION</b>							
Point Feature		CL.HYDRO	A082713a.cor	-	-	539860	5541700
Point Feature		CL.RD	A082814a.cor	-	-	540998	5541598
Point Feature		CL.RD	A082814a.cor	-	-	540982	5540807
Line Feature average		CL.RD	A082713a.cor	-	-	539876	5541611
Line Post	1216292		A082515a.cor	-	-	534513	5533997
Line Post	1216292		A082515a.cor	-	-	533935	5534495
Line Post	1216292		A082616a.cor	-	-	534572	5535691
Line Post	1161503		A082616a.cor	-	-	534384	5535658
Line Post	1216292		A082616a.cor	-	-	534211	5535670
Line Post	1216292		A082616a.cor	-	-	533856	5535258
Line Post	1076866		A082814a.cor	-	-	540657	5541912
CL Post	1216293	2	A082814a.cor	-	-	540973	5540676
<b>GRID LINES</b>							
Grid Pt	0	1000	A082713a.cor	0	1000	540060	5541361
Grid Pt	200	1349	A082713a.cor	200	1349	540144	5541762
Grid Pt	300	1347	A082713a.cor	300	1347	540237	5541790
Grid Pt	300	985	A082713a.cor	300	985	540359	5541448
Grid Pt	340	1000	A082814a.cor	340	1000	540389	5541478
Grid Pt	400	1000	A082814a.cor	-	-	540446	5541487

Feature Name	Comment 1	Comment 2	GPS File #	GRID E	GRID N	UTM EAST	UTM NORTH
Grid Pt	400	1345	A082814a.cor	400	1345	540337	5541822
Grid Pt	500	1343	A082814a.cor	500	1343	540441	5541855
Grid Pt	600	1350	A082814a.cor	600	1350	540527	5541876
Grid Pt	700	1390	A082814a.cor	700	1390	540620	5541923
Grid Pt	800	1325	A082814a.cor	800	1325	540748	5541877
Grid Pt	900	1250	A082814a.cor	900	1250	540846	5541852
Grid Pt	300	BL10	A082820a.cor	300	1000	540350	5541462
Grid Pt	350	BL10	A082820a.cor	350	1000	540396	5541473
Grid Pt	400	BL10	A082820a.cor	400	1000	540446	5541495
Grid Pt	500	BL10	A082821a.cor	500	1000	540539	5541518
Grid Pt	600	BL10	A082821a.cor	600	1000	540639	5541546
Grid Pt	700	BL10	A082821a.cor	700	1000	540738	5541550
Grid Pt	800	BL10	A082821a.cor	800	1000	540840	5541569
Grid Pt	900	BL10	A082821a.cor	900	1000	540928	5541623
Grid Pt	400	850	A082914a.cor	400	850	542642	5538882
Grid Pt	100	1300	A082713a.cor	100	1300	540065	5541684
<b>TOPOGRAPHY/MISCELLANEOUS</b>							
Point Feature		PIT	A082713a.cor	-	-	540324	5541652
Point Feature		TP.LINE	A082914a.cor	-	-	542173	5539463
Grid Pt			A082820a.cor	-	-	540537	5541515
SampleS	SRL.#2		A082814a.cor	376	1075	540408	5541552





Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use) W9930.00/00 Assessment Files Research Imaging



52K01SW2002 2.19906 McILRAITH 900

Section 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, this assessment work and correspond with the mining land holder. Questions about this in Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario.

Instructions: - For work performed on Crown Lands before recording a claim, use form 0240. - Please type or print in ink.

1. Recorded holder(s) (Attach a list if necessary)

Form for recorded holder(s) with fields for Name, Address, Client Number, Telephone Number, and Fax Number. Includes handwritten entry for Sturton Resources Limited.

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

Form for type of work performed with checkboxes for Geotechnical, Physical, and Rehabilitation. Includes handwritten work type: mapping, prospecting, linecutting, assaying.

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required; - provide proper notice to surface rights holders before starting work; - complete and attach a Statement of Costs, form 0212; - provide a map showing contiguous mining lands that are linked for assigning work; - include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

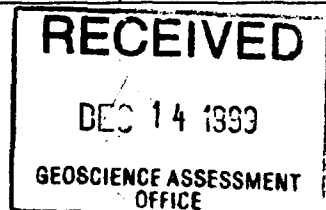
Form for person or companies who prepared the technical report with fields for Name, Address, Telephone Number, and Fax Number. Includes handwritten entry for Lynda Bloom.

4. Certification by Recorded Holder or Agent

I, LYNDA BLOOM (P.GEO), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Form for certification by recorded holder or agent with fields for Signature of Recorded Holder or Agent, Date, Agent's Address, Telephone Number, and Fax Number.

Deemed March 13/2000



5. **Work to be recorded and distributed.** Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

W9930-00100

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date
eg TB 7827	16 ha	\$26,825	N/A	\$24,000	\$2,825
eg 1234567	12	0	\$24,000	0	0
eg 1234568	2	\$ 8,892	\$ 4,000	0	\$4,892
1 PA 1216293	9	\$ 8272.20	\$ 3600	0	\$4672.20
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
Column Totals		8272.20	\$3600		\$4672.20

I, LYNDA BLOOM, do hereby certify that the above work credits are eligible under (Print Full Name) subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing *L. Bloom* Date Dec. 13/99

6. **Instruction for cutting back credits that are not approved.**

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- 3. Credits are to be cut back equally over all claims listed in this declaration; or
- 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

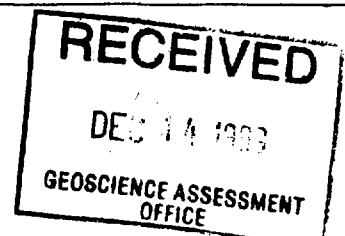
Approval may reject all or part of the assessment work submitted.

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

**For Office Use Only**

Received Stamp	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

0241 (03/97)





**Statement of Costs  
for Assessment Credit**

Transaction Number (office use)

W9930.00/00

Personal information collected on this form is obtained under the authority of subsection 6 (1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, this information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of work Depending on the type of work, list the number of hours/day worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
Geological Mapping & Report	8 days	\$375.84 / day	3006.74
Linecutting	3.92 km	\$86.10 / km	\$337.50
Geochemical Sampling	2.5 days	\$2.5 days	\$450.00
Assaying	10 samples	47.18 / sample	\$471.80
Prospecting	2 days	\$225.00 / day	\$450.00
<b>Associated Costs (e.g. supplies, mobilization and demobilization).</b>			
Field Supplies			\$340.54
Maps & Reports			\$24.53
<b>Transportation Costs</b>			1939.19
<b>Food and Lodging Costs</b>			780.11
<b>Total Value of Assessment Work</b>			<b>\$8272.20</b>

**Calculations of Filing Discounts:**

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK x 0.50 = Total \$ value of worked claimed.

**Note:**

- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

**Certification verifying costs:**

I, LYNDA BLOOM (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying

Declaration of Work form as L. Bloom I am authorized to make this certification.

(recorded holder, agent, or state company position with signing authority)  
President, Synergy Explorations Ltd.

Signature <u>L. Bloom</u>	Date Dec. 13/99
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Geoscience Assessment Office  
933 Ramsey Lake Road  
6th Floor  
Sudbury, Ontario  
P3E 6B5

Telephone: (888) 415-9845

Fax: (877) 670-1555

March 3, 2000

STUARTON RESOURCES LTD.  
178 SHANLEY TERRACE  
OAKVILLE, ON  
L6K-2H6

Visit our website at:

[www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm](http://www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm)

Dear Sir or Madam:

**Submission Number:** 2.19906

**Status**

**Subject: Transaction Number(s):** W9930.00100 Approval

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We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. **WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.**

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in **DUPLICATE** to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact LUCILLE JEROME by e-mail at [lucille.jerome@ndm.gov.on.ca](mailto:lucille.jerome@ndm.gov.on.ca) or by telephone at (705) 670-5858.

Yours sincerely,



ORIGINAL SIGNED BY

Blair Kite

Supervisor, Geoscience Assessment Office  
Mining Lands Section

# Work Report Assessment Results

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**Submission Number:** 2.19906

**Date Correspondence Sent:** March 03, 2000

**Assessor:** LUCILLE JEROME

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<b>Transaction Number</b>	<b>First Claim Number</b>	<b>Township(s) / Area(s)</b>	<b>Status</b>	<b>Approval Date</b>
W9930.00100	1216293	MCILRAITH	Approval	March 03, 2000

**Section:**  
12 Geological GEOL

**Correspondence to:**  
Resident Geologist  
Sioux Lookout, ON

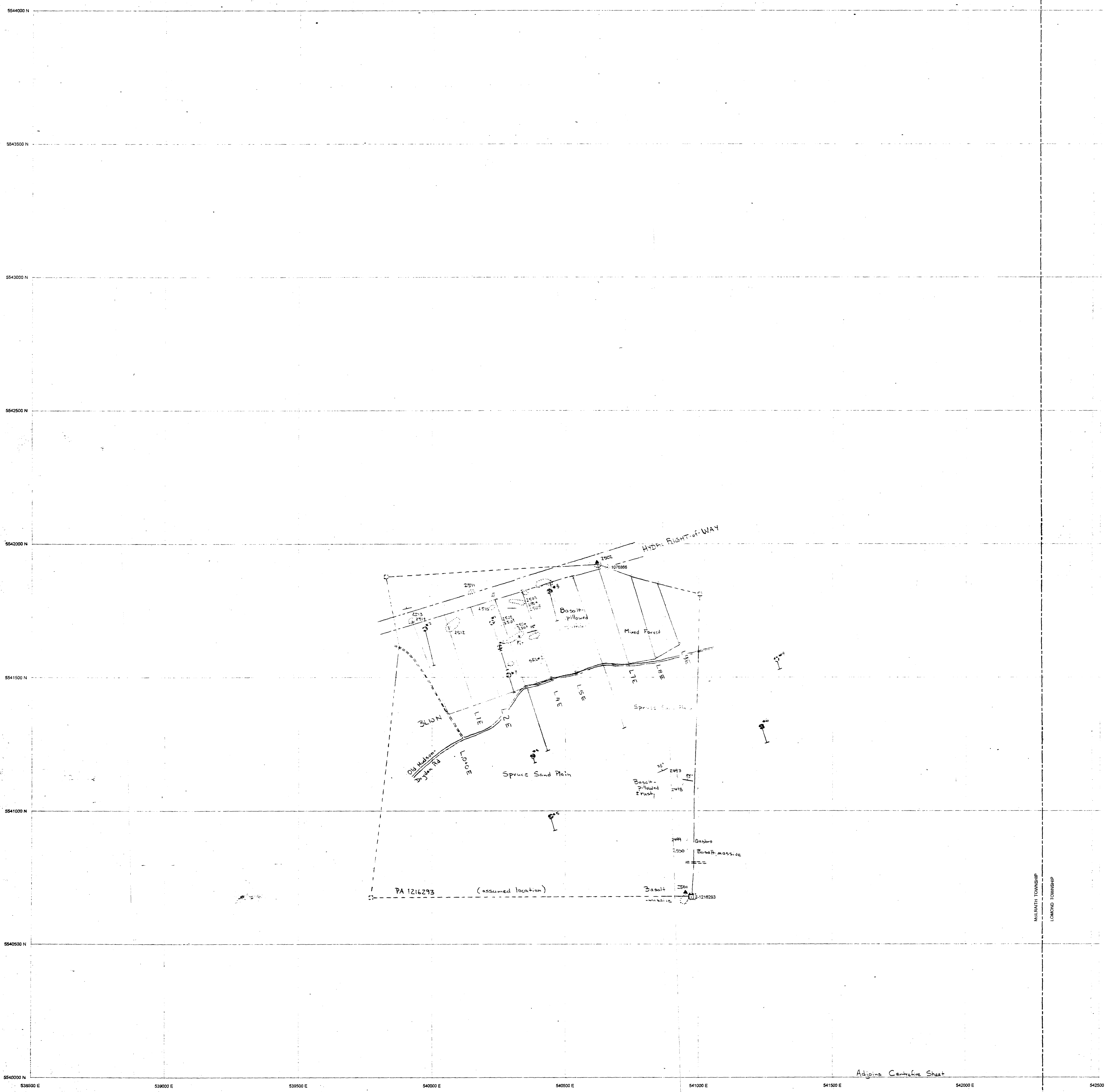
Assessment Files Library  
Sudbury, ON

**Recorded Holder(s) and/or Agent(s):**  
Lynda Bloom  
TORONTO, ON, CAN

STUARTON RESOURCES LTD.  
OAKVILLE, ON

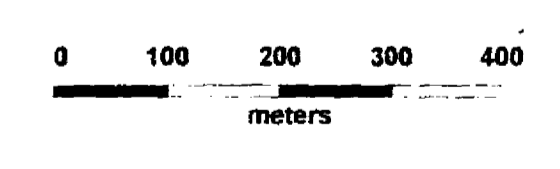
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### LEGEND

- Diabase
- Sediments
- Tuff
- Breccia
- Felsic Intrusive
- Intermediate Intrusive
- Mafic Intrusive
- Felsic Volcanics
- Intermediate Volcanics
- Mafic Volcanics
- Fault
- Strike and dip of bedding
- Strike and dip of foliation
- Plunge of Fold Axis or Mineral Lineation
- Mag Axis
- EM Conductor
- Airborne Conductors
- Diamond Drill Hole
- Claim Post and Boundary (GPS)
- non-GPS
- Sample Location (non-GPS, GPS)
- Outcrop Location
- Swamp
- Lake
- Political Boundary
- Road/Trail
- Highway/ Road-all weather



SYNERGY EXPLORATIONS LIMITED	
PD BLOCK	SCALE 1:5000
McILRAITH & LOMOND TOWNSHIPS	UTM ZONE 15 NAD 83
by: Andreas Lichtblau	DATE Nov /18

Adjoins Centreline Sheet

