TECHNICAL REPORT
ON THE
SHUNSBY BASE METAL PROPERTY
CUNNINGHAM TOWNSHIP,
ONTARIO,
FOR
BLACK WIDOW RESOURCES INC.

September 30, 2013
Toronto, Ontario, Canada

Paul Sobie P.Geo.
MPH Reference: C-2415

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SUMMARY

Introduction

At the request of Mr. Neil Novak, President & Director, Black Widow Resources Inc. ("Black Widow"), 65 Front Street East, Suite 304, Toronto, Ontario, M5E 1B5, MPH Consulting Limited ("MPH"), of 133 Richmond Street West, Toronto, has completed an independent report on the Company's purchase agreement interest in patented mining claims covering the Shunsby Base Metal Property in Cunningham Township, Ontario (the "Property"). This report is formally an Independent Technical Report prepared to Canadian National Instrument 43-101 ("NI 43-101"), *Form 43-101F1, Technical Report and Companion Policy 43-101CP* standards. The report assesses the technical and economic potential of the project and recommends a follow up program.

MPH understands that Black Widow is a junior exploration company trading on the TSX Venture Exchange (TSX-V; BWR) and that this report may be used to support corporate development activities and filings with the appropriate regulatory authorities. The report has been prepared by Mr. Paul Sobie, P.Geo., President of MPH who has 27 years experience in the mining industry. The author has extensive experience on the Shunsby Property, having served as Project Manager during the period 1989-93 while Kirkton Resources Corporation had an option on the property.

Property and Agreements

The Shunsby property is composed presently of 20 contiguous patented claims totalling 314.423 hectares (776.96 acres) situated in central Cunningham Township in northern Ontario within the Porcupine Mining District. The property is centred at geographic coordinates 82° 39' 20" west longitude and 47° 43' 10" north latitude or at UTM coordinates 375840E and 5286415N (NAD83 Zone 17).

Present ownership of the Property is:

Hage Corporate Services Inc.("Hage" – acting in trust)	59.8%
Rally Energy Ltd. (successor to Kirkton Resources Corp.)	35.3%
Chelsea Resources Ltd. (dissolved)	4.9%

Black Widow Resources Inc., by way of an agreement dated 21 February 2012, may buy the Hage Shunsby Property interest by:

At the time of closing, to provide to Hage:

i. The amount of $50,000 which shall be satisfied by the issuance to Hage of 500,000 common shares valued at $0.10 per share:

ii. The amount of $450,000 to be paid in three equal instalments as follows:

a. $150,000 within 30 days of the signing of the agreement, to be satisfied by the issuance to the Hage of 1,500,000 common shares valued at $0.10 per share;

b. $150,000 on the six month anniversary of Going Public (Black Widow commenced trading on April 4th, 2013), to be satisfied by the issuance to Hage of that number of common shares that equals $150,000, calculated based upon the 20 day Volume Weighted Average Price (VWAP) of the shares prior to the due date.

c. $150,000 on the twelve month anniversary of Going Public to be satisfied by the issuance to Hage of that number of common shares that equals $150,000, calculated based upon the 20 day Volume Weighted Average Price (VWAP) of the shares prior to the due date.

A 1.5% Net Smelter Royalty is reserved for Hage, of which 0.5% is reserved for Rally Energy Ltd. ("Rally"), the owner of 35.3% of the Shunsby Property, in the event of a dilution of interest by Rally as anticipated to be provided for in a joint venture agreement to be settled in the future between Black Widow and Rally and, with respect to the remaining 1.0% Net Smelter Royalty, Black Widow shall have the right to buy 0.5% at the time of production for a net present value determination of the Net Smelter Royalty as provided for in a previous agreement, and the other 0.5% shall remain with Hage.

Black Widow has completed payments i) and iia), with the next payment due on October 4th, 2013.

Location, Accessibility, Infrastructure and Local Resources
The property is approximately 520km northwest of Toronto, and some 190km from Sudbury and 145km southwest of Timmins, Ontario. Access to the Shunsby Property area is very good. The area is reached from the city of Sudbury, by proceeding west on paved Trans Canada Highway 17 for approximately 5 kilometres to paved Provincial Route 144, and then northward on the latter route for approximately 150 kilometres to the all weather gravel Sultan Road/paved Provincial Route 560. It is about 90 kilometres to the property from Highway 144, along the Sultan Road, thence the Blamey Road and finally the Cunningham Township Road which accesses the western part of the property. The Blamey and Cunningham roads have not been maintained by the logging companies, and are now quite narrow having been overgrown with alders, poplars and birch.

Alternatively, the area may be reached from the City of Timmins by proceeding south westerly along Provincial Route 101 for ~100km kilometres and then southerly on the Dore Road of Foleyet Timber Limited to the Sultan Road.

The cities of Greater Sudbury (population ~160,000) and Timmins (population ~43,000) are both major mining centres. Both can provide modern housing as well as full educational, medical, recreational and shopping facilities. Labour, industrial supplies and services for mining and exploration activities are readily available in the region. The town of Chapleau (population ~2,900) located some 100km to the west, provides basic supplies.

The Canadian National Railway crosses Highway 560 at Sultan, the closest station, located some 30 kilometres by road southwest of the property. Several scheduled daily flights are available to Toronto from both Timmins and Sudbury. Abundant fresh water is available on the property from Edwards Lake in the northeast claim S57542. The nearest hydro-electric power is at Sultan, 16km across country to the south-southwest.

History

The property has been the subject of extensive exploration dating back to the turn of the century when the iron formation in central Cunningham Township was first staked for its iron content. Table 1 summarizes the exploration history of the Shunsby property.

Table 1: Summary of Historical Exploration

Activity Period	Operating Company	Primary Interest	Claims Worked	Core Drilling	~Meterage Drilled	Comments / Other Work Performed
1904-07	Ridout Mining	Fe	-	-	-	Staking, prospecting
1927-29	Ridout Cunningham	Zn, Pb	34944-47	?	?	Trenching, prospecting
1954	Cominco	Zn, Cu, Pb	57538-39, 57543	4	457.0	3 holes in South Zone
1954	American Metal Compnay	Zn, Cu, Pb	121596, 597	1	170.5	South of present property
1955-56	Nipiron Mines Ltd.*	Cu, Zn, Pb	34941, 944	57	5,665.9	Targeted on Main Zone
1956-57	Teck Exploration Co. *	Cu, Zn, Pb	34941,944, 57538,39	17	1,896.8	Targeted on Main and South Zones
1960-61	Nipiron Mines Ltd.*	Cu, Zn, Pb	34941,944, 57538, 539	18	2,388.1	Shallow Main Zone holes to replace earlier down dip holes, also EM/Mag
1964	Nipiron Mines Ltd.*	Cu, Zn, Pb	34941	1	101.5	Hole 61-82 extended to 255m from 153m
1965-66	FR Joubin Propspecting Syndicate**	Zn, Cu, Pb	34941,944, 57538, 539	32	3,692.0m	Systematic drilling of both zones, strike potential in new claims
1968-69	Consolidated Shunsby Mines Ltd.	Cu, Zn, Pb	34941,944, 57538, 539	23	4,358.6m	More systematic drilling as well as deepening of several Main Zone holes
1974-75	Grandora Explorations Ltd.**	Cu, Zn, Pb	34941,944, 57538, 539	21	2,290.3m	Delineation type drilling on both zones
1980	Placer Develompment Ltd.***	Cu, Zn, Pb	All claims of larger property	4	410.1m	Geochemical and EM-17 surveys, drilling to south of property
1981	MW Resources Ltd.	Cu, Zn, Pb	34941,944	30	1,054.3m	Shallow holes to delineate high grad pod in Main Zone
1989-1991	Kirkton Resources Corp.***	Cu, Zn, Pb	All claims of larger property	0	0	Mag/HLEM surveys, mapping, stripping, trenching, digital drill hole compilation and section/plan construction
1992-93	Phelps Dodge Corp.****	Cu, Zn, Pb	Most claims of larger property	10	1,385m	Drilled several untested conductors, TDEM surveys
	TOTALS			**214**	**23,460m**	

* under option from Shunsby Gold Mines Ltd. ** under option from Consolidated Shunsby Mines Ltd.

*** under option from MW Resources Ltd. **** under option from Kirkton Resources Corp.

The present Black Widow Shunsby Property has received the vast majority of the work described here, which totals some 23,000m of diamond drilling which the majority of it focused on two areas, known as the Main (north of the Joubin Fault) and South zones.

The three years of work by Kirkton in 1989-91, managed by MPH and the author of this report, proved to be the definitive campaign in characterizing the mineralization at Shunsby. The Kirkton program included hundreds of metres of outcrop stripping, which demonstrated that very little of the base metal mineralization was stratabound or true massive sulphides, but rather was localized within hydrothermal stringer-type structures. Much of the early drilling in particular, was poorly designed and drilled either down the dip of the stratigraphy, or along trend/vertically into the structurally controlled hydrothermal stringer-type mineralization (also vertically oriented), and therefore is of value only in a broad geological exploration sense.

Geology and Mineralization

The Shunsby property lies within the south western Swayze greenstone belt. This is considered to be the southwest extension of the Abitibi belt which hosts the Timmins, Kirkland Lake, Noranda-Val d'Or, Mattagami and Chibougamau mining camps. North to northwest striking faults and granodiorite / monzonite batholiths partially disconnect the Swayze from the Abitibi belt. The obvious target model type for the Black Widow Shunsby Property is Volcanic Massive Sulphide (“VMS”) mineralization, comprising footwall stockwork or stringer zone mineralization as well as true massive sulphide lenses. Extensive stringer/stockwork mineralization and alteration has been documented at Shunsby.

Three generalized geologic domains were recognized on the Shunsby property (MPH, 1991) namely:

i) a lower (oldest) mafic volcanic-gabbro- iron formation domain exposed in the extreme west portion of the property
ii) an overlying pyroclastic chemical sedimentary - clastic sedimentary domain with minor basalt which underlies the central and western portions of the property
iii) an upper (youngest) easterly / northeasterly mafic (basalt-gabbro) domain.

This geological picture has been greatly complicated by folding, faulting and intrusive activity. The central domain is the most economically significant in that the Shunsby Cu-Zn mineralized zones occur near its stratigraphic top in a distinctive chert/argillite sequence. Rock units trend in a general northerly direction across the property with shallow to moderate west dips. The entire sequence has been overturned such that stratigraphic tops are to the east. This has profound implications for further exploration on the property, as all pre-1990 exploration was predicated on an opposite interpretation of stratigraphy.

Structurally, there does not appear to be any major fold closures on the property although considerable drag-folding, quite large scale in some cases and often related to east-west shearing, has been identified in a number of areas.

The most visible direction of shearing and faulting is approximately east-west with the most notable example being the Joubin Fault. This deformation event was relatively late and may have been the last major event in the region. Considerable strike-parallel shearing is also suggested by the highly sheared nature of various interflow graphite units. Another significant direction of faulting and fracturing is approximately south-southeast. This direction hosts the known VMS stringer-type base metal mineralization in the Shunsby chert/argillite sequence.

Evaluation of all of the exploration results indicates that the Shunsby mineralization consists of a large, structurally-controlled stringer system centred on a thick, grossly pod-like or lensoid unit of predominantly cherty chemical sediments and their brecciated equivalents – a classic VMS footwall system. The chert accumulation is interpreted to represent chemical sedimentation in a quiescent basinal environment on the flank of a major felsic - intermediate pyroclastic eruptive centre located to the south and west. Litho-geochemical processing as well as field and thin-section observations indicated a large-scale hydrothermal alteration system accompanies the mineralization.

Individual mineralized structures were found to trend 120° on average and dip vertically. Very little of the Cu-Zn mineralization is stratiform, ie. N-S striking and 30° - 50° West dipping, and was found to be confined to short strike lengths (10-20m) and narrow thicknesses (maximum 50cm) within massive pyrite-pyrrhotite argillaceous subunits of the cherty chemical sediment accumulations. Chalcopyrite, sphalerite and galena locally are present but appear to be secondary replacement features as opposed to primary syngenetic sulphides, possibly with the exception of a minor portion of the sphalerite.

With virtually all of the old work predicated on a stratiform model, few of the old intersections "lined-up" in a bedding-plane sense and hence the property's reputation as "erratic" or "difficult". This further has the ramification that the old drilling is virtually useless from a resource standpoint and all of the historical resource estimations should be discarded.

That being said, there are numerous impressive intersections in both zones, and the extensive digital compilations and re-sampling carried out by Kirkton/MPH in 1989-91 demonstrated weighted average grades of 0.79% Cu and 1.99% Zn over an average core length of 6.79m, as well as 1.86% Pb over 5.32m. Higher-grade sections averaged 1.30% Cu and 2.21% Zn over an average core length of 5.61m, with 0.96% Pb over 2.83m. The vast majority of the past drilling was shallow, ie. < 200m vertically below surface, with most < 50m below surface.

Kirkton/MPH's surface trenching perpendicular across several of the identified stringer structures returned some attractive copper (± zinc) grades and widths associated with the known structurally-controlled mineralization, and suggested that this material may have economic potential if sufficient of it could be outlined. A trench in the Main Zone area across a portion of the Copper Breccia showing (TRCuBx), for example, averaged 3.53% Cu over 5.0m. Similarly, a 3.0m trench approximately 180m to the north, also in the Main Zone across the Copper Knob structure (TRCuKnob), averaged 2.59% Cu. A trench across the South Zone structure averaged 10.77% Zn, 2.75% Pb and 0.75% Cu over 4.8m (TR100S).

Verification chip sampling during a field examination trip by the author on June 13, 2013 returned assays of 2.03% Cu from the trench at Copper Knob, as well as 3.82% Cu and 1.78% Zn from the Copper Breccia trench.

Exploration
Black Widow has not carried out any exploration on the Shunsby Property.

Drilling
Black Widow has not carried out any drilling on the Shunsby Property.

Mineral Processing and Metallurgical Testwork
No formal mineral processing or metallurgical testing has been carried out by Black Widow.

Mineral Resource and Reserve Estimates
No NI43-101 compliant resource estimates exist for the Shunsby Property.

Environmental Considerations
There are no known investigations by current or historic mineral rights holders that document baseline conditions or identify impacts historic mining/exploration activities or potential future activities have had or might have on the environment.

MPH believes that it would be prudent for Black Widow to implement an environmental strategy and began studies to document baseline conditions, as the project advances, to identify likely impacts a potential mining project will have on the environment.

Interpretation and Conclusions
MPH is of the opinion that all of the exploration results to date suggest that the Shunsby Main and South Zones represent part of a large, structurally-controlled stringer system(s) centred on a thick, grossly pod-like or lensoid unit of predominantly cherty chemical sediments and their brecciated equivalents. This chert accumulation represents chemical sedimentation in a quiescent basinal environment on the flank of a major felsic-intermediate pyroclastic eruptive centre located to the south and west. Base metal mineralization at Shunsby is restricted to the thickest portion of the chert assemblage, representing the deepest portion of the basin.

Chemically and petrographically, some of the classic hydrothermal alteration patterns associated with Archean VMS deposits seem to be present in the volcanic portion of the stratigraphy.

MPH feels that there are two primary exploration targets for the Shunsby Property, namely i) searching for classic volcanogenic massive sulphide lenses, and ii) evaluating the economic potential of at least the Cu-rich core of the stringer system for an open-pit amenable deposit, although the zinc-rich peripheries may also factor into an economic scenario.

In terms of exploring for true VMS deposits, there are two obvious targets namely:

(i) Complete the testing of the priority, near-surface EM zones along the top of the central volcanosedimentary package, and

(ii) Explore this same relative horizon(s) at depth, ie. down-dip to the west

For the stringer system, exploration must be carried out on cross-sectional profiles with geophysics and sections of holes drilled in a north easterly direction of 030° (ie. perpendicular to the stringer trend), through the Upper and Lower Cherts (and the overlying conductors of interest at the top of the sequence) and terminating in the hanging wall mafic volcanic/gabbro complex.

The exploration programme recommended has an overall estimated cost of $1.65m, which can logically be broken down into two parts with initial Phase 1 surface work budgeted at $450,000, and consisting of access, camp and grid establishment, geology/prospecting and IP (Induced Polarization) surveying of the stringer-type mineralized zones. Phase 2, contingent on success in Phase 1, would consist of 5,000m of diamond drilling on both stringer and VMS targets, with selected borehole geophysics, and is estimated at ~$1,200,000.

These two programs are believed to be sufficient to comprehensively test both the VMS and stringer-type mineralizaion potential on the property, and if successful, would lead to further work as appropriate.

1.0 INTRODUCTION

At the request of Mr. Neil Novak, President & Director, Black Widow Resources Resource Inc. ("Black Widow"), 65 Front Street East, Suite 304, Toronto, Ontario, M5E 1B5, MPH Consulting Limited ("MPH"), of 133 Richmond Street West, Toronto, has completed an independent report on the Company's optioned interest in patented mining claims covering the Shunsby Base Metal Property in Cunningham Township, Ontario (the "Property"). This report is formally an Independent Technical Report prepared to Canadian National Instrument 43-101 ("NI 43-101"), *Form 43-101F1, Technical Report and Companion Policy 43-101CP* standards. The report assesses the technical and economic potential of the project area and recommends a follow up program.

MPH understands that Black Widow is a junior exploration company trading on the TSX Venture Exchange (TSX-V; BWR) and that this report may be used to support corporate development activities and filings with the appropriate regulatory authorities.

1.1. Authorization and Terms of Reference

Black Widow retained MPH on April 23rd, 2012, to prepare an Independent Technical Report to conform with National Instrument 43-101. The report was prepared in Toronto, Canada between late April and June, 2013. A site visit was made by the author of the Report on 13 June, 2013.

1.2. Qualifications of MPH and Authors

MPH is an international geological and mining consulting firm, which was incorporated in the Province of Ontario in 1967. MPH provides a wide range of geological and mining consulting services to the international mining industry, including geological, evaluation and valuation reports, pre-feasibility and feasibility studies on mineral properties. The firm's services are provided through an office in Toronto, Ontario, Canada. MPH is not an insider, associate or affiliate of Black Widow.

The Report has been prepared by Mr. Paul Sobie, P.Geo., President of MPH who has 27 years experience in the mining industry. The author has extensive experience on the Shunsby Property, having served as Project Manager during the period 1989-93 while Kirkton Resources Corporation had an option on the property.

MPH Consulting Limited has a demonstrated track record in undertaking independent assessments of resources and reserves, project evaluations and audits, technical reports and independent feasibility evaluations to bankable standards on behalf of exploration and mining companies and financial institutions worldwide. More importantly, the author of this report has the relevant experience to the deposit type reviewed in this report.

Neither MPH nor the author of this report (nor his family members or associates) have a business relationship, other than acting as an independent consultant, with Black Widow or any associated company, nor with any company mentioned in the report, which is likely to materially influence their impartiality or create the perception that, the credibility of the report could be compromised or biased in any way. The views expressed herein are genuinely held and deemed independent of Black Widow.

Moreover, neither the author of the report nor MPH (nor his family members or associates) have any financial interest in the outcome of any transaction involving the properties considered in this report, other than the payment of normal professional fees for the work undertaken in their preparation (which are based upon hourly charge-out rates and reimbursement of expenses). The payment of such fees is not dependent upon the content or the conclusions of either this report, or any consequences of any proposed transaction.

Black Widow has accepted that the qualifications, expertise, experience, competence, and professional reputation of MPH's Principals, Associate Geologists and Engineers are appropriate and relevant for the preparation of this report. Black Widow has also accepted that MPH's principals are members of professional bodies that are appropriate and relevant for the preparation of this Report.

1.3. Scope of Work and Sources of Information

Black Widow commissioned MPH to compile the Technical Report on the Property and develop an exploration/development program.

In preparing this report, MPH reviewed geological reports and maps, miscellaneous technical papers, company letters, memoranda and other public and private information as listed in the "Reference" section of this report. In addition, MPH completed a site visit and interviews with key personnel as well as drawing on its own experience in base metal projects and previous work on the property, in Canada and elsewhere.

The report is based on personal observations of bedrock exposures, together with extensive review of historical exploration and re-writing of past MPH reports on the property. Additional key discussions were held with senior MPH personnel, notably Jeremy Brett, Senior Geophysical Consultant (historical and recommended geophysical work) and economic geologist Bill Brereton, Vice President of MPH Consulting (and former Consultant to the Shunsby Project of Kirkton Resources). Messers Sobie and Brereton visited the Shunsby Property on June 12-13, 2013 in the company of Mr. Neil Novak of Black Widow, and Mr. Brian Newton of Billiken Management Services Inc., consultants to Black Widow.

This report is based on information known to MPH as of September 30, 2013.

Unless otherwise noted, all measurement units used in this report are metric, and currency is expressed in Canadian Dollars.

2.0 RELIANCE ON OTHER EXPERTS

MPH assumed that all of the information and technical documents reviewed and listed in the "References" are accurate and complete in all material aspects. While MPH carefully reviewed all of this information, MPH has not concluded any extensive independent investigation to verify their accuracy and completeness.

MPH has not searched titles to the land holdings and has not independently verified the legal status of the ownership of the Property or the underlying agreements. Information provided in this report with respect to land holdings and legal status is that provided to MPH by Black Widow, who in turn had commissioned independent verification.

The information, conclusions contained herein are based on the information available to MPH at the time of preparation of this report, assumptions, conditions and qualifications as set forth in the report and data listed in the "References".

Black Widow has warranted that a full disclosure of all material information in its possession or control has been made to MPH. Black Widow has agreed that neither it nor its associates will make any claim against MPH to recover any loss or damage suffered as a result of MPH's reliance upon the information provided by the Company for use in the preparation of this report. Black Widow has also indemnified MPH against any claim arising out of the assignment to prepare this report, except where the claim arises as a result of any proved wilful misconduct or negligence on the part of MPH. This indemnity is also applied to any consequential extension of work through queries, questions, public hearings or additional work required arising from MPH's performance of the engagement.

Black Widow has reviewed draft copies of the report for factual errors. Any changes made as a result of these reviews did not involve any alteration to the conclusions made. Hence, the statement and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this report.

MPH reserves the right to, but will not be obligated to, revise this report and conclusions thereto if additional information becomes known to MPH subsequent to the date of this report.

3.0 PROPERTY DESCRIPTION AND LOCATION

3.1. Mining Policy Ontario

The Fraser Institute, an independent non-partisan research and educational organization based in Canada, conducts an annual survey of metal mining and exploration companies to assess how mineral endowments and public policy factors such as taxation and regulation affect exploration investment (McMahon & Cervantes, 2011). Survey results represent the opinions of executives and exploration managers in mining and mining consulting companies operating around the world. The survey now covers 93 jurisdictions around the world, on every continent except Antarctica, including state or provincial jurisdictions in Canada, Australia, and the United States.

The Fraser Institute survey gauges the effects on exploration of government policies including uncertainty concerning the administration, interpretation, and enforcement of existing regulations; environmental regulations; regulatory duplication and inconsistencies; taxation; uncertainty concerning native land claims and protected areas; infrastructure; socioeconomic agreements; political stability; labour issues; geological database; and security. The Policy Potential Index is based on ranks and normalized to maximum score of 100. The 2011/2012 survey places Ontario in the top twenty jurisdictions (ranking 13th of 93) with a score of 79.4. By comparison top ranked New Brunswick scored 95.0 and bottom ranked Honduras scored 1.7.

In Ontario, the ownership of surface rights and mining rights can vary from one property to another, particularly in regions where settlement and industry have a long history. The Canada *Constitution Act, 1867* gave the then existing provinces, including Ontario, ownership of the public property within their boundaries (i.e. to the provincial Crown), which then issued grants of land known as "Crown Patents". In 1913, the province of Ontario amended its *Public Lands Act* so that any title granted by the Crown before the amendment was deemed to include mining rights ownership. Any parcels of land granted by the Crown after May 6, 1913, may or may not include the mining rights depending on how the title is worded. Ontario's current *Public Lands Act* authorizes the Minister of Natural Resources to sell or lease land. Today, the province's policy is to reserve mining rights to the Crown in the majority of land grants (Ontario Ministry of Northern Development and Mines website www.mndm.gov.on.ca).

At the time of writing the core portions of the long established mining areas in Ontario, including the current property, are dominated by long standing Patented Mining Claims which may or may not include other ownership titles such as surface and timber rights. On Crown lands, and private lands that do not include mining rights, mineral exploration rights may be acquired by claim staking, except in Southern Ontario where map staking has been instituted.

A staked mining claim provides the owner the exclusive right to explore for minerals. Once a claim is staked, the owner must perform exploration work to maintain it in good standing. This is called assessment work. This work must amount to at least $400 per claim unit (1 unit = 16 hectares) per year and be reported to the Mining Lands Section of the Ministry of Northern Development and Mines. Assessment work is not required in the first year after recording a mining claim. Claims are forfeited if the assessment work is not done. The mining rights affected by the forfeiture then return to the Crown and may be staked by someone else.

Patented claims (as at the Shunsby Property) do not have assessment work expenditure or reporting requirements. These claims remain in good standing as long as applicable taxes are paid to the local municipality.

The claim holder's right is only to explore for minerals on mining claims. Mining (i.e. extraction of the minerals) cannot take place until the claims are brought to lease. Mining leases are issued for the express purpose of undertaking mineral exploration, development or mining. The claim holder is entitled to a lease upon fulfilling the requirements of the *Mining Act*.

Mining leases are issued for twenty-one year terms and may be renewed for further 21-year periods. Leases can be issued for surface and mining rights, mining rights only or surface rights only. Once issued, the lessee pays an annual rent to the province. Further, prior to a mine coming into production, the lessee must comply with all applicable federal and provincial legislation.

Ontario's *Mining Act* is the legislation which provides for acquiring land for mineral exploration and development. Ontario's Ministry of Northern Development and Mines (MNDM) administers the *Mining Act*, which sets out rules for all aspects of mineral exploration and development.

3.2. The Shunsby Property

The Shunsby property is composed presently of 20 contiguous patented claims totalling 314.423 hectares (776.96 acres) situated in central Cunningham Township in northern Ontario within the Porcupine Mining District. The property is centred at geographic coordinates 82° 39' 20" west longitude and 47° 43' 10" north latitude or at UTM coordinates 375840E and 5286415N (NAD83 Zone 17).

The property is approximately 520km northwest of Toronto, and some 190km from Sudbury and 145km southwest of Timmins, Ontario, as per Figure 3-1.

Figure 3-1: Location Map.

The patented claims are:

Table 3-1: Shunsby Property Patented Claims

Claim No.	Area (Acreage)	Claim No.	Area (Acreage)
S34944*	44.60	S57539	40.21
S34945*	36.80	S57540	38.72
S34946*	36.50	S57541	23.42
S34947*	46.48	S57542	27.70
S43946*	40.06	S57543	37.02
S43947*	45.88	S57544	27.18
S43948*	60.89	S57585	44.17
S57536	35.53	S61828	36.70
S57537	34.07	S61829	30.92
S57538	45.06	S61830	45.05

* denotes Mining Rights and Surface Rights, others have only Mining Rights

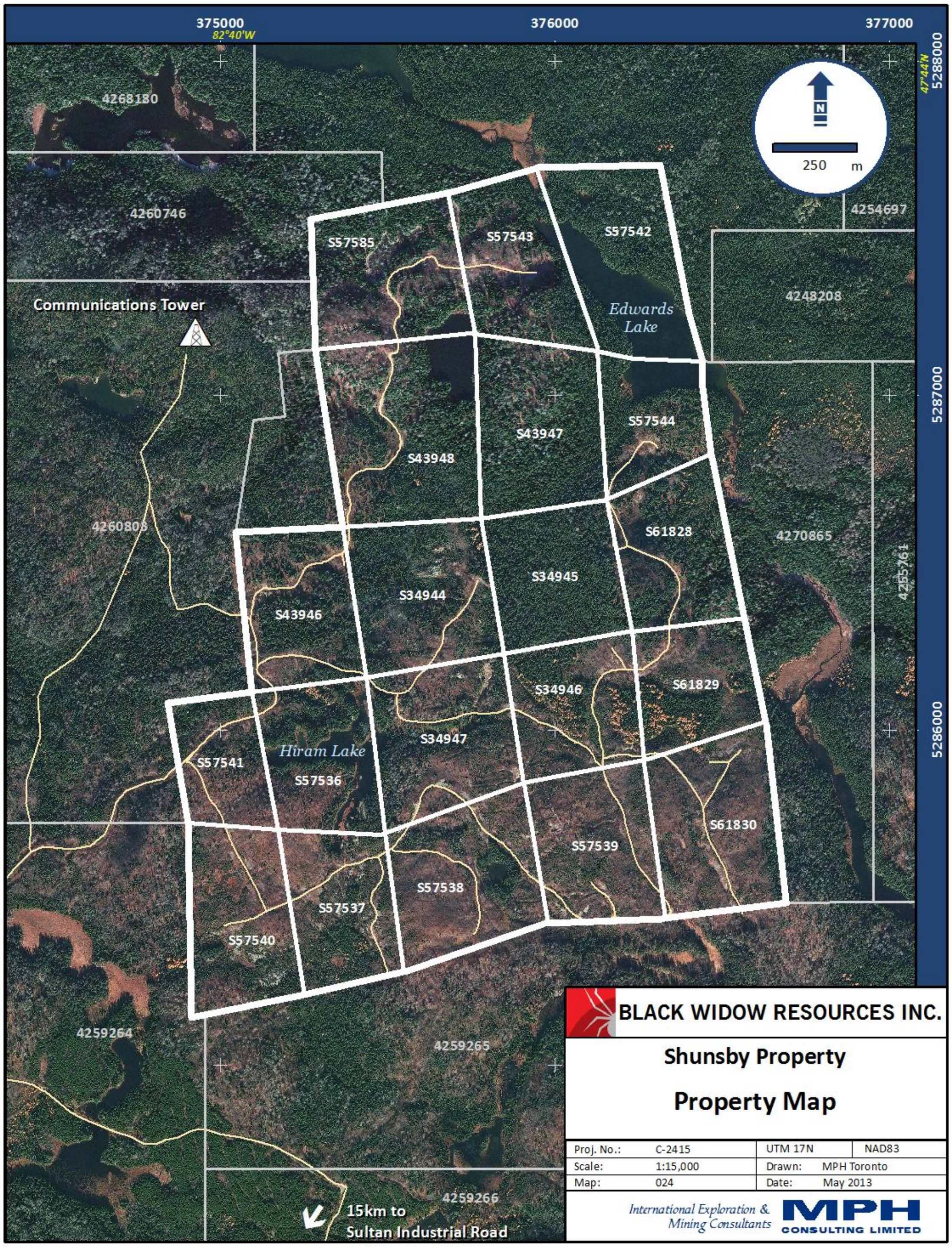


Figure 3-2: Property Map

Based on a document entitled “Title Review: Cunningham Patent Mining Claims, Cunningham Township Ontario” prepared by The Claim Group Inc. for DSA Corporate Services Inc. dated 17 December 2010, these patented claims are registered 100% to Hage Corporate Services Inc., who purchased the interests of Oro Nevada Resources Inc. (the successor company to MW Resources Ltd.) on 15 July, 1998.

Present ownership of the property is:

Hage Corporate Services Inc. (“Hage” – acting in trust)	59.8%
Rally Energy Ltd. (successor to Kirkton Resources Corp.)	35.3%
Chelsea Resources Ltd. (dissolved)	4.9%

Chelsea Resources Ltd. earned their interest in the Property in 1978 under their former name Greenwich Lake Resources Ltd., by financing a small drill program on claims formerly tied-on to the Shunsby Property.

Black Widow Resources Inc., by way of an agreement dated 21 February 2012, may buy the Hage Shunsby Property interest by:

At the time of closing to provide to Hage:

i) The amount of $50,000 which shall be satisfied by the issuance to Hage of 500,000 common shares valued at $0.10 per share:

ii) The amount of $450,000 to be paid in three equal instalments as follows:

a. $150,000 within 30 days of the signing of the agreement, to be satisfied by the issuance to the Hage of 1,500,000 common shares valued at $0.10 per share;

b. $150,000 on the six month anniversary of Going Public (Black Widow commenced trading on April 4th, 2013), to be satisfied by the issuance to Hage of that number of common shares that equals $150,000, calculated based upon the 20 day Volume Weighted Average Price (VWAP) of the shares prior to the due date.

c. $150,000 on the twelve month anniversary of Going Public to be satisfied by the issuance to Hage of that number of common shares that equals $150,000, calculated based upon the 20 day Volume Weighted Average Price (VWAP) of the shares prior to the due date.

A 1.5% Net Smelter Royalty is reserved for Hage, of which 0.5% is reserved for Rally Energy Ltd. (“Rally”), the owner of 35.3% of the Shunsby Property, in the event of a dilution of interest by Rally as anticipated to be provided for in a joint venture agreement to be settled in the future between Black Widow and Rally and, with respect to the remaining 1.0% Net Smelter Royalty, Black Widow shall have the right to buy 0.5% at the time of production for a net present value determination of the Net Smelter Royalty as provided for in a previous agreement, and the other 0.5% shall remain with Hage.

Black Widow has completed payments i) and iia), with the next payment due on October 4th, 2013.

4.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

Access to the Shunsby Property area is very good. The area is reached from the city of Sudbury, by proceeding westerly on paved Trans Canada Highway 17 approximately 5 kilometres to paved Provincial Route 144 and then northward on the latter route approximately 150 kilometres to the all weather gravel Sultan Road/paved Provincial Route 560 (Figure 4-1). It is about 90 kilometres to the property from Highway 144, along the Sultan Road, thence the Blamey Road and finally the Cunningham Township Road which accesses the western part of the property. The Blamey and Cunningham roads have not been maintained by the logging companies, and are now quite narrow having been overgrown with alders, poplars and birch.

Alternatively, the area may be reached from the City of Timmins by proceeding south westerly along Provincial Route 101 for ~100km kilometres and then southerly on the Dore Road of Foleyet Timber Limited to the Sultan Road.

Climatic conditions are typical of north-eastern Ontario. Mean total precipitation for Timmins is 831.3 millimetres including 558.1 mm of rainfall and 313.4 cm of snowfall. Higher levels of rainfall typically occur in July (average 91.5 mm) while the highest level of snowfall (average 65.4 cm) usually occurs in the month of December. Mean July daily temperature is 17.4^{o} C while mean January daily temperature is –17.5^{o} C. Recorded temperatures have ranged from a low of –45.6^{o} C in February 1962 to a maximum temperature of 38.9^{o} C in July 1975. (Source - Meteorological Service of Canada).

The cities of Greater Sudbury (population ~160,000) and Timmins (population ~43,000) are both major mining centres. Both can provide modern housing as well as full educational, medical, recreational and shopping facilities. Labour, industrial supplies and services for mining and exploration activities are readily available in the region. The town of Chapleau (population ~2,900) located some 100km to the west, provides basic supplies.

The Canadian National Railway crosses Highway 560 at Sultan, the closest station, located some 30 kilometres by road southwest of the property. Several scheduled daily flights are available to Toronto from both Timmins and Sudbury. Abundant fresh water is available on the property from Edwards Lake in the northeast claim S57542. The nearest hydro-electric power is at Sultan, 16km across country to the south-southwest.

The Property exhibits moderate relief and undulating terrain with elevations to approximately 400 metres above sea level. The Property is near the continental divide between the Arctic and Atlantic Oceans. The main drainage features in the area are:

- the Matagami River which is part of the major Moose River drainage system that flows into James Bay, and
- the Spanish River drainage system which flows into Lake Huron.

The region is typical of glaciated terrain of the Canadian Shield. The higher ground usually has a veneer of glacial till or soil over bedrock. There is only a few percent of outcrop, mostly confined to higher ground. Low ground is covered by deep glacial till and frequent small lakes and/or swamps.

The Property is situated in the Northern Coniferous Section of the Boreal Forest Region of north-eastern Ontario. Forest stands are typically mixed with a variety of species including black and white spruce with balsam fir, poplar, and birch. Jack pine stands occur in well drained coarse textured soil areas. Most of the area has been logged in the last 30 years so that vegetation is generally small: second growth poplar, birch, spruce, and pine. Shrubs in the area include blueberries, Labrador tea and leather leaf.

Wildlife (mammals) typical of the region include moose, wolf, lynx, bobcat, fisher, marten, wolverine, river otter, least weasel, short-tail weasel, mink, snowshoe hare, red squirrel and beaver. Numerous species of wild birds are known to occur in the region. Pike, trout and pickerel fish species are present in the lakes and rivers.

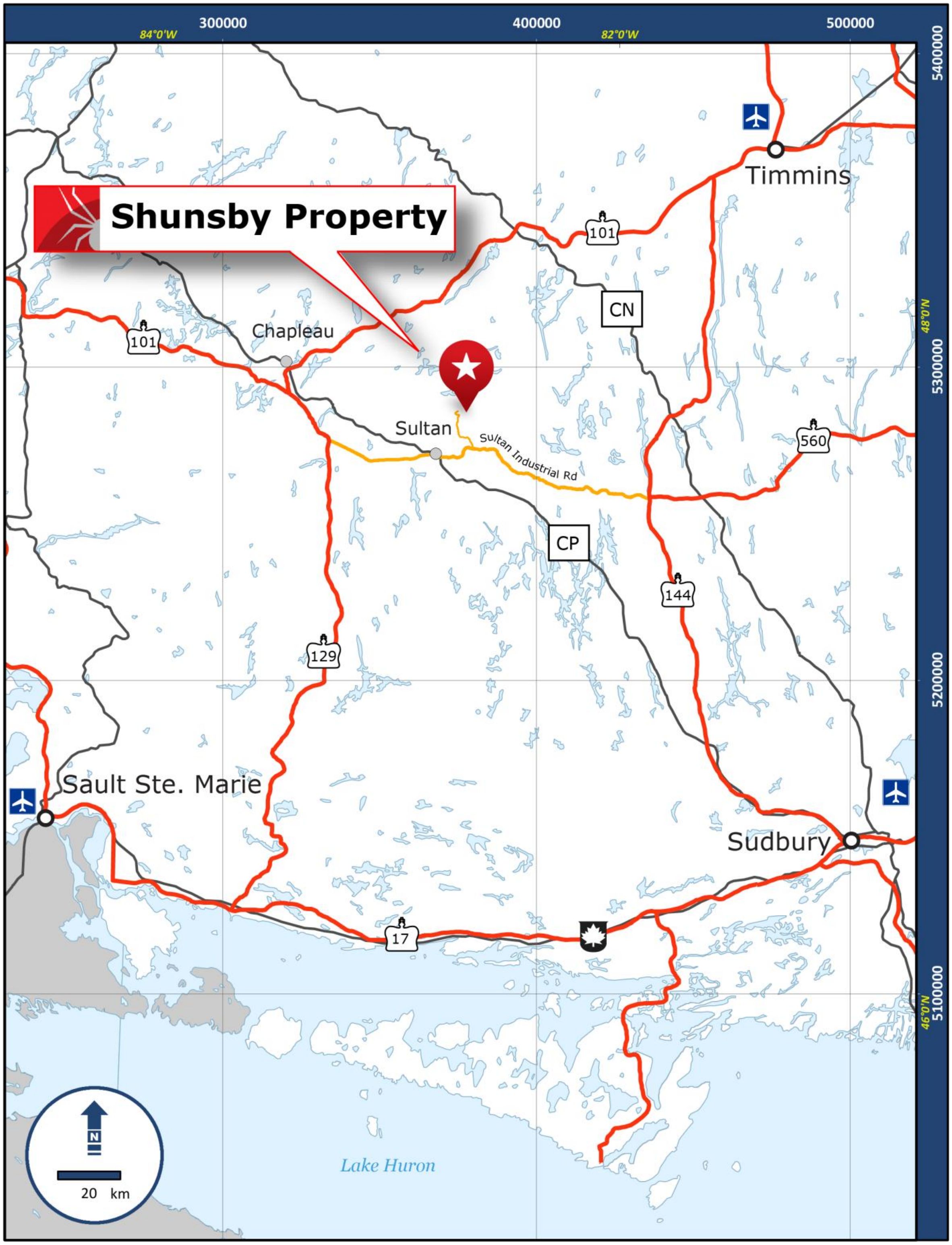


Figure 4-1: Ontario Principal Access Routes

5.0 HISTORY

The property has been the subject of extensive exploration dating back to the turn of the century when the iron formation in central Cunningham Township was first staked for its iron content. Table 5-1 summarizes the exploration history of the Shunsby property. The present Black Widow Shunsby Property has received the vast majority of the work described here, which totals some 23,000m of diamond drilling.

Table 5-1: Summary of Historical Exploration

Activity Period	Operating Company	Primary Interest	Claims Worked	Core Drilling	~Meterage Drilled	Comments / Other Work Performed
1904-07	Ridout Mining	Fe	-	-	-	Staking, prospecting
1927-29	Ridout Cunningham	Zn, Pb	34944-47	?	?	Trenching, prospecting
1954	Cominco	Zn, Cu, Pb	57538-39, 57543	4	457.0	3 holes in South Zone
1954	American Metal Compnay	Zn, Cu, Pb	121596, 597	1	170.5	South of present property
1955-56	Nipiron Mines Ltd.*	Cu, Zn, Pb	34941, 944	57	5,665.9	Targeted on Main Zone
1956-57	Teck Exploration Co. *	Cu, Zn, Pb	34941,944, 57538,39	17	1,896.8	Targeted on Main and South Zones
1960-61	Nipiron Mines Ltd.*	Cu, Zn, Pb	34941,944, 57538, 539	18	2,388.1	Shallow Main Zone holes to replace earlier down dip holes, also EM/Mag
1964	Nipiron Mines Ltd.*	Cu, Zn, Pb	34941	1	101.5	Hole 61-82 extended to 255m from 153m
1965-66	FR Joubin Propspecting Syndicate**	Zn, Cu, Pb	34941,944, 57538, 539	32	3,692.0m	Systematic drilling of both zones, strike potential in new claims
1968-69	Consolidated Shunsby Mines Ltd.	Cu, Zn, Pb	34941,944, 57538, 539	23	4,358.6m	More systematic drilling as well as deepening of several Main Zone holes
1974-75	Grandora Explorations Ltd.**	Cu, Zn, Pb	34941,944, 57538, 539	21	2,290.3m	Delineation type drilling on both zones
1980	Placer Develompment Ltd.***	Cu, Zn, Pb	All claims of larger property	4	410.1m	Geochemical and EM-17 surveys, drilling to south of property
1981	MW Resources Ltd.	Cu, Zn, Pb	34941,944	30	1,054.3m	Shallow holes to delineate high grad pod in Main Zone
1989-1991	Kirkton Resources Corp.***	Cu, Zn, Pb	All claims of larger property	0	0	Mag/HLEM surveys, mapping, stripping, trenching, digital drill hole compilation and section/plan construction
1992-93	Phelps Dodge Corp.****	Cu, Zn, Pb	Most claims of larger property	10	1,385m	Drilled several untested conductors, TDEM surveys
TOTALS				**214**	**23,460m**	

* under option from Shunsby Gold Mines Ltd. ** under option from Consolidated Shunsby Mines Ltd.
*** under option from MW Resources Ltd. **** under option from Kirkton Resources Corp.

The three years of work by Kirkton in 1989-91, managed by MPH and the author of this report, proved to be the definitive campaign in characterizing the mineralization at Shunsby. The Kirkton program included hundreds of metres of outcrop stripping, which demonstrated that very little of the base metal mineralization was stratabound or true massive sulphides, but rather was localized within hydrothermal stringer-type structures. Much of the early drilling in particular, was poorly designed and drilled either down the dip of the stratigraphy, or along trend/vertically into the structurally controlled hydrothermal mineralization (also vertically oriented), and therefore is of value only in a broad geological exploration sense.

5.1. Early Work 1904 - 1954

Initial interest in the iron ore possibilities of the property by Ridout Mining quickly waned when it was determined that the iron content of the chert formations was non-economic.

Subsequent discoveries of lead and zinc-bearing veins (?) within the iron formation prompted a 1927 exploration campaign over the entire strike length of the iron formation under the merged Ridout Cunningham Mines, Limited. While no record of this work remains, Meen (1942) reports that, "systematic prospecting of the many claims along with some diamond drilling was undertaken in 1928-29, but no body of economic importance was discovered and no further work has been carried out". He reports on the discovery of many showings however, and it seems probable that this work first identified what would become the Texas Gulf deposit located 3 km to the northwest of the Black Widow property, and the Shunsby deposit, which was named after prospector Martin Shunsby.

The present property was staked in the early 1950’s as part of a larger claim package, in central Cunningham Township by Earle Sootheran and Hiram Paul.

In 1954 the Shunsby Property was optioned to Cominco Ltd. who drilled 1499 feet (457m) in 4 holes designated A through D. Three of these were in the area of the present South Zone and one was drilled in the northeast corner near Edwards Lake. The southern drilling of holes A-C essentially formed a fence through the upper and lower chert/metasediment packages and encountered several narrow, zinc ± lead-bearing horizons or zones. The northern hole “D” was targeted on an isolated metasediment unit that also had seen some trenching, encountered felsic volcaniclastics and graphitic sediments. No mineralization is reported in that hole.

Also in 1954, American Metal Company drilled a single 559.5ft, (170.54m) hole designated 54-305 in the area of Kirkton grid line 9+00S at 5+00E, approximately one claim south of the SE corner of the Black Widow property. No assays are reported but the section from 29 to 30.1 feet is described as "tuffaceous material...heavily mineralized by pyrrhotite with pyrite, chalcopyrite and sphalerite". The section from 192.6 to 195.6 feet is described as "highly altered rock...pyrrhotite, chalcopyrite and sphalerite disseminated throughout...". This area represents the southern strike extent of the

Shunsby chert basin, which grades to more arenaceous and volcanic-dominated lithologies. Placer Developments revisited this area in 1980 with four drill holes.

Shunsby Gold Mines Ltd. was formed in 1955 to option the property, and Martin Shunsby was the Company president.

5.2. Shunsby Gold Mines Ltd. and Syndicate 1955 - 1957

In 1955 Nipiron Mines, Ltd., who optioned the property from Shunsby Gold Mines Ltd., funded and directed the drilling of 57 diamond drill holes mostly in the area now known as the Main Zone. Much of this work was rather poorly directed and W.S. Savage (1956), the Department of Mines resident geologist at that time, noted: "It is obvious that some of the long sulphide-bearing intersections in the diamond drill holes resulted from inadvertently drilling down the dip of a mineralized bed". Nipiron reportedly defined 100,000 tons of 1% copper mineralization from their drilling, but negotiated a termination to their option agreement in the summer of 1956 (Savage, 1956).

A syndicate consisting of Teck Explorations, Cochenour-Willans Mines, Northern Canada Mines, Nipiron Mines and Shunsby Mines was subsequently formed to further explore the property, with Teck as operator. This group drilled a further 17 holes during the fall of 1956 and winter of 1957. Three holes were drilled into the Main Zone area, with most of the others directed towards the South Zone. As well, deep holes 72 and 74 were drilled in the vicinity of the Hiram Lake camp to test for down-dip extensions of the Main Zone. Copper-zinc mineralization was encountered and this became known as the West Zone for several subsequent programs. For the purposes of this report these intersections will be referred to as the Main Zone Deep zone.

Virtually all of the Syndicate holes encountered encouraging to potentially economic mineralization, however, falling base metal prices forced a halt to the program during March of 1957. Significant intercepts from this campaign are tabulated below in Table 5-2. Note that this table and all tables of historical results in the present report incorporate weighted average intersections calculated with Micromine® software by MPH Consulting Limited (1990-91), including the re-sampling of drill core carried out by MPH for Kirkton Resources Corp. This work is reported upon in Section 12.0.

A second visit by W.S. Savage, the Resident Geologist was made in July 1957 (reported in 1958, following a dormant year on the property), who was impressed by the encouraging results in both the South Zone and Main Zone Deep areas. Teck Explorations estimated a resource for the Main Zone of 152,000 tons grading 1.35% Cu and 1.22% Zn at this time (Savage, 1958). *No details are available in the reports of either Teck, or Savage, as to the methods used to prepare this historical estimate. A qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves. Black Widow Resources Inc. is not treating the historical estimate as current mineral resources or reserves.*

Table 5-2: Significant 1955-57 DDH Intersections

Hole	Azimuth	Dip	From	To	Length	Cu (%)	Pb (%)	Zn (%)	Including From	Including To	Length	Cu (%)	Pb (%)	Zn (%)	Zone
55-03	316	-20	2.43	10.24	7.81	1.17	-	1.31	7.64	10.24	2.6	2.59	-	2.72	Main
55-04	316	-25	3.66	9.45	5.79	0.53	0.87	4.39	-	-		-	-		Main
56-05	316	-60	25.24	29.07	3.83	2.57	-	0.14	26.48	29.07	2.59	3.38	-	0.14	Main
			50.69	52.3	1.61	2.5	-	0.09	-	-		-	-	-	Main
56-06	136	-60	14.63	18.64	4.01	1.51	-	0.53	14.63	16.9	2.27	2.59	-	0.21	Main
56-08	316	-54	0.91	7.62	6.71	0.63	-	6.09	-		-	-	-	-	Main
56-09	104	-45	12.8	15.06	2.26	1.33	-	1.08	-		-	-	-	-	Main
			24.31	27.31	3	0.61	-	0.04	-		-	-	-	-	Main
			86.22	88.39	2.17	0.46	-	0.26	-		-	-	-	-	Main
56-11	136	-45	40.54	42.67	2.13	1.02	-	0.14	-		-	-	-	-	Main
56-12	176	-45	4.27	10.67	6.4	0.06	-	1.27	7.62	9.14	1.52	0.2	-	2.82	Main
			42.29	43.89	1.6	0.91	-	0.01	-		-	-	-	-	Main
56-14	29	-30	1.22	12.19	10.97	2.72	-	1	2.74	12.19	9.45	3.14	-	1.02	Main
			-			-	-	-	7.32	10.36	3.04	5.41	-	0.54	Main
56-15	29	-60	11.28	12.19	0.91	7.4	-	0.7	-		-	-	-	-	Main
56-16	356	-45	14.73	19.16	4.43	1.58	-	0.32	14.73	17.65	2.92	2.1	-	0.29	Main
56-17	271	-45	17.22	23.17	5.95	0.41	-	2.35	-		-	-	-	-	Main
			31.39	40.54	9.15	1.89	-	0.74	-		-	-	-	-	Main
			44.96	46.02	1.06	3.31	-	0.08	-		-	-	-	-	Main
			50.72	54.07	3.35	1.87	-	0.3	-		-	-	-	-	Main
56-20	332	-45	24.84	26.06	1.22	1.17	-	1.82	-		-	-	-	-	Main
			34.75	38.01	3.26	2.33	-	0.81	-		-	-	-	-	Main
			44.19	47.55	3.36	0.86	-	7.53	-		-	-	-	-	Main
56-21	301	-45	10.67	56.39	45.72	0.96	-	1.05	10.67	18.08	7.41	1.23	-	0.83	Main
			-			-	-	-	25.76	56.39	30.63	1.09	-	1.26	Main
56-22	301	-60	7.93	14.48	6.55	0.16	-	0.87	-		-	-	-	-	Main
			33.99	40.42	6.43	2.11	-	0.19	36.27	40.42	4.15	3.01	-	0.01	Main
			67.36	68.28	0.92	0.35	-	2.04	-		-	-	-	-	Main
56-25	96	-55	43.16	64.62	21.46	0.77	-	1.06	52.43	53.95	1.52	1.89	-	3.67	Main
			-			-	-	-	61.27	62.94	1.67	2.75	-	0.89	Main
56-26	316	-45	12.19	39.62	27.43	158	-	0.59	12.19	21.64	9.45	1.43	-	0.72	Main
			-			-	-	-	28.65	39.62	10.97	2.63	-	0.64	Main
			-			-	-	-	28.64	30.78	2.13	5.14	-	0.28	Main
			-			-	-	-	28.65	33.53	4.88	-	-	-	Main
56-27	101	-45	12.5	17.07	4.57	0.61	-	1.8	-		-	-	-	-	Main
			37.19	43.59	6.4	0.52	-	1.16	-		-				Main
			48.77	55.78	7.01	1.05	-	0.67	48.77	52.12	3.35	1.63	-	0.81	Main
56-28	101	-45	57.3	66.45	9.15	0.33	-	0.64	-		-	-	-	-	Main
56-31	281	-45	6.1	9.14	3.04	0.22	-	1.29	-		-	-	-	-	Main
56-32	91	-45	71.02	73.76	2.74	0.13	-	4.49	-		-	-	-	-	Main
56-33	136	-50	6.1	25.91	19.81	1.63	-	1.56	-		-	-	-	-	Main
56-35	136	-80	3.35	24.99	21.64	1.02	-	1.28	3.35	9.45	6.1	2.86	-	1.58	Main
									18.9	21.95	3.05	0.46	-	3.87	Main
56-36	316	-45	3.96	13.41	9.45	1.65	-	4.87	-		-	-	-	-	Main
56-37	91	-45	90.53	92.81	2.28	0.36	-	2.17	-		-	-	-	-	South
56-38	136	-45	19.2	20.73	1.53	0.5	-	2.85	-		-	-	-	-	Main
			64.77	63.58	-1.19	0.93	-	1.58	-		-	-	-	-	Main
56-39	281	-45	51.82	53.65	1.83	0.41	-	3.41	-		-	-	-	-	Main
56-43	171	-45	21.34	22.71	1.37	0.81	-	0.76	-		-	-	-	-	Main
			25.3	29.87	4.57	0.8	-	0.33	25.3	27.43	2.13	1.02	-	0.3	Main
56-47	141	-45	6.4	27.43	21.03	0.49	-	2	6.4	21.33	14.93	0.67	-	2.38	South
			40.84	47.55	6.71	0.35	-	3.95	16.15	21.33	5.18	1.36	-	3.12	South
56-48	123	-45	5.49	14.02	8.53	0.18	-	2.25	5.49	11.28	5.79	0.21	-	2.82	Main
			28.04	32.92	4.88	0.67	-	0.73	28.04	30.18	2.14	1.07	-	0.76	Main
56-51	270	-90	18.59	41.15	22.56	1.61	-	1.27	18.59	21.03	2.44	1.37	-	6.27	Main
			-			-	-	-	27.74	41.15	13.41	2.27	-	0.8	Main
56-52	270	-90	63.09	71.62	8.53	0.74	-	1.74	63.09	66.44	3.35	0.82	-	4.26	South
56-53	270	-90	85.66	87.17	1.51	1.1	-	4.74	-		-	-	-	-	South
56-56	270	-90	79.23	96.16	16.93	0.11	-	0.88	85.66	87.47	1.31	0.65	-	1.63	South
			145.39	149.66	4.27	0.56	-	1.58	-		-	-	-	-	South
56-57	270	-90	9.45	35.05	25.6	0.08	-	2.33	27.13	35.05	7.92	0.21	-	4.16	South
			42.06	52.07	10.01	0.06	-	4.93	-		-	-	-	-	South
			122.23	125.58	3.35	0.08	-	2.08	122.23	124.05	1.82	0.09	0.8	2.93	South
56-60	270	-90	13.87	39.32	25.45	0.74	-	2.54	13.87	33.83	19.96	0.92	-	2.54	South
57-61	270	-90	2.13	40.23	38.1	0.07	-	2.95	17.36	37.19	19.83	0.07	-	4.45	South
			97.66	105.12	7.46	0.22	-	1.99	97.66	100.71	3.05	0.31	0.5	3.34	South
57-62	270	-45	2.13	15.09	12.96	0.07	-	1.31	-		-	-	-	-	South
			20.87	47.83	26.96	0.03	-	3.85	31.1	37.2	6.1	0.02	-	8.07	South
56-63	270	-90	5.61	31.55	25.94	0.03	-	1.14	17.06	18.9	1.84	0.18	-	3.28	South
56-64	270	-90	40.22	42.45	2.23	0.04	-	3.58	-		-	-	-	-	South
56-65	270	-90	29.81	32	2.19	0.09	0.51	7.02	-		-	-	-	-	South
56-67	270	-90	128.25	134.35	6.1	0.04	-	2.49	-		-	-	-	-	South
			137.17	142.03	4.86	0.17	-	2.74	137.17	138.52	1.35	0.57	-	6.83	South
57-68	270	-90	50	55.94	5.94	0.05	-	2.59	50	53.05	3.05	0.1	-	1.95	South
57-70	270	-90	39.01	48.79	9.78	-	-	1.81	45.57	48.79	3.22	-	-	3.29	South
57-71	270	-90	118.57	120.41	1.84	0.36	0.21	1.62	-		-	-	-	-	South
			126.18	128.02	1.84	0.24	0.36	2.23	-		-	-	-	-	South
			140.81	145.7	4.89	0.29	-	3.23	142.36	145.7	3.34	0.38	-	4.47	South
57-72	270	-90	172.97	184.25	11.28	0.37	-	2.03	-		-	-	-	-	Main Deep
57-74	270	-90	96	97.54	1.54	0.73	1.57	2.44	-		-	-	-	-	Main Deep
			153.9	157.51	3.61	1.64	-	0.7	155.68	157.51	1.83	2.78	-	0.57	Main Deep
			175.89	180.45	4.56	0.48	-	2.55	-		-	-	-	-	Main Deep

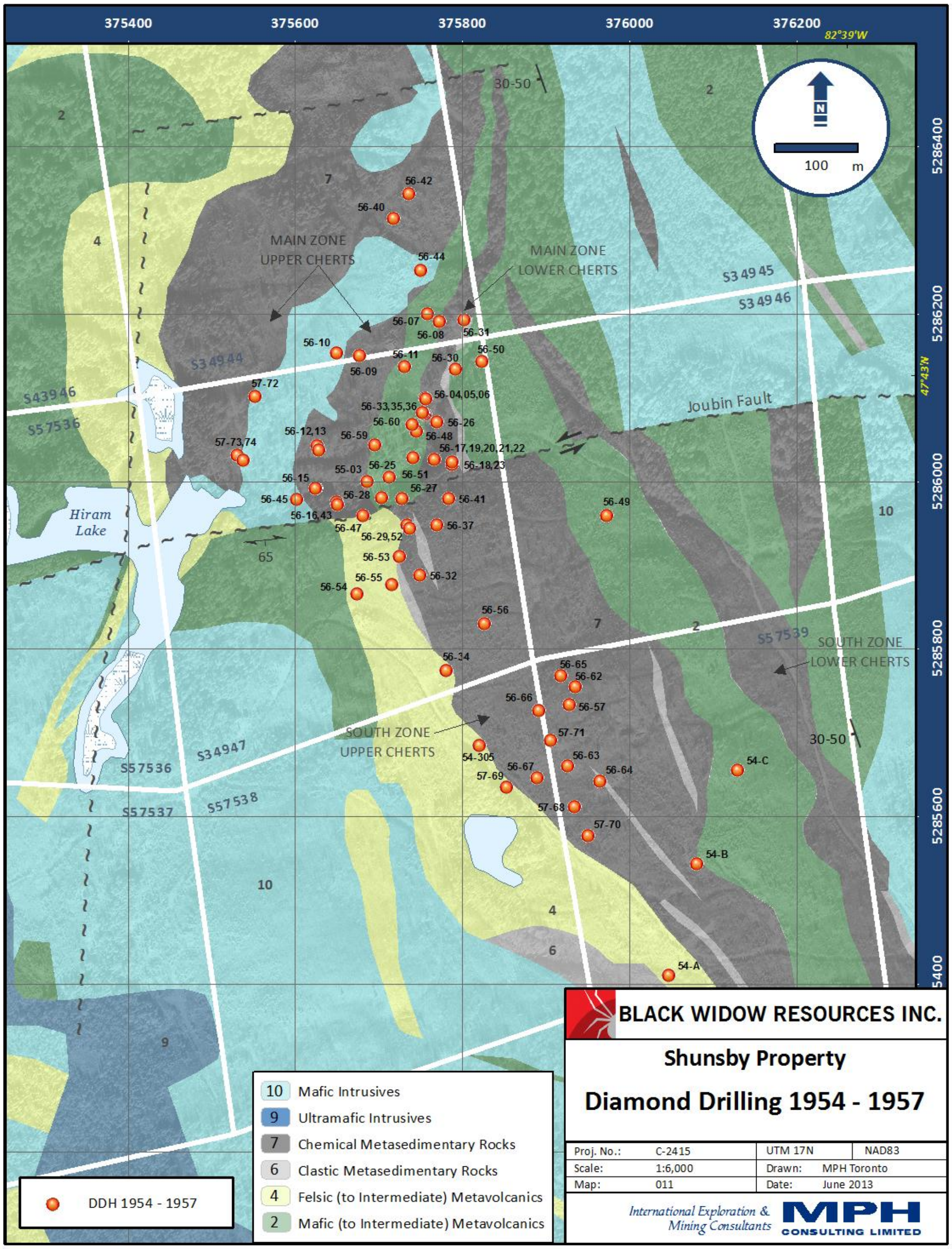


Figure 5-1: Drill Plan 1954 - 1957

Also during this period, the east-west access road linking the property to the Sultan-Kenty Mine road was cut. Shunsby Mines Ltd. also completed the purchase of the optioned Southeran-Paul property. In addition, flotation tests were run on lead-zinc and copper ore samples by the metallurgical division of the Department of Mines, indicating that there would be no apparent difficulty in producing commercial grade concentrates. Shunsby Gold Mines submitted two samples, Sample A of Pb-Zn material and Sample B of Cu material. Sample A gave a lead concentrate over 66% and Zn concentrate of 51% after grinding to minus 200 mesh, while Sample B produced a concentrate with single stage flotation of 23 to 30% Cu plus all of the silver (Bruce, 1957).

5.3. Nipiron Mines Ltd. Option 1960 - 1964

Nipiron Mines Ltd. under an option agreement with Shunsby Mines undertook further exploration in the winter of 1960. Nine holes (75-83) were completed during December and January totalling 3,605 feet. These were again directed towards the Main and West Zones, apparently to replace/legitimize much of the earlier, down-dip intersections. Geological mapping as well as EM and magnetic surveys were reported as being completed during this campaign.

A further nine diamond drill holes totalling 4,110 feet were completed the following summer. This consisted of several holes (85, 90, 91 and 92) drilled vertically. These successfully intersected the down-dip projection of the Main Zone, between the camp and the main showings to the east. Significantly, the other five holes were again drilled down-dip in this same area, possibly to avoid a topographic rise represented by a large diorite intrusive.

During the summer of 1964, Nipiron extended hole 82 from 503 feet to 836 feet and encountered the down-dip projection of the Main Zone, i.e. the Main Zone Deep. This is the most westerly hole drilled in this portion of the deposit to date. This hole encountered some significant copper values including 4.2% Cu over 4.1 ft and 4.3% Cu over 5.5 ft. The mineralization is completely open in the down-dip direction beyond this hole.

This campaign of drilling is summarized in Figure 5-2, and Table 5-3 below.

5.4. F.R. Joubin Prospecting Syndicate 1965 - 1966

The F.R. Joubin Prospecting Syndicate became involved with the property in 1965, with Joubin becoming president of the reorganized/refinanced Consolidated Shunsby Mines Ltd. in 1966 following the death of Martin Shunsby. The syndicate itself consisted of personnel from mining organizations including Leitch Gold Mines Ltd., Noranda Explorations, Ltd. and Wright Hargreaves Mines Ltd.

Joubin instigated an aggressive exploration campaign which included much staking of surrounding ground followed by geochemical, magnetometer and Turam EM surveying,

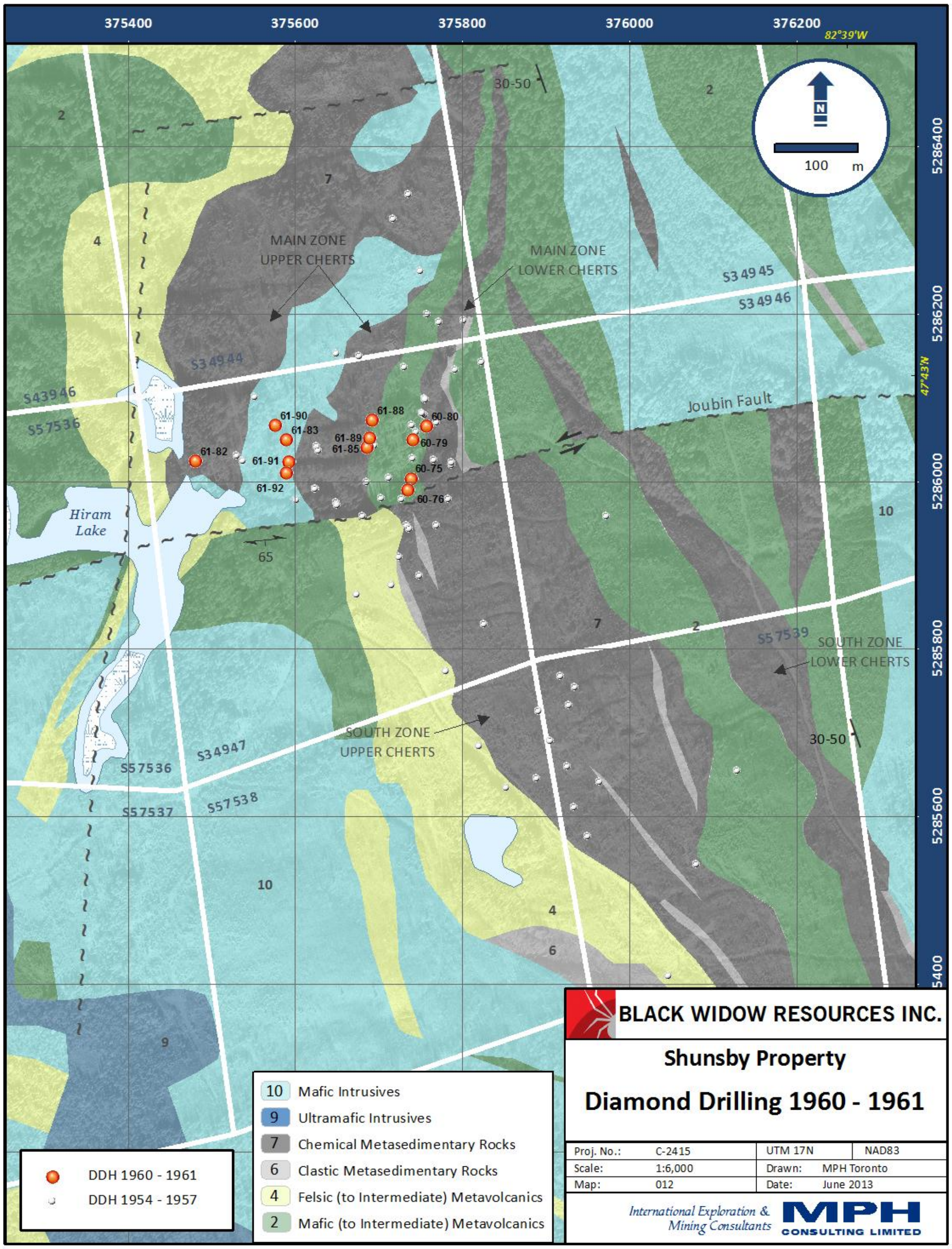


Figure 5-2: Drill Plan 1960 - 1964

Table 5-3: Significant 1960-64 DDH Intersections

Hole	Azimuth	Dip	From	To	Length	Cu (%)	Pb (%)	Zn (%)	Including From	Including To	Length	Cu (%)	Pb (%)	Zn (%)	Zone
60-75	270	-90	30.48	32	1.52	0.13	-	4.78	-		-	-	-	-	Main
			38.86	53.34	14.48	0.49	-	2.84	41.3	51.51	10.21	0.66	-	3.61	Main
60-76	98	-65	14.94	17.98	3.04	0.08	0.78	2.04	21.95	24.32	2.37	0.11	-	2.75	Main
			21.95	49.53	27.58	0.34	-	1.03	30.14	35.75	5.61	0.37	-	1.73	Main
			-		-	-	-	-	39.93	49.53	9.6	0.73	-	1.26	Main
			-		-	-	-	-	42.98	49.53	6.55	1.07	-	1.42	Main
60-77	270	-90	10.21	14.45	4.24	0.9	-	3.59	-		-	-	-	-	Main
			25.6	35.97	10.37	4.56	-	1.27	31.7	35.97	4.27	7.38	-	1.85	Main
60-79	86	-60	9.75	30.79	21.04	0.66	-	1.87	12.8	16.49	3.69	1.13	-	2.95	South
			-		-	-	-	-	28.44	30.79	2.35	1.01	-	5.32	South
60-80	267	-50	8.05	9.54	1.49	0.72	-	4.76	-		-	-	-	-	Main
			14.63	45.14	30.51	0.87	-	1.06	31.36	44.14	12.78	1.76	-	1.08	Main
61-81	267	-50	115.67	118.87	3.2	0.51	-	2.17	-		-	-	-	-	Main
			128.93	137.43	8.5	0.33	-	1.73	-		-	-	-	-	Main
			142.49	148.93	6.44	0.38	-	1.42	-		-	-	-	-	Main
			159.26	189.89	30.63	1.14	-	1.56	159.26	176.39	17.13	1.87	-	1.33	Main
			-		-	-	-	-	182.03	189.89	7.86	0.24	-	2.33	Main
64-82e	270	-90	192.33	193.12	0.79	2.25	0.7	-	-		-	-	-	-	Main Deep
			211.84	214	2.16	0.79	-	0.71	-		-	-	-	-	Main Deep
			235.24	236.51	1.27	1.55	-	-	-	-	-	-	-	-	Main Deep
			243.6	244.85	1.25	4.2	-	-	-		-	-	-	-	Main Deep
			249.86	251.52	1.66	4.3	-	0.55	-		-	-	-	-	Main Deep
61-83	270	-90	121.62	142.25	20.63	0.4	-	0.96	131.98	142.25	10.27	0.64	-	1.14	Main Deep
			-		-	-	-	-	134.42	139.6	5.18	1.03	-	1.46	Main Deep
61-85	270	-90	68.88	76.81	7.93	0.56	-	1.51	73.76	76.81	3.05	1.11	-	2.76	Main Deep
61-87	286	-70	4.79	6.86	2.07	1.3	-	0.27	-		-	-	-	-	Main Deep
			84.13	87.17	3.04	0.96	-	1.79	-		-	-	-	-	Main Deep
61-88	268	-55	4.88	7.32	2.44	2.37	-	0.33	-		-	-	-	-	Main Deep
			78.79	83.52	4.73	0.36	-	2.99	-		-	-	-	-	Main Deep
			111.86	115.82	3.96	2.59	-	1.33	-		-	-	-	-	Main Deep
			132.28	163.37	31.09	0.78	-	0.88	141.12	163.37	22.25	1	-	1.04	Main Deep
			-		-	-	-	-	141.12	147.52	6.4	1.2	-	1.74	Main Deep
			-		-	-	-	-	157.89	163.37	5.48	2.33	-	1.19	Main Deep
61-89	287	-62	103.33	116.13	12.8	0.54	-	1.35	106.99	113.08	6.09	0.7	-	2.13	Main Deep
61-91	270	-90	99.67	114.3	14.63	0.22	-	1.8	112.47	114.3	1.83	0.46	2.4	7.24	Main Deep
			126.19	129.85	3.66	1.22	-	3.14	-		-	-	-	-	Main Deep
			133.5	142.65	9.15	2.15	-	0.8	136.55	142.65	6.1	2.64	-	0.88	Main Deep
61-92	270	-90	73.33	74.86	1.53	0.48	1.08	1.35	-		-	-	-	-	Main Deep
			120.7	125.58	4.88	0.06	0.35	1.26	-		-	-	-	-	Main Deep

step-out drilling along strike both to the north of the Main Zone and the south of the South Zone, as well as limited drilling and trenching in the western property area.

The two holes drilled by Joubin on the western property showings both intersected an "upper" low grade zinc-mineralized chert horizon but were felt to be of insufficient length to test the "Basal Chert" he thought to be present here. This latter unit hosts much of the potentially economic base metal mineralization in the Main, South and West Zones. Stratigraphy here was thought to correspond to the western limb of a major syncline which transects the property. No field or geophysical evidence has been found to confirm the existence of such a structure, therefore Joubin was drilling stratigraphy correlative with the Texas Gulf and Tower Group iron formation.

Joubin's work on the South Zone was designed to better understand stratigraphy as well as confirm a number of previous, high-grade intersections. The program, which included lengthening several holes to the "footwall diorite", was felt to indicate that an upper (middle?) chert horizon hosted high grade copper-zinc mineralization here, while the "basal" chert intersections were of lower grade.

The Syndicate's work to the north consisted of several in-fill holes within the Main Zone, as well as holes designed to:

(a) further define the down-dip extension (West Zone);
(b) extend the Main-West zones to the north; and
(c) explore the area in between the Main and South Zones.

In general, results indicated that:

(a) significant mineralization in the West Zone persists to a vertical depth of at least 840 feet;

(b) significant copper + zinc, lead mineralization within the chert extends at least 1,200 feet to the north of the Main Zone but is offset; and

(c) the intermediate area between the Main and South Zones is of high potential but is complicated by a fault.

Table 5-4: Significant 1965-66 DDH Intersections

Hole	Azimuth	Dip	From	To	Length	Cu (%)	Pb (%)	Zn (%)	Including From	Including To	Length	Cu (%)	Pb (%)	Zn (%)	Zone
65-70e	270	-90	39.01	48.79	9.78	-	-	1.81	45.57	48.79	3.22	-	-	3.29	South
65-72e	270	-90	172.97	184.25	11.28	0.37	-	2.03	-		-	-	-	-	Main Deep
			193.7	195.21	1.51	0.31	-	2.18	-		-	-	-	-	Main Deep
65-93	98	-45	8.87	12.07	3.20	0.08	-	2.89	-		-	-	-	-	Main
			30.69	32.67	1.98	0.23	-	2.84	-		-	-	-	-	Main
65-94	270	-90	105.19	106.77	1.58	0.13	0.80	3.00	-		-	-	-	-	Main Deep
65-95	88	-45	86.05	89.09	3.04	0.47	0.30	0.98	-		-	-	-	-	Main
65-98	108	-45	30.72	31.49	0.77	1.71	-	2.96	-		-	-	-	-	Main
65-102	270	-90	59.31	60.84	1.53	0.20	4.85	2.56	-		-	-	-	-	Main Deep
			96.07	97.17	1.10	-	10.12	-	-		-	-	-	-	Main Deep
65-103	88	-35	129.78	133.59	3.81	0.30	-	2.48	-		-	-	-	-	Main Deep
65-104	270	-90	238.72	240.55	1.83	1.47	-	-	-		-	-	-	-	Main Deep
			253.04	255.79	2.75	1.13	-	-	-		-	-	-		Main Deep
66-108	270	-90	216.41	227.08	10.67	0.98	-	1.42	218.24	223.42	5.18	1.37	-	1.97	Main Deep
66-110	270	-90	158.53	160.20	1.67	-	0.60	3.98	-		-	-	-	-	Main Deep
66-112	270	-90	110.49	112.62	2.13	0.86	-	0.76	-		-	-	-	-	South
66-61e	270	-90	2.13	40.23	38.10	0.07	-	2.95	17.36	37.19	19.83	0.07	-	4.45	South
			97.66	105.12	7.46	0.22	-	1.99	97.66	100.71	3.05	0.31	0.50	3.34	South
			116.44	126.71	10.27	0.47	-	2.41	-		-	-	-	-	South
66-62e	270	-45	2.13	15.09	12.96	0.07	-	1.31	-		-	-	-	-	South
			20.87	47.83	26.96	0.03	-	3.85	31.10	37.20	6.10	0.02	-	8.07	South
			90.03	113.65	23.62	0.77	-	2.23	-		-	-	-	-	South

Within the Main Zone, Joubin calculated an average grade of 1.2% copper and 1.28% zinc over a true width of 26 to 27 feet. He recommended shallow underground investigations and stated (1966):

"There is sound reason to believe that this drill-indicated average grade will be raised by bulk sampling. This is because the copper values appear to be controlled by both disseminations in the Basal Chert and also as narrow chalcopyrite-filled fractures. It is improbable that the several vertical drill holes have intersected a representative amount of the vertical fracture mineralization.

I concur with and endorse the opinion of other geologists that the Main Zone section justifies shallow level underground exploration intended to check on (a) grade, (b) mineral distribution characteristics, (c) the attitude of cross and strike fracturing and relationship to mineralization, (d) the attitude and relationship (if any) to the post-mineral "D" dyke, and (e) general rock characteristics as these would relate to possible underground mining and/or some limited open-pit extraction."

5.5. Consolidated Shunsby Mines Ltd. 1968 - 1973

A qualifying report written by W.F. Atkins, P.Eng., in 1968 raised $100,000 for Consolidated Shunsby Mines Ltd. through a public underwriting which was used to finance a 1968 drill program of 23 holes. The majority of this work was directed towards the South Zone and the intermediate area, with several holes (68-7, 8 and 9) spotted to test a showing within granitic(?) rocks to the west of the present property. Significant intersections from this work are provided in Table 5-5 below.

Joubin then brought the property to the attention of Union Miniere Explorations and Mining Corporation Limited (UMEX) in March of 1969. Their examinations and compilations allowed for reserve calculations by P. Potapoff (1969) of:

UPPER CHERT ZONE (South and Main Zones) 929,000 tons averaging 0.24% Cu, 2.25% Zn + Pb from surface to -300 feet over 2,700 foot strike extent.

LOWER CHERT ZONE (South and Main Zones) 1,684,000 tons averaging 0.59% Cu, 1.6% Cu + Pb from surface to -900 feet over 2,400 foot strike length.

Potapoff utilized “the single cross section method” to prepare this historical estimate, “assuming that the mineralization encountered in each drill hole continued unchanged half the distance to the mineralized intersection in the neighbouring hole or a distance of 100 to 200 feet (whichever is less)”. *A qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves. Black Widow Resources Inc. is not treating the historical estimate as current mineral resources or reserves.*

Potapoff notes that some of the mineralized zones form discontinuous blocks due to faulting, and some of the better intersections appear isolated. However, A.J. Hough

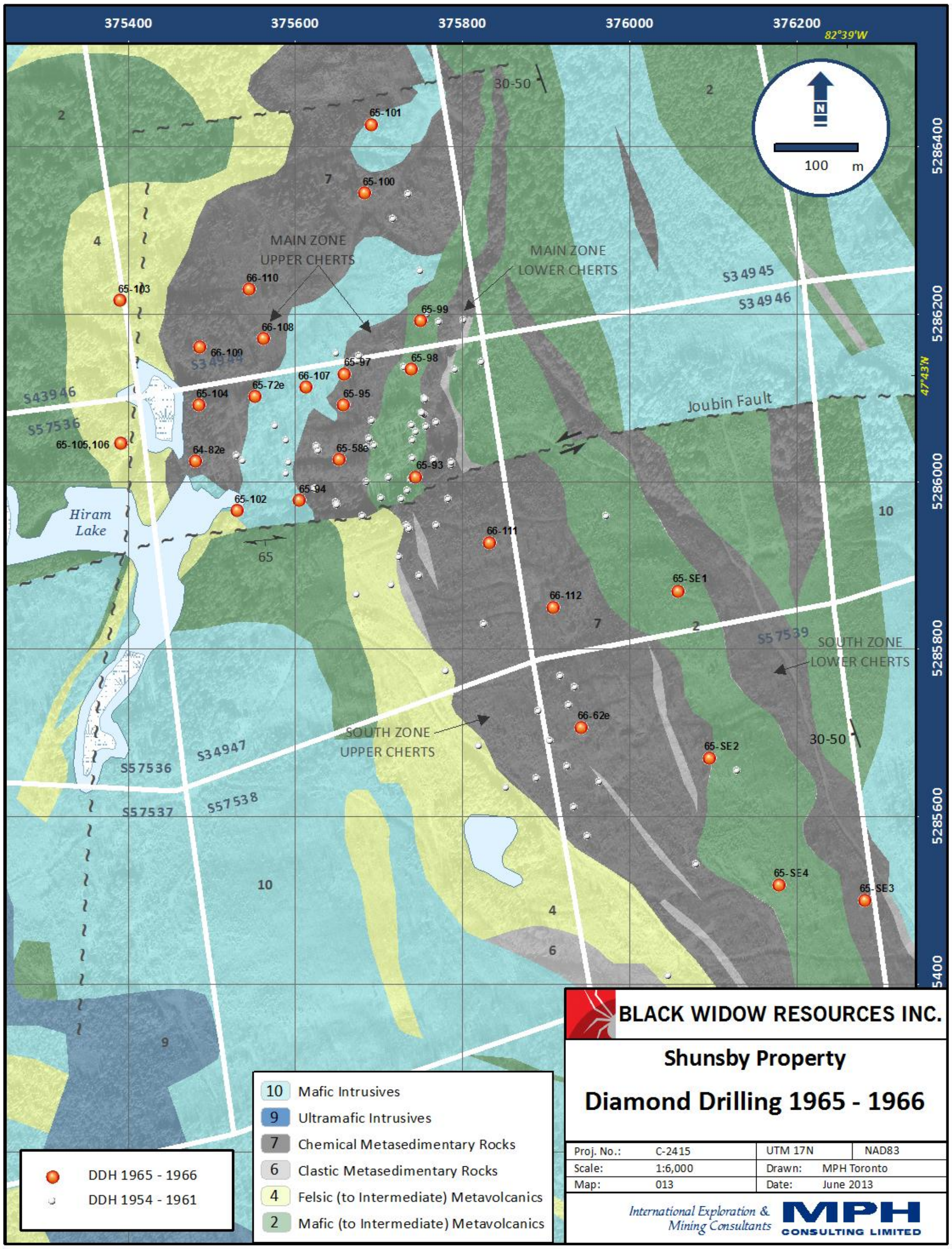


Figure 5-3: Drill Plan 1965 - 1966

Table 5-5: Significant 1968-73 DDH Intersections

Hole	Azimuth	Dip	From	To	Length	Cu (%)	Pb (%)	Zn (%)	Including From	Including To	Length	Cu (%)	Pb (%)	Zn (%)	Zone
68-71e	270	-90	118.57	120.41	1.84	0.36	0.21	1.62	-		-	-	-	-	South
			126.18	128.02	1.84	0.24	0.36	2.23	-		-	-	-	-	South
			140.81	145.70	4.89	0.29	-	3.23	142.36	145.70	3.34	0.38	-	4.47	South
68-1	270	-90	48.77	50.29	1.52	1.60	-	4.89	-		-	-	-	-	South
			149.66	157.28	7.62	0.10	-	2.00	155.45	157.28	1.83	0.07	-	3.21	South
68-4	87	-80	57.30	66.75	9.45	0.24	0.56	3.44	60.35	64.92	4.57	0.29	0.50	4.49	Main
68-6	270	-90	81.69	89.31	7.62	0.06	-	5.38	-		-	-	-	-	Main
68-10	98	-60	78.64	82.30	3.66	0.04	0.28	2.80	79.86	82.30	2.44	0.11	0.28	3.34	Main
68-11	270	-90	21.64	25.91	4.27	1.49	-	0.77	21.64	23.47	1.83	2.16	-	1.70	Main
			70.55	81.38	1.83	0.22	0.54	1.33	-		-	-	-	-	Main
			91.74	94.18	2.44	0.08	0.68	2.54	-		-	-	-	-	Main
68-12	270	-90	69.49	71.93	2.44	0.15	0.25	2.46	-		-	-	-	-	Main
68-16	270	-90	97.84	100.58	2.74	0.42	-	1.33	-		-	-	-	-	South
			106.68	110.34	3.66	0.32	-	1.75	-		-	-	-	-	South
			115.82	121.77	5.95	2.11	-	3.05	-		-	-	-	-	South
68-18	270	-90	5.18	8.53	3.35	1.62	-	4.12	-		-	-	-	-	South
			45.42	52.43	7.01	0.10	-	1.74	45.42	51.21	5.79	0.09	-	1.90	South
			64.31	65.99	1.68	0.58	0.05	1.06	-		-	-	-	-	South
68-19	270	-90	18.59	23.16	4.57	0.11	-	2.12	-		-	-	-	-	South
			99.06	102.11	3.05	0.20	-	1.93	-		-	-	-	-	South
68-20	88	-52	7.32	11.58	4.26	0.68	-	5.25	-		-	-	-	-	South
			44.20	55.17	10.97	0.18	-	2.62	-		-	-	-	-	South
			64.92	69.19	4.27	0.40	-	3.33	-		-	-	-	-	South

(1969) of UMEX notes that reported collar elevations and locations at that time were suspect. This, of course, can have a major bearing on the inferred continuity of mineralized zones. Potapoff concluded that the chances were good of firming up a large tonnage (~10,000,000 tons), low grade (0.5% Cu, 2.0% Zn + Pb, 0.25 oz/ton Ag) deposit.

He recommended a program of deep drilling for down-dip extensions as well as comprehensive property-wide follow-up drilling of old Turam anomalies and surface showings which had not been drilled and were located in otherwise geologically favourable areas. It appears that UMEX subsequently returned the property to Consolidated Shunsby Mines without doing any further work and it sat idle until 1974.

A prospectus financing was organized in 1971 for Consolidated Shunsby Mines Ltd., by W.D. Latimer Co. Limited to raise $90,000 from the sale of 600,000 common shares at $0.15/share. The OSC filing includes a technical report by William Heshka P.Eng, which recommends geochemical and other prospecting work over the enlarged property to augment the already advanced "area of the Basal Chert bed measuring350 feet in strike length and 1320 feet in dip length with a drill indicated average grade of 1.2% copper and 1.28% zinc for a true thickness of 25 feet. Continuity of this mineralization along strike

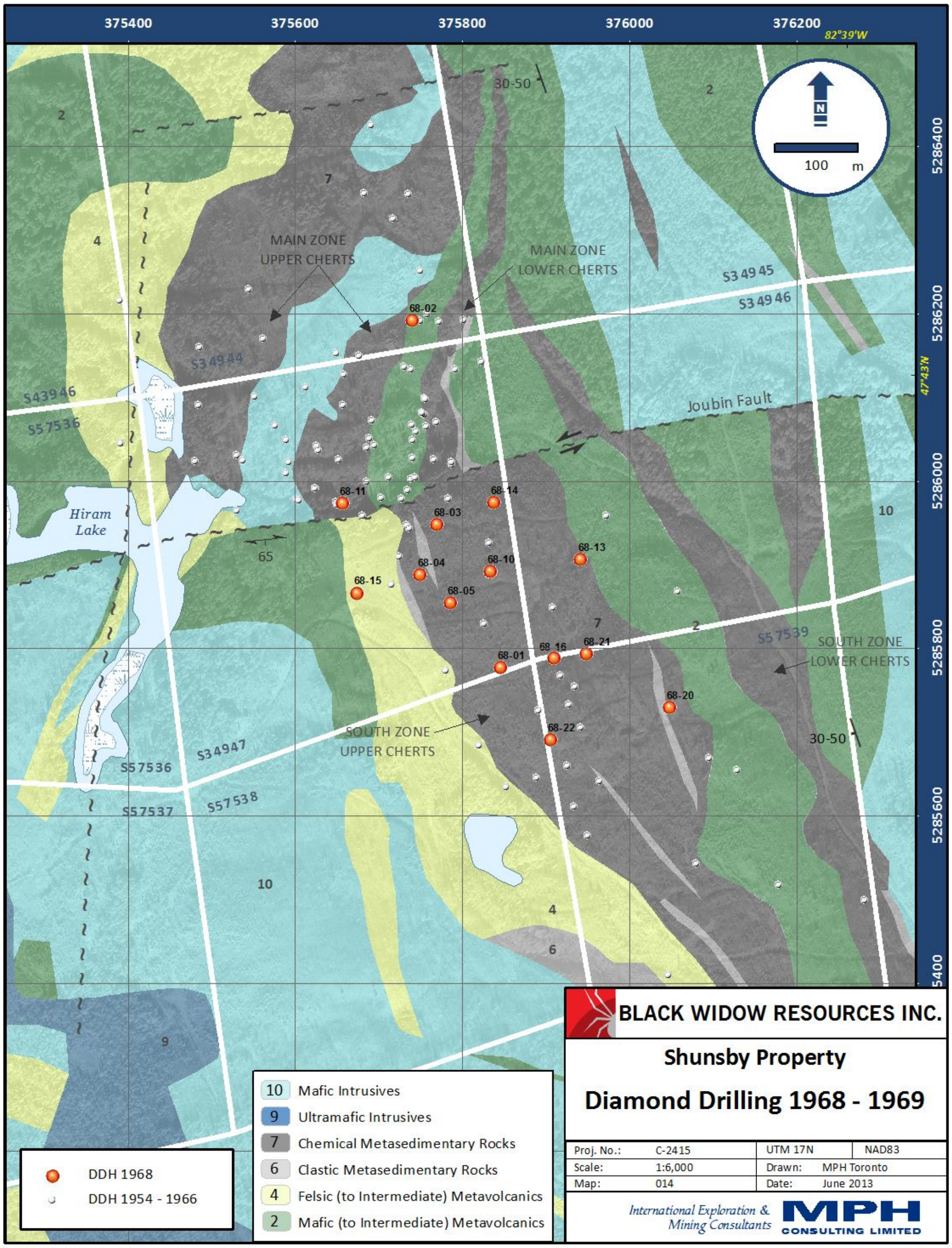


Figure 5-4: Drill Plan 1968 - 1969

is uncertain. Drilling results along both strike extensions have produced erratic results to date.” It is not known whether this financing was successful, however the property appears not to have received any serious work until 1974.

In 1973, B.D. Weaver, a consulting geologist, reviewed the historical data on the Shunsby property. He concluded that all drilling thus far was of little value and that the Main Zone should be drilled off vertically on 100 foot centres.

5.6. Grandora Explorations Option 1974 - 1975

In the fall of 1974 Grandora Explorations Ltd. optioned the property from Consolidated Shunsby Mines and instigated a program of geochemical sampling, bulldozer trenching and 7,444 feet of diamond drilling in 21 holes. During the initial phase of the drill program, 10 holes were targeted on the Main Zone, to extend and delimit the eastern extent of the mineralization. F.Holcapek, P.Eng of Agilis Engineerng Ltd. (1975) stated that the boundaries of the "possible open pit ore zone" are marked by two northerly trending fault zones. Grandora drilled 11 holes in the South Zone spaced at approximately 200 feet centres to extend the known mineralization and clarify the structural setting. Inexplicably, most of these holes were stopped before reaching the basal chert and footwall diorite. Significant intercepts are summarized in Table 5-6:

Table 5-6: Significant 1974 DDH Intersections

Hole	Azimuth	Dip	From	To	Length	Cu (%)	Pb (%)	Zn (%)	Including From	Including To	Length	Cu (%)	Pb (%)	Zn (%)	Zone
74-6	270	-90	40.84	45.42	4.58	0.8	-	2.07	-		-	-	-	-	Main
74-7	270	-90	2.44	6.71	4.27	0.49	-	2.63	-		-	-	-	-	Main
74-8	270	-90	4.57	6.71	2.14	1.01	-	1.35	-		-	-	-	-	Main
74-9	270	-90	60.35	66.45	6.1	0.09	0.27	1.51	63.4	65.23	1.83	0.09	0.2	3.36	Main
74-10	124	-45	54.25	78.94	24.69	0.73	-	1.36	-		-	-	-	-	Main
74-11	124	-45	18.9	35.97	17.07	0.1	0.59	2.15	24.99	35.97	10.98	0.1	-	2.97	South
			46.02	56.69	10.67	0.19	0.37	1.65	-		-	-	-	-	South
			121.62	129.24	7.62	0.43	-	3.74	-		-	-	-	-	South
			143.26	149.96	6.7	0.72	-	2.56	-		-	-	-	-	South
74-12	124	-45	50.9	61.57	10.67	0.52	-	1.09	60.05	61.57	1.52	1.23	-	0.02	Main
74-13	124	-45	14.63	18.89	4.26	0.06	0.21	2.99	-		-	-	-		South
			24.99	47.85	22.86	0.97	10.1	2.75	-		-	-	-	-	South
			100.89	117.35	16.46	0.82	1.01	5.5	100.89	107.59	6.7	1.55	2.4	11.67	South
74-14	124	-45	6.4	10.67	4.27	0.02	0.59	1.19	9.45	10.67	1.22	0.04	0.7	1.98	South
			17.37	39.32	21.95	0.16	0.02	1.13	17.37	19.51	2.14	0.37	0.4	2.16	South
			-		-	-	-	-	25.6	29.57	3.97	0.44	0.4	2.36	South
			-		-	-	-	-	36.58	39.32	2.74	0.36	0.4	3.12	South
74-15	124	-45	172.52	175.57	3.05	0.07	0.31	2.7	-		-	-	-	-	South
74-16	124	-45	185.62	191.72	6.1	0.27	6.98	1.16	-		-	-	-	-	South
74-17	124	-45	6.71	28.96	22.25	0.55	-	4.17	-		-	-	-	-	South
			86.87	106.25	19.33	0.73	-	1.48	-		-	-	-	-	South
74-18	124	-45	18.59	25.3	6.71	0.15	0.12	3.3	22.71	25.3	2.59	0.12	-	6.26	South
			71.78	74.37	2.59	2.65	-	5.24	-		-	-	-	-	South
74-20	124	-60	28.96	33.22	4.26	0.1	0.02	3.69	-		-	-	-	-	South
			77.42	83.09	5.67	0.25	0.33	1.85	-		-	-	-	-	South
74-21	149	-60	26.06	30.63	4.57	0.38	0.23	4.38	-		-	-	-	-	South
			68.28	72.54	4.26	0.17	0.83	2.34	-		-	-	-	-	South
			87.75	92.35	4.57	0.31	0.14	1.78	-		-	-	-	-	South
			102.41	103.78	1.37	0.29	0.43	1.77	-		-	-	-	-	South

Holcapek states, however:

"The results of this drill program showed that the best mineralized sections are located within the argillites or along the argillite-chert contact, localized along the crestal region of tight, low amplitude folds. Anticlinal folds appear to be more favourable for localizing mineralization because of greater thickening of the sedimentary units and more intense brecciation, but in the vicinity of the fault zones, strong brecciation of the synclinal crestal region can carry good widths of ore grade mineralization as is evident in the eastern part of the Main Zone.

Further, the bedded mineralization suggests that the original sulphides are syngenetic in origin and have been partially remobilized from the limbs of the fold structures into the crestal regions. More work will be necessary to definitely confirm this model."

Holcapek calculated a historic estimate characterized as “geologic, drill indicated reserves” totaling some 1.6 million tons as follows:

Main Zone-Basal Cherts	528,160 tons (416,160 indicated, 112,000 possible) grading 1.0% Cu and 1.2% Zn
Main Zone-Middle Cherts	350,000 tons (indicated) grading 1.0% Cu and 1.5% Zn
South Zone-Basal Cherts	400,900 tons (indicated) grading 0.27% Cu and 2.48% Zn
South Zone-Middle Cherts	320,000 tons (indicated) grading 0.58% Cu and 2.48% Zn

He further concluded that approximately 1.16 million tons of this material was mineable by open pit. *No details are available in the report of Holcapek, as to the methods used to prepare this historical estimate. A qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves. Black Widow Resources Inc. is not treating the historical estimate as current mineral resources or reserves.*

Holcapek recommended line cutting along with detailed lithologic/structural mapping of the whole property and magnetic and EM surveying, to be followed by deep drilling of the down-dip extensions of the known mineralized zones.

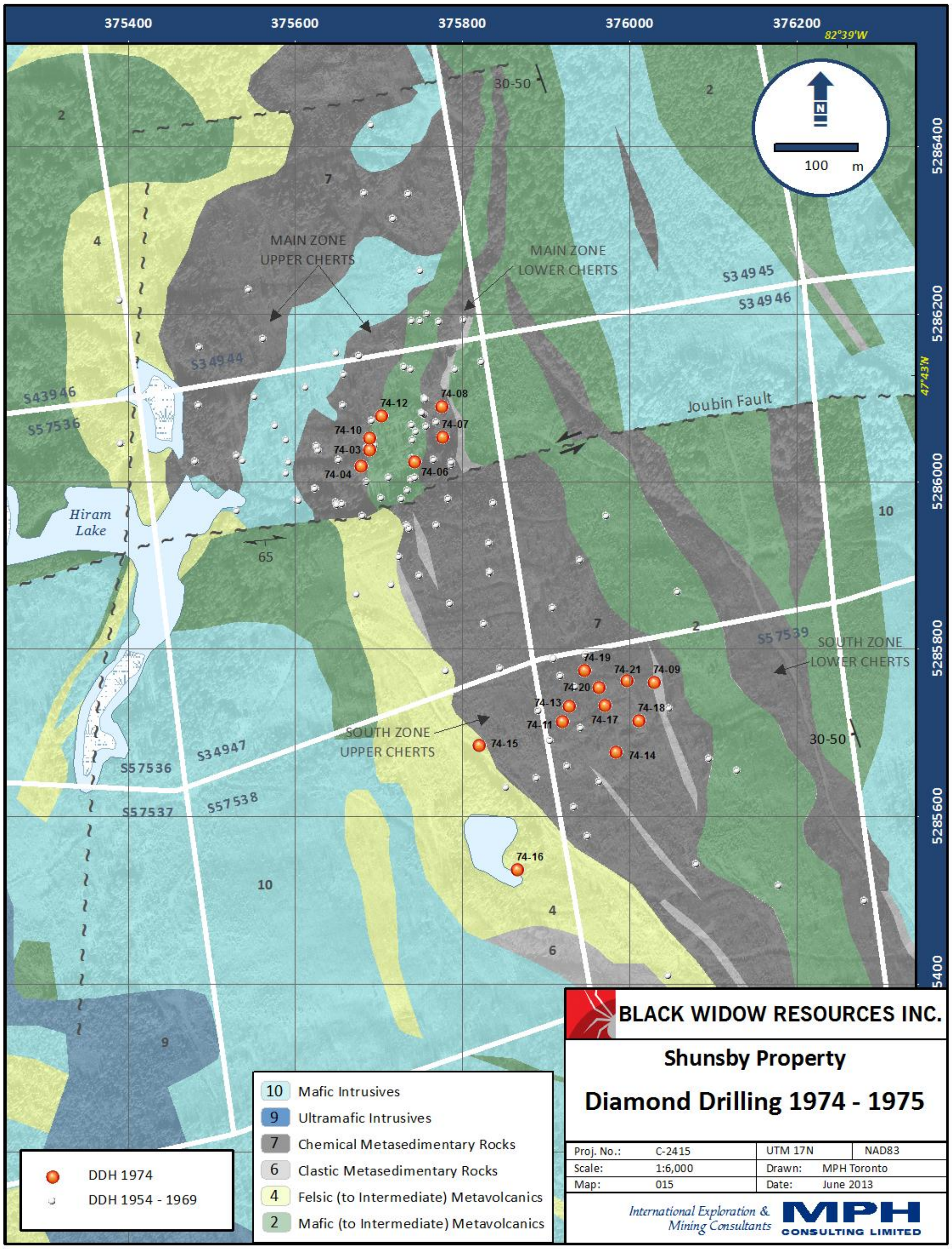


Figure 5-5: Drill Plan 1974 - 1975

5.7. MW Resources Ltd. 1978 – 1989

In 1978, the renamed MW Resources drilled five holes in the vicinity of the Forestry Tower, then part of the Shunsby property, with little success. This work was funded by Greenwich Lake Explorations Ltd., a subsidiary of MW, to earn 10% of the property. Greenwich became Chelsea Resources Ltd. in 1987.

Placer Development Limited optioned the property from MW Resources Ltd. in 1980 and completed geochemical and EM-17 surveying. Placer then drilled four holes, all in the southern portion of the much larger property as it existed at that time. Two holes were drilled just to the south of the present property, MW80-1 and 80-2, and intersected massive pyrite horizons with very low Cu and Zn values, in explanation of the EM conductivity.

The next phase of exploration was conducted by MW Resources in 1981 and was directed towards delineating a small, high-grade pod within the Main Zone which could be extracted to generate cash-flow. To this end, D. Fairbairn, P.Eng., President of MW Resources Ltd., reviewed all past data and identified a "flat-lying ore zone" within the Basal Cherts of the Main Zone, of dimensions 1,000 feet long by 130 feet wide by 7 feet thick. This was estimated based on past drilling, to contain some 80,000 tons of material grading 3.9% Cu, 6.2% Zn, 1.2 oz/ton Ag and 0.03 oz/t Au.

Fairbairn utilized the cross section method to prepare this historical estimate, assuming apparent widths to the sections ranging from 60 ft to 170 ft., and averaging 130 ft. (Fairbairn, 1981). *A qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves. Black Widow Resources Inc. is not treating the historical estimate as current mineral resources or reserves.*

MW proposed mining this zone by room-and-pillar methods using a decline from surface, with the ore to be milled at Manitouwadge (Geco). In order to prove up this resource, Fairbairn proposed a program of short vertical holes as well as stripping and trenching in the Basal Chert horizon of the Main Zone. He was also encouraged by the work to date on the South Zone basal chert, and the middle (Upper) chert horizons of both zones.

In November of 1981, L.B. Goldsmith, P.Eng., of Arctex Engineering Services reviewed the MW drilling program, as well as the Placer geophysics. Whilst the drilling was in progress at that time, Goldsmith was confident that it was successfully proving up the high grade deposit model of Fairbairn. Goldsmith further concluded that Placer had not comprehensively compiled known geology with respect to their EM-17 results. He recommended that an EM-17 survey be run over the North (Main) Zone and the results used to re-interpret the Placer results.

A 1981 drill program by MW Resources consisted of 30 vertical or near vertical holes in the Main Zone, and two in the South Zone, as tabulated in Table 5-7 below. These Fairbairn (1982) concluded were successful in proving up 50,000 tons of material grading

Table 5-7: Significant 1981 DDH Intersections

Hole	Azimuth	Dip	From	To	Length	Cu (%)	Pb (%)	Zn (%)	Including From	Including To	Length	Cu (%)	Pb (%)	Zn (%)	Zone
81-1	270	-90	10.97	12.80	1.83	0.39	-	3.08	-		-	-	-	-	Main
			18.59	21.03	2.44	1.05	-	7.71	-		-	-	-	-	Main
			26.37	36.42	10.05	2.54	-	0.89	-		-	-	-	-	Main
81-2	270	-90	20.73	28.35	7.62	1.42	-	2.88	-		-	-	-	-	Main
			34.90	39.01	4.11	1.53	-	1.05	-		-	-	-	-	Main
81-3	270	-90	23.16	28.19	5.03	1.56	-	0.53	-		-	-	-	-	Main
			31.39	32.31	0.92	1.19	-	0.12	-		-	-	-	-	Main
81-5	288	-80	17.37	22.40	5.03	1.17	-	1.25	17.37	18.44	1.07	4.99	-	0.29	Main
			5.49	8.23	2.74	0.08	-	2.71	-		-	-	-	-	Main
			26.82	27.43	0.61	0.84	-	2.57	-		-	-	-	-	Main
			32.92	41.00	8.08	1.08	-	0.64	-		-	-	-	-	Main
81-6	270	-90	47.85	52.88	5.03	2.95	-	2.85	-		-	-	-	-	Main
81-7	108	-73	43.28	47.09	3.81	1.80	-	0.76	-		-	-	-	-	Main
81-8	198	-80	51.82	62.79	10.97	1.66	-	4.82	-		-	-	-	-	Main
81-10	270	-90	2.74	6.71	3.97	1.17	-	0.25	-		-	-	-	-	Main
			15.85	17.22	1.37	4.32	-	0.46	-		-	-	-	-	Main
81-11	270	-90	8.69	12.80	4.11	1.08	-	2.85	-		-	-	-	-	Main
81-12	270	-90	5.18	12.80	7.62	1.58	-	1.81	-		-	-	-	-	Main
			26.06	26.97	0.91	2.11	-	0.19	-		-	-	-	-	Main
81-13	270	-90	16.00	18.69	2.69	0.32	-	1.99	-		-	-	-	-	Main
81-14a	270	-90	29.11	29.57	0.46	4.10	-	0.06	-		-	-	-	-	Main
			33.83	36.12	2.29	1.83	-	0.01	-		-	-	-	-	Main
81-15	270	-90	7.92	9.20	1.28	6.54	-	0.82	-		-	-	-	-	Main
81-16	98	-70	7.62	12.19	4.57	0.62	-	1.08	-		-	-	-	-	Main
81-18	98	-80	2.44	6.10	3.66	0.03	-	3.27	-		-	-	-	-	Main
			24.99	26.21	1.22	0.15	-	3.94	-		-	-	-	-	Main
81-19	176	-60	1.68	4.27	2.59	0.47	-	3.05	-		-	-	-	-	Main
			7.16	12.34	5.18	1.04	-	2.09	7.16	9.45	2.29	1.72	-	4.30	Main
			22.71	22.86	0.15	0.88	-	6.43	-		-	-	-	-	Main
81-20	98	-70	6.40	15.29	8.99	0.37	-	2.52	-		-	-	-	-	Main
81-21	270	-90	20.12	23.77	3.65	1.04	-	0.08	-		-	-	-	-	Main
81-22	270	-90	3.66	6.40	2.74	0.39	-	2.85	-		-	-	-	-	Main
81-23	270	-90	25.76	26.21	0.45	0.98	-	7.87	-		-	-	-	-	Main
81-24	270	-90	6.10	8.84	2.74	0.32	-	5.11	-		-	-	-	-	Main
			13.41	14.94	1.53	0.32	-	2.10	-		-	-	-	-	Main
			20.73	23.47	2.74	0.55	-	2.06	-		-	-	-	-	Main
			26.21	26.97	0.76	1.62	-	1.37	-		-	-	-	-	Main
			29.41	31.70	2.29	1.47	-	1.11	-		-	-	-	-	Main
81-25	278	-80	18.29	22.10	3.81	0.87	-	5.72	-		-	-	-	-	Main
			33.28	49.53	16.25	2.87	-	0.90	33.28	37.03	3.75	3.97	-	1.50	Main
			-		-	-	-	-	38.86	41.76	2.90	4.06	-	0.40	Main
			-		-	-	-	-	43.89	44.96	1.07	10.10	-	2.31	Main
81-30	98	-75	4.88	10.36	5.48	0.76	-	3.72	-		-	-	-	-	Main
			18.90	35.66	16.76	1.93	-	1.68	18.90	20.12	1.22	0.48	-	3.45	Main
			-		-	-	-	-	21.95	35.66	13.71	2.08	-	1.26	Main
81-31	98	-80	17.22	18.59	1.37	0.27	-	2.76	-		-	-	-	-	Main
			25.91	28.65	2.74	1.11	-	1.03	-		-	-	-	-	Main
81-101	270	-90	15.54	16.46	0.92	0.38	-	3.39	-		-	-	-	-	South
			17.07	19.20	2.13	1.08	-	1.69	-		-	-	-	-	South
81-104	270	-90	3.96	5.18	1.22	0.52	-	1.64	-		-	-	-	-	South
			13.11	15.24	2.13	0.04	-	4.05	-		-	-	-	-	South

5.2% equivalent copper (3.2% Cu + 3.1% Zn along with 0.02 oz/ton Au and 0.75 oz/ton Ag) over approximately half of the inferred 1,000 foot strike length of the zone. Fairbairn again utilized the cross section method to prepare this historical estimate, constructing details sections on widths ranging from 50 ft to 150 ft. (Fairbairn, 1982). *A qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves. Black Widow Resources Inc. is not treating the historical estimate as current mineral resources or reserves.*

Fairbairn recommended another 2,000 feet of drilling to evaluate the northern and southern quarters of this shallow, high grade zone, and postulated that the base metal enrichment was the result of post-depositional sedimentary dewatering, and as such, more high grade pods could be expected.

He further recommended that a program of thorough geological mapping, geophysical surveying and diamond drilling be initiated to locate more zones before any production attempts. The suggestion was also made that MW might entice a major mining company, via a suitable option agreement, to get involved in the project.

In 1982, a lake sediment and water sampling program was performed in the vicinity of Tower, Mink and Edwards lakes by The Environmental Applications Group Ltd. (EAG) for MW Resources. The lake sediment survey, although encompassing a very small number of samples, suggested that a high metal background was present, with possible bedrock related responses noted in the area of Beavertail Lake, Tower Lake and downstream of Edwards Lake. Water at all sites did not reflect these concentrations and was deemed of excellent quality for both potable and mill uses.

In 1983, a fully independent review and assessment of all previous exploration work was performed by Hill, Goettler, De Laporte Ltd. of Toronto for MW Resources. Significantly, they conclude that "sufficient uncertainties with respect to the results and interpretations of both the Placer and recent MW work on the property cast doubts upon the conclusions of the previous work and the reserves supposedly established." A particularily salient point is made in their report as follows. "It is the belief of H.G.D. that the continuity of mineralization depicted in cross-sections by Fairbairn (1982) is not substantiated by the data in detail, and that therefore there may be considerable doubt that a reserve, of the size Fairbairn had estimated, exists. It is felt that some of the data may have been made to fit a model of continuity where continuity should not be expected geologically." Due to the commodity recession at that time, H.G.D. advocated finding a joint venture partner, and directing further work towards new targets.

They conclude, "Despite extensive drilling in the North (Main) and South Zones of the property, therefore, it is H.G.D.'s opinion that the property has not been fully tested. There is enough information presently available in core and reports to enable a thorough assessment to be made and an attractive exploration programme to be outlined by MW preparatory to seeking such a partner".

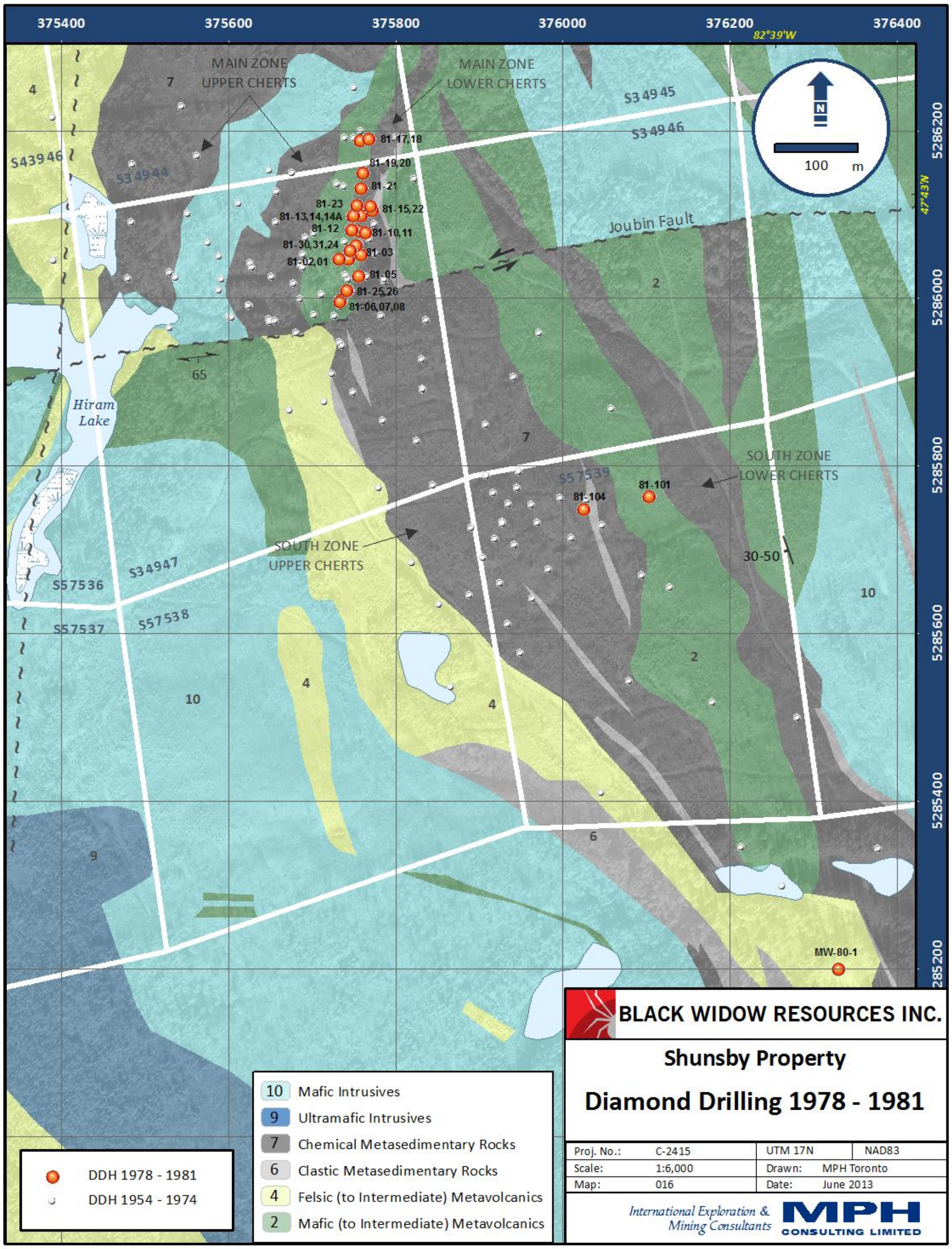


Figure 5-6: Drill Plan 1978 - 1981

To this end, Bryan Wilson and Associates Ltd., was contracted in 1989 to compile the exploration data and recommend an integrated exploration plan. Wilson's report admirably outlines the deficiencies in the previous programs, particularly the confusion that had resulted from differing geological interpretations, logging standards, and focus of individual companies. He further noted that the two mineralized horizons are open to depth and, in part, along strike. He also concluded that Fairbairn's calculation of 80,000 tons at 3.9% Cu, 6.2% Zn and 1.2 oz/ton Ag for the high grade pod was reasonable, but that extraction of this ore would break even at best, at that time.

Wilson recommended a one million dollar, two-phase exploration program to consist of:

Phase One
Re-establish access road.
Re-logging / re-sampling old core.
Line cutting.
Geological mapping.
HLEM and gradient magnetic surveying.
Detailed levelling survey to locate old drill collars.

Phase Two
10,000 feet of anomaly drilling.
25,000 feet of detailed drilling.

5.8. Kirkton Resources Corporation 1989 - 1992

Kirkton Resources Corporation optioned the property from MW Resources Ltd., Toronto and Chelsea Resources Ltd., Vancouver in 1989, at which time MPH Consulting Limited, and the author of this report as Project Manager, became involved in the Shunsby property. Kirkton's option allowed for the earning of a 100% undivided interest in the property, subject to a 12-1/2% net profits royalty, by carrying out exploration totalling $2,750,000 and making cash payments totalling $250,000. Kirkton ended up earning an initial 20% undivided interest after exploration expenditures of $750,000 and option payments of $50,000, and thereafter a further 15.3% (for a total of 35.3%) with the expenditures made by Phelps Dodge on their behalf.

Kirkton/MPH compiled all previous reports, recommendations etc. and carried out a program of:

1989: Line-cutting, magnetics and HLEM Surveying, geological investigations and sampling. Importantly the control grid was cut with a surveyed baseline and L0+00E/W, tied into the #4 corner post of surveyed claim S34946/#1 post of claim S57539. The grid also had all lines turned off the baseline with a transit to allow for better control.

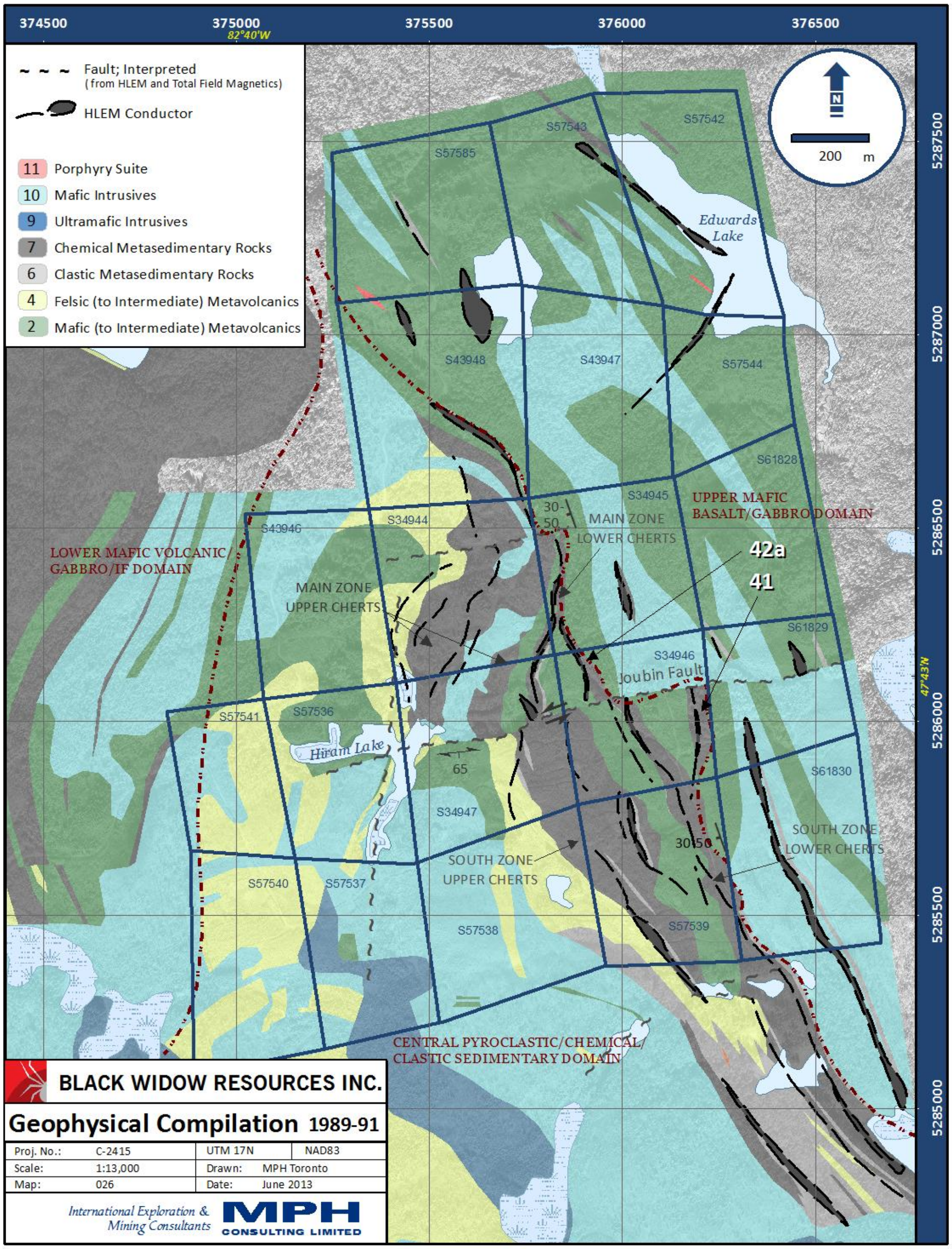


Figure 5-7: Geophysical Compilation 1989 - 1991

1990: Extensive stripping and trenching of known mineralized zones at surface, preliminary geological mapping, location of the majority of the historical DDH collars (all tied-in to the survey grid), extensive re-logging and re-sampling of historical core (reported in Section 12.0 – and from which all tables of historical intersections have been compiled for this section of the present report) which validated previous analytical work, and on-going compilations/re-interpretations of historical results. Computer-generated east-west drill sections were constructed for the property, and on detailed 25-50m spacings in the densely drilled areas. A mineral inventory was estimated as part of this work, but was subsequently dismissed as new geological information was definitive in establishing that continuity between sections was not demonstrable for the dominantly stringer-type mineralization present, and therefore all such work was invalid.

As well, additional detailed line-cutting and geophysics were carried out over the area hosting the Main and South zones. The new geophysical data were integrated with the previous survey results and the entire geophysical picture re-interpreted. The aim of all this work was to better understand the nature and distribution of the mineralization, and to correlate the copper and zinc values in drill core with known surface mineralization and the various geophysical zones. As well, a number of samples of the volcanic/intrusive assemblage were collected for lithogeochemical analysis, to help characterize any hydrothermal alteration associated with mineralization on the property.

1991 Continued stripping and trenching based on 1990 results, detailed and property-wide mapping, systematic lithogeochemical and petrographical sampling and analysis of all major units within the Shunsby stratigraphy, all resulting in a definitive interpretation of the geology and mineralization style/exploration model for the property.

The results of the 1991 program, in concert with all of the previous Kirkton/MPH work, allowed for a comprehensive understanding of the Shunsby property in terms of both geology and mineralization, for the first time since historical work began. The value of the extensive stripping program could not be overstated in that the detailed stratigraphy and sedimentary features were clearly evident. Geologically, it was now proven incontrovertible that the entire sequence at Shunsby is overturned to the west such that true stratigraphic tops are, in fact, to the east. This had some critical, previously unrecognized, exploration implications. In particular, the “Lower Cherts” are in fact near the top of the volcano-sedimentary pile, and the “Upper Cherts” are lower in the stratigraphy.

Three generalized geologic domains were now recognized from west to east, ie. oldest to youngest, on the Shunsby property namely:

i) a mafic volcanic-gabbro-iron formation domain exposed in the extreme west-central portion,

ii) a major felsic pyroclastic-chemical sedimentary - clastic sedimentary domain with minor basalt which underlies the central and southwest portion of the property,

iii) an easterly/northeasterly mafic (basalt-gabbro) domain.

This geological picture has been greatly complicated by folding, faulting and intrusive activity. The central domain is the most economically significant in that the Shunsby Cu-Zn deposits occur near its stratigraphic top in a distinctive chert/argillite sequence.

Structurally, no major fold closures were located on the property although considerable drag-folding, quite large scale in some cases and often related to east-west shearing, was identified in a number of areas.

Evaluation of all of the exploration results to 1991 was now demonstrating to MPH that the Shunsby mineralization consisted of a large, structurally-controlled stringer system centred on a thick, grossly pod-like or lensoid unit of predominantly cherty chemical sediments and their brecciated equivalents – a classic VMS footwall system. The chert accumulation was interpreted to represent chemical sedimentation in a quiescent basinal environment on the flank of a major felsic - intermediate pyroclastic eruptive centre located to the south and west. Lithogeochemical processing as well as field and thin-section observations indicated a large-scale hydrothermal alteration system accompanies the mineralization.

Individual mineralized structures were found to trend 120° on average and dip vertically. Very little of the Cu-Zn mineralization is stratiform, ie. N-S striking and 30° - 50° West dipping, and was found to be confined to short strike lengths (10-20m) and narrow thicknesses (maximum 50cm) within massive pyrite-pyrrhotite argillaceous subunits of the cherty chemical sediment accumulations. Chalcopyrite, sphalerite and galena locally are present but appear to be secondary replacement features as opposed to primary syngenetic sulphides, possibly with the exception of a minor portion of the sphalerite.

With virtually all of the old work predicated on a stratiform model, it was now easy to understand why few of the old intersections "lined-up" in a bedding-plane sense and hence the property's reputation as "erratic" or "difficult". This further had the ramification that the old drilling is virtually useless from a resource standpoint and all of the historical resource estimations should be discarded.

It was felt that at least seven individual structures are present within the overall stringer system with definite evidence in float of at least one more copper-bearing structure to the north of any presently known mineralization. The central structures appeared to be the most copper rich. Those on the peripheries both to the north and south seemed more Zn-Pb rich. There was also a great deal more Pb on the property than previously recognized with much of this in very late E-W fractures.

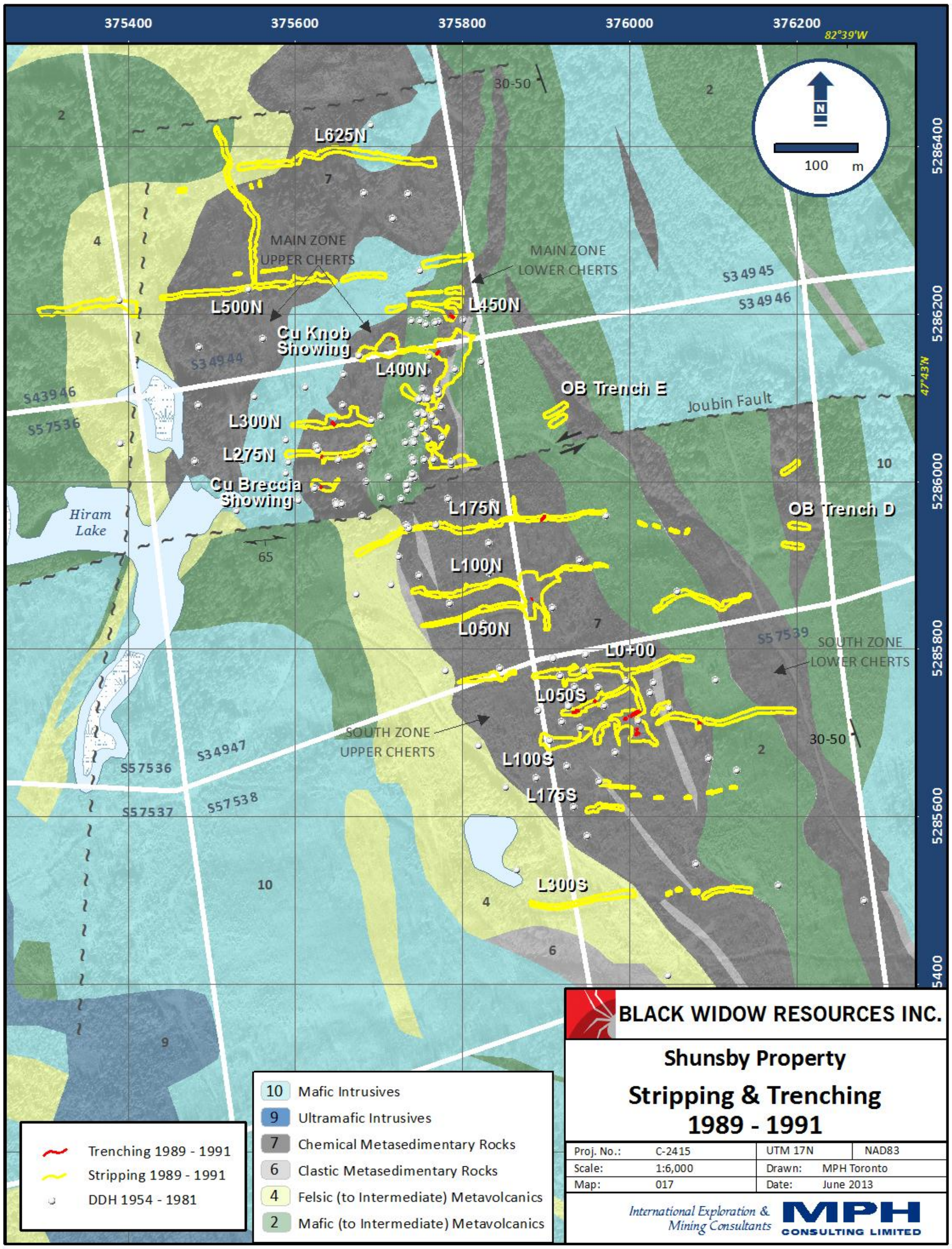


Figure 5-8: Stripping Trenching Plan 1989 - 1991

The stripping and trenching work indicated some attractive copper (± zinc) grades and widths associated with the known structurally-controlled mineralization as per Table 5-8 below (and the historical drill hole intersections in the previous tables), and suggested that this material may have economic potential if sufficient of it could be outlined. A trench across a portion of the Copper Breccia showing (TRCuBx), for example, averaged 3.53% Cu over 5.0m. Similarly, a 3.0m sample across the Copper Knob structure (TRCuKnob) averaged 2.59% Cu. A trench across the South Zone structure in the area of line l+00S averaged 10.77% Zn, 2.75% Pb and 0.75% Cu over 4.8m (TR100S).

Depending on the timing of the mineralizing hydrothermal event relative to volcanism, the entire system may have vented at the sea floor at the top of the Shunsby sedimentary sequence. MPH concluded (1991) that now that top directions were known, this venting, if it occurred, would have taken place along the string of strong, generally untested EM conductors to the east of the surface showings (particularly Conductors 42a and 41, per Figure 5-7), or at their equivalent stratigraphic positions, at depth. The Kirkton prospecting/trenching work had disclosed the presence of a mineralized glacial dispersion train along this corridor with some quite high grade samples pointing to the presence of some form of undiscovered mineralization here.

As well, some of the deepest holes into the so-called West Zone (really the Main Zone Cherts at depth, to the west of the "Digestive Diorite") intersected the highest grade Cu mineralization.

Table 5-8: Summary of 1990-91 Trenching

Trenches	Easting	Northing	Length	Azimuth	Cu (%)	Zn (%)	Pb (%)	Ag (oz/ton)	Zone/Horizon and Style of Mineralization
TR425N	0+42W	4+24N	8.0	322	0.67	4.30	1.15	0.12	Main Zone Lower Chert Structural Mineralization
TRCuKnob	1+20W	4+10N	3.0	172	2.59	0.32	0.02	0.41	Main Zone Upper Chert Structural Mineralization
TR400N	0+72W	3+83N	7.4	39	2.87	2.97	0.78	0.38	Main Zone Lower Chert Structural Mineralization
TR300N	2+01W	3+13N	7.5	319	0.20	1.17	0.26	0.04	Main Zone Upper Chert Massive Sulphides
TR275Na	2+25W	2+81N	4.0	112	0.15	0.59	0.05	0.07	Main Zone Upper Chert Massive Sulphides
TR275Nb	1+99W	2+78N	1.0	30	0.69	5.97	1.30	0.20	Main Zone Upper Chert Structural Mineralization
TRCuBx	2+29W	2+39N	5.0	30	3.53	0.52	0.02	0.54	Main Zone Upper Chert Structural Mineralization
TR175N	0+32E	1+69N	5.0	41	0.16	2.34	0.35	0.18	Main Zone Lower Chert Structural Mineralization
TR075Nb	0+07E	0+75N	2.0	80	0.06	2.09	0.47	0.16	South Zone Upper Chert Stratiform Mineralization
TR075Sa	0+39E	0+63S	7.0	112	0.42	8.40	0.40	0.12	South Zone Lower Chert Stratiform Mineralization
TR075Sb	0+44E	0+65S	5.0	82	0.53	3.37	0.52	0.12	South Zone Lower Chert Stratiform Mineralization
TR100S	1+10E	0+98S	4.8	52	0.75	10.77	2.76	0.35	South Zone Lower Chert Structural Mineralization
TRA00b	1+89E	0+97S	3.5	72	0.13	2.25	0.67	-	South Zone Lower Chert Massive Sulphides
TRA02	1+12E	1+03S	3.5	62	0.05	1.15	0.16	-	South Zone Lower Chert Structural Mineralization
TRA03a	1+08E	0+80S	15.0	62	0.03	1.31	0.10	-	South Zone Lower Chert Structural Mineralization
TRA03b	1+02E	0+82S	1.0	62	0.07	10.58	0.94	-	South Zone Lower Chert Massive Sulphides
TRA04a	0+66E	0+57S	5.0	62	0.04	1.66	0.60	0.06	South Zone Upper Chert Stratiform Mineralization

5.9. Phelps Dodge Corporation Option 1992 - 1993

After struggling to raise capital, Kirkton optioned the property to Phelps Dodge Corporation of Canada Ltd., who carried out Transient Domain (Crone) EM and pulse EM surveying as well as the drilling of ten diamond drill holes during the winter of 1992-93 (Johnson and Jagodits, 1992 and 1993). This program somewhat followed the MPH recommendations in that several of the target EM conductors were tested, albeit only with a single, shallow hole, suggesting that much more thorough work is needed.

Generally Phelps Dodge appears to have been satisfied that their drill hole and geophysics had explained the conductive anomaly once graphite was intersected, and they moved on as the causative feature was not a massive sulphide (nor was one indicated to be proximal based on the pulse EM work on the last five holes). The TDEM survey was nominally to detect deeper conductors than the Kirkton HLEM work, however all drilling by Phelps Dodge was very shallow.

Three of the holes (SK7, 8 and 9) were drilled in a northeasterly direction through the Main Zone and South Zone hydrothermal structures and stratigraphy as per Figure 5-9. Only holes 7 and 9 encountered mineralization grades and thicknesses consistent with the surface trenching/historical drilling results.

The property option was dropped without further work in 1993 and became dormant soon after.

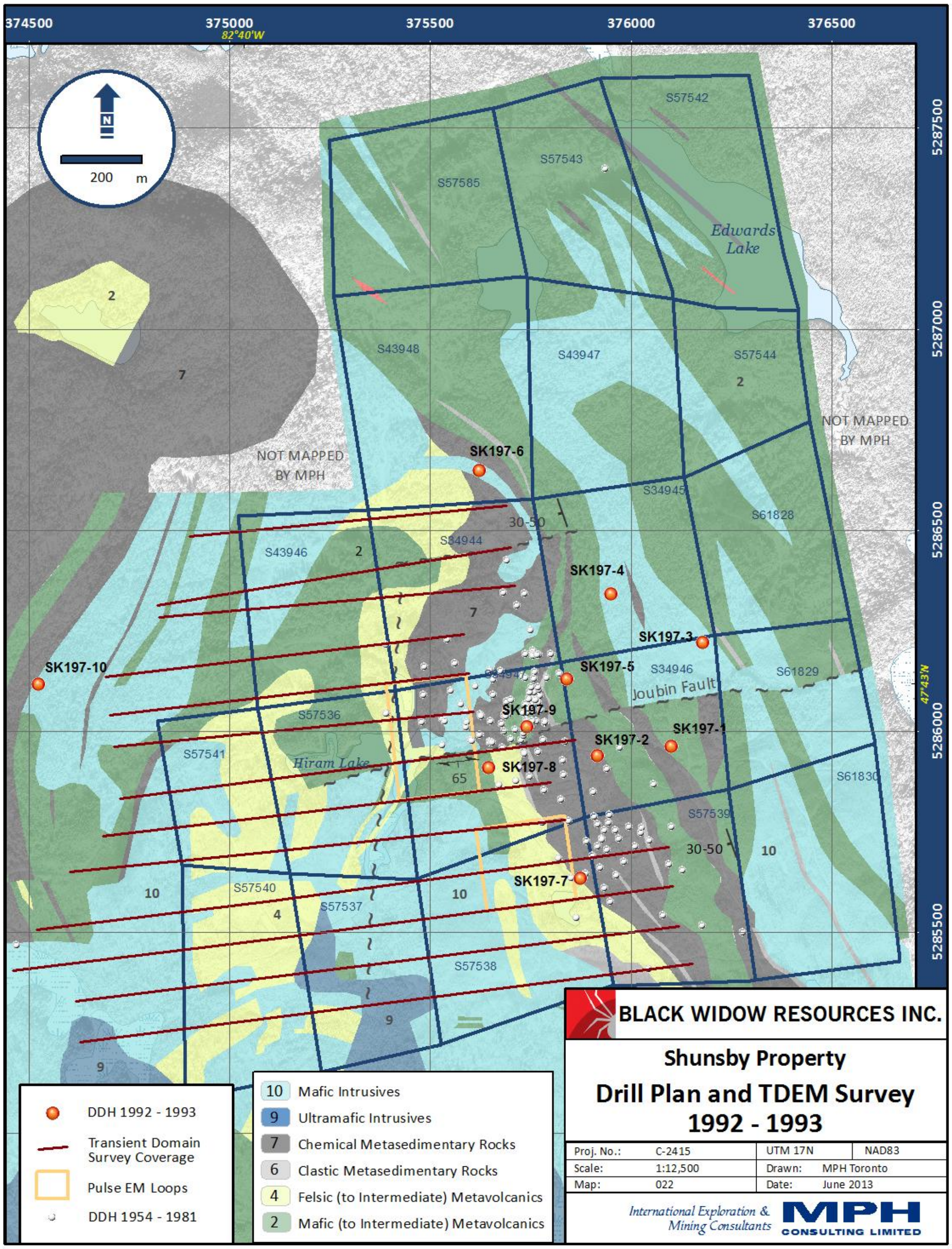


Figure 5-9: Drill Plan and TDEM Grids 1992 - 1993

6.0 GEOLOGICAL SETTING

The Shunsby property lies within the south western Swayze greenstone belt. This is considered to be the southwest extension of the Abitibi belt which hosts the Timmins, Kirkland Lake, Noranda-Val d'Or, Mattagami and Chibougamau mining camps. North to northwest striking faults and granodiorite / monzonite batholiths partially disconnect the Swayze from the Abitibi belt.

6.1. Regional Geology

The Swayze can be thought of as an arcuate volcano-sedimentary belt, convex to the west, extending from Sewell Township in the northeast, through Swayze Township in the central region, to Groves Township in the southeast. The volcanics consist primarily of mafic rocks which floor some substantial intermediate-felsic eruptive centres. Clastic and chemical sedimentary rocks, including major banded iron formations, are intercalated with the volcanics. Younger, probably Temiskaming-equivalent, clastic sediments unconformably overlie the older rocks. A variety of synvolcanic to post-volcanic intrusions have invaded the supracrustal rocks. The Swayze belt is truncated to the west by the fault-bounded, north-northeast trending Kapuskasing Structural Zone, which contains high grade metamorphic rocks and associated carbonatite intrusive complexes (Figure 6-1).

A number of major regional east-west alteration/deformation zones are present in particularly the north and south Swayze. These represent extensions of, or analogies to, some of the major "Breaks" of the central Abitibi belt, with the Ridout Deformation Zone in the south Swayze the extension of the Cadillac-Larder Lake Deformation Zone.

No base metal deposits have been mined in the Swayze to date although the proper geological conditions for such deposits would appear to be present. Gold production has been limited to approximately 1,000,000 tons of ore from seven rather small-scale producers, however the multi-million ounce Côté Lake deposit of IAMGOLD Ltd. may soon turn the Swayze into a larger producer. By far the largest known base metal concentration in the belt is on the present Shunsby property with the Texas Gulf deposit immediately to the northwest reportedly containing 100,000 tons of drill indicated material grading 3% zinc, 1% lead and 0.5% copper to a depth of 100ft. (Rye, 1984). The base metal sulphides in this latter deposit occur in a sequence of mafic tuffs, chert breccias and sulphide facies iron formation.

The Swayze belt, like the rest of the Abitibi greenstone belt, contains a variety of extrusive and intrusive rock types ranging from ultramafic through felsic in composition, as well as both chemical and clastic sedimentary rocks (Heather, 2001). The geology of the Swayze belt underlying the Project area is illustrated in Figure 6-2. All of the rock types within the Swayze belt are older than 2,695 Ma, with the oldest dates of 2,747 Ma (van Breemen et al, 2006).

Heather (2001) recognized six supracrustal units; from the oldest to the youngest these are the Chester, Marion, Biscotasing, Trailbreaker, Swayze, and Ridout subdivisions. These units have subsequently been correlated by Ayer et al. (2002) with coeval assemblages across the southern Abitibi greenstone belt having similar characteristic features, respectively named the Pacaud, Deloro, Kidd-Munro, Tisdale, Blake River, and Timiskaming assemblages.

Plutonism in the Swayze belt lasted from 2,740 Ma to 2,660 Ma, during the entire period of volcanism and subsequent sedimentation. No geochronological evidence for pre-existing basement has been found. Plutonism continued after cessation of extensive volcanism, including 2,686 Ma to 2,680 Ma (D2) granitoids and post-tectonic granitoids as young as 2660 Ma. Syntectonic plutons constrain around 2,680 Ma, the main D2 deformation event. This was also a period of orogen-wide shortening across the entire Superior Province, an event that coincided with gold mineralization (von Breemen et al., 2006).

Several samples in their work were from Cunningham Township / Shunsby Property including two samples from Shunsby footwall felsic pyroclastics dated at 2730 +/-2 Ma and 2731 +/- 2 Ma respectively, establishing the rocks as belonging to the oldest Chester Group volcanic sequence. The nearby Isaiah Creek stock was much younger at 2692 +/-2 Ma, as was a quartz-feldspar porphyry dyke at Shunsby dated at 2699 +3/-2 Ma.

Igneous lithologies predominate and include both volcanic and plutonic rocks. The latter are found both internally in the supracrustal belts and externally, in large granitoid complexes. Sedimentary rocks occur mainly near the top of the succession. Age correlations are consistent with an upward-younging stratigraphic succession without major tectonic breaks or disruption, which can be correlated with equivalent stratigraphy across the southern Abitibi greenstone belt.

6.2. Local Geology

The geology of Cunningham Township has been described by Siragusa (1978) as follows; and is presented in Figure 6-2:

"Metamorphosed volcanic flows interpreted as high-magnesium tholeiitic basalt are predominant in the northern half of Cunningham Township and over most of Garnet Township. The metavolcanics trend east-southeast, are locally pillowed, vesicular or amygdaloidal and rarely variolitic, have undergone metamorphism which seldom exceeds greenschist rank, and evidence of primary features, notably selvage margins of pillows, may be found even in foliated or sheared flows. The pillows tend to have lobate or irregular outlines which may locally reflect conditions of near parallelism between the depositional plane of the flows and the present erosional surface, and, at any rate, rarely permit top determinations. Determinations made at a few localities suggest that tops face north. Thin layers of dacitic crystal tuff occur in the upper section of the (assumedly)

Figure 6-1: Regional Geology Map Swayze Area

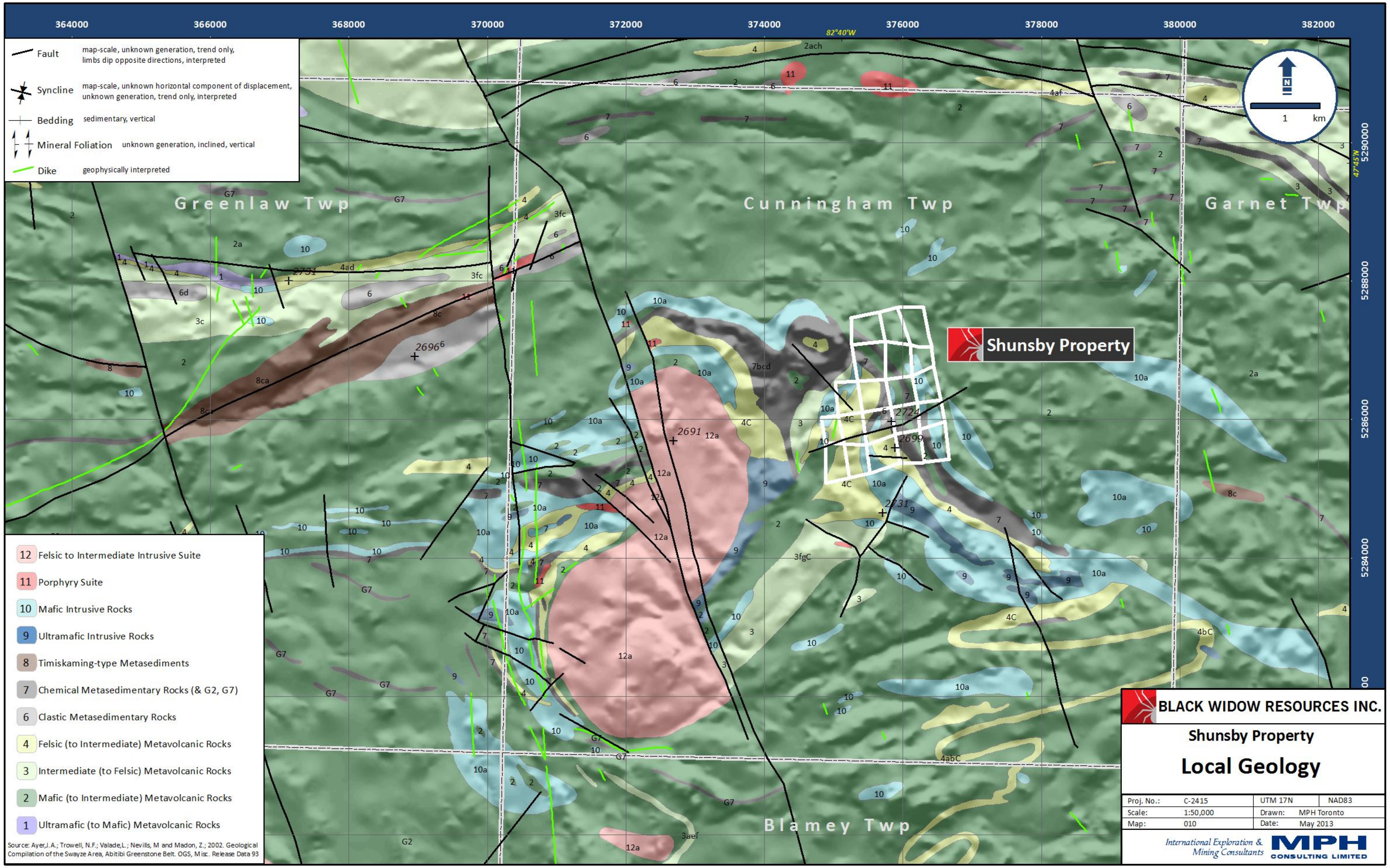


Figure 6-2: Local Geology Cunningham Township

north-facing series, but owing to scanty outcrop distribution these units, which otherwise would be excellent marker horizons, cannot be traced laterally for significant distances.

Cycles of chemical and clastic sedimentation occurred during development of the basaltic series and resulted in the deposition of chert iron formation, and epiclastic rocks in the middle and upper section of the series. The chert units consist mostly of laminated to medium-bedded, barren to ferruginous chert which is commonly interbedded with iron-rich layers containing an estimated 20 to 60 percent magnetite, and which is locally the host of sulphide mineralization. Deformation and fracturing of chert has resulted in conspicuous development of chert breccia in some of these units.

The main chert units are in Cunningham Township and stratigraphically are in the middle section of the basaltic sequence of the map-area. The largest chert body is located about 1600m south of Mink Lake, has an unusual broadly triangular outline, and has a planimetric area of about 2 km^2. The strike of the chert varies from west-northwest on the west side of the body to north-northeast on the east side of it. This change, as well as the unusual shape of the body itself, are the effects of displacement in the west side of the body (i.e. Isaiah Creek Fault), and folding in the east. A displaced western lobe of this body presently found about 2000m south of the latter in the Peter Lake area, trends east-northeast and is about 1800m long and 700m wide. Another significant chert unit trending northnortheast to south-southeast occurs eastward of a small lake located at the very centre of Cunningham Township (Hiram Lake). Most of the drilling conducted by Consolidated Shunsby Mines Limited prior to 1970 and which indicated a 1.1 million ton copper-zinc deposit was concentrated on one claim (S34947) within this chert unit.

Closely associated (spatially) with the main chert units of Cunningham Township are relatively small bodies of feldspar porphyry with aphanitic matrix and feldspar crystals that are mostly 2 to 3mm in size. The porphyry, which is thought to be a subjacent felsic volcanic rock, is well exposed along the northern shore of the tiny lake about 350m southwest of the fire tower, at the very core of the folded eastern tip of the Mink Lake chert deposit. A prominent, although rather heavily forested, ridge of this rock is also found about 3.4 km north and 2.3 km west of the southeastern corner of Cunningham Township.

Interbedded with the metavolcanics in the upper and central sections of the basaltic sequence are bands of epiclastic metasediments trending east-northeast, northwest and west, occurring in northwestern Cunningham Township, and northeastern and west-central Garnet Township, respectively. These metasediments include dominant matrix-supported polymictic conglomerate, and subordinate arkosic arenite and minor slate which are of only local occurrence.

The coarse fraction of the conglomerate consists largely of variably deformed pebbles and boulders of chert, felsic metavolcanics, and minor granitic rocks. The latter are thought to represent early granitic rocks which pre-date the quartz monzonite underlying southwestern Cunningham Township.

Mafic intrusive rocks in bodies of irregular shape and variable size are commonly found spatially associated with the metavolcanics, and are particularly frequent in southern Cunningham Township and northeastern Gamet Township. These rocks have composition varying from diorite to gabbro, the latter being dominant, and are massive although commonly affected by variably well developed jointing. In general they have medium-grained diabasic texture which locally gives way to a very coarse knotty pyroxenite where hornblende may be pseudomorphed after brown pryoxene.

Porphyritic varieties with tabular plagioclase phenocrysts up to 4cm in size are also present in a few localities. Basaltic and chert xenoliths are occasionally found within these rocks and where these occur the rock's intrusive nature is clearly indicated.

Gabbro is affected by retrograde metamorphism along a north-northeast-trending shear zone extending eastward of lsaiah Lake (Cunningham Township). This zone is thought to post-date regional metamorphism and to be a local feature related to the emplacement of quartz monzonite west of Isaiah Lake.

Discrete intrusions of peridotite occur in a few localities of southern Cunningham Township. Peridotite is massive, serpertinized to variable extent, and is locally much more magnetic than interbedded chert-magnetite. Although in some areas exposures of peridotite and gabbro occur only a few metres apart, exposed contacts between these rocks were never found. No peridotite was found in Garnet Township but a large outcrop was found in the northwestern corner of Benton Township, approximately 700m east of the present map area.

A small pluton of massive porphyritic quartz monzonite of about 13km^2 underlies parts of western and southwestern Cunningham Township. The pluton is poorly exposed and is bisected by the Isaiah Creek Fault so that the western half of the pluton is displaced about 2000m south of the eastern half of it. Two small peridotite bodies are in contact with the northern and southern tips of the eastern half of the pluton adjacent to the trace of the fault plane.

Lamprophyre is of rare occurrence and consists of minette dikelets 2m or less in thickness, cutting metavolcanics or gabbro at a few localities. A dike about 4m thick of hornblende syenite was found to intrude sheared basalt at one locality along the shear zone east of Isaiah Lake. Both the lamprophyre and syenite dikelets are thought to have about the same age as the quartz monzonite. Only one diabase cutting quartz monzonite was found and this is thought to be the youngest rock in the map-area."

6.3. Property Geology

Property mapping in 1990-1991 by MPH demonstrated that a great deal more volcanics, including large accumulations of felsic pyroclastics, were present in the central Cunningham Township area than indicated by Siragusa, and the following sections are reproduced from the 1991 MPH report, with modifications to account for the reduced size of the present property relative to that of Kirkton historically.

Much of the area mapped as diorite/gabbro through the centre and to the south of the Shunsby property, is in fact mafic to felsic metavolcanics. As well, a large felsic pyroclastic centre would appear to occupy the area just south of the property, approximately due south of Hiram Lake. This is evidenced by extensive coarse pyroclastic breccia outcrops throughout that region. Sulphide clasts are present in some of these breccias. Much of the rock mapped as feldspar porphyry by previous workers in the area is in fact quartz or feldspar-phyric intermediate to felsic metavolcanics and pyroclastics. Such rocks occur within the Shunsby sedimentary-volcanic stratigraphy in the Cu-Zn mineralized areas.

Three generalized geologic domains (Figure 6-3) were recognized on the Shunsby property (MPH, 1991) namely:

iv) a lower (oldest) mafic volcanic-gabbro- iron formation domain exposed in the extreme west portion of the property

v) an overlying pyroclastic chemical sedimentary - clastic sedimentary domain with minor basalt which underlies the central and western portions of the property

vi) an upper (youngest) easterly / northeasterly mafic (basalt-gabbro) domain.

This geological picture has been greatly complicated by folding, faulting and intrusive activity. The central domain is the most economically significant in that the Shunsby Cu-Zn deposits occur near its stratigraphic top in a distinctive chert/argillite sequence.

Structurally, there does not appear to be any major fold closures on the property although considerable drag-folding, quite large scale in some cases and often related to east-west shearing, was been identified in a number of areas.

The most visible direction of shearing and faulting is approximately east-west with the most notable example being the Joubin Fault. This deformation event was relatively late and may have been the last major event in the region. Considerable strike-parallel shearing is also suggested by the highly sheared nature of various interflow graphite units. Another significant direction of faulting and fracturing is approximately south-southeast. This direction hosts the known VMS stringer-type base metal mineralization in the Shunsby chert/argillite sequence.

Rock units trend in a general northerly direction across the property with shallow to moderate west dips. As will be discussed in more detail in subsequent sections, the entire sequence has been overturned such that stratigraphic tops are to the east. This has profound implications for further exploration on the property.

6.3.1 Lithologies and Stratigraphy

a) West Mafic Volcanic-Gabbro-Iron Formation Domain

These are the oldest rocks on the property and occupy the area to the west of the property, including the westernmost portion of the western claims of the Black Widow property. The banded iron formations here comprise both chert-magnetite and chert-sulphide varieties. These have marked magnetic and electromagnetic signatures respectively.

Where observed, the cherts of the oxide facies iron formation occur as layers, often rusty and of up to 30 cm or more separated by 1 to 5 cm magnetite bands. Strongly chloritic or amphibolitic magnetite-bearing bands may be present. Two main oxide facies units would appear to be present separated by mafic breccias and sulphide iron formation.

The sulphide iron formations are very poorly exposed on the property although their character is inferred from abundant float, two drill holes and from descriptions on adjoining properties (eg Rye, 1984). The sulphide facies consists of finely laminated black pyritic and pyrrhotitic shales, individual beds being upto 1.5 metres thick and containing up to 80% sulphides. The shales are interbedded with chert and chert breccia units up to 2 metres thick.

Fine-grained bedded and laminated pyrite is the most common sulphide, with varying amounts of pyrrhotite, chalcopyrite, sphalerite and galena. Although the sulphides are frequently bedded, disseminated, massive and stringer textures are also present. Graphite layers, ranging in thickness from paper thin to several millimetres, are common in the sulphide facies. Where graphite occurs, there is indicated to be corresponding increases in metal content. A very distinctive mafic fragmental rock is interbedded with and contained within the oxide facies iron formation units. At least three Cu +/- Zn occurrences are known or can be inferred to be associated with these west iron formations, to the west of the present property. These include previous drill hole Jim 1 at the extreme southern end of the assemblage which returned.1.69% Zn over 28.8 ft.

The balance of this assemblage is composed of relatively fine-grained mafic flows intruded by quite irregular to more regular, sill-like gabbro bodies. Some of these gabbros here, and in the rest of the area in general, probably represent feeders to overlying flows. Much of the gabbro in this older assemblage displays a marked glomeroporphyritic nature in which the rock contains whitish feldspar crystals or crystal aggregates to 2cm or more. More typical massive, medium to locally coarse-grained gabbro composed of dark. green-black mafic crystals in a whitish feldspathic groundmass is well exposed in numerous localities on the property.

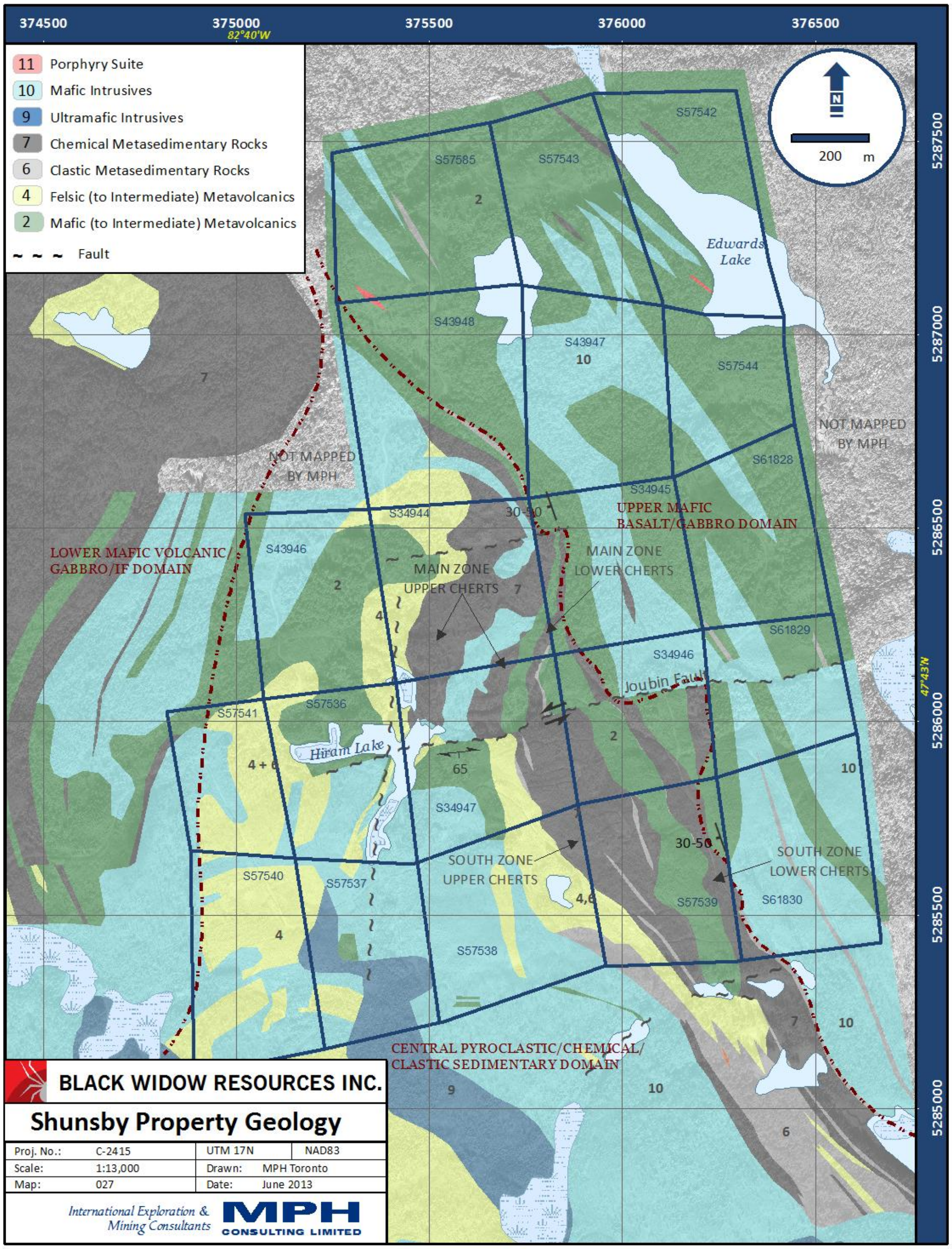


Figure 6-3: Shunsby Property Geology

b) Central Pyroclastic-Chemical and Clastic Sedimentary Domain

The Shunsby volcano-sedimentary sequence dominates the central portion of the property and is the key rock assemblage on the claims in terms of known base metal mineralization.

The bottom of the sequence is marked by a major pyroclastic accumulation of mainly coarse feldspar porphyritic tuff breccia and lesser lapilli tuff and ash tuff in the area west and southwest of Hiram Lake. These pyroclastics are heterolithic and are generally characterized by an aphyric matrix. The matrix is generally relatively felsic but is markedly chloritic in some cases as in the outcrop area on the east side of Hiram Lake at the creek outlet. Overall this rock is probably of intermediate composition although some phases are very siliceous. Notable in this regard are some of the pyroclastics which are locally very siliceous and contain disseminated pyrrhotite and pyrite.

There are also some true mafic pyroclastic tuff breccias, consisting of angular mafic clasts in a mafic matrix, as mapped along the east side of Hiram Lake. There is a lithologically and structurally complex unit of coarse mafic to intermediate pyroclastics and mafic volcanic fragmentals along and to the north and west of the west arm of Hiram Lake. This includes chloritic versions, some mafic pyroclastics with variolitic matrix, mafic pillow breccia and chloritic volcanics containing small chert breccia fragments.

The coarse tuff breccias in general appear to form thick massive units in which bedding is not obvious. Bedding is only discernible where laminated ash tuff or lapilli tuff units are interbedded with the coarser material with some of the best examples found in the extreme southwest portion of the property. Although there are considerable variations in clast size and type and matrix composition, these pyroclastics all seem to be variations on a common theme and appear to have been derived largely or wholly from a volcanic centre located immediately south of the Shunsby property.

These pyroclastics are also considerably invaded and broken up by and/or interbedded with gabbro. For example, these coarse pyroclastic rocks have been strongly invaded by gabbro in the area south/southeast of Hiram Lake where a particularly large gabbro unit is present. In some cases, blocks of coarse intermediate-felsic pyroclastics can be seen at the outcrop scale as large xenoliths in gabbro.

An area of intriguing lithologies and alteration is present near the north end of the coarse pyroclastic unit west of Hiram Lake. Here what appears to be a feldspar porphyritic / dioritic phase of the gabbro is in gradational contact with feldspar porphyritic tuff breccias with a thin argillaceous unit immediately to the west. There are local feldspar porphyry fragments within the "diorite" such that this unit may be a subvolcanic porphyry. The intrusive nature of this body is confirmed by the observation that it engulfs and truncates the north end of the weakly conductive argillite unit at the stripping on L300N. A number of the outcrops of this material show considerable sericitization and chloritization. Strong chloritic shearing is also present. The weight of evidence suggests that there may be a local volcanic edifice in this area immediately west of Hiram Lake.

The coarse pyroclastics are overlain by a thick and lithologically complex sequence comprising finer grained feldspar porphyritic pyroclastics (ash and lapilli tuffs), fine to coarse clastic and epiclastic sediments (argillites, greywackes, arenites, conglomerates) and a thick accumulation of chemical sediments (chert, oxide and sulphide iron formation, argillaceous chert) in the area east of Hiram Lake. The fine clastic sediments may be variably graphitic and sulphidic and typically have pronounced electromagnetic signatures. Two units of chloritic oxide iron formation in the southeast portion of the property have prominent magnetic expressions. The distinctive variolitic basalt unit divides the chert sequence east of Hiram Lake into Upper and Lower members, and has served as a marker horizon throughout the project's history.

In terms of specific rock types, white weathering, thinly bedded feldspar porphyritic crystal lithic tuff is well exposed in the L500N stripping. Scattered pyrite clots are present here and elsewhere in this unit. Another quite distinctive rock type found in this sequence is a chloritic conglomerate, which consists of fragments of chert, chert-magnetite iron formation, mafic volcanics and feldspar porphyry in a chloritic matrix. The fragments range up to 3cm or more and are generally variably angular. The key chert/argillite lithologies which host the historic Main and South Zone deposits and the specific volcanic and intrusive units found in this immediate area are discussed in detail in Section 6.4.

The top of the central Shunsby volcano-sedimentary assemblage is marked by a series of graphitic/sulphidic argillite units with strong electromagnetic responses.

To the north, this assemblage both pinches out and truncates against gabbro such that a maximum extent to the stratigraphy on the property is approximately 2.2 km. The main chert unit in particular seems to thin out very rapidly to the north. To the south, there is a major facies change within the upper portion, as the thick chert accumulation east of Hiram Lake thins rather abruptly at a fault just south of the property boundary, and grades into a complex sequence of arenites with some pyroclastic members which contain thin chert interbeds (eg <1m.). The marker variolitic basalt unit also appears to pinch out to the south or is truncated the fault just to the south of the property boundary.

To the southeast of the property, this volcano-sedimentary assemblage truncates against, and partially warps around, a large gabbro body which in turn has been intruded by a central peridotite mass. This latter rock is distinguished by its magnetite content, serpentinized nature and characteristic jointing and weathering pattern. This peridotite is indicated by airborne magnetics to be related to other peridotite exposures to the west.

c) Easterly/Northeasterly Mafic (Basalt-Gabbro) Domain

A thick, monotonous, virtually pristine mafic unit comprising both volcanics and gabbro intrusives overlies the foregoing volcano-sedimentary assemblage. Processing (MPH, 1989) of the Kirkton ground magnetic data shows this domain to be of distinctly different magnetic character from the rest of the property; namely being characterized by generally low magnetic amplitudes and little magnetic relief.

The mafic volcanics are of both green and grey colouration and comprise a diverse assemblage of fine to somewhat coarser flows, pillowed and variolitic flows, and flow breccias. The gabbros form thick, fairly regular sills to the south. To the north, in addition to some small sills, there appears to be a large, irregular body centred southeast of the small pond. The portrayal of the gabbros as abruptly cutting across stratigraphy in Figure 6-3 appears to be valid as this sort of behaviour can be observed at the outcrop scale.

A number of thin, variably graphitic argillite +/- chert units are present in this sequence. A thin, fine-grained conglomeratic unit is present in the conductive chert/graphitic argillite unit at the north end of Edwards Lake drilled by Corninco in 1954. Little or no evidence of mineralization is known in this domain.

6.3.2 Structure

Rock units on the property generally strike in a northerly direction varying from north-northwest in the east through to northerly to north-northeasterly in the west. Bedding dips are generally 30° - 50° to the west. One notable exception to this is in the area immediately west of Hiram Lake where dips in coarse pyroclastics and argillite are vertical to subvertical.

The Joubin Fault, the major structural feature, trends east-west, dips 55° - 60° south and has left-lateral displacement in the Shunsby cherts east of Hiram Lake of 225m. It can be traced with some confidence from the east property boundary through to the west side of Hiram Lake, by mappable displacements of diagnostic rock units, displacement and truncation of geophysical trends, and a marked topographic expression in the form of creek valleys along much of its length. The fault cannot be traced with any confidence west of Hiram Lake although it is felt that the Joubin Fault re-appears to the west in the form of a strong, south-dipping east-west fault to the west of the present property, which was mapped on the former Kirkton property.

A number of other east-west faults were identified by the geological mapping and inspection of geophysical results. A major fault is present in the area of 700N at, and to the west of, the baseline. An EM conductive unit here is offset about 25m left-laterally with clearly discernible drag along the fault. One or more strong east-west faults and/or shear zones are present in the area of L00S to 150S stripping in the area of the baseline. A prominent east-west fault valley is present to the west of the baseline in the area of that may relate to the foregoing structure. It is also possible that these structures in the southern part of the property are related to the strong, Joubin fault. They may well be conjugate splays off the primary feature.

It became evident during the mapping that the pyroclastic rocks, particularly the finer varieties, and sediments in the central portion of the property east and north of Hiram Lake have been mildly to strongly affected by east-west shearing and are noticeably more schistose than the flanking mafic terrains.

The area of most intense schistosity, which is seen in all rocks of the central pyroclastic-sedimentary domain, extends from the ash tuff accumulation along the west end of line L900N in Claim S34044 to the fault just south of the southern property boundary. This east-west schistosity is so intense in many areas as to completely obliterate primary north-south bedding features. This schistosity is concentrated in the more ductile rock types while the less ductile cherts generally yield by brittle fracturing. The shearing becomes so concentrated in some areas as to form intense east-west shear zones up to 3m across. Considerable drag has taken place along some of these zones producing folding on a number of different scales.

This deformation was of sufficient intensity as to affect the gabbros along the south arm of Hiram Lake such that they are now moderately to locally strongly schistose and display variable carbonatization. Local occurrences of sheared, carbonatized gabbro to the west probably mark a westward continuation of this alteration/deformation corridor. The gabbro units elsewhere are typically massive and featureless. A foliation is sometimes present in the intervening mafic volcanics but is usually very weak. One exception to this is the presence of a strong, east-southeasterly trending shear with associated pyritization.and carbonatization on the pond in the northern claims.

Northerly trending faulting and shearing is well known in this area with the major Isaiah Creek fault to the west of the property being a good example.

It also appears that there has been considerable bedding plane shear involving particularly the graphitic units. In many cases, intervening mafic sill/flow complexes seem to have behaved as relatively rigid blocks during deformation with the bulk of the strain taken up by the flanking graphitic units.

There do not appear to be any major fold closures on the property such that the rocks are on the overturned east limb of a regional anticline (or west limb of a regional syncline). The disposition of ultramafic units to the south may be indicative of a gentle anticlinal warping here.

6.4. Main and South Zones Area Detailed Geology

This section describes the geological relationships in the area of the Main and South Zone Cu-Zn zones. As noted in the previous section, the Shunsby mineralized area is interpreted to be floored by proximal to vent facies intermediate to felsic tuffs and tuff breccias. These are overlain by a considerable thickness of chert believed to be phreaticly brecciated. The cherts host thin massive pyrite-pyrrhotite sulphide horizons and a relatively thin variolitic and pillowed basaltic unit which is traceable over a kilometre or more. The variolitic basalt horizon has served as a stratigraphic marker for past workers, allowing a division into structurally "Upper" and “Lower” Chert units. These will here-on-in be referred to as the Upper Chert and Lower Chert, respectively. Various argillite and graphitic argillite units are present throughout and at the top of the chert sequence.

6.4.1 Lithologies and Stratigraphy

a) Footwall Intermediate to Felsic Volcanics and Pyroclastics

Past workers have made numerous references to quartz and feldspar porphyritic rocks to the west of the chert deposits, but only recently have these been recognized as extensive units of feldspar phyric ash and lapilli tuffs and tuff breccias as well as quartz-eye ash tuffs. Subordinate to the above within the sequence are felsic flows and thin graphitic argillite units. As the chert contact is approached an exotic volcanic sediment is encountered which consists of rectangular chert blocks aligned parallel to stratigraphy hosted by a chloritic tuffaceous matrix.

The basal pyroclastic unit shows extensive chloritization and sericitization as exposed at the west end of the L500N stripping where clast margins are in some cases nearly obliterated by black chlorite-pyrrhotite systems working through the matrix. Sericite-chlorite alteration is observed peripheral to the more intensive systems and generally does not affect the clasts as markedly.

The breccia unit is overlain by up to 200m of quartz and feldspar phyric lapilli tuffs. Alteration has been observed changing these hard, grey to pink-white, blocky weathering outcrops with bedding quite often clearly visible, to soft, black chlorite-quartz eye rocks with abundant coarse, euhedral pyrite. Carbonatized and chloritized versions are also common, with the carbonization and chloritization appearing to be later than the schistosity and associated quartz-pyrite veining.

Graded bedding on the scale of individual beds and entire units (ie. pyroturbidite sequences) predominately indicate tops down, ie. eastward. Especially good examples of this are found in the exposures at the west end of the L500N stripping where several thin laminated ash tuff horizons are also present as indicators and point to tops being to the east.

The tuffs grade with proximity to the chert contact into 30-40m of cherty ash tuffs and the exotic chert breccia-tuff unit mentioned above. Seen at the L625N stripped area and in talus below the Joubin Fault, it appears to consist of clast-supported brecciated chert horizons with an ash tuff matrix that is heavily chloritized. A very similar rock was found along strike in the south property area which appears to be a conglomeratic facies equivalent.

The footwall package is capped by a complex assemblage of tuffs, argillite and chert that appears to have a true thickness of 40-50m and includes graphitic horizons and thin massive pyrite beds.

This complex pyroclastic/sedimentary assemblage is overlain by a thick, predominantly chemical sedimentary assemblage known as the Upper and Lower Cherts with the separation between the two defined by the variolitic basalt marker unit. Note that the Upper Cherts are structurally above the Lower Cherts but are stratigraphically beneath them.

b) Upper Chert Complex

Within the deposits area this unit attains a maximum thickness of 200m in the Main Zone, which with abundant exposure, can be seen to be a grossly predictable exhalative/chemical sedimentary sequence. In general the sequence consists of 100-150m of monolithic chert breccia overlain by a thin (10-15m) massive sulphide-argillite-argillaceous chert package, in turn overlain by 20-25m of clean bedded and brecciated cherts with subordinate argillite interbeds, and a capping 2-3m graphitic argillite/argillaceous chert unit.

The chert breccia unit, previously called a slump breccia by some historical workers, is composed of clean chert cobbles and pebbles in a matrix of iron carbonate, chert and pyrrhotite. Weathering of surface exposures and drill core gives the impression that the clasts are rounded because of the rusty pyrrhotite and carbonate, but closer examination shows them to be jagged and angular, as well as commonly brecciated individually. The rock as a whole is clast-supported and chaotic, showing no evidence of sorting. Individual massive chert blocks up to several metres surrounded by matrix and breccia have been noted. These characteristics were interpreted to be phreatic phenomena.

The breccia unit grades after approximately 100m into massive and banded clean chert units although these show local, later brecciation related to faulting. Thin interbeds of argillite and pyrrhotite are present but sparse.

The massive and banded chert units grade into a banded chert-massive sulphide-argillite unit of approximately 15-20m true thickness with the massive sulphides attaining a maximum exposed thickness of 3-4m on lines 500N, 325N and 275N stripping. The sulphides are laminated, very fine-grained and dominated by pyrite in the Main Zone exposures and pyrrhotite to the north (L500N) and south (Ll00S). Finely laminated cherty sulphidic tuffs underlie the massive sulphides and chloritic argillites, chert, iron-formation and banded cherts occur above. The massive sulphides appear to wane between the Main and South Zones as sulphide iron-formation or sulphidic argillite is exposed in the stripping on lines 175N, l00N and 0N. Chalcopyrite, sphalerite and galena locally are present but appear to be secondary replacement features as opposed to primary syngenetic sulphides, possibly with the exception of a minor portion of the sphalerite.

Stratigraphically higher is a 25-30m thickness of cherts with subordinate argillite interbeds that consists of:

1) approximately 10m of extremely angular chert breccia which contains occasional chloritic argillite clasts;
2) approximately 15m of banded clean cherts with chloritic (+/- sulphidic) argillite interbeds and;
3) an argillaceous chert-laminated ash tuff-chloritic magnetite IF-argillite unit which exhibits pronounced soft sediment deformation features.

Within these units, half-filled amygdules show an upper half of iron-carbonate-pyrrhotite matrix material and lower half of.calcite (or vacant) in confirmation that the rocks are overturned and tops are to the east. Capping the Upper Chert unit is a 3-5m graphitic argillite and argillaceous chert unit that is geophysically traceable into the southern property area.

Alteration and mineralization is locally present in all of the units described above, manifested by "corridors" of gossanous sulphidic chlorite breccia which will be described more fully in Section 8.0.

c) Variolitic Basalt

Ranging in thickness from approximately 30 to perhaps 75m, the variolitic basalt marker horizon includes massive flows, flow-top breccias, hyaloclastite units and pillowed flows in which variolites are sporadically present. Variolites appear to be concentrated in the pillowed flows and hyaloclastite material on the basis of stripping along L050N and L175N. Disposition of variolites within the lower half of individual pillows adjacent to the central pillow void suggests that tops are to the east. Several samples examined petrographically (MPH, 1991) suggest that tuffaceous mafic units are also present.

The upper 5-l0m of the basalt unit is a complex breccia which includes angular chert clasts in a mafic matrix, rather similar to the contact rock at the Upper Cherts described earlier though clast orientation is much more chaotic. Chloritization, sericitization and carbonatization have been variously noted within the variolitic basalt unit and appear to be most intense near the Lower Chert contact. As well, the rock is highly schistose, sericitized and carbonatized in the Joubin and L100S fault zones.

d) Lower Chert Complex

The Lower Chert package appears to have a true thickness of approximately 35-50m, is more argillaceous than the Upper Cherts, and consists on surface in the Main Zone, of (from west to east, ie. bottom to top):

1) the contact volcanic-chert breccia noted above;
2) 10-20m of argillaceous chert, graphitic argillite, and laminated tuff;
3) 7-10m of clean banded chert with subordinate argillaceous interbeds;
4) l0rn of argillaceous chert, chert and mafic flows; and
5) approximately l0rn of schistose argillite, graphitic argillite with subordinate chert locally referred to as the "Basement Fault".

The surface stripping in the Main Zone area emphasized the sulphide iron formation aspect of the argillites, which in most cases are mineralized with massive coarse-grained euhedral pyrite +/- chalcopyrite and sphalerite. The argillaceous chert units also are mineralized with pyrite +/- chalcopyrite and sphalerite, but in the form of matrix-fillings, disseminations and fracture-fillings. Chert units are generally not mineralized save for late cross-cutting quartz-carbonate veins, but locally are altered to sugary, calcitic chert and quartz, and carry sulphides

A stripped section of presumed Lower Chert on L050N is markedly different than the assemblage described above. Here the graphitic argillite component is much less, a semi-conformable 5 metre wide quartz-feldspar porphyry dike/sill is present in the structural upper portion of the stratigraphy, and the banded and massive cherts have a re-crystallized, sheared texture. It appears that this area of the Lower Cherts between the Main and South Zones is influenced by the quartz-feldspar porphyry dike, which experience on the property has shown to occupy shear zones. It is possible that an unknown shear is present in the area, which is quite close to the junction of the Lower Cherts and the inferred copper bearing higher argillite-chert package marked by overburden trenches "D" and "E".

Most drill logs in the area similarly report one or more quartz-feldspar porphyry intersections in the Lower Cherts, suggesting that a sill-like body (or bodies) has intruded the stratigraphy, presumably along the basement fault/shear zone. This may be related to the quartz-feldspar porphyry dikes mapped on Ll00S.

e) Hanging Wall Volcanics

These rocks are known historically as the "Footwall Diorite" and have been shown to be an extensive mafic flow/gabbro regime which covers most of eastern and northern Cunningham Township. Chemically these rocks are generally basaltic in composition and tholeiitic in classification (MPH, 1991), although altered appreciably in many cases which might account for the intermediate intrusive field terminology. Mafic flows vary from fine-grained aphanitic to medium-to-coarse-grained porphyritic types, whereas the gabbros show true intrusive contact relationships with a dioritic border phase and there should have been little confusion differentiating in the past between the two.

A wedge of volcanics lying between the Main Zone Lower Cherts and the upper sedimentary package marked by conductor 42a north of the Joubin Fault, and 40b south of the fault is thought to consist of several coarse-grained flows separated by 100-200 feet of mafic flow units and in one case, an 85ft "gray lava" zone with a graphitic shear. It is not known at this stage whether these "wedge" rocks represent an intrusive complex that split the Lower Cherts, or a local extrusive accumulation with later sedimentary deposition. A very high degree of hydrothermal alteration would appear to be a common characteristic of these rocks though, given the geochemical results to date (MPH, 1991).

Attempts to expose these conductors with overburden trenches "E" and "D" (Figures 5-7 and 5-8), respectively during 1990 and 1991 (utilizing a larger excavator), were unsuccessful in reaching bedrock, but did encounter large angular mineralized boulders of chert, argillaceous chert, chloritic argillite and graphitic argillite. Mineralization and lithologies encountered were markedly similar to the Lower Cherts, although geophysical dip estimates for these units are much steeper.

Note that Phelps Dodge holes SK-197-1 (south of Joubin Fault) and SK-197-5 (north of fault) tested these two conductors, encountering cherty, graphitic and argillaceous sediments at very shallow vertical depths, below the gabbroic/volcanic sequence. Both holes ended in the metasediment package, and noted weak vein-related mineralization.

These results appear consistent with the interpretation of the VMS stringer system of mineralization/alteration reaching this level of the stratigraphy and strongly suggests further work on these conductors are warranted.

f) "Digestive Diorite"

This intrusive gabbro appears to exist in the form of narrow dikes and sills throughout the deposits area stratigraphy, and blossoms out to a larger, laccolith type structure in the Main Zone area where it befuddled much of the early drilling. To the north it appears to be sill-like and conformable but within the deposits area to be fault controlled. Digestive diorite has been noted in NW (120°) vertical structures as dikes, as the laccolith which is apparently bounded by NNE striking, easterly dipping shears, and as conformable thin sills.

Chert xenoliths and the presence of greyish-whitish-purple leucoxene crystals and a petrographically-determined, very high degree of alteration clearly distinguish this gabbroic rock from the regional gabbros seen elsewhere on the property. The pervasive alteration noted (MPH, 1991), and the surprising number of samples previously called either "Variolitic Basalt" or "Footwall Diorite" in the historical logs, but positively identified as "Digestive Diorite" by the petrographic work is critically important.

These observations suggest that while the dike swarm certainly intruded the entire central pyroclastic-sedimentary stratigraphy in the deposits area, this occurred before the mineralization event. All chemical, mineralogical and structural manifestations of the hydrothermal systems appear to be present in the "Digestive Diorite" rocks, and therefore past references to mineralization being "digested" are misinterpretations. Rather, it would appear the dikes were an integral part of the Shunsby deposits assemblage, and were "stewed" by the same hydrothermal event as the other lithologies.

g) Intrusives Dikes

Basic, "trap" and "intermediate" dikes as well as ambiguously logged "feldspar porphyry", "feldspar-andesite porphyry" and "quartz-feldspar porphyry" are common in the historical logging work, giving one the sense that the property is inundated with quartz-feldspar porphyry and lamprophyre dike swarms. The extensive stripping operations have shown this not to be the case, with in fact, only a few late quartz-feldspar porphyry and lamprophyre dikes present in the deposits area. Virtually all references to feldspar porphyries have now been correlated with feldspar phyric intermediate to felsic pyroclastics, while basic dikes are generally mafic flows.

With the exception of the laccolith, larnprophyre as well as "Digestive.Diorite" dikes preferentially occupy late NW (~120°) structures. Quartz-feldspar porphyry dikes have been noted in later EW (090°) structures only, and as mentioned earlier, as local sill-like bodies roughly concordant with stratigraphy.

6.4.2 Structure

The extensive Kirkton stripping through the deposits area clarified the structural picture and has shown small scale folding to be far more common than previously thought. The stripping also served to further refine the fault/shear zone picture in the deposits area, particularly to emphasize the pervasive nature of NW-SE trending structural zones and the E-W, southerly dipping shearing. While in general rock units do trend slightly west of north, left-lateral shear related drag-folding in the South Zone at Ll00S moves units further eastward and results in local east-west strikes and flatter dips from approximately L0 southward.

Drag-folding has also been exposed in the Joubin Fault zone on L250N and is again left-lateral in orientation with Main Zone Lower Chert argillites rotated into the plane of the fault. A major fold has also been located in the north Main Zone area which warps stratigraphy around north-eastwardly before swinging back and trending towards the northwest in the north property area.

a) **E-W Faulting/Structural Trend**

All observations suggest that E-W faulting and shearing and related drag folding was a very late event, post-dating all other folding, faulting and mineralization events and overprinting original textures with a pervasive foliation in many areas. The foliation grades to an intense schistosity in the fault/shear zones themselves. While the Joubin Fault is regional in extent, two other faults, at ~L700N and Ll00S, appear to terminate against the basalt/gabbro regime to the east – suggesting that these are perhaps the caldera boundary faults to the Shunsby basin.

A quartz-feldspar porphyry dike system occupies the core of the 100S shear which is apparently sub-vertical, while the Joubin Fault dips southerly at approximately 60°· A possibly related trend is the 100° micro-fracture system seen in some of the brittle lithologies such as the chert breccia and massive cherts.

b) **NW-SE Hydrothermal Breccia/Fault Zones**

Pervasive 120° jointing as well as dikes and faults in this orientation had been noted in the Main Zone Lower Cherts during the 1990 Kirkton stripping. Subsequent stripping further to the west and north in 1991 allowed several individual "zones" to be mapped for several hundred metres through the Upper Cherts and into the footwall pyroclastics. The structures trend 120° on average, and manifest themselves as:

i) steeply dipping shear/alteration zones (chlorite-pyrrhotite) in the Footwall Pyroclastics;
ii) as brecciated and microjointed chlorite-pyrrhotite +/- pyrite, chalcopyrite, sphalerite zones within the chert breccia lithology;
iii) as purple, densely carbonatized to calcitic massive and banded chert lithologies with chloritic seams and chloritic argillite interbeds (often base metal mineralized);
iv) as chlorite-chalcopyrite--sphalerite-pyrite microjoint systems through the argillaceous chert-argillite +/- massive sulphide-iron formation assemblages in the Upper and Lower Cherts;
v) as chloritized, fractured-mineralized zones in the variolitic basalt and hanging wall volcanic units.

In several locations, particularly along the L300N stripping, a breccia zone shows true left-lateral displacement and would appear to represent later reactivation of a pre-existing mineralized structure on the basis of boudinaged mineralized clasts within the fault gouge. Where this zone cuts the thin massive sulphide horizon, the copper and zinc content of this unit is enriched considerably by 1) chalcopyrite +/- sphalerite replacing pyrite-pyrrhotite and 2) chalcopyrite-sphalerite-galena in microfractures.

It was difficult to ascertain exactly how many structures are present and at what density. It would appear that through the Main Zone area they are virtually adjacent to one another although barren intervals, and less mineralized zones within individual structures certainly exist. At only one locale, the Copper Knob and L400N area, were outside limits to an individual structure been established, giving it a width in the order of 50 - 60m. High-grade mineralization is present to the north at the L425-450N area, and in many drill holes to the south extending to deep hole 64-82e, suggesting that the distance between structures is not great. The stripping to the north and west, and as well in the South Zone area suggests that density of mineralized structures is decreasing to the north and south or this “core”.

It is apparent that only by drilling several fences of north easterly trending holes through the entire Shunsby basin, will one positively ascertain number and density of structures that constitute the system.

As mentioned previously, folding has also been observed about a 120° axis including drag-folding along small-scale shears, and also a major fold which affects the Main Zone area. In addition, tiny sulphide veinlets, fracture sets and a pervasive crenulation cleavage in the massive sulphide horizon exposed on lines 325N and 275N are oriented at 120°.

c) NNE (030°) Shear Zones/Structural Trend

Shears of this orientation are known only at the contact of the "Digestive Diorite" bodies in the L300N and L625N stripped areas. These particular structures have an anomalous eastward dip of 50-55°. This shearing would appear to be controlling the east margin of the laccolith, and based on drill records may not extend to depth in any significant fashion. There is some evidence that there has been movement along this structure, in the order of 25-50m in a left-lateral sense.

Occasional outcrops show a 030° joint set, particularly in competent, brittle lithologies such as the massive cherts. Where observed, these are seen to be cutting all other trends, including E-W joints.

d) Bedding Parallel Trend

Manifested primarily by the sheared upper contacts of the two chert packages, this trend is cut by all others and would therefore appear to be the oldest. The so-called "Basement Fault" is a highly strained, boudinaged melange of graphitic argillite, argillite and chert units at the Lower Chert-hanging wall volcanics contact which appears to be draped over the overlying volcanics, suggesting that movement was primarily in a reverse dip-slip, ie. thrust sense.

A similar sheared graphitic argillite package is found at the Upper Chert/variolitic basalt contact exposed on the L175N, L0 and Ll00S stripped areas.

Graphitic argillite units are also known to exist along the pyroclastic Upper Chert contact, and as well in the overlying volcanic flow/sill regime (trenched at Ll00S). Additional thrust-type movements may also have taken place along these units during regional folding, to result in the rather exotic subvolcanic environment now exposed at surface.

7.0 DEPOSIT TYPES

The obvious target model type for the Black Widow Shunsby Property is Volcanic Massive Sulphide ("VMS") mineralization, comprising footwall stockwork or stringer zone mineralization as well as true massive sulphide lenses. Extensive stringer/stockwork mineralization and alteration has been documented at Shunsby as per the previous sections, and as per Section 8.0 following.

Gibson et al (2007) describe the VMS model as, "VMS deposits are syngenetic, stratabound and in part stratiform accumulations of massive to semi-massive sulphide. The deposits consist of two parts: a concordant massive sulphide lens (>60% sulphide minerals), and discordant vein-type mineralizaiton, commonly called the stringer or stockwork zone, located within an envelope of altered footwall volcanic or sedimentary rocks (Figure 7-1). In some cases, the hanging wall sedimentary or volcanic rocks are also altered. In some deposits the stratiform massive sulphide lens comprises the entire economic deposit, whereas in other deposits appreciable quantities of ore are also mined from the stockwork zone."

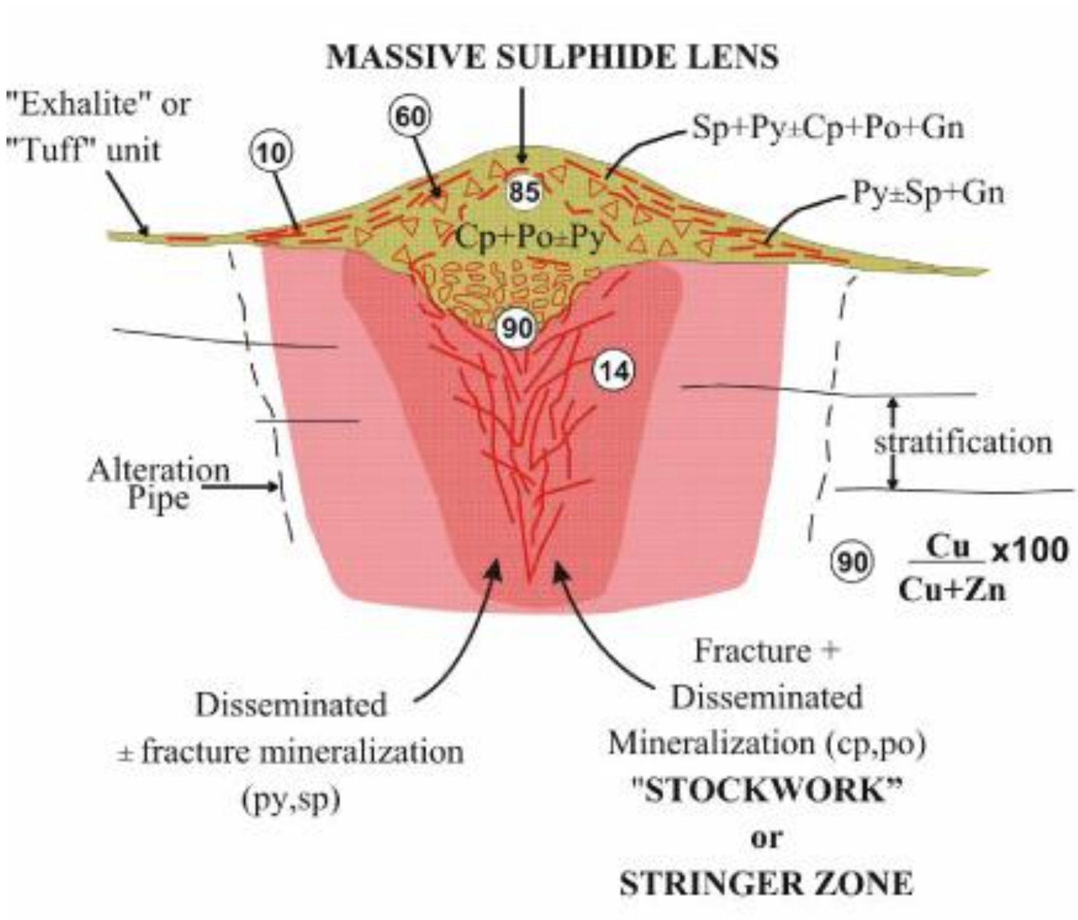


Figure 7-1: Idealized VMS Deposit (after Gibson et al, 2005)

The model has become even more refined with the discovery of active hydrothermal seafloor vents, such that VMS deposits probably represent the most thoroughly researched class of mineral deposits. “Based on this extensive research, it is now well accepted that VMS deposits form syngenetically as a product of seafloor hydrothermal systems that formed in spatial, temporal and genetic association with contemporaneous volcanism and/or plutonism. VMS deposits form on, and immediately blow the seafloor, by the discharge of a high termperature, evolved, sweater-dominated hydrothermal fluid as shown in the model presented in Figure 2.” (Figure 7-2 below)

“The model illustrates the six main elements that are considered essential to the formation of VMS hydrothermal systems, and these elements are described below (modified from Franklin et al., 2005). Geological, geochemical and geophysical criteria developed for the recognition of these elements form an integral part of many exploration programs.”

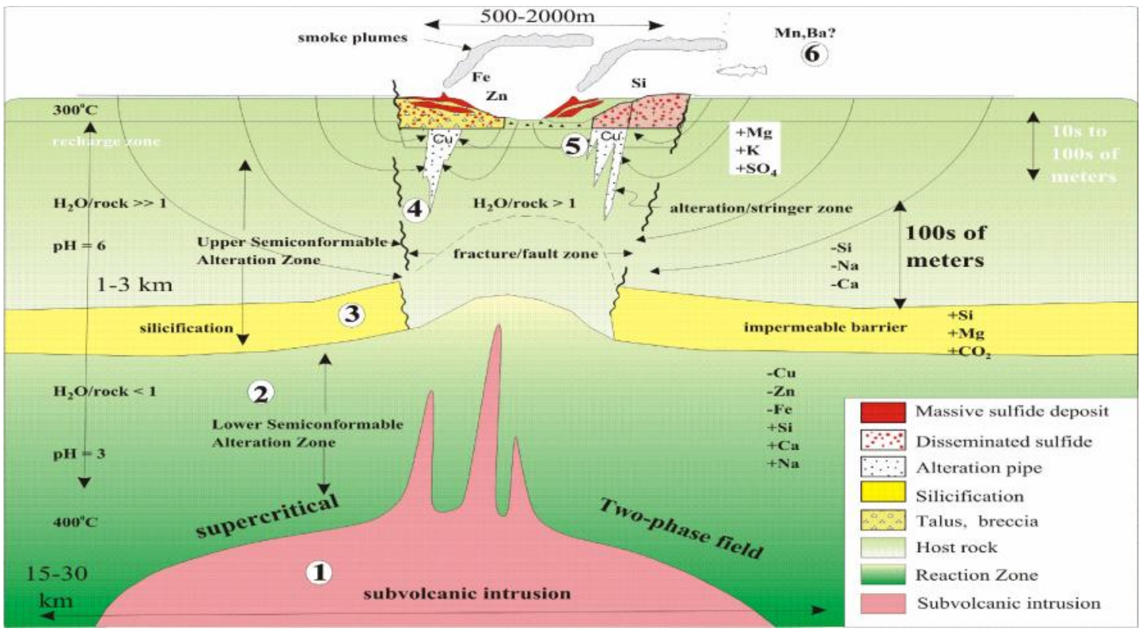


Figure 7-2: Idealized VMS Geological Relationships (after Gibson et al, 2005)

1. “A heat source that is sometimes manifested by large, sill-like, synvolcanic hypabyssal intrusions to initiate, drive and sustain a long-lived, high termperature hydrothermal regime.” – *gabbroic/dioritic intrusives are common at Shunsby throughout the footwall and lower mafic and central pyroclastic assemblages.*

2. “A high-temperature reaction zone that forms through the interaction of evolved searwater with volcanic and sedimentary strata. During this interaction, metals are “leached” from the rocks.” - *the chlorite altered pyroclastic-sedimentary assemblage at Shunsby.*

3. “Deep penetrating, synvolcanic faults that focus recharge and discharge of metal-bearing hydrothermal fluid” – *the 120^o epithermal mineralization/alteration trend at Shunsby.*

4. “Footwall and hanging wall alteration zones that are products of the interaction of near surface strata with mixtures of high-temperature ascending hydrothermal fluid and ambient seawater.” – *alteration extends through the stratigraphy, past the Lower Cherts into the overlying hanging wall volcanics at Shunsby.*

5. “The massive sulphide deposit that formed at or near the seafloor and whose metal content was refined by successive hydrothermal events.” – *thus far only small massive sulphide lenses are known within the central pyroclastic-chemical sedimentary assemblage, but which demonstrate hydrothermal overprinting and enrichment.*

6. “Distal products, primarily exhalites, that represent a hydrothermal contribution to background sedimentation.” - *the various tuffaceous units, cherts and iron formations throughout the Shunsby sedimentary assemblage.*

MPH would note that Harold Gibson, Professor Economic Geology and Volcanology and Robert Whitehead, Professor Emeritus Exploration Geochemistry, both of Laurentian University of Sudbury, Ontario, spent a full day on the property with the author (a graduate of Laurentian) during the summer of 1991 and were extremely helpful in confirming the geological and mineralization observations and models discussed in this report.

8.0 MINERALIZATION

The extensive stripping during the 1989-91 Kirkton program has shown that most of the mineralization present on the property is not stratiform or even stratabound, but is in fact hosted by late hydrothermal breccia/fault zones which trend 120° on average and dip vertically. Confusion has resulted in the past because most of the previous work, including the initial MPH work for Kirkton, was predicated on a stratiform model based on the identification of some stratiform / stratabound mineralization in the argillaceous horizons.

True primary stratiform / stratabound sulphide mineralization has been found in two distinct styles:

1) Banded massive pyrite-pyrrhotite +/- sphalerite in the Main Zone Upper Cherts associated with chert-magnetite iron formation (ie. L500N, L325N, L275N stripping)

2) Sedimentary-exhalative style disseminated to semi-massive sphalerite +/- pyrite within an argillaceous chert horizon near the base of the Main Zone Lower Cherts (ie. L425N, L400N stripping)

All other mineralization has a distinct structurally controlled "stringer" aspect and, save for very late E-W quartz-carbonate-galena +/- sphalerite, chalcopyrite veins, would appear to be associated with the 120^{o} breccia/fault zones. These include:

3) Chlorite-chert-chalcopyrite-pyrite +/- sphalerite, galena breccia zones within the Main Zone Upper Cherts (ie. Cu-Knob and Cu-Breccia showings, L075S South Zone Upper cherts)

4) Chloritic volcanic/chloritic argillite-sulphide breccia zones with pervasive joint systems carrying chalcopyrite, sphalerite, galena (ie. L425N, L400N and L300N Main Zone Lower Cherts, L325N Main Zone Upper Cherts cutting massive sulphide stratigraphy and L100S South Zone Upper Cherts where Zn predominates)

5) Chloritic argillite-pyrite horizons with chalcopyrite, sphalerite preferentially replacing iron sulphides for short strike extents (ubiquitous)

Variably tectonized versions of the above styles have also been observed, particularly in the vicinity of the L325N stripping where a fault zone cuts through the Upper Cherts, and also in float from the eastern overburden trenches. Virtually all of the mineralization styles described above have been found in coarse angular rubble in these trenches, including high-grade tectonized. chalcopyrite-pyrite (+/- bornite) sulphide clasts.

Within the footwall pyroclastics and lower portion of the Upper Cherts, pyrrhotite is the predominant sulphide at the expense of pyrite and the base metals, although all of mineralization styles 3, 4 and 5 are present. Crude grading of Fe to Zn to Cu (+Ag) (repeated in Lower Cherts) appears to be present as one works upwards in the stratigraphy, and as well as one moves from the peripheries to structures in the Main Zone area.

Several historical holes illustrate the base metal zoning relationship extremely well, for example hole 81-24 (Table 5-7), where Cu:Zn ratios steadily increase from 0.063 to 1.324 over 5 mineralized intervals through the Lower Cherts. Pb appears in dominantly E-W, late veins, and seems to be more common on the peripheries (ie. L625N, Ll00S and a massive galena intersection in hole 74-16 in the South Zone) than in the Main Zone area.

8.1. Alteration

Alteration was described extensively in the 1991 MPH report, as occurring in several forms because of the variety of host rocks but thought to be primarily of hydrothermal origin related to the structurally-controlled stringer-type mineralization discussed above. A possible exception is the impressive amount of iron carbonate on the property which is found in E-W shear zones and quartz-carbonate veins and as a major component of the matrix of the Upper Chert breccia. As well most of the volcanics analyzed have high $C0_2$ contents suggestive of rather widespread "dolomitic" background chemistry in the deposits area such that much of this material may be of primary origin.

Some of the low rank alteration minerals in these rocks, eg. chlorite, sericite, are also undoubtedly a product of regional metamorphism. Leucoxene pseudomorphic after ilmenite is common in all volcanic lithologies but especially seems to be prevalent in the "Digestive Diorite" dikes.

The footwall pyroclastic assemblage shows intense chloritization and sericitization within structures in the Main Zone area while peripheries show less intensive chloritization and more sericitization. Intense pyrrhotite-chlorite-iron carbonate gossanous mineralization is common within these rocks with some impressive Pb, Zn+Cu credits (L625N).

Structures passing through the chert breccia unit appear to re-brecciate the unit and alter the chert clasts to a carbonate or calcitic chert with some free quartz. Again gossanous mineralization is encountered which is primarily pyrrhotite-chlorite-Fe carbonate but higher Zn-Cu-Pb-Ag values are present and a pervasive micro-joint system is generally discernable (L625N, N-S stripping at L550N, L0 stripping).

Massive and banded chert lithologies are generally altered to a purplish (hematitic?) colour and sugary texture with chlorite seams transgressing stratigraphy within the structures, but are unmineralized with the exception of the argillite interbeds (type 5 mineralization, eg L500N, L325N etc).

Where structures pass through the banded chert-massive sulphide-argillite complex of the Upper Cherts, and the entire Lower Chert assemblage, alteration and mineralization is intensive. Chloritization of argillite beds is pervasive, and type 3, 4 and 5 mineralization is present in all suitable host lithologies.

Several exposures of the variolitic basalt-Lower Chert contact area and numerous references in drill logs suggest that typical VMS stringer-type mineralization is present, within these structures, both stratigraphically below and above the Lower Cherts. Where exposed on surface in the Main Zone (L425N, L400N, L300N), chloritization and silicification virtually obliterate primary textures in the variolitic basalt and rich type 4 mineralization is present.

Extensive lithogeochemical work by MPH in the deposits areas, reported in 1991, showed that the Shunsby rocks, when compared to background Cunningham Twp. volcanics (data from Siragusa, 1987) were exhibiting the following:

i) the Shunsby rocks are strongly depleted in Na_2O and CaO with the hanging wall volcanics more so;

ii) the Shunsby rocks are strongly enriched in K_20 with the "Variolitic Basalts" more so;

iii) the Shunsby rocks are strongly enriched in volatiles on the basis of high LOI and $C0_2$ values, with the hanging wall volcanics significantly higher in both;

iv) the Shunsby "Variolitic Basalts" appear to be enriched in alumina and magnesium depleted with respect to the other groups;

In terms of the lithogeochemical processing, MPH observed:

a) moderate residual MgO depletion at Shunsby;

b) moderate residual K_20 enrichment at Shunsby;

c) moderate to strong residual Fe_20_3 depletion amongst the hanging wall volcanics at Shunsby;

d) strong residual Na_2O depletion at Shunsby;

e) very strong residual CaO depletion at Shunsby (strongest in "Variolitic Basalt");

f) slight residual Si02 enrichment in hanging wall volcanics, depletion in "Variolitic Basalts";

Together the above observations suggested that the Shunsby rocks have been significantly hydrothermally altered relative to the background Cunningham Township rocks, and were showing classic VMS-style trends (Figure 7-2). In several cases sampling through the

"Variolitic Basalt" has yielded results suggesting that alteration and mineralization were increasing approaching the Lower Chert contact. Also it is important to note that the alteration trends are as prevalent, and in some cases more so, in the hanging wall volcanics relative to the "Variolitic Basalts".

The intensive alteration system appeared to be consistently strong, or even intensifying, stratigraphically above the Lower Cherts towards the uppermost chert-argillite package marked by conductors 42a and 40b (Trenches E and D, respectively). Above these units the volcanics appeared essentially unaltered (aside from regional metamorphic features), hence this conductive trend was believed to mark to the top of the Shunsby volcanic-sedimentary assemblage.

The sedimentary package intersected by the two Phelps Dodge holes drilled in late 1992 on these conductors further confirmed the geological model.

9.0 EXPLORATION

Black Widow has not carried out any exploration on the Shunsby Property.

10.0 DRILLING

Black Widow has not carried out any drilling on the Shunsby Property.

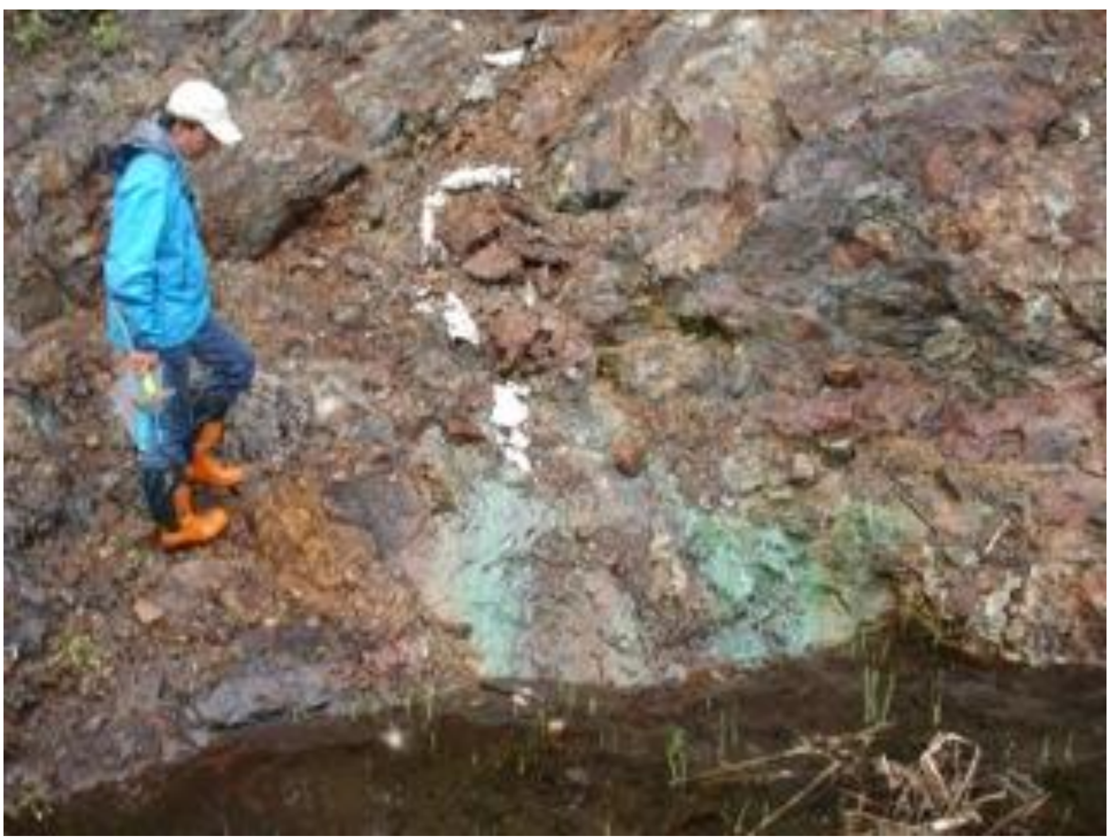
11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

The assay sampling work of MPH in 1990-91 made use of Swastika Laboratories of Swastika, Ontario, a well-regarded but non-ISO certified facility. The lithogeochemical analytical work was carried out by TSL Laboratories of Timmins, which is ISO/IEC 10725 accredited.

Present sampling by MPH for the purposes of this report included two chip samples collected during the field visit of June 13th, from the trenches on the Copper Knob (Sample No. 62232) and Copper Breccia (Sample 62233) showings, both of the Main Zone Upper Cherts. Samples were delivered by hand to Activation Laboratories Ltd. in Ancaster, an ISO 17025 accredited facility, Ontario by W. Brereton on June 14th.

The certificate of analysis is provided in Appendix 1. Standard fire assay methods with atomic absorption (“AA”) finish were used for gold analyses, and standard aqua regia ICP (“induced coupling plasma) methods for the base metal and silver assays.

Results were consistent with the MPH trenching of 1990-91, with the Copper Knob sample assaying 2.03% Cu, and the Copper Breccia sample assaying 3.82% Cu and 1.76% Zn. The author is photographed at the Copper Breccia showing below.



12.0 DATA VERIFICATION

No formal NI 43-101 compliant data verification prior to this report has been carried out by Black Widow.

Georeferencing of the past work by MPH was found to be extremely accurate in the field, with error margins of <2m for the points selected. This suggests that all collar co-ordinates and digital drawings constructed from the present GIS database can be relied on to be very accurate going forward.

MPH (1990-91) carried out an extensive re-sampling verification program which directed exploration priorities from that point onwards, and from which a number of salient observations are applicable to the present project of Black Widow. MPH reported as follows:

"Historical Drill Core Recovery

The vast majority of the old drill core was stored at the Shunsby Mines camp on Hiram Lake, while that from the MW Resources' 1981 program was stored at the Ministry of Natural Resources fire tower to the northwest of the property.

Initial work consisted of locating the old drill collars and accurately chaining these in relative to the new Kirkton grid. This was relatively simple for the step out holes and those in the less densely drilled areas. Some uncertainty remains however, in the Main and South Zone areas, particularly with the location of several Grandora Explorations holes drilled in 1974. Careful attention was also paid to topography by surveying lines with a Brunton Compass to more accurately ascertain collar elevations. The initial surveying of the first 74 holes by the workers of that era served as elevation control for this work.

All of the core stored at Hiram Lake was carefully examined and re-sampled during the course of this program. While approximately 10-20% of the boxes had rotted, been dumped or had sunk into the ground, a significant portion of most holes was available. Past samples were duplicated with the remaining split and have been stored for eventual re-assay (plus lead and silver). Where these splits were re-assayed as part of broader zones, the copper and zinc numbers were uniformly within an acceptable margin of the original assays. Much of our assaying was on whole core samples of low grade material to fill in gaps between previous intersections. All analytical work was performed by Swastika Laboratories of Swastika, Ontario. Certificates of analysis are presented in Appendix 2.

Generally, extensive weathering made identification of mineralization difficult and precluded comprehensive logging of the old core. It was possible, however, to check the old work and often elaborate on or correct vague or confusing descriptions in many cases. A uniform descriptive legend for all of the different drill campaigns was constructed for all of our work.

Historical Drill Core Sampling Results

Detailed examination of the cores showed a surprising amount of un-sampled, albeit primarily low-grade mineralization. Much of the old work was very obviously high-grade specific, with no thought given to the bulk mineability of much of the material. Our sampling was directed towards increasing the length of old intersections with wing and intermediate samples. As well, as a better understanding of the geological picture emerged, it became quite clear that, often, mineralized units had been ignored by past workers simply because they did not understand the relative position of these units with the drill hole. This was particularly true in the South Zone, where a large amount of mineralization, primarily breccia type but also some massive Cu-Zn, was left un-sampled in several of the holes.

Table 3 (note – in Appendix 2 of this Black Widow report, and broken down into individual tables in Section 5.0) presents the results of sampling to date, together with comments on the accomplishments of the particular hole. It became increasingly obvious during this work that the vast majority of the holes in the Main Zone were poorly directed. Core from the 1981 drill campaign has not, as yet been re-examined but the logs suggest a considerable amount of mineralization was left in these holes as well. Re-sampling generally returned assays with the same order-of-magnitude as the originals, and the results of Table 3 represent an averaging of the two values, where applicable, for that sample.

A significant amount of lead was observed in the core, which, for the most part was never assayed in the past. Our sampling suggests that this metal as well as silver will form a significant component of any ore that may be developed in the Shunsby deposits. Our sampling failed to turn up more than trace amounts of gold from any but the most Cu-rich samples, and has down-graded the gold potential of any polymetallic ore scenario from the known deposits. Minor amounts of cobalt and cadmium were noted within massive mineralization, however the economic manifestations of their presence are not known at this point.

Weight averaging of all of the historical Shunsby drill core intersections plus our additional sampling gave an average value of 0.79% Cu and 1.99% Zn over an average core length of 6.79m, as well as 1.86% Pb over 5.32m. Higher-grade sections averaged 1.30% Cu and 2.21% Zn over an average core length of 5.61m, with 0.96% Pb over 2.83m."

MPH would note for the purposes of the present report that all of the above provides a sense of comfort that the historical results can be relied-on in terms of focusing exploration, but not for any resource work going forward.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

No formal mineral processing or metallurgical testing has been carried out by Black Widow.

14.0 ADJACENT PROPERTIES

There are no active exploration programs presently on properties adjacent to the Shunsby Property. As reported in Section 5.0, base metal mineralization is known some 3km northwest of the Shunsby Property at the Texasgulf Showing within stratigraphy thought to be broadly correlative with that on the western edge of the Black Widow property.

Base metal exploration was active in the area during the Kirkton era (1989-93), with Teck and Cominco working immediately to the south of the present Shunsby property, and Kidd Creek Mines at the Texasgulf showing.

15.0 MINERAL RESOURCE ESTIMATES

There are no current, NI 43-101 compliant mineral resource estimates for the property.

16.0 ENVIRONMENTAL CONSIDERATIONS

There are no known investigations by current or historic mineral rights holders that document baseline conditions or identify impacts historic mining/exploration activities or potential future activities have had or might have on the environment.

MPH believes that it would be prudent for Black Widow to implement an environmental strategy and began studies to document baseline conditions, as the project advances, to identify likely impacts a potential mining project will have on the environment.

17.0 INTERPRETATION AND CONCLUSIONS

MPH is of the opinion that all of the exploration results to date suggest that the Shunsby Main and South Zones represent part of a large, structurally-controlled stringer system(s) centred on a thick, grossly pod-like or lensoid unit of predominantly cherty chemical sediments and their brecciated equivalents. This chert accumulation represents chemical sedimentation in a quiescent basinal environment on the flank of a major felsic-intermediate pyroclastic eruptive centre located to the south and west. Base metal mineralization at Shunsby is restricted to the thickest portion of the chert assemblage, representing the deepest portion of the basin.

Figure 17-1 (modified from the 1991 MPH report) presents a schematic vertical stratigraphic section which attempts to summarize the relationship of the known mineralization to the Shunsby lithologies displayed in their proper stratigraphic position using the top of the Shunsby pyroclastic-sedimentary assemblage as the datum plane.

Chemically and petrographically, some of the classic hydrothermal alteration patterns associated with Archean VMS deposits seem to be present in the volcanic portion of the stratigraphy.

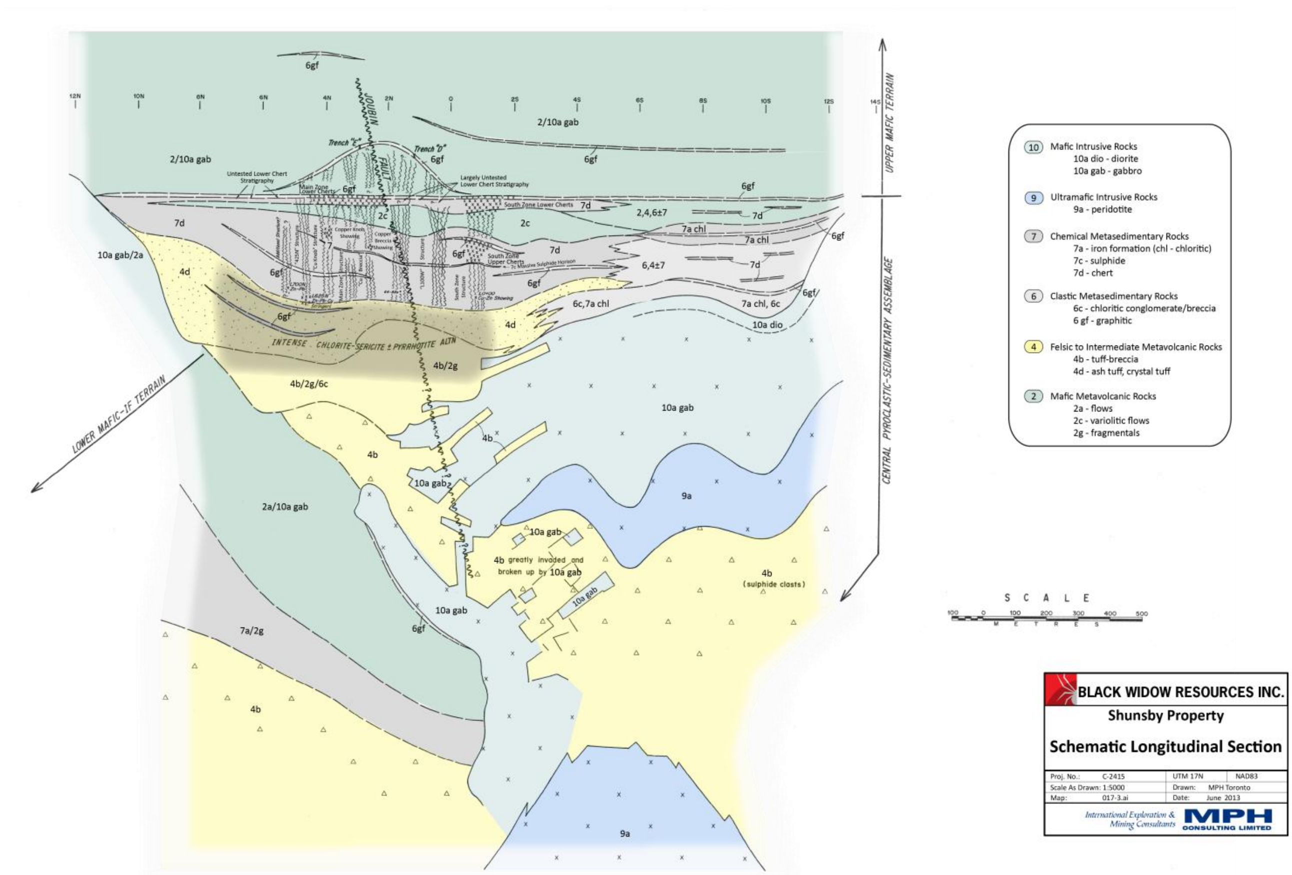


Figure 17-1: Schematic Longitudinal Section, Shunsby Property

17.1. Exploration Potential

MPH feels that there are two primary exploration targets for the Shunsby Property, namely i) searching for classic volcanogenic massive sulphide lenses, and ii) evaluating the economic potential of at least the Cu-rich core of the stringer system for an open-pittable deposit, although the zinc-rich peripheries may also factor into an economic scenario.

The recognition that tops are to the east clearly defines the string of largely untested EM conductors at the top of the central pyroclastic-sedimentary assemblage as being the obvious targets for VMS deposits. The existence of a mineralized glacial dispersion train along this EM trend with some quite high grade individual samples is well documented.

One important question is the timing of the event that created the mineralization relative to the volcanic history of the area. That is, was this event broadly synchronous with volcanism such that the system may have vented at the seafloor or superimposed on the rock assemblage long after the overlying rocks had been laid down with the mineralizing event triggered by subsequent tectonism, igneous intrusive activity, etc. This is a critical consideration in that if the system did vent at the seafloor, large massive sulphide deposits may have formed given the relatively large scale of the stringer system. Whether or not this happened, it is certainly clear that the Cu-Zn host fracture systems did not penetrate into the overlying youngest mafic basalt/gabbro terrain.

The results in historical diamond drill hole 64-82e are intriguing in a VMS context, as per Figures 17-2 and 17-3 (modified from the 1991 MPH report), below. These vertical sections trending 120^{o} attempt to follow the stringer trend through the Main Zone stratigraphy, but are somewhat limited by the accuracy, and lack of down hole surveying, of the historical drilling. The sections help to put the individual drill holes, especially those with significant Cu-Zn intercepts, into the context of which stringer structure they most likely intersected.

Hole 64-82e contained some of the best copper grades in all of the drilling on the property and is also one of the deepest/most westerly tests of the cherts. There was indicated to be more volcanic material in this hole at the expense of chert such that the Lower Chert may be undergoing a facies change in the present down-dip direction into a more volcanic-dominated environment.

Lithogeochemical results (MPH, 1991) also tentatively suggested that alteration intensity is increasing in the down-dip direction. Also, the drill hole compilation is suggesting a steepening of dips to more normal Abitibi sub vertical trends, such that it is possible the shallow dips seen near-surface are a local fold-related phenomena. Again, there may be very real potential for copper-rich, more massive deposits in this direction.

Possibilities for classical VMS deposits notwithstanding, the economic possibilities of the known, structurally-controlled stringer mineralization should be investigated. Some of

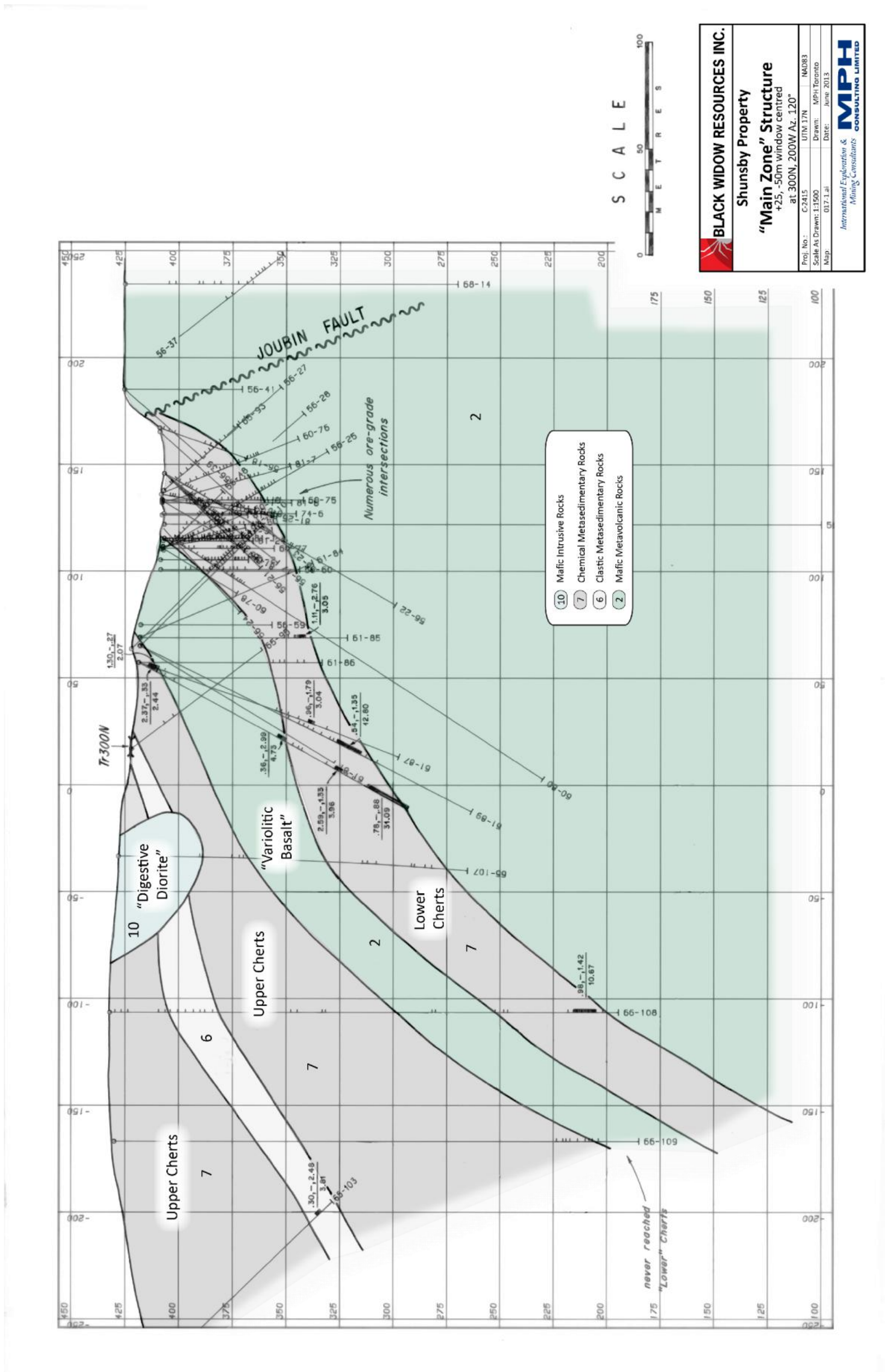


Figure 17-2: Vertical Section - Main Zone (Central) Mineralized Stratigraphy

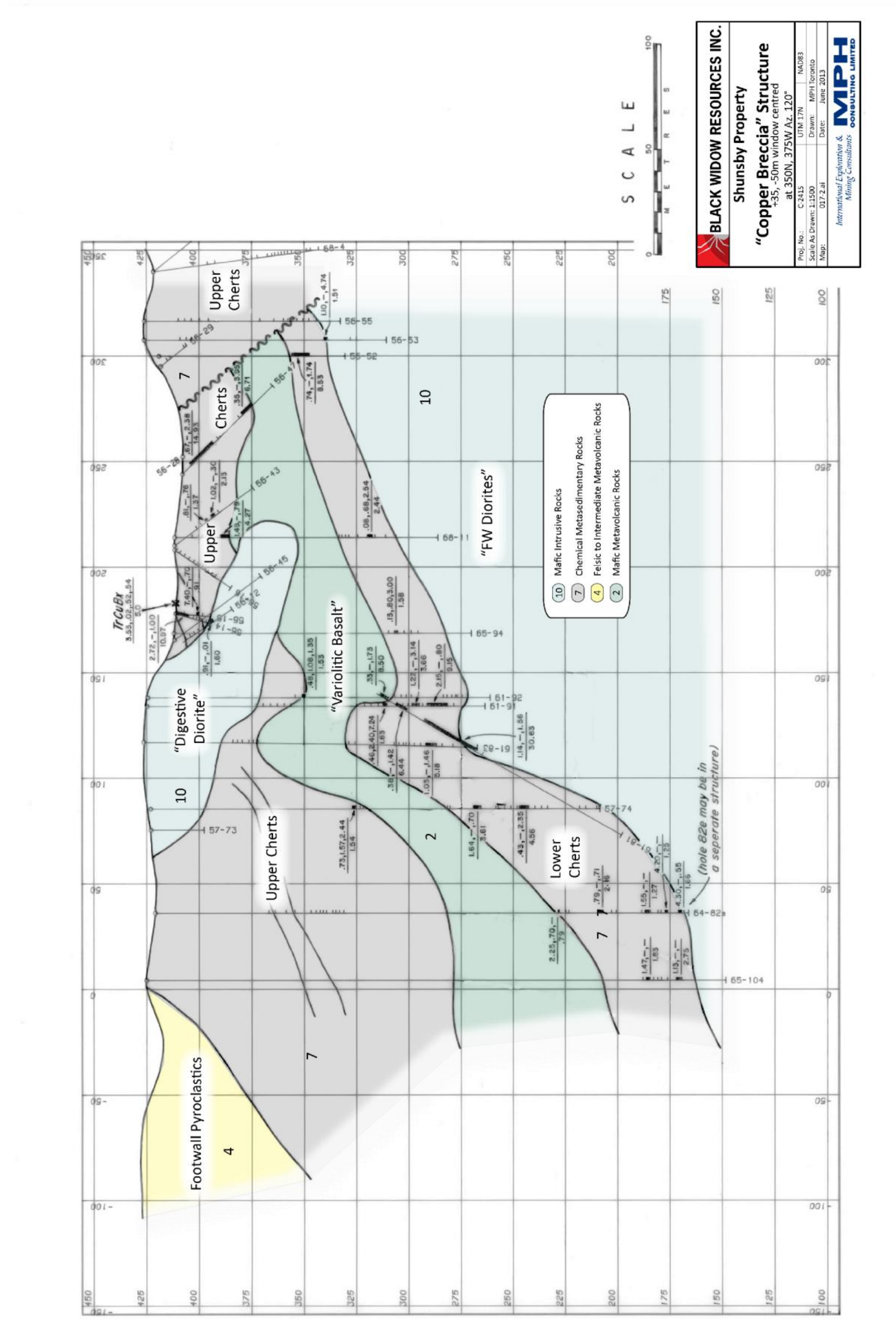


Figure 17-3: Vertical Section - Main Zone (South) Mineralized Stratigraphy

the trenching results during the Kirkton/MPH program clearly indicated that the stringer mineralization is of potential ore grade and open pit amenable, if sufficient material can be delineated. It is critical that holes be drilled north easterly in evaluating these structures, and therefore virtually all past work is useless in this regard.

In terms of number and density of mineralized structures within the stringer system, it would appear that a dense "core" of relatively closely-spaced systems underlies the Main Zone Upper and Lower Cherts. Mineralized structures become more widely-spaced laterally and more Zn (+/- Pb) - rich towards the north and to the south, where the South Zone area would appear to mark the southern periphery of the system.

Finally MPH is of the opinion that all previous mineral inventory estimates should be discarded given the direction of drilling relative to the attitude of mineralized structures. Whilst it is certain that some stratiform mineralization is present in the argillites, the strike extent and continuity is very limited, making any section to section correlation invalid.

It is useful to recall the assessment of consulting mining engineers Hill, Goether and de Laporte Ltd. in 1983 who, in assessing the Lower Cherts near surface inventory, noted "the continuity of mineralization depicted in cross-sections by Fairbairn (1982) is not substantiated by the data in detail and that therefore there may be considerable doubt that a reserve of the size Fairbairn had estimated, exists. It is felt that some of the data may have been made to fit a model of continuity, where continuity should not be expected geologically".

18.0 RECOMMENDATIONS

MPH recommends a two-pronged approach to ongoing exploration of the Shunsby Property, given that the geology and style of the mineralization on the property is now understood. As mentioned in the previous section, these are firstly to explore for classic VMS deposits and secondly to systematically evaluate the known stringer-system which has in fact been the subject unwittingly, of so much of the past historical drilling.

In terms of exploring for true VMS deposits, there are two obvious targets namely:

a. Complete the testing of the priority, near-surface EM conductive zones along the top of the central volcanosedimentary package, and

b. Explore this same relative horizon(s) at depth, ie. down-dip to the west

For the stringer system, exploration must be carried out on cross-sectional profiles with geophysics and sections of holes drilled in a north easterly direction of 030° (ie. perpendicular to the stringer trend), through the Upper and Lower Cherts (and the overlying conductors of interest at the top of the sequence) and terminating in the hanging wall mafic volcanic/gabbro complex.

18.1. Phase 1 Grid Re-establishment, 3-D Modelling and Surface Geophysical Surveying

An important initial step is to re-establish the Kirkton grid given the logging operations that have taken place over much of the property for control purposes. In addition, the 22 years of uninterrupted growth in areas formerly clear-cut in 1990 has created a dense alder/birch/poplar thicket over much of the critical property areas. It is necessary to re-create easy access by clearing all roads and tracks of this vegetation, which will open up all of the stripped and trenched areas. In addition it appears from the field visit that the logging operations may have filled in some of the flatter stripped areas, which should be relatively easy to re-expose.

The Kirkton grid should be augmented with supplemental line-cutting on 50m lines at ~N30^{o}E throughout the Main Zone and South Zone Upper and Lower Cherts. IP surveying is recommended for the supplemental grid, using 50m and detailed 25m station spacings, to aid in mapping mineralized stringer structures and thereby help to target the drill fences (plus additional stripping/trenching/geology/prospecting) through this area. The cut grid orientation has been chosen to tune the IP survey to preferentially detect the stringer sulfide system, and hopefully attenuate the responses of graphitic or iron formation related conductors.

As well, the existing historical drill database should be utilized to create a) a concise 3-D geological model and b) a mineralization model, which together will assist in interpreting the IP results and planning the surface geology/prospecting and subsequent drill programs.

18.2. Phase 2 Drilling and Borehole Geophysics

The Phase 2 drilling program should focus on the following three aspects, in this order of priority:

i) An initial evaluation of the ore potential of the known, shallow (to ~-200m) stringer-type mineralization following completion of the IP surveying of the Black Widow grid, which would require perhaps eight 250m -45 degree holes, ie. ~2,000m of drilling.

ii) Complete the drill testing started by Phelps Dodge, of priority, near-surface Time Domain EM conductive zones along the top of the central volcano-sedimentary unit for VMS deposits. This phase would necessitate approximately ten 150m -45 degree holes for a total of ~1,500m of drilling.

iii) Based on the 3-D modelling, and all other work completed during Phases 1 and 2, several "wildcat" tests for large, buried VMS deposits in the down-dip extension of the pyroclastic-chemical sedimentary domain, to the west of Hiram Lake, within the broad “core” of footwall alteration/stinger mineralization. An initial 3 steeply eastward dipping holes 500m holes totalling 1,500m is recommended for this phase.

It is felt that borehole electromagnetics will be extremely beneficial to items ii) and iii) of the overall drilling program in terms of locating off-hole and possibly off-end-of-hole conductors of interest, and aiding in the extension of the 3-D geological modelling from near-surface to greater depths.

18.3. Budget Estimate

The programme recommended above has an overall estimated cost of $1.65m, which can logically be broken down into two phases as described with initial Phase 1 work budgeted at $450,000, and Phase 2, ~$1,200,000.

Activity	Unit	Unit Cost ($)	No. of Units	Total ($)
PHASE 1a				
3-D Geology and Mineralization modelling			Estimate	15,000
Road/Trail/Stripping Clearing	Equipment Hours	100	200 (Estimate)	20,000
Campsite Location and Preparation			Estimate	15,000
			Sub-Total	**50,000**

Activity	Unit	Unit Cost ($)	No. of Units	Total ($)
PHASE 1b				
Temporary Camp Establishment			Estimate	20,000
Re-establish/Survey Baseline of Kirkton & new 030^o Grid			Estimate	5,000
Geology/Prospecting (all inclusive)			Estimate	100,000
Assays/Analytical			Estimate	5,000
			Sub-Total	**130,000**
PHASE 1c				
Re-establish Core of 100m Kirkton Grid	Line km	800	37	29,600
Cut new 030^o Grid with 50m lines	Line km	800	37	29,600
Camp Management			Estimate	30,000
IP Surveying of Black Widow Grid	Line km	4,000	39	156,000
			Sub-Total	**245,000**
			Contingency at 5%	21,500
			~Total Phase 1	**450,000**
PHASE 2				
Drill Camp Establishment and Management			Estimate	100,000
Core Drilling	metre	$150 (all inclusive)	5,000m	750,000
Geology/Sampling			Estimate	150,000
Borehole Geophysics	day	$3500	Estimate	50,000
Assays/Analytical			Estimate	20,000
			Sub-Total	**~1,070,000**
			Contingency at 10%	100,000
			~Total Phase 2	**1,200,000**

These two programs are believed to be sufficient to comprehensively test both the VMS and stringer-type mineralizaion potential on the property, and if successful, would lead to further work as appropriate.

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20.0 CERTIFICATE OF QUALIFICATION

Paul Sobie, B.Sc., P.Geo.
179 Guelph Street,
Rockwood, Ontario, N0B 2K0

I, Paul Sobie, P.Geo., do hereby certify that:

1. I am a consulting geologist with an office at 501–133 Richmond Street West, Toronto, Ontario, Canada.

2. I am a graduate of Laurentian University of Sudbury, Ontario and hold a degree of Bachelor of Science in Geology.

3. I am a member in good standing of the Association of Professional Geoscientists of Ontario ("APGO") as a Professional Geoscientist, Membership No. 0374.

4. I have worked as a geologist for a total of 26 years since graduation from university and am currently President of **MPH Consulting Limited**. Since joining MPH in 1984 (as a student), I have been involved in the conceptual development and management of base metal, gold, iron ore, and diamond exploration and evaluation programs in Canada and abroad for a number of clients. I have prepared or assisted with many independent technical and valuation reports, property evaluations to Canadian National Instrument NI 43-101 standards on mining properties worldwide (Botswana, Canada, Columbia, Lesotho, Namibia, Peru, South Africa, Zambia, Zimbabwe). I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.

5. I visited the Mineral Property that is the subject of this technical report on June 12, 2013.

6. I am the principal author and person responsible for all items in the technical report titled: "Technical Report on the Shunsby Base Metal Property, Cunningham Township, Ontario, Canada" (the "Technical Report"), for Black Widow Resources Inc. dated September 30, 2013.

7. I have had extensive prior involvement with the property that is the subject of this report, having served as Project Manager with MPH Consulting Limited during the period 1989-93 for Kirkton Resources Corporation.

8. I am not aware of any material with fact or material change with respect to the subject matter of the report that is not reflected in the report, the omission to disclose which makes the report misleading.

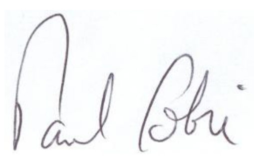
9. I am independent of the issuer as defined in section 1.5 of National Instrument 43-101. I am independent of Black Widow Resources Inc., and the property that is the subject of this report.

10. I have read National Instrument 43-101 and Form 43-101F1 and the report has been prepared in compliance with that instrument, form, standards and guidelines.

11. I consent to the filing of the report with the TSX and TSX Venture stock exchanges and relevant regulatory authorities and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the report.

12. To the best of my knowledge, information, and belief, at the effective date, the technical report, contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Effective Date: September 30, 2013
Signed Date: September 30, 2013

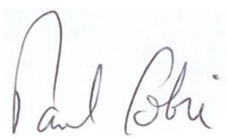


Paul Sobie, B.Sc., P.Geo.

21.0 DATE AND SIGNATURE PAGE

The undersigned, Paul A. Sobie, prepared all of Sections 1 to 21 inclusive of this Technical report, titled *Technical Report on the Shunsby Base Metal Property, Cunningham Township, Ontario* for Black Widow Resources Inc.. with an effective date of September 30, 2013, in support of the public disclosure of technical aspects of the Shunsby Property. The format and content of the report are intended to conform to Form 43-101F1 of National Instrument 43-101 of the Canadian Securities Administrators.

Signed,



Paul A. Sobie, B.Sc., P. Geo. September 30, 2013

APPENDIX 1

MPH Check Samples Analytical Certificates

Quality Analysis ... **Actlabs** *Innovative Technologies*

Date Submitted:	14-Jun-13
Invoice No.:	A13-06661
Invoice Date:	25-Jun-13
Your Reference:	

MPH Consulting
133 Richmond St W
Suite 501
Toronto On M5H 2L3
Canada

ATTN: Bill Brereton

CERTIFICATE OF ANALYSIS

2 Rock samples were submitted for analysis.

The following analytical packages were requested: Code 1A2 Au - Fire Assay AA
Code 1E3 Aqua Regia ICP(AQUAGEO)

REPORT **A13-06661**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY :

Emmanuel Eseme , Ph.D.
Quality Control

ISO/IEC 17025
SCC Accredited LAB 266
LAB 266 Accrédité CCN

ACTIVATION LABORATORIES LTD.
1336 Sandhill Drive, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au	Ag	Cu	Pb	Zn	Cu	Zn
Unit Symbol	ppb	ppm	ppm	ppm	ppm	%	%
Detection Limit	5	0.2	1	2	2	0.001	0.001
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	ICP-OES	ICP-OES
62232	10	10.1	> 10000	51	6500	2.03	
62233	45	14.8	> 10000	481	> 10000	3.82	1.76

Quality Control

Analyte Symbol	Au	Ag	Cu	Pb	Zn	Cu	Zn
Unit Symbol	ppb	ppm	ppm	ppm	ppm	%	%
Detection Limit	5	0.2	1	2	2	0.001	0.001
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	ICP-OES	ICP-OES
GXR-1 Meas		29.8	1220	667	734		
GXR-1 Cert		31.0	1110	730	760		
GXR-4 Meas		3.5	6570	41	73		
GXR-4 Cert		4.00	6520	52.0	73.0		
GXR-6 Meas		0.3	68	95	132		
GXR-6 Cert		1.30	66.0	101	118		
PTC-1a Meas						13.5	
PTC-1a Cert						13.51	
OREAS 14P Meas						0.969	
OREAS 14P Cert						0.997	
HV-2 Meas						0.582	0.004
HV-2 Cert						0.570	0.00560
GBW 07239 Meas						0.005	0.005
GBW 07239 Cert						0.00486	0.0120
GBW 07238 Meas						0.009	0.004
GBW 07238 Cert						0.00936	0.00655
MP-1b Meas						3.11	16.8
MP-1b Cert						3.069	16.67
SAR-M (U.S.G.S.) Meas		4.3	342	1090	1060		
SAR-M (U.S.G.S.) Cert		3.64	331	982	930.0		
CCu-1d Meas						23.8	2.63
CCu-1d Cert						23.93	2.63
CZN-4 Meas						0.417	55.2
CZN-4 Cert						0.403	55.24
OxD108 Meas	418						
OxD108 Cert	414.000						
62232 Orig						2.21	0.771
62232 Dup						1.85	0.643
62233 Orig	45						
62233 Dup	45						
Method Blank		< 0.2	< 1	< 2	< 2		
Method Blank		< 0.2	< 1	< 2	< 2		
Method Blank		< 0.2	< 1	< 2	< 2		
Method Blank		< 0.2	< 1	< 2	< 2		
Method Blank						< 0.001	< 0.001

APPENDIX II

Historical Drillhole Intersections Table

Hole	Collar North	Collar East	Azimuth	Dip	From (m)	To (m)	Length (m)	Cu (%)	Pb (%)	Zn (%)	Cu:Zn	Including From (m)	Including To (m)	Length (m)	Cu (%)	Pb (%)	Zn (%)	Comments
55-03	2+41N	1+71W	316	-20	2.43	10.24	7.81	1.17	-	1.31	0.89	7.64	10.24	2.60	2.59	-	2.72	Down-dip beneath the Copper Breccia Showing (CuBx), Main Zone Upper Cherts (MZUC)
55-04	3+32N	0+90W	316	-25	3.66	9.45	5.79	0.53	0.87	4.39	0.12	-	-		-	-		Down-dip in Main Zone Lower Cherts (MZLC), did not cross-section stratigraphy
56-05	3+31N	0+89W	316	-60	25.24	29.07	3.83	2.57	-	0.14	18.36	26.48	29.07	2.59	3.38	-	0.14	Steeper down-dip from same set-up - caught all MZLC units
					50.69	52.30	1.61	2.50	-	0.09	27.78	-	-		-	-	-	
56-06	3+31N	0+89W	136	-60	14.63	18.64	4.01	1.51	-	0.53	2.85	14.63	16.90	2.27	2.59	-	0.21	Section through MZLC from same set-up as 04, 05
56-08	4+22N	0+60W	316	-54	0.91	7.62	6.71	0.63	-	6.09	0.10	-		-	-	-	-	Down-dip in MZLC, did not cross-section stratigraphy
56-09	3+93N	1+62W	104	-45	12.80	15.06	2.26	1.33	-	1.08	1.23	-		-	-	-	-	Section beneath Copper Knob Showing (Cu-Knob) in MZLC - caught digestive diorite
					24.31	27.31	3.00	0.61	-	0.04	15.25	-		-	-	-	-	
					86.22	88.39	2.17	0.46	-	0.26	1.77	-		-	-	-	-	
56-11	3+73N	1+10W	136	-45	40.54	42.67	2.13	1.02	-	0.14	7.29	-		-	-	-	-	Section at 350N, caught lowermost MZLC mineralization
56-12	2+91N	2+26W	176	-45	4.27	10.67	6.40	0.06	-	1.27	0.05	7.62	9.14	1.52	0.20	-	2.82	Southerly hole under CuBx, MZUC
					42.29	43.89	1.60	0.91	-	0.01	91.00	-		-	-	-	-	
56-14	2+42N	2+34W	29	-30	1.22	12.19	10.97	2.72	-	1.00	2.72	2.74	12.19	9.45	3.14	-	1.02	NNE hole under CuBx, MZUC
					-			-	-	-	-	7.32	10.36	3.04	5.41	-	0.54	
56-15	2+41N	2+34W	29	-60	11.28	12.19	0.91	7.40	-	0.70	10.57	-		-	-	-	-	NNE hole under CuBx, MZUC, same set-up as 14
56-16	2+21N	2+12W	356	-45	14.73	19.16	4.43	1.58	-	0.32	4.94	14.73	17.65	2.92	2.10	-	0.29	Northerly hole under CuBx, MZUC
56-17	2+57N	0+88W	271	-45	17.22	23.17	5.95	0.41	-	2.35	0.17	-		-	-	-	-	Down-dip in MZLC, did not cross-section stratigraphy
					31.39	40.54	9.15	1.89	-	0.74	2.55	-		-	-	-	-	
					44.96	46.02	1.06	3.31	-	0.08	41.38	-		-	-	-	-	
					50.72	54.07	3.35	1.87	-	0.30	6.23	-		-	-	-	-	
56-20	2+57N	0+88W	332	-45	24.84	26.06	1.22	1.17	-	1.82	0.64	-		-	-	-	-	Down-dip from same set-up as 17, caught lower MZLC stratigraphy
					34.75	38.01	3.26	2.33	-	0.81	2.88	-		-	-	-	-	
					44.19	47.55	3.36	0.86	-	7.53	0.11	-		-	-	-	-	
56-21	2+57N	0+88W	301	-45	10.67	56.39	45.72	0.96	-	1.05	0.91	10.67	18.08	7.41	1.23	-	0.83	Same set-up as 17, 20 - caught same stratigraphy
					-			-	-	-	-	25.76	56.39	30.63	1.09	-	1.26	
56-22	2+57N	0+88W	301	-60	7.93	14.48	6.55	0.16	-	0.87	0.18	-		-	-	-	-	Steeper down-dip from same set-up - caught all MZLC units
					33.99	40.42	6.43	2.11	-	0.19	11.11	36.27	40.42	4.15	3.01	-	0.01	
					67.36	68.28	0.92	0.35	-	2.04	0.17	-		-	-	-	-	
56-25	2+43N	1+44W	96	-55	43.16	64.62	21.46	0.77	-	1.06	0.73	52.43	53.95	1.52	1.89	-	3.67	Good MZLC cross-sectional hole
					-			-	-	-	-	61.27	62.94	1.67	2.75	-	0.89	
56-26	3+02N	0+80W	316	-45	12.19	39.62	27.43	158.00	-	0.59	2.68	12.19	21.64	9.45	1.43	-	0.72	Down-dip in MZLC, did not cross-section stratigraphy
					-			-	-	-	-	28.65	39.62	10.97	2.63	-	0.64	
					-			-	-	-	-	28.64	30.78	2.13	5.14	-	0.28	
					-			-	-	-	-	28.65	33.53	4.88	-	-	-	
56-27	2+15N	1+33W	101	-45	12.50	17.07	4.57	0.61	-	1.80	0.34	-		-	-	-	-	MZLC sectional hole near Joubin Fault
					37.19	43.59	6.40	0.52	-	1.16	0.45	-		-				
					48.77	55.78	7.01	1.05	-	0.67	1.57	48.77	52.12	3.35	1.63	-	0.81	
56-28	2+19N	1+57W	101	-45	57.30	66.45	9.15	0.33	-	0.64	0.52	-		-	-	-	-	Step back 25m from hole 27, mainly in Variolitic Basalt (VB)
56-31	4+20N	0+32W	281	-45	6.10	9.14	3.04	0.22	-	1.29	0.17	-		-	-	-	-	Northern MZLC hole, down-dip through lowermost cherts in HW volcanics
56-32	1+21N	1+23W	91	-45	71.02	73.76	2.74	0.13	-	4.49	0.03	-		-	-	-	-	South Zone Upper Cherts (SZUC) hole - did not reach VB
56-33	3+15N	0+94W	136	-50	6.10	25.91	19.81	1.63	-	1.56	1.05	-		-	-	-	-	MZLC sectional hole, did not reach HW volcanics
56-35	3+15N	0+94W	136	-80	3.35	24.99	21.64	1.02	-	1.28	0.80	3.35	9.45	6.10	2.86	-	1.58	Subvertical hole, same set-up as hole 33, good MZLC intersections
												18.90	21.95	3.05	0.46	-	3.87	
56-36	3+13N	0+92W	316	-45	3.96	13.41	9.45	1.65	-	4.87	0.34	-		-	-	-	-	Down-dip MZLC hole from same set-up as 33, 35
56-37	1+79N	0+95W	91	-45	90.53	92.81	2.28	0.36	-	2.17	0.17	-		-	-	-	-	SZUC sectional hole - ended in VB
56-38	5+52N	1+00W	136	-45	19.20	20.73	1.53	0.50	-	2.85	0.18	-		-	-	-	-	Short sectional hole in northern MZUC, ended in VB
					64.77	63.58	-1.19	0.93	-	1.58	0.59	-		-	-	-	-	
56-39	2+08N	0+77W	281	-45	51.82	53.65	1.83	0.41	-	3.41	0.12	-		-	-	-	-	Down-dip in MZLC adjacent to Joubin Fault
56-43	2+18N	2+12W	171	-45	21.34	22.71	1.37	0.81	-	0.76	1.07	-		-	-	-	-	Drilled south from CuBx area, caught minor MZUC mineralization
					25.30	29.87	4.57	0.80	-	0.33	2.42	25.30	27.43	2.13	1.02	-	0.30	
56-47	2+01N	1+82W	141	-45	6.40	27.43	21.03	0.49	-	2.00	0.25	6.40	21.33	14.93	0.67	-	2.38	Southeasterly from CuBx area across Joubin Fault, caught MZUC mineralization
					40.84	47.55	6.71	0.35	-	3.95	0.09	16.15	21.33	5.18	1.36	-	3.12	
56-48	2+94N	1+04W	123	-45	5.49	14.02	8.53	0.18	-	2.25	0.08	5.49	11.28	5.79	0.21	-	2.82	Section through MZLC at ~L3+00N
					28.04	32.92	4.88	0.67	-	0.73	0.92	28.04	30.18	2.14	1.07	-	0.76	
56-51	2+62N	1+14W	270	-90	18.59	41.15	22.56	1.61	-	1.27	1.27	18.59	21.03	2.44	1.37	-	6.27	Vertical hole from VB though MZLC at ~L2+50N
					-			-	-	-	-	27.74	41.15	13.41	2.27	-	0.80	
56-52	1+79N	1+28W	270	-90	63.09	71.62	8.53	0.74	-	1.74	0.43	63.09	66.44	3.35	0.82	-	4.26	Vertical hole just south of Joubin Fault, seems to have intersected MZUC
56-53	1+46N	1+45W	270	-90	85.66	87.17	1.51	1.10	-	4.74	0.23	-		-	-	-	-	Vertical hole 25m further south of hole 52 - SZUC mineraliztion
56-56	0+60N	0+50W	270	-90	79.23	96.16	16.93	0.11	-	0.88	0.13	85.66	87.47	1.31	0.65	-	1.63	Vertical hole in northern portion of SZ, low grade UC and LC intersections
					145.39	149.66	4.27	0.56	-	1.58	0.35	-		-	-	-	-	

Hole	Collar North	Collar East	Azimuth	Dip	From (m)	To (m)	Length (m)	Cu (%)	Pb (%)	Zn (%)	Cu:Zn	Including From (m)	Including To (m)	Length (m)	Cu (%)	Pb (%)	Zn (%)	Comments
56-57	0+57S	0+37E	270	-90	9.45	35.05	25.60	0.08	-	2.33	0.03	27.13	35.05	7.92	0.21	-	4.16	Well-mineralized (Zn) vertical hole in central SZ - both UC and LC intercepts
					42.06	52.07	10.01	0.06	-	4.93	0.01	-		-	-	-	-	
					122.23	125.58	3.35	0.08	-	2.08	0.04	122.23	124.05	1.82	0.09	0.80	2.93	
56-60	3+03N	1+09W	270	-90	13.87	39.32	25.45	0.74	-	2.54	0.29	13.87	33.83	19.96	0.92	-	2.54	Vertical MZLC hole
66-61e	0+86S	0+48E	270	-90	2.13	40.23	38.10	0.07	-	2.95	0.02	17.36	37.19	19.83	0.07	-	4.45	Vertical in central SZ, Zn mineralization in lower UC and in LC
					97.66	105.12	7.46	0.22	-	1.99	0.11	97.66	100.71	3.05	0.31	0.50	3.34	
					116.44	126.71	10.27	0.47	-	2.41	0.20	-		-	-	-	-	
66-62e	0+86S	0+48E	67	-45	2.13	15.09	12.96	0.07	-	1.31	0.05	-		-	-	-	-	Inclined easterly hole from same set-up as hole 61, good Zn intersections in both cherts
					20.87	47.83	26.96	0.03	-	3.85	0.01	31.10	37.20	6.10	0.02	-	8.07	
					90.03	113.65	23.62	0.77	-	2.23	0.35	-		-	-	-	-	
56-63	1+30S	0+25E	270	-90	5.61	31.55	25.94	0.03	-	1.14	0.03	17.06	18.90	1.84	0.18	-	3.28	Vertical hole in southern SZUC, minor Zn above VB
56-64	1+53S	0+62E	270	-90	40.22	42.45	2.23	0.04	-	3.58	0.01	-		-	-	-	-	Vertical hole in southern SZUC, minor Zn above VB
56-65	0+21S	0+31E	270	-90	29.81	32.00	2.19	0.09	0.51	7.02	0.01	-		-	-	-	-	Vertical hole in SZUC, minor Zn above VB
56-67	1+40S	0+14W	270	-90	128.25	134.35	6.10	0.04	-	2.49	0.02	-		-	-	-	-	Vertical hole in southern SZLC, narrow intersections of decent grade
					137.17	142.03	4.86	0.17	-	2.74	0.06	137.17	138.52	1.35	0.57	-	6.83	
57-68	1+80S	0+28E	270	-90	50.00	55.94	5.94	0.05	-	2.59	0.02	50.00	53.05	3.05	0.10	-	1.95	Vertical hole in southern SZUC, hole did not pass through LC into HW volcanics
65-70e	2+16S	0+39E	270	-90	39.01	48.79	9.78	-	-	1.81	0.00	45.57	48.79	3.22	-	-	3.29	Vertical hole in southern SZUC and LC, values only in UC
68-71e	0+96S	0+09E	270	-90	118.57	120.41	1.84	0.36	0.21	1.62	0.22	-		-	-	-	-	Vertical hole in central SZ, better Zn intercept in LC
					126.18	128.02	1.84	0.24	0.36	2.23	0.11	-		-	-	-	-	
					140.81	145.70	4.89	0.29	-	3.23	0.09	142.36	145.70	3.34	0.38	-	4.47	
65-72e	3+60N	2+94W	270	-90	172.97	184.25	11.28	0.37	-	2.03	0.18	-		-	-	-	-	Vertical hole in western MZ, low grade values only, in LC
					193.70	195.21	1.51	0.31	-	2.18	0.14	-		-	-	-	-	
57-74	2+85N	3+17W	270	-90	96.00	97.54	1.54	0.73	1.57	2.44	0.30	-		-	-	-	-	Vertical hole in western MZ, good values in LC, hole did not reach HW volcanics
					153.90	157.51	3.61	1.64	-	0.70	2.34	155.68	157.51	1.83	2.78	-	0.57	
					175.89	180.45	4.56	0.48	-	2.55	0.19	-		-	-	-	-	
54-C	1+61S	2+29E	55	-47	72.82	73.03	0.21	0.10	1.20	6.20	0.02	-		-	-	-	-	Partial section in SZLC
60-75	2+38N	1+19W	270	-90	30.48	32.00	1.52	0.13	-	4.78	0.03	-		-	-	-	-	Vertical through MZLC
					38.86	53.34	14.48	0.49	-	2.84	0.17	41.30	51.51	10.21	0.66	-	3.61	
60-76	2+25N	1+25W	98	-65	14.94	17.98	3.04	0.08	0.78	2.04	0.04	21.95	24.32	2.37	0.11	-	2.75	Inclined easterly through MZLC
					21.95	49.53	27.58	0.34	-	1.03	0.33	30.14	35.75	5.61	0.37	-	1.73	
					-		-	-	-	-	-	39.93	49.53	9.60	0.73	-	1.26	
					-		-	-	-	-	-	42.98	49.53	6.55	1.07	-	1.42	
60-77	2+84N	1+11W	270	-90	10.21	14.45	4.24	0.90	-	3.59	0.25	-		-	-	-	-	Vertical through MZLC
					25.60	35.97	10.37	4.56	-	1.27	3.59	31.70	35.97	4.27	7.38	-	1.85	
60-79	2+84N	1+11W	86	-60	9.75	30.79	21.04	0.66	-	1.87	0.35	12.80	16.49	3.69	1.13	-	2.95	Inclined easterly hole from same set-up as hole 77, through MZLC
					-		-	-	-	-	-	28.44	30.79	2.35	1.01	-	5.32	
60-80	2+98N	0+92W	267	-50	8.05	9.54	1.49	0.72	-	4.76	0.15	-		-	-	-	-	Down-dip in MZLC
					14.63	45.14	30.51	0.87	-	1.06	0.82	31.36	44.14	12.78	1.76	-	1.08	
61-81	2+93N	1+62W	267	-50	115.67	118.87	3.20	0.51	-	2.17	0.24	-		-	-	-	-	Long down-dip hole through VB into MZLC
					128.93	137.43	8.50	0.33	-	1.73	0.19	-		-	-	-	-	
					142.49	148.93	6.44	0.38	-	1.42	0.27	-		-	-	-	-	
					159.26	189.89	30.63	1.14	-	1.56	0.73	159.26	176.39	17.13	1.87	-	1.33	
					-		-	-	-	-	-	182.03	189.89	7.86	0.24	-	2.33	
64-82e	2+92N	3+75W	270	-90	192.33	193.12	0.79	2.25	0.70	-	-	-		-	-	-	-	Long vertical hole through MZUC, VB and MZLC - good LC Cu mineralization at ~-250m
					211.84	214.00	2.16	0.79	-	0.71	1.11	-		-	-	-	-	
					235.24	236.51	1.27	1.55	-	-	-	-	-	-	-	-	-	
					243.60	244.85	1.25	4.20	-	-	-	-		-	-	-	-	
					249.86	251.52	1.66	4.30	-	0.55	7.82	-		-	-	-	-	
61-83	3+04N	2+62W	270	-90	121.62	142.25	20.63	0.40	-	0.96	0.42	131.98	142.25	10.27	0.64	-	1.14	Vertical hole ~100m east of hole 82 - intersections in MZLC
					-		-	-	-	-	-	134.42	139.60	5.18	1.03	-	1.46	
61-85	2+81N	1+67W	270	-90	68.88	76.81	7.93	0.56	-	1.51	0.37	73.76	76.81	3.05	1.11	-	2.76	Vertical hole through VB and MZLC
61-87	3+14N	1+56W	286	-70	4.79	6.86	2.07	1.30	-	0.27	4.82	-		-	-	-	-	Steeply inclined down-dip hole in MZ, caught lowermost UC and LC
					84.13	87.17	3.04	0.96	-	1.79	0.54	-		-	-	-	-	
61-88	3+14N	1+56W	268	-55	4.88	7.32	2.44	2.37	-	0.33	7.18	-		-	-	-	-	Shallower down-dip hole from same set-up as hole 87.
					78.79	83.52	4.73	0.36	-	2.99	0.12	-		-	-	-	-	
					111.86	115.82	3.96	2.59	-	1.33	1.95	-		-	-	-	-	
					132.28	163.37	31.09	0.78	-	0.88	0.89	141.12	163.37	22.25	1.00	-	1.04	
					-		-	-	-	-	-	141.12	147.52	6.40	1.20	-	1.74	
					-		-	-	-	-	-	157.89	163.37	5.48	2.33	-	1.19	
61-89	2+93N	1+62W	287	-62	103.33	116.13	12.80	0.54	-	1.35	0.40	106.99	113.08	6.09	0.70	-	2.13	Down-dip hole in MZLC
61-91	2+76N	2+62W	270	-90	99.67	114.30	14.63	0.22	-	1.80	0.12	112.47	114.30	1.83	0.46	2.40	7.24	Vertical MZ hole at 2+75N, caught all LC horizons at depth of !150
					126.19	129.85	3.66	1.22	-	3.14	0.39	-		-	-	-	-	
					133.50	142.65	9.15	2.15	-	0.80	2.69	136.55	142.65	6.10	2.64	-	0.88	

Hole	Collar North	Collar East	Azimuth	Dip	From (m)	To (m)	Length (m)	Cu (%)	Pb (%)	Zn (%)	Cu:Zn	Including From (m)	Including To (m)	Length (m)	Cu (%)	Pb (%)	Zn (%)	Comments
61-92	2+64N	2+67W	270	-90	73.33	74.86	1.53	0.48	1.08	1.35	0.36	-		-	-	-	-	Vertical MZ hole very close to hole 91 - appears to have run in feeder to "dig. diorite"
					120.70	125.58	4.88	0.06	0.35	1.26	0.05	-		-	-	-	-	
65-93	2+39N	1+12W	98	-45	8.87	12.07	3.20	0.08	-	2.89	0.03	-		-	-	-	-	Short inclined hole at south end of MZLC
					30.69	32.67	1.98	0.23	-	2.84	0.08	-		-	-	-	-	
65-94	2+28N	2+56W	270	-90	105.19	106.77	1.58	0.13	0.80	3.00	0.04	-		-	-	-	-	Vertical hole at south end of MZ, sparse mineralization in LC at ~100m depth
65-95	3+37N	1+89W	88	-45	86.05	89.09	3.04	0.47	0.30	0.98	0.48	-		-	-	-	-	Inclined hole in MZLC - dyked out for much of hole
65-98	3+69N	1+02W	108	-45	30.72	31.49	0.77	1.71	-	2.96	0.58	-		-	-	-	-	Shallow inclined hole targeted on MZLC - dyked out for much of hole
65-102	4+26N	0+83W	270	-90	59.31	60.84	1.53	0.20	4.85	2.56	0.08	-		-	-	-	-	Vertical hole near Hiram Lake, south end of MZ - sparse Pb, Zn values in MZUC
					96.07	97.17	1.10	-	10.12	-	-	-		-	-	-	-	
65-103	4+99N	4+38W	88	-35	129.78	133.59	3.81	0.30	-	2.48	0.12	-		-	-	-	-	Northwesternmost hole in MZ, inclined to the east, in UC's only
65-104	3+59N	3+63W	270	-90	238.72	240.55	1.83	1.47	-	-	-	-		-	-	-	-	Vertical deep hole in MZLC, no Zn assays
					253.04	255.79	2.75	1.13	-	-	-	-		-	-	-		
66-108	4+28N	2+74W	270	-90	216.41	227.08	10.67	0.98	-	1.42	0.69	218.24	223.42	5.18	1.37	-	1.97	Vertical deep hole in MZ - significant intersection only in LC
66-110	4+89N	2+84W	270	-90	158.53	160.20	1.67	-	0.60	3.98	0.00	-		-	-	-	-	vertical hole in northern MZ, dyked out through much of LC, sparse sampling in UC
66-112	0+62N	0+32E	270	-90	110.49	112.62	2.13	0.86	-	0.76	1.13	-		-	-	-	-	Vertical hole in northern portion of SZ - values in LC, UC sparse
68-01	0+02S	0+41W	270	-90	48.77	50.29	1.52	1.60	-	4.89	0.33	-		-	-	-	-	Vertical hole central SZ - values in both UC and LC
					149.66	157.28	7.62	0.10	-	2.00	0.05	155.45	157.28	1.83	0.07	-	3.21	
68-04	1+21N	1+23W	87	-80	57.30	66.75	9.45	0.24	0.56	3.44	0.07	60.35	64.92	4.57	0.29	0.50	4.49	Steeply inclined hole in northern SZ with values in UC, dyked out in LC
68-06	1+13N	0+38W	270	-90	81.69	89.31	7.62	0.06	-	5.38	0.01	-		-	-	-	-	Vertical hole in northern SZ with values in UC, fault/shearing in LC
68-10	1+14N	0+38W	98	-60	78.64	82.30	3.66	0.04	0.28	2.80	0.01	79.86	82.30	2.44	0.11	0.28	3.34	Inclined hole in SZ from same set-up as 68-06, values in UC only
68-11	2+20N	2+05W	270	-90	21.64	25.91	4.27	1.49	-	0.77	1.94	21.64	23.47	1.83	2.16	-	1.70	Vertical hole near Cu-Bx Showing in MZ - values in both UC and LC
					70.55	81.38	1.83	0.22	0.54	1.33	0.17	-		-	-	-	-	
					91.74	94.18	2.44	0.08	0.68	2.54	0.03	-		-	-	-	-	
68-12	1+15N	0+72E	270	-90	69.49	71.93	2.44	0.15	0.25	2.46	0.06	-		-	-	-	-	Vertical hole in northern SZ, values in LC
68-16	0+00N	0+25E	270	-90	97.84	100.58	2.74	0.42	-	1.33	0.32	-		-	-	-	-	Vertical hole in central SZ, dyke in UC, values in LC
					106.68	110.34	3.66	0.32	-	1.75	0.18	-		-	-	-	-	
					115.82	121.77	5.95	2.11	-	3.05	0.69	-		-	-	-	-	
68-18	0+76S	1+56E	270	-90	5.18	8.53	3.35	1.62	-	4.12	0.39	-		-	-	-	-	Vertical hole in southern SZ, values in lowermost UC near surface, and in LC
					45.42	52.43	7.01	0.10	-	1.74	0.06	45.42	51.21	5.79	0.09	-	1.90	
					64.31	65.99	1.68	0.58	0.05	1.06	0.55	-		-	-	-	-	
68-19	0+00N	0+65E	270	-90	18.59	23.16	4.57	0.11	-	2.12	0.05	-		-	-	-	-	Vertical hole in central SZ, values in both UC and LC
					99.06	102.11	3.05	0.20	-	1.93	0.10	-		-	-	-	-	
68-20	0+76S	1+56E	88	-52	7.32	11.58	4.26	0.68	-	5.25	0.13	-		-	-	-	-	Inclined from same collar as 68-18, values in lowermost UC near surface, and in LC
					44.20	55.17	10.97	0.18	-	2.62	0.07	-		-	-	-	-	
					64.92	69.19	4.27	0.40	-	3.33	0.12	-		-	-	-	-	
74-6	2+57N	1+12W	270	-90	40.84	45.42	4.58	0.80	-	2.07	0.39	-		-	-	-	-	Vertical hole through southern MZLC
74-7	2+83N	0+74W	270	-90	2.44	6.71	4.27	0.49	-	2.63	0.19	-		-	-	-	-	Vertical hole collared too far east, caught only lowermost MZLC at surface
74-8	3+19N	0+71W	270	-90	4.57	6.71	2.14	1.01	-	1.35	0.75	-		-	-	-	-	Vertical hole collared too far east, caught only lowermost MZLC at surface
74-9	0+43S	1+42E	270	-90	60.35	66.45	6.10	0.09	0.27	1.51	0.06	63.40	65.23	1.83	0.09	0.20	3.36	Vertical hole in southern SZ, dyke in UC, values in LC, hole stopped short of HW
74-10	2+94N	1+62W	124	-45	54.25	78.94	24.69	0.73	-	1.36	0.54	-		-	-	-	-	Southeasterly hole in southern MZ through VB and LC
74-11	0+76S	0+26E	124	-45	18.90	35.97	17.07	0.10	0.59	2.15	0.05	24.99	35.97	10.98	0.10	-	2.97	Southeasterly hole in southern SZ, modest values in both UC and LC
					46.02	56.69	10.67	0.19	0.37	1.65	0.12	-		-	-	-	-	
					121.62	129.24	7.62	0.43	-	3.74	0.12	-		-	-	-	-	
					143.26	149.96	6.70	0.72	-	2.56	0.28	-		-	-	-	-	
74-12	3+17N	1+45W	124	-45	50.90	61.57	10.67	0.52	-	1.09	0.48	60.05	61.57	1.52	1.23	-	0.02	Southeasterly hole in central MZ, in dyke through part of LC
74-13	0+59S	0+37E	124	-45	14.63	18.89	4.26	0.06	0.21	2.99	0.02	-		-	-	-		Southeasterly hole drilled 25m NE of 74-11 in SZ, values in both cherts, stopped short
					24.99	47.85	22.86	0.97	10.10	2.75	0.35	-		-	-	-	-	
					100.89	117.35	16.46	0.82	1.01	5.50	0.15	100.89	107.59	6.70	1.55	2.40	11.67	
74-14	1+21S	0+85E	124	-45	6.40	10.67	4.27	0.02	0.59	1.19	0.02	9.45	10.67	1.22	0.04	0.70	1.98	Southeasterly hole in southern SZ (forms a section with 74-11), values in UC, good mineralization noted in log in LC but no assays and core dumped, could not be sampled
					17.37	39.32	21.95	0.16	0.02	1.13	0.14	17.37	19.51	2.14	0.37	0.40	2.16	
					-		-	-	-	-	-	25.60	29.57	3.97	0.44	0.40	2.36	
					-		-	-	-	-	-	36.58	39.32	2.74	0.36	0.40	3.12	
74-15	0+92S	0+77W	124	-45	172.52	175.57	3.05	0.07	0.31	2.70	0.03	-		-	-	-	-	Southeasterly hole in southern SZ, values in LC only
74-16	2+47S	0+56W	124	-45	185.62	191.72	6.10	0.27	6.98	1.16	0.23	-		-	-	-	-	Southeasterly hole to south of SZ, values in LC only
74-17	0+64S	0+79E	124	-45	6.71	28.96	22.25	0.55	-	4.17	0.13	-		-	-	-	-	Southeasterly hole in southern SZ, values in both UC and LC
					86.87	106.25	19.33	0.73	-	1.48	0.53	-		-	-	-	-	
74-18	0+87S	1+18E	124	-45	18.59	25.30	6.71	0.15	0.12	3.30	0.05	22.71	25.30	2.59	0.12	-	6.26	Southeasterly hole forming section with 74-17, values in both UC and LC, good mineralization seen in dumped core
					71.78	74.37	2.59	2.65	-	5.24	0.17	-		-	-	-	-	
74-20	0+41S	0+75E	124	-60	28.96	33.22	4.26	0.10	0.02	3.69	0.03	-		-	-	-	-	Southeasterly hole in SZ, values in both UC and LC
					77.42	83.09	5.67	0.25	0.33	1.85	0.14	-		-	-	-	-	
74-21	0+38S	1+11E	149	-60	26.06	30.63	4.57	0.38	0.23	4.38	0.09	-		-	-	-	-	Southerly (along strike) hole in SZ, values in both UC and LC
					68.28	72.54	4.26	0.17	0.83	2.34	0.07	-		-	-	-	-	
					87.75	92.35	4.57	0.31	0.14	1.78	-	-		-	-	-	-	
					102.41	103.78	1.37	0.29	0.43	1.77	0.16	-		-	-	-	-	

Hole	Collar North	Collar East	Azimuth	Dip	From (m)	To (m)	Length (m)	Cu (%)	Pb (%)	Zn (%)	Cu:Zn	Including From (m)	Including To (m)	Length (m)	Cu (%)	Pb (%)	Zn (%)	Comments
81-01	2+80N	1+08W	270	-90	10.97	12.80	1.83	0.39	-	3.08	0.13	-		-	-	-	-	Vertical hole in southern MZ, sampled throuth LC
					18.59	21.03	2.44	1.05	-	7.71	0.14	-		-	-	-	-	
					26.37	36.42	10.05	2.54	-	0.89	2.85	-		-	-	-	-	
81-02	2+82N	1+20W	270	-90	20.73	28.35	7.62	1.42	-	2.88	0.49	-		-	-	-	-	Vertical hole 10m west of 81-01, stopped short of HW in LC
					34.90	39.01	4.11	1.53	-	1.05	1.46	-		-	-	-	-	
81-03	2+83N	0+92W	270	-90	23.16	28.19	5.03	1.56	-	0.53	2.94	-		-	-	-	-	Vertical hole 15m east of 81-01, sampled only lowermost LC
					31.39	32.31	0.92	1.19	-	0.12	9.92	-		-	-	-	-	
81-05	2+59N	0+99W	288	-80	17.37	22.40	5.03	1.17	-	1.25	0.94	17.37	18.44	1.07	4.99	-	0.29	Sub-vertical (slightly down-dip) hole ~25m south of 81-01, caught all of LC
					5.49	8.23	2.74	0.08	-	2.71	0.03	-		-	-	-	-	
					26.82	27.43	0.61	0.84	-	2.57	0.33	-		-	-	-	-	
					32.92	41.00	8.08	1.08	-	0.64	1.69	-		-	-	-	-	
81-06	2+33N	1+25W	270	-90	47.85	52.88	5.03	2.95	-	2.85	1.04	-		-	-	-	-	Vertical hole in MZ near Joubin Fault, mainly in VB, lowermost LC
81-07	2+34N	1+24W	108	-73	43.28	47.09	3.81	1.80	-	0.76	2.37	-		-	-	-	-	Southeasterly steep hole from same collar as 81-06, only lowermost LC
81-08	2+32N	1+25W	198	-80	51.82	62.79	10.97	1.66	-	4.82	0.34	-		-	-	-	-	Southerly subvertical hole from same collar as 81-06, good basal LC intersection
81-10	3+12N	0+92W	270	-90	2.74	6.71	3.97	1.17	-	0.25	4.68	-		-	-	-	-	Vertical hole ~25m north of 81-01, caught lower half of LC
					15.85	17.22	1.37	4.32	-	0.46	9.39	-		-	-	-	-	
81-11	3+10N	0+83W	270	-90	8.69	12.80	4.11	1.08	-	2.85	0.38	-		-	-	-	-	Vertical hole 10m east of 81-10, missed most of the LC's
81-12	3+14N	1+00W	270	-90	5.18	12.80	7.62	1.58	-	1.81	0.87	-		-	-	-	-	Vertical hole ~10m west of 81-10, missed upper LC's due to dykes
					26.06	26.97	0.91	2.11	-	0.19	11.11	-		-	-	-	-	
81-13	3+30N	0+86W	270	-90	16.00	18.69	2.69	0.32	-	1.99	0.16	-		-	-	-	-	Vertical hole in central MZ (~50m north of 81-01), caught lower LC horizons
81-14a	3+31N	0+97W	270	-90	29.11	29.57	0.46	4.10	-	0.06	68.33	-		-	-	-	-	Vertical hole 10m west of 81-13, missed upper LC's
					33.83	36.12	2.29	1.83	-	0.01	183.00	-		-	-	-	-	
81-15	3+35N	0+72W	270	-90	7.92	9.20	1.28	6.54	-	0.82	7.98	-		-	-	-	-	Vertical ~15m east of 81-13, missed most of the LC's
81-16	4+21N	0+77W	98	-70	7.62	12.19	4.57	0.62	-	1.08	0.57	-		-	-	-	-	Subvertical hole in northern MZLC, much dyke, stopped short of HW volcanics
81-18	4+22N	0+65W	98	-80	2.44	6.10	3.66	0.03	-	3.27	0.01	-		-	-	-	-	Steeper hole ~12m east of 81-16, also dykes and values in LC's
					24.99	26.21	1.22	0.15	-	3.94	0.04	-		-	-	-	-	
81-19	3+81N	0+77W	176	-60	1.68	4.27	2.59	0.47	-	3.05	0.15	-		-	-	-	-	Southerly (along strike) hole iin central MZLC, hole ended in mineralization
					7.16	12.34	5.18	1.04	-	2.09	0.50	7.16	9.45	2.29	1.72	-	4.30	
					22.71	22.86	0.15	0.88	-	6.43	0.14	-		-	-	-	-	
81-20	3+81N	0+77W	98	-70	6.40	15.29	8.99	0.37	-	2.52	0.15	-		-	-	-	-	Steep easterly hole from same collar as 81-20, trouble with dykes
81-21	3+64N	0+81W	270	-90	20.12	23.77	3.65	1.04	-	0.08	13.00	-		-	-	-	-	Vertical hole 15m south of 81-20, missed upper LC horizons due to dykes
81-22	3+40N	0+73W	270	-90	3.66	6.40	2.74	0.39	-	2.85	0.14	-		-	-	-	-	Vertical hole ~25m further south, caught all lower LC horizons
81-23	3+43N	0+90W	270	-90	25.76	26.21	0.45	0.98	-	7.87	0.13	-		-	-	-	-	Vertical hole 15m west of 81-22, problems with dykes
81-24	2+96N	0+97W	270	-90	6.10	8.84	2.74	0.32	-	5.11	0.06	-		-	-	-	-	Vertical hole through MZLC, collared in uppermost LC
					13.41	14.94	1.53	0.32	-	2.10	0.15	-		-	-	-	-	
					20.73	23.47	2.74	0.55	-	2.06	0.27	-		-	-	-	-	
					26.21	26.97	0.76	1.62	-	1.37	1.18	-		-	-	-	-	
					29.41	31.70	2.29	1.47	-	1.11	1.32	-		-	-	-	-	
81-25	2+43N	1+14W	278	-80	18.29	22.10	3.81	0.87	-	5.72	0.15	-		-	-	-	-	Sub-vertical hole near Joubin Fault, steeply down-dip in mineralizaiton
					33.28	49.53	16.25	2.87	-	0.90	3.19	33.28	37.03	3.75	3.97	-	1.50	
					-		-	-	-	-	-	38.86	41.76	2.90	4.06	-	0.40	
					-		-	-	-	-	-	43.89	44.96	1.07	10.10	-	2.31	
81-30	2+91N	1+05W	98	-75	4.88	10.36	5.48	0.76	-	3.72	0.20	-		-	-	-	-	Steep easterly hole through MZLC, collared in uppermost LC horizons
					18.90	35.66	16.76	1.93	-	1.68	1.15	18.90	20.12	1.22	0.48	-	3.45	
					-		-	-	-	-	-	21.95	35.66	13.71	2.08	-	1.26	
81-31	2+91N	1+05W	98	-80	17.22	18.59	1.37	0.27	-	2.76	0.10	-		-	-	-	-	Slightly steeper hole from same collar as 81-30, upper minerlization not sampled pending results of 81-30 (4.88 to 10.36)
					25.91	28.65	2.74	1.11	-	1.03	1.08	-		-	-	-	-	
81-101	0+50S	2+16E	270	-90	15.54	16.46	0.92	0.38	-	3.39	0.11	-		-	-	-	-	Vertical hole in SZLC, missed uppermost horizons of LC
					17.07	19.20	2.13	1.08	-	1.69	0.64	-		-	-	-	-	
81-104	0+55S	1+36E	270	-90	3.96	5.18	1.22	0.52	-	1.64	0.32	-		-	-	-	-	Vertical hole 80m west of 81-101, caught lowermost SZUC's only
					13.11	15.24	2.13	0.04	-	4.05	0.01	-		-	-	-	-	
SK197-07	1+50S	0+30W	45	-45	119.00	20.50	1.50	0.29	0.50	1.57								Northeasterly hole through SZ, values in LC including 509ppb Au in upper sample
					125.00	128.30	3.30	0.29	0.14	1.27								
SK197-09	2+45N	1+15W	30	-45	45.10	47.10	2.00	2.19	0.02	2.30								Northeasterly hole through MZLC
					51.50	52.50	1.00	0.63	0.25	1.17								
					53.00	53.50	0.50	0.19	1.23	3.79								
					54.60	55.90	1.30	0.29	0.57	2.63								