

FORTUNE MINERALS LIMITED

**A TECHNICAL REPORT ON
A MINERAL RESOURCE ESTIMATE
FOR THE SUE-DIANNE DEPOSIT,
MAZENOD LAKE AREA,
NORTHWEST TERRITORIES,
CANADA**

**VOLUME 1
REPORT**

**B. TERRENCE HENNESSEY, P.GEO.
EUGENE PURITCH, P.ENG.**

MARCH, 2008

TABLE OF CONTENTS

	Page
1.0 SUMMARY.....	6
2.0 INTRODUCTION AND TERMS OF REFERENCE.....	9
3.0 RELIANCE ON OTHER EXPERTS	10
4.0 PROPERTY DESCRIPTION AND LOCATION.....	11
5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY	16
5.1 ACCESSIBILITY, LOCAL RESOURCES AND INFRASTRUCTURE	16
5.2 PHYSIOGRAPHY, VEGETATION AND CLIMATE	17
6.0 HISTORY.....	19
6.1 EXPLORATION BY NORANDA.....	19
6.2 EXPLORATION BY FORTUNE	21
6.3 HISTORICAL MINERAL RESOURCES	21
7.0 GEOLOGICAL SETTING.....	23
7.1 REGIONAL GEOLOGIC SETTING.....	23
7.2 GEOLOGY OF THE DIANNE LAKE REGION.....	26
8.0 DEPOSIT TYPES.....	33
8.1 GEOLOGICAL CHARACTERISTICS.....	33
8.2 GEOPHYSICAL CHARACTERISTICS.....	34
9.0 MINERALIZATION	35
10.0 EXPLORATION	39
11.0 DRILLING.....	40
11.1 NORANDA DRILLING CAMPAIGNS.....	40
11.2 FORTUNE 1997-1998 DRILLING CAMPAIGNS.....	40
11.3 DRILLING PROCEDURES	44
12.0 SAMPLING METHOD AND APPROACH.....	45
12.1 CORE LOGGING	45
12.2 CORE SAMPLING	47
13.0 SAMPLE PREPARATION, ANALYSES AND SECURITY	47
13.1 PREPARATION.....	48
13.2 ANALYSIS	48
13.2.1 Copper, Silver and Molybdenum	48

13.2.2	Uranium.....	49
13.2.3	Gold.....	49
13.3	QUALITY CONTROL	50
13.4	SPECIFIC GRAVITY	53
14.0	DATA VERIFICATION.....	54
14.1	NORANDA DATA VERIFICATION.....	54
14.2	FORTUNE DATA VERIFICATION.....	54
14.2.1	Quality Assurance/Qulaity Control	54
14.2.2	Twinned Drill Holes.....	55
14.2.3	Comparison of Drilling to Metallurgical Testwork.....	55
14.3	PREVIOUS DATA REVIEWS.....	56
14.4	DATABASE CHECKS	56
14.5	CHECK SAMPLES.....	56
15.0	ADJACENT PROPERTIES.....	57
16.0	MINERAL PROCESSING AND METALLURGICAL TESTING	57
17.0	MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES	59
17.1	MINERAL RESOURCE ESTIMATION METHODOLOGY	59
17.1.1	Database	59
17.1.2	Domain Interpretation	59
17.1.3	Rock Type Determination	61
17.1.4	Grade Capping.....	61
17.1.5	Composites	62
17.1.6	Variography	62
17.1.7	Bulk Density.....	63
17.1.8	Block Modeling.....	63
17.2	RESOURCE CLASSIFICATION.....	63
17.3	MINERAL RESOURCES.....	64
17.4	CONFIRMATION OF ESTIMATION.....	66
17.5	RESPONSIBILITY FOR ESTIMATION.....	67
17.6	MINERAL RESERVES.....	67
18.0	OTHER RELEVANT DATA AND INFORMATION.....	67
19.0	INTERPRETATION AND CONCLUSIONS.....	68
20.0	RECOMMENDATIONS	69
21.0	REFERENCES	71

List of Tables

		Page
Table 1.1	Sue-Dianne Mineral Resources	8
Table 5.1	Average Historical Weather Data for Yellowknife	18
Table 6.1	Noranda Diamond Drill Results	20
Table 11.1	Sue-Dianne Project, 1997 and 1998 Drilling	41
Table 11.2	Sue-Dianne Project, Selected 1997 Drilling Results	42
Table 11.3	Sue-Dianne Project, Selected 1998 Drilling Results	43
Table 12.1	Lithologic Logging Codes Used in Database	46
Table 12.2	Mineralization Logging Codes	47
Table 13.1	ALS Chemex Method Cu-301/Cu-3501/Mo-306/Ag-386 Summary	49
Table 13.2	ALS Chemex Method U-152 Summary	49
Table 13.3	ALS Chemex Method Au-AA23/Au-AA24 Summary	50
Table 13.4	ALS Chemex Quality Control Sample Frequency	51
Table 13.5	Specific Gravity Calculations - 1997 Sue-Dianne Drill Core Intervals	53
Table 13.6	Specific Gravity Results by Lakefield on Sue-Dianne Core Rejects	54
Table 14.1	UTM Coordinates, Length and Dip of Comparison Holes	55
Table 14.2	Noranda vs. Fortune Drill Hole Comparison by Copper Grade	55
Table 14.3	Comparison of Grade Between Lakefield and Fortune	55
Table 14.4	Results of Micon Due Diligence Sample Assays	57
Table 16.1	Composite Sample Analyses	58
Table 17.1	Block Model Rock Codes	61
Table 17.2	Grade Capping Values	62
Table 17.3	Ordinary Kriging Block Model Interpolation Parameters Indicated	62
Table 17.4	Ordinary Kriging Block Model Interpolation Parameters Inferred	63
Table 17.5	Grade Block Coding	64
Table 17.6	Sue-Dianne Mineral Resources	65
Table 17.7	Sensitivity Analysis To Cutoff Grade for Sue-Dianne Mineral Resource	66
Table 17.8	Comparison of Weighted Average Grade of Raw Assays and Capped Composites to Total Block Model Average Grade	67
Table 17.9	Comparison of Model Volumes	67

Table 17.6	Sue-Dianne Mineral Resources	68
Table 20.1	Sue Dianne Proposed Drilling.....	69

List of Figures

		Page
Figure 4.1	Sue-Dianne Project Location Map	12
Figure 4.2	Sue-Dianne Project Regional Location Map.....	13
Figure 4.3	Sue-Dianne Project Claim Map.....	15
Figure 5.1	Aerial View of the Sue-Dianne Deposit.....	17
Figure 6.1	Combined Results of Ground Radiometric, Magnetometer and IP Surveys Over the Sue-Dianne Deposit.....	20
Figure 7.1	Sue-Dianne Project Regional Geological Map	24
Figure 7.2	Geology of the Southern Great Bear Magmatic Zone.....	25
Figure 7.3	Local Geology of the Sue-Dianne Region	27
Figure 7.4	Geology of the Sue-Dianne Cu-Ag-Au Iron-Oxide Rich Breccia Complex	31
Figure 9.1	Chalcopyrite In Matrix And Clast Supported Breccias Of The Diatreme And Fracture Breccias	36
Figure 9.2	Bornite, Chalcocite And Covellite in the Hematite-Rich Upper and Peripheral Zones of the Deposit	36
Figure 9.3	Weathered Pitchblende Veins and Malachite Staining in Surface Exposures	37
Figure 17.1	Locations of Sue-Dianne Drill Holes	60
Figure 17.2	3D Isometric View Showing Mineral Domain and Drill Holes for Sue-Dianne	60

APPENDICES
(SEPARATE VOLUME)

Appendix 1	SUE-DIANNE POPULATION STATISTICS
Appendix 2	SUE-DIANNE COPPER HISTOGRAM AND PROBABILITY PLOT
Appendix 3	SUE-DIANNE SILVER HISTOGRAM, LOG HISTOGRAM AND PROBABILITY PLOT
Appendix 4	SUE-DIANNE SILVER HISTOGRAM, LOG HISTOGRAM AND PROBABILITY PLOT
Appendix 5	SUE-DIANNE COPPER VARIOGRAMS
Appendix 6	SUE-DIANNE SILVER VARIOGRAMS
Appendix 7	SUE-DIANNE GOLD VARIOGRAMS
Appendix 8	SUE-DIANNE BLOCK MODEL SECTIONS, COPPER, SECTIONAL AND PLAN VIEWS
Appendix 9	SUE-DIANNE BLOCK MODEL SECTIONS, RESOURCE CLASSIFICATION, SECTIONAL AND PLAN VIEWS

1.0 SUMMARY

Fortune Minerals Limited (Fortune) began a program of exploration for iron oxide-hosted copper gold deposits (IOCG deposits) in the Great Bear magmatic zone (a tectonic subdivision of the Proterozoic Bear Structural Province) in the 1990's as a result of the similarity of that environment to other major IOCG deposits elsewhere in the world. (IOCG deposits are also known as "Hydrothermal Iron Oxide-Hosted Replacement deposits" or "Olympic Dam" type deposits.) This led to Fortune's first significant success in the district, the identification of the Lou Lake area as a prospective location and the staking of the NICO claims. The presence of the nearby Fortune-controlled NICO deposit is important to the determination of a mineral resource at the Sue-Dianne copper-silver-gold deposit.

Fortune had been actively exploring the NICO property since 1994 and discovered significant mineralization in a number of different zones on the property, including the "Bowl Zone" in 1995. In 1996 it negotiated a lease on the Sue-Dianne claims as this was also an IOCG deposit and was only 25 km away. The Bowl Zone was the subject of a recent full feasibility study (Micon, 2007) and a used mill has been purchased in Hemlo, Ontario to be shipped to the site. It is believed that the planned presence of this mill may materially affect the economics of any potential mining at Sue-Dianne.

The Sue-Dianne project is located in the Northwest Territories (NWT) of Canada, approximately 190 km northwest of the city Yellowknife and 25 km north-northwest of the NICO deposit. Access is by air, year round, using float- or ski-equipped fixed wing aircraft or helicopter. A winter road from the town of Behchoko (formerly Fort Rae) can also be used to access the property and deliver heavy items once a hard freeze up has occurred. It is planned for this road to be replaced with an all-weather gravel road.

The local topography is somewhat rugged in the immediate vicinity as a result of weathering-resistant massive volcanics both hosting and capping the deposit. These rocks have resulted in rocky hills and valleys ranging from 230 m to 270 m above sea level (masl). The surrounding country side is somewhat more flat and regular.

Land holdings at the Sue-Dianne project currently consist of a single mining lease approximately 450 ha in size. Fortune holds a 100% interest in the property which is subject to a 1.5% net smelter return (NSR) royalty held by the successor to Noranda Mining and Exploration Inc. and an underlying 15% net profits interest held by a previous owner of the property, David R. Smith.

The mineralization at Sue-Dianne is hosted in brecciated and hydrothermally altered felsic volcanic rocks. The mineralization consists of copper sulphide minerals (chalcopyrite and lesser bornite), silver and gold in a fault-located diatreme complex within a rhyodacite ignimbrite. The diatreme has been cemented by a hematite-magnetite-iron silicate matrix which is enriched in copper, silver, gold and minor uranium and which occurs within a broader zone of potassium, iron, quartz, and epidote metasomatism.

Historical mineral resource estimates were previously prepared for Sue-Dianne by Mumin in 1997 and 1998. Although generally encouraging, the estimates are not compliant with the Canadian Securities Regulator's National Instrument 43-101 (NI 43-101) and should not be relied upon. For this reason Fortune has chosen to prepare an updated NI 43-101-compliant mineral resource estimate.

Work conducted by Fortune and Noranda at Sue-Dianne consisted principally of geophysics, surface mapping and diamond drilling, the latter two being the most useful for the mineral resource estimate presented herein. A total of 62 drill holes have been completed, of which 45 intersect the approximately 425 m of strike length of the deposit. The resulting database included assays for copper, gold and silver. Limited assaying for uranium indicated that, although present at anomalous levels, it was unlikely to be economic.

Micon International Limited (Micon) was retained by Fortune in 2006 to supervise and take responsibility for an updated estimation of the mineral resources for Sue-Dianne. The work was performed by B. Terrence Hennessey, P.Geo., of Micon and Eugene Puritch, P.Eng., of P&E Mining Consultants Inc., both Qualified Persons under NI 43-101, with assistance from Antoine Yassa, P.Geo., also of P&E.

The mineral resource was constrained with a geological model prepared with interpretation input from Robin Goad of Fortune who had overall responsibility for the exploration work on the project. A single geological domain was established that delineated the extent of the mineralized diatreme breccia.

Grade interpolation of the geologically constrained block model was performed by ordinary kriging using search parameters determined through variogram analysis.

The block model was reported using the copper grade, by far the greatest portion of the value in the mineralization. Any gold or silver contained therein was also reported. Initial metallurgical testwork indicates that much of the precious metal will report to a copper concentrate in a flotation circuit. In order to meet the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines, and its requirements for reasonable prospects for economic extraction of a mineral resource, as required by NI 43-101, a pit was optimized on the block model using Whittle software and cost and recovery data from the NICO feasibility study (Micon, 2007) as well as other study work completed on the Sue-Dianne deposit. It is assumed for the purposes of this estimate that any ore from Sue-Dianne would be processed at the nearby proposed NICO mill. A cutoff grade of 0.40% Cu was used to report the block model within the optimized pit. The details of this procedure and the cost, exchange rate and commodity price assumptions used for resource estimate are set out in Section 17 of this report.

The mineral resources for the Sue-Dianne project, as determined by Micon in the process described above, are set out in Table 1.1 below. All of the blocks have been coded as Indicated or Inferred resources in an approximately 60:40 ratio. The mineralization shows good continuity from hole to hole and section to section.

Table 1.1
Sue-Dianne Mineral Resources
(at a Cu Cutoff Grade of 0.40%)

Classification	Tonnes	Cu (%)	Au (g/t)	Ag (g/t)	Cu (million lbs)	Au (oz)	Ag (oz)
Indicated	8,444,000	0.80	0.07	3.2	149.1	19,000	855,000
Inferred	1,620,000	0.79	0.07	2.4	28.3	3,600	122,000

(1) Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

(2) The quantity and grade of reported inferred resources in this estimation are uncertain in nature and there has been insufficient exploration to define these inferred resources as an indicated or measured mineral resource and it is uncertain if further exploration will result in upgrading them to an indicated or measured mineral resource category.

These mineral resources are based on assay data which were collected in the late 1990's and engineering studies from the 1990's up to 2007. They, and the resulting mineral resources, are believed to be current as of December, 2007.

Fortune controls a mineral resource at Sue-Dianne which is now NI 43-101 compliant and has been determined to have reasonable prospects for economic extraction. The company would be justified in pursuing further studies of this deposit in conjunction with the advancement of the NICO project. Micon recommends to Fortune that it consider an initial scoping study for Sue-Dianne which, if positive, should be followed by infill drilling to bring all of the resources at least to the indicated confidence level. Following this, additional engineering studies may be warranted. These recommendations are elaborated upon in Section 20 of this report.

2.0 INTRODUCTION AND TERMS OF REFERENCE

At the request of Mr. Robin E. Goad, President and CEO of Fortune Minerals Limited (Fortune), Micon International Limited (Micon) has been retained to prepare an estimate of mineral resources for the Sue-Dianne copper-gold-silver deposit in the Mazenod Lake District, Northwest Territories (NWT). Sue-Dianne is a member of the class of deposits known as iron oxide hosted copper-gold (IOCG), or Olympic Dam type deposits. The deposit is hosted in a fault-located diatreme complex in a rhyodacite ignimbrite which has been cemented by a hematite-magnetite-iron silicate matrix. It is enriched in copper, silver, gold and uranium and occurs within a broader zone of potassium, iron, quartz and epidote metasomatism. It was originally discovered by Noranda Exploration Company Limited (Noranda) in 1975.

The resource estimate presented herein was prepared under the overall supervision and direction of B. Terrence Hennessey, P.Geo., with the assistance of Eugene Puritch, P.Eng., of P&E Mining Consultants Inc. (P&E), who operated the Gemcom and Whittle software and provided certain engineering input.

Fortune also owns the nearby NICO cobalt-bismuth-gold deposit, another IOCG deposit. NICO, which was discovered by Fortune in 1994 as the result of geologic surface work, was recently the subject of a bankable feasibility study supervised by Micon. NICO is located about 25 km to the south-southwest of Sue-Dianne.

The Sue-Dianne and NICO projects are located in the Mazenod Lake District, NWT, to the north of the north arm of Great Slave Lake, some 170 and 190 km northwest of the city of Yellowknife, respectively. Sue-Dianne lies 25 km north of NICO. Yellowknife, the capital of the NWT is connected to the south by the all-weather Mackenzie Highway from Alberta to Hay River, NWT and around the west end of Great Slave Lake. The NICO property can be reached by winter road from a point near the community of Rae on that highway. An all weather road is expected to be constructed to the NICO project shortly.

The Sue-Dianne project is 100% owned by Fortune and consists of 1 mining lease which was originally staked in the mid 1970's. It was later optioned to Noranda Mining and Exploration Inc. (Noranda) which optioned it to Fortune. The property covers an area of approximately 450 ha and sufficient assessment work has been completed to bring the ground to lease, which has been done. The property is subject to a 1.5% net smelter return (NSR) royalty payable to Noranda and also has an underlying 15% net profits interest payable to the original owner, David R. Smith.

Both Noranda and Fortune have completed several phases of drilling on the Sue-Dianne project but exploration at the NICO deposit has dominated Fortune's activities since 1998. During the course of the Sue-Dianne exploration work, some metallurgical and geotechnical investigations have been completed and two mineral resource estimates were prepared in 1998 and 1999, each of which is non-compliant with National Instrument 43-101 (NI 43-101). Approximately 400 m of strike length has been drilled off at a nominal 50-m spacing and a mineralized domain

has been identified and modelled. The company is now ready to update the mineral resource estimate to make it compliant with NI 43-101.

B. Terrence Hennessey of Micon visited Yellowknife and the Sue-Dianne project site from May 6 to 8, 2006. Prior visits by both Mr. Hennessey and Mr. Puritch had been made to the NICO project in 2003 and 2004, respectively. No exploration or drilling programs were underway and the project had been dormant for a number of years. No exploration work has been completed since the 2006 site visit. Sue-Dianne is being re-evaluated as a result of the feasibility study completed on the NICO deposit and the resulting planned construction of a mill nearby.

The drill core from the prior exploration is available to be viewed at the Sue-Dianne camp, some 1.9 km south of the deposit, and Micon reviewed several drill hole intersections through the deposit from the previously-drilled holes. At this time (May, 2006) examples of copper mineralization were viewed in surface exposures and in the core in order to confirm the presence of the claimed mineralization. Copper oxide staining is locally visible at surface in outcrop where it is not capped by the covering volcanics. Excellent spring weather was experienced and a helicopter fly-over, and traverse of, the well-exposed local geology was made in the company of Kathy Neale, a Fortune geologist.

All currency amounts are stated in Canadian or US dollars, as specified, with costs typically expressed in Canadian dollars (\$CDN) and commodity prices in US dollars (\$US). Quantities are generally stated in SI units, the Canadian and international practice, including metric tons (tonnes, t), kilograms (kg) and grams (g) for weight, kilometres (km), metres (m) or centimetres (cm) for distance, litres (l), millilitres (ml) cubic centimetres (cc, cm³) or cubic metres (m³) for volume, hectares (ha) for area, weight percent (%) for base metal grades and grams per metric tonne (g/t) for gold grades (g/t Au). Precious metal grades may also be expressed in parts per billion (ppb) or parts per million (ppm) and their quantities may also be reported in troy ounces (ounces, oz), a common practice in the mining industry. Historical exploration results or resource estimates may be presented in units such as feet, short tons and troy ounces per short ton (oz/ton).

3.0 RELIANCE ON OTHER EXPERTS

Micon has reviewed and analyzed data provided by Fortune, its contract drillers and analytical laboratories, and its consultants, and has drawn its own conclusions therefrom, augmented by its direct field examination. Micon has not carried out any independent exploration work, drilled any holes or performed any extensive sampling and assaying programs. Micon has examined examples of copper mineralization in outcrop and in certain duplicate half core samples from drill holes which intersected the deposit in order to confirm the presence of the mineralization. Micon also collected one composite chip sample from outcrop for check analysis. The copper-bearing sulphide mineralization is visible in the drill core and copper oxide staining can be seen on many of the local rock outcrops. The extensive hydrothermal alteration halo typical of IOCG deposits was in evidence in the local rocks.

Micon reviewed the exploration data and supervised the estimation of mineral resources for the deposit in 2006 and 2007. While exercising all reasonable diligence in checking, confirming and testing it, Micon has relied upon the data presented by Fortune in developing the resource estimate. The geological, mineralization and exploration descriptions used in this report are taken from reports prepared by Fortune, its contracted consultants, or from public scientific literature.

The various agreements or licenses under which Fortune holds title to the mineral lands for this project have not been investigated or confirmed by Micon and Micon offers no opinion as to the validity of the mineral title claimed. A description of the property, and ownership thereof, as set out in this Technical Report, is provided for general information purposes only as required by National Instrument 43-101 (NI 43-101).

Mr. Richard Gowans, P.Eng., metallurgist and Vice President of Micon reviewed the Metallurgical section of this report and provided advice to the author.

This report was prepared as an NI 43-101, F1 Technical Report on behalf of Fortune, by Micon and P&E. It is based on information available at the time of preparation, data supplied by outside sources, and the assumptions, conditions, and qualifications set out herein. This report is intended to be used by Fortune, subject to the terms of its agreement with Micon, which permits it to be filed as a Technical Report with Canadian Securities Regulatory Authorities pursuant to provincial securities legislation.

Micon is pleased to acknowledge the helpful cooperation of Fortune's management and field staff, all of whom made any and all data requested available and responded openly and helpfully to all questions, queries and requests for material.

4.0 PROPERTY DESCRIPTION AND LOCATION

The Sue-Dianne project is found in NTS (National Topographic System) quadrant 85N/15 at 63°, 45' N and 116° 55' W in Canada's NWT (see Figure 4.1). The property is approximately 190 km by air to the northwest of the city of Yellowknife, which is itself located on the north shore of Great Slave Lake (see Figure 4.2).

The Sue-Dianne lease (number 3037) covers an area of 450.82 ha in Lot 1000 on CLSR (Canada Land Survey Records) Plan 67592 (see Figure 4.3 below). Figure 4.3 also illustrates a zoomed view of the detailed drilling grid locations on the west shore of Dianne Lake. The property is located 25 km north of Fortune's NICO deposit. There are no mine workings on the property.

The Dianne and Sue claims were originally staked by David R. Smith in 1974, who, pursuant to an agreement in 1975, transferred ownership to Noranda subject to a 15% net profits interest royalty. By 1977, Noranda had increased its land position and drilled a total of 14 holes in the

deposit area, partially delineating an historic mineral resource (see Section 6). Many claims were later allowed to lapse except for a block of 25 contiguous claims covering the deposit, and which were taken to lease at a later date.

Figure 4.1
Sue-Dianne Project Location Map

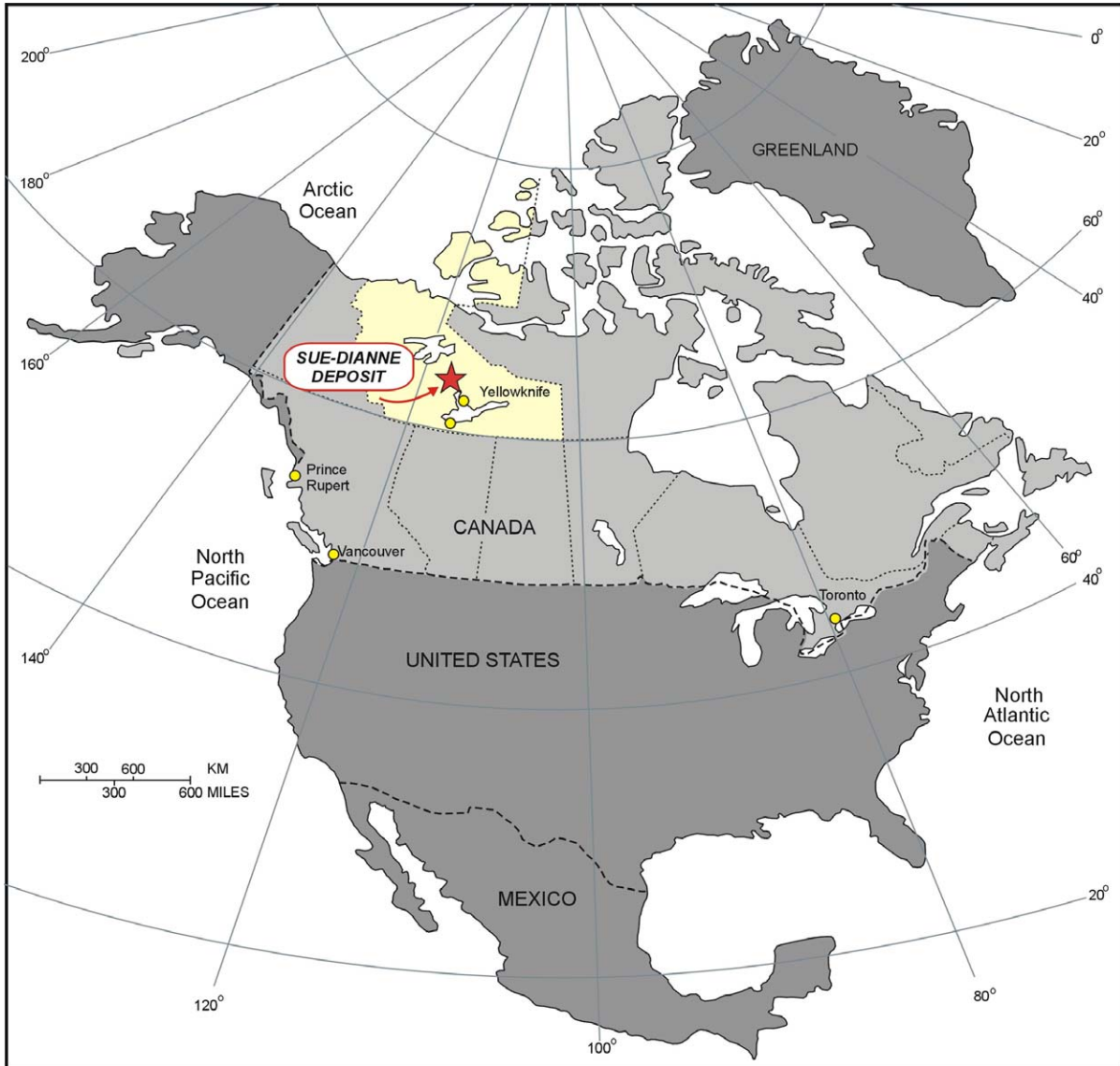
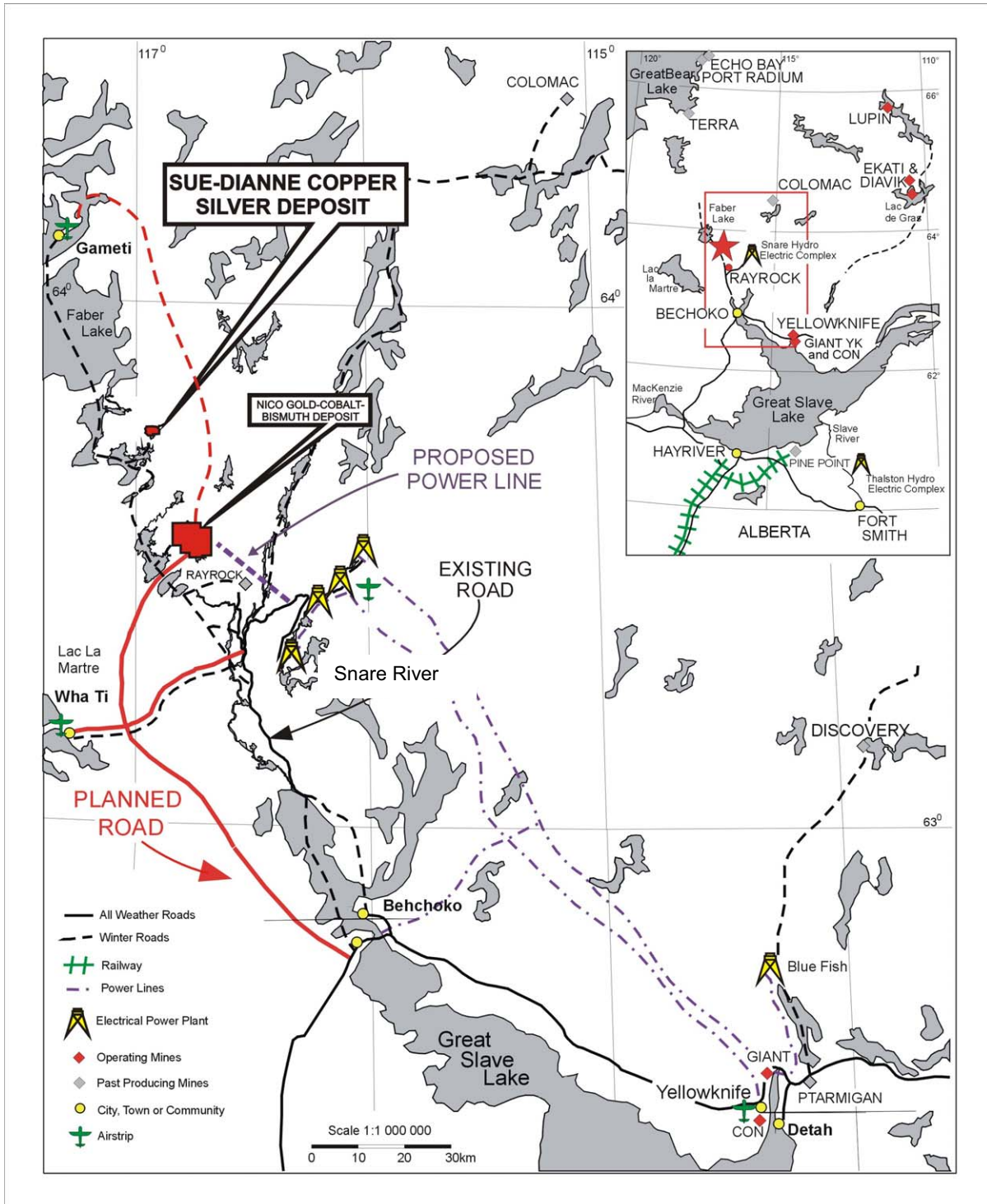


Figure 4.2
Sue-Dianne Project Regional Location Map



In 1996, Fortune Minerals NWT Inc. (Fortune NWT), a wholly owned subsidiary of Fortune, optioned the property to earn a 50% interest in the lease by expending \$CDN2 million in exploration over the following 3 years. By early 1999, Fortune NWT had increased its ownership to 51% and in 2001 had increased its interest in the property to 100%. At this time Noranda's interest converted to a 1.5% NSR royalty for non-participation in work programs. There remains an underlying 15% net profits interest royalty to the original vendor of the property.

Fortune reports that the Sue-Dianne lease is located in an area on which a land claim agreement has been completed between the Tlicho First Nation government and the governments of Canada and the NWT. This became effective on August 5, 2005. The agreement established approximately 39,000 km² of fee simple lands where the surface and subsurface rights are owned by the Tlicho. It also established the Tlicho self-government.

The Sue-Dianne claims and subsequent lease were staked and registered prior to this agreement. Micon has been advised by Fortune that the mineral rights conveyed by ownership of the claims/lease are grandfathered with respect to this land claim. The surface rights, access and power line corridors are owned by the Tlicho and Fortune expects to negotiate and enter into an impacts and benefits agreement with the Tlicho government with respect to the eventual development of a mine at Sue-Dianne. Consultation meetings with the Tlicho people are reported to be ongoing.

Fortune reports that it has maintained all the required permits for exploration and related activities on the Sue-Dianne property.

A 20-man exploration camp was constructed at the south tip of Dianne Lake in the spring of 1997 and was accessed in the winter from an extension of the government-maintained winter road between Behchoko (formerly Fort Rae) and Gameti. The temporary camp was hauled onto site by winter road and constructed of wood-framed canvas-roofed structures including a kitchen-dining room, sleeping quarters, storage units and office buildings. The camp was originally jointly owned and operated with Avalon Ventures Ltd, which was also working contiguous claims in the area. Following the exploration programs in 1997 and 1998, the camp was dismantled and the area cleaned up in the spring of 1999. Further clean up was carried out in August, 2000 and now only the wooden frames of the original buildings remain. All drill core, excepting those intervals sent for chemical analysis, was left on site.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESSIBILITY, LOCAL RESOURCES AND INFRASTRUCTURE

The Sue-Dianne copper-silver-gold project is located in the Mazenod Lake area in the NWT, some 190 km northwest of Yellowknife in NTS quadrant 85/N15, at 63°, 45' N latitude and 116° 55' W longitude. During the summer months, access to the property is via charter floatplane or helicopter from Yellowknife with the trip requiring approximately 60 to 90 minutes airtime. Winter access is available by helicopter, charter aircraft on skies or via approximately 120 km of winter road maintained by the government of the NWT. The road commences at Behchoko and serves the communities of Wha Ti, Gameti and Wekweti, the Snare River hydro-power facility and the now closed Colomac gold mine (see Figure 4.2). A short 8 km spur from the main winter road on Mazenod Lake was constructed in 1997 by Fortune to gain access to Dianne Lake and the Sue-Dianne property. Sue-Dianne is located approximately 80 km northwest of the north tip of Marian Lake, which is connected to Great Slave Lake and is navigable by barge to the railhead at Hay River and to tide water via the Mackenzie River which drains the lake.

Access to Yellowknife from the south is available via an all-weather highway which connects the city to Edmonton and passes through Bechoko. Yellowknife can also be reached via multiple daily commercial flights from Calgary, Edmonton, Winnipeg and Ottawa by Canadian North and First Air. Yellowknife is also the major access point to most of the smaller communities in the NWT.

The construction of a planned all-weather road will provide year-round access to the community of Wha Ti and to the Snare River power sites (see proposed route on Figure 4.2). Micon has been informed that local government officials have indicated to Fortune that engineering and environmental work for the construction of this road is proceeding. This would be the most likely route for construction and operating supplies to the project.

Hydro electric power would be available from the Snare River area (see Figure 4.2) with the construction of a power line from the prospective NICO deposit approximately 25 km to the southeast. It is anticipated that any ore mined at Sue-Dianne would be processed at the planned NICO site after closure of that mine.

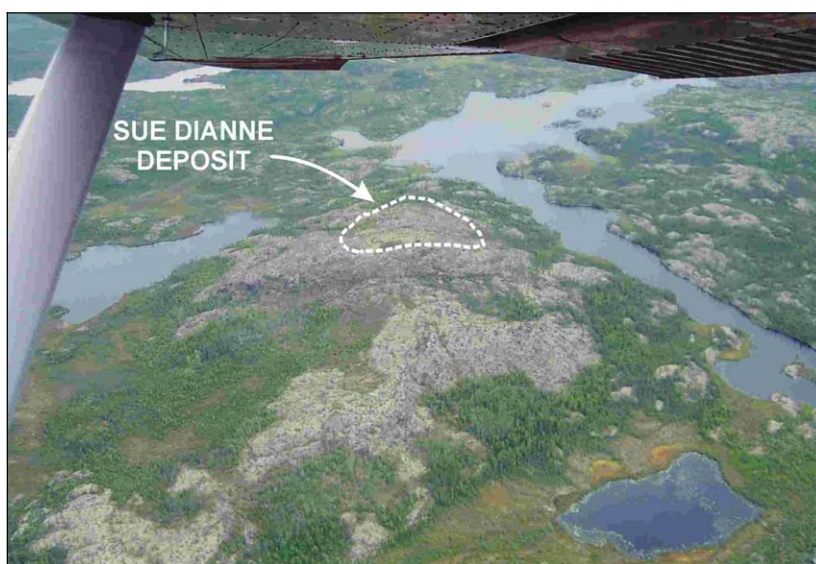
The city of Yellowknife has a long history of gold mining, principally from two large underground mines, the Con and the Giant Yellowknife. The Con mine closed at the end of 2003 and the Giant mine closed in mid-2004. Yellowknife is currently a regional support and logistics centre for much of the mining activity in the NWT such as the Ekati, Diavik and Snap Lake diamond mines. A pool of labour and support industries familiar with mining is locally available. Figure 4.2 shows the locations of the former producing Rayrock uranium mine and Colomac gold mine as well as Lupin, Ekati and Diavik mines and the Con and Giant gold mines in Yellowknife.

5.2 PHYSIOGRAPHY, VEGETATION AND CLIMATE

The physiography of the Sue-Dianne lease is typical of the southern Bear Structural Province. Differential weathering of Early Proterozoic metavolcanic rocks coupled with intersecting faults has resulted in an area of moderate relief which varies from 220 to 305 m above sea level. Areas of greater relief are marked by abundant outcrop exposures of erosionally resistant ignimbrite with little to no vegetation. Low lying areas are either water covered or are overlain by muskeg and/or Quaternary glacial drift and are vegetated by mosses, black spruce, jack pine, birch, alder, grass and lichens.

The Sue-Dianne deposit outcrops on a largely barren hill of moderate relief straddled by low-lying areas covered by Dianne and Claw Lakes on the east and northwest, respectively (see Figures 4.3 and 5.1).

Figure 5.1
Aerial View of the Sue-Dianne Deposit
(Claw and Dianne Lakes on the left and right, respectively)



The climate is continental-subarctic with short relatively warm summers and long cold winters. Average summer high temperatures are in the 15° C range, while average winter temperatures are on the order of -15° C to -30° C, with a minimum of -45° C. Snow fall is moderate, and the overall operating conditions do not present any unusual difficulties that would not have been encountered previously in the many former and ongoing mining operations in northern Canada.

Average historical weather data from Yellowknife are set out in Table 5.1 below. Fortune also erected a weather station in early October, 2004 at the NICO deposit, located approximately 25 km south-southeast of the Sue-Dianne property. Weather conditions are monitored and recorded hourly on a daily basis. Details of the NICO station weather variations collected for 2005 are summarized in Table 5.2.

Table 5.1
Average Historical Weather Data for Yellowknife

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg. Temp (°C)	-4	-25	-22	-17	-5	5	12	16	13	7	-1	-14	-22
Avg. High Temp. (°C)	0	-21	-18	-12	0	10	17	20	17	10	0	-11	-20
Avg. Low Temp. (°C)	-8	-29	-27	-22	-10	0	8	12	10	3	-4	-17	-27
Highest Recorded Temp. (°C)	32	2	5	8	18	25	30	32	31	22	17	5	1
Lowest Recorded Temp. (°C)	-47	-47	-47	-42	-32	-18	-1	3	0	-8	-27	-38	-43
Avg. Precipitation (mm)	259	12	12	10	10	15	20	35	38	27	33	22	17
Avg. Wind Speed (km/h)	14	12	14	16	16	16	14	14	14	16	18	16	12

Table 5.2
Average Historical Weather Data for NICO Deposit Area 2005

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg. Temp (°C)	-4.0	-25.8	-21.6	-15.1	-3.4	3.2	11.4	14.5	12.0	4.0	-1.5	-11.6	-14.2
Avg. High Temp. (°C)	-3.6	-25.5	-21.3	-14.6	-2.9	3.8	11.9	15.0	12.5	4.3	-1.3	-11.4	-13.9
Avg. Low Temp. (°C)	-4.4	-26.1	-21.9	-15.5	-3.8	2.7	11.0	14.1	11.6	3.8	-1.7	-11.8	-14.5
Avg. Rel. Humidity (%)	75.7	79.3	83.6	77.6	70.1	56.8	56.4	60.8	69.3	83.9	89.2	92.1	89.1
Avg. Vol. Pressure (kPa)	0.5	0.1	0.1	0.2	0.3	0.4	0.7	1.0	1.0	0.7	0.5	0.3	0.2
Avg. Wind Speed (km/h)	14.7	15.2	9.9	14.3	15.7	17.9	16.4	15.3	19.4	15.1	17.0	12.2	8.1

6.0 HISTORY

The history of the Sue-Dianne lease presented below has been provided by Fortune.

The first known work carried out in the area of the Sue-Dianne lease was regional mapping by the Geological Survey of Canada (GSC) (Kidd, 1936) followed by Lord in 1938 and 1939 (Lord, 1942; Wilson & Lord, 1942). Further geological mapping was carried out in the area during the 1960's and 1970's by the GSC (Fraser, 1967; McGlynn, 1968, 1979).

6.1 EXPLORATION BY NORANDA

The Dianne and Sue claims were initially staked in 1974 by David R. Smith following the release of a regional radiometric survey by the GSC revealing a strong, bulls-eye uranium anomaly north of Mazenod Lake (Richardson et al., 1974; Climie, 1975). The claims, which were staked as the Dianne (1 to 11) and Sue (1 to 8) groups were subsequently optioned to Noranda which identified a large, intensely hematized and brecciated ignimbrite with significant copper sulphide and iron oxide mineralization in a zone approximately 1,000 ft by 350 ft in size. By 1976, Noranda had increased its land holding in the area to a total of 63 individual claims named the Dianne Extension, Mag and Sue claims (Climie, 1976; Prest, 1977a; Bryan, 1978).

Work carried out by Noranda between 1975 and 1977 included a combined gamma ray spectrometer and magnetometer airborne survey, grid cutting, detailed mapping, ground radiometric, gravity, magnetometer and induced polarization (IP) surveys and diamond drilling. The combined results of the ground radiometric, magnetometer and IP surveys are illustrated on Figure 6.1 below. Drill hole locations are shown on Figure 4.3.

By 1977, Noranda had drilled a total of 14 core holes (drilled in 1976 and 1977), totalling 7,646.1 ft (2,330.53 m) on the area of the Sue-Dianne lease. The results were used to estimate a "drill indicated" silver and copper resource for the Sue-Dianne deposit with scattered concentrations of gold (see Section 6.3 below). Drilling also identified a gold-rich zone in hole 6, averaging 2.41 g/t gold over 21.34 m. Table 6.1 below summarizes the results of the diamond drilling and illustrates specific intervals of increased copper and silver mineralization.

Figure 6.1
Combined Results of Ground Radiometric, Magnetometer and
IP Surveys Over the Sue-Dianne Deposit

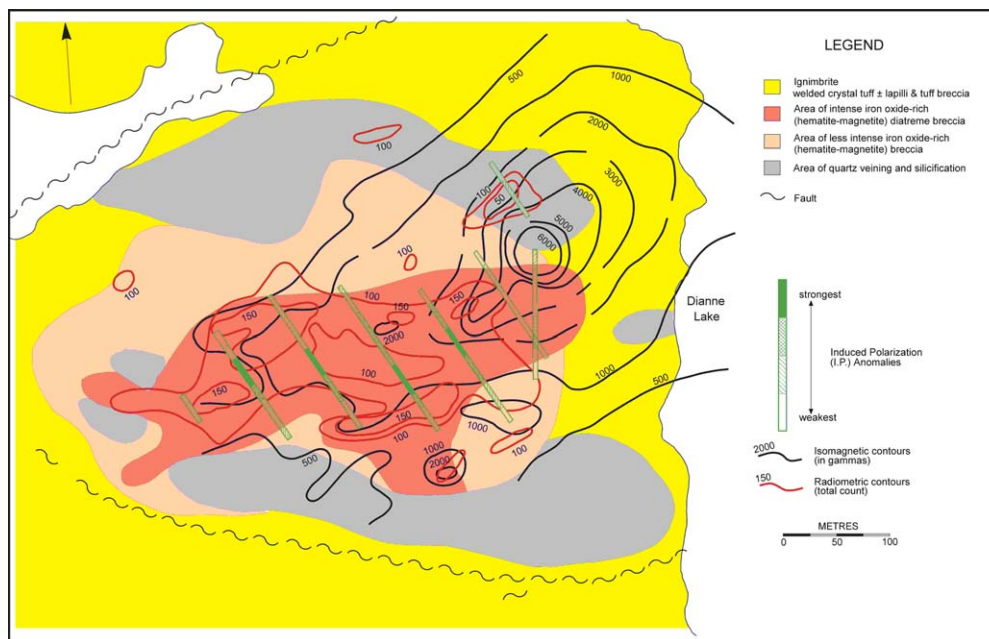


Table 6.1
Noranda Diamond Drill Results

DDH#	Location	Azimuth (°)	Dip (°)	Length (ft)	From (ft)	To (ft)	Total (ft)	Cu (%)	Ag (oz/ton)
S-1	0+10E,1+75N	180	45	480.3	125.0	395.0	270.0	0.424	0.049
					167.0	390.0	223.0	0.508	0.047
S-2	0+12W, 1+22S	180	50	377.0	0.00	100.0	100.0	0.308	0.068
S-3	5+16W, 0+75N	180	50	396.8	250.0	351.5	101.5	0.233	0.196
S-4	2+97E, 2+80N	180	45	625.0	115.7	625.0	509.3	0.913	0.325
					115.7	576.1	460.4	1.009	0.352
					447.5	487.5	40.0	2.197	0.512
S-5	2+00E, 1+60S	-	90	935.0	78.0	945.0	867.0	0.65	0.40
					153.0	248.0	95.0	1.03	0.25
					393.0	468.0	75.0	0.89	1.13
S-6	2+00E, 1+00N	-	90	583.0	345.8	415.8	70.0	1.17	1.05
S-7	4+00E, 0+60N	-	90	600.0	99.2	600.0	500.8	0.58	0.04
S-8	4+00E, 1+55S	-	90	640.0	178.3	640.0	461.7	0.77	-
					358.3	578.3	220.0	1.25	-
S-9	0+20E, 1+50S	-	90	356.0	95.9	125.9	30.0	0.12	0.02
					184.0	244.0	60.0	0.71	0.02
					244.0	274.0	30.0	0.62	0.07
S-10	New BL 6+00E	-	90	628.0	196.1	627.0	430.9	1.01	0.08
					405.1	607.0	201.9	1.53	0.10
S-11	New BL 0+10N	-	90	528.0	37.5	528.0	490.5	0.43	0.03
S-12	4+00E, 4+40S	324	60	394.0	310.0	394.0	84.0	0.48	-
S-13	New BL 8+00E	-	90	501.0	224.0	225.0	1.0	0.28	-
S-14	6+00E, 1+50N	-	90	602.0	194.0	602.0	408.0	0.93	0.07

Noranda also staked the Mar group of claims concurrent with its exploration of the Sue-Dianne deposit. The Mar claims adjoined the Sue and Dianne claim groups and contained a magnetite-rich hydrothermal breccia near the contact between felsic volcanic rocks and a diorite intrusion 2.5 km north of the Sue-Dianne deposit. Noranda conducted magnetometer and radiometric geophysical surveys (Prest, 1977b). Geological mapping and sampling identified erratic copper and uranium enrichment with surface samples yielding up to 0.264% copper. The breccia was subsequently tested with 1 diamond drill hole which intersected weak copper enrichment throughout the hole (Bryan, 1979).

6.2 EXPLORATION BY FORTUNE

Between 1992 and 1995, Fortune staked more than 40,000 acres in the area of the Sue-Dianne lease including; the NICO claims, staked near Lou Lake; the Olym-Pic-Dam group adjoining the north, east and west boundaries of the Sue-Dianne lease (and including the former Mar showing); the Emily-Scott-Cat1 group adjoining the north and west boundaries of the NICO claims and the JBG group staked around Crowfoot and Hump Lakes. In 1996, Fortune was able to conduct exploration and drilling on the Sue-Dianne lease pursuant to an agreement with Noranda signed January 17 of that year.

Fortune carried out a significant amount of exploration on the property in 1996, 1997 and 1998. The work included re-establishing the old Noranda baseline with new gridlines cut at 100-m intervals over the known deposit area, regional and detailed geological mapping and several geophysical surveys. The geophysical surveys conducted on the property and surrounding area included airborne radiometric, electromagnetic, magnetic and very low frequency-electromagnetic surveys, detailed magnetometer and resistivity surveys, an IP survey over the gridded area and a helicopter aided gravity survey.

In the summer of 1997, Fortune NWT drilled 15 holes totalling 3,980 m on the Sue-Dianne property. This drilling will be discussed in Section 11 of this report.

6.3 HISTORICAL MINERAL RESOURCES

The results of the original Noranda drilling for the Sue-Dianne deposit were used to estimate a “drill indicated” resource to a depth of 400 ft (121.92 m). The resulting model totalled some 9,000,000 short tons (8,163,900 tonnes), averaging 0.8% copper and 0.16 ounces of silver per ton (5.52 g/t) with erratic concentrations of gold and uranium (Bryan, 1978; Gandhi, 1994).

Micon has not reviewed the estimate but it uses classification nomenclature which is inconsistent with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines (the CIM Standards) as required by NI 43-101. The mineral resources presented above are not NI 43-101- or CIM-compliant. It is Micon’s opinion that they are not a current mineral resource estimate and should not be relied upon except as confirmation of the discovery of a body of copper-mineralization.

In February, 1998, A. H. Mumin, a consulting geologist retained by Fortune, prepared a mineral resource estimate for Sue-Dianne using the available data to date. Information used to prepare the resource estimate included a total of 29 diamond drill holes (14 previously drilled by Noranda and 15 drilled by Fortune in 1997), 1,617 assay results for drill core samples, geological mapping and the correlation of mineralized zones on 50-m spaced sections. Results of the estimate are presented in a report by Mumin (1998) and summarized as follows:

- 13.5 million tonnes grading 0.78% copper, 3.81 g/t silver and 0.07 g/t gold (calculated using a cutoff grade of 0.25% Cu),
- a higher-grade resource of 8.7 million tonnes grading 1.00% copper, 4.26 g/t silver and 0.09 g/t gold (calculated using a cutoff grade of 0.50% Cu)

Fortune drilled an additional 32 holes into the Sue-Dianne deposit during the spring and summer field seasons of 1998. Mumin prepared a second updated resource estimate in February, 1999 using all previous data and incorporating the new data from the 1998 drilling campaigns. The revised estimate was based on a total of 61 drill holes (14 drilled by Noranda and 47 drilled by Fortune) with 2,993 assay results from drill core samples with updated 50-m spaced sections. The results of the estimate are presented in a report by Mumin (1999) and summarized as follows:

- 17.3 million tonnes grading 0.72% copper, 2.7 g/t silver and 0.028 g/t gold (calculated using a cutoff grade of 0.25% Cu)
- a higher-grade resource of 10.6 million tonnes grading 0.96% copper, 3.3 g/t silver and 0.032 g/t gold (calculated using a cutoff grade of 0.50% Cu)
- an additional 6.9 million tonnes of sub-economic material ($>0.1\%Cu$ and $<0.25\% Cu$) grading 0.16% copper, 0.90 g/t silver, 0.008 g/t gold.

Mumin refers to both of the resource estimates above as combined Measured and Indicated but also states that approximately 80% of the second estimate can be classified as measured. No precise breakdown of measured and indicated tonnage and grade is provided.

The Mumin estimates were completed on section using the polygonal method projecting grades half way to the next section or 25 m on at the ends of the deposit. A density of 2.8 was employed. Mumin claimed that the first estimate was completed in accordance with the JORC code and the second with the CIM and JORC codes.

Micon has completed a cursory review of the Mumin estimates and is of the opinion that they are not compliant with the current definitions in the CIM Standards or NI 43-101. Measured and indicated resources have not been presented as separate categories. Additionally they represent a manual calculation using the polygonal method and have not, therefore, been subjected to a Lerchs-Grossman pit optimizer for reporting. As with the Noranda estimate it is Micon's opinion that they are not a current mineral resource estimate and should not be relied

upon except as confirmation of the discovery of a copper-mineralized body. All of the estimates described above have been made redundant by the new resource estimate prepared by Micon and P&E and presented in this report.

Following the second resource estimate in 1998, Mumin made recommendations regarding the Sue-Dianne deposit including the exploration of areas to the east and northeast as well as the westward extent of the Dianne Lake fault, as these areas may be prospective for further mineralization due to displacement by faults. The deep, down-dip extension of the mineralized zone also remained untested. Further ground geophysical surveys were also recommended over lakes and low-lying areas surrounding the deposit.

7.0 GEOLOGICAL SETTING

The geological and mineralization descriptions in the next sections are largely taken from reports prepared by Fortune and Strathcona Mineral Services Limited (Strathcona) which previously worked on the NICO deposit for Fortune.

7.1 REGIONAL GEOLOGIC SETTING

The Sue-Dianne and NICO deposits occur in the southern part of the Great Bear magmatic zone (GBmz), which consists of Paleoproterozoic volcanic and plutonic rocks (1,880 to 1,840 Ma) exposed from Great Slave Lake in the south to Great Bear Lake in the north (see Figure 7.1). The GBmz lies along the western limit of the Archean Slave craton. It is regarded as a continental magmatic arc formed during eastward subduction of an oceanic plate beneath the Slave craton and the accreted Paleoproterozoic Hottah terrane, and which now occupies the suture zone between them (Hildebrand et al., 1987). These events are also known as the Wopmay Orogen and the present day representation of this suture zone is the Wopmay Fault, which is a north-south-trending lineament regarded as the boundary between the Slave craton and the Hottah terrane (Hildebrand et al., 1990). This fault also marks the eastern limit of the GBmz which covers the Hottah terrane for a distance of approximately 90 km westward.

The GBmz is the central tectonic subdivision of the Proterozoic Bear Structural Province, an assemblage of Early to Middle Proterozoic sedimentary, volcanic and plutonic rocks accreted to the Archean Slave craton. Figure 7.2 is a map of the regional geology of the Southern Great Bear Magmatic Zone in the Sue-Dianne-NICO area showing the belt of meta-sediments and felsic volcanics that host the known mineral occurrences of the area, including both deposits.

Figure 7.1
Sue-Dianne Project Regional Geological Map

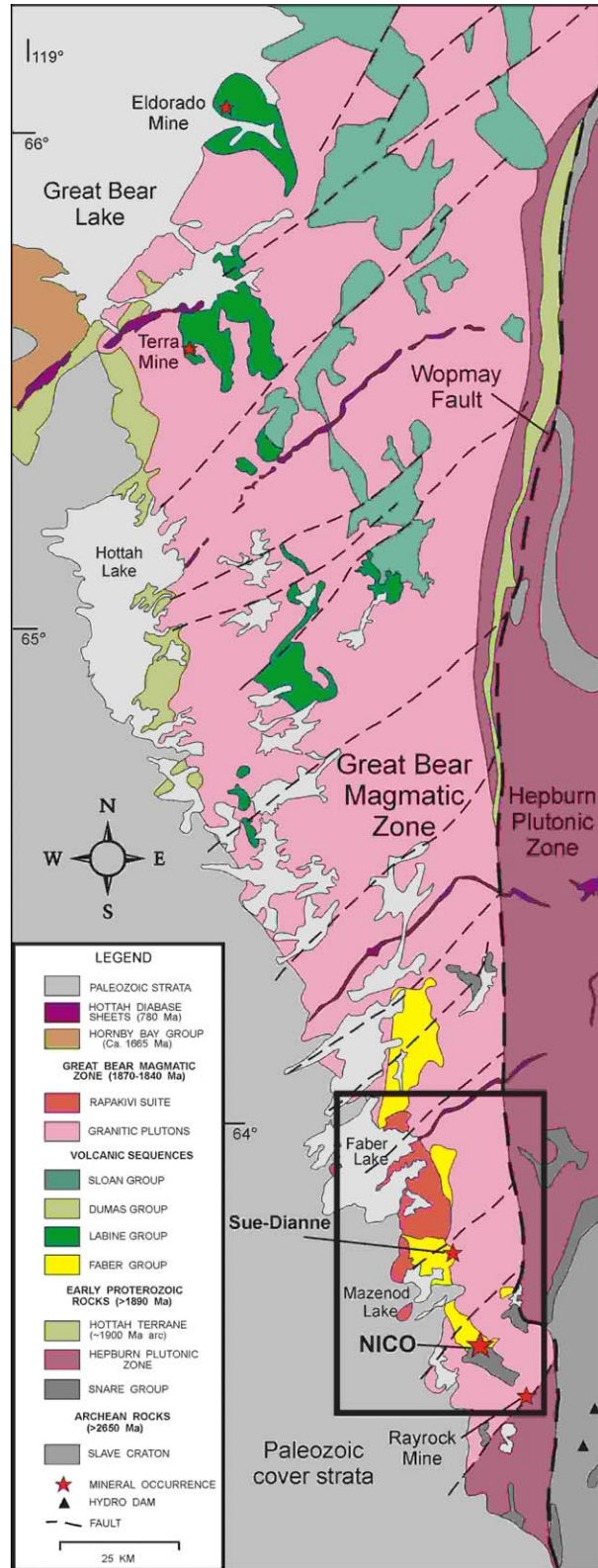
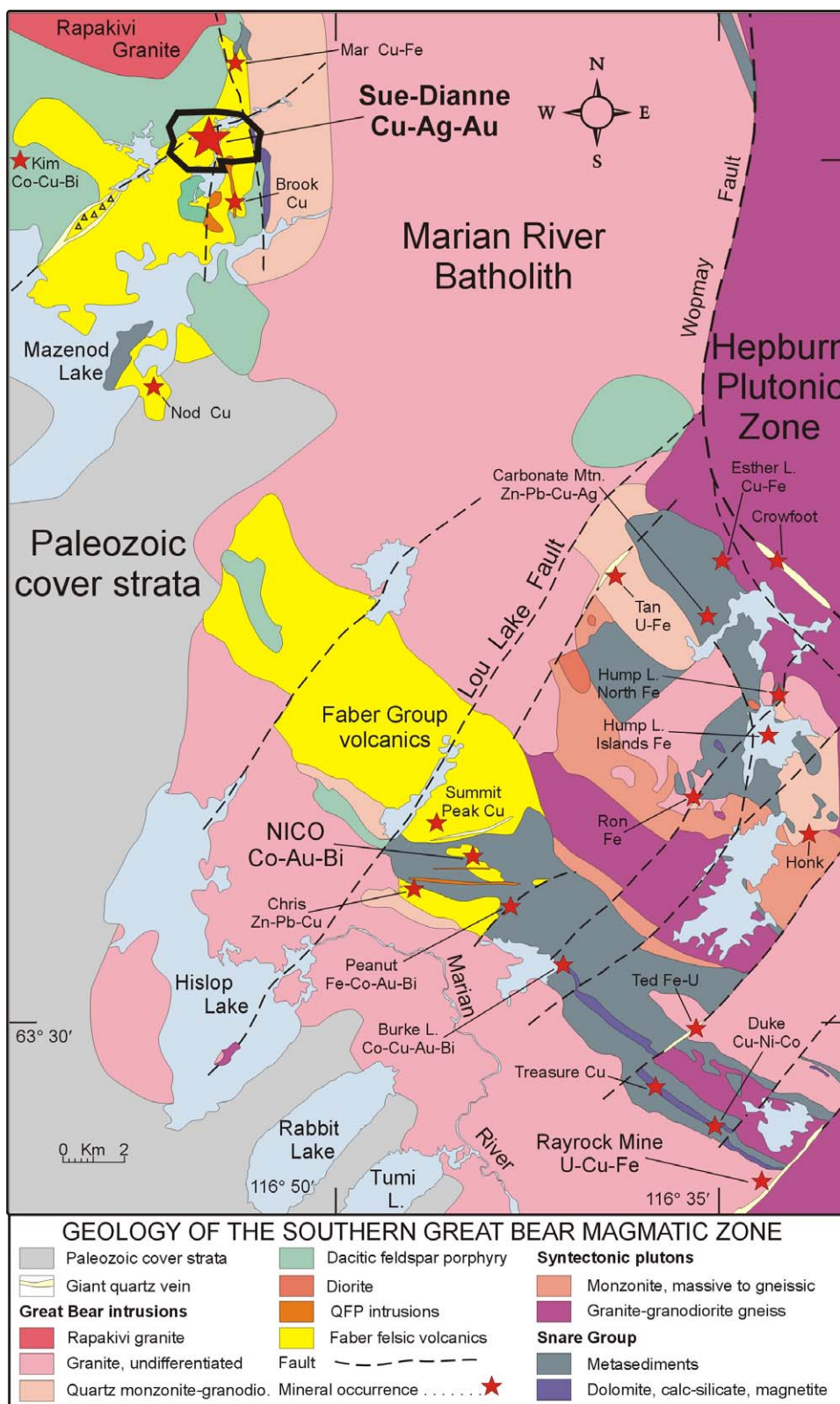


Figure 7.2
Geology of the Southern Great Bear Magmatic Zone



Strathcona described the geology of the immediate region as follows:

“The oldest rocks in the area are the sediments of the Snare Group comprising a suite of clastic sediments that cover the range from siltstone to subarkosic wacke, and impure dolostones. The Snare Group sediments are unconformably overlain by a thick series of felsic volcanic rocks of the Faber Group composed mainly of rhyodacitic ignimbrites, tuffs and minor volcanoclastics dated at 1.8 to 1.9 billion years old. The volcanics were deposited in a terrestrial setting and were probably fed by felsic to intermediate dikes that cut across the underlying Snare Group sediments. Two types of dikes have been recognized at NICO, an older quartz-feldspar porphyry type and younger feldspar-amphibole-quartz porphyries. It appears that the intrusion of rapakivi-type stocks to the northeast of the NICO property (Figure 7.1b) was essentially coeval with this volcanic event that is characterized as calcalkalic with low titanium oxide and high alumina.”

“The entire package of Snare Group sediments and overlying Faber Group volcanics was subjected to intense potassium metasomatism characterized by the Geological Survey of Canada to comprise the largest and strongest such anomaly in Canada. This metasomatic event of nearly regional extent led to the formation of biotite and potassium feldspar in the sediments, and of microcline in the overlying volcanics giving them a ubiquitous pink to reddish hue. At least some of this metasomatism appears to have been focussed by hydrothermal diatreme breccias that tend to occur in the Snare Group sediments immediately below the unconformity with the overlying Faber Group volcanics. To the west, the Precambrian rocks are overlain, with profound unconformity, by flat lying Paleozoic sediments.”

The metasedimentary rocks west of the Wopmay Fault, which predate the magmatic activity of the GBmz, were mapped as the Snare Group (Lord, 1942; McGlynn, 1968; Gandhi, 1994). This was because of their geographic proximity and lithologic similarity to metasedimentary rocks originally described in exposures near the Snare River east of the Wopmay Fault. Recent comparative studies by Gandhi (1999) and Gandhi et al. (2001) of the stratigraphy on both sides of the fault has revealed that although both represent platformal deposition, the sequence west of the fault is upward coarsening and has stratiform intervals of iron oxide whereas the sequence east of the fault is upward-fining and stratiform iron is absent. These differences have led to the proposed renaming of metasedimentary exposures west of the fault as the ‘Treasure Lake Group’ (Gandhi, 1999; Gandhi et al., 2001), although recent government mapping of the area reverts to the original Snare Group terminology.

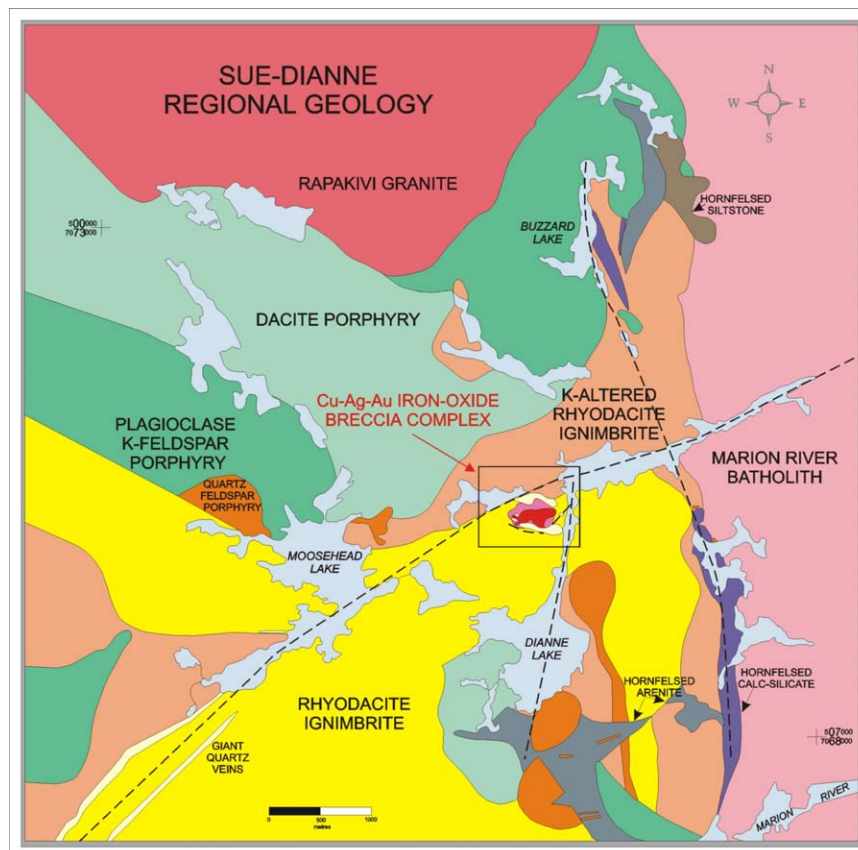
7.2 GEOLOGY OF THE DIANNE LAKE REGION

The Sue-Dianne breccia complex is located in the northern portion of the southern GBmz in an area comprised of the Faber Group volcanic suite of rocks and flanked by granite plutons of the Marian River batholith to the east and rapakivi-textured granite plutons to the north and west (see Figure 7.2). The immediate area is dominated by large felsic plutons that intrude the Faber Group rhyodacitic volcanic rocks and associated feldspar porphyritic sub-volcanic intrusions and the Mazenod Lake volcanic assemblage ignimbrites (see Figure 7.3).

The oldest rocks in the area are laminated to banded hornfelsed Snare Group metasedimentary rocks. These rocks are exposed as fault bounded blocks preserved along the western margin of the Marian River batholith north of Dianne Lake, and along a narrow zone immediately south of the lake. They may be part of the basal volcanic unconformity (Camier, 2002; Mumin et al., 1999). Two kilometres south of the Sue-Dianne deposit, thin-bedded Snare Group metasedimentary rocks intruded by quartz-feldspar and feldspar porphyritic dykes, provide further evidence of proximity to the basal volcanic unconformity (Mumin et al., 1999). The sediments exhibit a tan to light brown, light grey or greenish-grey colour and are comprised of 1 mm to 3 cm thick layers consisting of fine to very fine-grained hornfels. Some of the weathered surfaces display graded bedding (Camier, 2002).

Camier (2002) goes on to describe the sediments occurring north of Dianne Lake as being in contact with basal volcanic breccias and tuff beds, striking between 158° and 220°, and dipping between 83° and 90° east to northeast. The sediments seem to occur as large angular fault blocks in the volcanics, as their orientations are not consistent with other measurements taken in the area (Camier, 2002). Sediments outcropping on the south side of Dianne Lake, on the west side of a fault that parallels the Marian River batholith, strike 102° and dip 73° northeast (Figure 7.3). Sediments in contact with the batholith strike 146° and dip 51° northeast (Camier et al., 1997).

Figure 7.3
Local Geology of the Sue-Dianne Region



The immediate host rocks to the Sue-Dianne breccia complex are rhyodacite ignimbrites of the Mazenod Lake volcanic assemblage of the Faber Lake Group. The Faber Lake Group is considered to be the youngest igneous suite of the GBmz (D’Oria, 1998; Figure 7.3). The ignimbrites consist of feldspar porphyritic tuffs, welded ash tuffs, lesser lapilli tuffs and coarse volcanoclastic breccias (Camier, 2002). They generally strike northeast to east, dipping north to northeast up to 70°. In the south and southwest regions, the ignimbrites strike between 65° to 90° and are shallow dipping between 25° to 30° north.

The ignimbrites are weakly, to moderately, potassium altered and silicified and, outside the immediate deposit area, are relatively undeformed. They exhibit well-preserved primary volcanic and volcanoclastic textures (Camier, 2002). The ignimbrites are comprised of plagioclase and potassium feldspar phenocrysts, quartz and minor amphibole set in a fine-grained, microcrystalline quartzo-feldspathic groundmass. Investigations by Camier and others found feldspar and quartz phenocrysts up to 2 mm in size, but averaging ≤ 1 mm. The groundmass contains abundant finely-disseminated magnetite (+/-hematite), imparting a weak to moderate magnetic signature to the rocks. Investigations by Gandhi demonstrate that the ignimbrite pile is approximately two kilometres thick and consists of 12 separate sheets deposited during an episode of volcanic activity that occurred between 1870 to 1866 Ma (Gandhi et al., 2001).

The ignimbrite pile has been intruded by a sequence of coarse-grained plagioclase plus potassium feldspar porphyries in the north-central and western portions of the region (see Figure 7.3). These porphyries were found to have at least two phases; a fine grained phase containing 1 to 2 mm, euhedral to subhedral plagioclase laths, and a second trachytic phase containing 0.5 to 10 mm, subhedral potassium feldspar phenocrysts (D’Oria, 1998; Camier, 2002). Both the ignimbrite pile and the plagioclase-potassium feldspar porphyry sequence have been intruded by a dacite porphyry (Figure 7.3). The dacite porphyry is coarse grained, pink and is observed in well-exposed outcrops occurring north of Moosehead Lake and southwest of Dianne Lake (Camier, 2002).

The rhyodacite ignimbrite pile, plagioclase-potassium feldspar porphyries and dacite porphyries that dominate the area surrounding the deposit are intruded by several late quartz-feldspar porphyritic intrusions. These pinkish to reddish-brown, potassium and weakly iron oxide altered quartz-feldspar porphyritic stocks occur around Dianne and Moosehead Lakes with the largest of these bodies occurring east of Dianne Lake forming a well exposed ridge extending south for several kilometres (Camier, 2002; Figure 7.3).

The Faber Lake Group volcanic sequence is bordered on the east by the Marian River batholith. It is a well-exposed, multi-phased plutonic complex comprising medium to coarse-grained granite to granodioritic intrusions, with monzonite and syenite phases (Camier, 2002). Camier (2002) describes the phases of the Marian River batholith, as observed in the area of the Sue-Dianne deposit, as inequigranular to equigranular, hypidiomorphic to porphyritic, and slightly iron oxide and potassium enriched.

The boundary between the volcanic sequence and the batholith is a mylonitic structural zone preserving older Snare Group sediments, as described above (D’Oria, 1998; Figure 7.3). Camier (2002) goes on to describe the mylonitized marginal phases of the batholith as locally hosting ovoid-shaped pods with coarse groundmass-supported potassium feldspar phenocrysts containing large, 1- to 3-cm sized, hydrothermally fractured, iron oxide altered, zoned potassium feldspar phenocrysts set in a fine to medium grained, greenish-black matrix of epidote, chlorite and quartz.

The Faber Lake rapakivi-textured granite pluton occupies a large region north of Dianne Lake. It is described by Camier (2002) as a well exposed granite body with large 0.5 to 2 cm, subhedral to rounded, zoned, white to grey feldspar phenocrysts are set in a light brown to grey, medium to coarse grained inequigranular groundmass. The phenocrysts are comprised of ovoid potassium feldspar that have alternating overgrowths of sodium plagioclase and potassium feldspar in a groundmass of inequigranular, 1- to 8-mm sized, subhedral greyish-pink potassium feldspar phenocrysts intermixed with light grey plagioclase and 1- to 6-mm sized smoky grey quartz crystals (Camier, 2002). Biotite and amphibole comprise the mafic component of the pluton. Occasional reddish-brown hematite staining overprints both groundmass and crystals and infrequent interstitial fluorite is visible (Camier, 2002).

The Sue-Dianne deposit is situated at the intersection of two prominent faults occurring in the area. The first of these structures is the north-trending Mar fault extending through Dianne and Buzzard lakes and paralleling the boundary of the Marian River batholith (Figure 7.3). It appears to have been displaced along the north arm of Dianne Lake before continuing north to Buzzard Lake. It is an important feature with respect to the deposit since it appears to have abruptly terminated the east portion of the mineralized body and possibly displaced it to the north (Camier, 2002).

The fault is characterized as consisting of multiple brittle shears partially infilled with quartz-epidote veining where observed in the vicinity of the breccia complex. The Mar fault continues north where it passes through Buzzard Lake and just west of the Mar diatreme breccia complex (Figures 7.2 & 7.3). The Mar diatreme is described by Camier (2002) as hematite-, epidote-, and potassium-altered host rock fragments in an iron oxide rich matrix comprised of magnetite, hematite (martite), epidote, chlorite, and iron rich minerals. Chalcopyrite mineralization occurs as minor disseminations within the matrix and altered fragments.

The second of these structures is the southwest-northeast trending Dianne Lake fault (see Figure 7.3). Camier (2002) describes the Dianne Lake fault zone as forming a prominent series of sheared, brecciated and hydrothermally altered rocks up to 500 m wide where it intersects the Sue-Dianne breccia complex. The fault zone appears to thin west of the breccia complex, but widens again about 3 km southwest of Sue-Dianne along the south shore and west of Moosehead Lake (Figure 7.3). A system of giant quartz veining southwest of Moosehead Lake characterizes the fault zone in this area and is exposed over a length of more than 2.5 km and is up to 500 m wide. The fault zone also extends east of the deposit along the north arm of Dianne Lake crosscutting the Marian River batholith but evidence of the zone is only seen

exposed on several islands where outcrops exhibit intense shearing and brecciation (Camier, 2002).

7.3 GEOLOGY OF THE SUE-DIANNE DEPOSIT

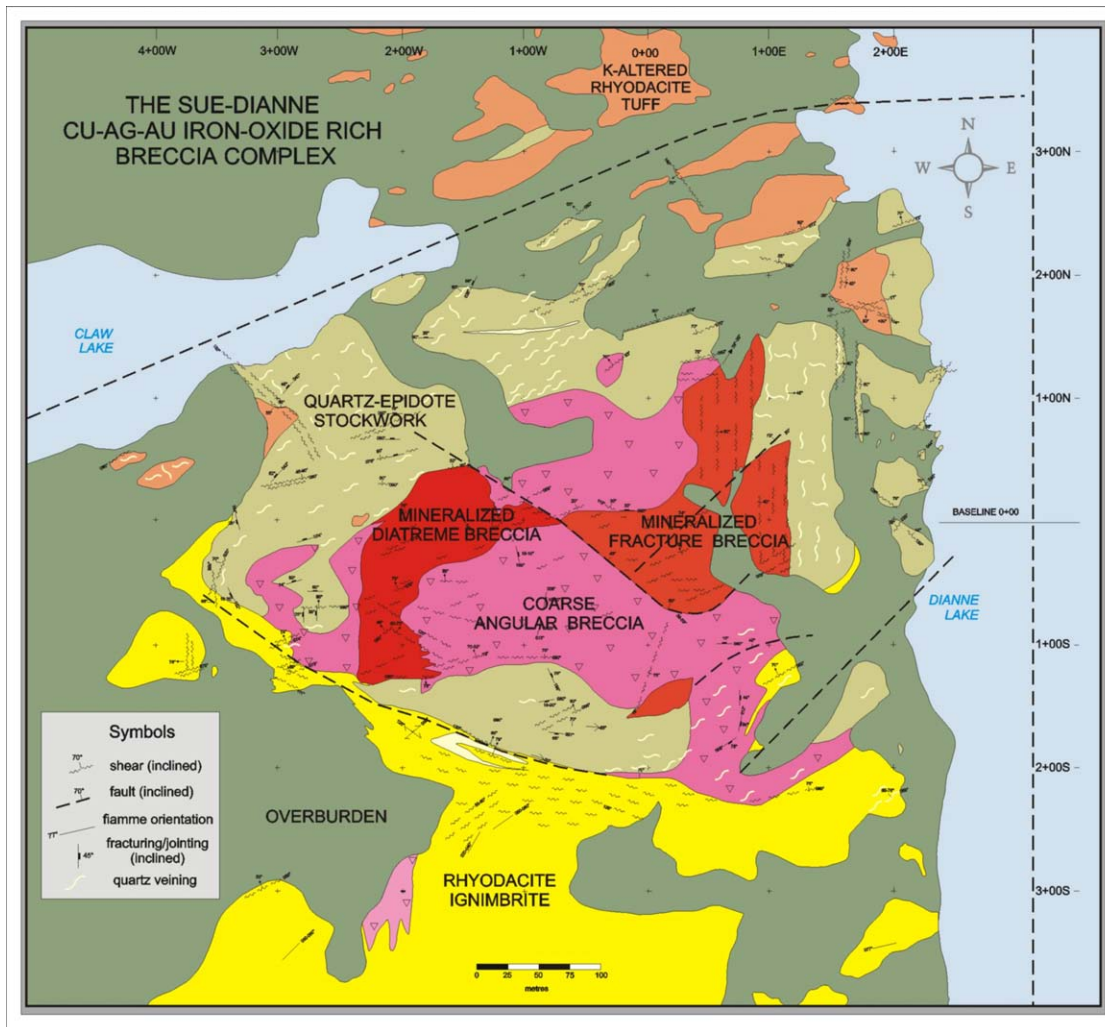
The Sue-Dianne breccia complex is hosted within the Mazenod Lake assemblage of rhyodacite ignimbrites (Figures 7.3 and 7.4). The complex is bound by an outer zone of intense shearing and alteration. The zone comprises quartz and epidote (+/- chlorite) occurring as cross-cutting veins, stockworks and breccias, with numerous sections of pervasive silicification and/or epidote flooding (Camier, 2002). North of the complex the quartz-epidote zone is bordered by the previously described potassium altered, porphyritic rhyodacite crystal tuffs. Weakly potassic altered rhyodacite ignimbrites border the complex to the south. Vein orientation is primarily parallel to the Dianne Lake fault, trending between 060° and 075°. Shears that parallel either the Dianne Lake or Mar faults commonly transect the rocks and are filled by quartz-epidote veins and stockworks (Camier, 2002).

Camier (2002) subdivides the breccia complex into four separate zones based on both structural and distinct lithological characteristics. The first of these zones is described as an outer stockwork comprised of quartz-epidote veining. It grades into two zones; a medial zone of intensely potassium feldspar altered and iron oxide rich fracture breccia with sparse mineralization, and the mineralized diatreme breccia in the core of the deposit. The last of the four zones is an overlying cap rock of coarse angular breccia (Figure 7.4).

After close investigation of all zones of the Sue-Dianne breccia complex, Camier (2002) describes each zone in detail as follows:

“The outer quartz-epidote stockwork contains frequent lenses of epidote and potassium feldspar altered, silicified and annealed fault gouge. The gouge forms a ‘marble-like’ textured rock that varies in colour from pistachio and light green to reddish-pink to beige. It is comprised of epidote, quartz, potassium feldspar, chlorite, and sporadic micro-brecciated fragments of reddish-brown, angular to subangular, microcrystalline quartz and hematite (jasperoid). Gouge with angular, intensely hematized, <1 to 3 mm sized clasts of altered host rock frequently marks the transition from fracture-brecciated ignimbrites into clast and matrix-supported diatreme breccias. The annealed fault gouge locally forms both the footwall and hanging wall margins of the diatreme (Figure 5.2). [Not included here.] Peripheral to the fault gouge, drilling often intersected well-preserved weakly altered rhyodacite tuff and ignimbrite with well-preserved fiamme.”

Figure 7.4
Geology of the Sue-Dianne Cu-Ag-Au Iron-Oxide Rich Breccia Complex



“The quartz-epidote stockwork grades into an intermediate zone of intensely potassium-altered and Fe-oxide-rich (hematite>magnetite) fracture breccia containing sparse sulphide mineralization. The potassium and iron alteration obliterates most protolith textures, leaving reddish-brown hematized angular fragments within a clast-supported Fe-oxide matrix. At surface, sulphide mineralization within this fracture zone is often cryptic. It is only visible as malachite staining along fracture walls and in fractures observed in drill core. Pitchblende and weathered uranium oxides occasionally occur in this zone as small yellowish patches and black veinlets associated with malachite in near surface rocks (Plate 5.1). [Not included here.]”

“The fracture breccia commonly grades into matrix and clast-supported diatreme breccia in the core of the complex (Plate 5.2). [Not included here.] Both macro-breccias (clasts 2 to 25 mm in size) and micro-breccias (clasts < 2mm in size) are common. The breccias are typically monolithic, comprising angular to rounded, intensely potassium feldspar and Fe-oxide altered ignimbrite, which occasionally

exhibits relic primary textures. Fiamme are occasionally preserved within the large clasts within the matrix supported breccia core from below 200 metres (Plate 5.3). [Not included here.] Heterolithic breccias containing clasts of welded tuff, porphyritic crystal tuff, one and two feldspar porphyries, intensely Fe-oxide altered fragments and hydrothermal-vein materials are less common within the diatreme. Porphyry fragments generally have weak to moderate potassium and Fe-oxide altered groundmass with epidote (+/- chlorite) alteration surrounding and permeating phenocrysts. Crystal tuff fragments are identified by the ≤ 1 mm, whitish-green phenocrysts of feldspar set within the crypto-crystalline reddish-brown potassium and Fe-oxide altered groundmass. Some clasts preserve previous stages of fragmentation indicating polycyclic brecciation.”

“Matrix to the core breccias consists of a black to reddish-brown assemblage of Fe-oxides, other hydrothermally derived minerals, microbreccia and rock flour. The Fe-oxides are magnetite +/- hematite within the deeper core zones of the diatreme, and hematite +/- magnetite near surface and peripheral to diatreme walls.”

“Hydrothermal minerals include Fe-rich silicates (epidote, chlorite and zoned andradite garnets), fluorite, quartz, and copper and Fe-sulphides, intermixed with the microbreccia rock flour derived from physically and hydrothermally milled fragments of host rock. Also observed in drill core were flow-textured bands of mylonitized reddish-brown microbreccia up to 1 metre wide, with hydrothermally altered and cemented rock flour matrix. These microbreccias crosscut all fracture, matrix- and clast-supported breccias (Plate 5.4). [Not included here.]”

“Coarse angular to sub-rounded breccias occur in sharp contact with the quartz-epidote stockwork, fracture breccias and the diatreme core. It appears to overlie these units forming a cap rock, with localized root zones extending at depth. This cap rock consists of silica-altered to highly Fe+/- K altered, rounded to angular, clast supported blocks and breccia clasts. Primary welded tuff textures are well preserved within the siliceous blocks. The matrix to the angular breccias consists of black siliceous Fe-rich minerals. Pitchblende occurs as fine black fracture filling within crosscutting veins in the cap rock, and weathers to yellow-green, secondary uranium minerals. However, pitchblende was not observed at depth in drill core and appears to be a paleo-surface or near surface supergene related feature.”

Numerous bodies of feldspar porphyry occur within the diatreme breccia complex and vary in widths from several metres to several tens of metres. Camier (2002) describes these as one-feldspar (plagioclase) or two-feldspar (potassium feldspar and plagioclase) phenocrysts +/- amphibole, biotite and quartz. Contacts with the diatreme are sharp but irregular, and are characterized by epidote and chlorite alteration, and sporadic chalcopyrite mineralization.

Hydrothermal alteration is the prominent feature of the deposit consisting of several zones and is closely associated with the mineralization of the breccia complex. Detailed descriptions of these zones of alteration have therefore been included in the mineralization section of this report (see Section 9).

8.0 DEPOSIT TYPES

The Sue-Dianne and NICO deposits have been generally accepted as members of the broad class of deposits known as IOCG type. They are also known as “Hydrothermal Iron Oxide-Hosted Replacement Deposits” or “Olympic Dam” type deposits, after the most significant deposit in this class. Specifically Sue-Dianne and NICO are polymetallic IOCG deposits although NICO has economic concentrations of cobalt bismuth and gold and Sue-Dianne contains copper, silver and gold. Goad et al. (2000) make the following observations about Sue-Dianne and NICO.

“NICO and Sue-Dianne are the only known significant Canadian examples of the Proterozoic iron oxide-hosted polymetallic class, more commonly referred to as Proterozoic iron oxide copper-gold deposits because of the dominance of these metals. Worldwide, the type locality for this class is the “giant” Olympic Dam deposit in South Australia, which contains an inferred resource of 2 billion tonnes, grading 1.6% copper, 0.6 g/t gold, 3.5 g/t silver, and 0.6 kg/t uranium oxide (Reeve et al., 1990). Consequently, they are also referred to as “Olympic Dam-type”. Other significant global examples of this class include Ernest Henry, Kiruna/Aitik, and Salobo in Australia, Sweden, and Brazil, respectively. Their typically large size and polymetallic ore assemblages make these deposits highly attractive exploration targets. Despite the abundance of favourable geological terrane, only a limited amount of exploration has been directed at these types of deposits in Canada.”

8.1 GEOLOGICAL CHARACTERISTICS

Goad et al. (1999) describe the geological characteristics of IOCG deposits as follows.

“Proterozoic iron oxide hosted polymetallic deposits are characterized by a number of diagnostic, regional- and deposit-scale, geological and geophysical features. Although Phanerozoic examples exist, the most important known deposits of this type are Early to Middle Proterozoic in age (Table 2). [Not included here.] They are situated in anorogenic cratonic settings with extensional rifting of typically thick continental crust (Hitzman et al., 1992; Reeve et al., 1990; Oreskes and Hitzman, 1993; Davidson and Large, 1994; Craske, 1995). Attendant crustal extension accommodates anorogenic, “A-type” granite plutonism and associated continental volcanism from magmas derived through crustal melting, possibly related to basaltic underplating of the lower crust. Deposits are proximal and located preferentially in the roof zones of megacrystic syenogranite intrusions, which may display unusual myrmekitic, granophyric, and rapakivi textures. They are also situated on major structural lineaments, which were likely extensional and/or transcurrent faults related to rifting (Reeve et al., 1990), and which acted locally as the conduits for ascending magmas. Many deposits occur along active shear/fault zones transecting the aureoles of the “A-type” granite plutons.”

“Proterozoic, iron oxide hosted, polymetallic deposits occur in diverse lithologies, including plutonic, volcanic and sedimentary hosts, demonstrating that a specific rock type is not an important control for localizing metal concentrations (Table 2). [Not included here.] However, geological and geochemical data from various deposits indicate that the chemistry of associated host rocks may have a role in contributing

metals (Hitzman et al., 1992), and also influences the physical characteristics of the deposits by the manner in which they behave during deformation. Alteration and metal zonation, trace-element geochemistry, and oxygen- and sulphur-isotope data indicate that fluid mixing in the near-surface environment had an important role in metal precipitation processes. Deposit formation may have occurred at redox boundaries as the result of the interaction between hot (up to 500°C), alkaline, moderately to strongly saline (5 to 45%), iron- and volatile-rich (CO₂, F +/- Cl), sulphur-poor magmatic fluids and cool, oxidizing, meteoric water. The mechanisms causing precipitation of metals are thought to have been a combination of decreasing temperature and pressure, boiling, changing pH or O₂, and wall-rock reactions (Reeve et al., 1990; Hitzman et al., 1992; Williams and Blake, 1993; Davidson and Large, 1994; Haynes et al., 1995; Adshead, 1995). A near-surface depositional setting is indicated commonly by proximity to an unconformity between the host assemblage and either volcanic rocks related to the A-type granite plutonism, or platformal sedimentary-cover sequences.”

8.2 GEOPHYSICAL CHARACTERISTICS

Goad et al. (1999) describe the geophysical characteristics of IOCG deposits as follows.

“The distinct tectonic and geological features of Proterozoic, iron oxide hosted, polymetallic deposits are apparent in various regional- and property-scale geophysical surveys. Regionally, cratonic rift basins are characterized commonly by positive Bouguer-gravity and total field magnetic trends. Deposits are associated closely with “A-type” granite plutons, which can display distinctive positive- or negative-gravity and magnetic responses, depending on the characteristics of the surrounding rocks. The granites and related volcanic rocks are generally rich in potassium and uranium, which if exposed at surface in unweathered terrain, generate strongly positive radiometric anomalies. The intersection of regional-scale, structural lineaments related to rifting and transverse faults and/or shear zones associated with plutonism is important in localizing deposits, and these faults can be identified as linear-magnetic and very-low frequency (VLF) electromagnetic anomalies.”

“Individual deposits are associated with iron-rich alteration assemblages dominated by magnetite in relatively high-temperature (300-500°C) hydrothermal systems, and by hematite in more moderate temperature (150-300°C) systems (Hitzman et al., 1992). Deposits are characterized diagnostically by strongly positive magnetic anomalies with values up to 10,000 and 16,000 nT above background for the magnetite-rich Ernest Henry and Osborne deposits, respectively (Webb and Rowston, 1995; Anderson and Logan, 1992). By contrast, the Olympic Dam deposit generates a large but relatively low-intensity anomaly (1,200 nT) due to the predominance of hematite iron oxides, and the stratigraphic position of the deposit beneath 300 metres of barren sediments (Reeve, 1990). Detailed magnetic surveys are useful particularly in identifying subtle magnetic lows within broader, strong magnetic highs and can be indicative of the transition from magnetite- to hematite-dominated, iron oxide alteration assemblages. This transition can be useful in locating individual ore zones in large, complex deposits such as Olympic Dam where early magnetite is altered to hematite in late mineralizing hydrothermal alteration systems. The bulk density of iron oxides (5.2 g/cm³) and related iron-rich silicate alteration minerals (3.0 to 3.4 g/cm³) is high relative to typical continental crust (2.5 to 2.7 g/cm³). The resulting density contrast generates subtle to

distinct Bouguer-gravity anomalies: 1.4 mgal in amplitude at Ernest Henry, and up to 14 mgal at Olympic Dam (Webb and Rowston, 1995; Reeve, 1990). Alkali metasomatism and uranium enrichment characterizes most deposits, and can generate potassium and/or uranium radiometric anomalies when exposed at the surface. Sulphide mineralization commonly fills fractures and breccia matrices and/or occurs as disseminations, but rarely occurs as massive, continuous veins. Consequently, standard electromagnetic geophysical techniques such as “horizontal loop” (HLEM), have only limited application. Most deposits, however, are weak conductors detectable by “transient electromagnetic methods” (TEM), or generate “induced polarization” (IP) chargeability and resistivity anomalies (Anderson and Logan, 1992; Williams and Blake, 1993; Craske, 1995; Webb and Rowston, 1995).”

9.0 MINERALIZATION

The Sue-Dianne copper-silver deposit occurs within an elliptically-shaped, zoned complex of heterogeneous brecciation and hydrothermal alteration referred to as the Sue-Dianne breccia complex (Goad, 1996). The breccia complex occurs at the intersection of northeast and north trending faults, more clearly defined as being constrained by both the 070°-bearing and steeply northwest dipping Dianne Lake lineament, and the north-south striking, 45°-dipping Mar Lake fault (Mumin et al., 1999). The breccia complex occurs at the transition from rhyodacite ignimbrite to overlying rhyodacite porphyry and crystal tuff (Goad, 1996).

Mumin et al. (1999) describe the mineralization as hosted in an irregular lens-shaped structural and hydrothermal diatreme breccia complex that is approximately 600 m long, 500 m wide, and has an undefined depth that exceeds 350 m. Copper mineralization of the Sue-Dianne deposit, as presently delineated, reaches a strike length of approximate 450 m, has a maximum down dip extent of about 350 m and reaches a maximum thickness of about 300 m.

Mumin et al. (1999) describes the deposit as being loosely divided into East and West Lobes. The West Lobe is largely constrained by the Dianne Lake lineament and is comprised of mineralized lenses that gradually diminish in grade and size toward line 2+00 W. The thickest and richest part of the deposit occurs in the East Lobe. However, the richest mineralization is abruptly terminated between section 1+50 E and 2+00 E, and may have been displaced by North-South trending faults. The East and West Lobes are moderately displaced near the centre of the deposit by a 115°-striking, northeast dipping (45°) oblique fault, as well as a number of other minor faults (Mumin et al., 1999)

Copper sulphides are the dominant ore minerals of the Sue-Dianne deposit. They occur as; chalcopyrite in matrix and clast supported breccias of the diatreme and fracture breccias (Figure 9.1); and bornite, chalcocite and covellite in the hematite-rich upper and peripheral zones of the deposit (Camier, 2002) (Figure 9.2). Camier (2002) goes on to describe the various copper minerals occurring as veins, fracture fillings and disseminations within the matrix of the breccia where they are intergrown with, or replace iron oxides and iron-enriched silicates. Disseminations of the copper sulphides also replace gangue minerals (e.g. amphiboles) within

some of the altered host rock clasts. Some copper sulphide fracture fill observed in drill core extends for short distances into both the one- and two-feldspar porphyries (Camier, 2002).

Figure 9.1
Chalcopyrite in Matrix and Clast Supported Breccias
of the Diatreme and Fracture Breccias

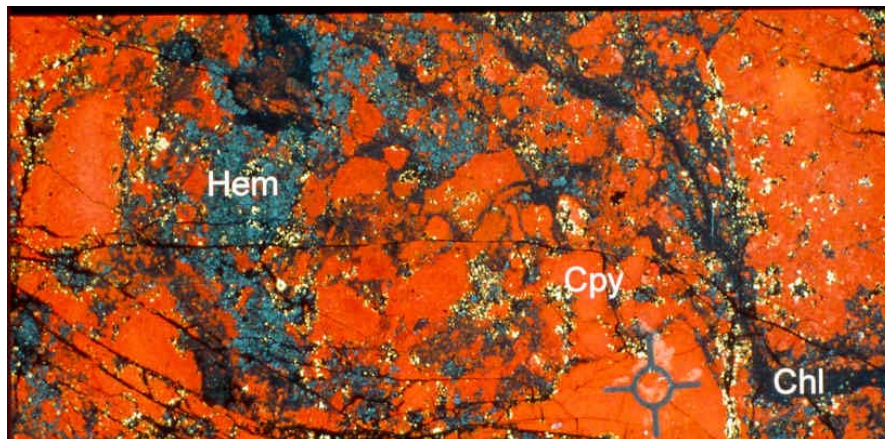
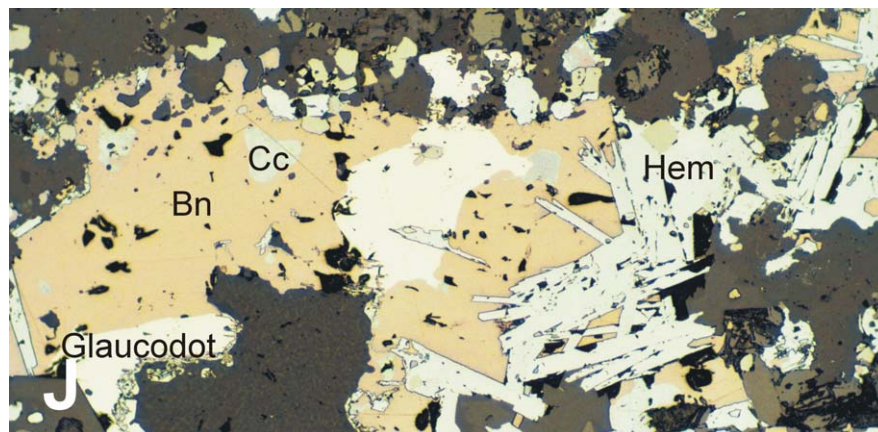


Figure 9.2
Bornite, Chalcocite and Covellite in the Hematite-Rich
Upper and Peripheral Zones of the Deposit

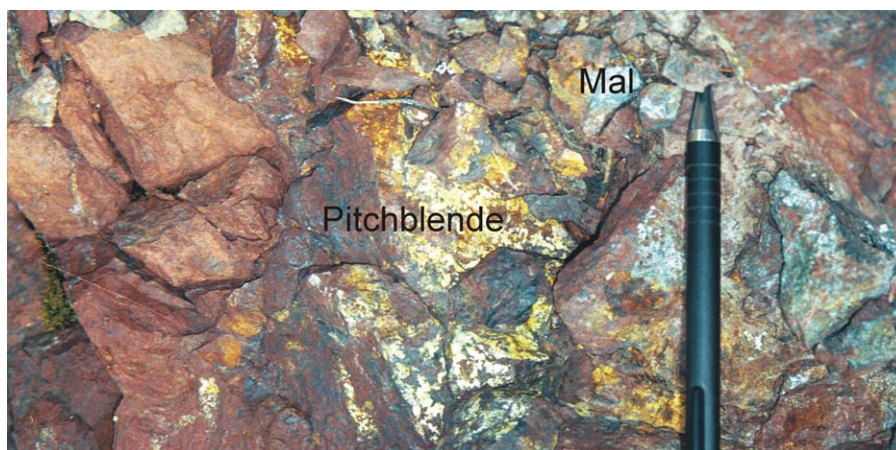


Silver is primarily associated with bornite and chalcopyrite and is present in minor amounts throughout most of the deposit, although mostly confined to the eastern portion of the deposit along the Mar fault (Mumin et al., 1999; Camier, 2002). Gold is only locally enriched and is primarily confined to part of the East Lobe. Both silver and gold generally occur associated with copper sulphides and were not observed independently. Mumin et al. (1999) report minor amounts of molybdenum occurring sporadically within drill core and Camier (2002) found that minor amounts were occasionally observed in both the reduced core breccias and more oxidized peripheral breccias.

Trace element geochemistry has also revealed local uranium enrichment up to 3,060 ppm, cobalt up to 304 ppm, bismuth up to 354 ppm, barium up to 5,030 ppm, and phosphorus up to 610 ppm, in randomly selected drill core samples (Mumin et al., 1999). Bismuth is principally associated with copper sulphides and occurs as bismuthinite within the diatreme core breccias (Camier, 2002). Several samples were also analyzed for rare earth elements (REE) and yielded concentrations up to 324 ppm cerium and 331 ppm lanthanum (Goad et al., 1998).

Minor weathered pitchblende veins are clearly visible in surface exposures occurring within both fracture and coarse angular breccias, as veins and fracture fillings, but significant uranium was not detected at depth in any of the drill core samples (Mumin et al., 1999; Camier, 2002). Malachite staining and fracture filling is common in surface exposures of mineralized rocks (Figure 9.3).

Figure 9.3
Weathered Pitchblende Veins and Malachite Staining in Surface Exposures



Malachite staining and fracture filling is common in surface exposures of mineralized rocks.

Hydrothermal alteration is a prominent feature of the deposit and consists of several zones which are more clearly defined and summarized by Camier (2002) into four separate alteration zones as follows; 1) an outer potassium alteration halo, 2) the surrounding quartz-epidote stockwork, 3) the iron and potassium alteration halo of the mineralized fracture breccia, and 4) the iron oxide enriched diatreme breccia. Most of the potentially economic mineralization is found in zones 3 and 4, where Camier further sub-divides the latter into two separate zones dependant on mineralization. Camier (2002) goes on to describe the mineralization of zone 3 (iron and potassium alteration halo) as follows:

“The intense Fe-K metasomatic overprint obliterates any protolith material, making identification of the fragments extremely difficult. Numerous steel-grey veins and veinlets of hematite (+/-magnetite) crosscut the fracture breccia, with malachite (+/-azurite) staining occurring on near-surface fracture walls. Quartz and feldspar occur as microcrystalline intergrowths that form the groundmass supporting intensely sericitized, anhedral, embayed and indented relic feldspar grains. Hematite occurs as spongy embayed pseudomorphic partial replacements of magnetite forming irregular shaped magnetite inclusions (plate 6.9) [not included]. Chlorite forms felty interstitial masses

surrounding granular aggregates of subhedral bladed to granular epidote intermixed with minor subhedral apatite, magnetite, and interstitial subhedral to euhedral microcrystalline inclusions of sericite, rutile and clay minerals. This zone is also enriched in diverse copper minerals that on average include chalcopyrite (1.6%), bornite (1%), chalcocite (0.4%), covellite (0.2%) and an Fe-bearing sulphide identified as glaucodot (0.1%). Examination of the copper minerals indicates bornite occurs as anhedral blebs with rounded chalcopyrite inclusions and which exhibit occasional overgrowths of chalcocite. Chalcocite and covellite occur as irregular lath-like intergrowths with sharp boundaries, and often contains bornite and/or chalcopyrite inclusions.”

As previously mentioned, Camier (2002) further subdivides the fourth alteration zone (iron oxide enriched diatreme) into two zones that include; 1) an outer zone of oxidized breccia containing hematite (+/-magnetite), with bornite, chalcocite +/-covellite and 2) a core of reduced breccia containing magnetite (+/-hematite) and chalcopyrite. Camier (2002) goes on to describe the mineralization of the oxidized breccia outer zone of the iron oxide enriched diatreme as follows:

“Relic textures are occasionally preserved in the Fe-oxide enriched, matrix- to clast-supported fragments. Late specular hematite frequently occurs as fracture fill and often rims fragments. On microscopic examination, the matrix is found to consist of hematite (+/-magnetite) alternating with intensely altered microbrecciated, muscovite, epidote and chlorite (plate 6.10) [not included].”

“Copper sulphides within the oxidized breccias consist of bornite (2.3%), chalcopyrite (0.5%) and chalcocite (0.1%), +/- covellite (0.3%). Bornite forms anhedral irregular shaped masses that frequently contain overgrowths, inclusions and exsolutions of rounded chalcopyrite, and overgrowths of chalcocite +/- covellite. Bornite was also found containing exsolution lamellae of chalcopyrite. However, on occasion chalcopyrite appears to replace bornite (plate 6.11) [not included].”

Camier (2002) characterizes the core zone of the iron oxide enriched diatreme as definable zones of weakly-mineralized and mineralized breccias dominated by magnetite. However, less-reduced regions occur within the zone indicated by overgrowths and pseudomorphic replacements by hematite. The core mineralized zone is less oxidized on average than the outer zone of oxidized breccia. Analyses of samples taken from this core zone are summarized by Camier (2002) as follows:

“Sulphide minerals within the selected samples of the mineralized zone consist of chalcopyrite (5%), bornite (0.2%), chalcocite (0.2%), cubanite (0.2%), glaucodot (0.2%) and pyrite (0.1%). It was often observed in core that pyrite comprised greater than 10% of the sulphides, often intergrown with magnetite and chalcopyrite.”

“Chalcopyrite occurs within the matrix as anhedral to irregular shaped grains and crosscutting veins and veinlets. It exhibits occasional bornite and chalcocite overgrowths and locally as inclusions of magnetite and hematite overgrowths (plate 6.13) [not included]. Bismuthinite was observed occasionally in the matrix as bright silver, easily scratched laths that are generally associated with chalcopyrite (plate 6.13)

[not included]. The presence of interstitial bismuth and bismuthinite grains scattered randomly throughout the matrix is confirmed by electron microprobe.”

Camier (2002) goes on to describe the mineral paragenesis of the Sue-Dianne breccia complex defining four main stages of mineralization as; pre-, early-, late-, and post-mineralization (Figure 9.4).

“The pre-mineralization consists of the volcanic and igneous host rock mineral assemblages comprised of plagioclase, K-feldspar, quartz, magnetite, biotite and amphibole, with minor ilmenite, pyrite, apatite and possible fluorite. Primary minerals are overprinted by early hydrothermal alteration products, including: quartz, K-feldspar, magnetite, hematite, epidote, rutile, chlorite and muscovite. The diatreme event includes both early-mineralization and late-mineralization stages. The early mineralization stage produced quartz, K-feldspar, magnetite, hematite, chalcocite, pyrite, bornite, epidote, garnet, fluorite, rutile, apatite, muscovite and chlorite. The late-mineralization assemblage includes the precipitation of quartz, K-feldspar, hematite, bornite, epidote, garnet, muscovite, chlorite and apatite, with minor pitchblende, chalcocite and iddingsite. Following the mineralization event, post-mineralization assemblages can be divided into: 1) late hydrothermal alteration, 2) paleo-weathering, and 3) recent or modern weathering. The late hydrothermal stage included continued precipitation of K-feldspar, quartz, epidote, chlorite, muscovite, chalcocite and iddingsite. Paleo-weathering is suggested by the presence of hematite, goethite, malachite and covellite, with the possible introduction of secondary U-oxides that cannot be reconciled with recent weathering textures or mineralization. Modern weathering consists of malachite, secondary U-oxides and hematite.”

Camier (2002) concluded that the underlying Sue-Dianne dacite porphyry is closely connected with the diatreme and mineralization event.

“The strongest copper mineralization occurs next to the apices of the porphyry, and lesser with distance from the intrusion. Fragments of altered and mineralized porphyry occur within the diatreme breccias and in other locations the porphyry crosscuts the diatreme. Ubiquitously, the strongest hydrothermal alteration emanates from the upper periphery of the porphyry. These features indicate that the mineralization event had a strong association with the intrusion.”

10.0 EXPLORATION

The general exploration history for the Sue-Dianne property has been described in Section 6 of this report. That section includes a description of the various geophysical surveys which have been completed on the property by Noranda and Fortune. Fortune has also geologically mapped the property. The results of that mapping can be seen in Figure 7.4 under the description of the geological setting at Sue-Dianne.

A significant portion of the copper mineralized deposit is exposed in outcrop as seen in the photograph in Figure 5.1 and the geological map (Figure 7.4). As such the majority of the

exploration completed consists of diamond drilling. The drill programs are discussed in Section 11 below.

11.0 DRILLING

11.1 NORANDA DRILLING CAMPAIGNS

The drilling campaigns by Noranda, and the results from it, have been summarized previously in Section 6, History, in this report. No further discussion will occur here.

11.2 FORTUNE 1997-1998 DRILLING CAMPAIGNS

Fortune conducted drilling on the Sue-Dianne deposit during three separate campaigns in 1997 and 1998. As previously described in Chapter 9 (mineralization), the deposit was depicted as being loosely divided into East and West Lobes and occurring at the intersection of two major structural lineaments. Drilling was performed to confirm previous results by Noranda, expand the mineralized zone, test the possibility of mineralized zone offsets by faults and to test various geophysical targets.

A total of 47 holes were drilled in the spring and summer months of 1997 and 1998 for a total of 11,311.61 m of extracted core. One additional hole was drilled to a length of 8.34 m (SD-97-12a) but was stopped abruptly. It is not of any significance and was not used in Mumin's mineral resource estimate. The holes averaged 240 m in depth with the deepest hole drilled by Fortune being 428.24 m (SD-97-07). Forty-five percent of the holes were vertical with the remaining being inclined at an angle no less than 45°.

Of these holes, 24 were drilled into the East Lobe, 14 were drilled into the West Lobe, 4 were drilled through the ice on Dianne Lake (2 of which extended the East Lobe) and 5 holes tested geophysical targets outside the deposit to the north and south. Table 11.1 details all of the holes drilled by Fortune in the area of the Sue-Dianne deposit and the zone in which each hole is located.

Table 11.1
Sue-Dianne Project, 1997 and 1998 Drilling

Hole ID	UTM Coordinates			Zone	Length (m)	Az (°)	Dip (°)	Local Grid Coordinates	
	X	Y	Z						
SD-97-01	504348.22	7070324.96	254.04	East	154.53	180	-45	0+85 E	0+15 N
SD-97-02	504348.50	7070326.75	253.97	East	375.51	0	-90	0+85 E	0+15 N
SD-97-03	504378.75	7070446.11	239.34	East	259.69	0	-90	1+00 E	1+43 N
SD-97-04	504322.99	7070422.02	248.87	East	284.99	0	-90	0+49 E	1+00 N
SD-97-05	504276.98	7070434.41	251.83	East	256.95	0	-45	0+00	1+16 N
SD-97-06	504277.07	7070435.24	251.73	East	328.17	180	-65	0+00	1+16 N
SD-97-07	504282.30	7070482.11	237.14	East	428.24	180	-71	0+00	1+63 N
SD-97-08	504386.33	7070508.48	232.54	East	224.64	0	-90	1+00 E	2+00 N
SD-97-09 (*)	504433.17	7070510.79	228.88	East	185.00	0	-90	1+47 E	2+09 N
SD-97-10	504471.30	7070398.55	231.13	East	209.40	0	-90	2+00 E	0+00 N
SD-97-11	504464.63	7070351.03	230.17	East	218.54	0	-90	2+00 E	0+50 N
SD-97-12	504410.31	7070307.58	234.43	East	398.37	0	-90	1+50 E	0+02 N
SD-97-12a (*)	504410.16	7070305.56	234.60	East	8.34	180	-45	1+50 E	0+02 N
SD-97-13 (*)	504060.65	7070360.43	270.29	West	197.81	180	-45	2+00 W	0+00 N
SD-97-14	504211.40	7070367.35	260.78	West	215.50	183	-45	0+57 W	0+39 N
SD-97-15	504211.59	7070368.96	260.68	West	306.90	183	-90	0+57 W	0+39 N
SD-98-16	504457.08	7070302.63	226.34	East	204.28	0	-90	1+99 E	0+02 N
SD-98-17	504569.07	7070385.25	223.30	Lake	232.94	0	-90	2+98 E	0+99 N
SD-98-18 (*)	504559.58	7070294.87	223.00	Lake	304.60	0	-90	3+00 E	0+00 N
SD-98-19 (*)	504551.58	7070236.87	223.00	Lake	242.92	0	-90	3+00 E	0+50 S
SD-98-20	504571.58	7070436.87	223.00	Lake	251.77	0	-90	3+00 E	1+50 N
SD-98-21 (*)	504207.50	7070712.77	232.08	North	248.72	180	-60	1+00 W	3+83 N
SD-98-22 (*)	504311.91	7070773.79	227.03	North	303.58	180	-60	0+00	4+60 N
SD-98-23	504404.27	7070262.55	233.41	East	117.35	180	-45	1+47 E	0+46 S
SD-98-24	504404.49	7070264.92	233.66	East	203.00	0	-90	1+47 E	0+46 S
SD-98-25 (*)	504332.48	7070464.05	238.16	East	224.33	0	-90	0+50 E	1+52 N
SD-98-26	504199.12	7070313.81	271.39	West	129.54	180	-45	0+64 W	0+15 S
SD-98-27	504199.19	7070315.75	271.10	West	297.48	0	-90	0+64 W	0+15 S
SD-98-28	504217.78	7070439.91	256.61	West	291.39	0	-90	0+57 W	1+15 N
SD-98-29	504332.48	7070464.05	238.16	East	334.06	180	-60	0+50 E	1+52 N
SD-98-30	504321.27	7070399.00	251.90	East	267.00	180	-60	0+50 E	0+84 N
SD-98-31	504315.99	7070345.97	253.69	East	221.28	180	-60	0+50 E	0+30 N
SD-98-32	504311.16	7070295.66	255.00	East	129.84	180	-60	0+50 E	0+21 S
SD-98-33	504263.35	7070311.91	265.10	East	151.18	180	-50	0+00	0+10 S
SD-98-34	504110.11	7070286.72	287.43	West	132.89	180	-53	1+50 W	0+55 S
SD-98-35	504115.64	7070337.83	269.94	West	135.64	180	-53	1+50 W	0+03 S
SD-98-36	504122.26	7070396.00	253.37	West	209.09	180	-53	1+50 W	0+60 N
SD-98-37	504130.21	7070455.48	245.68	West	285.29	180	-53	1+50 W	1+20 N
SD-98-38 (*)	504136.41	7070520.57	227.62	West	309.68	180	-52	1+50 W	1+80 N
SD-98-39 (*)	504074.85	7070403.91	254.67	West	196.90	180	-53	2+00 W	0+60 N
SD-98-40 (*)	504080.96	7070460.11	240.33	West	197.01	180	-53	2+00 W	1+20 N
SD-98-41	504062.64	7070296.80	288.37	West	172.82	180	-53	1+99 W	0+50 S
SD-98-42	504419.16	7070371.11	232.24	East	265.17	0	-90	1+50 E	0+70 N
SD-98-43	504371.00	7070381.37	242.99	East	380.09	0	-90	1+00 E	0+70 N
SD-98-44	504443.75	7070576.65	226.57	East	261.21	180	-60	1+50 E	2+60 N
SD-98-45 (*)	504246.18	7070165.67	282.60	Mag	223.72	0	-90	0+00	1+60 S
SD-98-46 (*)	504245.95	7070163.93	282.99	Mag	174.35	180	-45	0+00	1+60 S
SD-98-47 (*)	504194.97	7070246.46	289.30	Mag	168.25	180	-50	0+57 W	0+90 S
				Total	11,311.61				

(*) - Holes outside the deposit area and not used in the resource estimate prepared by Mumin.

The early drill results in 1997 were encouraging since they were located outside of the limits of previous drilling by Noranda and were expected to increase and expand Noranda's previously estimated "drill indicated resource". Fortune noted in a press release dated August 25, 1997:

"The drill results included large intersections up to 193 metres (633.2 feet), averaging 0.545% copper and 1.612 grams of silver/tonne in hole -3. High grades were also intersected over narrower widths, including 5.030% copper, 15.60 grams of silver/tonne, and 1.215 grams of gold/tonne in three metre intersections from hole -4."

A summary of some of the important intersections from early drilling is set out in Table 11.2 below. A total of 15 holes were drilled on the property between June and September, 1997.

Table 11.2
Sue-Dianne Project, Selected 1997 Drilling Results

Hole Number	From (m)	To (m)	Length (m)	Gold (g/t)	Copper (%)	Silver (g/t)
SD-97-03	32.15	225.15	193.00	-	0.545	1.612
	(*) 95.15	141.15	46.00	-	1.143	1.676
	(*) 108.15	111.15	3.00	-	2.110	5.100
	(*) 157.15	165.15	8.00	0.603	1.620	7.350
SD-97-04	39.61	63.31	24.00	0.728	1.901	9.413
	(*) 39.61	54.61	15.00	0.453	2.902	13.920
	(*) 45.61	48.61	3.00	0.285	5.030	15.600
	(*) 51.61	63.61	12.00	1.215	0.795	5.850

(*) – included in the larger interval above.

Drilling continued in the spring and summer of 1998. Fortune completed an additional 32 holes during this time and stated in a press release dated September 2, 1998 that:

"Recent drilling has extended mineralization in the Sue-Dianne deposit beyond the limits of previous resource estimates, including an increase in strike length from 300 to 500 metres (undelimited) [sic]. Infill holes have also increased the thickness of parts of the deposit, particularly on section 0+50 East where previous drilling straddled the core of the deposit."

"Recent drilling results from Sue-Dianne include large intersections up to 118.76 metres (389.63 feet), grading 0.895% copper and 1.779 g/t silver, including 33.60 metres (110.24 feet), grading 1.592% copper, 3.518 g/t silver, and 0.051 g/t gold in hole SD-98-31. Hole SD-98-30 intersected 42.67 metres (139.99 feet), grading 1.206% copper and 1.5 g/t silver, and a deeper 91.74 metre (300.98 foot) interval, grading 0.954% copper and 1.735 g/t silver, including 43.84 metres (143.83 feet), grading 1.264% copper and 1.874 g/t silver. Very high grades were locally intersected over narrower widths, including a 9.00 metre (29.53 foot) section, averaging 4.128% copper, 12.70 g/t silver and 0.693 g/t gold in hole SD-98-29."

Important intersections, in addition to the ones mentioned above, from the 1998 drilling campaign that were included in the press release also dated September 2, 1998 are set out in Table 11.3 below.

Table 11.3
Sue-Dianne Project, Selected 1998 Drilling Results

Hole Number	From (m)	To (m)	Length (m)	Gold (g/t)	Copper (%)	Silver (g/t)
SD-98-24	86.78	125.78	39.00	-	0.398	1.931
	(*) 115.78	125.78	10.00	-	1.048	4.620
SD-98-26	90.05	96.05	6.00	-	0.905	8.400
SD-98-27	5.63	35.63	30.00	-	0.405	2.010
	99.63	137.63	38.00	-	0.469	2.653
	157.63	268.62	110.99	-	0.458	1.757
SD-98-29	99.90	108.90	9.00	0.693	4.128	12.700
	184.21	208.21	24.00	-	0.310	1.025
	230.21	238.21	8.00	-	0.434	1.500
	260.21	272.21	12.00	-	0.299	1.200
SD-98-30	1.83	44.50	42.67	-	1.206	1.500
	93.27	185.01	91.74	-	0.954	1.735
	(*) 95.15	138.99	43.84	-	1.264	1.874
SD-98-31	3.96	122.72	118.76	-	0.895	1.779
	(*) 38.40	72.00	33.60	0.051	1.592	3.518
SD-98-33	2.44	20.12	17.68	-	0.354	1.262
	35.07	62.79	27.72	-	0.726	0.910
	(*) 49.04	58.66	9.62	-	1.534	1.261
SD-98-35	3.66	12.46	8.80	-	0.918	3.336
	23.16	29.26	6.10	-	0.328	1.650
	54.00	62.79	8.79	-	1.408	7.474
SD-98-36	75.25	81.08	5.83	-	0.528	3.674
	102.41	108.51	6.10	-	0.501	3.300
	120.70	130.64	9.94	-	0.380	0.801

(*) – included in the larger interval above.

Mumin prepared an updated mineral resource for the Sue-Dianne deposit in the spring of 1999. Of the 47 holes drilled by Fortune, all but 13 were used for the estimate. Those not used were drilled in areas outside the deposit or did not intersect any significant mineralization. Mumin incorporated significant results from Noranda's drilling in 1977 into the calculation. The results of the drilling and updated mineral resource increased the size of the deposit to a strike length of 450 m, a maximum down dip extent of 350 m, and a maximum thickness of 300 m. Mineral resources were increased from previous calculations and are set out in Section 6 of this report.

Fortune and Noranda have collectively drilled 61 holes at Sue-Dianne at an average spacing of 50 m along 50-m spaced sections. Since 1998, no further drilling has been carried out at the property.

11.3 DRILLING PROCEDURES

Little detailed information is available on the drilling procedures used by Noranda. However, it can be said that the results received by them are consistent with those generated by the Fortune drill program (see Section 14).

All drilling completed by Fortune at Sue-Dianne has been of the diamond drilling variety recovering core samples. All drilling was performed using BQTK-sized rods (40.7-mm diameter core).

Drill hole setups were made under the supervision of the geologist who approved the orientation of the drill rig prior to the commencement of drilling. Drill hole collars were located relative to the local staked grid which was always easy to find due the relatively wide spacing of trees.

Core was recovered and, along with footage marker blocks for each 3.05-m or 10-ft run (Imperial-sized rods were used in the drilling), was placed in wooden boxes at the drill. The boxes were wired shut and flown (slung by helicopter) to the Dianne Lake camp where a heated, weather-proof core logging facility was located. All holes were stopped under geological control.

All of the drill hole collars have been surveyed and all holes have had down hole dip measurements taken at various depths using acid tests only.

Twenty-one of the 47 holes drilled at Sue-Dianne were vertical. Corrected acid tests taken at various depths from these holes showed negligible deviation results. All holes did flatten with only two of these deviating more than 2°. The greatest degree of flattening occurred in drill hole 97012 that was drilled to a depth of approximately 322 m and flattened a total of 4°. Ninety percent of the vertical holes drilled flattened less than 2°, including 4 holes that remained vertical throughout.

A total of 8 holes were drilled at inclinations between 60° and 65° and showed consistent steepening, with the exception of one hole (98032), which flattened 1°. This happened to be the shortest hole drilled at 60° (to a depth of approximately 113 m). The remaining 7 holes steepened with the average degree of steepening of 1.21°. Only 97007, which was drilled at 71° showed a greater steepening of 4° over a total depth of approximately 316 m.

The remaining 17 holes drilled at Sue-Dianne were at inclinations between 45° and 53°, with 10 of these drilled between 50° and 53° and the remaining 7 holes drilled at 45°. All but 3 of these holes flattened. While 2 of the holes drilled between 50° and 53° steepened, 80% of them flattened an average of 3.38°. Those holes drilled at 45° inclinations showed less variation with an average flattening of only 2.17°. Only one of the holes drilled at 45° showed steepening. Drill holes 98046 (45°) and 98047 (50°) were 2 of the 3 holes that showed steepening rather than the regular flattening. This may be attributed to their being drilled outside of the deposit area, testing geophysical targets in slightly less altered rock.

All drilling on the Sue-Dianne property was concurrent with drilling on Fortune's nearby NICO property at Lou Lake, 25 km to the south-southeast. While modifications were made to drilling procedures at NICO in the year 2000, including Gyro downhole survey equipment and larger diameter drill core with a stabilized barrel, these were not implemented in the early drilling at Sue-Dianne. As a result, somewhat less accurate data may be available for those holes drilled at Sue-Dianne in 1997 and 1998. However, the holes at Sue-Dianne are all relatively short and, therefore, this is not believed to be a serious cause for concern in the resource estimate presented herein.

12.0 SAMPLING METHOD AND APPROACH

Sampling of mineralization within the study area has been conducted by surface trenching and diamond drilling methods. Little of the surface sampling occurred within what was eventually modelled in the geological domains for the mineral resource estimate presented in this report. This was due largely to the capping felsic volcanics. Therefore, almost all of the samples used for the 2004 mineral resource estimate come from drill core. Only 0.39% of the total database and 0.03% of the extracted database from the modelled mineralized domains (3 samples out of 9,308) is composed of trench samples. The descriptions herein will concentrate on the core sampling.

12.1 CORE LOGGING

Prior to sampling, all core was logged at the Dianne Lake camp located on the Sue-Dianne lease at the south end of Dianne Lake. The following items are checked and/or recorded by the logging geologists:

- Check blocking of all core (footage measurement blocks from drillers).
- Convert feet measurements to metres.
- Consolidate core and line up fractures and joints.
- Note recovery and rock quality designation (RQD) on holes drilled (began in the summer of 1998).
- Test all core with a magnet to determine areas of absent, weak, moderate or strong magnetism.
- Describe the principal lithologies present and their locations.
- Lay out sample intervals. Samples were generally 3 m in length but with minor variances allowed for lithology breaks and missing core. Earlier drilling had used some

longer intervals up to 4 m in length for samples that were unlikely to contain significant metal enrichment, but which required analytical verification.

- Describe the intervals of sulphide mineralization as well as stratigraphic and structural intervals by zone.

Logging of core at Sue-Dianne consisted of measuring and separating the core into lithological units, describing specific characteristics of each unit including rock type, iron oxide enrichment, alteration and mineralization. Any structural significance was also noted. No numeric code was implemented while logging the core but was later incorporated into the Gemcom database upon its creation. Rock types were designated a specific numeric code and further sub-divided with a, b, or c subtype descriptions depending on certain characteristics. The alpha-numeric lithologic codes used in the Gemcom database in order to create individual sections are set out in Table 12.1 below.

Table 12.1
Lithologic Logging Codes Used in Database

Numeric Code	Lithology	Lithological Sub Classification
1	Ignimbrite Assemblage	a. Welded Tuff b. Feldspar ± Quartz Crystal Tuff
2	Altered, Brecciated Rhyodacite Ignimbrite	a. Welded Tuff b. Feldspar ± Quartz Crystal Tuff
3	Silicified, Mineralized Iron Oxide-Rich Breccia	a. Fracture Breccia b. Clast-Supported Breccia c. Matrix-Supported Breccia
4	Polymictic, Mineralized Iron Oxide-Rich Breccia	a. Clast-Supported Breccia b. Matrix-Supported Breccia
5	Mineralized Iron Oxide-Rich Breccia	a. Fracture Breccia b. Clast-Supported Breccia c. Matrix-Supported Breccia
6	Quartz-Epidote Breccia	a. Fracture Breccia b. Clast-Supported Breccia c. Matrix-Supported Breccia
7	Intrusions	a. Plagioclase-Quartz-Amphibole Porphyry (Trachyte) b. Potassium-Quartz Porphyry c. Plagioclase-Amphibole Porphyry

Sample intervals were also categorized according to the amount of sulphide mineralization within the interval. Those categories are set out in Table 12.2 below.

Table 12.2
Mineralization Logging Codes

Mineralization Category	Sulphide %
Trace mineralization	Trace
Weakly mineralized	< 2.0
Moderately mineralized	2.0 to 5.0
Strongly mineralized	> 5.0

The logging was performed, or in some cases overseen, by Fortune geologists, principally John Camier, Kim Cunnison and Hamid Mumin, all of whom were/are long term consultants to Fortune and familiar with most phases of the project.

12.2 CORE SAMPLING

The sampling of drill core was conducted by a technician and supervised by the respective logging geologists. All sampling was performed in a nearby, heated, self-contained core splitting facility adjacent to the logging facilities at the Dianne Lake camp.

Splitting of core was carried out using both a diamond blade saw and a conventional guillotine type, knife blade splitter. Intervals of increased mineralization were cut with the saw, when available, but otherwise split in order to minimize cost as well as being constrained by weather conditions. Most of the core from the drill holes was sampled. Sample intervals generally ranged between 3 to 4 m and were usually continuous through lithological breaks, porphyritic dyke intrusions and visually non-mineralized zones.

Drill core samples were split with half of the sample remaining in the core box while the other half was bagged and sent for assay. Samples intervals were bagged individually and labelled in heavy plastic bags and then placed, in numerically ordered groups, into large “rice bags” for shipment. Samples were shipped to Yellowknife by float plane in summer or pickup truck in winter, where they were palletized and shipped by transport truck to the assay laboratory.

No compositing was performed on any of the Sue-Dianne sample intervals prior to assaying.

Once sampled, the core boxes and remaining core were taken to an outdoor core storage area where they were stacked on large timbers or worn drill rods. Core was stacked in piles of approximately 10 boxes and separated by drill hole number. The boxes were elevated off the ground in order to promote ventilation and help prevent rot.

13.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

All sample preparation and primary assaying of drill core from the 1997 and 1998 programs were performed at ALS Chemex Canada Limited in North Vancouver (ALS Chemex). ALS Chemex laboratories in North America are registered to ISO 9001:2000, ensuring a “quality management system covering all aspects of our organization” (ALS Chemex, 2007). In

addition to the aforementioned registration, the ALS Chemex laboratory located in North Vancouver, has received ISO 17025 accreditation from the Standards Council of Canada under CAN-P-1579 “Guidelines for Accreditation of Mineral Analysis Testing Laboratories” (ALS Chemex, 2007).

13.1 PREPARATION

All sample preparation after splitting of core at site was conducted by ALS Chemex at its facilities in North Vancouver. Fortune employees carried out the splitting of core in a separate facility at the Sue-Dianne camp after geological logging was completed.

The sample preparation for all samples received employed a standard crushing and grinding procedure used at ALS Chemex described by the codes 294 and 208 at that time. Code 294 is described as a 4 to 7 kg sample crushed and split. Once the sample is split it undergoes the assay grade ring grind (code 208) of a 200 to 300 g crushed sample split. The grinding was using a ring mill pulverizer with a chrome steel ring set. The ALS Chemex specification for this procedure is greater than 95% of the ground material passing through a 106 micron (Tyler 150 mesh) screen. ALS Chemex reports that grinding with chrome steel ring may impart trace amounts of iron and chromium into the sample (ALS Chemex, 2007).

13.2 ANALYSIS

In addition to being analyzed for copper, silver and gold, early samples of drill core from the 1997 summer program at Sue-Dianne were commonly analyzed for uranium and molybdenum. As well a number of samples were analyzed using ALS Chemex’s 24 element inductively coupled plasma (ICP) method. As the program progressed, by the spring of 1998, it was determined that there was not an appreciable amount of uranium, molybdenum or any other element found in the drill core samples and analyzed for using the ICP method. Therefore, samples sent for analysis beyond drill hole SD98016 were generally analyzed for copper, silver and gold.

Analyses for silver and gold by atomic absorption (AA, ALS Chemex codes 386 and AA23, respectively) used the same method from the beginning of the drilling program in 1997 to its completion in 1998. During the summer program of 1998, the method of analysis for copper changed from code 301 to code 3501 so that the detection limit could be lowered from 0.01% to 0.001%. Molybdenum and uranium analyses used ALS Chemex method 306 and 152, respectively. The information on the methodology employed in these methods, as presented by ALS Chemex, is summarized below.

13.2.1 Copper, Silver and Molybdenum

A prepared sample (0.2 - 2.0 g) is digested with concentrated nitric acid for one half hour. After cooling, hydrochloric acid is added to produce aqua regia and the mixture is then digested for an additional hour and a half. An ionization suppressant is added if molybdenum is to be measured. The resulting solution is diluted to volume (100 or 250 ml) with demineralized

water, mixed and then analyzed by atomic absorption spectrometry against matrix-matched standards. The detection limits and method codes are summarized in Table 13.1 below.

Table 13.1
ALS Chemex Method Cu-301/Cu-3501/Mo-306/Ag-386 Summary

ALS Chemex Code	Element	Symbol	Lower Detection Limit	Upper Detection Limit	Units
301	copper	Cu	0.01	100	%
3501	copper	Cu	0.001	100	%
306	molybdenum	Mo	0.001	100	%
386	silver	Ag	0.3	350	g/t

13.2.2 Uranium

A prepared sample (1.000 ± 0.001 g) is weighed into a polyethylene vial. The vial is heat sealed and irradiated (together with internationally recognized standards as well as in house standards) in a thermal neutron flux of not less than 1.0E+12 neutrons per square centimetre per second, for 15 seconds. Due to its short half-life, uranium is counted 10 seconds after irradiation by measuring neutrons emitted during fission. The uranium activity is determined by the number of counts per sample and compared to the activity found in the standards that were irradiated under identical flux conditions. The detection limit and method code are summarized in Table 13.2 below.

Table 13.2
ALS Chemex Method U-152 Summary

ALS Chemex Code	Element	Symbol	Lower Detection Limit	Upper Detection Limit	Units
152	uranium	U	0.2	10,000	ppm

13.2.3 Gold

A prepared sample pulp is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver (additional silver must be added to increase the silver content of the bead in order to allow later parting of the gold with nitric acid). The resulting lead button is then cupelled in a second furnace to yield a precious metal bead. Both 30 g and 50 g pulps were used during the program.

The bead is digested in 0.5 ml of dilute nitric acid in a microwave oven, 0.5 ml concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 4 ml with de-mineralized water, and analyzed by atomic absorption spectroscopy against matrix-matched standards. The detection limits and method codes are summarized in Table 13.1 below.

Table 13.3
ALS Chemex Method Au-AA23/Au-AA24 Summary

ALS Chemex code	Element	Symbol	Sample Weight (g)	Lower Detection Limit	Upper Detection Limit	Units
AA23	gold	Au	30	0.005	10.0	ppm
AA24	gold	Au	50	0.005	10.0	ppm

13.3 QUALITY CONTROL

ALS Chemex maintains an internal Quality Assurance (QA) program. In a Quality Assurance Overview dated May, 2007, ALS Chemex describes this program as follows (ALS Chemex, 2007):

“The quality function is an integral part of all day-to-day activities at ALS Chemex and involves all levels of staff. Responsibilities are formally assigned for all aspects of the quality assurance program. As well, all senior staff is expected to actively participate in the quality program through regular Quality Assurance and Technical Meetings.”

“Sample Preparation Quality Specifications”

“Standard specifications for sample preparation are clearly defined and monitored. The specifications are as follows:

- Crushing: >70% of the crushed sample passes through a 2 mm screen.
- Ringing: >85% of the ring pulverized sample passes through a 75 micron screen (Tyler 200 mesh)
- Samples Received as Pulps: >80% of the sample passes through a 75 micron screen (Tyler 200 mesh)

These characteristics are measured and results reported and logged to verify the quality of sample preparation. Our standard operating procedures require that at least one sample per day be taken from each sample preparation station. Measurements of sample preparation quality allows the identification of equipment, operators and processes that are not operating within specifications.”

“QC results from all sample preparation laboratories are reported to the QC department monthly. The data is combined and reported to senior management for monthly review of the performance of each preparation laboratory.”

“Other Sample Preparation Specifications”

“Sample preparation is a vital part of any analysis protocol. Many projects require sample preparation to other specifications for instance >90% of the crushed sample to pass through a 2 mm screen. These procedures can easily be accommodated and the Prep QC monitoring system is essential in ensuring the required specifications are routinely met.”

“Analytical Quality Control – Reference Materials, Blanks & Duplicates”

“The Laboratory Information Management System (LIMS) inserts quality control samples (reference materials, blanks and duplicates) on each analytical run, based on the rack sizes associated with the method. The rack size is the number of samples including QC samples included in each batch. The blank is inserted at the beginning, standards are inserted at random intervals, and duplicates are analysed at the end of the batch. Quality control samples are inserted based on the following rack sizes specific to the method:”

**Table 13.4
ALS Chemex Quality Control Sample Frequency**

Rack Size	Methods	Quality Control Sample Allocation
20	Specialty methods including specific gravity, bulk density, and acid insolubility	2 standards, 1 duplicate, 1 blank
28	Specialty fire assay, assay grade, umpire and concentrate methods	1 standard, 1 duplicate, 1 blank
39	XRF methods	2 standards, 1 duplicate, 1 blank
40	Regular AAS, ICP-AES and ICP-MS methods	2 standards, 1 duplicate, 1 blank
84	Regular fire assay methods	2 standards, 3 duplicate, 1 blank

“The laboratory staff analyses quality control samples at least at the frequency specified above. If necessary, laboratory staff may include additional quality control samples above the minimum specifications.”

“All data gathered for quality control samples - blanks, duplicates and reference materials - are automatically captured, sorted and retained in the QC Database.”

“Quality Control Limits and Evaluation”

“Quality Control Limits for reference materials and duplicate analyses are established according to the precision and accuracy requirements of the particular method. Data outside the control limits are identified and investigated and require corrective actions to be taken. Quality control data is scrutinised at a number of levels. Each analyst is responsible for ensuring the data submitted is within control specifications. In addition, there are a number of other checks.”

“Certificate Approval”

“If any data for reference materials, duplicates, or blanks falls beyond the control limits established, it is automatically flagged red by the computer system for serious failures, and yellow for borderline results. The Department Manager(s) conducting the final review of the Certificate is thus made aware that a problem may exist with the data set.”

“Precision Specifications and Definitions”

“Most geochemical procedures are specified to have a precision of $\pm 10\%$, and assay procedures $\pm 5\%$. The precision of Au analyses is dominated by the sampling precision.”

“Precision can be expressed as a function of concentration:”

$$P_c = ((\text{Detection Limit}/c) + P) \times 100\%$$

where P_c = the precision at concentration c

c = concentration of the element

P = the “Precision Factor” of the element. This is the precision of the method very high concentrations, i.e. 0.05 for 5%

“As an example, precision as a function of concentration (10% precision) is plotted for three different detection limits. The impact of detection limit on precision of results for low-level determinations can be dramatic. [Table not included here.]”

“Evaluation of Trends”

“Control charts for frequently used method codes are generated and evaluated by the QA Department and distributed to the Departmental managers for posting in the lab and review on a weekly basis. The control charts are evaluated to ensure internal specifications for precision and accuracy are met. The data is also reviewed for any long-term trends and drifts.”

“External Proficiency Tests”

“Proficiency testing provides an independent assessment of laboratory performance by an outside agency. Test materials are regularly distributed to the participants, ideally four times a year, and results are processed by a central agency. The results are usually converted to some kind of score, such as Z-scores.”

“All ALS Chemex analytical facilities in North America participate in proficiency test for the analytical procedures routinely done at each laboratory. ALS Chemex has participated in several rounds of proficiency tests organized by organizations such as Canadian Certified Reference Materials Projects, and Geostats as well as a number of independent studies organized by consultants for specific clients. We have also participated several certification studies for new certified reference materials by CANMET and Rocklabs.”

“ALS Chemex has obtained the highest rating for the results submitted with a few minor exceptions. Feedback from these studies is invaluable in ensuring our continuing accuracy and validation of method.”

“Quality Assurance Meetings”

“A review of quality assurance issues is held regularly at Technical and Quality Assurance Meetings. The meetings cover such topics as:

- Results of internal round robin exchanges, external proficiency tests and performance evaluation samples
- Monitoring of control charts for reference materials
- Review of sample preparation quality control results from all branch offices

- Review of quality system failures
- Incidents raised by clients
- Results of internal quality audits
- Other quality assurance issues

The quality Assurance Department and senior management participate in these meetings, either in person or by teleconference.”

13.4 SPECIFIC GRAVITY

K. Law from the University of Western Ontario calculated an average specific gravity (SG) based on a number of sample intervals from holes drilled in 1997. The samples used in the calculation were dried at 110° C for a minimum of 12 hours. Once dried, the apparatus used involved a sample holder being immersed in distilled water and the balance zeroed. The sample was then placed on a ceramic disk and immersed. The weight of the water that was displaced was recorded.

Calculation = weight sample dry (g) / weight water displaced (g)

With a 1% weighting to sample 97-11 box 23 163 m (SG = 4.928), the weighted average was found to be 2.80 g/cm³. Results of the calculations are presented in Table 13.5 below.

Table 13.5
Specific Gravity Calculations - 1997 Sue-Dianne Drill Core Intervals

Sample Measurement #	Dry			Water			Density			Density Average
	1	2	average	1	2	3	1	2	3	
97-3, bx 14, 100m	10.000	9.999	10.000	3.455	3.435	3.421	2.894	2.911	2.923	2.909
97-4, bx 7, 7m	18.797	18.799	18.798	6.902	6.916	6.914	2.723	2.718	2.719	2.720
97-4, bx 8, 50.30m	9.107	9.107	9.107	3.372	3.385	3.377	2.701	2.690	2.697	2.696
97-2, bx 7, 45m	9.002	9.001	9.001	3.051	3.055	3.069	2.950	2.946	2.933	2.943
97-11, bx 23, 163.5m	8.100	8.099	8.099	2.784	2.742	2.744	2.909	2.954	2.952	2.938
97-11, bx 23, 163m	15.763	15.762	15.762	3.204	3.192	3.200	4.920	4.938	4.926	4.928
97-4, bx 8, 56.40m	5.143	5.143	5.143	1.867	1.846	1.858	2.755	2.786	2.768	2.770
97-2, bx 7, 51.5m	10.971	10.970	10.971	3.816	3.817	3.814	2.875	2.874	2.876	2.875
SD-2, bx 7, 49m	9.092	9.092	9.092	3.331	3.364	3.362	2.730	2.703	2.704	2.712
97-4, bx8, 52m	3.052	3.052	3.052	1.163	1.153	1.150	2.624	2.647	2.654	2.641
97-3, bx 14, 84.96m	13.554	13.553	13.554	4.875	4.887	4.872	2.780	2.773	2.782	2.779
97-11, bx 23, 161.3m	7.927	7.927	7.927	2.976	2.983	2.973	2.664	2.657	2.666	2.663
Average										2.96
Average with 4.928 removed										2.79

In 1999, Lakefield Research Limited (Lakefield) of Lakefield, Ontario also calculated the specific gravity for two drill hole composites prepared from core rejects while testing for the recovery of copper from Sue-Dianne samples. Two composites were prepared, one using an interval of low-grade ore from drill hole SD 97-02 and one using an interval of high-grade ore from drill hole SD 97-04. Results of the tests by Lakefield are summarized in the table below.

Table 13.6
Specific Gravity Results by Lakefield on Sue-Dianne Core Rejects

Hole ID	Sample Interval (m)	Cu (%)	Mo (%)	Fe (%)	S (%)	Au (g/t)	Ag (g/t)	Specific Gravity (g/cm ³)
SD97-02 (low grade)	43.46 to 184.46	0.97	0.010	11.5	0.77	<0.02	1.4	2.74
SD97-04 (high grade)	39.61 to 63.61	1.62	0.002	5.11	0.48	0.35	6.5	2.68

The specific gravity calculated for the composite samples of low-grade ore and high-grade ore were determined as 2.74 g/cm³ and 2.68 g/cm³, respectively (Lakefield, 1999).

Micon has chosen to use 2.80 as the specific gravity for the resource estimate.

14.0 DATA VERIFICATION

14.1 NORANDA DATA VERIFICATION

Little is known about the quality assurance/quality control (QA/QC) procedures employed by Noranda. Micon has visually compared Noranda's drill results to the surrounding holes by Fortune and has found no material differences overall. Fortune has also twinned one Noranda drill hole. The results of this are discussed in Section 14.2.2 below.

14.2 FORTUNE DATA VERIFICATION

14.2.1 Quality Assurance/Quality Control

Fortune has relied upon the internal QA/QC program from ALS Chemex, as described in Section 14 above, for quality controls on the assaying program at Sue-Dianne.

As previously, stated drilling on the Sue-Dianne property was concurrent with early drilling on Fortune's nearby NICO property in 1997 and 1998. At the recommendation of an independent consultant doing a resource review on the NICO property, Fortune commenced its own internal QA/QC program in 2000. This program involved the insertion of known standards and blanks into sampled intervals of NICO drill core. By the time this program was underway, all drilling had ceased on the Sue-Dianne property. As a result no internal program of quality control was carried out on samples of Sue-Dianne drill core by Fortune.

Based on the QA/QC results from the later drilling programs carried out at the NICO property, some confidence is placed on ALS Chemex's degree of accuracy and precision for samples analyzed from Sue-Dianne drill core.

14.2.2 Twinned Drill Holes

One of the first holes (SD 97-02) that Fortune drilled in the summer of 1997 was to twin one of the older Noranda holes (S5) in an attempt to reproduce earlier grades for similar intervals. Both holes were drilled vertically, are approximately 19 m apart and differ in elevation by approximately 3.4 m (Table 14.1). At 19 m separation this would have to be considered a “near-twin” rather than a true twinned hole. While Fortune’s hole SD97-02 was drilled to a greater depth and the first few sample intervals from Noranda’s hole S5 were not continuous, copper grade comparisons were made and are illustrated in Table 14.2 below.

Table 14.1
UTM Coordinates, Length and Dip of Comparison Holes

Hole ID	X (m)	Y (m)	Z (m)	Length (m)	Dip (°)
S5	504340.77	7070308.82	250.40	284.99	90
SD97-02	504348.50	7070326.75	253.97	375.51	90

Table 14.2
Noranda vs. Fortune Drill Hole Comparison by Copper Grade

Noranda S5				Fortune SD97-02			
From (m)	To (m)	Distance (m)	Cu (%)	From (m)	To (m)	Distance (m)	Cu (%)
23.77	288.04	264.27	0.645	23.46	289.46	266.00	0.729
23.77	99.97	76.20	0.714	23.46	100.46	77.00	0.747
99.97	174.65	74.68	0.670	100.46	175.46	75.00	1.060
174.65	288.04	113.39	0.581	175.46	289.46	114.00	0.490

Broadly similar grades and widths can be seen in the copper grades for the two drill hole intersections. Micon considers this to be good agreement considering the 19 m separation of the two holes.

14.2.3 Comparison of Drilling to Metallurgical Testwork

Two sample intervals from SD 97-02 and SD 97-04 were analyzed by Lakefield during investigations into the recovery of copper from Sue-Dianne drill core samples (see Section 16). Comparisons of average grades were made between the Fortune assay results and those results by Lakefield and are set out in Table 14.3 below.

Table 14.3
Comparison of Grade Between Lakefield and Fortune

Hole ID	From (m)	To (m)	Distance (m)	Fortune				Lakefield			
				Cu (%)	Mo (%)	Au (g/t)	Ag (g/t)	Cu (%)	Mo (%)	Au (g/t)	Ag (g/t)
SD97-02	43.46	184.46	141.00	0.99	0.010	0.02	0.94	0.97	0.010	<0.02	1.4
SD97-04	39.61	63.61	24.00	1.90	0.002	0.73	9.41	1.62	0.002	0.35	6.5

Very similar grades were obtained from the low grade hole assays and relatively close agreement was obtained from the higher grade intersection.

14.3 PREVIOUS DATA REVIEWS

As described earlier, Mumin prepared mineral resource estimates for the Sue-Dianne deposit on two separate occasions in 1998 and 1999. During the preparation of these resource estimates, all drill hole assay and geological data for the deposit were compiled, reviewed and checked before being submitted in two separate reports.

All of the data transfer between the assay laboratory, the geology office at Fortune, and Gemcom (the program used by Fortune to plot drill holes) was electronic, with no human intervention other than to check for errors.

14.4 DATABASE CHECKS

The database used for the present resource estimate has been created in Gemcom. Eugene Puritch, who has operated the software for the estimate presented herein has also used Gemcom to interpolate grade into the block model prior to pit optimization by Whittle.

In addition to the database checks by Fortune described above, the database was also checked by Mr. Puritch using Gemcom. Gemcom has utilities for checking database integrity such as missing entries, crossed from/to intervals, improper characters in assay fields and improper coding of lithologies or other descriptive elements. These utilities were used to ensure the suitability of the database for resource estimation after all drill data was compiled.

Micon also spot checked a selected number of assay entries from original assay certificates for entry errors. No material errors were discovered.

14.5 CHECK SAMPLES

A review of mineralized intersections conducted by Micon in the Sue-Dianne project drill core library clearly shows the presence of extensive copper sulphide mineralization in a hydrothermally altered and brecciated rock consistent with the mineralization descriptions given above. Iron oxide- and chalcopyrite-filled breccias are clearly visible in drill core. However, visible native gold is very rare.

Micon chose to collect a composite chip sample of exposed surface mineralization from outcrop at the Sue-Dianne deposit to confirm the presence of copper and silver. Micon collected this sample from a copper oxide-stained outcrop personally and maintained full chain-of-custody of it until delivery to the laboratory. The sample was prepared at ALS Chemex, Sudbury and analyzed at its Vancouver laboratory facility. For this analysis gold was determined by fire assay-AA finish on a 50 g sample, silver was determined by a four acid leach and AA finish and copper and iron were determined as part of a multi-element ICP-AES

(ICP with atomic emission spectroscopy detection) package with four acid digestion. Table 14.4 below presents the results of the analyses for Micon’s sample.

Table 14.4
Results of Micon Due Diligence Sample Assays

	Au (g/t)	Ag (g/t)	Cu (%)	Fe (%)
Sue-Dianne chip sample	0.015	1.6	0.493%	7.74%

The check sample collected from surface outcrop by Micon has demonstrated the presence of copper and silver mineralization in approximately similar grade ranges to those predicted by the Noranda and Fortune drill logs and which is consistent with the previously presented resource estimates. The gold assay, while anomalous, is somewhat low. However, gold is known to occur in a patchy manner throughout the deposit and is generally found in the presence of higher copper values.

15.0 ADJACENT PROPERTIES

As described earlier in this report there is another IOCG deposit in the district known as NICO, which is controlled by Fortune. It is located some 25 km south-southeast of Sue-Dianne. The NICO deposit has been the subject of a recent full feasibility study (Micon, 2007) and Fortune has purchased a used mill which is to be moved to the site.

Although being somewhat dissimilar in mineralogy, initial metallurgical testwork for Fortune indicates that the circuit, with minimal modification, may be able to process the Sue-Dianne mineralization after mining at NICO is completed. As such, the mining fleet and mill complex at NICO could potentially be used to mine and process any Sue-Dianne ore, thereby significantly reducing the capital cost for such an operation. These assumptions, and certain costs from the NICO feasibility study, have been used in the Sue-Dianne mineral resource estimate presented herein.

16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

In 1998 and 1999, Fortune contracted Lakefield to conduct initial tests on the recovery of copper from an “ore sample” from the Sue-Dianne deposit and on the metallurgical response of a concentrate produced from that sample.

Two composite samples from drill hole core sample rejects were submitted for testwork. The samples came from holes SD 97-02 and SD 97-04, the former being a “low grade ore” and the latter being a “high grade ore”. A composite of the two holes was prepared and was referred to as Composite SD 97. The analytical assay results for the samples are set out in Table 16.1 below.

**Table 16.1
Composite Sample Analyses**

Sample	Cu (%)	Mo (%)	Fe (%)	S (%)	Au (g/t)	Ag (g/t)
SD 97-02	0.97	0.010	11.5	0.77	<0.02	1.4
SD 97-04	1.62	0.002	5.11	0.48	0.35	6.5
Composite SD 97	1.09	0.009	-	0.80	0.12	2.2

Flotation testwork was conducted on the hole composites to determine recovery to concentrate. Lakefield observed that:

“On composite 97-02, high recoveries of copper could be achieved with a simple reagent scheme of collector and frother. Composite grades could be increased to +30% Cu with a regrind of the rougher concentrate and batch test recoveries were +90% at this grade.”

“The response of Composite 97-04 was also very good with higher grade concentrates achievable because of the bornite and other secondary copper minerals present. A concentrate grade of 45% Cu with 92% recovery (as well as 81% and 76% Au and Ag recoveries, respectively) was achieved in batch tests.”

Eighty kilograms of Composite SD 97 was also processed to produce concentrate for hydrometallurgical testwork. Ten tests were run with copper recoveries consistently over 90%. Lakefield concluded the following about the hydrometallurgical recovery of copper from these concentrates.

“Metallurgical testwork was carried out on Sue-Dianne copper concentrate to investigate its response to pressure oxidative leaching and cyanidation. Testwork was also carried out on composite samples of NICO cobalt concentrate and Sue-Diane copper concentrate.”

“The Sue-Dianne copper concentrate subjected to pressure oxidative leaching at 180° C for 2 hours produced copper recoveries ranging from 98 to 99%. The gold was recovered by subsequent cyanidation at efficiencies ranging from 88 to 90%. The final tailings assayed from 0.5 to 0.8% Cu and from 0.1 to 0.3 g/t Ag. TCLP tests on the final tailings sample indicated it could be classified as “non-hazardous” as defined by regulation 347.”

The NICO/Sue-Dianne concentrate blends were examined as part of a test to see if both deposits could be mined at the same time and blended together into one mill. That scenario is no longer planned and is not considered in this resource estimate.

The tests conducted for the Sue-Dianne ores broadly conform to the proposed process scenario at NICO (Micon, 2007). Micon has therefore concluded that, at this preliminary stage, it is reasonable to expect the Sue-Dianne ores to be processable at the NICO mill with minor modifications.

17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

Micon has supervised the estimation of mineral resources for the Sue-Dianne deposit located approximately 25 km from Fortune's NICO project. The estimate presented herein used data and a geological interpretation provided by Fortune's geological personnel.

17.1 MINERAL RESOURCE ESTIMATION METHODOLOGY

17.1.1 Database

The drill hole data used for the resource estimation were provided by Fortune in the form of Excel files and an Access database which contained 62 diamond drill holes. Of these, 45 were used for resource modeling purposes. The remaining holes were not within the mineralized domain of the Sue-Dianne deposit, the area to be modeled. The database was validated in Gemcom and, with a few minor corrections, was brought to an error free status. The database included assays for copper, gold and silver.

Figure 17.1 below shows a plan view of the drill holes used in the Sue-Dianne deposit resource estimate and the constraining mineralized domain solid that was used to extract the portion of the assay database to be used for grade interpolation (see Section 17.1.2). Figure 17.2 shows a three-dimensional (3D) isometric view of the drill hole intersections within and nearby the mineralized domain solid.

Topographic surface data were provided by Fortune geological personnel from ground based surveying in the form of a Gemcom 3D surface. Grid coordinates are in the NAD 83 system and are expressed as metric units.

17.1.2 Domain Interpretation

A geological domain model was constructed to control grade interpolation. One 3D mineralized domain solid was created. The domain boundary was determined by observations of lithology, mineralization and structure from visual inspection of drill hole sections and drill logs. There were 10 drill sections created, spaced at 50-m intervals, from -200E to 200E (a strike length of approximately 425 m). Figure 17.2 shows a 3D isometric view of the mineralized domains.

Figure 17.1
Locations of Sue-Dianne Drill Holes

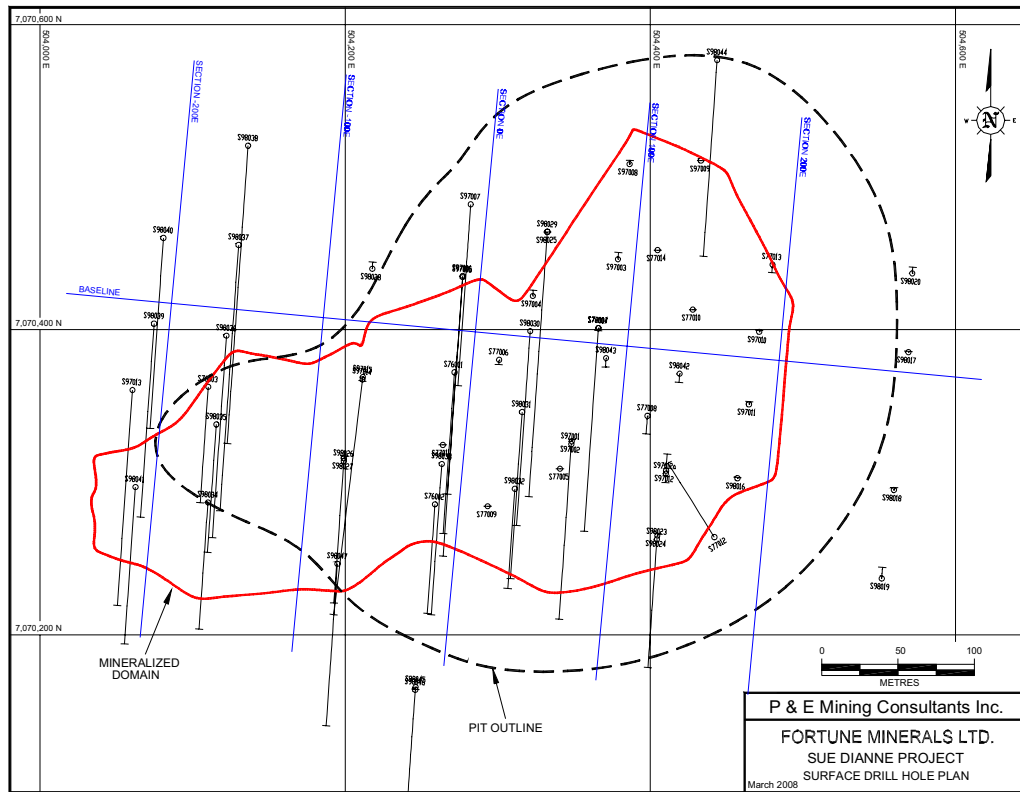
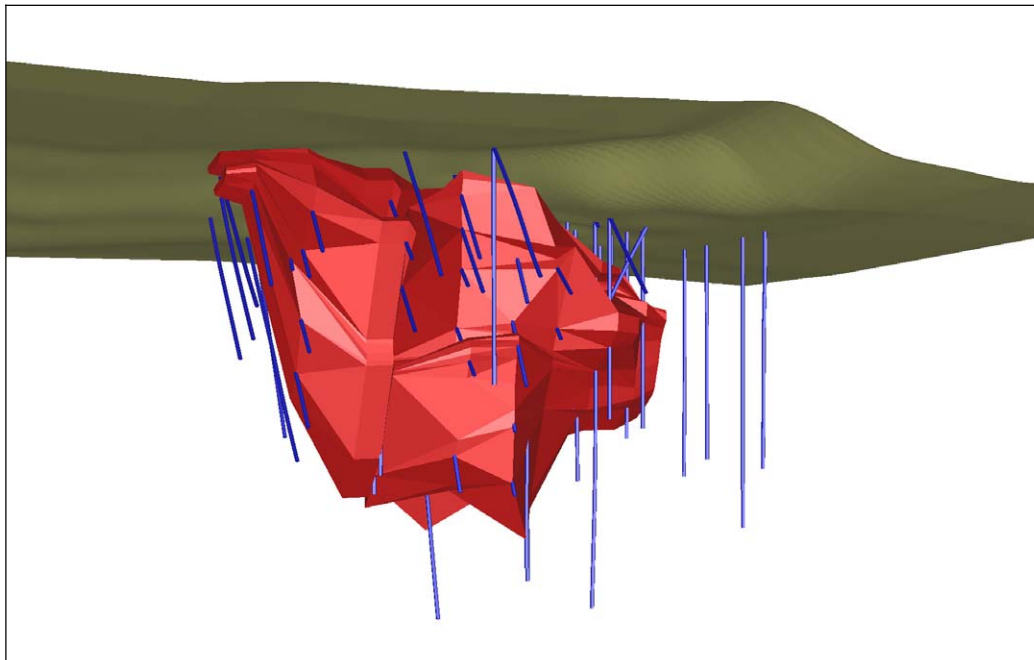


Figure 17.2
3D Isometric View Showing Mineral Domain And Drill Holes for Sue-Dianne



The 3D domain was created on computer screen by 3D digitizing on drill hole sections in Gemcom. Interpretation was performed by Eugene Puritch with input from Fortune geological staff and B. Terrence Hennessey of Micon.

On each section, polyline interpretations were digitized from drill hole to drill hole, following the overall trends of mineralization and structure from adjacent sections. Polylines were not extended further than 50 m from known drill hole data. The polylines from each drill section were wireframed into a 3D solid in Gemcom. The resulting domain was used for rock coding, geostatistical evaluation and grade interpolation purposes.

17.1.3 Rock Type Determination

The rock types used for the resource model were coded from the mineralized domain solid. The list of rock codes used is set out in Table 17.1.

Table 17.1
Block Model Rock Codes

Rock Code	Description
0	Air
10	Mineralized Domain
99	Waste

17.1.4 Grade Capping

Grade capping (top cutting) was investigated on the composited copper, gold and silver assay values within the mineralized domain in the database to ensure that the possible influence of erratic high values did not bias the database or grade estimate. The assay extractions for the mineralized domain were derived from the raw assay table of the Gemcom database. From the extraction files, log-normal histograms and probability plots were generated. In addition, sample means, standard deviations and coefficients of variation were calculated. The graphs and statistics can be seen in Appendices 1 through 4 of this report.

The statistical output and graphs were analyzed for consistent log-normally distributed populations and the point at which those populations broke down. Log-normal populations form straight lines on probability plots and the point at which data can be considered as being outliers usually can readily be determined from them. The graphs show log-normal distribution for copper, gold and silver although the copper plot is not highly skewed with a coefficient of variation of 0.99. Top cuts were selected by examining the histograms and probability plots for the grade at which outliers begin to occur. Relatively few assays were cut. The resulting capping values and the number of capped samples are listed below in Table 17.2.

Table 17.2
Grade Capping Values

Cu Cap (%)	Assays Capped	Au Cap (g/t)	Assays Capped	Ag Cap (g/t)	Assays Capped
2.6	5	0.83	10	30	8

17.1.5 Composites

Length-weighted assay composites were generated for each of the 45 drill holes that fell within the constraints of the domains mentioned in Table 17.1. Copper, gold and silver values were calculated for each composite over a length of 3.25 m. Calculation of the composites started at the first point of intersection between drill hole and hanging wall of the 3D domain constraints and was halted upon exit from the footwall of the constraint. Un-assayed intervals were treated as nulls (not zeroes) and were not utilized in the composite calculation. Any composites calculated that were less than 1.5 m in length were discarded so as to not introduce a short sample bias into the grade interpolation process. The composite data were transferred to Gemcom extraction files as X, Y, Z, Cu, Au, Ag files for use in grade interpolation.

17.1.6 Variography

Variography was carried out on the copper, gold and silver data from the constrained extraction files after compositing of the assays. Semivariograms (hereafter referred to as variograms) were constructed for the mineralized domain.

The resulting variogram models are attached in Appendices 5, 6 and 7. The search ellipsoid ranges established by the variography were sufficient to code all of the constrained mineralization with grade blocks with the indicated and inferred classifications. Search ellipse dimensions for grade interpolation were strongly influenced by the variograms.

The ranges used for grade interpolation by Ordinary Kriging are set out in Tables 17.3 and 17.4 below. Indicated resources were interpolated in a first pass and inferred resources were interpolated with a second pass with relaxed search ellipse criteria (ellipse dimensions) in order to fill the domain solid model. Only blocks not filled after the first indicated pass were interpolated in the subsequent inferred pass.

Table 17.3
Ordinary Kriging Block Model Interpolation Parameters
Indicated

Profile	Dip Direction (°)	Strike (°)	Dip (°)	Strike Range (m)	Dip Range (m)	Across Dip Range (m)	Max No. Samples Per Hole	Min No. of Samples	Max No. of Samples
Cu	345	75	-75	50	11	14	3	4	15
Au	345	75	-75	55	55	24	3	4	15
Ag	345	75	-75	35	75	40	3	4	15

Table 17.4
Ordinary Kriging Block Model Interpolation Parameters
Inferred

Profile	Dip Direction (°)	Strike (°)	Dip (°)	Strike Range (m)	Dip Range (m)	Across Dip Range (m)	Max No. Samples Per Hole	Min No. of Samples	Max No. of Samples
Cu	345	75	-75	100	22	28	3	3	15
Au	345	75	-75	110	110	48	3	3	15
Ag	345	75	-75	70	150	80	3	3	15

The search ellipsoid ranges used for the indicated and inferred resource grade interpolation, as established by the variography, were sufficient to code 100% of the blocks included in the domain constraints. Of these 60.5% of these blocks were filled by the first search ellipse pass (indicated) and 39.5% on the second pass (inferred).

17.1.7 Bulk Density

The bulk density used for the resource model at Sue-Dianne was taken from measurements undertaken by Fortune geological personnel (see Section 13.4). A bulk density block model was created with an initialized value of 2.8 tonnes per cubic metre.

17.1.8 Block Modeling

A block model framework was created with 360,000 blocks that were 10 m in the X (East-West) direction, 10 m in the Y (North-South) direction and 10.0 m in the Z (Vertical) direction. There were 100 columns (X), 90 rows (Y) and 40 levels (Z). The model was rotated 5.36° clockwise. The coordinates for the block model are in NAD 83 UTM units.

A percent block model was set up to accurately represent the volume and subsequent tonnage that was occupied by each block inside each constraining mineralized domain. As a result, the domain boundaries were properly represented by the percent model's ability to measure infinitely variable inclusion percentages within a particular domain.

The copper, gold and silver composite values were extracted from the Microsoft Access database composite tables into separate files for the mineralized domain.

The Ordinary Kriging method was employed for domain grade block interpolation. Two interpolation passes were used to determine indicated and inferred classifications. The interpolation parameters utilized varied for copper, gold and silver in each domain as described above. Contained pounds of copper and ounces of gold and silver were calculated for the estimate.

17.2 RESOURCE CLASSIFICATION

For the purposes of this resource estimate, classification was derived for the indicated and inferred search ranges and parameters of the Ordinary Kriging interpolations. Classifications

were based on the copper block coding since copper is the dominant element of value within the deposit. All of the grade blocks inside the constraining domain were coded as shown in Table 17.5 below.

Table 17.5
Grade Block Coding

Classification	Number	Percent
Indicated	7,934	60.5
Inferred	5,181	39.5
Total Blocks	13,115	100.0

17.3 MINERAL RESOURCES

The mineral resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council December 11, 2005

Under the CIM definitions, a mineral resource must be potentially economic in that it must be “in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction”. Micon has used a cutoff grade of 0.40% Cu for the reporting of the mineral resources of the Sue-Dianne deposit. This cutoff grade was based upon a simple review of the deposit geometry and the assumption that open pit mining and conventional processing at the proposed NICO project processing facility would be employed to exploit the resource.

The following calculations demonstrate the rationale supporting the copper cut-off grade that determines the potentially economic portion of the mineralized domain.

Cu Price:	\$US2.85/lb (30 month trailing average price Nov 30/07)
Mining Cost:	\$CDN2.59/rock tonne mined
Trucking to NICO Mill:	\$CDN2.40/ore tonne
Process Cost (2,500 tpd):	\$CDN14.00/ore tonne
Cu Flotation Recovery:	90%
Concentration Ratio:	37:1
Autoclave Recovery:	98.5%
Autoclave Treatment Charges:	\$CDN150/dmt(\$CDN150/37 = \$CDN4.05/ore tonne milled)
Metal Shipping:	\$CDN0.10/lb
Cu Refining Charges:	\$CDN0.15/lb
General/Administration:	\$CDN3.20/ore tonne milled
\$US exchange rate:	\$0.90

The above data were derived from the NICO feasibility study, metallurgical reports and other open pit mining operations similar to that anticipated at Sue-Dianne.

In the anticipated open pit operation, ore trucking to NICO, mill processing, G&A and autoclave treatment charges combine for a total of (\$2.40 + \$14.00 + \$3.20 + \$4.05) = \$CDN23.65/ore tonne.

Copper revenue per percent copper is calculated as follows:

$$(\text{Cu price } (\$US2.85/\text{lb})/\text{US exchange } \$0.90) - (\text{refining } (\$CDN0.15/\text{lb})) - (\text{metal shipment } (\$CDN0.10/\text{lb})) \times 22.046 \text{ lb per } \% \times \text{process recovery } (90\%) \times \text{autoclave recovery } (98.5\%) = \$CDN57.00 \text{ per } \% \text{ Cu}$$

Therefore, the calculated copper cutoff grade is $\$CDN23.65/\$CDN57.00 = 0.41\%$ Cu. A cutoff grade of 0.40% Cu was used.

In order for the mineralization in the Sue-Dianne model to be considered a resource which is potentially economic, a Whittle 4X pit optimization was carried out utilizing the following criteria:

Waste mining cost per tonne:	\$CDN2.59
Ore mining cost per tonne:	\$CDN2.59
Site costs per ore tonne:	\$CDN23.65
Process production rate (ore tonnes per year):	1,400,000
Pit slopes:	55°
Mineralized Rock Bulk Density:	2.80 t/m ³
Waste Rock Bulk Density:	2.80 t/m ³
Cu revenue per % Cu:	\$CDN57.00

The resulting mineral resource estimate can be seen in table 17.6 below.

Table 17.6
Sue-Dianne Mineral Resources
(at a Cu Cutoff Grade of 0.40%)

Classification	Tonnes	Cu (%)	Au (g/t)	Ag (g/t)	Cu (million lbs)	Au (oz)	Ag (oz)
Indicated	8,444,000	0.80	0.07	3.2	149.1	19,000	855,000
Inferred	1,620,000	0.79	0.07	2.4	28.3	3,600	122,000

(1) Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socioeconomic, political, marketing, or other relevant issues.

(2) The quantity and grade of reported inferred resources in this estimation are uncertain in nature and there has been insufficient exploration to define these inferred resources as an indicated or measured mineral resource and it is uncertain if further exploration will result in upgrading them to an indicated or measured mineral resource category.

These mineral resources are based on assay data which were collected in the late 1990's and engineering studies from the 1990's up to 2007. They, and the resulting mineral resources, are believed to be current as of December, 2007.

All the model blocks were coded as indicated or inferred resources with the geological domain model showing good continuity from hole to hole and section to section. Sections and plan views of the block model, showing copper grades and resource classifications are provided in Appendices 8 and 9 of this report.

In order to investigate the sensitivity of the mineral resource estimate to cutoff grade, the in pit block model was reported at several other copper cutoff grades. The results of that analysis are set out in Table 17.7 below.

Table 17.7
Sensitivity Analysis To Cutoff Grade for Sue-Dianne Mineral Resource

CutOff (Cu %)	Tonnes	Grade		
		Cu (%)	Au (g/t)	Ag (g/t)
1.0	2,273,240	1.27	0.01	3.8
0.9	3,067,554	1.19	0.09	3.8
0.8	4,086,668	1.10	0.08	3.6
0.7	5,442,658	1.01	0.08	3.6
0.6	6,962,346	0.93	0.07	3.4
0.5	8,493,217	0.86	0.07	3.2
0.45	9,312,052	0.83	0.07	3.1
0.40	10,064,045	0.80	0.07	3.0
0.35	10,727,426	0.77	0.07	2.9
0.30	11,324,242	0.75	0.07	2.9
0.25	11,855,083	0.73	0.07	2.8
0.20	12,327,558	0.71	0.07	2.7
0.15	12,652,463	0.70	0.06	2.7
0.10	12,758,208	0.69	0.06	2.7
0.05	12,785,304	0.69	0.06	2.7
0.001	12,785,304	0.69	0.06	2.7

Note: The highlighted row is the cutoff grade used to report the mineral resources.

The deposit for which mineral resources have been determined at Sue-Dianne is a relatively recent discovery. Micon is unaware of any attempt to ever permit a mine at the site. Micon is not aware of any environmental, permitting, legal, title, taxation, socioeconomic, marketing or political issues that could adversely affect the mineral resources estimated herein

17.4 CONFIRMATION OF ESTIMATION

As a test of the reasonableness of the estimate the block model was queried at a 0.001% copper cutoff and all blocks were summed and their grades weight averaged. This average is the average grade of all blocks within the mineralized domain. The values of the interpolated grades for the block model were compared to the length weighted capped average grades of all assays and composites within the domain. The results are presented in Table 17.8 below.

Table 17.8
Comparison of Weighted Average Grade of Raw Assays and Capped Composites
to Total Block Model Average Grade

Category	Cu (%)	Au (g/t)	Ag (g/t)
Raw Assays	0.547	0.054	3.18
Capped Composites	0.536	0.042	2.40
Block Model	0.493	0.039	2.05

The comparison above shows the average grade of all the blocks in the domains to be reasonably close to the weighted average assays and composites of all samples used for grade estimation. The block model values will reduce any clustering effect and is invariably the more reliable grade value.

In addition, a confirmation exercise to verify the block model volume against the geometric volume of the 3D mineralized domain solid was carried out with results indicated below.

Table 17.9
Comparison of Model Volumes

Block Model Volume	9,785,626 m ³
Geometric Domain Volume	9,786,697 m ³
Difference	0.011%

17.5 RESPONSIBILITY FOR ESTIMATION

The mineral resource estimate presented in this report was prepared by Eugene Puritch, P.Eng. and Antoine Yassa, P.Geo., both of P&E, under the overall direction and responsibility of B. Terrence Hennessey, P.Geo, of Micon. Neither Mr. Hennessey, nor Mr. Puritch and Mr. Yassa, have any relationship with Fortune, except as independent consultants.

17.6 MINERAL RESERVES

Sue-Dianne has not been the subject of a prefeasibility or feasibility study and, therefore, mineral reserves have not been determined.

18.0 OTHER RELEVANT DATA AND INFORMATION

All relevant data and information in regard to the exploration activities on and mineral resource estimate for the Sue-Dianne deposit at Fortune's Sue-Dianne project are included in other sections of this report.

19.0 INTERPRETATION AND CONCLUSIONS

In 1974, a copper-silver-gold deposit of the IOCG class was discovered at the Sue-Dianne property. Subsequent exploration by Noranda and Fortune has delineated that deposit and collected enough data to allow for the estimation of an NI 43-101-compliant mineral resource estimate. The results of that estimate are set out in Table 19.1 below.

Table 17.6
Sue-Dianne Mineral Resources
(at a Cu Cutoff Grade of 0.40%)

Classification	Tonnes	Cu (%)	Au (g/t)	Ag (g/t)	Cu (million lbs)	Au (oz)	Ag (oz)
Indicated	8,444,000	0.80	0.07	3.2	149.1	19,000	855,000
Inferred	1,620,000	0.79	0.07	2.4	28.3	3,600	122,000

- (1) Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
- (2) The quantity and grade of reported inferred resources in this estimation are uncertain in nature and there has been insufficient exploration to define these inferred resources as an indicated or measured mineral resource and it is uncertain if further exploration will result in upgrading them to an indicated or measured mineral resource category.

These mineral resources are based on assay data which were collected in the late 1990s and engineering studies from the 1990's up to 2007. They, and the resulting mineral resources, are believed to be current as of December, 2007.

In 2007, Micon completed an NI 43-101 report describing the results of a full feasibility study on the nearby NICO deposit, the preparation of which it had supervised. As a result of the positive outcome of the study, Fortune acquired a used mill, buildings and equipment from the Hemlo camp in Ontario. This mill is to be transported to NICO in the NWT.

As a result of the proximity of this proposed mill to Sue-Dianne, some 25 km away, and the potential cost savings and synergies involved in milling other ores there, Fortune has decided to prepare this updated and NI 43-101-compliant mineral resource in order to later examine the possible contribution that it could make to the NICO project. In preparing the mineral resource estimate Micon has used this assumption, and costs and certain other data from the NICO feasibility.

As a result, Micon has concluded that a mineral resource with reasonable prospects for economic extraction exists at Sue-Dianne. Approximately 60% of this resource lies in the indicated confidence category and 40% in the inferred category. Further study and upgrading of this resource appears to be warranted.

20.0 RECOMMENDATIONS

Given the determination of the existence of a mineral resource at Sue-Dianne, Micon concludes that Fortune would be justified in proceeding with further study of the deposit, in conjunction with the advancement of the nearby NICO project. Micon recommends that those studies should likely include the following.

- Conduct a scoping level study investigating the feasibility of mining the Sue-Dianne deposit with processing at the proposed NICO plant.
- After the successful completion of the scoping study a program of infill drilling should be conducted at Sue-Dianne. This program should be designed to bring all of the mineral resources at least to the indicated category with a portion possibly being raised to measured. At a minimum Micon suggests the drill holes as set out in Table 20.1 below. These drill holes will only upgrade the inferred resource within the current pit shell. The program may also need to collect more core, in addition to the holes in Table 20.1, for additional metallurgical and geotechnical studies. More bulk density data should also be collected including samples from waste rock.

**Table 20.1
Sue Dianne Proposed Drilling**

Name	X	Y	Z	Dip	Length	Azimuth
P-1	504,232	7,070,365	261	-70	100	185
P-2	504,344	7,070,489	236	-60	150	185
P-3	504,388	7,070,422	239	-90	250	0
P-4	504,393	7,070,479	233	-90	250	0
P-5	504,441	7,070,448	228	-90	210	0
P-6	504,443	7,070,478	228	-90	210	0
P-7	504,479	7,070,326	227	-90	150	0
P-8	504,484	7,070,374	229	-90	150	0
TOTAL					1,470	

- As part of this new drill program, Fortune should use the QA/QC procedures implemented at NICO in recent years.
- Consideration should be given to proceeding to more advanced engineering studies after completion of the drill program.

The data used in the preparation of this report are current as of the end of December, 2007.
The property concession data are current as of March, 2008.

MICON INTERNATIONAL LIMITED

“B. Terrence Hennessey”

B. Terrence Hennessey, P.Ge.
Vice President, Micon International Limited
Inc.

March 31, 2008

“Eugene Puritch”

Eugene Puritch, P.Eng.
President, P&E Mining Consultants

March 31, 2008

21.0 REFERENCES

ALS Chemex Laboratories, (2004a); Schedule of Services and Fees, Canada. Available at the ALS Chemex website, <http://www.alschemex.com/services/services-feeschedule.htm>

ALS Chemex Laboratories, (2004b); Quality Assurance Overview page, ALS Chemex website: <http://www.alschemex.com/learnmore/learnmore-qa-overview.htm#Laboratory%20Accreditation>

ALS Chemex Laboratories, (2007): Lab Accreditation & QA Overview. Internal Documentation (personally emailed). 6p.

Bryan, D., (1978): A Summary of Exploration in the Snare River, Mazenod Lakes Area, Bear Structural Province, District of Mackenzie, N.W.T. Unpublished Report for Noranda Exploration Company Limited. 16 p.

Bryan, D., (1979): A Report on a Diamond Drilling Program Performed on the Noranda Owned MAR 1-12 Claim Group. Unpublished Report for Noranda Exploration Company Limited. 14 p.

Bryan, D, (1981); Geological Report on the GAR 1-3 claims, Noranda Exploration Company Limited, Department of Indian Affairs and Northern Development, Canada, Assessment Report No. 081145.

Bryan, D, (1982); Geological report, GAR 1-5, 7 and 9 claims (Jan.-Dec. 1981), Lou Lake Area, District of Mackenzie (85 N/10). Department of Indian Affairs and Northern Development, Canada, Assessment Report No. 081422.

Camier, W. J., (2002): The Sue-Dianne Proterozoic Fe-Oxide Cu-Ag-Au Breccia Complex, Northwest Territories, Canada. Unpublished M.Sc. thesis, University of Western Ontario, London, Canada. 210 p.

Camier, W. J., Goad, R. E., Neale, K. L. and Mulligan, D. L., (1997): A Report on the Sue-Dianne Lease, Mazenod Lake Area, Mackenzie (South) District, Northwest Territories, Canada. Fortune Minerals Limited, London, Canada. Internal Report.

Caverly, S. T, (2000); Final Report on the Preparation of Standard Materials for NICO Fortune Minerals. Lakefield Research Limited, 8 pp.

Charbonneau, B. W., Gandhi, S. S., Hetu, R. J., Holman, P. B., and Prasad, N, (1994); Multiparameter Airborne Geophysical Survey of the Mazenod Lake Area and its Metallogenic Implications (NTS 85 N/10 and parts of 85 N/11, 14 and 15). In Exploration Overview 1994, Northwest Territories. NWT Geological Mapping Division, Indian and Northern Development, Canada, p. 26-27.

City of Yellowknife website, (2004); Climate records.
http://www.city.yellowknife.nt.ca/userfiles/HTML/nts_1_253_1.html

Climie, J. A., (1975): Geological Reconnaissance and Airborne Radiometric Survey of the Dianne/Sue Groups, District of Mackenzie, N.W.T. Department of Indian Affairs and Northern Development, Assessment Report.

Climie, J. A., (1976): Geological, Geophysical and Drill Investigations of the Dianne/Sue Groups, District of Mackenzie, N.W.T. Department of Indian Affairs and Northern Development, Assessment Report No. 080524.

D'Oria, R. M., (1998): An investigation of the comagmatic signature of the intrusive/extrusive phases of the Faber Lake rapakivi suite, Great Bear magmatic zone, N.W.T. Unpublished H.B.Sc. thesis, University of Western Ontario, London Canada, 105 p.

Fortune Minerals Limited, (1997): Unpublished Company News Release, dated August 25, 1997.

Fortune Minerals Limited, (1998): Unpublished Company News Release, dated September 2, 1998.

Fortune Minerals Limited, (1999): Unpublished Company News Release, dated March 10, 1999.

Fortune Minerals Limited, (2001): Unpublished Company News Release, dated April 19, 2001.

Fraser, J. A., (1967): Hardisty Lake (west half), District of Mackenzie, Northwest Territories, Geological Survey of Canada, Map 1224A.

Gandhi, S. S., (1994); Geological Setting and Genetic Aspects of Mineral Occurrences in the Southern Great Bear Magmatic Zone, Northwest Territories. In W. D. Sinclair and D. G. Richardson (eds.), Studies of Rare-Metal Deposits in the Northwest Territories, Geological Survey of Canada, Bulletin 475, p. 63-96.

Gandhi, S. S. and Lentz, D. R., (1990); Bi-Co-Cu-Au-As and U Occurrences in Metasediments of the Snare Group and Felsic Volcanics of the Southern Great Bear Magmatic Zone, Lou Lake, Northwest Territories. In Current Research, part C. Geological Survey of Canada, Paper 90-1C, pp. 239-253.

Gandhi, S. S. (1999), Report on the Geological and Mineral Occurrence Map of the Mazenod Lake-Lou Lake Area, Northwest Territories, scale 1:50,000 (NTS 85 N/10 and parts of 6, 7, 8, 9, 11, 14, 15 and 16). Map compilation for Hudson Bay Exploration & Development Company Limited.

Gandhi, S. S., Mortensen, J. K., Prasad, N., and van Breemen, O., (2001); Magmatic Evolution of the Southern Great Bear Continental Arc, Northwestern Canadian Shield: Geochronological Constraints. Canadian Journal of Earth Sciences, v. 38, n. 5, p. 767-785.

Goad, R. E., Mumin, A. H, Duke, N. A., Neale, K. L., Mulligan, D. L., and Camier W. J. (1999); The NICO and Sue-Dianne Proterozoic, Iron Oxide Hosted, Polymetallic Deposits, Northwest Territories: Application of the Olympic Dam Model; in Exploration. Technical Program on CD-Rom for the 100th CIM Annual General Meeting, Montreal, Canada, May 3-7, 1998 and published in the CIM Bulletin. Available on Fortune Mineral Website. Scroll down to October 25, 2002. <http://www.fortuneminerals.com/articlefs.html>

Goad, R. E., Mumin, A. H, Duke, N. A., Neale, K. L. and Mulligan, D. L., (2000); Geology of the Proterozoic Iron Oxide-Hosted, NICO Cobalt-Gold-Bismuth, and Sue-Dianne Copper-Silver Deposits, Southern Great Bear Magmatic Zone, Northwest Territories, Canada. In T. M. Porter (ed.), Hydrothermal Iron Oxide Copper-Gold & Related Deposits: A Global Perspective. Australian Mineral Foundation, Adelaide, p. 249-267.

Golder Associates Ltd., (2000); A Review of Geotechnical Data and Recommendations for Pit Slope Design Configurations, Sue-Dianne Deposit. Report no. 982-1426.

Hennessey, B. T. and Puritch, E. (2004); An Updated Mineral Resource Estimate for the NICO Cobalt-Gold-Bismuth Deposit, Mazenod Lake District, Northwest Territories, Canada. An NI 43-101 Technical Report filed on www.sedar.com, 80 p plus Appendices.

Hetu, R. J., Holman, P. B., Charbonneau, B. W., Prasad, N., and Gandhi, S. S., (1994); Multiparameter Airborne Geophysical Survey of the Mazenod Lake Area, Northwest Territories, 1993 (NTS 85 N/10 and parts of 85 N/11, 14, 15). Geological Survey of Canada, Open File 2806.

Hildebrand, R. S., Hoffman, P. F., and Bowring, S. A., (1987); Tectono-Magmatic Evolution of the 1.9-Ga Great Bear Magmatic Zone, Wopmay Orogen, Northwestern Canada. Journal of Volcanology and Geothermal Research, v. 32, p. 99-118.

Hildebrand, R. S., Bowring, S. A., and Housh, T., (1990); The Medial Zone of Wopmay Orogen, District of Mackenzie. In Current Research, part C. Geological Survey of Canada, Paper 90-1C, pp. 167-176.

Kidd, D. F., (1936): Rae to Great Bear Lake, Mackenzie District, N.W.T. GCS Memoir 187. 44 p.

Lakefield Research Limited, (1997a); An Investigation of the Recovery of Copper, Cobalt, Gold and Bismuth from NICO Project Samples. Progress report no. 1, Project no. LR5070, April 30, 1997.

Lakefield Research Limited, (1997b); An Investigation Into the Recovery of Metal Values from NICO Project Samples. Progress Report no. 2, Project no. LR5070, July 8, 1997.

Lakefield Research Limited, (1998); An Investigation of the Recovery of Cobalt, Bismuth and Gold from NICO Project Samples. Progress Report no. 3, Project no. LR5070, June 12, 1998.

Lakefield Research Limited, (1999): An Investigation of the Recovery of Copper from Sue-Dianne Project Samples Submitted by Fortune Minerals Limited. Progress Report No.1. Project No. L.R. 5295, February 1, 1999.

Lakefield Research Limited, (2001), An Investigation Into the Recovery of Cobalt and Bismuth from NICO Project Samples. Progress Report no. 6, Project no. LR10226-001, September 25, 2001.

Lord, C. S., (1942); Snare River and Ingray Lake map-areas, Northwest Territories. Geological Survey of Canada, Memoir 235.

McGlynn, J. C., (1968); Tumi Lake, District of Mackenzie. Geological Survey of Canada, Map 1230A, scale 1:63,360.

Micon International Limited, (2007); Technical Report on The Bankable Feasibility Study for the NICO Cobalt-Gold-Bismuth Deposit, Mazenod Lake Area, Northwest Territories, Canada. An NI 43-101 Technical Report available on SEDAR, www.sedar.com under Fortune Minerals' filings.

Mumin, A. H., (1997); A Qualifying Report on the Geology and Mineralization of the NICO 1 (F28905), NICO 2 (F28906), NICO 3 (F50933), NICO 4 (F18965), NICO 5 (F18966), NICO 6 (F50155), NICO 7 (F50156), NICO 8 (F50157), NICO 9 (F50158), NICO 10 (F50159), NICO 11 (F51389) & NICO 12 (F51390) Claims, Marian River Area, Mackenzie (South) District, Northwest Territories, Canada. Report prepared for Fortune Minerals Limited, April 1997.

Mumin, A. H., (1998); Copper, Silver and Gold Resources of the Sue-Dianne Deposit, Mazenod Lake Area, MacKenzie (South) District, Northwest Territories. Technical Report prepared for Fortune Minerals Limited, February, 1998. 14 p plus appendices.

Mumin, A. H. and Tufts, B., (1999); Geology and Mineral Resources of the Sue-Dianne Deposit, Southern Great bear Magmatic Zone, Northwest Territories. Report prepared for Fortune Minerals Limited, February, 1998. 21 p plus appendices.

Prest, S.E., (1977a): Geological and Geophysical Investigations of the Dianne Extension (12-19, 21-49), MAG (1-25), and SUE (8) Claims, District of Mackenzie, N.W.T. Unpublished Report for Noranda Exploration Ltd.

Prest, S.E., (1977b): Geological and Geophysical Investigations of the MAR Claim Group, District of Mackenzie, N.W.T. Unpublished Report for Noranda Exploration Ltd. 25 p.

Richardson, K. A., Holman, P. B. and Elliot, B., (1974): Airborne Radioactivity Map, District of Mackenzie, Northwest Territories, 85N, O, P, 75M. Geological Survey of Canada, Open File 188.

Sidor, M., (2000); The Origin of Black Rock Alteration Overprinting Iron-Rich Sediments and its Genetic Relationship To Disseminated Polymetallic Ores, Lou Lake, Northwest Territories, Canada. Unpublished M.Sc. thesis, University of Western Ontario, London, Canada, 243 p.

Strathcona Mineral Services Limited, (2000); Scoping Review NICO Cobalt-Gold Project, Mazenod Lake District, Northwest Territories, Canada, for Fortune Minerals Limited, April 2000.

Strathcona Mineral Services Limited, Thalenhorst, H. and Farquharson, G., (2002); Updated Review, NICO Cobalt-Gold-Bismuth Project, Mazenod Lake District, Northwest Territories, Canada, for Fortune Minerals Limited. A Technical Report for Fortune Minerals Limited by Strathcona Mineral Services Limited and filed on SEDAR, 132 p., plus appendices.

(<http://www.sedar.com/csfsprod/data31/filings/00455375/00000001/n%3A%5Cclients%5CFORTUNE%5CSEDAR%5Cstrath.pdf>).

Thomas, M. and Olson, R. A., (1978); Eldorado Nuclear Limited Exploration-1977 and 1978, LOO, BW and C mineral claims, Lou Lake, Mackenzie Mining District, NWT, Department of Indian and Northern Affairs, Assessment Report No. 080960.

Wilson, J. T. and Lord, C. S., (1942): Geological Map, Ingray Lake, District of Mackenzie, N.W.T. Geological Survey of Canada, Map 697A, scale 1:253,440.

CERTIFICATE

As the author of portions of this report on certain mineral properties of Fortune Minerals Limited in the Mazenod Lake area of the Northwest Territories, Canada, I, B. Terrence Hennessey do hereby certify that:

1. I am employed by, and carried out this assignment for

Micon International Limited
Suite 900, 390 Bay Street
Toronto, Ontario
M5H 2Y2

tel. (416) 362-5135
fax (416) 362-5763
e-mail thennessey@micon-international.com;

2. I hold the following academic qualifications:

B.Sc. (Geology)	McMaster University	1978
-----------------	---------------------	------

3. I am a registered Professional Geoscientist with the Association of Professional Geoscientists of Ontario (membership # 0038); as well, I am a member in good standing of several other technical associations and societies, including:

The Australasian Institute of Mining and Metallurgy (Member)
The Canadian Institute of Mining, Metallurgy and Petroleum (Member)

4. I have worked as a geologist in the minerals industry for 28 years;
5. I do, by reason of education, experience and professional registration, fulfill the requirements of a Qualified Person as defined in NI 43-101. My work experience includes 7 years as an exploration geologist looking for iron ore, gold, base metal and tin deposits, more than 11 years as a mine geologist in both open pit and underground mines and 10 years as a consulting geologist working in precious, ferrous and base metals and industrial minerals. I have previous experience with resource estimation and review of IOCG deposits;
6. I visited the NICO project site during the period September 5 to 9, 2003 and the Sue-Dianne project site from May 6 to 8, 2006;
7. I am responsible for the preparation of Sections 1 to 16, 17 (portions), 18, 19, 20 (portions) and 21 of the technical report titled "A Technical Report On A Mineral Resource Estimate For The Sue-Dianne Deposit, Mazenod Lake Area, Northwest Territories, Canada";

8. I am independent of the parties involved in the transaction for which this report is required, as defined in Section 1.4 of NI 43-101;
9. I have had no prior involvement with the mineral properties in question except for the completion of a resource estimate and participation in a feasibility study at NICO;
10. I have read NI 43-101 and the portions of this report for which I am responsible have been prepared in compliance with the instrument;
11. As of the date of this certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make this report not misleading.

Dated this 31st day of March, 2008

(signed by) "B. Terrence Hennessey" (Sealed)

B. Terrence Hennessey, P.Geol.

CERTIFICATE

As the author of portions of this report on certain mineral properties of Fortune Minerals Limited in the Mazenod Lake area of the Northwest Territories, Canada, I, Eugene Puritch do hereby certify that:

1. I am President of, and carried out this assignment for

P&E Mining Consultants Inc.
Suite 202
2 County Court Boulevard
Brampton, Ontario, Canada
L6W 3W8

tel. (905) 595-0575
e-mail gene@peconsulting.ca

2. I am a graduate of The Haileybury School of Mines, with a Technologist Diploma in Mining, as well as obtaining an additional year of undergraduate education in Mine Engineering at Queen's University. In addition I have also met the Professional Engineers of Ontario Academic Requirement Committee's Examination requirement for Bachelor's Degree in Engineering Equivalency.

Mining Technologist Diploma Haileybury School of Mines 1977

3. I am a mining consultant currently licensed by the Professional Engineers of Ontario (License No. 100014010) and registered with the Ontario Association of Certified Engineering Technicians and Technologists as a Senior Engineering Technologist. I am also a member of the National and Toronto CIM.
4. I have practiced my profession continuously since 1978;
5. I do, by reason of education, experience and professional registration, fulfill the requirements of a Qualified Person as defined in NI 43-101. I have practiced by profession continuously since 1978. My career experience is summarized below:

Mining Technologist - H.B.M.&S. and Inco Ltd.	1978 - 1980
Open Pit Mine Engineer - Cassiar Asbestos/Brinco Ltd.	1981 - 1983
Pit Engineer/Drill & Blast Supervisor - Detour Lake Mine	1984 - 1986
Self-Employed Mining Consultant - Timmins Area	1987 - 1988
Mine Designer/Resource Estimator - Dynatec/CMD/Bharti	1989 - 1995
Self-Employed Mining Consultant/Resource-Reserve Estimator	1995 - Present

6. I visited the NICO project site during the period July 10 to 11, 2004. I have not visited the Sue-Dianne project site.

7. I am responsible for the preparation of Sections 17 (portions) and 20 (portions) of the technical report titled “A Technical Report On A Mineral Resource Estimate For The Sue-Dianne Deposit, Mazenod Lake Area, Northwest Territories, Canada”;
8. I am independent of the parties involved in the transaction for which this report is required, as defined in Section 1.4 of NI 43-101;
9. I have had no prior involvement with the mineral properties in question except for the completion of a resource estimate and participation in a feasibility study at NICO;
10. I have read NI 43-101 and the portions of this report for which I am responsible have been prepared in compliance with the instrument;
11. As of the date of this certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make this report not misleading.

Dated this 31st day of March, 2008

(signed by) “Eugene Puritch” (sealed)

Eugene Puritch, P. Eng.

FORTUNE MINERALS LIMITED

**A TECHNICAL REPORT ON
A MINERAL RESOURCE ESTIMATE
FOR THE SUE-DIANNE DEPOSIT,
MAZENOD LAKE AREA,
NORTHWEST TERRITORIES,
CANADA**

**VOLUME 2
APPENDICES**

**B. TERRENCE HENNESSEY, P.GEO.
EUGENE PURITCH, P.ENG.**

MARCH, 2008

APPENDICES

Appendix 1	SUE-DIANNE POPULATION STATISTICS
Appendix 2	SUE-DIANNE COPPER HISTOGRAM AND PROBABILITY PLOT
Appendix 3	SUE-DIANNE SILVER HISTOGRAM, LOG HISTOGRAM AND PROBABILITY PLOT
Appendix 4	SUE-DIANNE SILVER HISTOGRAM, LOG HISTOGRAM AND PROBABILITY PLOT
Appendix 5	SUE-DIANNE COPPER VARIOGRAMS
Appendix 6	SUE-DIANNE SILVER VARIOGRAMS
Appendix 7	SUE-DIANNE GOLD VARIOGRAMS
Appendix 8	SUE-DIANNE BLOCK MODEL SECTIONS, COPPER, SECTIONAL AND PLAN VIEWS
Appendix 9	SUE-DIANNE BLOCK MODEL SECTIONS, RESOURCE CLASSIFICATION, SECTIONAL AND PLAN VIEWS

APPENDIX 1
SUE-DIANNE ASSAY COMPOSITE POPULATION STATISTICS
(2-m Composites)

<i>Cu (%)</i>	
Mean	0.53
Standard Error	0.01
Median	0.37
Mode	0.00
Standard Deviation	0.52
Sample Variance	0.27
Kurtosis	10.29
Skewness	2.24
Range	5.45
Minimum	0.00
Maximum	5.46
Sum	723.36
Count	1,373.00
Largest(1)	5.46
Smallest(1)	0.00
Confidence Level(95.0%)	0.03

COV 0.99

<i>Ag (g/t)</i>	
Mean	2.55
Standard Error	0.17
Median	0.90
Mode	0.30
Standard Deviation	6.37
Sample Variance	40.59
Kurtosis	130.01
Skewness	9.51
Range	120.80
Minimum	0.30
Maximum	121.10
Sum	3498.99
Count	1373.00
Largest(1)	121.10
Smallest(1)	0.30
Confidence Level(95.0%)	0.34

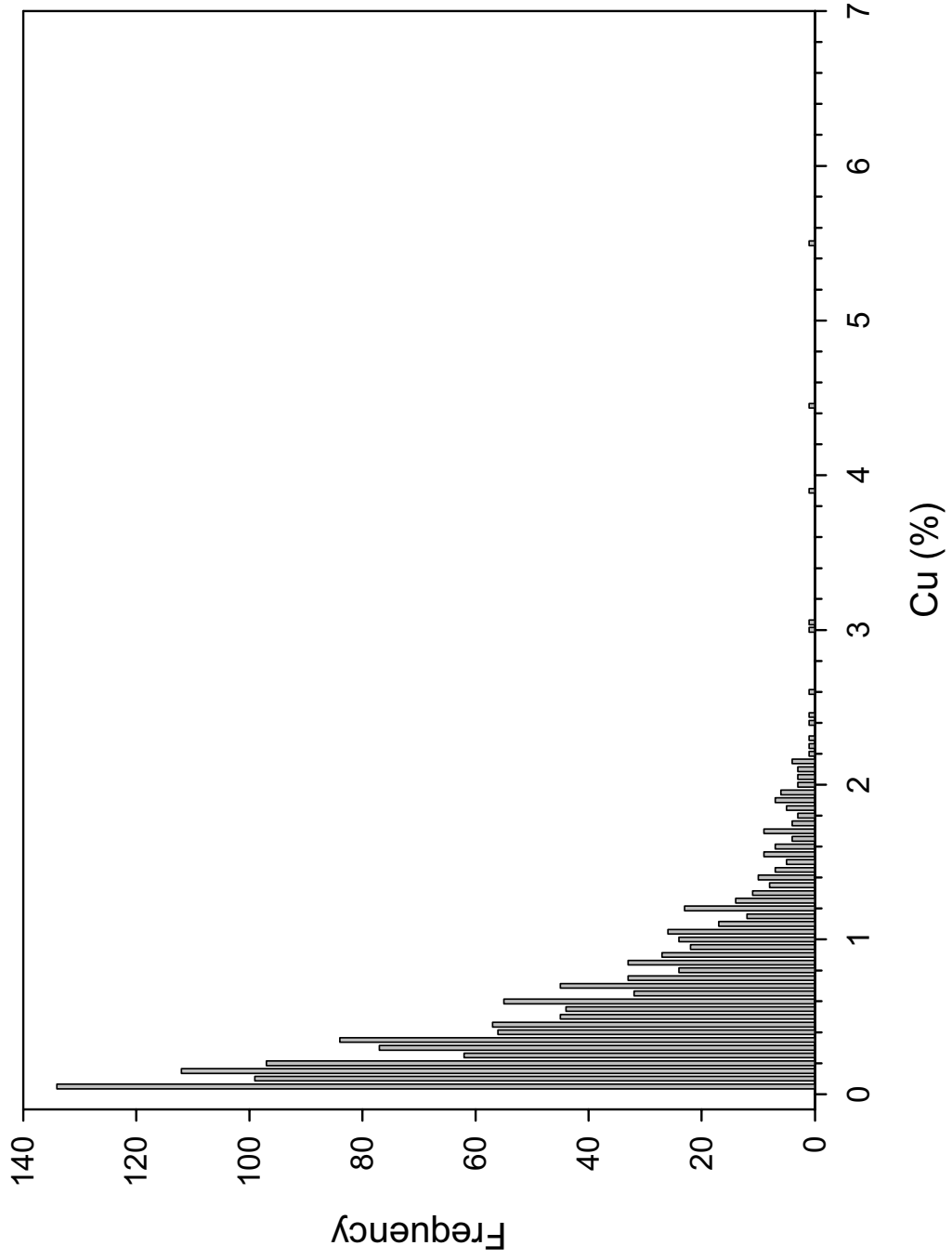
COV 2.50

<i>Au (g/t)</i>	
Mean	0.05
Standard Error	0.01
Median	0.01
Mode	0.01
Standard Deviation	0.22
Sample Variance	0.05
Kurtosis	349.71
Skewness	16.23
Range	5.67
Minimum	0.01
Maximum	5.68
Sum	64.30
Count	1373.00
Largest(1)	5.68
Smallest(1)	0.01
Confidence Level(95.0%)	0.01

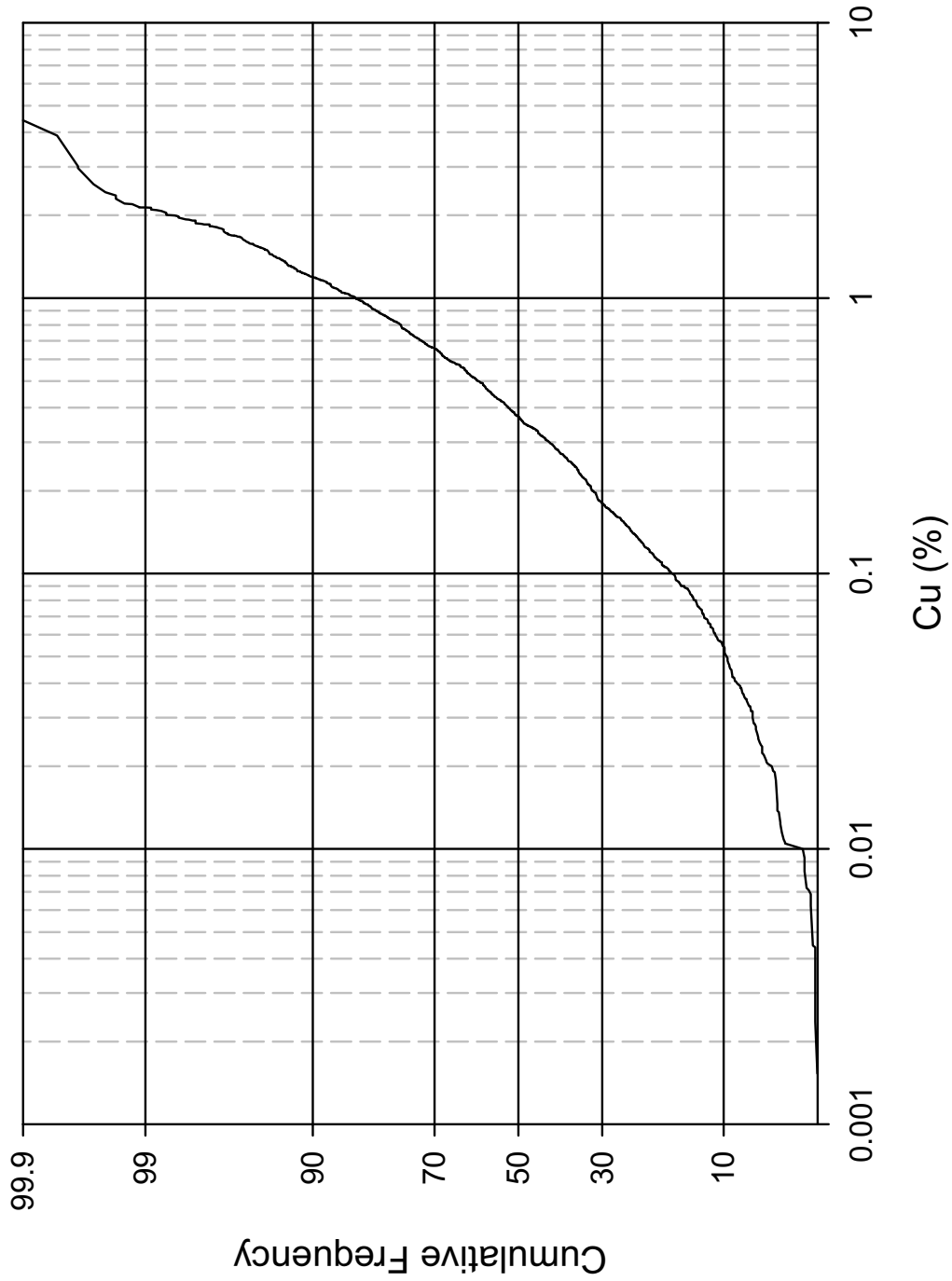
COV 4.68

APPENDIX 2
SUE-DIANNE COPPER HISTOGRAM AND PROBABILITY PLOT

Copper Histogram

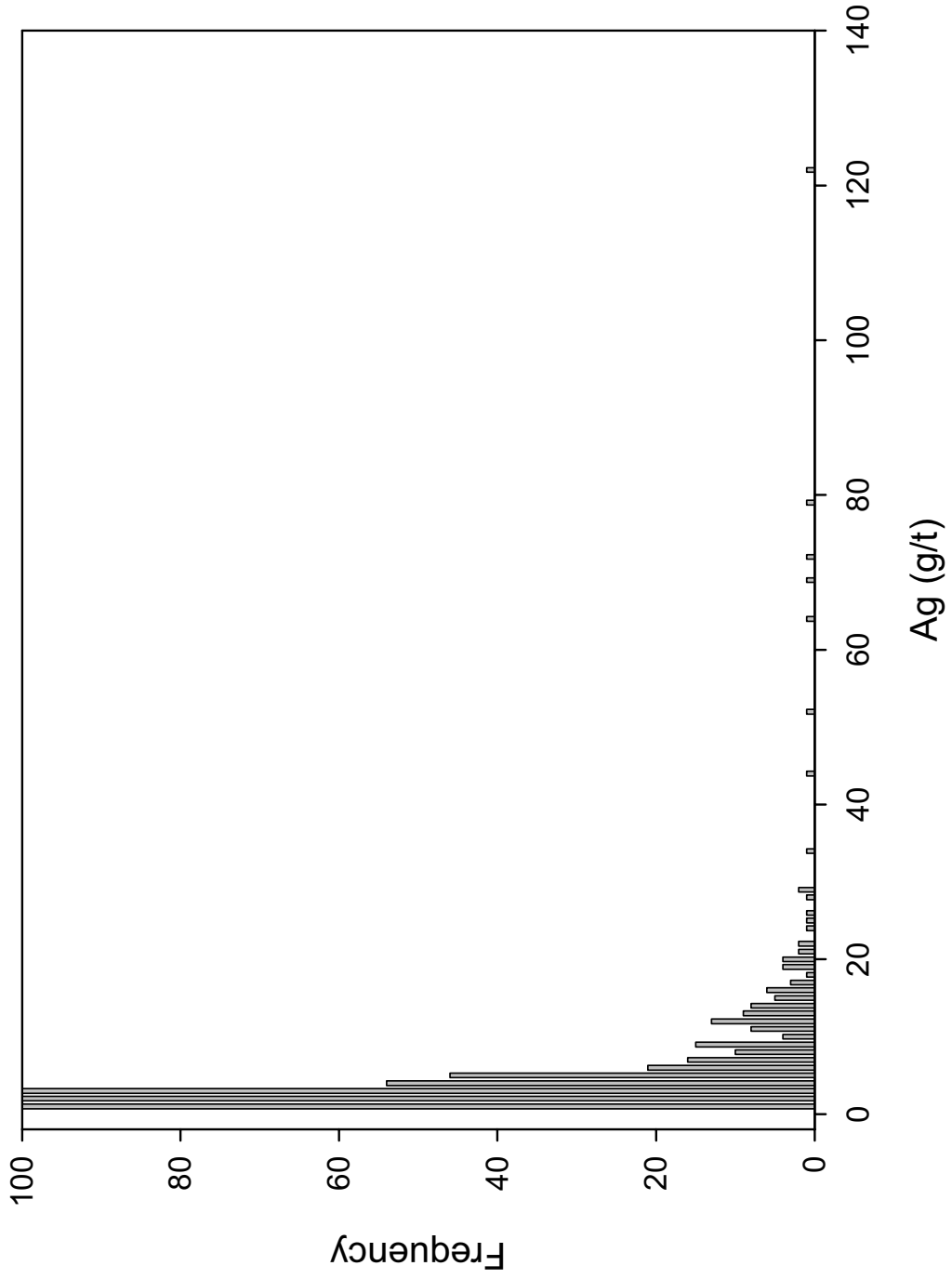


Copper Probability Plot

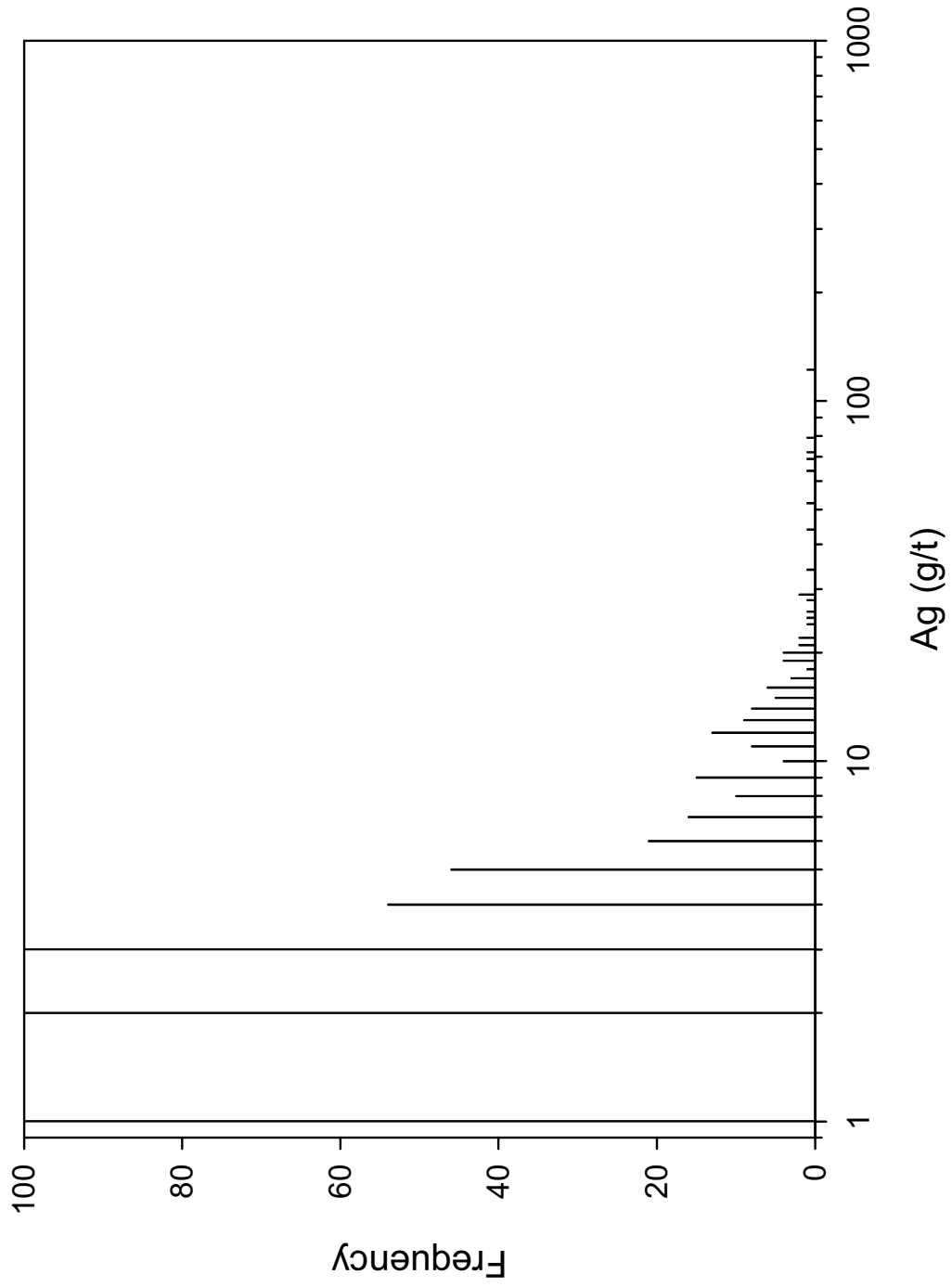


APPENDIX 3
SUE-DIANNE SILVER HISTOGRAM, LOG HISTOGRAM
AND PROBABILITY PLOT

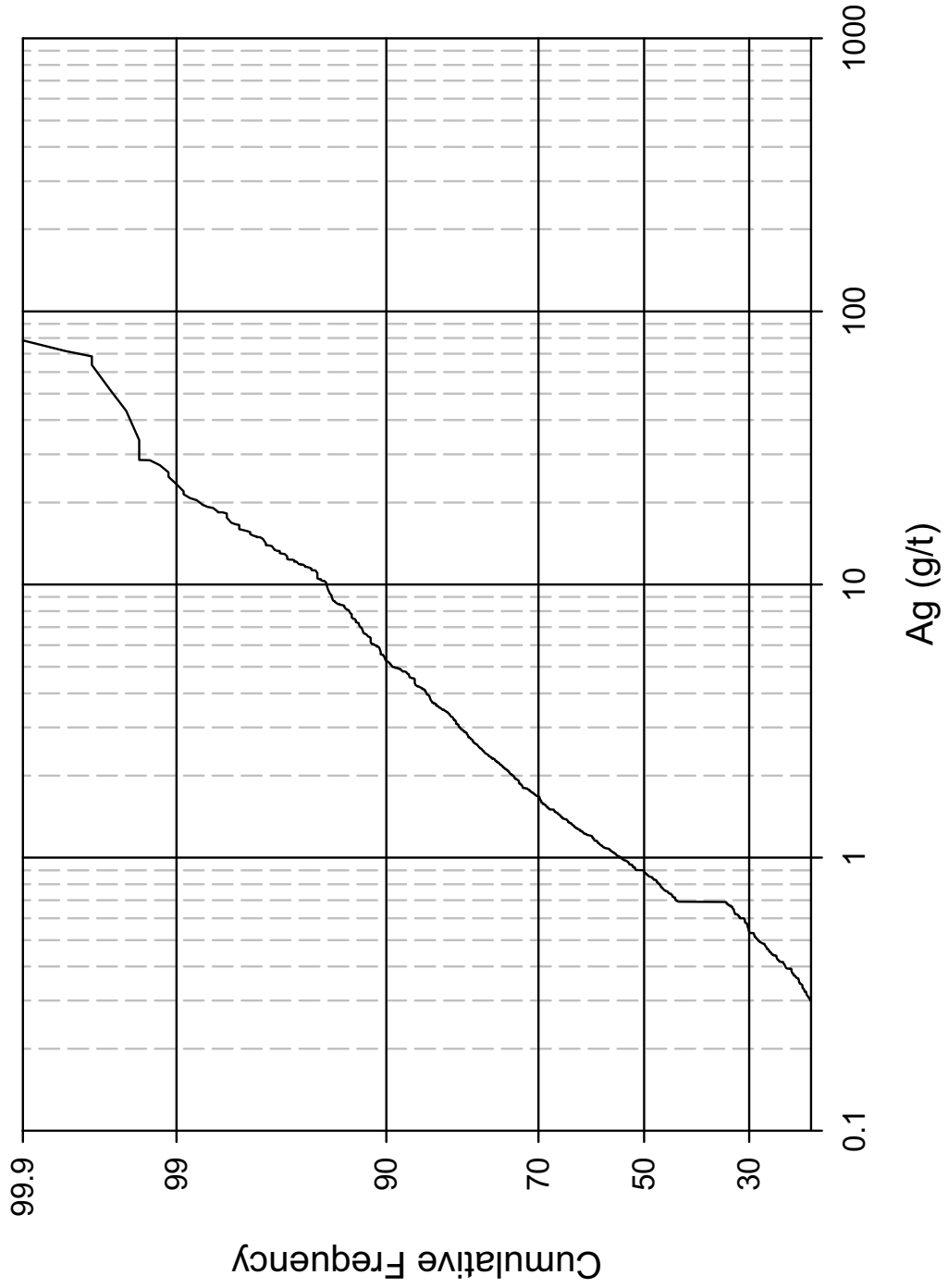
Silver Histogram



Silver Log Histogram

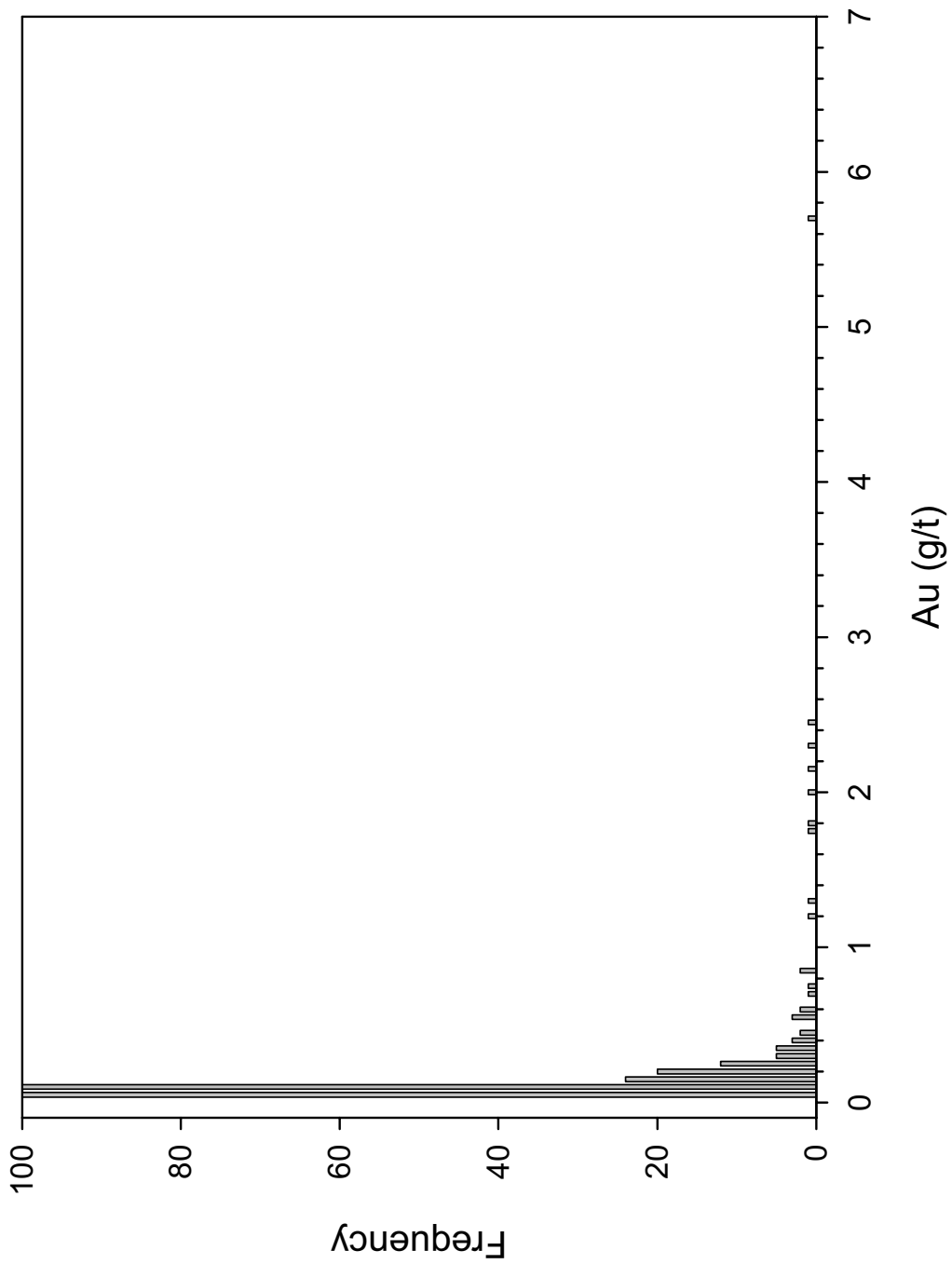


Silver Probability Plot

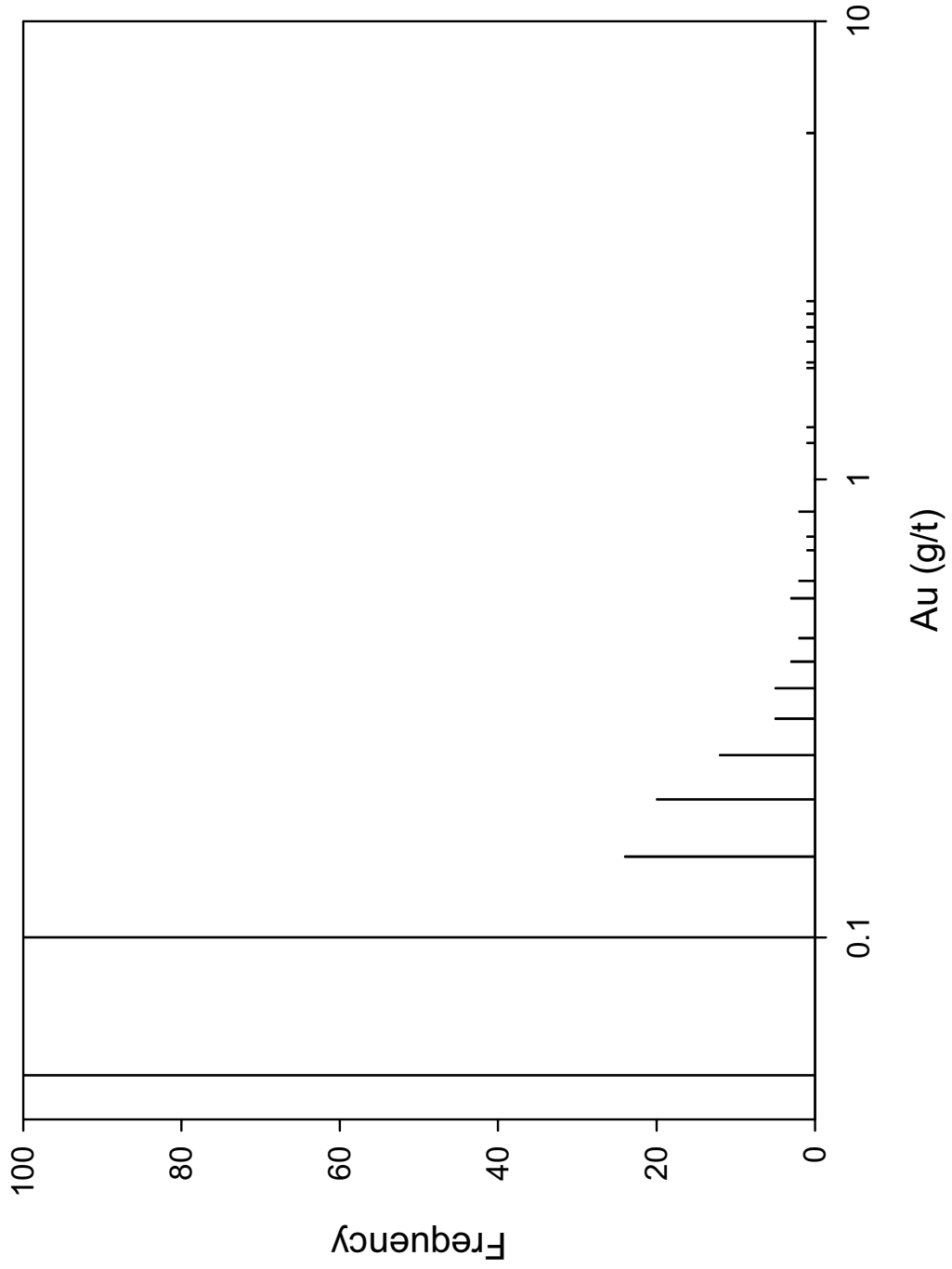


APPENDIX 4
SUE-DIANNE GOLD HISTOGRAM, LOG HISTOGRAM
AND PROBABILITY PLOT

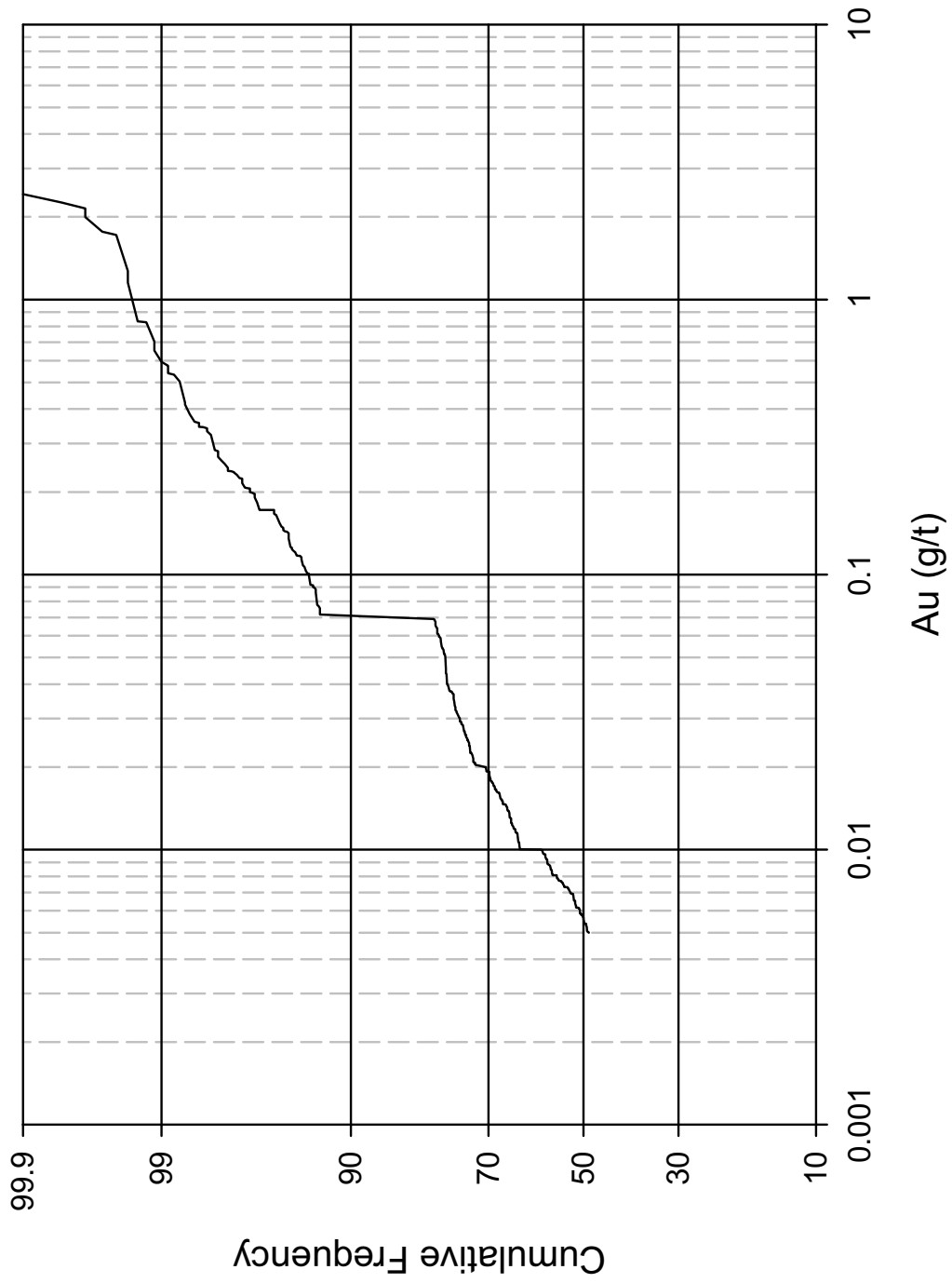
Gold Histogram



Gold Log Histogram

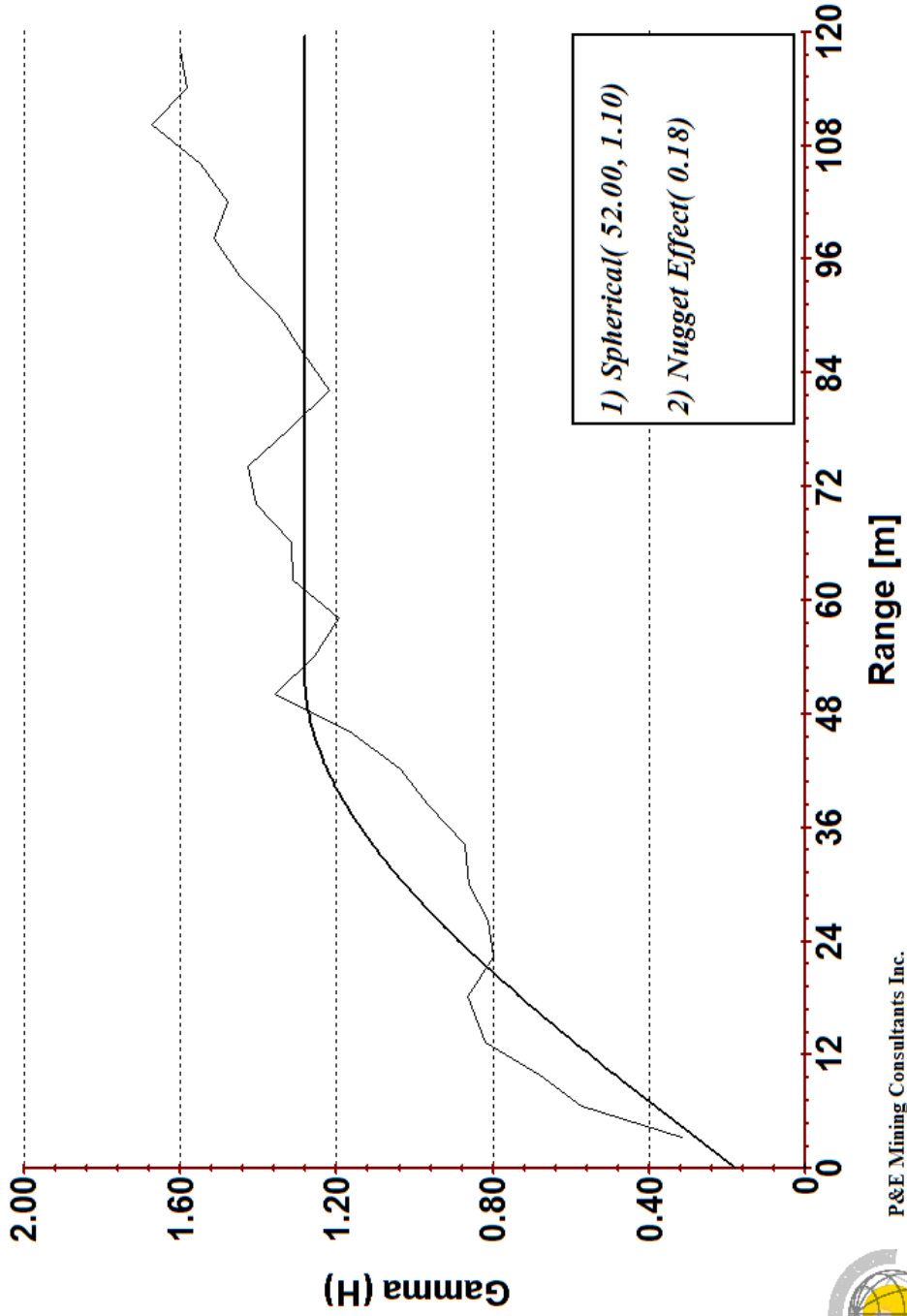


Gold Probability Plot



APPENDIX 5
SUE-DIANNE COPPER VARIOGRAMS

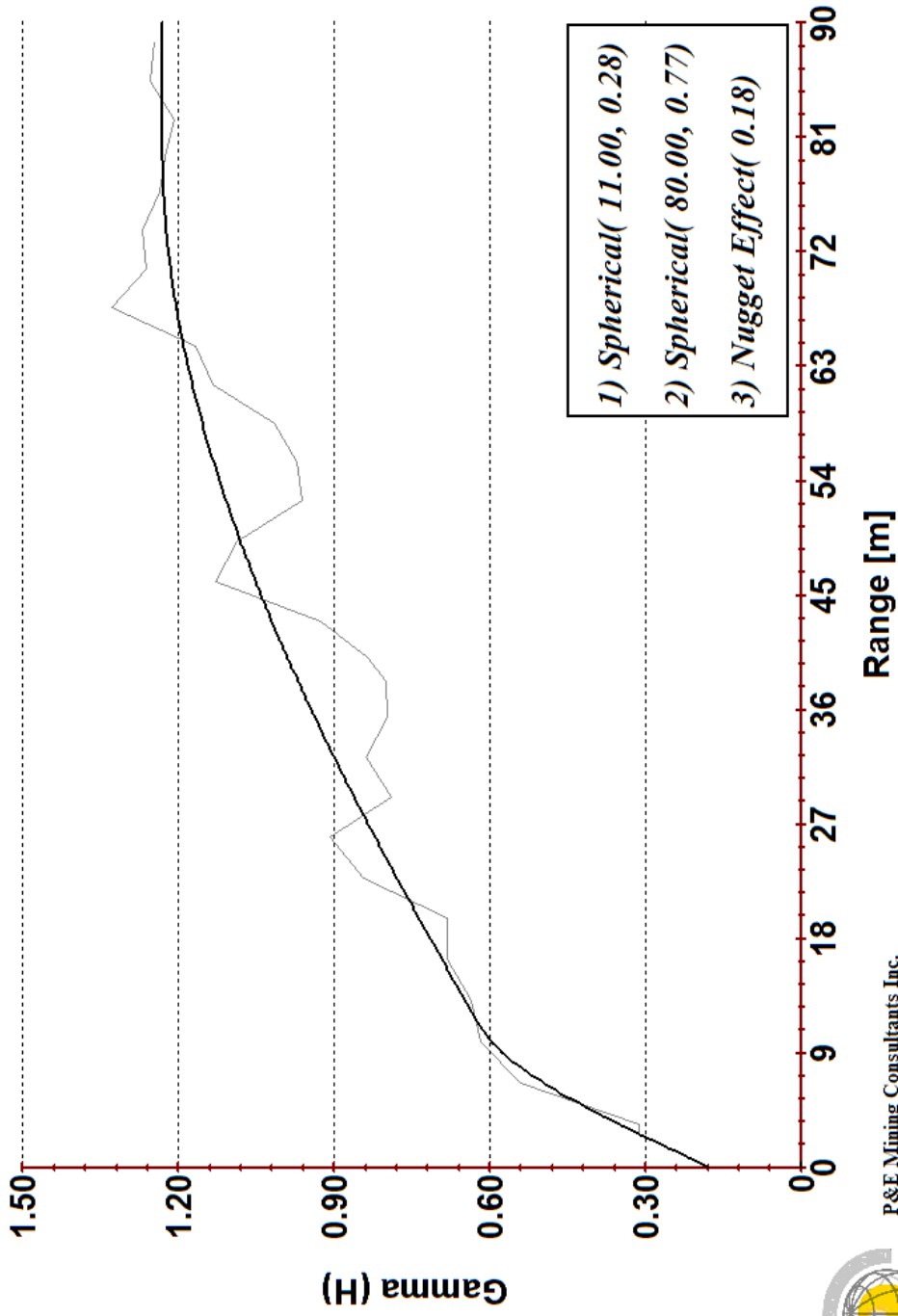
Sue-Dianne Project - Cu Omnivariogram



P&E Mining Consultants Inc.
Software By Gemcom



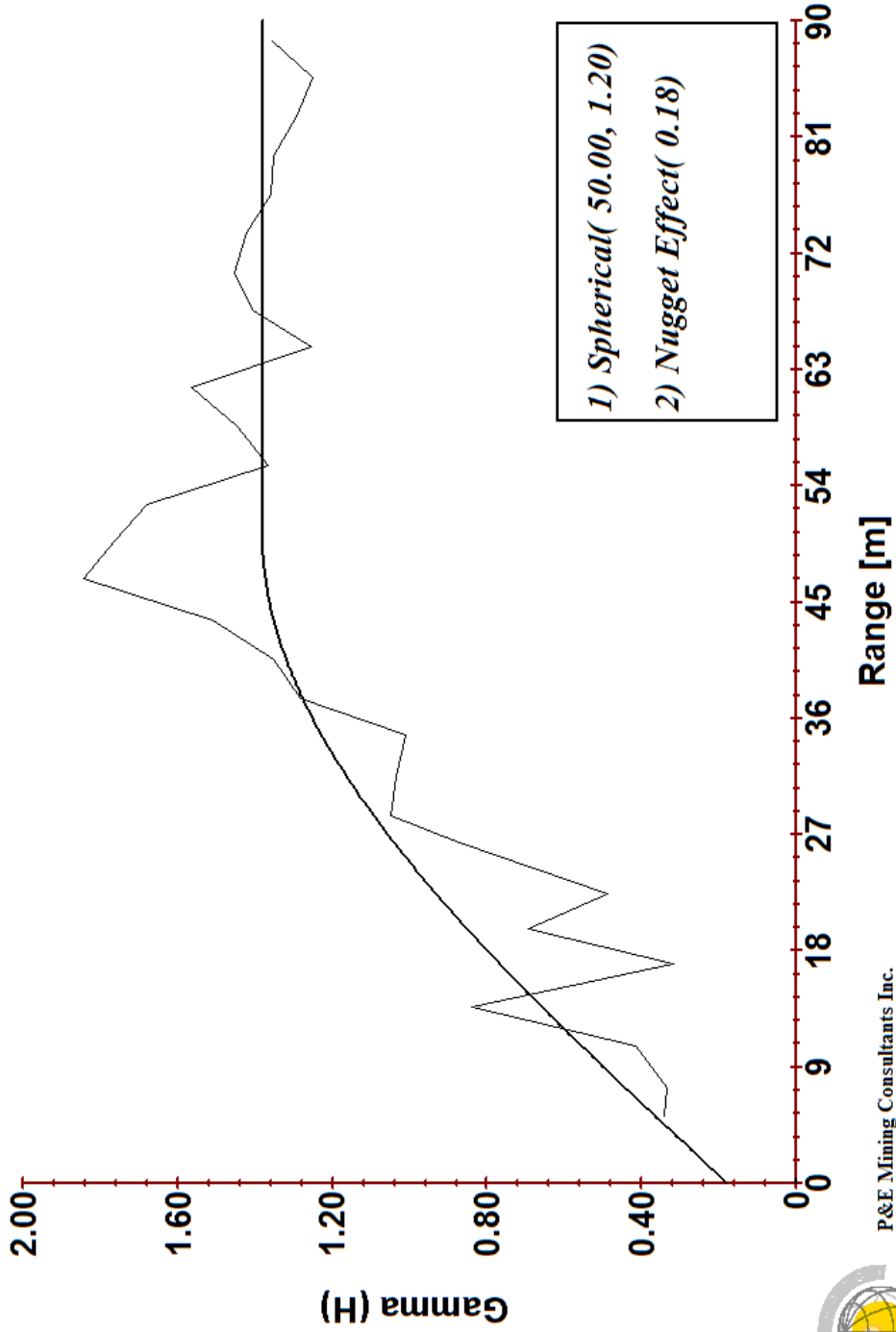
Sue-Dianne Project - Cu Down Dip (Spread 35°)



P&E Mining Consultants Inc.
Software By Gemcom



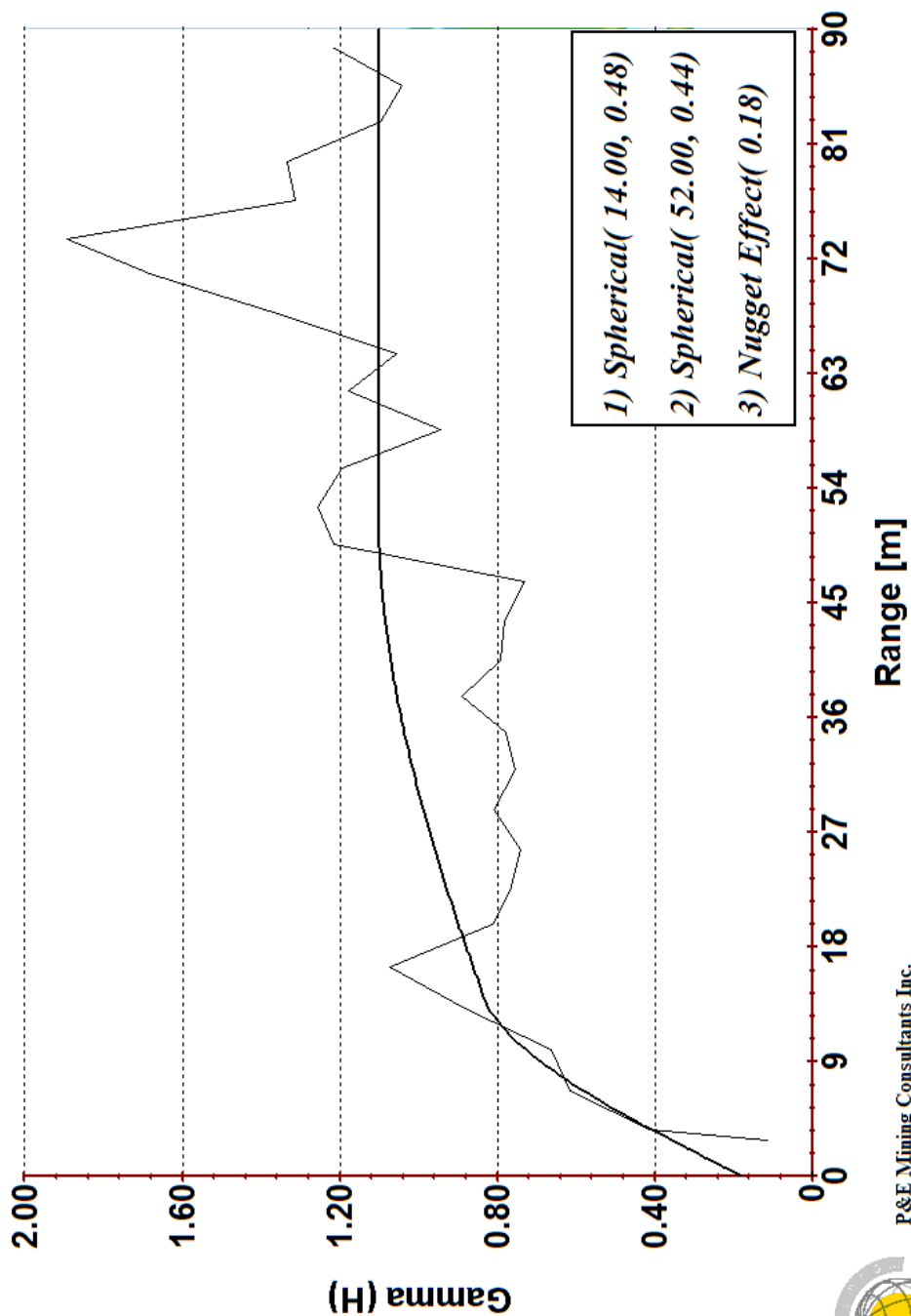
Sue-Dianne Project - Cu Along Strike (Spread 45°)



P&E Mining Consultants Inc.
Software By Gemcom



Sue-Dianne Project - Cu Across Dip (Spread 35°)

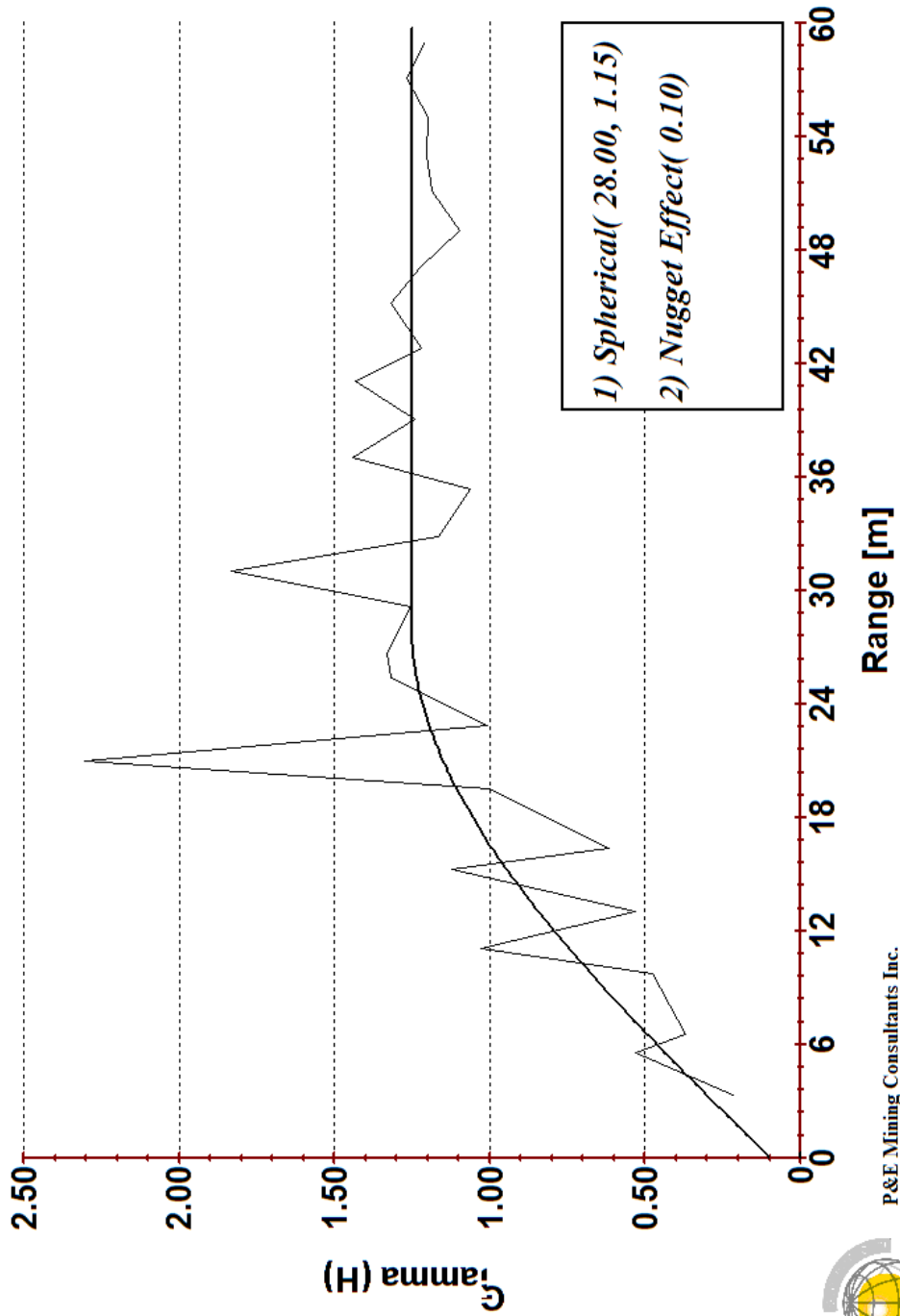


P&E Mining Consultants Inc.
Software By Gemcom



APPENDIX 6
SUE-DIANNE SILVER VARIOGRAMS

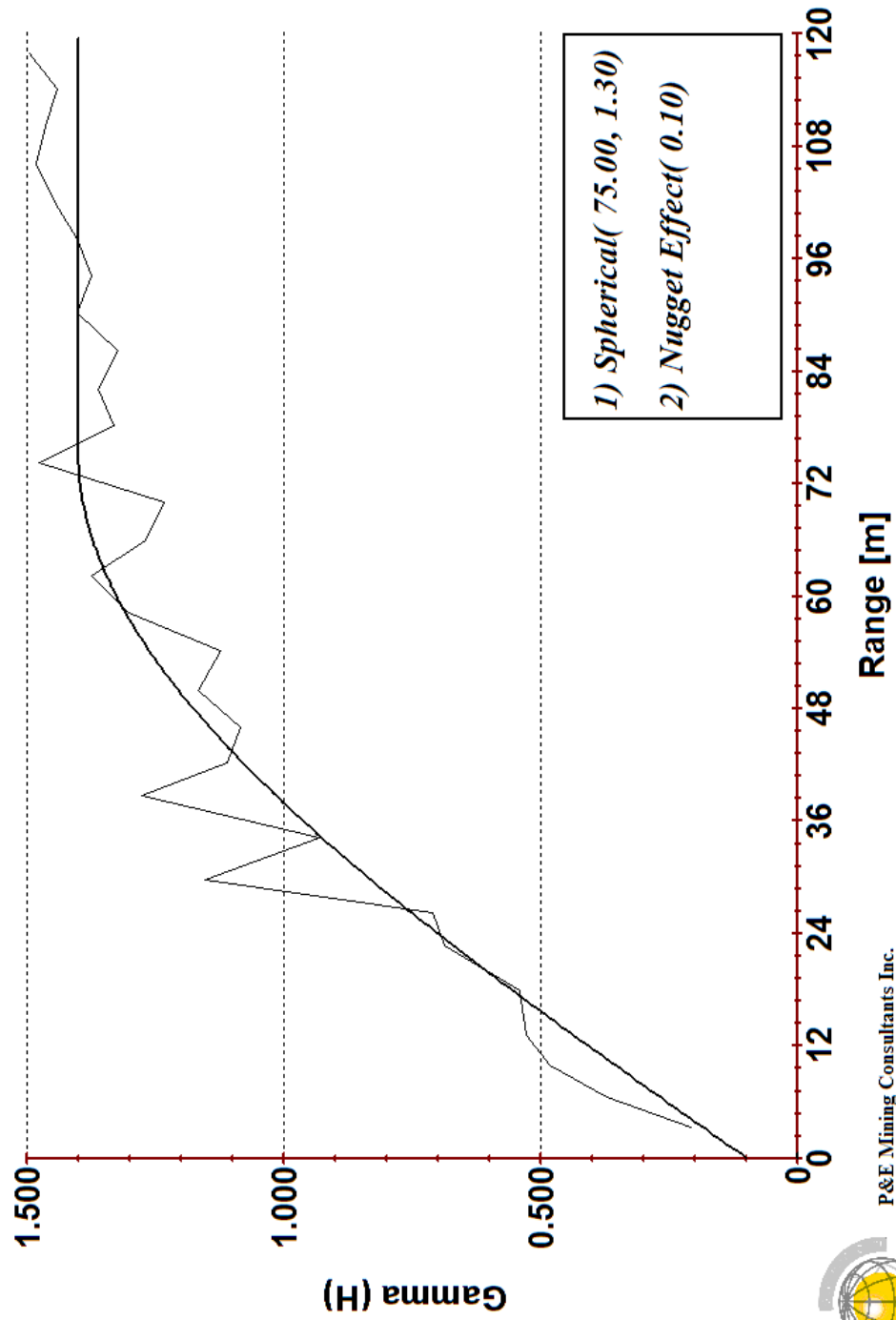
Sue-Dianne Project - Ag Omnivariogram



P&E Mining Consultants Inc.
Software By Gemcom



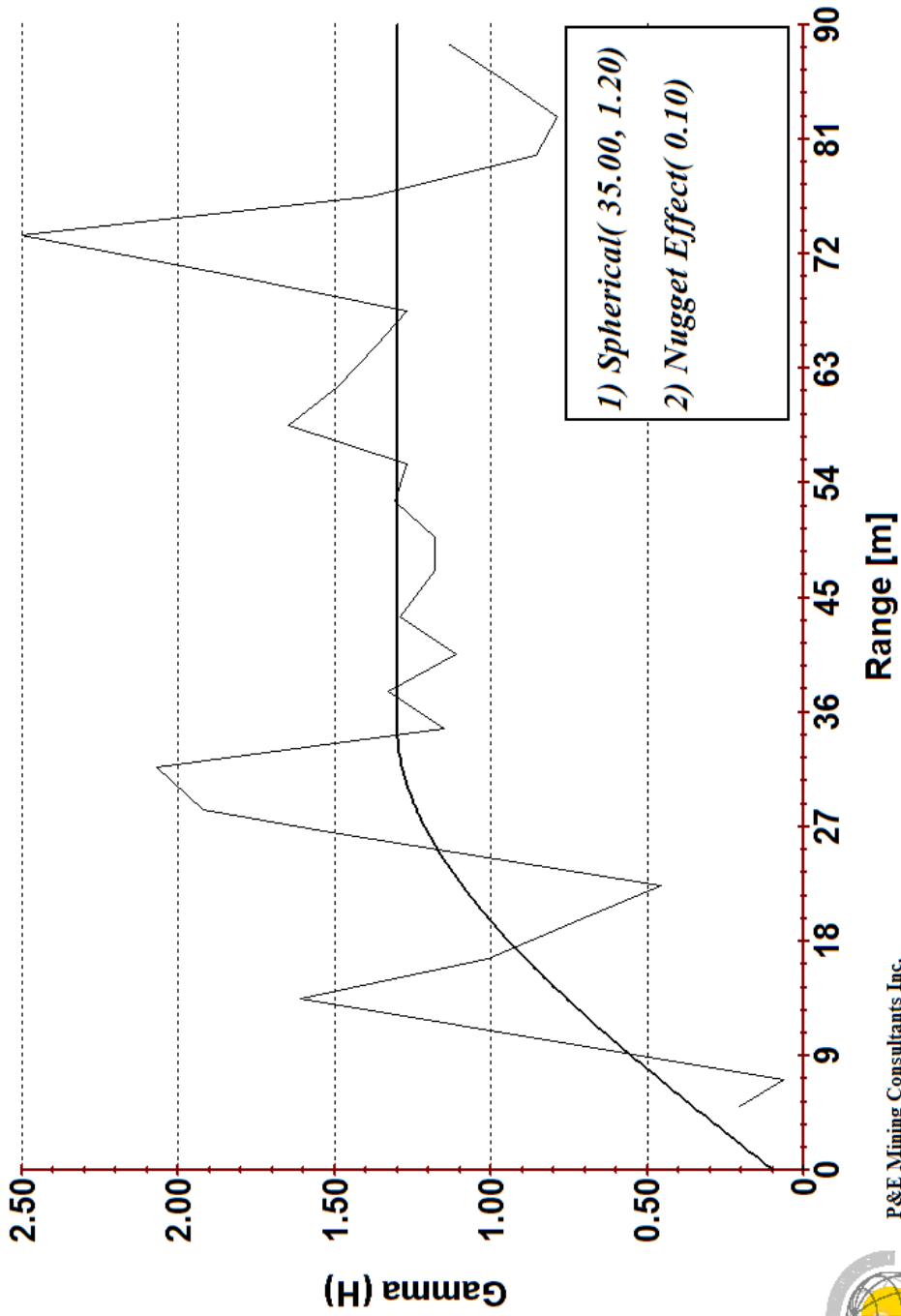
Sue-Dianne Project - Ag Down Dip (Spread 35°)



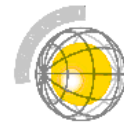
P&E Mining Consultants Inc.
Software By Gemcom



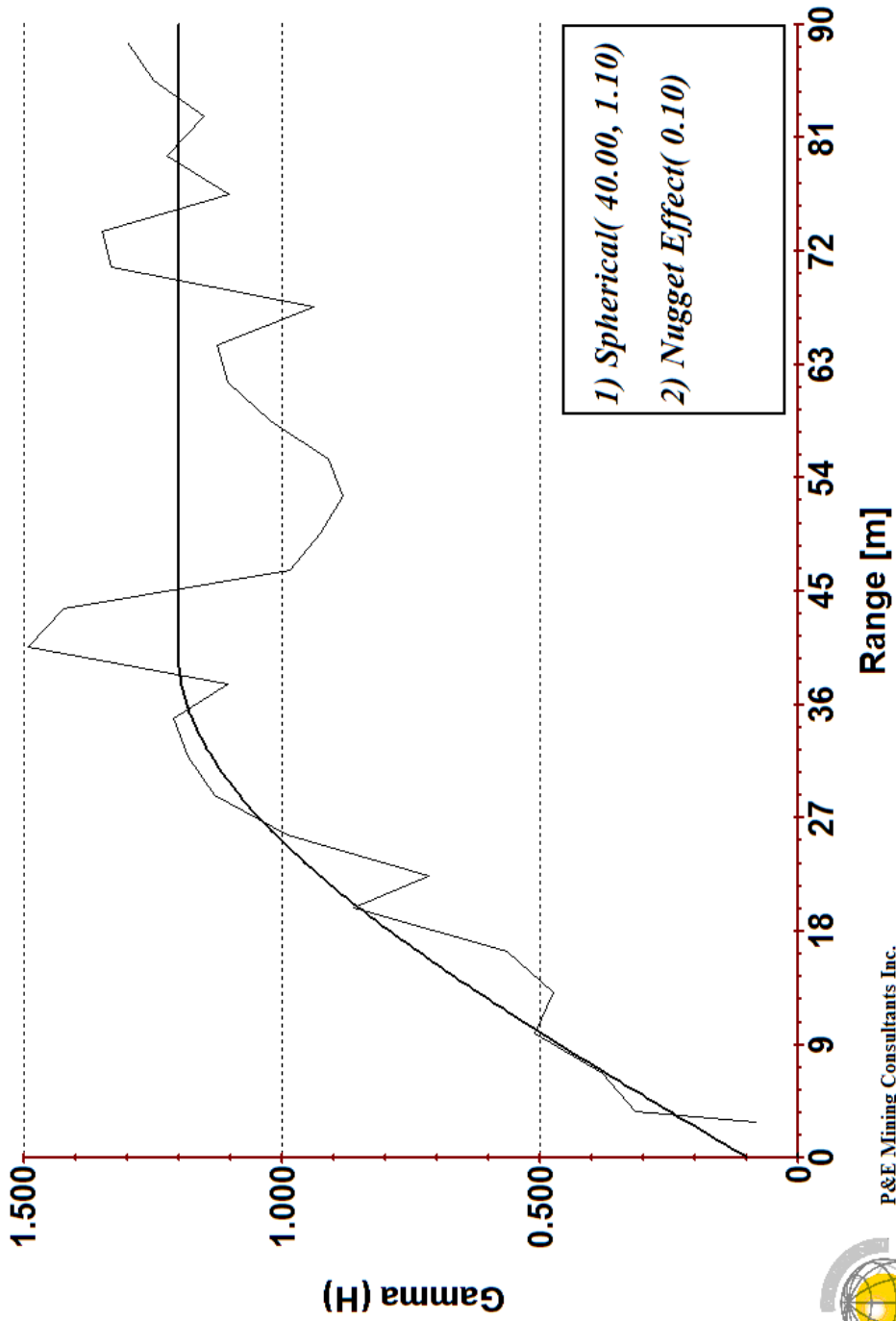
Sue-Dianne Project - Ag Along Strike (Spread 25°)



P&E Mining Consultants Inc.
Software By Gemcom



Sue-Dianne Project - Ag Across Dip (Spread 35°)

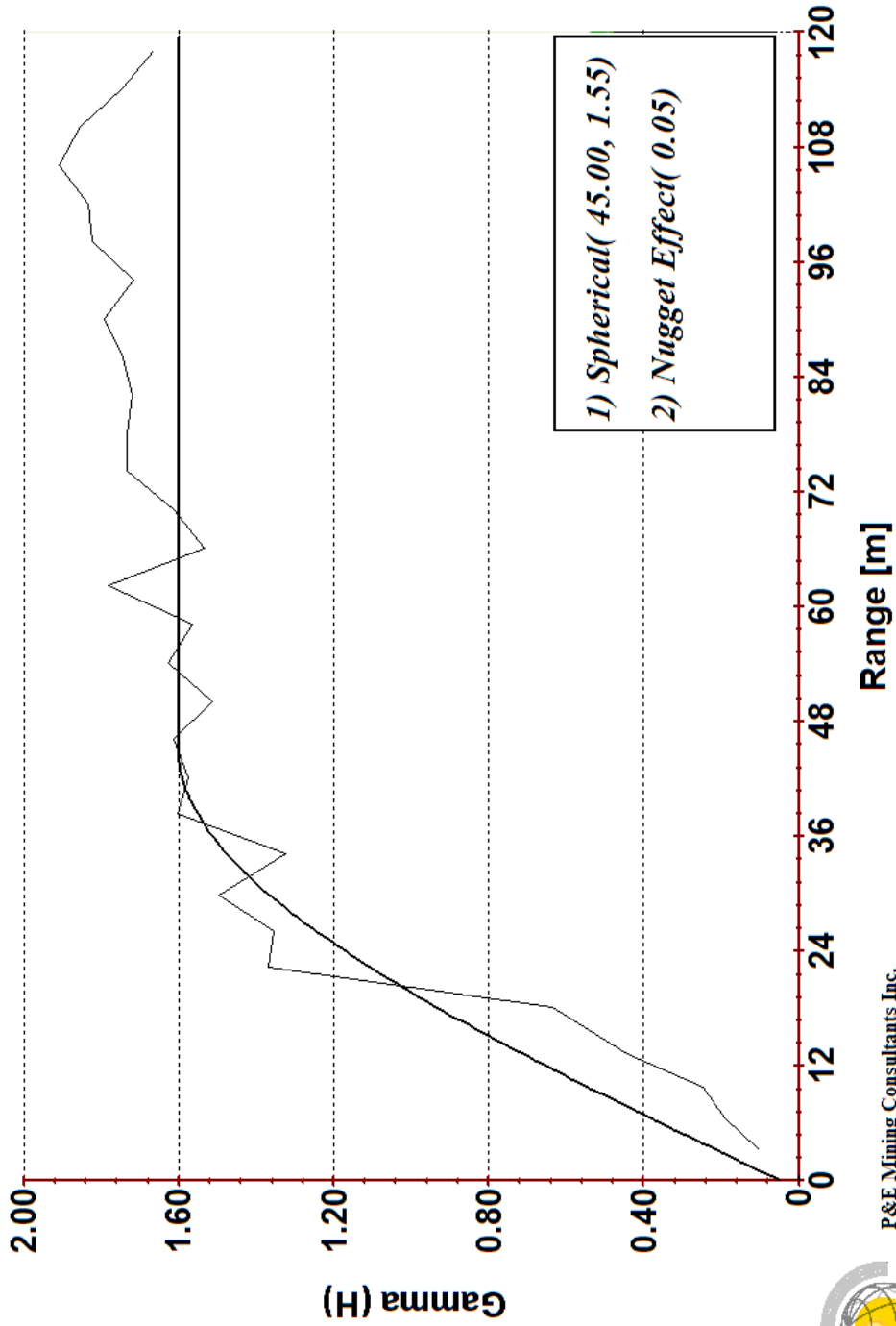


P&E Mining Consultants Inc.
Software By Gemcom



APPENDIX 7
SUE-DIANNE GOLD VARIOGRAMS

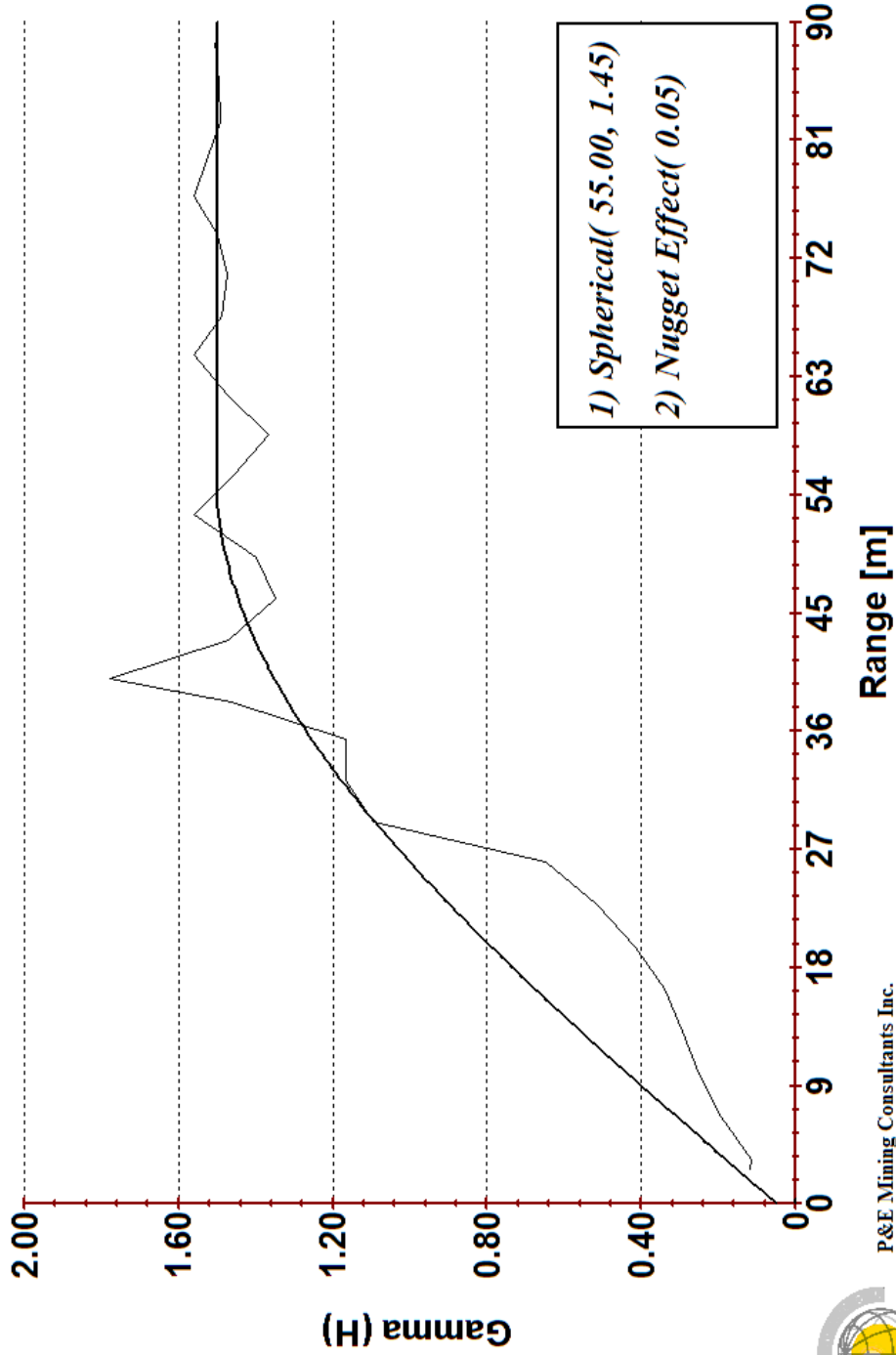
Sue-Dianne Project - Au Omnivariogram



P&E Mining Consultants Inc.
Software By Gemcom

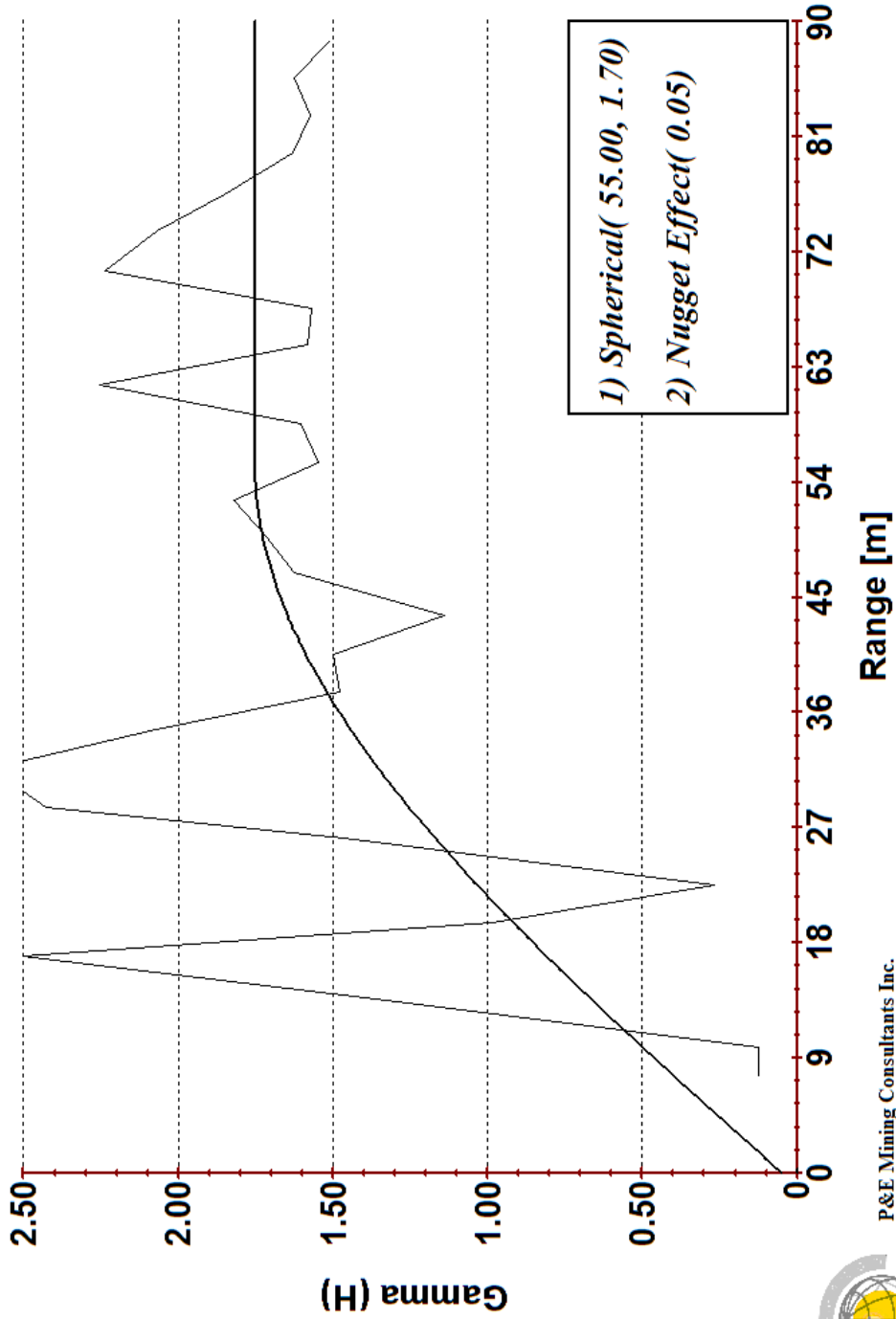


Sue-Dianne Project - Au Down Dip (Spread 35°)



P&E Mining Consultants Inc.
Software By Gemcom

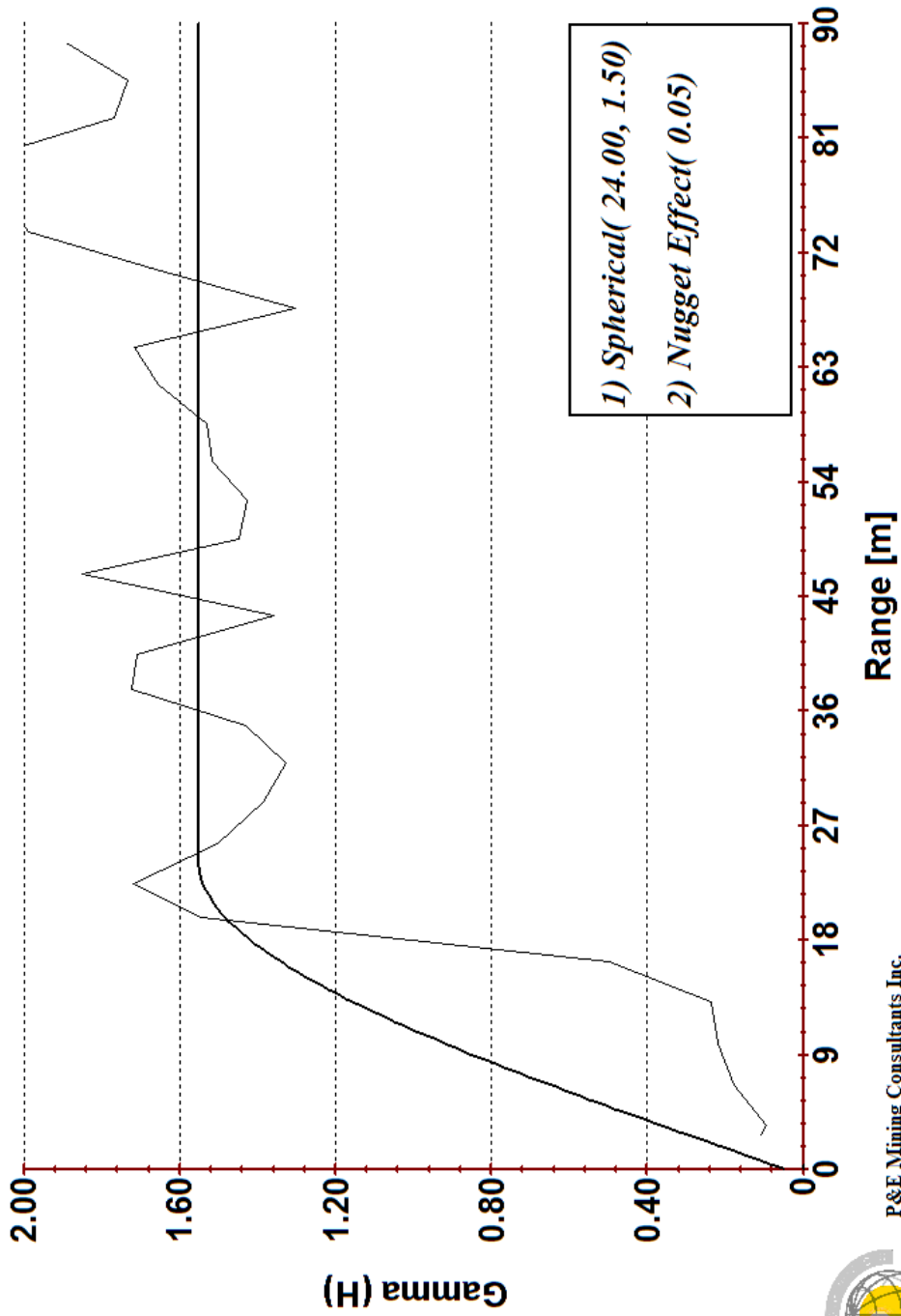
Sue-Dianne Project - Au Along Strike (Spread 35°)



P&E Mining Consultants Inc.
Software By Gemcom



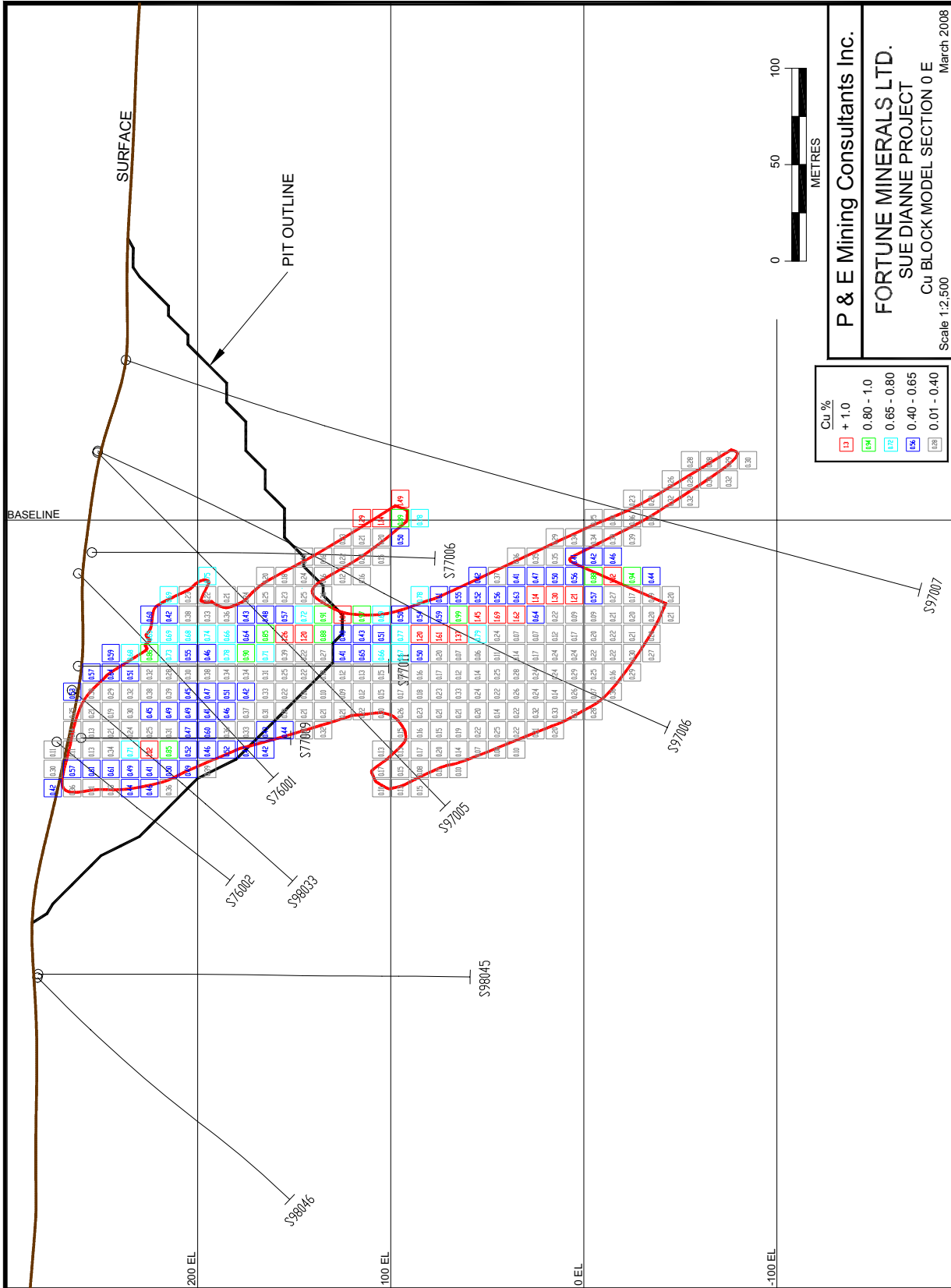
Sue-Dianne Project - Au Across Dip (Spread 45°)

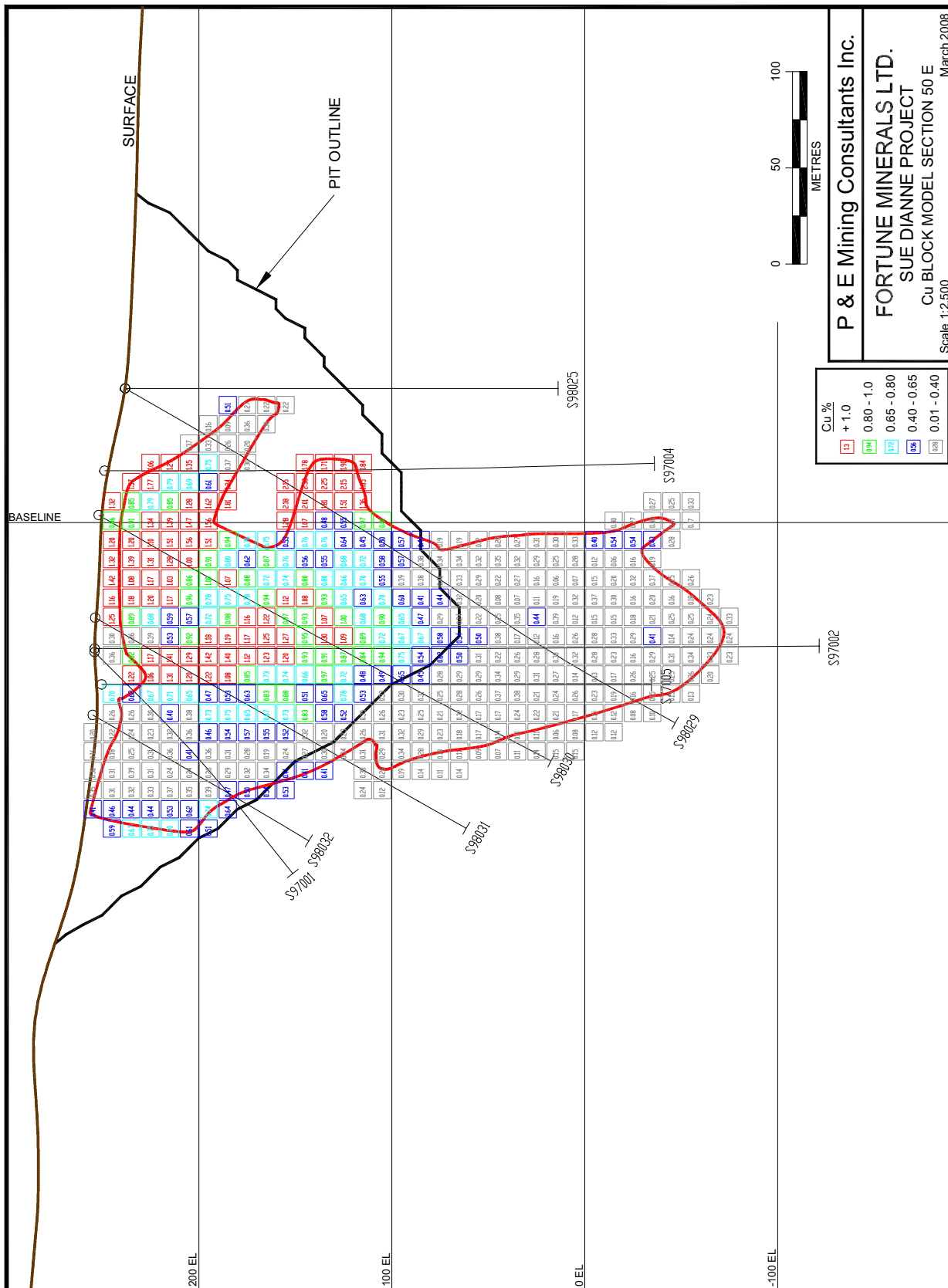


P&E Mining Consultants Inc.
Software By Gemcom



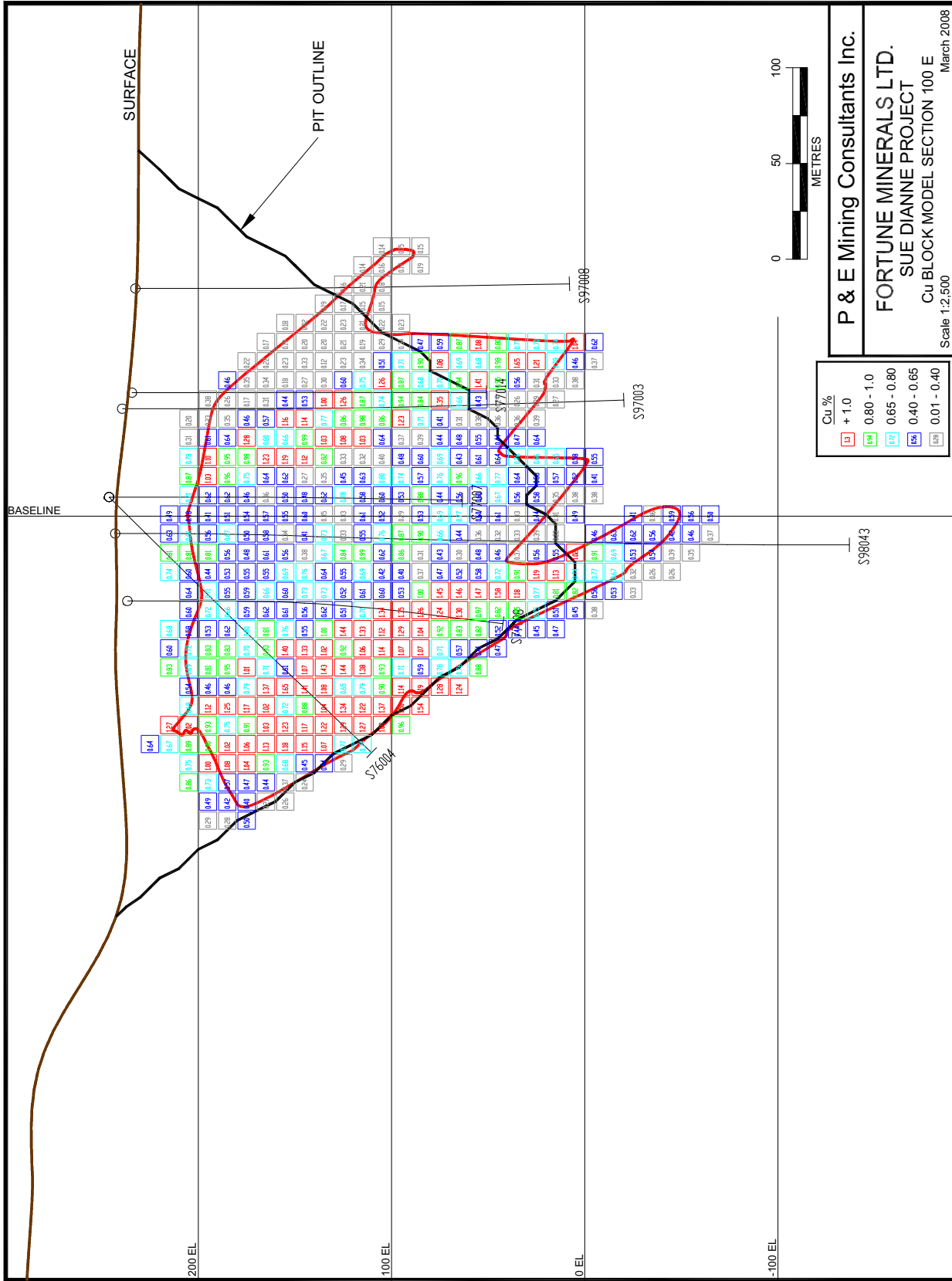
APPENDIX 8
SUE-DIANNE BLOCK MODEL SECTIONS, COPPER,
SECTIONAL AND PLAN VIEWS

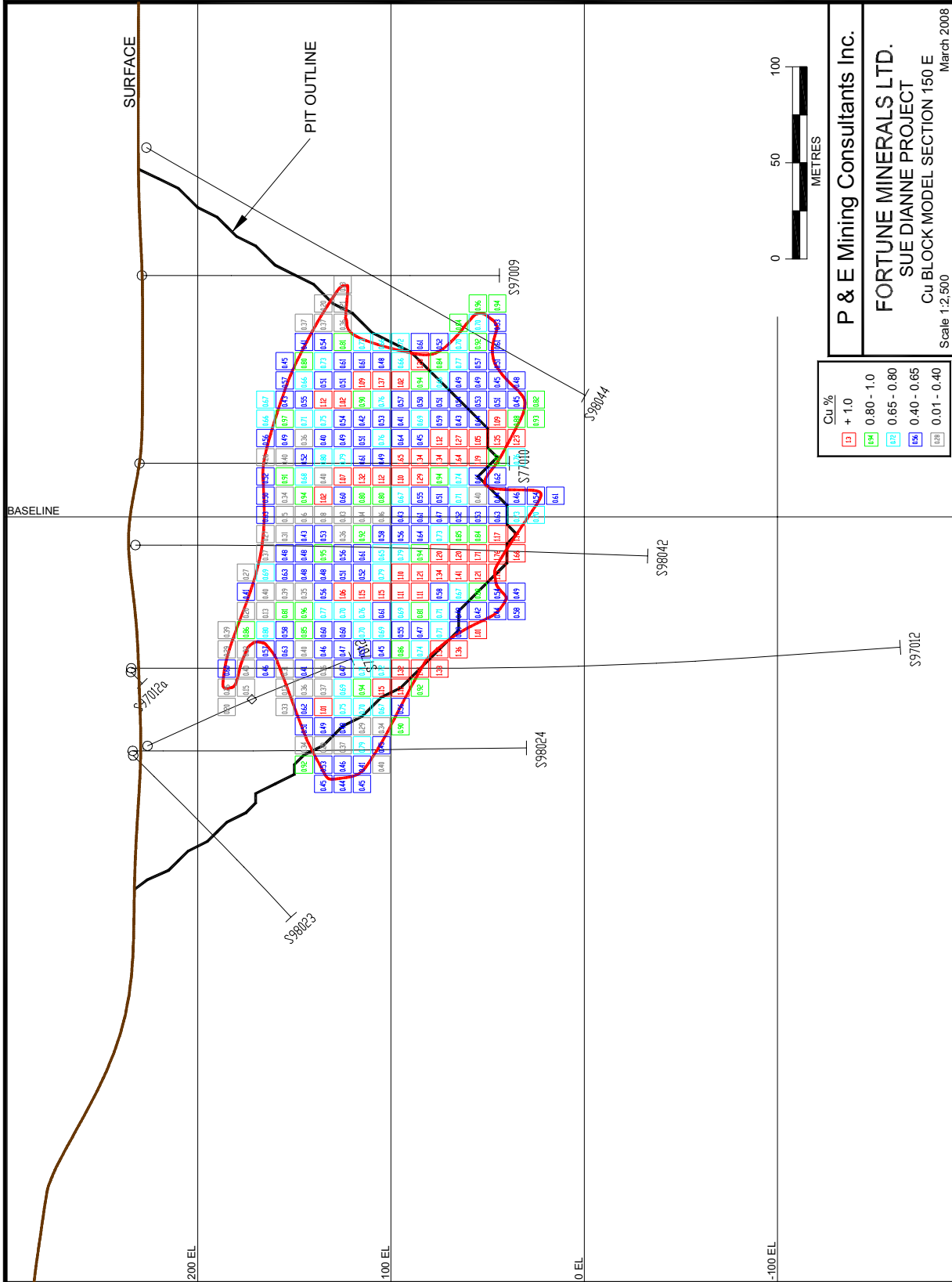




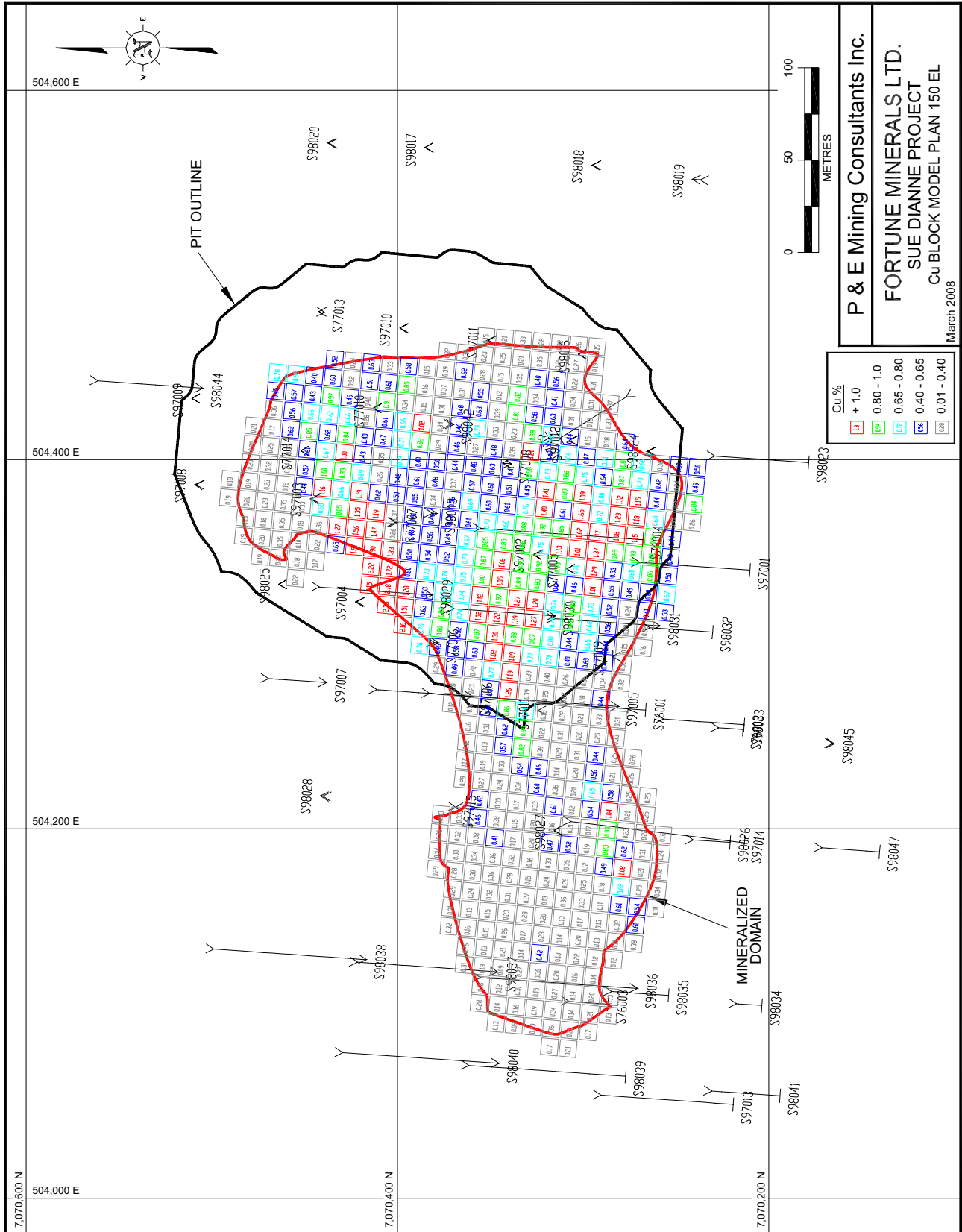
P & E Mining Consultants Inc.
FORTUNE MINERALS LTD.
 SUE DIANNE PROJECT
 Cu BLOCK MODEL SECTION 50 E
 Scale 1:2,500
 March 2008

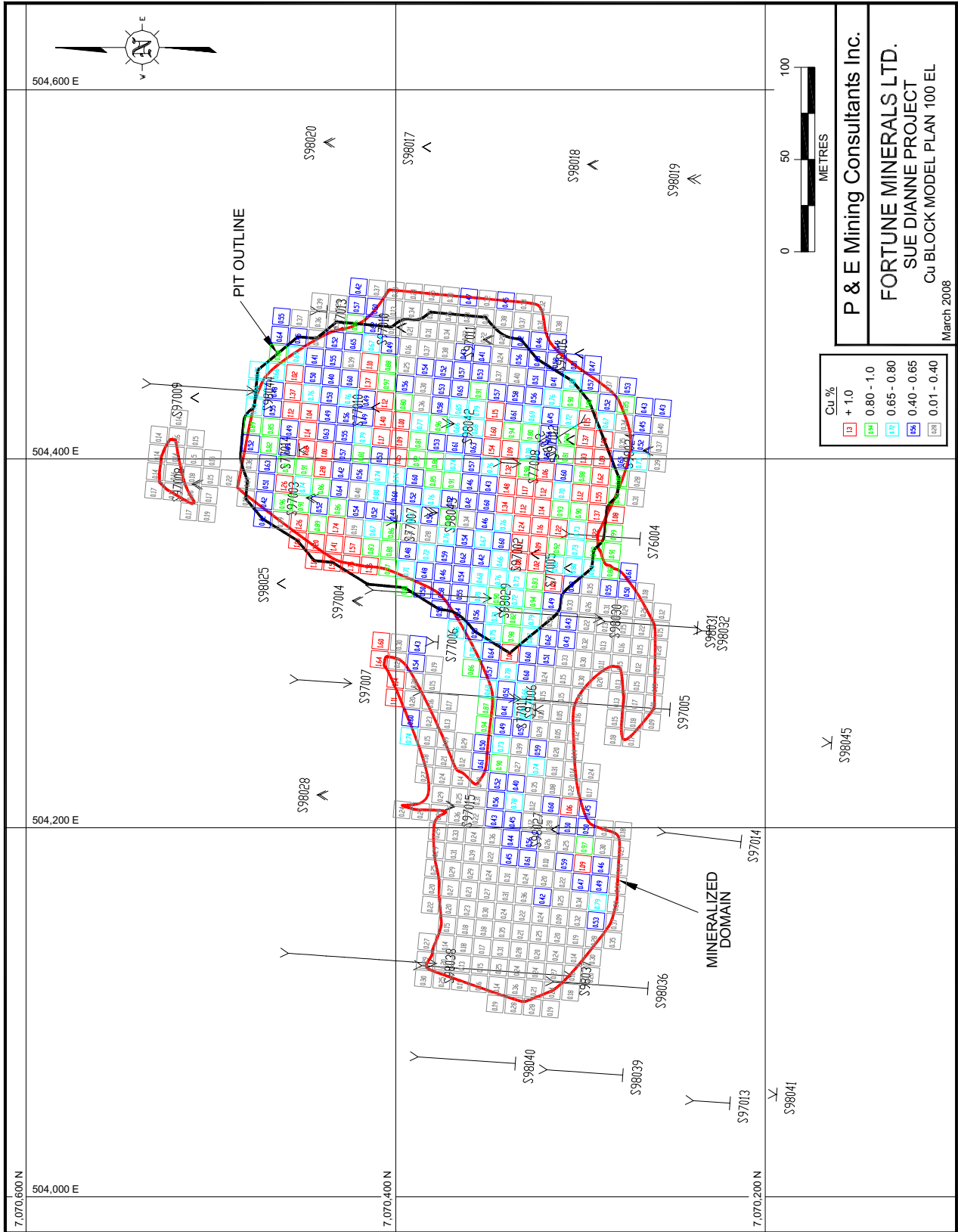
Cu %	
1.0	+ 1.0
0.80	0.80 - 1.0
0.65	0.65 - 0.80
0.40	0.40 - 0.65
0.01	0.01 - 0.40



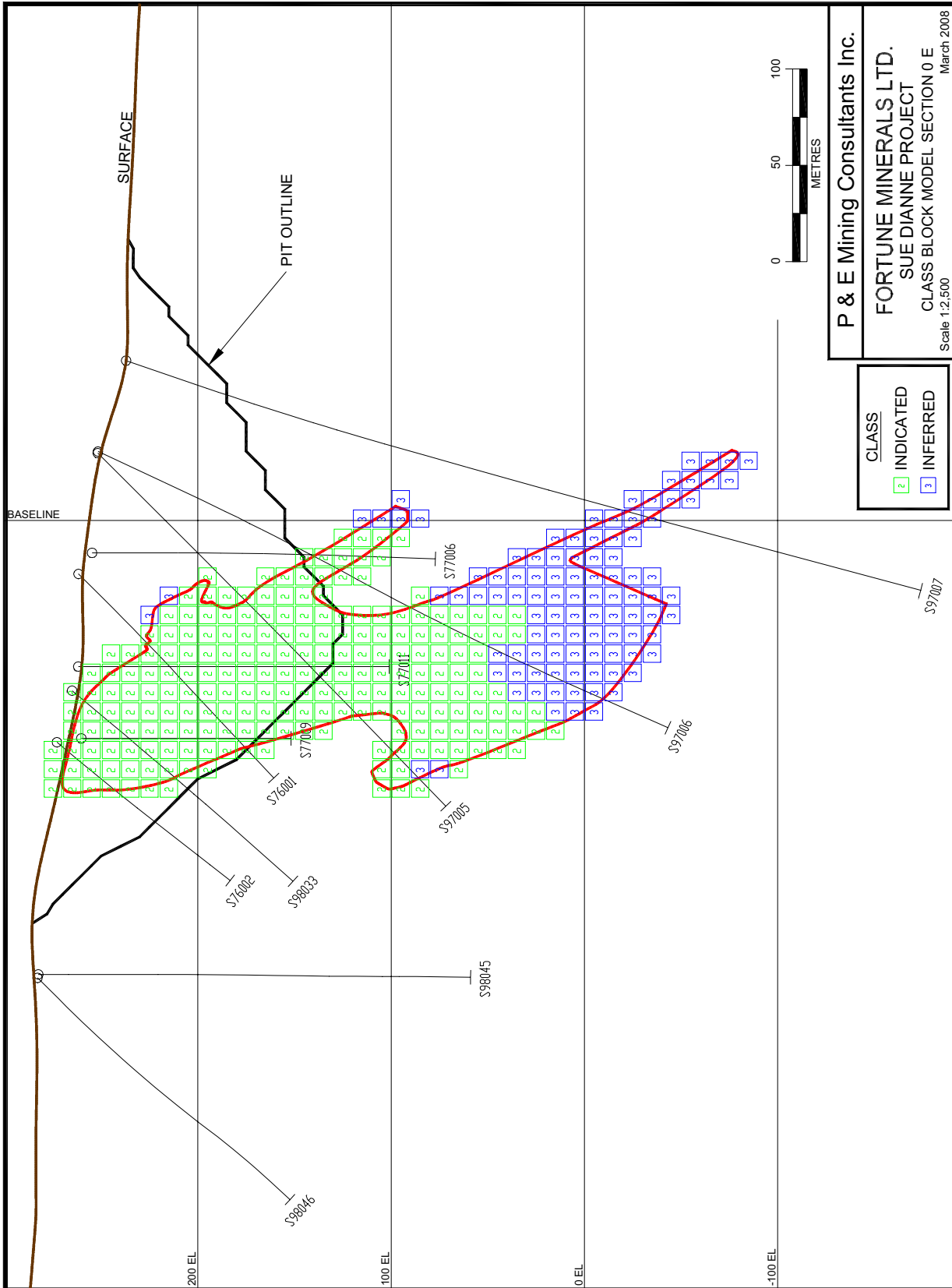


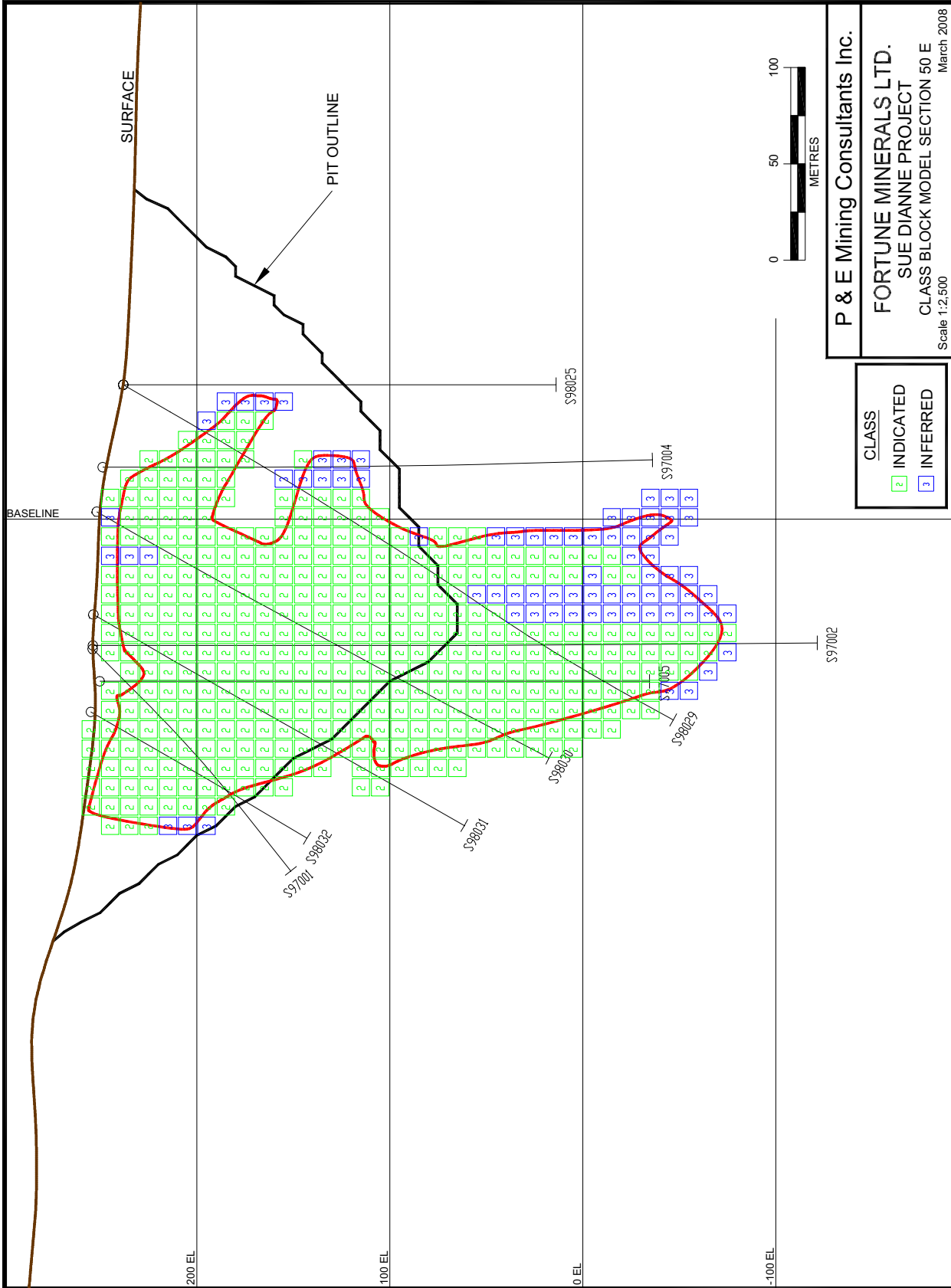
P & E Mining Consultants Inc.
FORTUNE MINERALS LTD.
SUE DIANNE PROJECT
Cu BLOCK MODEL SECTION 150 E
Scale 1:2,500
March 2008

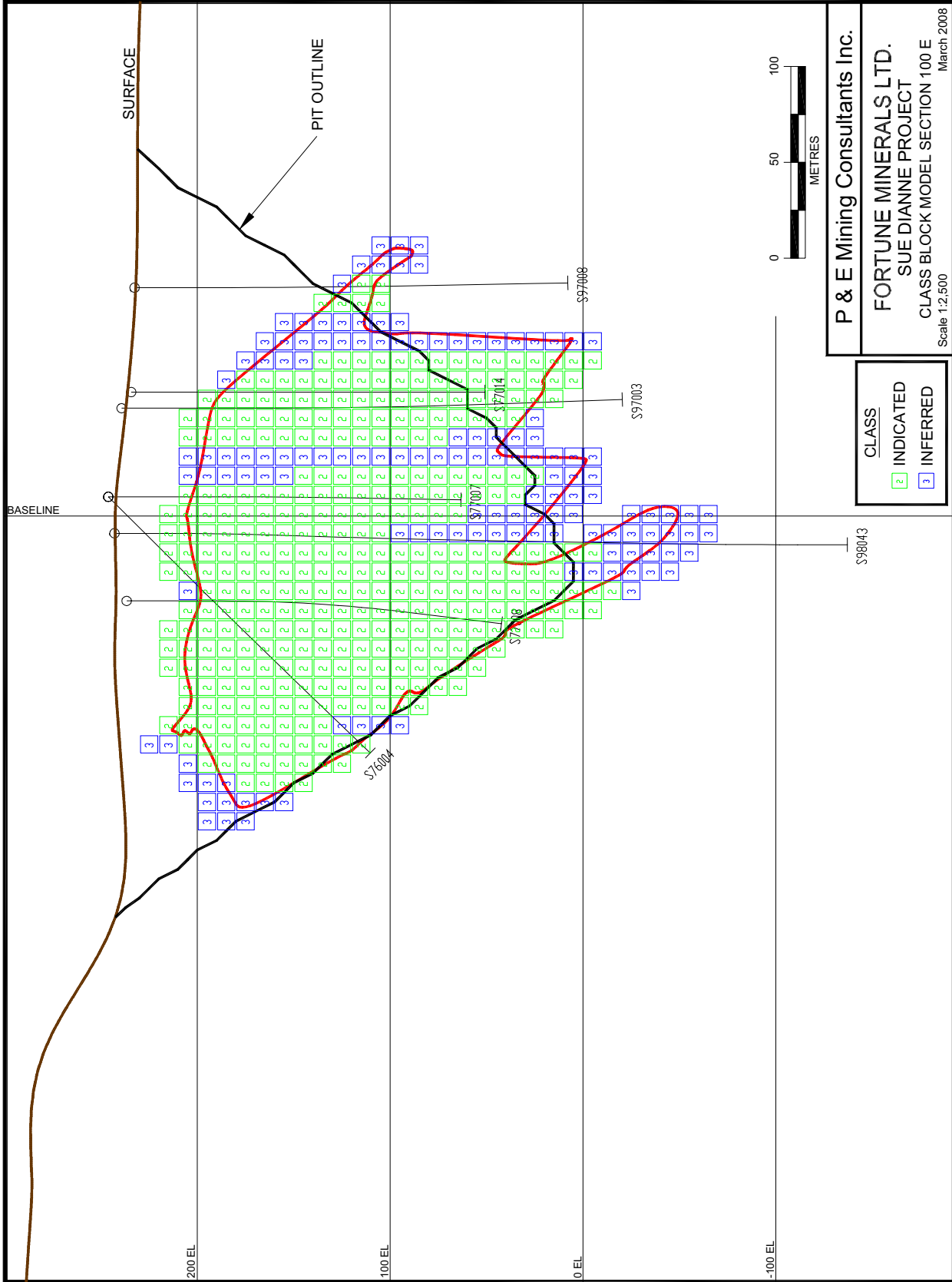


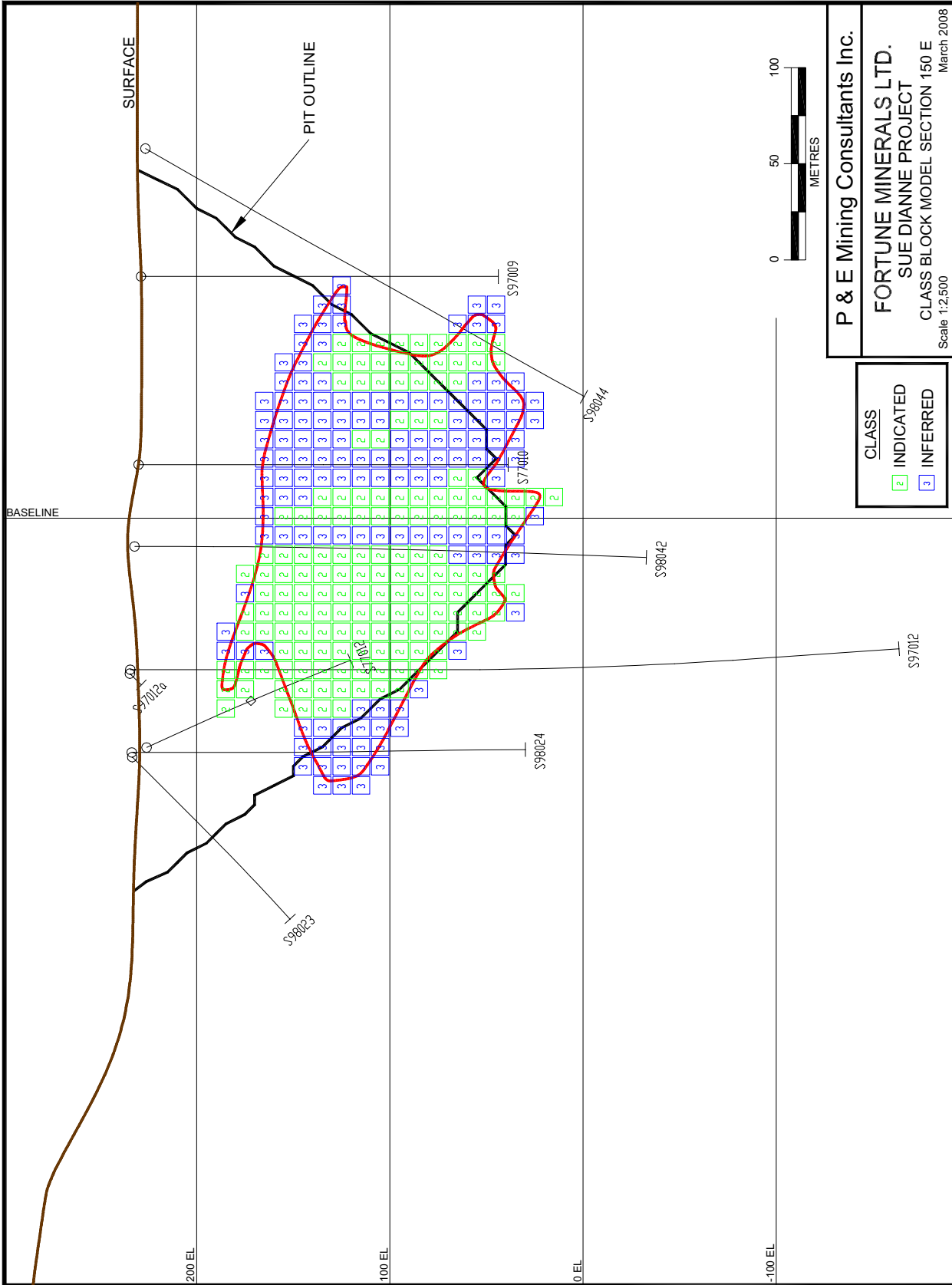


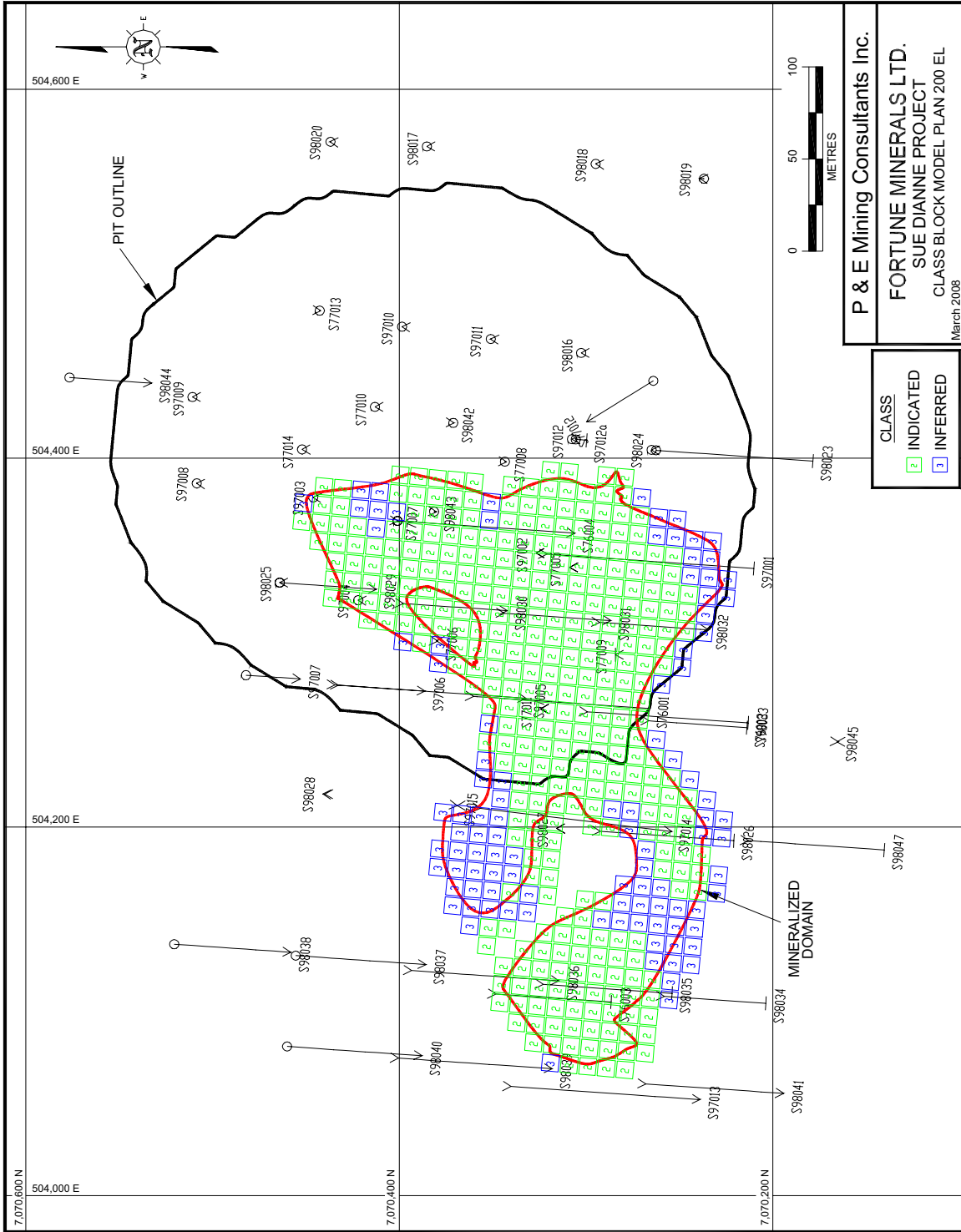
APPENDIX 9
SUE-DIANNE BLOCK MODEL SECTIONS, RESOURCE CLASSIFICATION,
SECTIONAL AND PLAN VIEWS

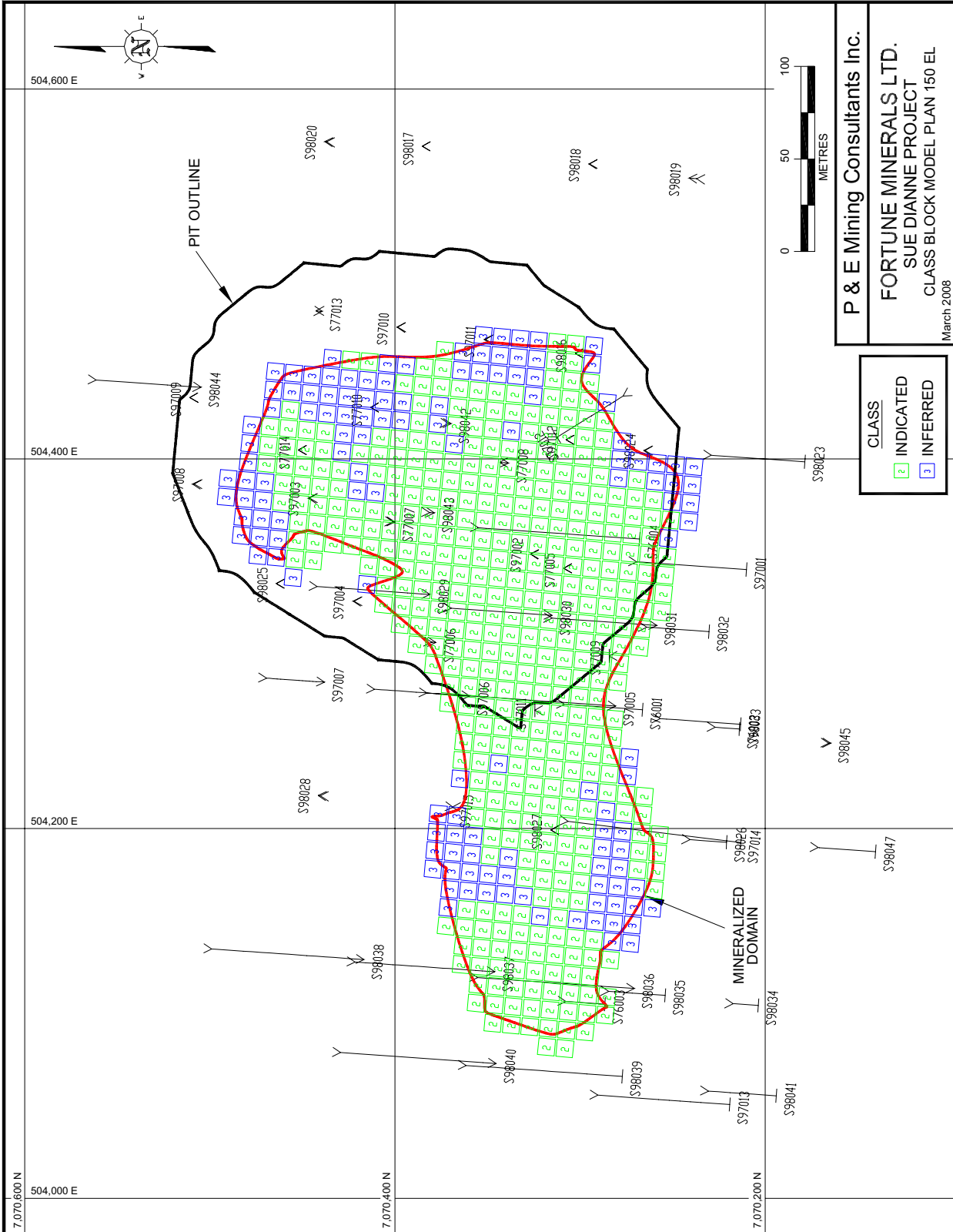


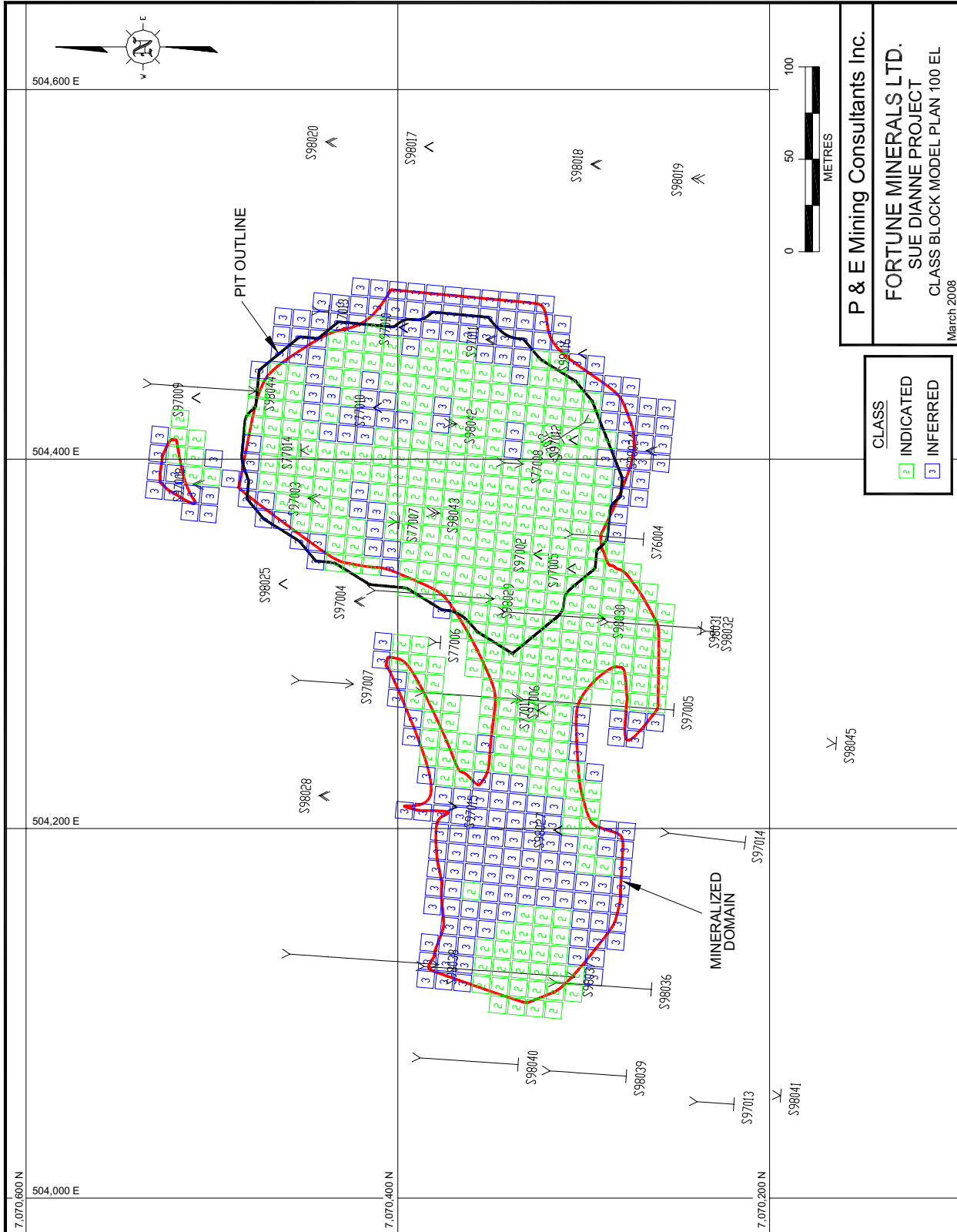












P & E Mining Consultants Inc.
FORTUNE MINERALS LTD.
SUE DIANNE PROJECT
CLASS BLOCK MODEL PLAN 100 EL
March 2008

CLASS
2 INDICATED
3 INFERRED