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INDEPENDENT TECHNICAL REPORT

on the

NorthMet Project

Located in N-E Minnesota, USA, near the town of Babbitt

Technical Update of the NorthMet Project in connection with the Proposed Diamond Drilling Program.

for

POLYMET MINING INC.

By the Principal
(DR. RODNEY L. HAMMOND)

October 2004

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GLOSSARY OF TERMS

Argosy	Argosy-Fleck Resources
Co	Cobalt
Cu	Copper
DFS	Definitive Feasibility Study
CUPREX	Proprietary hydrometallurgical extractive process
DNR	The Minnesota Department of Natural Resources
EIS	Environmental Impact Statement
Fleck	Fleck Resources
Ga	Geological unit of time – 10^9 years
ICP-AES	Inductively coupled plasma atomic emission spectroscopy
kHz	kilohertz
Lakefield	Lakefield Research Limited
LTVSMC	LTV Steel Mining Company
MW	mega watts
NERCO	NERCO Minerals Company
NI	National Instrument
Ni	Nickel
North	North Mines Limited
PGE	Platinum Group Elements
PRI	Partridge River intrusion
PolyMet	PolyMet Mining Corp.
RC	Reverse Circulation Drilling
SEDAR	System for Electronic Document Analysis and Retrieval
The Company	PolyMet Mining Corp.
The Project	NorthMet Project
TSE	Toronto Stock Exchange
USS	US Steel
BQ, BX, BTW NTW, PQ	Nomenclature describing diamond bit diameters.

3. Summary

This report has been written in accordance with the reporting requirements of National Instrument 43-101. The reader is requested to refer to the PolyMet Mining Corp. ("PolyMet") Pre-feasibility Study Report of April 2001 which may be found on the SEDAR website, as well as a more recent report of April 2004 by P. Downey and Associates, entitled "Technical Update of the NorthMet Project Incorporating the established Cliffs-Erie crushing/milling/concentration facilities with the Hydrometallurgical Processes described in the May 2001 Pre-feasibility study." The April 2004 report by P. Downey and Associates, recommends proceeding to the next stage of project development which is the Feasibility Study stage.

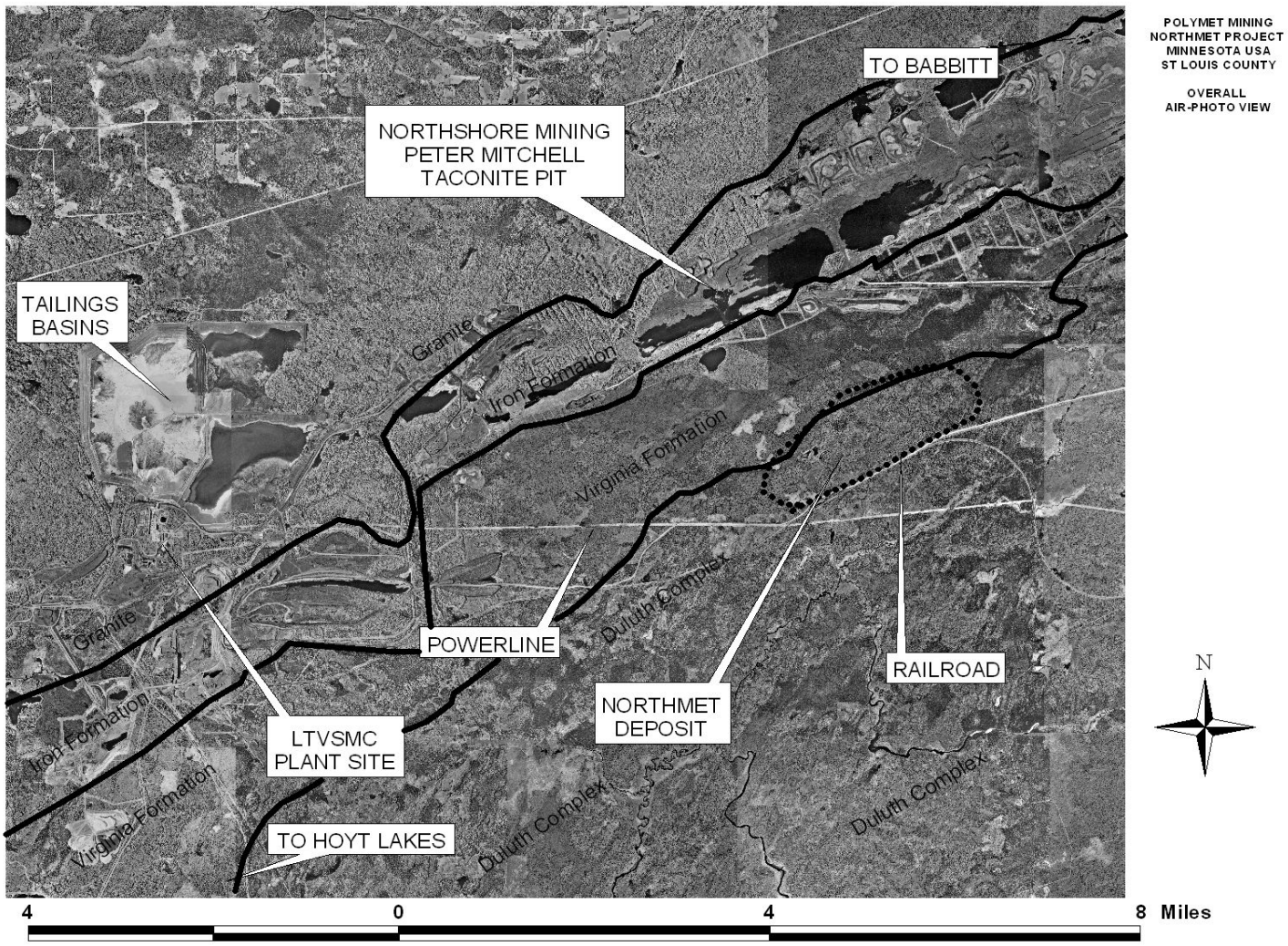
Development of a Definitive Feasibility Study ("DFS") will include the following activities:

a) Diamond drilling to provide additional material for ore characterization, metallurgical pilot scale testwork, for resource definition and to gather waste, lithological, structural, geotechnical and hydrogeological data;
b) Metallurgical and hydrometallurgical testwork including flotation testwork, the determination of crushing and grinding indices, continuous locked cycle leaching tests to confirm process design parameters and to characterize products and waste streams;
c) Process design and engineering;
d) Mine design and engineering leading to development of a Reserve Statement and production schedule;
e) Infrastructure design and engineering;
f) Environmental data collection and associated studies related to environmental permitting;
g) Socio-economic studies related to permitting; and
h) Capital and operating cost estimation together with risk assessment and mitigation.

The purpose of this Technical Report is to describe the diamond drilling program that PolyMet wishes to carry out on its NorthMet deposit in northeastern Minnesota, USA. This drilling program, which is essential to the timely development of the DFS, is tied to an application to list on the Toronto Stock Exchange ("TSE") and to a financing in the Fall of 2004.

FIGURE 1
NORTHMET PROJECT LOCATION MAP

FIGURE 2
AERIAL PHOTO VIEW OF NORTHMET PROJECT AREA



4. Introduction and Terms of Reference

This report has been compiled by way of a collaboration between Mr. Richard Patelke, PolyMet's resident Project Geologist and an Independent Consulting Geologist, Dr. Rodney Hammond. Mr. Patelke resides in Minnesota and is a Registered Professional Geologist of good standing with the State of Minnesota. By virtue of approximately 15 years experience of working in the region and working on several development projects, Mr. Patelke satisfies the criteria for a Qualified Person for this deposit as defined by NI 43-101. He has been involved in fieldwork at NorthMet and on several of the adjacent copper-nickel deposits over a number of years and has conducted regional field mapping and logging of drill core recovered from the deposit during previous drilling campaigns. Mr. Patelke, in conjunction with another professional geologist, has designed the drilling program to which this report relates, but because he is not independent; PolyMet has requested that Dr. Rodney L. Hammond participate in the preparation of this report and take on responsibility for being the Independent Qualified Person. Dr. Hammond is a professional geologist with 22 years experience and is a member of the Australian Institute of Geoscientists. Dr. Hammond is familiar with the regional geology of northeastern Minnesota and has first hand knowledge of the NorthMet deposit having been responsible for the geological aspects of a due diligence review conducted in 2000 on behalf of North Mining, Inc., a subsidiary of North Ltd. ("North"), and directly involved in the planning of North's pre-feasibility study.

5. Disclaimer

Dr. Rodney L. Hammond acts as an Independent Geological Consultant and does not own any equity stake in PolyMet.

Dr. Hammond visited the NorthMet site on numerous occasions in 2000 as part of his responsibility in supervising preparation of the drilling program, re-logging and data recompilation on behalf of then PolyMet joint venture partner, North Mining, Inc. The author also visited the NorthMet site between the 14th and 15th March 2004 to review the geology and database from earlier drilling programs on behalf of another major mining company.

6. Property Description & Location

The NorthMet deposit is situated on a mineral lease located in St. Louis County in northeastern Minnesota at Latitude 47º 36' north, Longitude 91º 58' west, about 70 miles north of the City of Duluth and 10 miles south of the town of Babbitt (Figure 1). PolyMet, as Fleck Resources, acquired a 20 year renewable mineral rights lease to the deposit in 1989 from U.S. Steel ("USS") (leases now controlled by RGGS Inc. ("RGGS") of Houston, Texas. The lease is subject to yearly lease payments before production and then to a sliding scale Net Smelter Return royalty ranging from 3 – 5% with lease payments made before production considered as advance royalties and credited to the production royalty.

Mineral and surface rights have been severed, with the US Forest Service being the surface owner of most of the lease area. As a result of U.S Steel retaining the mineral rights and the rights to explore and mine on the site under the original documents that ceded surface title to the Forest Service, the US Forest Service cannot prohibit mining on the lease.

The NorthMet lease held by PolyMet does not cover all areas expected to be disturbed by diamond drilling and eventual mining. Other areas involved are comparatively small and their surface rights are held by the US Forest Service, Cliffs-Erie, and St. Louis County. The Longyear Mesaba Trust holds the mineral rights to the small area whose surface rights are controlled by the US Forest Service.

The deposit is situated 5 miles east of the former LTV Steel Mining Company ("LTVSMC") taconite concentrator and pellet plant which ceased operations in 2000 (Figure 2). Although it has not operated since then, this facility, and supporting infrastructure, which includes the taconite tailings disposal basin, is robust, intact and in good condition (site visited by author in March 2004 accompanied by an experienced metallurgist). Moreover, it is PolyMet's intention to refurbish and use selected parts of the crushing, milling and concentrator facilities to process ore from NorthMet. In order to do this PolyMet has secured from current owners Cliffs Erie LLC, an option to purchase selected parts of the process facilities and the entire tailings basin. The option is valid for 5 years and the consideration is US$5 million when exercised.

The project area requirement amounts to approximately 7,500 acres.

The only currently known mineralized zone on the lease is the NorthMet deposit. The forest in the area has been extensively and repeatedly logged. There are no mine workings, waste stockpiles, or tailings impoundments on the deposit property. The site is woodland and wetland with no access by the general

public as it is surrounded by private mining lands. An un-metalled mine access road runs parallel to the former, and now infrequently used, LTVSMC railroad and traverses the southern part of the lease. Neither is expected to impact the area where mining operations will be carried out.

Environmental studies and data collection have started in preparation for the initiation of a mandatory project Environmental Impact Statement ("EIS") and submission of applications for environmental permits. However, to carry out the proposed drilling program a permit to drill (which has already been applied for) will be required from the US Forest Service. PolyMet is also required to notify the State Departments of Health and Natural Resources of its intended drilling activities before commencing drilling. The application to drill has been lodged with the US Forest Service and is expected to be granted imminently; the required state notifications will be provided when the permit to drill has been issued.

7. Accessibility, Climate, Local Resources, Infrastructure & Physiography

The project site is situated in the eastern part of the historically important Mesabi Iron Range, which still accounts for the production of approximately 38 million tons per annum of taconite pellets and iron ore concentrate. There are six producing iron ore mines on the Range of which the nearby Northshore open pit mine operated by Cleveland-Cliffs is one of the largest. Northshore is located approximately 3 miles north of the NorthMet deposit.

Access to the property is by a combination of good quality asphalt and gravel roads via the LTVSMC plant site. The nearest centre of population is the town of Hoyt Lakes which has a population of about 2,500. There are a number of similarly sized communities in the vicinity, all of which are well serviced, provide ready accommodation, and have been or still are directly associated with the region's extensive taconite mining industry. The road network in the area is well developed though not heavily trafficked and there is an extensive railroad network which serves the taconite mining industry across the entire Range. There is access for ocean shipping via Duluth and other lake ports and the St. Lawrence Seaway.

While the Iron Range forms an extensive and prominent regional topographic feature, the project site is located a short distance south of the Range where the surrounding countryside is characterized as being gently undulating. Elevation at the project site is about 1,600 feet above sea level (1,000 feet above Lake Superior). Much of the region is poorly drained and the predominant vegetation comprises wetlands and boreal forest. Forestry is a major local industry and the project site and much of the surrounding area has been repeatedly logged.

Climate is continental and characterized by wide temperature variations and significant precipitation. The temperature in the town of Babbitt, about 10 miles north of the deposit,
averages 4º F in January and 66ºF in July. During short periods in summer, temperatures may reach as high as 90ºF with high humidity. Average annual precipitation is about 28 inches with about 30% of this falling mostly as snow between November and April. Annual snowfall is typically about 60 inches with 2 to 3 feet on the ground at any one time. The local taconite mines operate year round and it is rare for snow or inclement weather to cause production delays.

The area has been economically dependent on the iron ore industry for many years and while there is an abundance of skilled labor and local mining expertise, the closure in 2000 of the LTVSMC open pit mine and taconite processing facility has had a significant negative impact on the local economy and population growth. There are, however, a number of other operating mines in other parts of the Iron Range and hence the mining, support industries, and industrial infrastructure remains well developed

and of a high standard.

The LTVSMC plant site is still connected to the electrical power supply grid and a main HV electrical power line runs parallel to the road and railroad, which traverses the southern part of the mining lease area. There is a coal fired 130 mega watts ("MW") power station operated by Minnesota Power situated just west of Hoyt Lakes and about 8 miles from the LTVSMC plant site. There are local sources of fresh water.

8. History

There has been no prior mineral production from the NorthMet deposit though it has been subject to several episodes of exploration and drilling since its discovery in 1969 by U.S. Steel. Table 1 summarizes the exploration drilling activities that have occurred since 1969.

Table 1 -. Summary of NorthMet exploration activity since 1969.

Company	Period	Drilling Type	Number of Holes	Number of Feet Drilled	Number of Assay Intervals (approx.)
U S Steel	1969-1973	BX core	112	133,346	3,875+
U S Steel	1971-1972	Three surface bulk samples for metallurgical testing taken from two locations			
NERCO	1991	BQ core/PQ core	2 (2 pairs)	842	165
NERCO	1991	Bulk metallurgical sample from large size core used for tests of CUPREX hydrometallurgical process			
PolyMet	1998-2000	6" RC	52	24,650	4,890
PolyMet	1998-2000	BTW and NTW core	32	22,146	3,795
PolyMet	1998-2000	6" RC with AQ core tail	3	2,707	counted above
PolyMet	1998 & 2000	Two flotation pilot plant campaigns used about 60 tons of sample derived from RC drilling programs.			
Humble Oil (Exxon)*	1968-1969	Core size unknown	3 (several miles south of deposit)	9,912	none used

*The Humble Oil drilling is used for stratigraphic control only.

U.S. Steel held mineral and surface rights over much of the area, including the NorthMet lease until the 1930's when for political and land management reasons surface title was ceded to the US Forest Service. In negotiating the deeds that separated the titles, U.S. Steel retained the mineral rights and the rights to explore and mine any minerals on the site, effectively removing the possibility of veto to such activities by the US Forest Service.

In 1989 Fleck Resources Ltd. ("Fleck"), a company registered in British Columbia, Canada, acquired a 20 year renewable mineral rights lease to the NorthMet deposit from U.S. Steel and undertook

exploration of the deposit. Fleck also developed joint ventures with NERCO Minerals Company ("NERCO") and Argosy-Fleck Resources ("Argosy") in order to progress exploration. In 1998, Fleck Resources Ltd. changed its name to PolyMet Mining Corp. which, with the exception of an hiatus between 2001 and 2003, has continued exploration and evaluation of the deposit up to the present. In 2004 U.S. Steel sold much of its real estate and mineral rights in the area, including the NorthMet deposit, to a private company, RGGS. PolyMet's U.S. Steel mineral lease was transferred to RGGS at that time.

In 2000, PolyMet commissioned Independent Mining Consultants, Inc. of Tucson, Arizona to carry out a Pre-feasibility Study of exploiting the deposit and the report, which was published in 2001, was filed on SEDAR. One of the conclusions of the IMC Pre-feasibility Study report was that proceeding to the preparation of a full Feasibility Study was warranted.

9. Geological Setting

The Duluth Complex in northeastern Minnesota is a large, composite, grossly layered, tholeiitic mafic intrusion that was emplaced into comagmatic flood basalts along a portion of the Middle Proterozoic (1.1 Ga, Keweenawan) Midcontinent Rift System. Along the western edge of the Duluth Complex, and within the Partridge River intrusion ("PRI") and South Kawishiwi intrusions, several Cu-Ni deposits/prospects occur. The NorthMet deposit is situated within the PRI, which consists of varied troctolitic and gabbroic rock types that have been subdivided into a least seven igneous stratigraphic units in drill core.

The regional and local geology are well known (Figure 3),(Geerts, 1994, Severson et al., 1996, 2000, Hauck et al., 1997, Miller et al., 2001, 2002). There are over 1,000 exploration drill holes on this part of the Complex, and nearly 800,000 feet of core have been re-logged in the past fifteen years by a small group of company and university research geologists (Patelke, 2003). All of these igneous units, which are described below, exhibit shallow dips (10º-25ºE) to the south-southeast (see Figure 4).

Unit 1: consists of a heterogeneous mixture of troctolitic to gabbroic rocks, with abundant inclusions of hornfelsed sedimentary footwall rocks and lesser discontinuous layers of ultramafic rock. Unit 1 is the dominant sulphide-bearing member in the NorthMet deposit. At least three Platinum group element ("PGE") enriched "stratabound" layers are present within Unit 1, the uppermost of which has the highest concentrations of PGE. Unit 1 is 200 feet to 1000 feet thick, averaging 450 feet.

Unit 2: consists of homogenous troctolitic rocks, with minor sulphide mineralization, and a fairly persistent basal ultramafic layer that separates Unit 2 from Unit 1. Unit 2 averages about 200 feet thick.

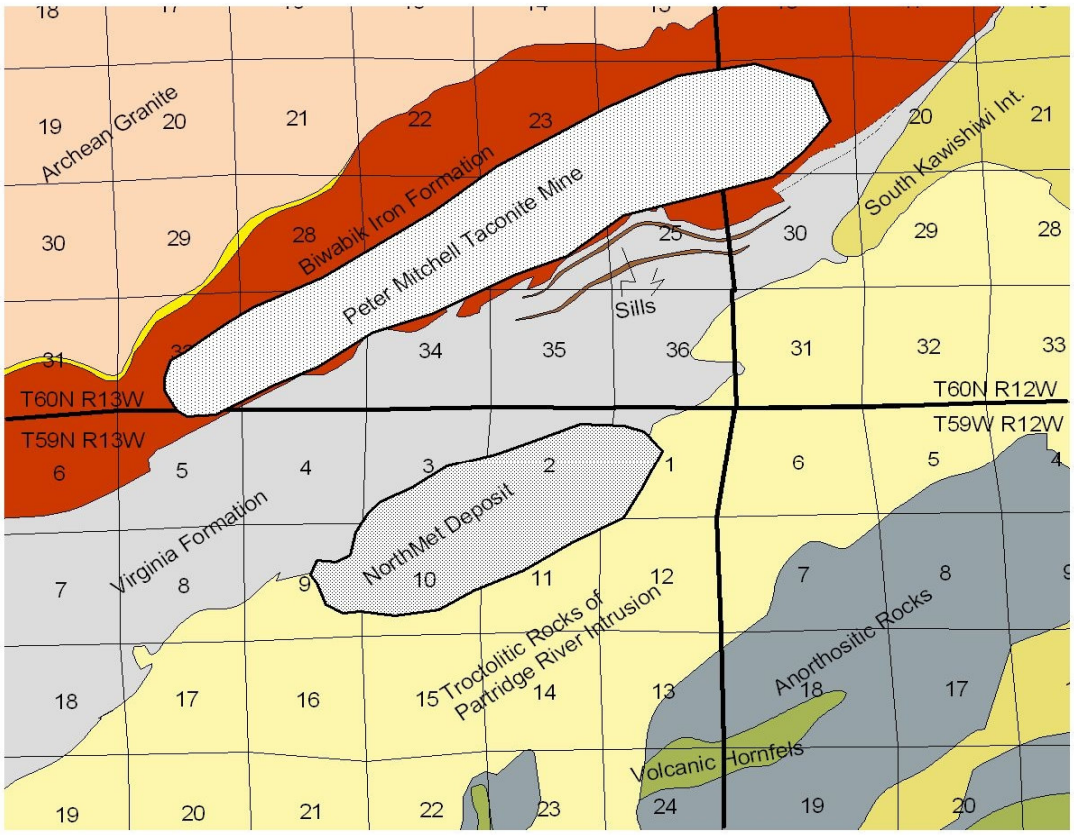
Unit 3: consists of a fine-grained, poikolitic, anorthositic troctolite. Unit 3 is the major marker bed within the deposit due to its fine-grained nature and the presence of distinctive olivine oikocrysts that give the rock a mottled appearance. Unit 3 contains little or no mineralization and averages 250 feet thick.

Unit 4:	consists of homogenous ophitic augite troctolite with a local ultramafic layer at, or near, the base of the unit. There is little or no mineralization in this unit and it averages about 300 feet thick.
Units 5, 6, and 7:	consist of homogenous anorthositic troctolite grading to ophitic augite troctolite; units 6 and 7 have persistent ultramafic bases. There is little or no economic sulphide mineralization except for a small horizon in six drill holes in Unit 6. These generally unmineralized units average about 1,200 feet in thickness, but because the top of Unit 7 has not been seen in drill core, this figure is probably a minimum. Preliminary assessment shows that PolyMet would intersect very little of these upper units in its pit development.

The footwall rock at NorthMet is the sedimentary Lower Proterozoic (1.8 Ga) Virginia Formation which is underlain by the Biwabik Iron-Formation.

FIGURE 3

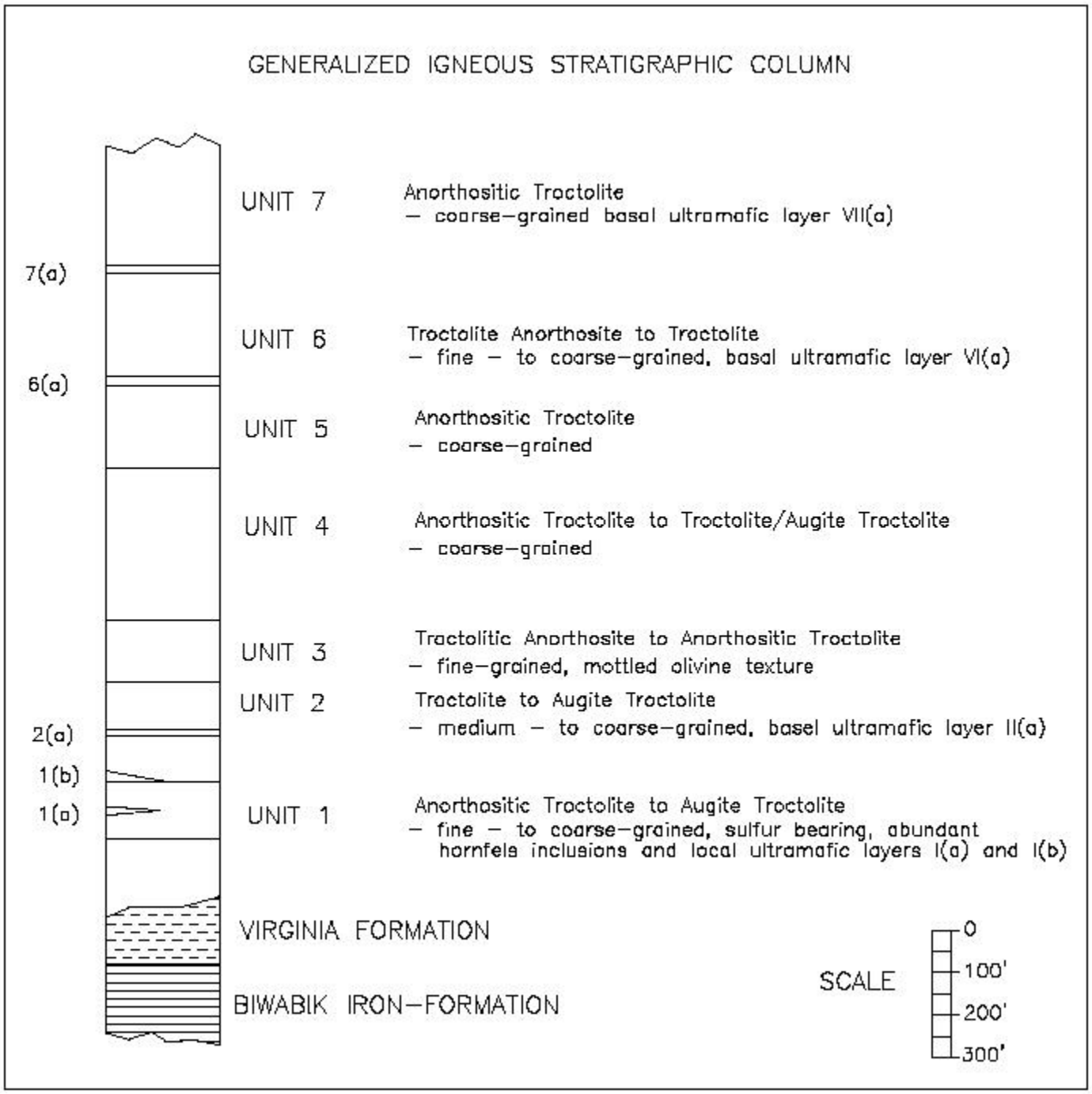
REGIONAL GEOLOGY OF NORTHMET PROJECT



POLYMET MINING
NORTHMET PROJECT
MINNESOTA USA

REGIONAL GEOLOGY
FROM MINNESOTA
GEOLOGICAL SURVEY
REPORT INVESTIGATIONS 58
NorthMet Located in:
St Louis County
Township 59 North
Range 13 West
Sections 1, 2, 3, 9, 10, & 11

FIGURE 4
STRATIGRAPHIC SECTION FOR NORTHMET PROJECT



10. Deposit Type

The NorthMet deposit itself is a low-grade, large-tonnage, disseminated accumulation of sulphide in mafic rocks with rare massive sulphides. Copper to nickel ratios generally range from 3:1 to 4:1. Primary mineralization is probably magmatic, though the possibility of structurally controlled re-mobilization of the mineralization (especially PGE's) has not been ruled out. Sulfur source is both local and magmatic (Theriault et al., 2000). Extensive detailed logging has shown no definitive relation between specific rock type and the quantity of sulphide mineralization in the Unit 1 mineralized zone or in other units, though the localized noritic rocks (related to footwall assimilation) tend to be of poorer PGE grade and higher in sulfur (Figures 5 and 6).

Footwall faults are inferred from bedding dips in the underlying sedimentary rocks, considering the possibility that Keweenawan syn-rift faults may affect these underlying units and have less movement, or indeed no effect on the igneous units. Nonetheless, without faults, the dips do not reconcile well with the overall slope of the footwall. There are some apparent offsets in the igneous units, but definitive fault zones have not been identified. So far, no apparent local relation between the inferred location of faults and mineralization has been delineated.

It is anticipated that recently reprocessed and imaged low-level, airborne geophysical data covering the area of the deposit will provide some indication of the likely location and potential continuity of such structures.

FIGURE 5

TYPICAL CROSS-SECTION THROUGH NORTHMET DEPOSIT

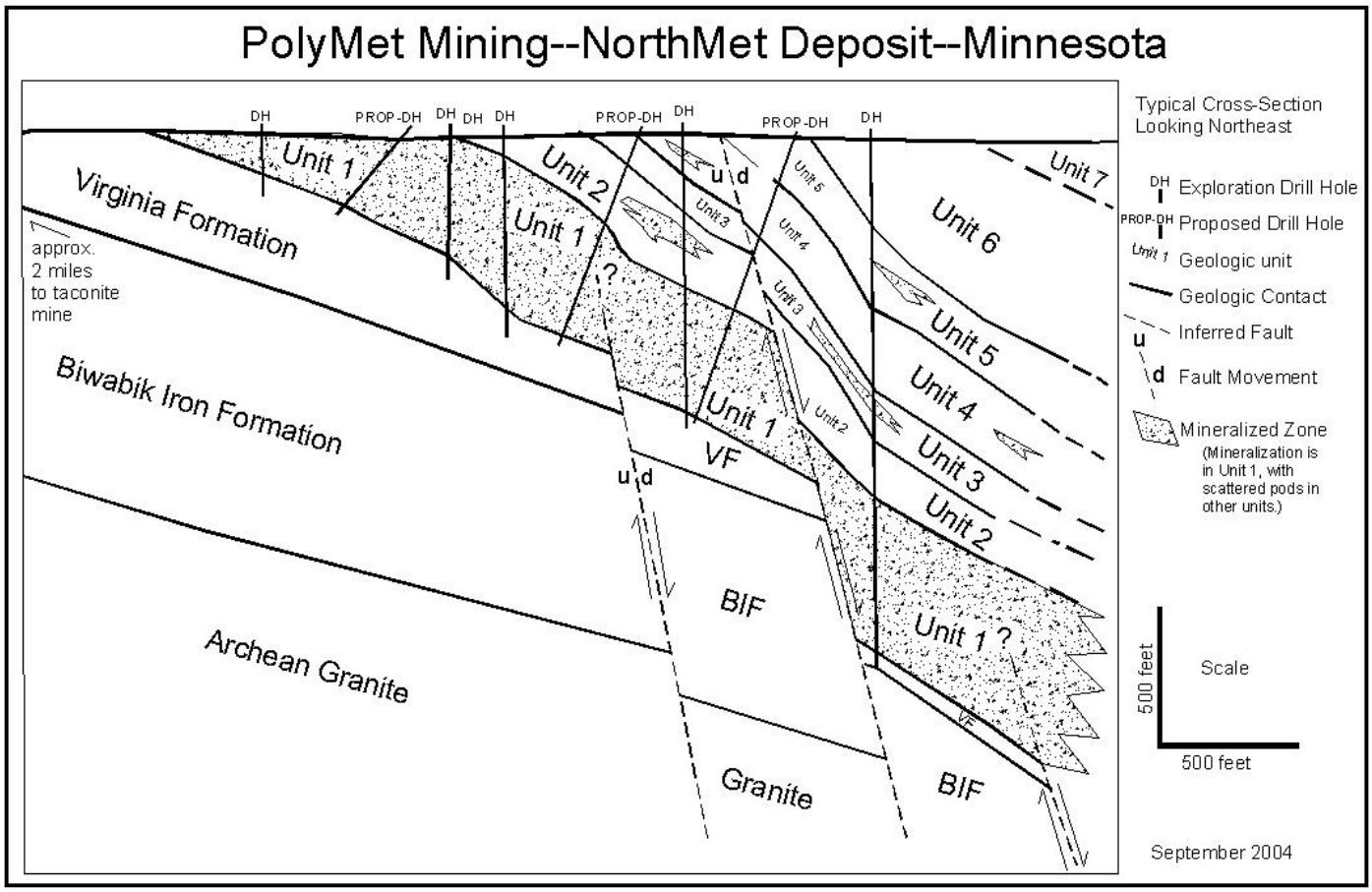
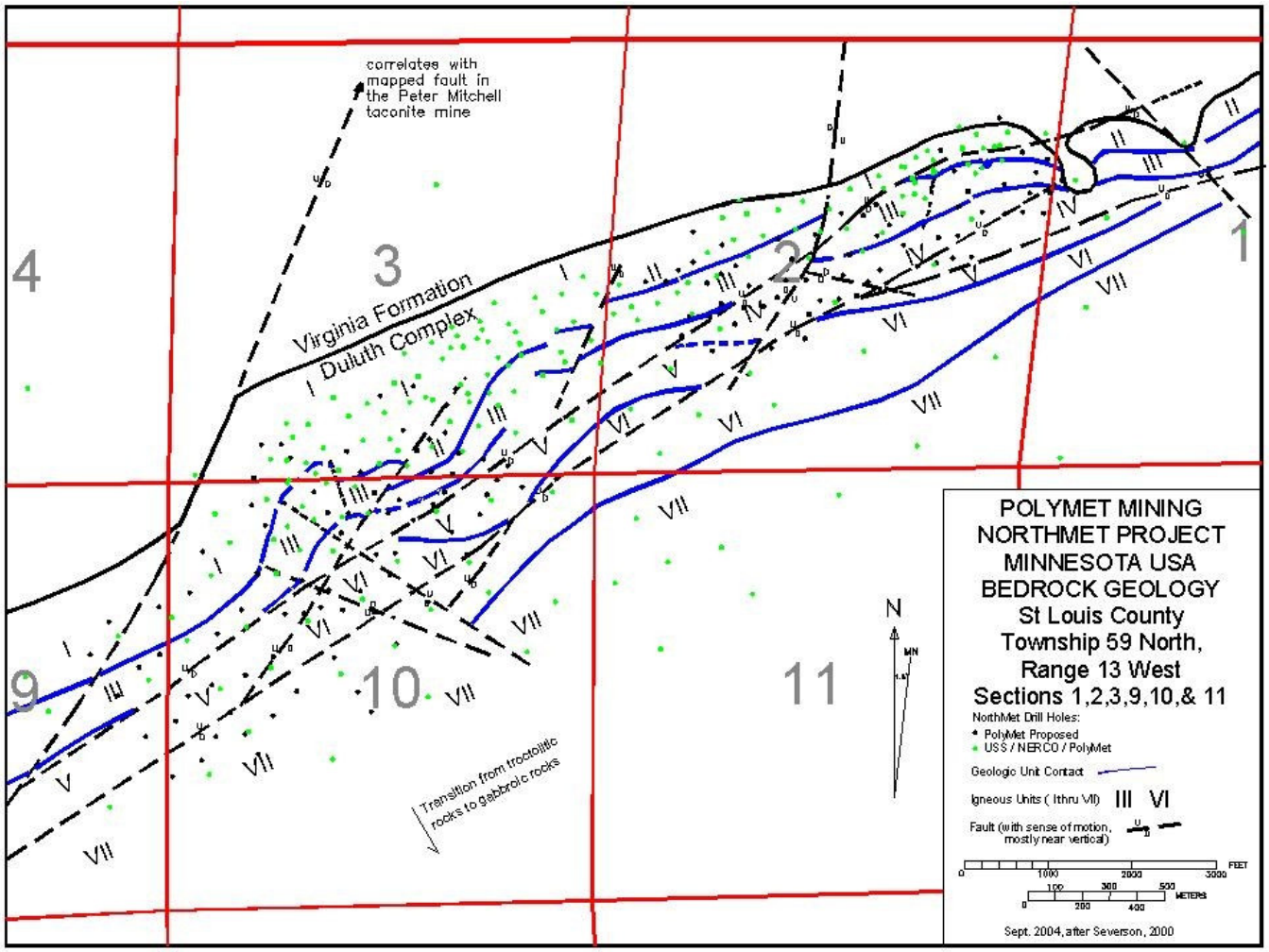


FIGURE 6

NORTHMET PLAN VIEW GEOLOGY



11. Mineralization

The metals of interest at NorthMet are copper, nickel, cobalt, platinum, palladium, gold, and very small amounts of rhodium and ruthenium. In general, the metals are positively correlated with copper mineralization; cobalt is the exception. Mineralization occurs in four broadly defined horizons throughout the NorthMet property. Three of these horizons are within basal Unit 1, and in some drill core the horizons are visually indistinguishable from each other. The thickness of each of the three enriched horizons varies from 5 feet to more than 200 feet. Unit 1 mineralization is found throughout the base of the deposit. A less extensive mineralized zone is found in Unit 6, and it is relatively enriched in PGE's compared to Unit 1.

Sulphide mineralization consists of chalcopyrite and cubanite (in roughly equal proportions), pyrrhotite, and pentlandite, with minor bornite, violarite, pyrite, sphalerite, galena, talnakhite, mackinawite, and valleriite. Sulphide minerals occur mainly as blebs interstitial to plagioclase, olivine, and augite grains, but also may occur within plagioclase and augite grains, as intergrowths with silicates, or as fine veinlets. Small globular aggregates of sulphides (< 2 cm) have also been observed in the small test pit on the site. The percentage of sulphide varies from trace to about 5%, but is rarely greater than 2%. Palladium, platinum, and gold are associated with the sulphides.

12. Exploration

Exploration history is outlined above in Section 8, Project History.

In general, the early drilling by U.S. Steel is widely spaced but comparatively regularly distributed (approximate 600 ft x 600 ft grid), with some omissions that left substantial undrilled areas (more so down-dip, particularly in the E parts of the deposit). Subsequent programs, largely by PolyMet were focused on extracting metallurgical sample, and on proving the up-dip, more readily accessible parts of the deposit. During 2000 and 2001 PolyMet drilled 13 holes to in-fill a marked gap, and in so doing achieved an adequate coverage of the near-surface sections of the deposit (hole spacings generally in the order of 150 to 300 ft).

Those parts of the deposit at moderate depth (400 – 800 ft below surface) largely continue to have the original U.S. Steel drill-hole spacing, which, in the eastern half of the deposit, is approximately 600 ft x 1,200 ft. The proposed program will necessarily focus on closing down the drill-spacing in the economically most important shallow to moderate depth parts of the deposit, particularly within the area of the existing (updated pre-feasibility) pit design.

Drill spacing in the deepest known section of the deposit (greater than 800 ft below surface) is approximately 1,200 ft x 1,200 ft. The deposit is definitely open at depth and while the deeper parts of the deposit (below about 1,000 ft below surface) may be of interest in the future they are considered to fall outside the scope of this program and the planned DFS.

The proposed drilling is regarded as both a development and in-fill drilling program and, in the areas likely to be exploited during the early stages of a mining operation, average drill spacing will be reduced to between 200 – 300 ft. Because metal grades and geology are well known from previous drilling, the principal aims of this program are to obtain material (+/- 45 tons) for additional, locked cycle continuous pilot metallurgical testing, more certainly define the geological structure, and to increase the level of confidence in mineralization continuity, long- and short-range variability and grade estimation. The opportunity will also be taken to gather geotechnical data by logging each new hole and to collect waste characterization and hydrogeological data.

Table 2 summarizes the average drillhole spacing.

Table 2 – Average Drillhole Spacing

Area	Drillholes		Avg Hole Spacing (feet)
	Drilling proponent/campaign	No. of holes	
2003 Project Review ultimate pit outline	USS, PolyMet, NERCO	161	410
5 year pit* outlines	Existing USS, PolyMet, NERCO	40	395
5 year pit* outlines	Existing USS, PolyMet, NERCO plus planned PolyMet drilling 2004-2005	72	294
10 year pit* outlines	Existing USS, PolyMet, NERCO	75	390
10 year pit* outlines	Existing USS, PolyMet, NERCO plus planned PolyMet drilling 2004-2005	138	288
15 year pit* outlines	Existing USS, PolyMet, NERCO	103	405
15 year pit* outlines	Existing USS, PolyMet, NERCO plus planned PolyMet drilling 2004-2005	178	308
20 year pit* outlines	Existing USS, PolyMet, NERCO	149	400
20 year pit* outlines	Existing USS, PolyMet, NERCO plus planned PolyMet drilling 2004-2005	245	312

* Pit outlines refer to preliminary, conceptual level of definition pit outlines produced from a revised geological and grade model produced by consultant, Dr. Philip Hellman, principal of the firm of consulting economic geologists, Hellman & Schofield Pty Ltd.

13. Drilling

The planned drilling program comprises two parts which may run concurrently. The first part involves the drilling of about 120 holes totaling approximately 100,000 linear feet of NTW size diamond drilling to produce 2.2 inch diameter core. Hole lengths will vary from 200 to 1,500 feet and average about 800 feet. Most holes will be angled 70° to the north-northwest in an attempt to better identify faults which, at this stage, are largely inferred as being steep to near vertical. This part of the program will be carried out by an experienced local drilling contractor who is familiar with the site and who, in recent years, has also carried out substantial amounts of drilling in the Duluth Complex and for the local iron ore mines.

The second part of the program requires diamond drilling of approximately 4,000 feet of 4 or 6 inch diameter core (size depending on rig capacity and availability) for the provision of material for pilot scale metallurgical testing and for crushing and grinding characterization testwork. This large diameter core drilling will require a specialized rig and although selection is not finalized, an experienced drilling contractor, most probably from the western United States, will be used.

Figure 7 shows the location of proposed drillholes, though it should be noted that these positions are not fixed and that variations may be required as results are returned and the understanding of the distribution and continuity of grade and mineralization become better understood.

Drilling will be concentrated in an area that lies within the ultimate pit outline as defined in the 2001 Pre-feasibility Study of the NorthMet deposit. Because the deposit is located in a flat lying, poorly drained area characterized by abundant wetlands and swamp, drill sites located in swamp or wetland can only be drilled during the winter from January to March 2005 when the area is sufficiently frozen to allow safe access by the drilling rigs. Thus, for practical purposes the total drilling program is divided into notional “summer” and “winter” drilling phases with approximately 50% of the planned holes located in wetlands that can, therefore, only be drilled in winter.

The drilling program has the following objectives:

- to provide material for determining comminution and flotation characteristics;
- to provide a sufficient quantity of material to conduct a series of continuous, locked cycle pilot scale pressure leach tests to confirm process design parameters and to enable characterization of the various product and effluent streams. Each test will be run continuously for up to 10 days in order to establish steady state conditions in the test cells and thereby replicate (as far as possible) the operating conditions that may be expected in a production scale plant. An additional

objective of the pilot scale testwork is to generate sufficient product to allow potential off-take partners to confirm its suitability for their requirements;

- to provide geotechnical and hydrogeological data essential for subsequent mine planning purposes; and
- waste rock characterization by systematic sampling and analysis, for waste disposal management, control of acid mine drainage and planning and engineering of appropriate mitigation measures.

The following additional key objectives are necessary from a geological and resource standpoint:

- to provide sufficient additional geological and grade data which when added to the drilling database developed during previous drilling will enhance the level of confidence in the resource estimate to a standard applicable to a feasibility-type study;
- to in-fill notable omissions in the existing drill pattern to properly understand continuity, and long- and short-range variability; and
- to improve the structural geology model, especially in relation to defining the penetration and continuity of inferred footwall faults in the overlying igneous units.

By carrying out variography on a number of close spaced drillholes PolyMet will be able to determine better the optimal drillhole and sample spacing required for Proven and Probable categorization in the Reserve Estimate.

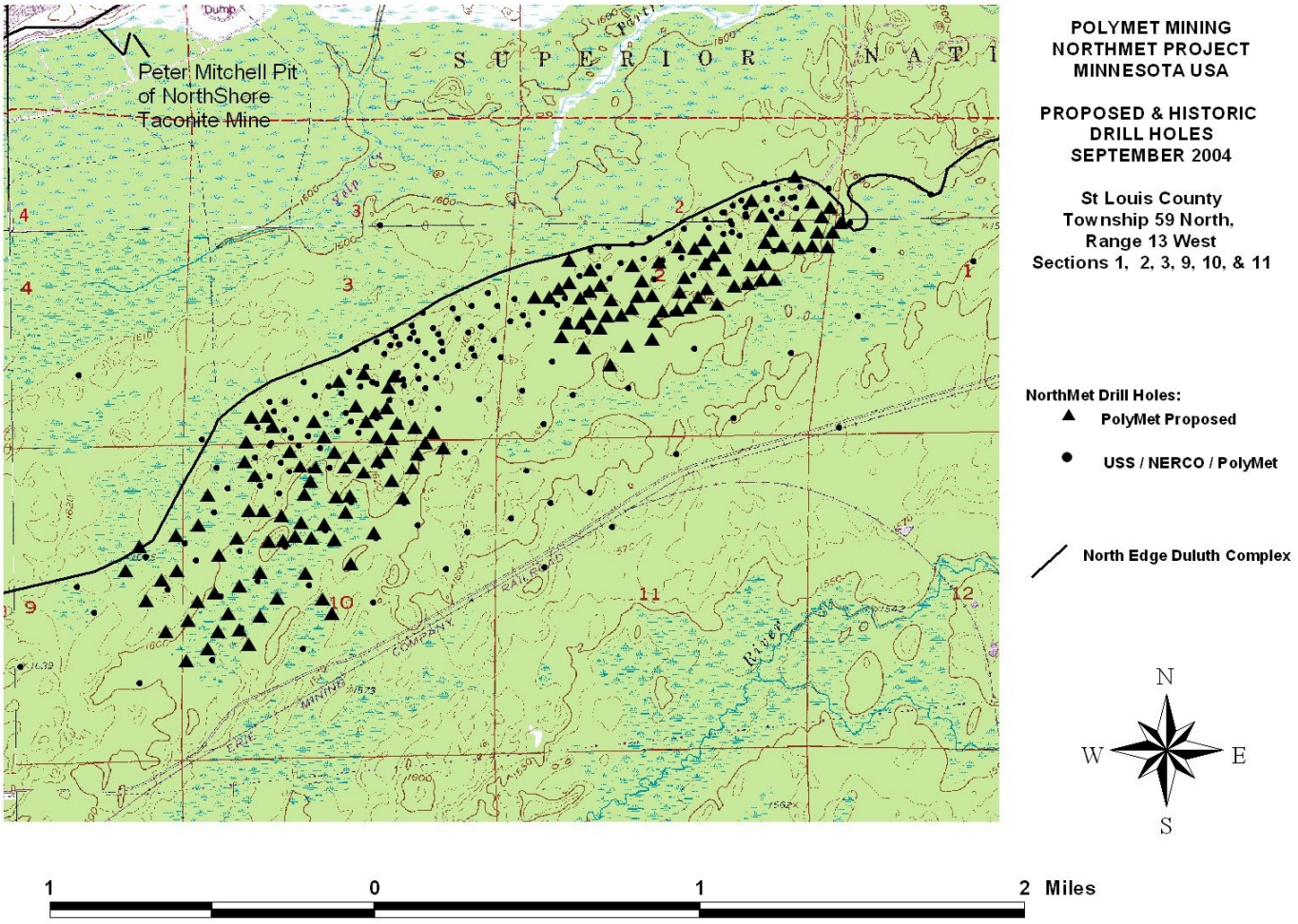
It should be noted that the geological and grade model that will be produced using the results of the proposed drilling program will form the basis for the development of the DFS. Hence all aspects of the drilling program must be carefully supervised and have stringent quality assurance and quality control measures applied, particularly in relation to assaying practices and results (e.g. inclusion of standards and repeats; corroboration of selected results at alternate laboratories.)

The cost of the drilling program is estimated to be approximately Cdn$4.5 million which includes site access and drill platform preparation, large diameter, metallurgical sample drilling, NTW diameter geological core drilling, contractor mobilization and demobilization, core logging, sample preparation and analysis, data collection, hole abandonment procedures as prescribed by the State of Minnesota and site clean-up and re-habilitation.

While the drilling program is an essential component of the DFS, the author considers that it will add value to the project as a whole by enhancing the quality of resource (and ultimately, Reserve) estimation and by providing a reliable database on which DFS engineering and design can confidently be based.

FIGURE 7

PLANNED AND EXISTING DRILL HOLES AT NORTHMET



14. Sampling Method & Approach

All core is to be photographed and logged for geological and geotechnical data.

After logging and marking up by an experienced field geologist, PolyMet expects to cut and sample virtually all core in the basal mineralized horizon (Unit 1) and wherever visible sulphide mineralization occurs outside the main mineralized horizon. For consistency with the majority of earlier drilling and sampling on the property (about 13,000 samples) which was done on 5 foot intervals, the proposed drilling will also be sampled at 5 foot intervals, adjusted for geological contacts. Samples will be analyzed for copper, nickel, sulfur and platinum group elements and for a suite of other elements using an ICP-AES multi-element exploration analysis package. Systematic sampling will also be conducted in waste, primarily for waste characterization, at a density of one 5 foot sample interval every 50 feet. Samples for waste characterization will be subject to whole rock and trace element analysis. A total of between 10,000 and 12,000 new samples are expected to be generated during this program, which is equivalent to sampling about half of the total footage to be drilled in this program.

15. Sample Preparation, Analysis and Approach

NTW drill core will be photographed, logged for geology and geotechnical data, and sample intervals flagged by PolyMet geologists for diamond saw cutting. Half core will be sent for analysis and the remainder retained for future reference. Core will be sawn on-site, sample numbers assigned, and samples bagged and sealed by PolyMet employees. Samples will be transported to a yet to be selected analytical laboratory where they will be prepared for analysis under the quality assurance program of that laboratory. PolyMet has prepared field, core logging, core handling and sample preparation procedures for quality assurance that have been reviewed by an independent expert for suitability.

Analysis will be targeted for copper, nickel, cobalt, silver, zinc, lead, sulfur, platinum, palladium, and gold. Numerous other elements are reported by laboratories conducting these assays as part of their multi-element analytical packages.

The object of drilling the large diameter metallurgical drill holes is to provide the maximum amount of material for metallurgical testing. Hence, after photographing and logging in the usual way, a thin longitudinal slice will be cut from the core using a diamond saw and this will be sent for analysis. All of the remainder of the core will be used for metallurgical testing with no uncrushed material retained for future reference. Metallurgical testing will be carried out by Lakefield Laboratories (“Lakefield”) in Lakefield, Ontario.

16. Data Verification

The drilling program will be quality controlled and quality assured by insertion of property specific standards, blanks of similar matrix, field duplicates, as well as laboratory preparation duplicates. Three standards covering low, average, and high grade material are being prepared from sample recovered from previous drilling programs. These standards will be subjected to multi-laboratory, round-robin analyses and statistical analysis. Blanks will consist of material from a nearby dimension stone quarry of similar, but sulphide-barren, rock type. Field duplicates will be quarter core, with half of core retained.

Although laboratory selection has not been finalized, PolyMet will use a certified analytical laboratory using industry standard quality control procedures. PolyMet will retain independent third party expert assistance not only to provide quality assurance during preparation of analytical standards but also to review quality assurance procedures and to audit the selected laboratory. PolyMet employees will also periodically visit the selected analytical laboratory unannounced during the drill program for quality assurance purposes.

Selected assays and standards will be sent to other certified laboratories for check analysis.

Samples or sample batches failing quality assurance controls will be re-analyzed to PolyMet's satisfaction.

From previous work, it is known that small amounts of unrecoverable nickel occur as a magnesium-iron-nickel silicate [$(Mg,Fe,Ni)_2\ SiO_4$] in olivine which is one of three significant gangue minerals that occur across the NorthMet deposit. Testwork has shown that most of the very small amount of nickel contained as silicate would not be recovered during the autoclaving process proposed. However, when samples containing olivine are subjected to a 4-acid total digestion prior to analysis, some of the nickel in the $(Mg,Fe,Ni)_2\ SiO_4$ solid solution is dissolved whereas this is not the case when a 3-acid digestion is used. Consequently, the 4-acid method tends to provide a measure of the total nickel content of a sample whereas the 3-acid method tends to provide a measure of the metallurgically recoverable nickel. Metallurgical recovery derived from reconciliation against a database comprising 4-acid analyses would tend to result in an apparently lower metallurgical recovery than when reconciled against a database comprising 3-acid digestion analyses. Recognizing this phenomenon and to avoid having to possibly downgrade the nickel resource at some point in the future, PolyMet proposes to use a 3-acid digestion for routine analysis but systematically subject one sample in fifty to both 3- and 4-acid digestion analysis. Continuing routine sample analysis with the 3-acid digestion method would be consistent with the majority of data contained in the existing extensive database and would provide a resource estimate

that more closely reflected the recoverable nickel content than the total nickel content. By collecting in the database but not using the 4-acid analyses for resource estimation, a reliable basis for comparison of total versus recoverable nickel would be available if required for future reference.

In this way PolyMet intends to relate the head grade of material used in the Lakefield pilot testing to the laboratory assayed grades derived from the drilling program and therefore make predictions about how metallurgical testwork recoveries relate to proven ore. Later it should be possible to reconcile differences between recoveries determined by Lakefield and operational yields.

It should be noted that the correlation between copper grades determined by partial and total digestion methods is good and hence either analytical method is considered a reliable representation of the recoverable copper in a sample.

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17. Adjacent Properties

There are no adjacent properties that PolyMet is proposing to explore or drill as part of the proposed drilling program or as part of the definitive feasibility study.

18. Mineral Processing & Metallurgical Testing

There is no new material development in this section since the filing on SEDAR of the "*Technical Update of the NorthMet Project Incorporating the established Cliffs-Erie crushing/milling/concentration facilities with the Hydrometallurgical processes described in the May 2001 Pre-feasibility study."* by P. Downey and Associates, in July 2004.

19. Mineral Resource & Mineral Reserve Estimates

There is no new development in this section since the filing on SEDAR of the "*Technical Update of the NorthMet Project Incorporating the established Cliffs-Erie crushing/milling/concentration facilities with the Hydrometallurgical processes described in the May 2001 Pre-feasibility study."* by P. Downey and Associates, in July 2004.

20. Other Relevant Data and Information

The recently reprocessed (March, 2004) and imaged low-level, airborne geophysical data (magnetic, electromagnetic, and resistivity survey) (see Figures 8 and 9 below) covering the area of the deposit will significantly assist interpretative efforts during post-program geological modeling. The potential to identify the likely location and continuity of faults, footwall units and, possibly, also units or unit boundaries within the PRI is significantly enhanced when correlated with higher-density drilling data.

The geophysical data were flown by: CGG Geoterrex-Dighem; 228 Matheson Blvd. East, Mississauga, Ontario, Canada L4Z 1X1 for Fleck Resources. The survey was completed in March 1997.

No other data or information has been identified as relevant to the purpose of developing the drilling program proposed herein.

FIGURE 8
1ST VERTICAL DERIVATIVE REDUCED MAGNETIC
DATA IMAGE OVER NORTHMET DEPOSIT

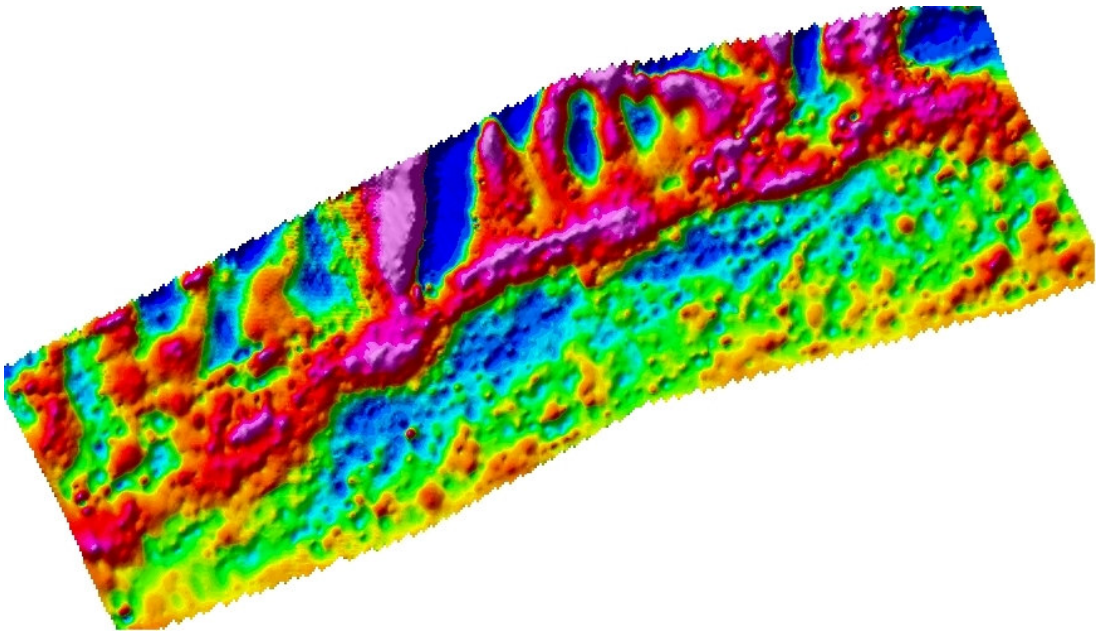
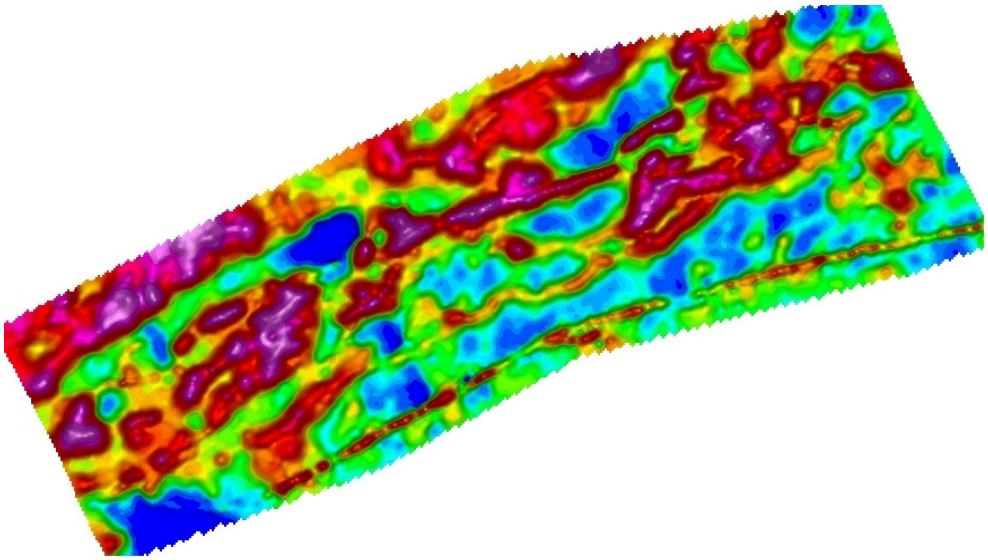


FIGURE 9
5500 kHz EM DATA IMAGE OVER NORTHMET DEPOSIT



21. Interpretation & Conclusion

The recommendation of the report entitled "*Technical Update of the NorthMet Project Incorporating the established Cliffs-Erie crushing/milling/concentration facilities with the Hydrometallurgical processes described in the May 2001 Pre-feasibility study."* by P. Downey and Associates, and published in July 2004 was to proceed to the next stage of project development which is to undertake a Feasibility Study.

It has been concluded in this and previous evaluations that, while extensive, the existing drillhole database, which has been developed over several previous campaigns of exploration drilling, is still not yet of a standard that is suitable or appropriate for the stringent requirements of a DFS. It is has been further concluded that in-fill of notable gaps in the pattern as well as overall increase in data density are necessary.

From a knowledge of the geology of the NorthMet deposit, a review of the May 2001 Pre-feasibility Study, and the July 2004 Technical Update by P. Downey and Associates, it is concluded that the proposed drilling program and its estimated cost are consistent with the requirements for a definitive feasibility study and will enable the technical and economic viability of the NorthMet Project to be determined with the greater confidence such a study normally embodies.

The author also concludes that the requirements for geological objectives of the program, such as a refined structural geology model, which go beyond the DFS and positively impact on a future mining operation, will be fulfilled by the program as proposed.

A significant requirement of the drilling program is provision of sufficient ore grade material to enable a series of continuous cycle pilot metallurgical tests to be performed. From knowledge of the geology and work performed by PolyMet and others, there is already sufficient evidence of continuity of mineralization that the risk of failing to recover sufficient metallurgical sample in drillholes is considered minimal.

22. Recommendations

It has been concluded that the existing drillhole database is not yet of a standard adequate for a DFS. However, it is the author's considered opinion that the proposed diamond drilling program, irrespective of any adjustments required as additional drill data and subsequent geological interpretation become available, will provide the density and quality of information necessary to raise the drillhole database to a standard appropriate for a DFS.

Therefore, it is recommended to proceed with the proposed 120 hole resource definition and metallurgical sample recovery diamond drilling program as an essential component of the DFS, on or closely approximating the in-fill pattern presented in Figure 7. Based on existing knowledge of the continuity of mineralization, an approximate drill-hole spacing of no more than 300 ft is recommended for the DFS-phase of development, and this should be achieved by the proposed program.

On completion of drilling, it is anticipated that sufficient material will have been recovered to perform the planned metallurgical testwork, and, that sufficient additional grade, geological, geotechnical, geochemical and hydrogeological information will have been obtained to enable resource estimation, mining planning and other engineering and design work to be completed to a level of confidence that will be appropriate for a bankable feasibility study.

23. References

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24. Date

The date of this report is 20th October 2004.

25. Additional Requirements for Technical Reports on Development Properties and Production Properties

There is no information to report under this heading in the pre-feasibility stage of exploration and project development.

26. Illustrations

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CERTIFICATE OF SUPERVISING AUTHOR

I, **Rodney L. Hammond**, **BSc (Hons), PhD, MAIG** do hereby certify that:

1. I am not employed by PolyMet Mining Corp.

2. I graduated with a **Bachelor of Science with Honours (1st Class) Degree in Geology** from **Monash University, Melbourne, Australia** in **1982**.

3. I am registered as a **Geoscientist, Membership No.: 1760** by **The Australian Institute of Geoscientists** of **Queensland (Branch)**.

4. I have worked as **a geologist** for a total of **22 years** since my graduation from university.

5. I have read the definition of a "qualified person" set out in the National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I am responsible for the preparation of the technical report entitled "Independent Technical Report on the NorthMet Project" dated October 20, 2004 (the "Technical Report") relating to the NorthMet Project Property. I visited the property on several occasions during 2000 and, most recently, between 14th and 15th March, 2004.

7. I have had prior involvement with the property that is the subject of the Technical Report.

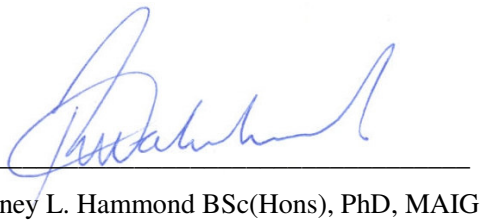
8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

9. I am independent of the issuer applying all of the tests in section 1.5 of the National Instrument 43-101.

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

11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 20th day of October, 2004.



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CERTIFICATE OF AUTHOR

I, **Richard L. Patelke**, **MSc.,** do hereby certify that:

1. I am a consultant to Poly Met Mining Inc.

2. I graduated with a Masters of Science from University of Minnesota in 1996.

3. I am registered as a Professional Geologist (30080) by Minnesota State Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience and Interior Design.

4. I have worked as a geologist for a total of 15 years since my graduation from university.

5. I have read the definition of a "qualified person" set out in the National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I am partially responsible for the preparation of the technical report entitled "Independent Technical Report on the NorthMet Project" dated October 20, 2004 (the "Technical Report") relating to the NorthMet Project Property. I regularly work on the Project site.

7. I have had prior involvement with the property that is the subject of the Technical Report.

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

9. I am not independent of the issuer applying all of the tests in section 1.5 of the National Instrument 43-101.

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

11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 20th day of October 2004.

Richard L. Patelke MSc.