# REPORT ON THE EAST BULL LAKE AND RIVER VALLEY PROPERTIES IN THE SUDBURY AREA

# FOR

MUSTANG MINERALS CORP.

prepared by:

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November 28, 2002
Ontario, Canada

Watts, Griffis and McOuat Limited
and Mustang Minerals Corp.

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# 1. SUMMARY

## Introduction

**Mustang Minerals Corp**. ("Mustang") holds the rights to the River Valley and East Bull Lake exploration properties in the Sudbury area of northeastern Ontario. The exploration target on the properties is disseminated PGM ("platinum group metal") mineralization within mafic to ultramafic intrusions of the East Bull Lake Suite.

**Watts, Griffis and McOuat Limited** ("WGM") was retained by Mustang to assist Mr. Ken Lapierre of Mustang with the preparation of this report.

This report includes information contained in a report for Mustang Minerals by WGM dated April 25, 2001 as amended May 28, 2001.

## East Bull Lake Property

The East Bull Lake Property is located in Gerow, Boon, Mandamin, and Shibananing Townships about 100 km west of Sudbury. The property consists of 141 unpatented mining claims (649 mining claim units) totalling 10,374 hectares. Mustang holds rights to a large part of the property by virtue of six option agreements with the owners of the mineral rights. The remainder of the property is held as mining claims either purchased or staked by Mustang.

On September 12, 2000, Mustang entered into an agreement (the "Falconbridge Agreement") with **Falconbridge Limited** (“Falconbridge”), whereby Falconbridge had the right to acquire a 50% interest in the East Bull Property. Under the terms of the Falconbridge Agreement, Falconbridge purchased 800,000 units of the Company for aggregate proceeds of $1,000,000 of which $850,000 was expended by Mustang on the East Bull Lake PGM Property. Under

the Falconbridge Agreement Falconbridge had the right to earn a 50% interest in the East Bull Lake PGM Property by funding additional exploration expenditures of $5,000,000 over four years, or a 25% interest by funding additional exploration expenditures of $2,000,000 over two years. Falconbridge terminated the Falconbridge Agreement on September 9, 2002 prior to earning any interest in the Property.

The East Bull Lake Intrusion ("EBLI") is one of a suite of Early Proterozoic layered mafic intrusions, which occur near the boundary between the Superior, Southern and Grenville Geological Provinces in the Sudbury area. The EBLI covers an area of about 43 $km^2$ and is about 20 km long and up to 4 km wide. The EBLI consists of two intrusive centres joined by an east-west trending dyke-like constriction.

The East Bull Lake Property covers almost the entire extent of the EBLI. The EBLI has been studied extensively by the **Ontario Geological Survey** ("OGS") (McCrank et al., 1989; Peck and James, 1991; Peck et al., 1993; and Peck et al., 1995). Peck's (1995) has subdivided the EBLI into four main stratigraphic divisions:

- the Marginal Series;
- the Lower Series;
- the Main Series; and,
- the Upper Series.

The Marginal Series is comprised of a locally well developed intrusive breccia known as the Border Zone and a zone of fine-grained to coarse grained gabbroic rocks, the Gabbronorite Zone. The cumulate rocks are subdivided into the Lower, Main and Upper Series. The Lower Zone is 50 to 450 m thick and includes the Inclusion Bearing Zone ("IBZ") and the overlying Anorthosite Zone. The IBZ is the lowermost unit of the cumulates. It is a chaotic unit, generally <10 m but locally up to 30 m thick comprised of inclusions of coarse-grained anorthositic cumulates and pods of pyroxenite in a highly variable leucogabbronorite matrix. The IBZ hosts most of the PGM-Cu-Ni mineralization discovered to date.

The deposit model suggests that sulphides were precipitated within this zone due to sulphide saturation induced by the addition of silica to the melt by partial absorption of the inclusions. Once the sulphides formed they scavenged Cu, Ni and PGMs from the melt due to the large fractionation coefficients between the sulphide and silicate phases.

Examples of other deposits of this type include the mineralization currently being explored by Pacific Northwest Capitalin conjunction with joint venture partner Anglo Platinum on its River Valley Property. In October 2002, a resource consisting of Measured and Indicated Resources of 18,053,000 tonnes at 1.423 g (Pd+Pt+Au)/t and Inferred Resources of 5,382,000 at 1.15 g (Pd+Pt+Au)/t) was announced on this property, which adjoins Mustang's River Valley Property on the north, similar mineralization occurs within the base of the Portimo Complex in Finland, where joint venture partners Outukumpu and Goldfields have announced a 2.9 million ounce resource (Measured, Indicated and Inferred Resources of 49.2 M tonnes at 1.86 g (Pd+Pt+Au)/t).

The most common type of mineralization is Contact Mineralization. This style of mineralization consists of roughly equal abundances of chalcopyrite and pyrrhotite in irregularly distributed lens shaped zones within the Inclusion Bearing Zone of the Lower Series of cumulate rocks.

A second style of mineralization is recognised within the Parisien Lake Deformation Zone which cuts the IBZ immediately north of Parisien Lake in the eastern part of the intrusion. The mineralization consists of magnetite, pyrite, pyrrhotite, chalcopyrite and pentlandite and appears to have been precipitated after the recrystallization of the silicates during the Penokean orogeny. It is postulated by OGS that the sulphides were derived from adjacent magmatic contact style mineralization and were remobilized during the deformation event.

The most extensive development of contact mineralization discovered to date is within the Bullfrog Zone.

The Bullfrog Zone occurs within the IBZ along the north side of the Bullfrog deformation zone, a roughly east west trending zone of intense schistosity development. The zone has been traced by surface mapping, prospecting and sampling for a strike length of about 700 m. The zone has been tested by diamond drilling by Mustang for 600 m. The grade of the intercepts (1.33 g Pd/t, 0.56 g Pt/t, 0.04 g Rh/t, and 0.10 g Au/t or 2.03 g Pt+Pd+Rh+Au/t over 15.0 m in ME-00-17, and 1.70 g Pd/t, 0.71 g Pt/t, 0.06 g Rh/t and 0.06 g Au/t or 2.53 g Pt+Pd+Rh+Au/t over 12 m in ME-00-19) on the western end of the Bullfrog Zone indicates potential for better grade than had been previously intercepted in the Contact Zone style of mineralization.

Other mineralization is known to exist on the property in the Moon Lake and Peck zones, the East Lobe as well as several other localities. They are generally similar in style to that at Bullfrog. Exploration drilling was completed at the East Lobe-Central Zone in 2002 with the best drill intercept in a six hole drill program intersecting 0.66 g Pd/t, 0.23 g Pt, and 0.05 g Au/t or 0.94 g Pt+Pd+Au over 26 m in ME-02-35.

Since 1998, Mustang has conducted a systematic exploration program on the East Bull Lake Property. Target areas defined by historical sampling by the OGS or reconnaissance prospecting are mapped and sampled. Rock grab samples are collected on a more or less regular pattern to identify any areas of PGM enrichment. Sampling of any sulphide bearing horizons is also carried out. Any mineralized areas are covered with magnetometer surveys to aid in the geological interpretation. IP surveys are also carried out to delineate the size and extent of any disseminated sulphide zones. Stripping and washing and channel sampling have been undertaken in high priority areas.

An airborne Dighem 5 electromagnetic/magnetic survey was carried out over the entire property by Fugro Airborne Surveys.

In December 1998, eight BQ diamond drillholes totalling 1,198 m were completed to test the Moon Lake Target area. In November 1999, three additional BQ diamond drillholes totalling 375 m were drilled to test the strike extension and grade of mineralization of the Moon Lake Zone.

The drilling outlined two mineralized horizons or zones (A and B). The upper horizon (A) occurs straddling the contact of the Anorthosite Zone of the Lower Series and the Leucogabbronorite Zone of the Main Series. The mineralization in this zone is typically narrower (7.3 to 43.5 m) and slightly higher grade than in Zone B (37.0 to 127.0 m), which occurs within the Gabbronorite Zone. Grade of the mineralization generally averages between 0.5 to 1.0 g (Pt+Pd+Rh+Au)/t. Pd:Pt ratios range between 3 and 2:1 with minor Rh+Au. While there are a few individual higher grade assays such as 0.78 g Pd/t, 0.38 g Pt/t and 0.02 g Au/t or 1.17 g (Pt+Pd+Au)/t over 6.5 m in hole ME-99-11, no contiguous zone of material grading greater than 1.0 g Pt+Pd+Au (±Rh) over a width of 5 m has been identified to date.

Five diamond drillholes (ME-99-12 to ME-99-16) totalling 628 m were completed on the Bullfrog Zone in November and December 1999. In early 2000, an additional 6 diamond drillholes (ME00-17 to ME00-22), totalling 1,136 m were completed. Drilling to date has traced the zone over a strike length of 600 m. The zone is open along strike to both east and west and at depth. Drill results indicate the presence a zone of PGM- enriched disseminated chalcopyrite-pyrrhotite mineralization, which ranges from about 10 to 30 m in true width. Average grades are between 1 and 2 grams total precious metals ("TPM"), (Pd+Pt+Rh+Au). The best results are in hole ME00-19 which intersected 1.70 g Pd/t, 0.71 g Pt/t, 0.06 g Rh/t and 0.06 g Au/t or 2.53 g (Pd+Pt+Rh+Au)/t over 12 m of core length.

A total of 1,976 m were drilled in 9 holes in the Peck Zone area in the period from July to October 2000. Low grade mineralization was intersected.

A total of 860 m were drilled in 6 holes in the Central Zone (East Lobe) during July of 2002 under the Falconbridge Agreement (Mustang Minerals Corp. – operator). The highest drill intercept was 1.89 g (Pd+Pt+Au)/t over a 5 m intercept in ME-02-35. (1.38 g Pd/t, 0.40 g Pt/t, 0.11 g Au/t).

Work to date by Mustang on the East Bull Lake Property has confirmed the presence of PGM enriched sulphides within the IBZ of the EBLI.

To date, drilling by Mustang has been limited to the Moon Lake and Bullfrog Zones. A limited amount of diamond drilling has also been carried out on the Peck Zone in the neck between the two lobes of the EBLI and the Central Zone in the east lobe of the EBLI.

Mapping, prospecting and sampling, magnetometer and IP surveys and channel sampling have been carried out in other areas of the intrusion with reconnaissance sampling covering most of the intrusion.

The results from the drilling at the Bullfrog Zone has established the presence of pervasive PGMs over a strike length of 600 m with grades and widths averaging between 1 and 2 grams over 10 to 20 m. These grades and widths indicate that there may be potential in this area to define an open pittable resource.

**River Valley Property**

The River Valley property consists of 778 mining claim units (12,432 hectares) located in Henry, Janes, Dana, Crerar, McWilliams and Gibbons townships, about 60 km east-northeast of Sudbury. The rights to the property are held by virtue of eight option agreements with the owners of the mineral rights. Mustang has also staked an additional 42 claim units covering a total of 672 hectares. In addition, Mustang has eight option agreements in place with the owners of an additional 683.1 hectares of potential surface and mining rights.

In March 1999, Mustang entered into a sub-option agreement with **Aquiline Resources Inc**. ("Aquiline") hereby Aquiline can earn up to a 70% interest in a part of the River Valley property through a combination of shares, cash payments and work expenditures.

The agreement involves 96 mining claim units in the northwest part of the River Valley property. Aquiline is the project manager.

In December 1999, Mustang finalized an agreement with **Impala Platinum Holdings Limited** ("Implats") initially on the 511 mining claim units covering the south east part of the River Valley Intrusion (RVI) thereby forming the River Valley Joint Venture. Implats can earn a 60% interest in these lands by spending $6 million on the property over 5 years and making cash payments to Mustang of C$255,000 over four years. Implats has funded $3,580,555 of project expenditures to date.

In March 2001, Mustang entered into an agreement with Larry Gervais whereby Mustang can purchase the rights to 13 claim blocks (135 claim units) in Loughrin and Henry townships. The property is within the area of common interest of the Mustang-Implats Joint Venture. In December 2001, after spending $178,289 on the property the property was acquired by the River Valley Joint Venture for $178,289.

The RVI has seen only limited historical mineral exploration work. Previous exploration targeted copper/nickel mineralization in North Central Crerar Township. Little focus was placed on the PGM potential.

The River Valley area is located within the northern edge of the Grenville Geologic Province, just south of its boundary with the Southern Province.

The geology of the area is dominated by the RVI which historically has been described as a anorthosite to anorthositic gabbro. Recent mapping of the intrusion indicates that it is a layered intrusion dominated by gabbro, norite, gabbronorite, leucogabbronorite and

leuconorite. It is similar in age (2.475 Ga) and character to the East Bull Lake and Agnew Lake Intrusions. As such, although it occurs within the Grenville Province, the RVI is classified as belonging to the Huronian-Nipissing Magmatic Belt ("HNMB").

Because the RVI is situated within the Grenville Province, it has been affected by the high grade regional metamorphism of the Grenville Orogeny (1.1 Ga). Metamorphic grade ranges from lower to upper amphibolite facies. Various parts of the intrusion show differing degrees of preservation.

The lowermost zone of the RVI, the Marginal Zone consists of fine to medium grained partly chilled gabbronorite. This zone is heavily mineralized in Dana Township. An intrusion breccia is present where the intrusion is in contact with gneissic rocks.

An Inclusion/Fragment bearing zone is located above the Marginal Zone and is gradational to it. This zone contains abundant felsic and mafic to ultramafic inclusions or xenoliths. The matrix is gabbroic and contains fine grained disseminated sulphides.

The IBZ is overlain by a zone of vari-textured to massive gabbro-anorthosite to leucogabbronorite. This zone is up to 400 m thick. This massive zone is overlain by the olivine gabbronorite zone in Dana Township. A layered Gabbronorite zone overlies the olivine bearing rocks. The top of the section is not observed due to intense deformation of the rocks at this stratigraphic level. There are general similarities with the EBLI stratigraphy. The RVI however represents a larger body and shows more evidence of a highly dynamic magma system.

More detailed mapping of the North Grid in the southwest corner of McWilliams Township by Mustang (Findlay 2000) allows subdivision of Easton's lower IBZ into distinct mappable units.

Here the reaction of the country rocks with the RVI has formed a **Contact Zone** comprised of siliceous and deformed quartz-diorite/quartz-monzonite and quartz-gabbro/quartz-gabbronorite. As one moves into the intrusion from north to south, the rocks appear to be overturned and grade to fine to medium grained, equigranular gabbronorite of the **Border Zone**. The **Border Zone** is locally sulphide-enriched, with up to 5% very finely disseminated pyrrhotite, but usually does not carry significant amounts of chalcopyrite or PGMs.

The Border Zone is overlain by a heterogeneous assemblage of rock types, known as the Inclusion Bearing Chaotic Zone (IBCZ). The IBCZ is the only stratigraphic unit mapped on the North Grid that consistently carries sulphide mineralization enriched in PGMs. The mineralization consists of 0.5 to 10% disseminated and blebby chalcopyrite and pyrrhotite, and the sulphides may be present in any of the individual lithological layers and fragments in the zone.

These features are interpreted as representing a zone of mixing of *in situ*, contaminated and differentiated magma (which gave rise to the contact zones) and a fresh pulse(s) of more primitive magma. This mixing process could have resulted in bringing the magma to sulphur saturation triggering the formation of an immiscible sulphide phase, thereby accounting for the mineralization within this zone. The mineralization therefore is a hybrid of the contact style mineralization found at the EBLI and more classic reef-type mineralization formed by magma mixing.

The mineralization on the River Valley property can be classified into two distinct types:

1) mineralization within the IBCZ; and,
2) mineralization within the Contact and Border Zones.

Sulphide mineralization is common in the equigranular gabbronorites and contaminated gabbroic to monzonitic rocks of the border and contact zones. Although locally anomalous in

PGM, sulphide mineralization in the border and contact zones tends to be fairly low grade, and elevated sulphide concentrations appear to be discontinuous.

The IBCZ mineralization, also known as the North Zone, has been interpreted as a discrete stratiform zone of elevated sulphide content. WGM expressed the view the that the IBCZ mineralization may represent hybrid mineralization of the contact-type in combination with mineralization formed from the more basic magma as it is forced through sulphide saturation by mixing with the contaminated magmas of the Border Zone.

Work on the River Valley Property by the River Valley JV has consisted of detailed surface exploration of the North and South Grids, as well as reconnaissance mapping, sampling and magnetometer surveys over large parts of the property. Drilling of the IBCZ and Induced Polarization conductors on the South Grid have also been carried out.

Eighty four drillholes totalling 21,007 metres of NQ surface drill core have been completed on the property. This includes 67 holes totalling 16,431 metres completed on the North Grid and 17 holes totalling 4,576 metres on the south grid. The highest grade mineralization has been identified associated with the IBCZ on the North Grid.

PGM-Cu-Ni mineralization identified in the northern part of the RVI is currently under exploration by **Pacific Northwest Capital Corporation** ("PFN") through a joint venture with Anglo Platinum.

PFN has identified several zones of mineralization known as the Dana North, Pardo, Azen Creek Zones and Lismer's Ridge zone. The mineralization occurs as disseminated to blebby sulphides, predominantly chalcopyrite. A resource calculation released in October 2002 on the Dana and Lismer's Ridge zones consisted of (Measured and Indicated Resources of 18,053,000 tonnes at 1.423 g (Pd+Pt+Au)/t and Inferred Resources of 5,382,000 at 1.15 g (Pd+Pt+Au)/t).

The Dana Lake Zones have been tested by stripping and surface sampling as well as diamond drilling. To date, assay results have been received from 211 surface drillholes spanning five drill programs in the Dana Lake and Lismer's Ridge areas. Mineralized mafic breccias have been outlined over widths of more than 40 m and to a vertical depth of 200 m. The Dana Zone remains open in all directions.

Work to date on Mustang's River Valley property and by PFN on their property to the northwest has confirmed that the River Valley Intrusion is a layered, gabbroic/gabbronoritic to anorthositic intrusion which is enriched in PGMs. Mapping and sampling by Mustang on the North Grid at the eastern end of the intrusion has led to a basic understand of the igneous stratigraphy in this area, and has traced a mineralized horizon (IBCZ) along strike for a distance of over 5.0 km. Drilling has encountered mineralization over a strike length of 3.0 km. An additional 2.0 km remains virtually untested.

There are a few high grade, relatively sulphide-poor samples. Grades range up to 4.88 g Pd/t, 4.24 g Pt/t, and 0.03 g Au/t or 9.15 g Pt+Pd+Au over 1.0 m. These highly PGM enriched samples tend to be associated with an olivine gabbronorite layer at the top of the IBCZ stratigraphy. Follow up drilling showed that the high grade mineralization is discontinuous and generally void of sulphide mineralization. However, the presence of this type of mineralization in the intrusion is worthy of follow-up exploration.

Mustang is the operator of the River Valley Joint Venture. Under the terms of the Joint Venture it has proposed a program to Implats for approval. The current program submitted is focused primarily on drill testing the two kilometres of untested strike length which is immediately southeast of the PFN boundary. While the primary focus of the proposed drill program is on the North Grid strike extension of the IBCZ, additional investigative work on the potential for "reef style" mineralization is warranted initially through detailed mapping and sampling of the interior of the intrusion on the River Valley Property.

All expenditures on the River Valley Property are funded by the River Valley Joint Venture until such time as $6 million are spent on the property.

# 2. INTRODUCTION AND TERMS OF REFERENCE

## 2.1 GENERAL

**Mustang Minerals Corp**. ("Mustang") holds the rights to the East Bull Lake and River Valley platinum group metal ("PGM") properties in the Sudbury area of northeastern Ontario. . The exploration target on the properties is disseminated PGM ("platinum group metal") mineralization within mafic to ultramafic intrusions of the East Bull Lake Suite. Similar mineralization is currently being developed by North American Palladium Ltd. at its Lac des Iles mine in northwestern Ontario.

## 2.2 TERMS OF REFERENCE

**Watts, Griffis and McOuat Limited** ("WGM") was retained by Mustang to assist Mr. Ken Lapierre, Vice_President of Mustang with the preparation of this report to National Instrument 43-101 standards. This report will be filed with various regulatory authorities across Canada to support a rights offering to shareholders of Mustang Minerals Corp. This report is based on all information available on the properties as of October 30, 2002.

At present, pending approval of his application for membership in the Association of Professional Geoscientists of Ontario, Mr. Lapierre does not qualify as a “Qualified Person” under National Instrument 43-101.

Alar Soever, P.Geo. (Ont.) Member # 0523 is the Qualified Person for this report. Mr. Soever has previously written reports on the properties and is familiar with the geology of the properties and the exploration work progress.

## 2.3 SOURCES OF INFORMATION

Kenneth J. Lapierre is the Vice President of Exploration and a Director of Mustang Minerals Corp. and directly oversees all exploration activities of the Company.

In preparing this report, Mr. Lapierre carried out a review of all the available data on the properties. Mr. Lapierre has visited the East Bull Lake PGM Property on numerous occasions between 1998 and present with the date of the last field visit being in August 2002. Mr. Lapierre has visited the River Valley Property on numerous occasions with the date of the last field visit being August 2002.

Alar Soever has previously written a number of reports on the property including:

- "Report on the East Bull Lake and River Valley Properties, Sudbury Area, for Mustang Minerals Corp."**,** dated March 15, 2000 by WGM;
- "Addendum to the Report on the East Bull Lake and River Valley Properties, Sudbury Area for Mustang Minerals Corp", dated July 18, 2000 by WGM;
- "Report on Properties in the Sudbury Area for Mustang Minerals Corp." dated April 25, 2001 by WGM; and
- "Report on Properties in the Sudbury Area for Mustang Minerals Corp." dated April 25, 2001 as Amended May 28, 2001 by WGM.

A complete list of the material reviewed is provided at the end of this report.

## 2.4 UNITS AND CURRENCY

Metric units are generally used throughout this report. Copper and nickel grades are reported as percent ("%"). Platinum, palladium and gold grades are reported in grams per tonne ("g Pt/t", "g Pd/t", or "g Au/t") or parts per billion ("ppb").

All dollar amounts are expressed in Canadian funds, unless otherwise stated.

## SECTION A: EAST BULL LAKE PROPERTY

# 1. PROPERTY DESCRIPTION AND LOCATION

## 1.1 PROPERTY LOCATION AND ACCESS

The East Bull Lake Property is located in Gerow, Boon, Mandamin, and Shibananing Townships about 100 km west of Sudbury (Figure 1). The property area is within the limits of NTS sheet 41 J/8.

## 1.2 PROPERTY DESCRIPTION AND OWNERSHIP

The East Bull Lake property consists of 141 unpatented mining claims (649 mining claim units) totalling 10,374 hectares located in Gerow, Boon, Mandamin and Shibananing townships, District of Algoma and Sudbury, Sudbury Mining Division, Ontario. The mining claims which comprise the East Bull Lake property are listed on Table 1 and shown in Figure 2. All claims are currently in good standing.

Mustang holds rights to a large part of the property by virtue of six option agreements with the owners of the mineral rights. The remainder of the property is held as mining claims either purchased or staked by Mustang (Table 2).

Under the terms of the three agreements with Bailey, Luhta, and Orchard, Mustang has the option to earn a 100% interest in each of these blocks over a 3-year period subject only to a NSR royalty. On the Gallo Claims, Mustang may earn 100% interest after 4 years.

Cash payments obligations on the Main Block and Gallo claims which total $100,000 and $125,000 respectively have been made in full.

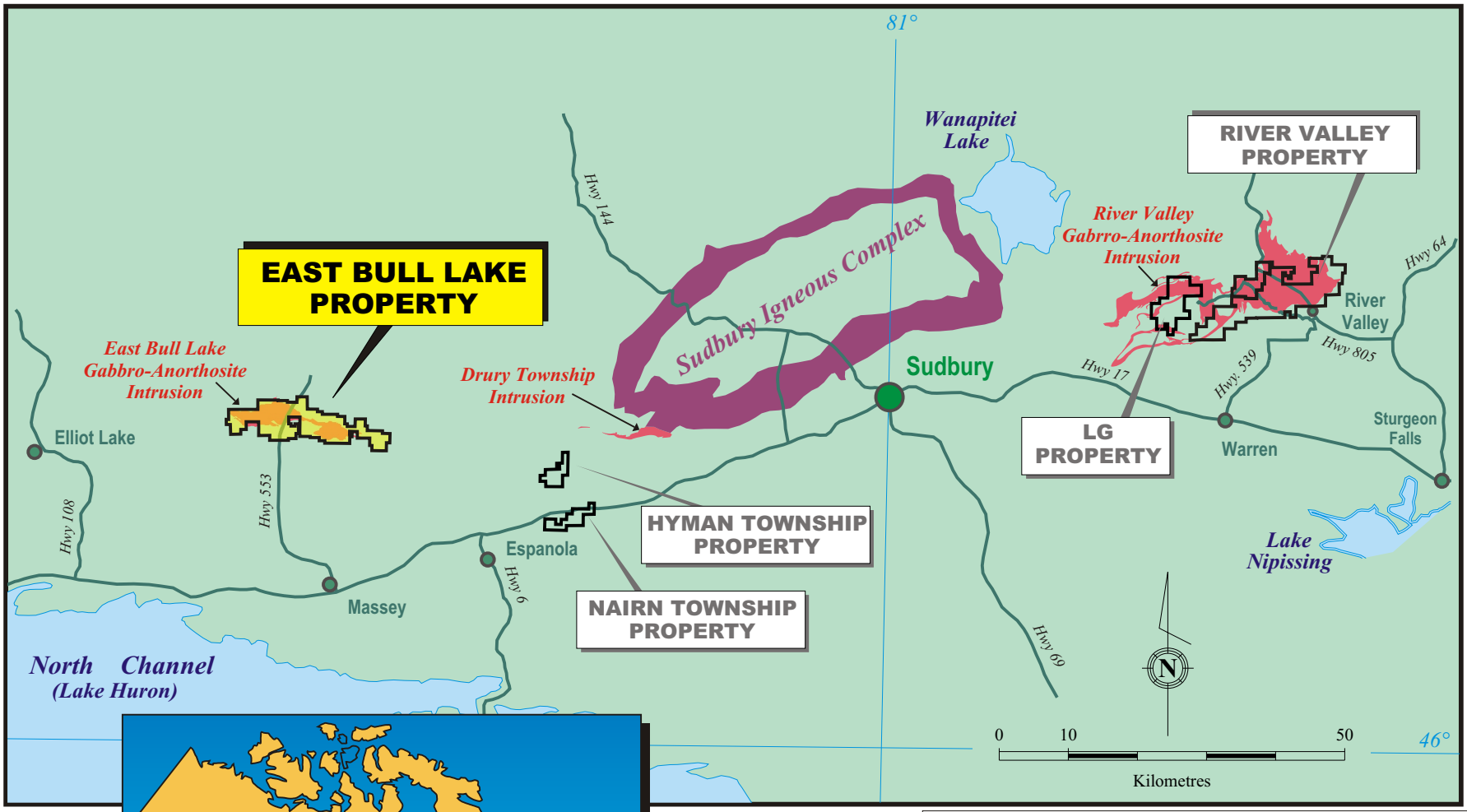



Figure 1.

MUSTANG MINERALS CORP.

**Sudbury Area Properties**

*Ontario, Canada*

***Location Map***

**TABLE 1**
**CLAIM DESCRIPTION, EAST BULL LAKE PGM PROPERTY**
**DISTRICT OF ALGOMA, SUDBURY MINING DIVISION**

| Township | Claim Number | Number of Units | Area Hectares | Claim Group | Agreement Date | Optioner |
|---|---|---|---|---|---|---|
| **Gerow** | 1214935 | 16 | 256 | Main | 19-Jun-98 | Bailey, Luhta & Orchard |
| | 1226700 | 4 | 64 | Main | 19-Jun-98 | Bailey, Luhta & Orchard |
| | 1227909 | 16 | 256 | July 20th | 20-Jul-98 | Bailey, Luhta & Orchard |
| | 1227910 | 16 | 256 | July 20th | 20-Jul-98 | Bailey, Luhta & Orchard |
| | 1228735 | 11 | 176 | Main | 19-Jun-98 | Bailey, Luhta & Orchard |
| | 1229208 | 15 | 240 | July 20th | 20-Jul-98 | Bailey, Luhta & Orchard |
| | 1229209 | 10 | 160 | July 20th | 20-Jul-98 | Bailey, Luhta & Orchard |
| | 1229210 | 15 | 240 | July 20th | 20-Jul-98 | Bailey, Luhta & Orchard |
| | 1229211 | 9 | 144 | July 20th | 20-Jul-98 | Bailey, Luhta & Orchard |
| | 1229212 | 4 | 64 | July 20th | 20-Jul-98 | Bailey, Luhta & Orchard |
| | 1229213 | 16 | 256 | July 20th | 20-Jul-98 | Bailey, Luhta & Orchard |
| | 1231026 | 12 | 192 | Main | 19-Jun-98 | Bailey, Luhta & Orchard |
| | 1231027 | 12 | 192 | Main | 19-Jun-98 | Bailey, Luhta & Orchard |
| | 1231030 | 16 | 256 | Main | 19-Jun-98 | Bailey, Luhta & Orchard |
| | 1236852 | 6 | 96 | YMU | | Staked |
| | 1236853 | 13 | 208 | YMU | | Staked |
| | 1247262 | 16 | 256 | YMU | | Staked |
| **Boon** | 997236 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997237 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997238 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997239 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997240 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997241 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997244 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997245 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997246 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997247 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997248 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997249 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997253 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997254 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997255 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997256 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997257 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997258 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997261 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997262 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997263 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997264 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997265 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997266 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997268 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997269 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997270 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997271 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997272 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |

**TABLE 1**
**CLAIM DESCRIPTION, EAST BULL LAKE PGM PROPERTY**
**DISTRICT OF ALGOMA, SUDBURY MINING DIVISION (continued)**

| Township | Claim Number | Number of Units | Area Hectares | Claim Group | Agreement Date | Optioner |
|---|---|---|---|---|---|---|
| **Boon** (cont'd) | 997273 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997274 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997275 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997276 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997277 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997278 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997279 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997281 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997282 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997283 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1134473 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1134474 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1134475 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1134476 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1134477 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1134478 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1134479 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1134480 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1134481 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1134482 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1134483 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1134484 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1134485 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1134486 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1134487 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1134488 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1134489 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1134490 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1162192 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1162193 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1136189 | 16 | 256 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1136190 | 6 | 96 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1136197 | 6 | 96 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1198295 | 4 | 64 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1227636 | 1 | 16 | Gervais | 4-Jul-00 | Gervais, L. |
| | 1227911 | 4 | 64 | Main | 19-Jun-98 | Bailey, Luhta & Orchard |
| | 1229201 | 15 | 240 | July 6th | 6-Jul-98 | Bailey, Luhta & Orchard |
| | 1229202 | 9 | 144 | July 6th | 6-Jul-98 | Bailey, Luhta & Orchard |
| | 1229203 | 16 | 256 | July 6th | 6-Jul-98 | Bailey, Luhta & Orchard |
| | 1229204 | 16 | 256 | July 6th | 6-Jul-98 | Bailey, Luhta & Orchard |
| | 1229205 | 8 | 128 | July 6th | 6-Jul-98 | Bailey, Luhta & Orchard |
| | 1229206 | 12 | 192 | July 6th | 6-Jul-98 | Bailey, Luhta & Orchard |
| | 1229207 | 16 | 256 | July 6th | 6-Jul-98 | Bailey, Luhta & Orchard |
| | 1229454 | 2 | 32 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1229455 | 2 | 32 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |

**TABLE 1**
**CLAIM DESCRIPTION, EAST BULL LAKE PGM PROPERTY**
**DISTRICT OF ALGOMA, SUDBURY MINING DIVISION (continued)**

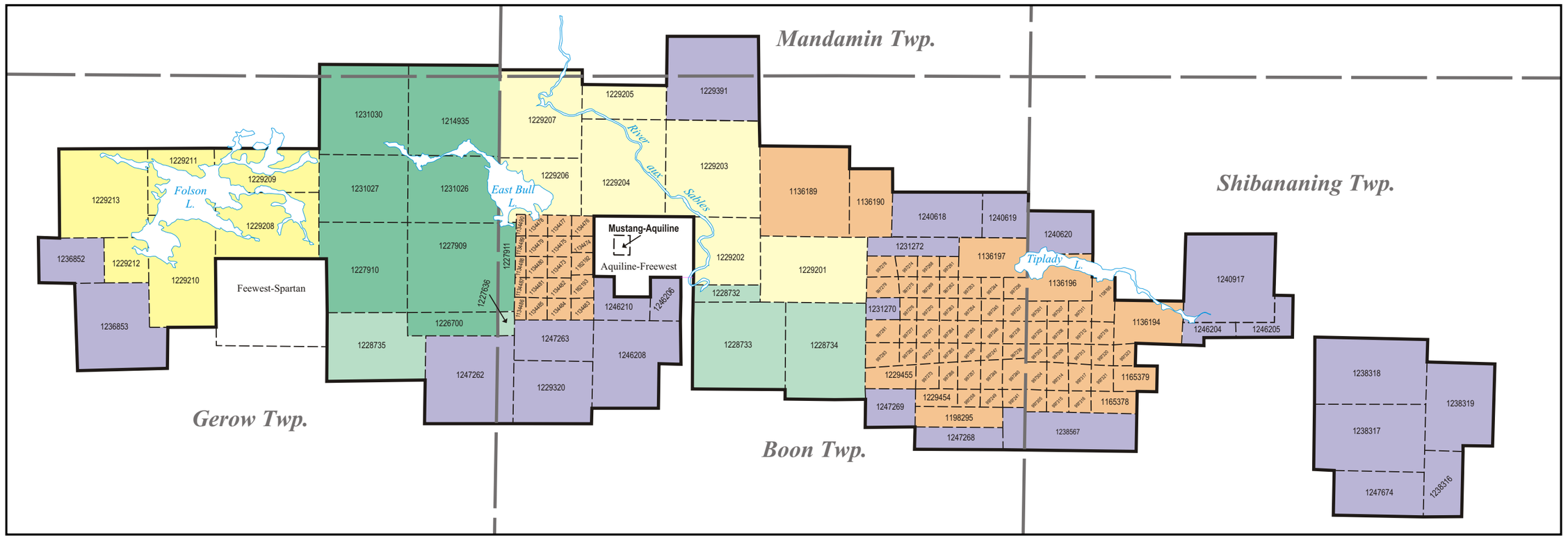
| Township | Claim Number | Number of Units | Area Hectares | Claim Group | Agreement Date | Optioner |
|---|---|---|---|---|---|---|
| **Boon** (cont'd) | 1231270 | 1 | 16 | YMU | | Purchased |
| | 1231272 | 4 | 64 | YMU | | Purchased |
| | 1228732 | 3 | 48 | Gervais | 4-Jul-00 | Gervais, L. |
| | 1228733 | 16 | 256 | Gervais | 4-Jul-00 | Gervais, L. |
| | 1228734 | 16 | 256 | Gervais | 4-Jul-00 | Gervais, L. |
| | 1229320 | 12 | 192 | YMU | | Staked |
| | 1240618 | 8 | 128 | YMU | | Staked |
| | 1240619 | 4 | 64 | YMU | | Staked |
| | 1246206 | 3 | 48 | YMU | | Staked |
| | 1246208 | 14 | 224 | YMU | | Staked |
| | 1246210 | 4 | 64 | YMU | | Staked |
| | 1247263 | 8 | 128 | YMU | | Staked |
| | 1247268 | 4 | 64 | YMU | | Staked |
| | 1247269 | 4 | 64 | YMU | | Staked |
| **Shibananing** | 997301 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997302 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997303 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997304 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997305 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997307 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997308 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997309 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997311 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997312 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997313 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997314 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997315 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997316 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997317 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997319 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997320 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997321 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 997323 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1136194 | 6 | 96 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1136195 | 2 | 32 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1136196 | 6 | 96 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1165378 | 2 | 32 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1165379 | 2 | 32 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1016959 | 1 | 16 | Gallo | 10-Jul-98 | Gallo, Hauseux & Surmacz |
| | 1238316 | 6 | 96 | YMU | | Staked |
| | 1238317 | 15 | 240 | YMU | | Staked |
| | 1238318 | 15 | 240 | YMU | | Staked |
| | 1238319 | 12 | 192 | YMU | | Staked |
| | 1238567 | 12 | 192 | YMU | | Staked |
| | 1240620 | 6 | 96 | YMU | | Staked |

**TABLE 1**
**CLAIM DESCRIPTION, EAST BULL LAKE PGM PROPERTY**
**DISTRICT OF ALGOMA, SUDBURY MINING DIVISION (continued)**

| Township | Claim Number | Number of Units | Area Hectares | Claim Group | Agreement Date | Optioner |
|---|---|---|---|---|---|---|
| **Shibananing** | 1240917 | 16 | 256 | YMU | | Purchased |
| (cont'd) | 1247674 | 8 | 128 | YMU | | Staked |
| | 1246204 | 2 | 32 | YMU | | Staked |
| | 1246205 | 3 | 48 | YMU | | Staked |
| **Mandamin** | 1229391 | 16 | 256 | YMU | | Purchased |
| **Totals** | **141** | **649** | **10,374** | | | |

**TABLE 2**
**PARCELS COMPRISING THE EAST BULL LAKE PROPERTY**

| Claim Group | Agreement Date | Claim Owners | Hectares |
|---|---|---|---|
| Main Block | June 19, 1998 | Bob Bailey, Lorne Luhta, Ron Orchard | 1,200 |
| July 6th Block | July 6, 1998 | Bob Bailey, Lorne Luhta, Ron Orchard | 1,472 |
| Gallo Claims | July 10, 1998 | E. Gallo | 2,128 |
| July 20th Block | July 20th, 1998 | Bob Bailey, Lorne Luhta, and Ron Orchard | 1,616 |
| Gervais | July 4th, 2000 | L. Gervais | 576 |
| Mustang (YMU) | - | Purchased Claims (Mustang) | 592 |
| Mustang (YMU) | - | Staked Claims | 2,800 |
| **Total** | | | **10,374** |




**Legend:**

**PROPERTY AGREEMENTS**

- *Bailey, Luhta & Orchard Block (July 20)*
- *Bailey, Luhta & Orchard Block (July 6)*
- *Bailey, Luhta & Orchard Block (June 19)*
- *Gallo Block*
- *Gervais Block*
- *YMU Block*

N

0 750 3,500

Metres

*Map after Mustang Minerals Corp.*
*"EBL_Claims_050301.dwg & EBL_Property_Agreements_V2.dwg"*

Figure 2.

MUSTANG MINERALS CORP.

**East Bull Lake PGM Property**

*Sudbury Area, Ontario, Canada*

***Property Claim Location Map***

Terms also involve the issuing of 25,000 Mustang shares on the anniversary date of each agreement for a total of 100,000 shares per agreement. All shares relating to the property agreements have been issued in full

All claims must be kept in good standing. The agreement on the Gallo claims also includes the following work commitment which has been satisfied in full:

| | |
|---|---|
| By January 10, 1999 | $25,000 |
| By July 10, 2000 | $50,000 |
| By July 10, 2001 | $75,000 |

A Net Smelter Return Royalty of 3% is payable on any production from each parcel. Mustang has the option to repurchase up to 2% of the NSR at a cost of $1,000,000 for each 1%. On the Gallo claims, there is a 3% NSR on any production. Mustang can repurchase 1.5% of the NSR for $1,500,000.

The Gervais Agreement is a purchase agreement whereby Mustang acquired 100% of all rights and title to the claims by making a cash payment of C$9,400. The vendor retains a 1% NSR on the Property. Mustang has Right of First Refusal to purchase the 1% NSR for a period of 10 years from the date of signing.

On September 12, 2000, Mustang entered into an agreement (the "Falconbridge Agreement") with **Falconbridge Limited** (‘Falconbridge”), whereby Falconbridge can acquire a 50% interest in the East Bull Lake Property. Under the terms of the Falconbridge Agreement, Falconbridge purchased a private placement 800,000 units of the Company for aggregate proceeds of $1,000,000 of which $850,000 was expended by Mustang on the East Bull Lake Property between November 2000 and November 2001. Each unit consisted of one Common Share and one share purchase warrant (each, a "Falconbridge Warrant"). Each whole Falconbridge Warrant entitles Falconbridge to purchase one Common Share at a price of $1.50 for twelve months and $1.75 for a further twelve months.

Upon completion of the private placement Falconbridge had the right to earn a 50% interest in the East Bull Lake PGM Property by funding additional exploration expenditures of $5,000,000 over four years, or to earn a 25% interest by funding additional exploration expenditures of $2,000,000 over two years. Falconbridge terminated the Falconbridge Agreement in writing on September 9, 2002, after funding an additional $184,329 of exploration including a six hole drill program. Upon termination Falconbridge has no residual interest in the East Bull Lake Property.

# 2. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

## 2.1 ACCESS

The East Bull Lake Property is located in Gerow, Boon, Mandamin and Shibananing Townships about 100 km west of Sudbury. The property area is within the limits of NTS sheet 41 J/8. Access to the property is by travelling west on Highway 17 from Sudbury to the town of Massey, a distance of 90 km. From Massey one proceeds north on Highway 553, an all weather gravel and partly paved highway, for a distance of 32 km to the East Bull Lake Wilderness Resort, which is located in the centre of the property. All weather gravel roads, logging roads and bush trails provide reasonable access to most other parts of the property from Highway 553 (Figure 2).

## 2.2 CLIMATE

The area has a moderate climate with temperatures averaging about 24°C in summer and -9°C in winter. Extreme temperatures are greater than 30°C in summer and less than -40°C in winter. Annual precipitation consists of about 60 cm of rain and 240 cm of snow.

## 2.3 LOCAL RESOURCES AND INFRASTRUCTURE

Limited food and fuel, as well as lodging are available at the East Bull Lake Wilderness Resort, located on the property. Food, fuel, and most supplies required for exploration are available in the village of Massey, 32 km to the south, and in the regional centre of Espanola which is located 30 km east of Massey.

The full range of equipment, supplies and services required for any mining development is available in Sudbury, a distance of 120 km from the property by road.

The city of Sudbury is a major centre with a population of about 90,000 (164,000 in the Regional Municipality of Sudbury). As home to both **Inco Limited** ("Inco") and Falconbridge, the Sudbury area is the western world's largest producer of nickel and the location of the largest fully integrated mining, milling, smelting and refining complex in the world. Over 300 companies involved in mining related activities offer expertise covering all areas of underground hardrock mining and environmental rehabilitation.

Abundant water resources are present in the lakes, rivers, creeks, and beaver ponds on the property.

## 2.4 PHYSIOGRAPHY

The topography in the area consists of gently rolling terrain consisting of rock ridges with limited glacial overburden. Local relief is commonly 10 to 30 m, although locally there are ridges up to 100 m high. Between these ridges are areas of wetland comprised of flooded beaver ponds and black spruce and Labrador Tea bogs.

## 3. HISTORY

During the period 1943 to 1963, several companies including **Silcross Copper Mines Ltd**. ("Silcross"), **El Pen-Ray Oil and Mines Ltd**. ("El Pen-Ray"), **Noranda Mines Ltd**. ("Noranda"), and Mining Corporation of Canada explored the Moon Lake and East Bull Lake areas for copper and nickel.

Silcross completed nine diamond holes (3,011 feet) southeast of Bull Lake in 1952. Assay values up to 1.65% Cu and 8.81% Ni were reported.

In 1956, El Pen-Ray carried out 7,819 feet of diamond drilling in 14 holes on the east side of Moon Lake in east central Gerow Township. Disseminated sulphide mineralization, chalcopyrite and nickeliferous pyrrhotite were intersected, associated with zones of quartz-biotite-chlorite alteration associated with fracture zones in the East Bull Lake Intrusion. The highest assay value was 3.93% Ni and 0.49% Cu over 1.5 feet.

Noranda optioned the Silcross property in 1958 and carried out geological mapping and Crone JEM surveys. In 1962, Mining Corporation of Canada optioned the Silcross property and carried out geological mapping and magnetometer surveys in order to explore the property further for its copper-nickel potential.

The above programs of prospecting, geological mapping, electromagnetic surveys, trenching, and diamond drilling failed to locate a deposit of economic interest.

A large part of the East Bull Lake property was withdrawn from staking by the Ontario Government in the early 1980s at the request of the **Atomic Energy of Canada Limited** ("AECL") for the purpose of testing the intrusion as a storage facility for radioactive waste. AECL completed detailed geological and geophysical surveys in the Moon Lake area. Four diamond drillholes were completed totalling 2,617 m; two of which intersected the underlying basement rocks. One of these (EBL-2) intersected a 12-m section of disseminated pyrrhotite-

chalcopyrite mineralization at the base of the intrusion, including a zone which averaged 1.32 g (Pt+Pd+Au)/t over 3.65 m. Nineteen percussion holes were also drilled to test the near surface hydrogeologic conditions.

In the late 1980s, Gallo Exploration Services completed an airborne magnetometer and VLF survey and trenching to explore for PGM mineralization in five areas within the eastern portion of the East Bull Lake Intrusion. Samples of disseminated primary magmatic sulphide mineralization returned assays up to 1.3 g Pt/t and 4.2 g Pd/t. Samples of semi-massive, structurally controlled, replacement type sulphide mineralization returned up to 9.4% Cu, 5.5% Ni, 34 g Ag/t, 0.8 g Pt/t and 3.9 g Pd/t (Fekete and Castonguay, 1999).

In 1990, Laurentian University carried out a five-year geological mapping, lithogeochemical sampling and petrogenesis study as part of the OGS's Elliot Lake Initiative Program. The study was designed to determine the mineral potential of the mafic and ultramafic rock between Elliot Lake and Sudbury and exploration potential for Pt-Pd-Rh was identified in the East Bull Lake Complex.

During the period 1991-1995, extensive field and laboratory investigations were carried out by Peck et al of the OGS on the East Bull Lake gabbro-anorthosite intrusion. Three types of mineralization were identified which host up to 5 g/t combined Pt, Pd and Au.

In 1992, Inco Exploration and Technical Services optioned the Gallo property and completed a program of reconnaissance geologic mapping, and sampling of several known mineral showings. Values as high as 5,860 ppm Cu, 2,200 ppm Ni, 202 ppb Pt, and 946 ppb Pd were returned from magmatic mineralization and 14.7% Cu, 0.49% Ni, 436 ppb Pt, 3,078 ppb Pd, 179 ppb Au and 98.9 ppm Ag were returned from hydrothermal, structurally controlled mineralization. Five diamond drillholes (1,511.5 m) were completed in 1993. The highest values were 0.325% Cu, 438 ppb Pt and 1,390 ppb Pd over 1.4 m.

The Gallo property was optioned by **WMC International Limited** ("WMC") in 1995. Several additional claims were staked and mapping, rock, soil and till geochemical surveys were completed over parts of Boon, Gerow, Lockeyer, Mandamin and Shibananing townships. The best assay obtained by WMC was 0.53% Cu, 0.11% Ni, 0.39 g Au/t, 0.91 g Pt/t and 4.45 g Pd/t.

Mustang optioned the East Bull Lake property in the summer of 1998.

# 4. GEOLOGICAL SETTING

## 4.1 REGIONAL GEOLOGY

The East Bull Lake Intrusion ("EBLI") is one of a suite of Early Proterozoic layered mafic intrusions, which occur near the boundary between the Superior, Southern and Grenville geological provinces in the Sudbury area (Figure 3).

It is attributed to a major episode of continental rift magmatism that produced mafic to ultra-mafic complexes, diabase dyke swarms and associated flood basalts in many of the world's Archean cratons (Peck et al. 1995). In Ontario, this event is credited with the intrusion of the East Bull Lake ("EBL") suite of layered gabbro-anorthosite intrusions, the Matachewan-Hearst dyke swarm, the Nipissing diabase and the Huronian Supergroup volcanic sequences. These intrusions are often collectively called the Huronian-Nipissing Magmatic Belt ("HNMB").

The Huronian–Nipissing magmatic event is generally dated at between 2.5-2.2 Ga, although the 1.85 Ga date for the Drury Township intrusion (Prevec et al. 1995) suggests that it may have continued for some time.

The HNMB is recognised as a distinct metallogenic province. The Nipissing diabase intrusions and the EBL suite intrusions both host numerous Cu-Ni-PGM occurrences. Copper occurrences are present within the Huronian basalts.

The EBL suite and the Nipissing diabase intrusions have low sulphur and Ti-contents and high background PGM levels. These characteristics, as well as isotopic and rare earth data, are consistent with their interpretation as being derived from second stage Al-rich tholeiitic magmas derived from partial melting of the upper mantle.

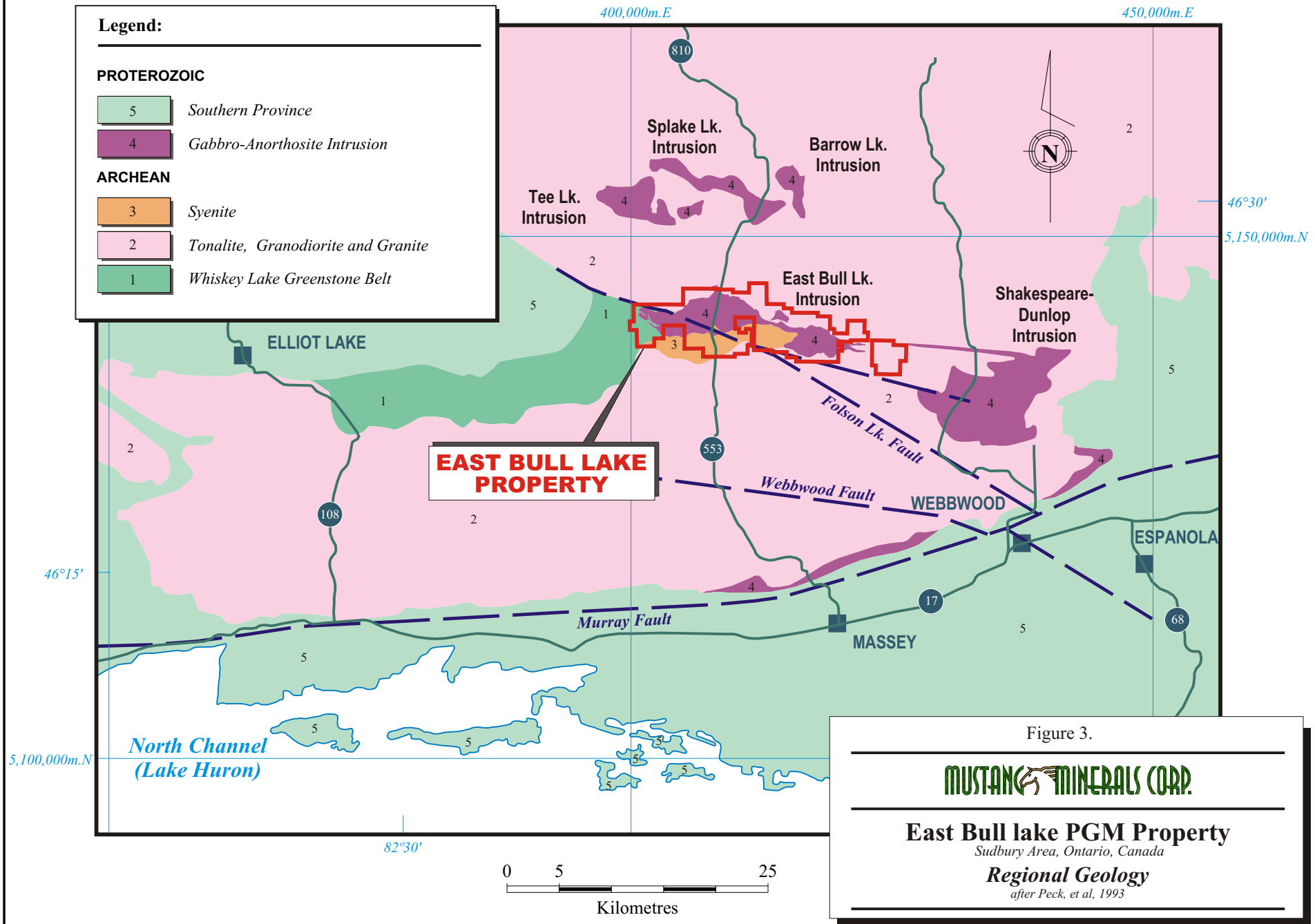



Figure 3.

MUSTANG MINERALS CORP.

# East Bull lake PGM Property

*Sudbury Area, Ontario, Canada*

***Regional Geology***

*after Peck, et al, 1993*

The EBLI covers an area of about 43 $km^2$ and is about 20 km long and up to 4 km wide. The EBLI consists of two intrusive centres joined by an east-west trending dyke-like constriction. It was intruded along the contact between the Archean age Whiskey Lake greenstone belt and Parisien Lake syenite (2.665 Ga) to the south, and the Archean Ramsey-Algoma granitoid terrane to the north. The granitoids have been dated at 2.671 Ga and show intrusive relationships with the Whiskey Lake volcanics.

During the Huronian the EBLI was exposed to erosion and subsequently covered by a thick sequence of Huronian sediments.

The intrusion and the surrounding rocks were subject to upper greenschist, to locally amphibolite facies metamorphism, most likely during the Penokean Orogeny (1.9-1.8 Ga). This produced metamorphic mineral assemblages which largely obscure the primary mineralogy. Mineral foliations also overprint to some degree, but do not obscure the original igneous textures. Igneous layering generally strikes parallel to the contact and dips inwards at between 20° and 50°.

The intrusion is cut by brittle and ductile shear zones including two major deformation zones: the east-southeast trending Folson Lake Deformation Zone, and; the east-northeast trending Parisien Lake Deformation Zone.

## 4.2 PROPERTY GEOLOGY

The East Bull Lake Property covers almost the entire extent of the EBLI (Figure 4). The EBLI has been studied extensively by the OGS (McCrank et al., 1989; Peck and James, 1991; Peck et al., 1993; and Peck et al., 1995). The intrusion was the subject of an MSc thesis (Born 1979). Another M.Sc. thesis (Chubb 1994) investigated the petrogenesis of the eastern portion of the intrusion. Much of the description of the property geology that follows is drawn from these studies, in particular from the latest work by Peck et al., 1995.

401,000m.E

411,000m.E

421,000m.E

5,146,000m.N

5,138,000m.N

River aux Sables

Mandamin Twp.

Gerow Twp.

Boon Twp.

Shibananing Twp.

Mustang Minerals Corp. Property Outline

EAST BULL LAKE COMPLEX

Folson Lake

East Bull Lake

Goulding Lake

Savage Lake

Nodule Pond

FLDZ

PLDZ

DZ

BAILEY TARGET

FOLSON LAKE TARGET

KID TARGET

PARISIEN LAKE TARGET

TWIN TOWERS TARGET

BULLFROG EXTENSION TARGET

FEEWEST-SPARTAN ZONE

BULLFROG ZONE

MOON LAKE ZONE

PECK ZONE

CENTRAL ZONE

SOUTH ZONE

**Legend:**

**HURONIAN**

- 11 — *Olivine Diabase*
- 10 — *Nipissing Gabbro*
- 9 — *Metasediments (unsubdivided)*

**EAST BULL LAKE INTRUSION**

- 8 — *Upper Series*
- 7 — *Main Series*
- 6 — *Lower Series*
- 5 — *Marginal Series*
- 4 — *Parisien Lake Syenite*

**ARCHEAN**

- 3 — *Pre-Huronian Mafic Dykes*
- 2 — *Whiskey Lake Greenstone Belt (unsubdivided)*
- 1 — *Ramsey Algoma Granitoids*

- DZ — *Deformation Zone*
- ✳ — *Exploration Targets*
- △ — *PGM-Cu-Ni Occurence*
- FLDZ — *Folson Lake Deformation Zone*
- PLDZ — *Parisien Lake Deformation Zone*

N

0 4000

Metres

*Map after OGS Map P3.274 and Mustang Minerals Corp. "EBull_Geol.cdr"*

Figure 4.

MUSTANG MINERALS CORP.

**East Bull Lake PGM Property**

*Sudbury Area, Ontario, Canada*

***Property Geology***

The various workers have proposed several stratigraphic subdivision schemes. While there slight differences in nomenclature, all of the schemes are in general agreement.

Peck's (1995) scheme divides the EBLI into four main stratigraphic divisions:

1. the Marginal Series;
2. the Lower Series;
3. the Main Series; and,
4. the Upper Series.

The Marginal Series is comprised of a locally well developed intrusive breccia known as the Border Zone and a zone of fine-grained to coarse grained gabbroic rocks, the Gabbronorite Zone. The Border Zone is best developed in the western lobe of the EBLI in the Moon Lake area where it attains a thickness of several tens of metres. It is very thin or absent in other parts of the intrusion. It consists of variable proportions of deformed xenoliths of footwall rocks in a matrix of anorthosite, leucogabbronorite and gabbronorite veins. The Border Zone is interpreted as an igneous breccia which felsic footwall rocks were ground during emplacement of the mafic magmas. Small amounts of granophyre associated with some of the xenoliths are attributed to partial melting of the felsic xenoliths. Pyrite and/or pyrrhotite rich disseminated sulphide mineralization is locally developed in the gabbroic veins and cumulate textured gabbroic bodies within the Border Zone.

The Gabbronorite Zone occurs almost exclusively in the eastern lobe of the EBLI. It consists of a dyke-like body one to ten metres thick, situated along the lower contact of the intrusion. Locally intrusive relationships indicate that it was emplaced after the overlying cumulate rocks.

The cumulate rocks are subdivided into the Lower, Main and Upper Series. The Lower Zone is 50 to 450 m thick and includes the IBZ and the overlying Anorthosite Zone.

The IBZ is the lowermost unit of the cumulates. It is a chaotic unit, generally <10 m but locally up to 30 m thick comprised of inclusions of coarse-grained anorthositic cumulates and pods of pyroxenite in a highly variable leucogabbronorite matrix. The IBZ hosts most of the PGM-Cu-Ni mineralization discovered to date.

Locally, particularly in the western lobe of the intrusion, the IBZ is overlain by the Anorthosite Zone, which consists of massive anorthosite to leucogabbronorite. This zone also contains irregularly shaped unevenly distributed centimetre to metre scale pyroxenite lenses, similar to the pyroxenite pods in the IBZ.

The Main Series of the EBLI is comprised of 100 to 200 m of massive to layered leucogabbronorite (the Leucogabbronorite Zone) overlain by 100 to 300 m of rhythmically layered (decimetre to decametre scale) leucogabbronorite (the Rhythmically Layered Zone) and the approximately 50 m thick rhythmically layered Olivine Gabbronorite Zone.

Disseminated Fe-Cu-Ni sulphide mineralization is present in each of the three zones of the Main Series, however significant PGM enrichment (>50 ppb Pt+Pd+Au) is only present in the Olivine Gabbronorite Zone and rarely in plagioclase rich cumulates of the Leucogabbronorite Zone.

The Upper Series of the EBLI is comprised of the Layered Gabbronorite Zone, the Vari-textured Gabbronorite Zone and the Massive Gabbronorite Zone.

The Layered Gabbronorite Zone consists of thick (>10 m) layers of leucogabbronorite alternating with thinner modally layered leucogabbronorite-gabbronorite layers. Locally, disturbed igneous textures provide evidence of turbulent flow and late injections of magma.

The Vari-textured Gabbronorite Zone consists of irregular veins and pseudolayers of fine grained to pegmatitic gabbronorite. The diverse coarse grained textures of the Vari-textured Gabbronorite Zone are attributed to crystallization from water rich residual fluids.

The uppermost member of the cumulate series is the Massive Gabbronorite Zone. It commonly contains up to several percent quartz and is interpreted to represent a late stage differentiate.

Several varieties of mafic dykes are present within the EBLI. Field observations and geochemical data suggest that two of these, the hypidiomorphic granular gabbronorite and the plagioclase phyric diabase dykes are cogenetic with the cumulates of the EBLI. Other dykes are related to the Nipissing diabase suite.

## 5. DEPOSIT TYPES

The mineralization on the East Bull Lake Property is located within the Inclusion Bearing Zone of the EBLI. The deposit model suggests that sulphides were precipitated within this zone due to sulphide saturation induced by the addition of silica to the melt by partial absorption of the inclusions. Once the sulphides formed they scavenged Cu, Ni and PGMs from the melt due to the large fractionation coefficients between the sulphide and silicate phases.

Examples of other deposits of this type include the mineralization currently being explored by Pacific Northwest Capitalin conjunction with joint venture partner Anglo Platinum on its River Valley Property. In October 2002, a resource consisting of Measured and Indicated Resources of 18,053,000 tonnes at 1.423 g (Pd+Pt+Au)/t and Inferred Resources of 5,382,000 at 1.15 g (Pd+Pt+Au)/t) was announced on this property, which adjoins Mustang's River Valley Property on the north, similar mineralization occurs within the base of the Portimo Complex in Finland, where joint venture partners Outukumpu and Goldfields have announced a 2.9 million ounce resource (Measured, Indicated and Inferred Resources of 49.2 M tonnes at 1.86 g (Pd+Pt+Au)/t).

# 6. MINERALIZATION

## 6.1 GENERAL

Disseminated Cu-Ni mineralization was first discovered in the EBLI in the early part of this century. It has only been relatively recently that these occurrences were examined for their PGM potential.

At least two styles of mineralization have been recognised. The most common type of mineralization is Contact Mineralization. This style of mineralization consists of roughly equal abundances of chalcopyrite and pyrrhotite in irregularly distributed lens shaped zones within the Inclusion Bearing Zone of the Lower Series of cumulate rocks. Individual zones contain up to 10% sulphide, but more commonly contain only 2 to 3% sulphides as disseminations and small blebs.

The Contact Mineralization is generally restricted to the lower 5 to 20 m of the IBZ and decreases up section. Lesser amounts of mineralization are found in the underlying Border Zone. The mineralization is found all along the south contact of the intrusion from Folson Lake in the west to Nodule Pond in the east. The best development of this style of mineralization is in the Moon Lake Zone, where it reaches an outcrop width of 150 m.

The sulphide mineralization occurs within both the plagioclase-rich cumulates and the pyroxenite inclusions of the IBZ. The sulphides consist of disseminated grains and blebs up to 1 cm in diameter. They contain roughly equal proportions of pyrrhotite and chalcopyrite that appear to have co-precipitated. Late stage pentlandite reportedly occurs as exsolved rims on both the chalcopyrite and pyrrhotite (Peck et al 1993). Minor pyrite occurs as partially resorbed inclusions. The sulphides are commonly recrystallized often occurring as replacements of early formed silicates or post-cumulus magnetite and ilmenite. Locally they have been remobilized into late fractures and veins.

The above features are consistent with a magmatic origin for the mineralization.

A second style of mineralization is recognised within the Parisien Lake Deformation Zone which cuts the IBZ immediately north of Parisien Lake in the eastern part of the intrusion. This zone is characterized by a strong shearing fabric and silicification. The sulphides occur as irregularly shaped concentrations of disseminated, commonly net textured sulphide. Locally pods of massive sulphide have developed in the cores of the disseminated sulphide zones.

The mineralization consists of magnetite, pyrite, pyrrhotite, chalcopyrite and pentlandite and appears to have been precipitated after the recrystallization of the silicates during the Penokean orogeny. It is postulated by the Ontario Geological Survey that the sulphides were derived from adjacent magmatic contact style mineralization and were remobilized during the deformation event. This is supported by the somewhat higher Cu/Ni ratios obtained from some of this mineralization suggesting that it may have precipitated from a copper rich fractionate derived from the original mineralization.

## 6.2 MOON LAKE ZONE

Contact mineralization has been discovered within the Moon Lake Zone. The mineralization in this area has been traced by mapping, prospecting, surface sampling, and diamond drilling over a strike length of 1,000 m with widths exceeding 150 m.

Surface sampling of this zone has been carried out by both the OGS and Mustang. Reported grab sample grades are up to the 2 to 3 g (Pt+Pd+Au)/t range (Pd/Pt in range of 2 or 3:1 with minor Au). The zone was tested by diamond drilling by El Pen–Rey in 1956. El Pen-Rey reported sections of disseminated pyrrhotite and chalcopyrite. No assays for PGMs were carried out.

Drilling by Mustang has delineated two mineralized horizons or zones (identified as A and B). Correlation of the two zones is somewhat hampered by the presence of what appear to be two north-trending mafic dykes.

The upper horizon (A) occurs straddling the contact of the Anorthosite Zone of the Lower Series and the Leucogabbronorite Zone of the Main Series. The mineralization in this zone is typically narrower (7.3 to 43.5 m) and slightly higher grade than in Zone B (37.0 to 127.0 m). Zone B consists of a wider zone of mineralization within the Gabbronorite Zone.

Grade of the mineralization generally averages between 0.5 to 1.0 g (Pt+Pd+Rh+Au)/t. Pd:Pt ratios are generally about 3:1, with only minor Rh and Au. While there are a few individual higher grade assays, no contiguous higher grade zone (>1 g (Pt+Pd+Au)/t) of a width of greater than 5 m has been identified.

## 6.3 BULLFROG ZONE

The Bullfrog Zone occurs within the IBZ along the north side of the Bullfrog deformation zone, a roughly east west trending zone of intense schistosity development. The mineralization typically consists of disseminated pyrrhotite and chalcopyrite and occurs both within sheared and unsheared parts of the zone. To date, the Bullfrog Zone represents the most pervasive occurrence of contact mineralization on the property.

The Bullfrog Zone is located at or near the contact of the IBZ with the overlying Anorthosite Zone. The zone is largely within the IBZ.

The zone has been traced by surface mapping, prospecting and sampling for a strike length of about 700 m. Grab sample assays range from trace to 16.48 g (Pt+Pd+Au)/t.

The best drill results to date have come from the west end of the zone between L26W and L28W, where there are multiple zones over a width of 10 to 30 m locally containing trace to 10% disseminated sulphides over widths of 1 to 2 m.

Grab samples from outcrop in this area have returned up to 16.48 g (Pt+Pd+Rh+Au)/t, with a large proportion of the samples in the 2 to 10 g (Pt+Pd+Rh+Au)/t range. Pd:Pt ratios are about 3:1, with only minor Au and Rh.

Drilling by Mustang identified a continuous zone of mineralization for approximately 600 metres. Several of the holes contained values greater than 1 g (Pd+Pt+Au)/t over widths greater than 10 m.

## 6.4 PARISIEN GRID

The Parisien Lake Grid is the east extension of the Bullfrog grid in the southeastern part of the West lobe of the EBLI. Work in 2001 demonstrated that two styles of PGM-Cu-Ni mineralization occur in and adjacent the Parisien Lake deformation zone immediately north of the footwall contact. In addition to the structurally remobilized sulphide mineralization that historic exploration focused on, classic contact type disseminated and blebby sulphide mineralization occurs both north and south of the deformation zone. Mineralization is widespread. The best channel sample result from three trenches on the Parisien Zone was 0.84 g (Pt+Pd+Au)/t over 21.0 metres (including 1.36 g (Pt+Pd+Au)/t over 6.0 metres).

## 6.5 KID ZONE

The Kid Zone occurs parallel to the Parisien Zone 400-450 m north in the southeastern part of the west lobe of the EBLI. Detail sampling and three trenches further demonstrated the potential of the Kid zone discovered by Mustang in 2000. The best PGM results in channel samples from the trenches are 1.05 g/t over 24.0 metres (including1.48g/t over 10 metres), 2.43 g/t over 4.0 metres, and 1.81 g/t over 7.0 metres (including 2.24 g/t over 4.0 metres). The best individual channel

and grab samples from this zone were 4.76 g (Pt+Pd+Au)/t over 1 metre and 4.98 g (Pt+Pd+Au)/t respectively. Elevated PGM values occur in a mixed unit of inclusion bearing, vari-textured, clotty, and locally pegmatitic leucogabbro, gabbro and anorthositic gabbro.

## 6.6 EAST LOBE GRIDS

Fieldwork in 2001 traced discontinuous contact type mineralization over a 3.5 kilometre strike length along the south margin of the East Lobe ("South Zone"). Numerous grab samples returned PGM values between 0.3 to 4.9 g/t. Clustering of anomalous samples defines three discrete target areas each 300 to 800 metres long and 30 to 50 metres wide.

- **South Zone - West:** is the best defined of the three targets by virtue of the detailed mapping that was done after first pass grid mapping. A 40 metre wide mineralized zone hosted by clotty textured, and locally blue quartz eye bearing, gabbros and leucogabbros was outlined over an 800 metre strike length near the south contact of the East Lobe. Less continuous areas of similar contact style mineralization occur up to 150 metres north. The best result from detailed sampling was an average value of 1.28 g Pt+Pd from ten samples taken across 35 metres.

- **South Zone –Centre:** occurs about 1,300 metres on strike to the east. It is defined over a strike length of 500 metres by several grab samples that returned values between 0.3 and 1.3 g (Pt+Pd+Au)/t. The zone is up to 100 metres wide and is characterized by disseminated and blebby sulphides in clotty textured leucogabbros and gabbros that occur immediately north of the footwall contact.

- **South Zone – East:** was only identified at the end of the summer mapping program. Five of twenty-six samples collected on the two easternmost lines on South grid returned over 450 ppb PGM. The two best grab samples returned 2.7 g/t and 1.5 g (Pt+Pd+Au)/t.

The extent and continuity of mineralization on the easternmost part of the South grid has yet to be defined.

**Central Zone:** Typical contact type PGM-Cu-Ni mineralization in Lower Series inclusion bearing gabbros, anorthositic gabbros, and pyroxenites occurs 300 metres to 700 metres north of the East Lobe south contact. These mineralized Lower Series rocks, and enclaves of footwall granite, structurally overlie Main Series leucogabbros, so they are clearly out-of-sequence. The coincidence with this zone with an east-southeast trending linear topographic low occupied by swamps and ponds, and the relatively intense fracturing and foliation on outcrops and on many outcrops along the edge of the swamp, suggests that this prospective stratigraphy may have been repeated along a fault. Contact type mineralization has traced across widths of up to 70 metres over 1,300 metres of strike. Six trenches were excavated to provide three sections across this zone over a 350 metre strike length. Significant intervals of greater than 1 g (Pt+Pd+Au)/t were returned on all three sections. The best result was 1.92 g (Pt+Pd+Au)/t over 15.7 metres (including 2.33 g (Pt+Pd+Au)/t over 7.0 metres).

Results of the six hole drill program on the Central Zone are presented in Section 8.

## 6.7 OTHER MINERALIZATION

Other mineralization has been identified on the property but to date has not been explored to quantify its potential width or continuity.

# 7. EXPLORATION

## 7.1 GENERAL

Mustang has carried out a systematic exploration program at East Bull Lake from September 1998 to September 2002. Target areas defined by historical sampling by the OGS or reconnaissance prospecting were mapped and sampled. Rock grab samples were collected on a more or less regular pattern to identify any areas of PGM enrichment. Follow up sampling of any sulphide bearing horizons has also been carried out. Several mineralised zones have been the subject of geophysical surveys, trench sampling and drilling.

Work carried out by Mustang on the property from 1998 to 2000 is summarized in Table 3.

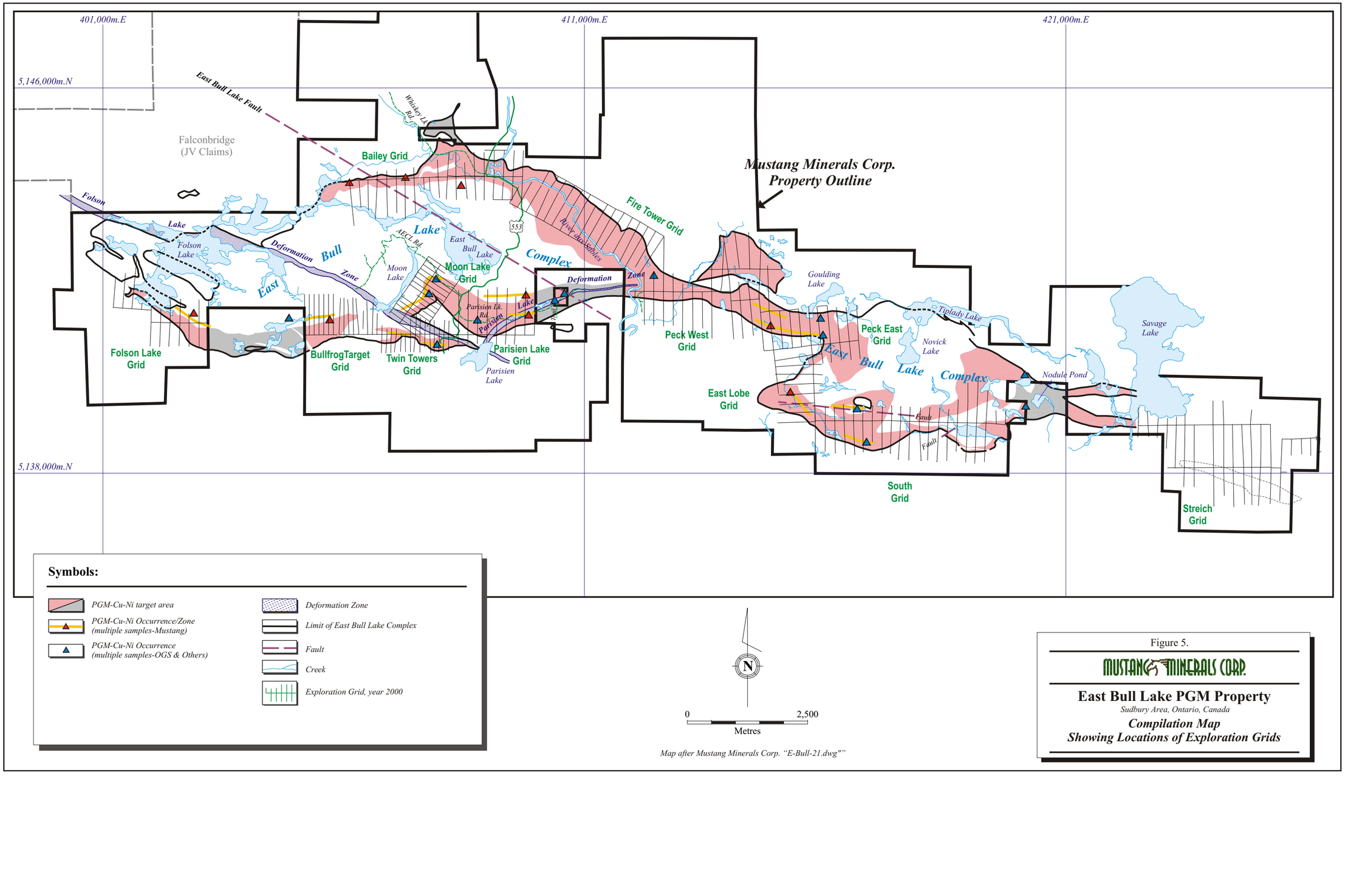
**TABLE 3**
**SUMMARY OF EXPLORATION WORK BY MUSTANG MINERALS CORP.**
**EAST BULL LAKE PROJECT, 1998-2000**

| Grids | Linecutting (km) | Mapping (km) | No. samples | No. Drillholes | Total metreage | Ground Mag (km) | I.P. (km) | Year of work |
|---|---|---|---|---|---|---|---|---|
| Bailey* | 21.4 | 5 | 30 | nil | nil | 21.4 | | 2000 |
| Bullfrog | 25 | ~12 | ~150 (1999); 356 (2000) | 5 (1999); 6 (2000) | 628; 1,136 | 25 | 10.3 | 1999-2000 |
| East Lobe* | 20.5 | 9 | 81 | nil | nil | 20.5 | | 2000 |
| Fire Tower* | 8.4 | 8.4 | 14 | nil | nil | 8.4 | | 2000 |
| Folson Lake* | 11 | 11 | 171 | nil | nil | 11 | | 2000 |
| Moon Lake | 17.54 | 17.54 | ~100 | 8 (1998); 3 (1999) | 1,198; 375 | 17.54 | | 1998-1999 |
| Parisien Lake* | 11.4 | 11.4 | 167 | nil | nil | 11.4 | | 2000 |
| Peck East | 16.4 | 16.4 | 330 | 9 (2000) | 1,976 | 16 | 12.4 | 1999-2000 |
| Peck West* | 15.8 | 15.8 | 133 | nil | nil | 15.8 | | 2000 |
| **TOTAL** | **147.44** | **~106** | **~1,532** | **31** | **5,314** | **147.04** | **22.7** | |

* 2000 grid

The locations of the target areas are shown on Figure 5.

The exploration program began using the research and mapping completed by the Ontario Geological Survey which served as an introductory guide to the property.




**Symbols:**

- PGM-Cu-Ni target area
- PGM-Cu-Ni Occurrence/Zone (multiple samples-Mustang)
- PGM-Cu-Ni Occurrence (multiple samples-OGS & Others)
- Deformation Zone
- Limit of East Bull Lake Complex
- Fault
- Creek
- Exploration Grid, year 2000

N

0 2,500

Metres

*Map after Mustang Minerals Corp. "E-Bull-21.dwg""*

Figure 5.

MUSTANG MINERALS CORP.

**East Bull Lake PGM Property**

*Sudbury Area, Ontario, Canada*

***Compilation Map***
***Showing Locations of Exploration Grids***

## 7.2 EXPLORATION 2001-2002

In 2001 Vision Exploration completed 88 kilometres of linecutting and chaining on the South, Bailey, Firetower, North, and Streich Dyke grids (Figure 5). Baselines were orientied at 090°, except on the Firetower Grid where the baseline was cut at 300°, parallel to the EBLI contact in that area. Grids were tied onto those cut in 2000.

Grid lines were cut every 200 metres, and picketed every 25 metres. Most pickets were labelled with metal tags but this practice was not universal. Garmin 12XL and Magellan GPS receivers were utilized for locating grid end points and intersection points, and claim posts. Approximately 4 kilometres of the Bullfrog Grid, cut in 1999 and mapped in 2000, were located with GPS receivers. All UTM co-ordinates were recorded in NAD 27, Zone 17T.

One hundred and twenty kilometres of 1:5,000 scale grid mapping and 3.5 kilometres of 1:1000 scale detailed mapping were completed in 2001. The intent of this work was to complete grid mapping of the lower portion of the EBLI, and delineate areas in which contact type PGM-Cu-Ni mineralization is best developed. Grid mapping and sampling were followed by detailed mapping on six of eleven target areas defined during grid mapping Samples were collected every 5 metres, where outcrop permitted, and lines were laid out at approximately at 200 metre intervals to transect target areas identified during grid mapping.

Larchex Inc., of Timmins Ontario, stripped and washed 1292 linear metres of trench between September 19$^{th}$ and October 4th. Seventeen trenches were stripped along the Kid, Parisien, Central, Neck South and Neck North zones. Two machines, each with a two man crew, were employed. The trenches were mapped and channel sampled. Channel sampling was done under the supervision of a geologist. Two man sampling crews cut channels about 3 to 5 centimetres wide and deep using a diamond bladed rock saw. A maximum channel sample length of 1 metre was used. Shorter samples were collected where important geological contacts occurred or where necessitated by available rock exposure. The geologist marked up

the sample intervals, trying to keep the channel as continuous and perpendicular to strike as possible. Trench outlines, geology and sample locations were mapped with a compass and tape measure. End points of trenches, and in some cases intermediate points, were measured with a Garmin 12XL GPS. Trench locations and highlights are listed in Table 4.

Lithogeochemical sampling during the Summer 2001 East Bull Lake Project field program included 1,191 grab samples collected during grid mapping, 618 grab samples collected during detail mapping and 1,037 channel samples collected following mechanical stripping in mineralized areas.

In 2002, a total of six surface NQ diamond drillholes were completed at the Central Zone located within the East Lobe. The reconnaissance drill program was conducted along 200 m step outs for a total strike length of 1,000 m. It was designed to test the pervasive PGM mineralization that had been encountered in grab and trench samples. The program was successful in establishing PGM values at depth below the surface showings. Refer to Section 8.4 for the results of the drill program.

**TABLE 4**
**2001 TRENCH RESULTS, EAST BULL LAKE PROJECT**

| Trench | Zone | Subcrop Area (m**2) | Length (m) | South UTM N | South UTM E | North UTM N | North UTM E | Sampling (m) | Samples (n) | Interval Pt+Pd+Au** (ppm) | Interval Interval (m) | Including* Pt+Pd+Au* (ppm) | Including* Interval* (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Central | *900* | 109 | 5139407 | 416611 | 5139502 | 416625 | 102.9 | 107 | 1.92 | 15.7 | 2.33 | 7.0 |
| 2c | Central | *0* | 9 | 5139374 | 416381 | 5139380 | 416384 | 10.0 | 11 | 0.89 | 7.7 | 1.25 | 4.0 |
| 2b* | Central | *210* | 33 | 5139388 | 416341 | 5139420 | 416350 | 31.5 | 34 | 0.84 | 16.0 | 1.58 | 4.0 |
| 2a | Central | *400* | 71 | 5139419 | 416407 | 5139487 | 416422 | 66.5 | 67 | 1.01 | 24.0 | 1.23 | 14.0 |
| 3 | Central | *500* | 48 | 5139420 | 416269 | 5139446 | 416305 | 51.5 | 52 | 0.98 | 14.0 | 1.22 | 5.0 |
| 4 | Central | *140* | 31 | 5139339 | 416579 | 5139368 | 416585 | 35.7 | 38 | 1.62 | 15.0 | 1.91 | 10.0 |
| 5a | Kid | *600* | 100 | 5141625 | 409778 | 5141661 | 409775 | 90.0 | 90 | 1.05 | 24.0 | 1.48 | 10.0 |
| 5b | Kid | *480* | 54 | 5141698 | 409786 | 5141730 | 409796 | 47.0 | 47 | 2.43 | 4.0 | 3.30 | 2.0 |
| 6 | Kid | *250* | 35 | 5141674 | 409741 | 5141713 | 409738 | 29.0 | 29 | 1.81 | 7.0 | 2.24 | 4.0 |
| 7a | Parisien | *400* | 40 | 5141246 | 409797 | 5141279 | 409779 | 0.0 | 0 | no sampling | | | |
| 7b | Parisien | *965* | 103 | 5141198 | 409885 | 5141246 | 409797 | 0.0 | 0 | no sampling | | | |
| 7c | Parisien | *300* | 83 | 5141158 | 409886 | 5141198 | 409885 | 122.0 | 122 | 0.84 | 21.0 | 1.36 | 6.0 |
| 7d | Parisien | *455* | 100 | 5141211 | 409856 | 5141278 | 409848 | 0.0 | 0 | included in 7c | | | |
| 7e | Parisien | *400* | 83 | 5141195 | 409731 | 5141248 | 409743 | 77.0 | 77 | 0.53 | 15.0 | 0.66 | 5.0 |
| 8 | Parisien | *900* | 139 | 5141190 | 409539 | 5141314 | 409510 | 120.0 | 120 | 0.34 | 26.0 | 0.48 | 5.0 |
| 9 | James' Pond | *14* | 23 | 5140866 | 415898 | 5140888 | 415903 | 24.5 | 26 | 0.28 | 6.0 | 0.45 | 2.0 |
| 10 | James' Pond | *127* | 51 | 5140805 | 415978 | 5140860 | 415990 | 45.0 | 49 | 0.40 | 0.5 | n/a | n/a |
| 11 | Gallo's Pond | *700* | 98 | 5141405 | 414844 | 5141500 | 414828 | 79.1 | 84 | 0.25 | 4.0 | 0.46 | 1.0 |
| 12 | Gallo's Pond | *300* | 54 | 5141237 | 414764 | 5141285 | 414780 | 51.2 | 54 | 0.32 | 2.0 | 0.41 | 1.0 |
| 13 | Gallo's Pond | *0* | 28 | 5141199 | 414743 | 5141228 | 414739 | 28.5 | 29 | 0.48 | 5.0 | 1.31 | 1.0 |
| Total | | *8041* | 1292 | | | | | 1011.4 | 1036 | | | | |

* Second analytical result and sample interval is included in the first analytical result and sample interval, i.e. 15.7m @ 1.92ppm Pt+Pd+Au includes an interval of 7.0m @ 2.33ppm Pt+Pd+Au.

**Pd:Pt ranges from 2:1 to 3:1 and Pd:Au ~10:1

## 7.3 MOON LAKE ZONE

Mustang geologically mapped and sampled the area immediately east of Moon Lake in June 1998. The grab samples were taken from gabbroic, anorthositic and felsic-rich rocks of the East Bull Lake Intrusion over an area approximately 200 m by 50 m wide. Although very little sulphide content was observed in the grab samples, an area of elevated Pt+Pd+Au values, ranging from 0.01 g/t to 5.9 g/t, was outlined. Pd to Pt ratios are about 3:1 with only minor Au.

In August 1998, Exsics Exploration Limited completed a program of linecutting (17.54 km), a magnetic survey and a detailed IP survey for Mustang over a 1,500 m by 800 m grid immediately east of Moon Lake. A major north-south striking fault, represented by a magnetic low, appears to cross the grid. A number of minor faults, shears or fracture zones appear to cross this main fault or emanate from it. Several broad zones of IP chargeability were delineated which appear to be associated with surface mineralization in fractures or shear zones at the contact of the Anorthosite Subzone and the Border Zone. Drill testing of the down dip extension of these surface IP anomalies was recommended. This area was drill tested in December 1998.

The results of this drilling are detailed in the section on drilling (Section 8.1).

In mid-1999, Mustang acquired the core from the four drillholes completed by AECL in 1983. These holes were drilled approximately 1 km west of the Moon Lake target. A portion of the core was relogged and re-assayed by Mustang. AECL holes 1, 2 and 4 confirmed the presence of a zone of PGM mineralization similar to that encountered in the holes drilled by Mustang at Moon Lake. Hole 4 indicated a down dip continuation of PGM rich layers to a depth of 400 m. In Hole 4, an average of 0.27 g (Pt+Pd+Rh+Au)/t was intersected over 79.8 m between 372.2 and 452 m.

## 7.4 BULLFROG ZONE

The Bullfrog Zone covers a portion of the southern margin of the East Bull Lake intrusion and is hosted within the same geologic environment as **Freewest Resources Canada Inc**.'s ("Freewest") Valhalla Showing.

In September and October 1999, Patrie, under contract for Mustang, carried out a program of 25 km of linecutting and magnetic surveys. Approximately 10.3 km of IP surveying was completed on a portion of this grid. The IP survey was a time domain pole-dipole survey with an "a" spacing of 50 m and was carried out with a Walcer MG-2 motor generator, and a Phoenix IPT1 Model Transmitter and a Scintrex IPR-12 receiver. Six levels, 1 to 6 were read. The IP survey delineated an east-west trending anomalous chargeability zone over the southwest end of the grid. Additional zones were also identified.

Drill testing of the Bullfrog Zone was carried out in 1999 and 2000 (see section 8.2).

## 7.5 PECK ZONE

In February-March 2000, linecutting was carried out over the Peck Zone. A total of 16.4 km of line was cut. An Induced Polarization ("IP") survey was completed covering 12.4 km of this grid. The IP survey identified a number of east-west tending anomalies within the neck connecting the east and west lobes of the East Bull Lake intrusion.

The 2000 summer exploration program was initiated on May 11, 2000. The Peck Zone grid was extended to cover the entire neck between the east and west lobes of the East Bull Lake as well as to cover the Riviere aux Sables area. An additional 15.8 km of grid were cut.

Mapping and magnetometer surveys were completed on this grid to trace the extent of the original Peck Zone mineralization at Gallo's Pond.

Mapping to date has indicated the presence of widespread disseminated pyrrhotite-chalcopyrite mineralization 600 to 1,600 m west of the Peck Zone. A total of 447 grab samples were taken from this area during the mapping. Of these samples 8 or 2% returned values in excess of 2 g (Pd+Pt+Au)/t, with a maximum value of 3.8 g (Pd+Pt+Au)/t (2.853 g Pd/t, 0.785 g Pt/t and 0.194 g Au/t.

Initial drilling of this mineralization was carried out in the summer of 2000, and is discussed in Section 8.

In 2001, two trenches were completed across the Neck Zone south northeast of Gallo's Pond in the vicinity of drillholes ME00-26 and ME00-27. All four trenches revealed patchy contact type mineralization. The best result from channel sampling was 0.48 g (Pd+Pt+Au)/t over 5.0 m. (including 1.31 g/t over 1.0 m).

A single trench was completed on the Neck Zone North which occurs 250 m north of the Neck Zone south. The best result obtained from channel sampling was 0.25 g Pd+Pt+Au over 4.0 m. Mineralization was hosted in inclusion bearing, semi-nodular and varitextured gabbro.

## 7.6 EAST LOBE

Linecutting and initial mapping and sampling were completed on the western end of the East Lobe of the EBLI in 2000. The mapping was carried out to follow-up on historic assay results in this area which is underexplored due to relatively poor access.

A total of 81 grab samples were taken from this area during the mapping. Of these samples, one returned a value of 2.09 g (Pd+Pt+Au)/t (1.396 g Pd/t, 0.503 g Pt/t and 0.190 g Au/t).

The South grid in the East Lobe was completely mapped in 2001. Additional linecutting and mapping remains to be done at the east end of the grid.

Grid mapping identified two mineralised zones on the grid, the South Zone and the Central Zone. Subsequent detailed mapping and sampling was completed on the South Zone – West and on the Central Zone to better define these two zones. Six trenches were excavated on the Central Zone. Highlights of the channel sampling are listed in Table 4. The south zone has not been drilled or trenched.

**South Zone:** From south to north, the stratigraphy in this area consists of syenite, granite, and tonalite in the footwall of the EBLI; the Lower Series interval of inclusion bearing and clotty-textured leucogabbros and gabbros, with lesser anorthositic gabbro and blue quartz-eye gabbro, up to 250 metres wide; and massive leucogabbros and gabbros of the Main Series. Vari-textured gabbros, and rhythmic layering (a few centimetres to a few metres wide) are locally developed. Contacts on layered outcrops strike roughly east, and dip 40°N. West-northwest striking diabase dykes cut both the EBLI and the Archean footwall rocks. The main dykes are branching bodies 50 to 100 metres wide with steep dips.

## 7.7 FIRE TOWER GRID AND BAILEY GRID

The Fire Tower Grid was cut to explore the north contact of the EBLI just west of the neck of the intrusion. The area is largely covered by a sand plain and only Huronian sediments and Nipissing Diabase are well exposed on the grid. Exposure of the EBLI is very limited.

The Bailey Grid covers the northern part of the West Lobe of the EBLI to the west of the Fire Tower Grid.

In 2000, only limited reconnaissance mapping and sampling was carried out. A total of 34 grab samples were taken from this area during the mapping. Of these samples 4 returned slightly anomalous Pd+Pt+Au values between 200 and 400 ppb.

In 2001, the Fire Tower Grid and the Bailey Grid were mapped. This mapping, together with work completed in 2000, provides continuous grid mapping over 6.5 kilometres of strike length on the northern contact of the West Lobe.

Outcrop on the Firetower Grid and on the east part of the Bailey Grid is sparse. The dominant exposed rock types are massive leucogabbros and gabbros in which, with rare exceptions, sulphides are absent or present in very minor amounts. Two adjacent anomalous samples (368 and 841 ppb Pt+Pd) were obtained from clotty-textured leucogabbros with trace to 1% chalcopyrite on the Bailey Grid. This same texture is associated with significantly anomalous PGM mineralization near the south contact of the East Lobe. Four grab samples on the Firetower grid returned significantly anomalous results of 189 to 1658 ppb Pt+Pd. Interestingly, all these samples contain trace to 1.5% chalcopyrite + pyrrhotite and/or are typified by clotty textures. This texture is defined by outcrop scale modal mineralogical variations from anorthositic gabbro through to gabbro. Similar to the anomalous results from Bailey grid, these samples come from outcrops on a north facing slope within 200 metres of the south side of the Sable River. Perhaps the Sable River, and its' western tributary roughly mimic the trend of a prospective zone near the north contact of the EBLI.

On the eastern part of the Bailey Grid, the base of the EBLI is not exposed, and Archean (Algoman) granite, Nipissing diabase and Huronian quartz arenite country rocks out crop on the north end of the grids. It is uncertain as to whether the contact is a primary igneous contact or a faulted contact, what stratigraphic level of the intrusion underlies the grid, or if the EBLI north contact dips south as previously assumed. Available outcrop and Fugro airborne magnetic data suggest that EBLI north contact occurs 200 to 350 metres north of, and parallel to, the Sable River along the entire length of the Fire Tower grid. The contact between Nipissing gabbro and quartzite to the north is well defined by quartzite outcrop, airborne magnetics and topography. Elsewhere it is inferred from government geology maps and airborne magnetics. Contacts between Nipissing gabbro and Archean granite north of the EBLI are based on sparse outcrop, government geology maps and airborne magnetic data.

Mapping in 2001 has conclusively shown for the first time that basal EBLI stratigraphy is repeated along at least a portion of the north contact of the intrusion. The grid covers a south facing panel of rock that, from north to south, includes: footwall granite and border zone (including a contaminated interval), Lower Series inclusion bearing zone and anorthositic gabbro (150 – 200 metres wide), and lower Main Series massive leucogabbros and gabbros. Varitextured gabbro and leucogabbro are exposed and corresponds closely to the position of this unit shown on OGS Map P.3274. A least two west-northwest striking diabase dykes 30 to 40 metres wide cut the EBLI in this area. A northwest striking fault with apparent left hand offset is interpreted to locally displace the footwall contact.

Thirteen of 220 grab samples collected returned Pt + Pd values between 0.3 to 2.2 g (Pt+Pd+Au)/t. All other samples returned less than 0.2 g/t combined Pt + Pd and comprise a well defined background population. The anomalous samples occur within Lower Series anorthositic gabbros and inclusion bearing leucogabbros over a strike length of 2 kilometres.

A total of 325 metres of detailed sampling were completed to better constrain a new mineralized zone located in the south facing basal portion of the EBLI during grid mapping. Sixty four samples were collected with 11 closely spaced samples averaging 0.54 g (Pt+Pd+Au)/t.

## 7.8 PARISIEN LAKE GRID

The Parisien Lake Grid is the east extension of the Bullfrog grid. Grid mapping on the Parisien Grid in 2000 identified two mineralized zones (the Kid and Parisien Zones) on which additional work was done in 2001. Mapping by Mustang in 2000 located a zone of mineralization on the north end of the grid in anorthositic rocks. The mineralization, known as the Kid Zone, occurs as PGM enriched fine grained disseminated sulphides and is similar to that in the Bullfrog Zone. The stratigraphic setting is similar to the Moon Lake Zone. The Parisien Zone is parallel to the Kid Zone approximately 430 m to the north.

Ninety-nine samples were collected in September 2001 during 1045 metres of detail sampling on 4 lines covering the Kid and Parisien zones.

Detail sampling and three trenches further demonstrated the potential of the Kid zone discovered by Mustang in 2000. The best PGM results in channel samples from the trenches are 1.05 g (Pt+Pd+Au)/t over 24.0 metres (including 1.48 g (Pt+Pd+Au)/t over 10 metres), 2.43 g (Pt+Pd+Au)/t over 4.0 metres, and 1.81 g/t over 7.0 metres (including 2.24 g/t over 4.0 metres). The best individual channel and grab samples from this zone were 4.76 g (Pt+Pd+Au)/t over one metre and 4.98 g (Pt+Pd+Au)/t respectively. Elevated PGM values occur in a mixed unit of inclusion bearing, vari-textured, clotty, and locally pegmatitic leucogabbro, gabbro and anorthositic gabbro with 0.5 to 1% disseminated chalcopyrite and pyrrhotite.

Work in 2001 demonstrated that two styles of PGM-Cu-Ni mineralization occur in and adjacent the Parisien Lake deformation zone immediately north of the footwall contact. In addition to the structurally remobilized sulphide mineralization that historic exploration focused on, classic contact type disseminated and blebby sulphide mineralization occurs both north and south of the deformation zone. The Parisien Zone is parallel to the Kid Zone approximately 430 metres to the north. Mineralization is widespread but appears to be lower grade than in the Kid Zone. The best channel sample result from three trenches on this zone was 0.84 g (Pt+Pd+Au)/t over 21.0 metres (including 1.36 g (Pt+Pd+Au)/t over 6.0 metres).

## 7.9 FOLSON LAKE TARGET AREA

The Folson Lake Grid covers the western strike extension of the Freewest-Sparton zone, which is located in a small portion of the southern contact of the EBLI not held by Mustang. A total of 171 grab samples were taken from this area during the mapping in 2000. Of these samples 2 or 2% returned values in excess of 2 g (Pd+Pt+Au)/t, with a maximum value of 2.422 g (Pd+Pt+Au)/t (1.904 g Pt/t, 0.43 g Pt/t and 0.045 g Au/t).

## 7.10 NORTH GRID

This grid covers an EBLI window north of the "Neck" between the East and West lobes. It is bounded to the south by granite, to the west by Nipissing diabase and Huronian sediments, and to the northeast by granite and diabase. The Nipissing diabase extends further into the southwestern portion of the outlier than is shown on OGS Map P.3274. The EBLI consists of massive leucogabbro and gabbro. Local areas of anorthositic gabbro and IBZ are also exposed, so the EBLI rocks probably belong to the Lower Series and to the Main Series. No diagnostic textures were observed that would provide indications of facing. All but 2 of 192 grab samples collected during 2001 returned less than 100 ppb combined Pt and Pd. A gabbro with minor chalcopyrite and pyrite returned 217 ppb Pt+Pd. Curiously, a granite immediately south of the outlier returned 299 ppb Pt+Pd.

Massive EBLI gabbros and leucogabbros were often hard to discriminate from Nipissing gabbro so the interpreted distribution of these units is open to revision. The interpretation presented herein more closely resembles that shown by McCrank et. al. on GSC Open File 873 than the interpretation presented by Peck et. al. (1995) on OGS Map P.3274. Huronian shale, greywacke and polymictic conglomerate outcrops north and south of the main Nipissing gabbro. Much of the EBLI outer contact is not exposed on grid, and the interpretation presented in this report for the North Grid is based on available outcrop and the Fugro airborne magnetic survey. The north-northeast striking fault interpreted to bound this

window to the west is inferred from magnetic and topographic features. The northernmost diabase coincides with a regional west-northwest striking magnetic lineament and so is interpreted as a Sudbury Swarm diabase.

## 7.11 DIGHEM 5 AIRBORNE SURVEY

An airborne Dighem 5 electromagnetic/magnetic survey was carried out over the entire property by Fugro Airborne Surveys. Line spacing was 100 m on N-S flight lines. Sensor height was 30 m for the EM sensor and 45 m for the magnetometer. Readings were taken at a rate of 10 points per second or at about 5 m spacing on the ground. Interpretation of the indicated several moderate EM anomalies that outlined on the margins of the property. The two strongest AEM conductors identified by the Fugro survey occur on strike to the northwest in an area interpreted to be underlain by Nipissing gabbro and Huronian sedimentary rocks. The sources of these conductors are unknown. The recognition that the location of a significant length of the EBLI north contact is uncertain, that it may in part be a structural contact, and that enclaves of East Bull rocks may occur north of the main intrusion suggest these conductors to be high priority targets.

Joel Hrominchuk, of Falconbridge, ground checked these two conductors. The conductive sources were not identified, however, Hrominchuk reported that the two strongest conductors were found at or near the apparent intersection of the north contact of the EBL and oblique structures. Mississagi Quartzite and Nipissing Gabbro in contact with the EBLI in the area of the anomalies are younger and may be an outlier sitting atop the highly faulted north contact of the EBLI. Magnetic and 3D magnetic interpretation by Sharon Taylor, of Falconbridge, suggested that this may be the case and that in fact the EBLI extends further to the north than previously thought. Therefore the source of the conductors may be primary magmatic sulphides under a thin (40metre) veneer of Huronian outlier or remobilized sulphides localized along an oblique structure near the structured northern contact of the EBLI.

# 8. DRILLING

## 8.1 MOON LAKE ZONE

In December 1998, eight BQ diamond drillholes totalling 1,198 m were completed to test the Moon Lake Target area. In November 1999, three additional BQ diamond drillholes totalling 375 m were drilled to test the strike extension and grade of mineralization of the Moon Lake Zone.

Holes ME-01 and ME-02 were drilled in an area where grab samples assayed up to 5.93 g (Pt+Pd+Au+Rh)/t. Holes ME-03 to ME-08 were drilled at 100 m stepouts from the first two holes.

The intersections from these drillholes are tabulated in Table 5.

**TABLE 5**
**MUSTANG DIAMOND DRILLING RESULTS, MOON LAKE ZONE**

| Hole | Section | Zone | From (m) | To (m) | Length (m) | Pt (g/t) | Pd (g/t) | Rh (g/t) | Au (g/t) | Pt+Pd+Rh+Au (g/t) |
|---|---|---|---|---|---|---|---|---|---|---|
| ME-98-01 | 1+65S | A | 8.5 | 22.0 | 13.5 | 0.20 | 0.82 | 0.02 | 0.03 | 1.07 |
| ME-98-01 | 1+65S | B | 37.0 | 76.0 | 39.0 | 0.08 | 0.13 | 0.00 | 0.01 | 0.22 |
| ME-98-02 | 1+65S | A | 7.3 | 11.0 | 3.70 | 0.34 | 1.01 | 0.03 | 0.01 | 1.40 |
| ME-98-03 | 2+40S | A | 17.5 | 29.5 | 12.0 | 0.15 | 0.53 | 0.02 | 0.03 | 0.73 |
| ME-98-03 | 2+40S | B | 38.5 | 71.5 | 33.0 | 0.11 | 0.35 | 0.01 | 0.03 | 0.50 |
| ME-98-04 | 3+53S | A | 22.0 | 25.0 | 3.0 | 0.18 | 0.78 | 0.02 | 0.11 | 1.10 |
| ME-98-04 | 3+53S | B | 53.5 | 88.0 | 34.5 | 0.13 | 0.30 | 0.00 | 0.04 | 0.47 |
| ME-98-05 | 3+53S | A | 43.5 | 68.0 | 24.5 | 0.15 | 0.37 | 0.01 | 0.04 | 0.56 |
| ME-98-06 | 4+50S | A | 29.5 | 70.0 | 42.0 | 0.11 | 0.29 | 0.01 | 0.04 | 0.45 |
| ME-98-07 | 4+50S | A/B | 58.0 | 89.5 | 31.5 | 0.13 | 0.40 | 0.01 | 0.03 | 0.59 |
| ME-99-09 | 5+00S | B | 127.0 | 144.0 | 17.0 | 0.17 | 0.35 | -- | 0.05 | 0.57 |
| ME-99-10 | 9+00S | A/B | 27.35 | 38.0 | 10.65 | 0.14 | 0.42 | -- | 0.04 | 0.60 |
| ME-99-11 | 1+00S | B | 3.00 | 9.5 | 6.5 | 0.38 | 0.78 | -- | 0.02 | 1.17 |

The drilling outlined two mineralized horizons or zones (labelled A and B on Table 5). Correlation of the two zones is somewhat hampered by the presence of what appear to be two north-trending mafic dykes in the area.

The upper horizon (A) occurs straddling the contact of the Anorthosite Zone of the Lower Series and the Leucogabbronorite Zone of the Main Series. The mineralization in this zone is typically narrower (7.3 to 43.5 m) and slightly higher grade than in Zone B (37.0 to 127.0 m), which occurs within the Gabbronorite Zone.

Grade of the mineralization generally averages between 0.5 to 1.0 g (Pt+Pd+Au)/t. While there are a few individual higher grade assays such as 0.78 g Pd/t, 0.38 g Pt/t and 0.02 g Au/t or 1.17 g (Pt+Pd+Rh+Au)/t over 6.5 m in hole ME-99-11, no contiguous zone of material grading greater than 1.0 g Pt+Pd+Rh+Au over a width of 5 m has been identified to date (see Table 5).

## 8.2 BULLFROG ZONE

Five diamond drillholes (ME-99-12 to ME-99-16) totalling 628 m were completed in November and December 1999. Holes ME-99-12 to 14 were BQ size and Holes ME-99-15 and 16 were drilled with NQ core. These holes were designed to test the extent of platinum and palladium mineralization identified by samples collected during the reconnaissance mapping and sampling program and to test the IP anomalies.

Results of the 1999 drilling are tabulated in Table 6.

**TABLE 6**
**MUSTANG DIAMOND DRILLING RESULTS**
**BULLFROG ZONE**

| Hole | Section | From (m) | To (m) | Length (m) | Pt (g/t) | Pd (g/t) | Au (g/t) | Pt+Pd+Au(g/t) |
|---|---|---|---|---|---|---|---|---|
| ME-99-12 | 24W | 27.00 | 38.00 | 11.00 | 0.l7 | 0.37 | 0.03 | 0.58 |
| ME-99-13 | 24W | 36.70 | 47.00 | 10.30 | 0.13 | 0.46 | 0.04 | 0.63 |
| ME-99-15 | 28W | 59.55 | 71.00 | 11.45 | 0.33 | 0.76 | 0.07 | 1.16 |
| ME-99-15 | 28W | 95.00 | 121.00 | 26.00 | 0.22 | 0.54 | 0.05 | 0.81 |
| ME-99-16 | 26W | 58.00 | 69.00 | 11.00 | 0.36 | 1.09 | 0.06 | 1.51 |

The Bullfrog Zone is located at or near the contact of the IBZ with the overlying Anorthosite Zone. The zone is largely within the IBZ. The upper intersections in ME-99-15 and ME-99-16 correlate with the 2 to 16 g Pt+Pd+Au analyses from surface grab samples.

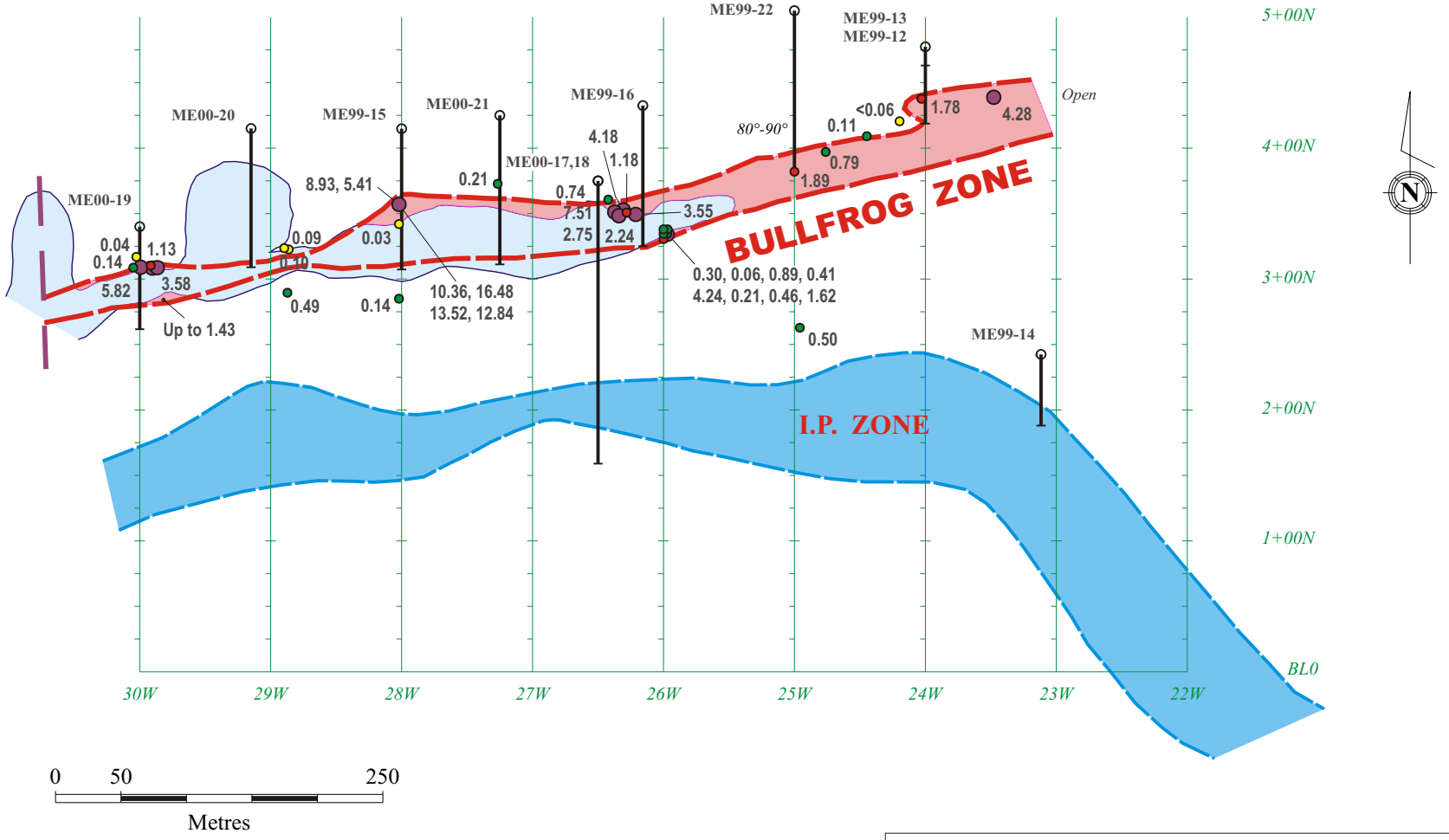
In early 2000, an additional 6 diamond drillholes (ME00-17 to ME00-22), totalling 1,136 m were completed on the Bullfrog Zone (Table 7). This was a continuation of the drilling initiated in 1999.

Significant intersections from the 2000 drilling are provided in Table 7.

**TABLE 7**
**BULLFROG ZONE, 2000 DRILLING RESULTS**

| Drillhole | Section | From (m) | To (m) | Length (m) | Pt+Pd+ Rh+Au (g/t) | Pd (g/t) | Pt (g/t) | Rh (g/t) | Au (g/t) | Cu (%) | Ni (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ME00-17 | 2,650 W | 17 | 37 | 20 | 1.61 | 1.05 | 0.45 | 0.03 | 0.08 | 0.10 | 0.02 |
| Includes | | 18 | 33 | 15 | 2.03 | 1.33 | 0.56 | 0.04 | 0.10 | 0.12 | 0.03 |
| Includes | | 24.5 | 28 | 3.5 | 3.11 | 2.07 | 0.82 | 0.06 | 0.16 | 0.19 | 0.03 |
| | | 48.5 | 61.8 | 13.3 | 0.63 | 0.35 | 0.23 | 0.01 | 0.05 | 0.07 | 0.02 |
| | | 102.5 | 132 | 29.5 | 0.22 | 0.10 | 0.08 | 0.01 | 0.03 | 0.08 | 0.02 |
| ME00-18 | 2,650 W | 15 | 55 | 40 | 0.48 | 0.28 | 0.16 | 0.01 | 0.03 | 0.04 | 0.01 |
| Includes | | 15 | 18 | 3 | 3.11 | 1.93 | 1.04 | 0.08 | 0.06 | 0.17 | 0.03 |
| Includes | | 51 | 55 | 4 | 1.39 | 0.88 | 0.44 | 0.03 | 0.04 | 0.09 | 0.03 |
| | | 96.8 | 114.5 | 17.7 | 0.29 | 0.14 | 0.11 | 0.01 | 0.03 | 0.09 | 0.02 |
| ME00-19 | 3,000 W | 29 | 41 | 12 | 2.53 | 1.70 | 0.71 | 0.06 | 0.06 | 0.13 | 0.08 |
| Includes | | 29 | 33 | 4 | 4.00 | 2.60 | 1.24 | 0.07 | 0.09 | 0.09 | 0.06 |
| Includes | | 32 | 33 | 1 | 6.60 | 4.44 | 1.77 | 0.14 | 0.25 | 0.31 | 0.15 |
| | | 53 | 62 | 9 | 0.39 | 0.19 | 0.15 | 0.01 | 0.04 | 0.09 | 0.02 |
| ME00-20 | 2,915 W | 42.75 | 58.0 | 15.25 | 1.00 | 0.62 | 0.30 | 0.01 | 0.07 | 0.14 | 0.04 |
| | | 103.8 | 109.3 | 5.50 | 1.59 | 1.10 | 0.35 | 0.03 | 0.11 | 0.17 | 0.04 |
| ME00-21 | 2,725 W | 59.0 | 66.0 | 7.00 | 0.87 | 0.49 | 0.29 | 0.02 | 0.07 | 0.12 | 0.02 |
| | | 109.0 | 125.6 | 16.6 | 0.50 | 0.27 | 0.17 | 0.01 | 0.05 | 0.13 | 0.03 |
| ME00-22 | 2,500 W | 39.6 | 67.0 | 27.4 | 1.16 | 0.85 | 0.24 | 0.02 | 0.05 | 0.14 | 0.03 |

Drilling to date has traced the zone over a strike length of 600 m (Figure 6). The zone is open along strike to both east and west and open at depth. Drill results indicate the presence a zone of PGM- enriched disseminated chalcopyrite-pyrrhotite mineralization, which ranges from about 10 to 30 m in true width. Average grades are between 1 and 2 grams total precious metals ("TPM"), (Pd+Pt+Rh+Au). The best results in hole ME00-19 intersected 2.53 g (Pd+Pt+Rh+Au)/t (1.70 g Pd/t, 0.71 g Pt/t, 0.06 g Rh/t and 0.06 g Au/t) over 12 m core length (Note: Core length approximates true width).




Legend:

*Mustang drillhole*

16.48 *Sample location Pt+Pd+Au (g/t)*

**Combined Pt-Pd-Au (g/t)**

- *0-0.1g/t*
- *>0.1-1.0g/t*
- *>1.0-2.5g/t*
- *>2.5g/t*

Figure 6.

MUSTANG MINERALS CORP.

**East Bull Lake PGM Property**

*Sudbury Area, Ontario, Canada*

**Bullfrog Zone**

***Samples and Drillhole Locations***

## 8.3 PECK ZONE-NECK AREA

A total of 1,976 m were drilled in 9 holes in the Peck Zone area in the period from July to October 2000.

Locations of the holes tabulated in Table 8.

**TABLE 8**
**PECK ZONE 2000 DRILLHOLE LOCATIONS**

| Hole # | East | North | Azim. Dip | Grid Coordinates |
|---|---|---|---|---|
| ME00-23 | 180 | -45 | 230 m | 6+00W/0+85N |
| ME00-24 | 090 | -68 | 190 m | 6+35W/0+75S |
| ME00-25 | | -90 | 194 m | 2+00W/1+75S |
| ME00-26 | 180 | -45 | 174 m | 19+00W/6+85N |
| ME00-27 | 180 | -45 | 215 m | 18+90W/7+45N |
| ME00-28 | 180 | -45 | 202 m | 22+00W/8+05N |
| ME00-29 | 360 | -45 | 347 m | 22+00W/8+10N |
| ME00-30 | 360 | -45 | 269 m | 22+00W/10+35N |
| ME00-31 | 180 | -45 | 150 m | 8+00W/8+25N |

Holes ME-00-23 to ME-00-25 were drilled to test an IP anomaly at the east end of the neck between the East and West lobes of the EBLI. Only trace sulphides were intersected. The IP anomaly remains unexplained.

Holes ME-00-26 to ME-00-30 tested an IP anomaly associated with coarse grained blebby pyrrhotite-chalcopyrite mineralization associated with Inclusion Bearing Zone rocks in the area of Gallo's Pond. The holes were designed to both the mineralization and the geometry of the neck of the intrusion. Only low grade mineralization was intersected. Results are tabulated in Table 9.

**TABLE 9**
**RESULTS OF 2000 DRILLING – PECK ZONE**

| Hole | From | To | Width | Dip | Azim. | Pt-Pd-Au | Au | Pt | Pd | Cu | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | (m) | (m) | | | | (g/t) | (g/t) | (%) | (%) | (%) | (%) |
| ME00 26 | 4.0 | 10.7 | 6.0 | -45 | 180 | 0.80 | 0.07 | 0.15 | 0.58 | 0.07 | 0.06 |
| | 49.9 | 80.15 | 30.25 | | | 0.24 | 0.01 | 0.05 | 0.18 | 0.06 | 0.03 |
| ME00 27 | 6.5 | 35.3 | 28.8 | -45 | 180 | 0.39 | 0.02 | 0.08 | 0.29 | 0.05 | 0.03 |
| | 90.2 | 110 | 19.8 | | | 0.33 | 0.02 | 0.05 | 0.26 | 0.05 | 0.02 |
| ME00 28 | 70.5 | 83 | 12.5 | -45 | 180 | 0.41 | 0.02 | 0.06 | 0.33 | 0.05 | 0.02 |
| ME00 29 | 42.9 | 57.5 | 14.6 | -45 | 360 | 0.43 | 0.02 | 0.08 | 0.33 | 0.11 | 0.03 |
| | 68 | 75.5 | 7.5 | | | 0.49 | 0.03 | 0.10 | 0.36 | 0.10 | 0.05 |
| ME00 31 | 4.8 | 12.0 | 7.2 | -45 | 180 | 0.40 | 0.02 | 0.08 | 0.30 | 0.14 | 0.07 |
| | 38 | 66 | 28 | | | 0.24 | 0.01 | 0.04 | 0.19 | 0.11 | 0.05 |

Hole ME-00-31 was drilled to test the historic showing discovered by Peck of the OGS on the north shore of James Pond, which is coincident with an IP anomaly. The hole intersected vari-textured gabbros and melagabbro of the IBZ, with up to 5% disseminated sulphides from 4.8 to 25.2 m and up to 2% sulphides from 40 to 73.7 m. Pd+Pt+Au values average less than 0.5 g/t.

## 8.4 CENTRAL ZONE

Drilling on the central zone was completed during July 2002. A total of 860 m was drilled in 6 holes. The holes were drilled at approximately 200 metre stepouts in an attempt follow the zone of mineralization encountered in the trenches completed in 2001 on the Central Zone. Results from the program (Table 10) were:

**TABLE 10**
**RESULTS OF CENTRAL ZONE DRILLING 2002**

| Drillhole | From (m) | To (m) | Width (m) | **Pt+Pd+Au** | Pt (g/t) | Pd (g/t) | Au (g/t) | Cu+Ni (%) |
|---|---|---|---|---|---|---|---|---|
| ME-02-32 | 68.0 | 75.5 | 7.5 | **0.81** | 0.19 | 0.59 | 0.03 | 0.09 |
| includes | 71.0 | 75.5 | 4.5 | **1.00** | 0.21 | 0.76 | 0.03 | 0.11 |
| | 90.0 | 109.0 | 19.0 | **0.59** | 0.17 | 0.39 | 0.03 | 0.08 |
| ME-02-33 | 35.0 | 42.5 | 7.5 | **0.61** | 0.14 | 0.43 | 0.04 | 0.007 |
| | 54.0 | 77.0 | 23.0 | **0.59** | 0.13 | 0.42 | 0.04 | 0.18 |
| includes | 54.0 | 60.0 | 6.0 | **0.96** | 0.17 | 0.74 | 0.05 | 0.27 |
| ME-02-34 | 27.0 | 46.0 | 19.0 | **0.73** | 0.26 | 0.42 | 0.05 | 0.10 |
| ME-02-35 | 23.0 | 49.0 | 26.0 | **0.94** | 0.23 | 0.66 | 0.05 | 0.13 |
| includes | 23.0 | 39.0 | 16.0 | **1.10** | 0.23 | 0.82 | 0.05 | 0.16 |
| includes | 23.0 | 28.0 | 5.0 | **1.89** | 0.40 | 1.38 | 0.11 | 0.36 |
| ME-02-36 | 30.0 | 48.0 | 18.0 | **0.66** | 0.23 | 0.39 | 0.04 | 0.08 |
| includes | 30.0 | 38.0 | 8.0 | **1.01** | 0.33 | 0.61 | 0.07 | 0.10 |
| ME-02-37 | 43.0 | 59.0 | 16.0 | **0.53** | 0.14 | 0.35 | 0.04 | 0.09 |
| includes | 43.0 | 47.0 | 4.0 | **1.08** | 0.33 | 0.69 | 0.06 | 0.12 |

## 9. SAMPLING METHOD AND APPROACH

Rock sampling is carried out during geological mapping. Two to three kilogram rock samples are collected by the geologist. These are grab samples, the goal of which is to determine the presence of elevated PGM values and/or determine the character of observed sulphide mineralization.

Trench samples reported by Mustang are taken using a circular rock saw. The rock saw cuts to a depth of approximately 3-5 cm wide and 3-5 cm deep. The rock is removed using a hammer and moil then bagged at the regular intervals. The goal of trench samples is to get a representative grade of mineralization across a particular zone.

During the Moon Lake and Bullfrog drilling in 1998 and 1999, the drillers delivered the core to the East Bull Lake, Wilderness Lodge where it was logged by Mustang's geologist, Ken Lapierre. At the lodge the core was stored in secure racks in Mustang's core logging area. After logging the core was transported to Timmins and sampled using a hammer splitter at Mustang's core storage facility in the Hollinger Building in Timmins by Mustang personnel working under Mr. Lapierre's supervision. The half core samples were shipped by bus to commercial laboratories. The other half of the core is stored for future reference.

Drilling at the Peck Zone and the East Lobe was completed after Mustang opened an exploration office in Sudbury in March 2000. Core was transported directly from the property under the supervision of the consulting geologist to the exploration office on Kelly Lake Road in Sudbury. The core was split using a mechanical saw and shipped to the laboratory. One half of the core is retained for future reference. Mineralized samples are stored under lock and key.

In 2001, UTM and grid co-ordinates were recorded for all grab samples collected during grid mapping. Sample locations were also plotted on 1:5000 scale mapping sheets. GPS precision was not sufficient to permit UTM co-ordinates to be collected for individual samples collected during detail sampling. Traverse lines were referenced to grid and/or GPS UTM co-

ordinates, and UTM co-ordinates for individual samples were subsequently calculated. Similarly, trench channel sample location were measured with reference to the trench outline using a tape measure and compass, then the trench as a whole was located with two or more GPS readings. Where possible trench locations were also measured with tape measure and compass relative to nearby drillholes and grid pickets.

Lithology, texture, alteration, structure, and mineralization codes were documented for a grab samples collected during grid mapping. Where possible, a hand sample was collected at each location and magnetic susceptibility readings collected on all available hand samples using an Exploranium KT-9 magnetic susceptibility meter. Lithology, texture and mineralization codes were recorded for all detail and channel samples.

## 10. SAMPLE PREPARATION AND SECURITY

No sample preparation is carried out by Mustang. The half core samples were shipped by bus to commercial laboratories, where the sample was crushed to passing 10 mesh and approximately 100 grams pulverized to 90% passing 150 mesh. Thirty grams of each sample was analyzed for platinum, palladium and gold by fire assay ("FA") followed by a direct coupled plasma ("DCP") finish and geochemically analyzed by partial acid digestion followed by atomic absorption ("AA") finish. The detection limits for a one assay ton (30 g) sample are 1ppb for Au and Pd, and 10 ppb for Pt. Base metal concentrations were determined by atomic absorption spectrometry (AA) after 0.25 to 0.3g of the pulp was subjected to aqua regia digestion.

Detection limits by these methods range between 2 and 5 ppb, depending on the laboratory and the exact method used.

For the 1998 drill program, the split core was sent to Swastika Laboratories in Swastika, Ontario for geochemical analysis with check assays completed at Lakefield Research Laboratories in Lakefield, Ontario.

In 1999, 2000, 2001 and 2002, the split core was sent to XRAL Laboratories in Rouyn-Noranda, Quebec for analysis with check samples carried out at ALS Chemex in Vancouver. No check samples were conducted on the 6 hole drill program at the Central Zone in 2002.

# 11. DATA CORROBORATION

The rock samples collected during geological mapping are not designed to provide a quantitative measure of grade, but merely an initial qualitative assessment of a target area. As such, no duplicate samples or standards have been routinely submitted with these samples as part of a QA/QC program.

## 11.1 DATA CORROBORATION BY WGM

During its site visit in December 1999 WGM examined outcrops in the field as well as the locations of drillholes. The outcrops examined by WGM confirmed that the geology is as shown on the maps prepared by Mustang and drillholes are located where indicated.

WGM also collected its own samples of the surface mineralization. These were grab samples collected from mineralized areas on surface. The Moon Lake Zone had previously been sampled by both the OGS and Mustang. Reported grab sample grades are up to the 2 to 3 g (Pt+Pd+Au)/t range. Assay results for grab samples collected by WGM from this zone are tabulated in Table 11.

**TABLE 11**
**ASSAY RESULTS-WGM SAMPLES, MOON LAKE ZONE**

| Sample | Description | Easting | Northing | Cu (%) | Ni (%) | Pt (g/t) | Pd (g/t) | Au (g/t) | Pt+Pd+Au (g/t) |
|---|---|---|---|---|---|---|---|---|---|
| 3756 | medium grained, massive leucogabbro, with trace fine grained disseminated pyrrhotite | 0+00E | 2+00S | <0.005 | 0.085 | 0.06 | 0.04 | 0.01 | 0.11 |
| 3757 | medium grained, massive leucogabbro, with trace fine grained disseminated pyrrhotite | 1+15E | 1+00S | 0.120 | 0.105 | 0.70 | 2.16 | 0.09 | 2.95 |
| 3758 | medium grained, massive leucogabbro-norite, with 3-5% disseminated pyrrhotite and chalcopyrite | 1+50E | 0+70S | 0.385 | 0.155 | 0.28 | 1.18 | 0.20 | 1.66 |

These values are similar to those reported by Mustang and the OGS.

Assay results for grab samples collected by WGM from the Bullfrog zone are tabulated in Table 12. These values are similar to those reported by Mustang from this zone.

**TABLE 12**
**ASSAY RESULTS-WGM SAMPLES, BULLFROG ZONE**

| Sample | Description | Easting | Northing | Cu (%) | Ni (%) | Pt (g/t) | Pd (g/t) | Au (g/t) | Pt+Pd+Au (g/t) |
|---|---|---|---|---|---|---|---|---|---|
| 3759 | Weakly foliated gabbro with only a trace of fine grained disseminated pyrrhotite | 23+75W | 4+40N | 0.070 | 0.045 | 1.80 | 4.60 | 0.24 | 6.64 |
| 3760 | Well foliated, sheared, gabbro with anorthositic inclusions, 1-2% fine grained disseminated pyrrhotite | 28+00W | 3+65N | 0.075 | 0.070 | 1.02 | 2.67 | 0.06 | 3.75 |

During a second site visit in January 2000 WGM geologists also collected check samples of three samples from drillholes on the East Bull Lake Property. The remaining half core was cut with a saw, to produce a quarter core for analysis. The samples were sent to ALS Chemex in Mississauga for analysis. Results of the check samples are tabulated in Table 13.

**TABLE 13**
**DUPLICATE 1999 WGM DRILL CORE SAMPLE RESULTS**

| Hole | From | To | Original Assay | | | WGM Check Assay | | |
|---|---|---|---|---|---|---|---|---|
| | | | Pd | Pt | Au | Pd | Pt | Au |
| ME-98-06 | 28.0 | 29.5 | 819 | 475 | <2 | 84 | 230 | <2 |
| ME-98-09 | 139 | 140 | 416 | 304 | 77 | 418 | 325 | 82 |
| ME-98-15 | 110 | 111 | 519 | 298 | 25 | 686 | 405 | 32 |

An additional three check samples were collected from holes drilled in 2000 during a third site visit in February 2000 (Table 14).

**TABLE 14**
**RESULTS OF WGM 2000 CHECK SAMPLES**

| Sample | Hole # | From | To | ORIGINAL ASSAYS | | | | | WGM CHECK ASSAYS – ACTLABS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Cu (ppm) | Ni (ppm) | Pt (ppb) | Pd (ppb) | Au (ppb) | Au (ppb) | Pt (ppb) | Pd (ppb) | Cu (ppm) | Ni (ppm) |
| 3201 | ME-00-26 | 8.60 | 9.20 | 1,148 | 633 | 158 | 610 | 40 | 102 | 408 | 1,518 | 1,753 | 1,364 |
| 3202 | ME-00-26 | 12.50 | 14.00 | 143 | 41 | 80 | 152 | 11 | 10 | 21 | 85 | 93 | 56 |
| 3209 | ME-00-31 | 64.00 | 65.00 | 1,090 | 722 | 112 | 357 | 12 | 13 | 57 | 253 | 606 | 454 |

While the quarter core check samples collected by WGM show a general correspondence with the values in the original samples, there is significant variability with the original results.

This may be due to nugget effect and the relatively small size of the quarter core samples collected by WGM.

## 11.2 MUSTANG DATA CORROBORATION

Mustang conducts its own QA/QC program. For the 1998 and 1999, drill programs 2 or 3 samples from each hole had the assay pulps forwarded to Lakefield Research in Lakefield, Ontario for check analysis. Correlation with the original assays was acceptable.

Starting with the 2000 drilling program, the QA/QC was upgraded. Pulps from about 10 samples per hole, covering a range of assay values were sent to Chemex for check assays. In addition, a known standard is inserted every 25 samples to check on laboratory precision.

Correlation between XRAL and ALS Chemex is good with correlation coefficients of above 0.98. ALS Chemex results however are about 15% higher than those at XRAL. The XRAL results for the commercial standard show good precision.

No check assays were performed as part of the 2002 drill program.

## 12. ADJACENT PROPERTIES

The Freewest-Sparton Zone is situated along strike of the Bullfrog Zone, on Freewest's (50%) and Sparton Resources Inc.'s (50%) Folson Lake Property. This zone has been intersected by diamond drillholes about 700 m west of the intersection of the Bullfrog Zone in ME-99-15.

During October-November 2000, a 2,500 m drill program was completed on the Folson Lake Property, testing the Freewest-Sparton Zone over its 1.5 km strike length. The best results reported were reported as 1.95 g (Pt+Pd+Au)/t over 24 m with lesser intercepts in the other holes. No additional work has been completed on this property since that time.

Aquiline drilled 10 holes totalling 1,288 m in the Parisien Lake area in the summer of 2000. Results were announced in August 2000. Highlights of the program included 16.5 m grading 0.73 g (Pd+Pt+Au)/t in hole #1, and 11.6 m grading 1.46 g (Pd+Pt+Au)/t in hole #8. No additional work was completed on the property which was returned to Freewest Resources from whom Aquiline had optioned a 50% interest in the property.

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## 13. INTERPRETATION AND CONCLUSIONS

Work to date by Mustang has confirmed the presence of PGM enriched sulphides within the IBZ of the EBLI.

To date reconnaissance drilling by Mustang has been limited to the Moon Lake, Bullfrog, Peck and Central zones.

Mapping, prospecting and sampling, magnetometer and IP surveys have been carried out in other areas of the intrusion.

Drilling on the Bullfrog Zone confirmed the continuity the zone over a strike length of 600 m. Grades and widths intersected to date average between 1 and 2 grams over 10 to 20 m. These grades and widths indicate that there may be potential in this area to define a open pittable resource.

Mustang has identified several areas that warrant follow up by drilling or detailed sampling and channel sampling. The South Zone and the Kid Zone are two priority areas that have been identified. Additional drilling on the Bullfrog Zone is strongly warranted.

## 14. RECOMMENDATIONS

Mustang has recommended that systematic exploration continue at the EBLI. The proposed exploration should focus on drilling areas of the intrusion that have not seen drilling to date in order to test their potential (Bullfrog). Additional work in areas that have potential to host continuous mineralised zones should also be undertaken.

**TABLE 15**
**PROPOSED EAST BULL LAKE PROPERTY EXPLORATION PROGRAM**

| Item | Units | Cost per Unit $ | Quantity | Total $ |
|---|---|---|---|---|
| Mapping, Geologist /Assistant | 1 geo/1assistant | 350/150 | 90 days | 45,000 |
| Assays | Au-Pt—Pd-Cu-Ni | 15/unit | 500 | 7,500 |
| Food, Lodging | 2 | 30/day | 90 | 5,400 |
| Vehicle ATV | 2 | 50/day | 90 | 9,000 |
| Trenching/washing/sampling | | various | | 25,000 |
| Field Supplies | | various | | 5,000 |
| Diamond Drilling | NQ core | 50/metre | 2000 | 100,000 |
| Core Logging Geologist | 1 geologist | 350 | 30 | 10,500 |
| Core splitting assistant | 1 assistant | 150 | 30 | 4,500 |
| Transportation | 1 truck | 75/day | 120 | 9,000 |
| Assays | Au-Pt-Pd-Cu-Ni | 20/unit | 1,000 | 20,000 |
| Supervision | 1 geologist | 350 | 30 | 10,500 |
| Reporting /Computerization | | | | 15,000 |
| *Subtotal* | | | | 266,400 |
| Contingency (15%) | | | | 39,600 |
| **Total Estimated Budget** | | | | **306,000** |

## SECTION B: RIVER VALLEY PROPERTY

## 1. PROPERTY DESCRIPTION AND LOCATION

The River Valley Property is located in Dana, Janes, McWilliams, Henry, Crerar, Loughrin, and Gibbons Townships, about 60 km east-northeast of Sudbury (Figure 7). The property area is within the limits of NTS sheets 41 I/8.

The River Valley property consists of 778 mining claim units (12,432 hectares) located in Henry, Janes, Dana, Crerar, McWilliams and Gibbons townships, Sudbury Mining Division, Ontario (Table 16 and Figure 8). All claims are currently in good standing.

The rights to most of the property are held by virtue of eight option agreements with the owners of the mineral rights as tabulated in Table 16.

**TABLE 16**
**MAJOR OPTION AGREEMENTS, RIVER VALLEY PROPERTY**

| Date | Claim Units | Optionor | Hectares |
|---|---|---|---|
| January 25, 1999 | 100 | Frank Racicot and Albert LeBlanc | 1600 |
| February 2, 1999 | 100 | Frank Racicot and Albert LeBlanc | 1,600 |
| February 9, 1999 | 117 | John der Weduwen, Larry Gervais and Lorne Luhta et al | 1,872 |
| February 17, 1999 | 140 | Frank Racicot and Albert LeBlanc | 2,224 |
| February 25, 1999 | 79 | Frank Racicot and Albert LeBlanc | 2,352 |
| July 28, 1999 | 52 | Larry Gervais, Dennis Mercier et al | 832 |
| August 5, 1999 | 13 | John der Weduwen, Bruce Pidgeon, Lance Eden et al | 208 |
| March 2001 | 135 | Larry Gervais | 2,160 |

Mustang has also staked an additional 42 claim units covering a total of 672 hectares in Crerar, Dana, Henry and McWilliams townships.

In addition, Mustang has the option to acquire surface and mineral rights to an additional 683.1 hectares through option agreements with the owners of these patented lands. These agreements are tabulated in Table 17.

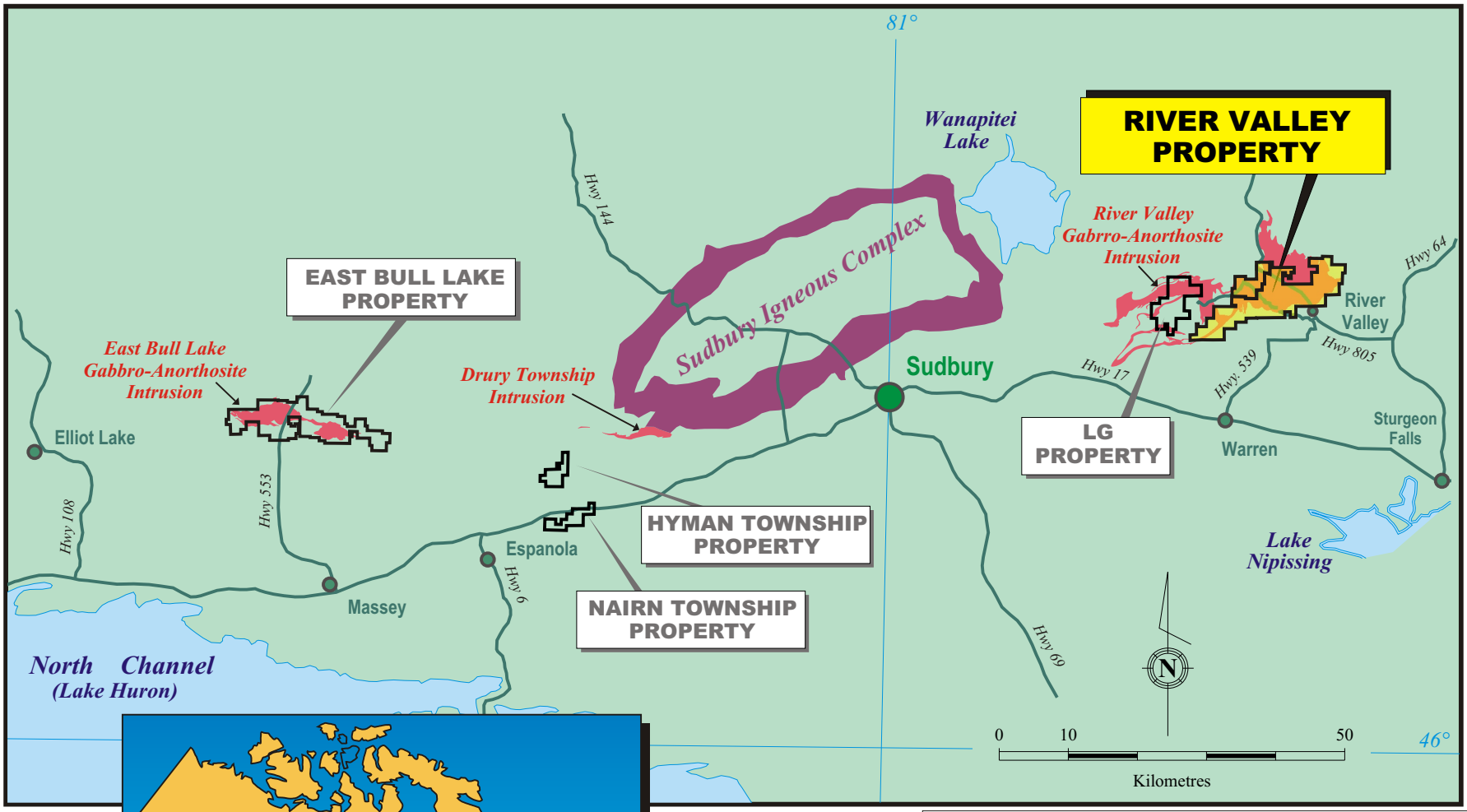



Figure 7.

MUSTANG MINERALS CORP.

**Sudbury Area Properties**

*Ontario, Canada*

***Location Map***

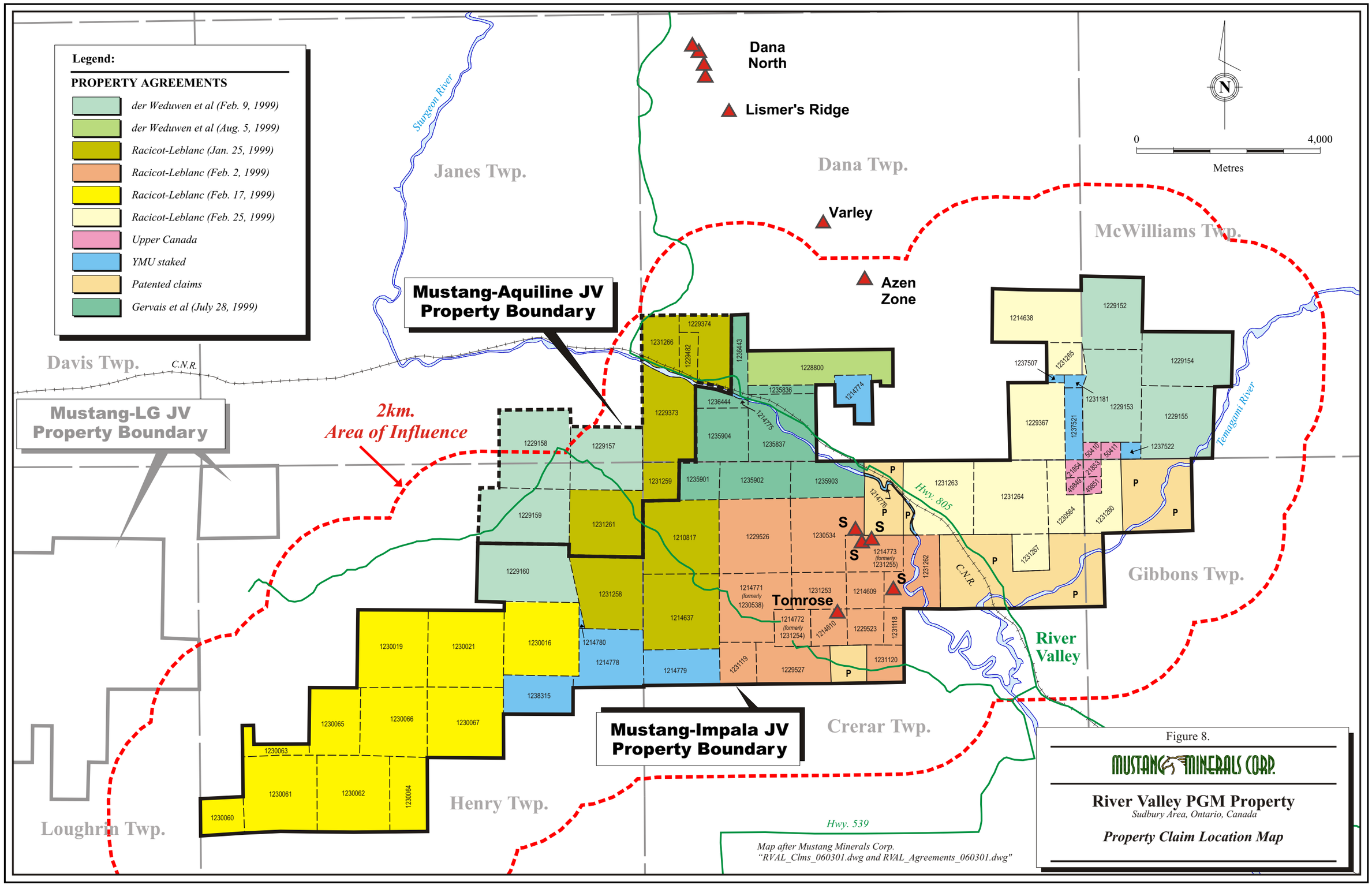



Figure 8.

MUSTANG MINERALS CORP.

**River Valley PGM Property**

*Sudbury Area, Ontario, Canada*

***Property Claim Location Map***

*Map after Mustang Minerals Corp.*
*"RVAL_Clms_060301.dwg and RVAL_Agreements_060301.dwg"*

**TABLE 17**
**SMALL SURFACE AND MINERAL RIGHTS OPTIONS, RIVER VALLEY PROPERTY**

| Date | Optionor | Hectares | Township | Terms | Payment Date |
|---|---|---|---|---|---|
| April 1, 2000 | Phillip Robinson | 83.4 | Crerar | $5,490 for 5 years | April 1, 2000-5 |
| February 8, 2001 | Upper Canada Stone | 66.8 | McWilliams, Gibbons | $5,000 escalating | February 8, 2001-7 |
| April 1, 2000 | Anthony De Boer | 188.6 | Crerar | $7,155 for 5 years | April 1, 2000-5 |
| April 1, 2000 | Sandra Fay Ballantine | 4.9 | Crerar | $180 for 5 years | April 1, 2000-5 |
| April 1, 2000 | Maurice Giroux | 66.4 | Crerar | $180 for 5 years | April 1, 2000-5 |
| April 1, 2000 | Mary and Doug Lee | 65.6 | Crerar | $2,145 for 5 years | April 1, 2000 |
| 2000 | Dieter and Christa Schuetzek | 194.2 | Gibbons | $9,145 for 5 years | |
| April 1, 2000 | Raymond Berry | 13.4 | Crerar | $495 for 5 years | April, 2 2000-5 |
| | **Pending** | **683.1** | | **$30,285** | |

## Racicot-LeBlanc Agreements

Under the collective terms of the four agreements with Racicot and LeBlanc, Mustang has an option to acquire a 100% interest in the property by:

1. Issuing cash payments on the anniversary dates:

| | |
|---|---|
| 1999 | $25,000 |
| 2000 | $25,000 |
| 2001 | $35,000 |
| 2002 | $40,000 (all payments have been made) |
| thereafter | $25,000 annually |

2. Issuing to the owners, the following shares of Mustang:

| | |
|---|---|
| On signing on February 2, 1999 | 100,000 shares (33,333 post consolidated) |
| Six Months | 100,000 shares (33,333 post consolidated) |
| Twelve Months | 100,000 shares (33,333 post consolidated) |
| Eighteen Months | 100,000 shares (33,333 post consolidated) |

All shares have been issued.

A Net Smelter Return Royalty of 3% is payable on any production from the property. Mustang has the option to repurchase up to 2% of the NSR.

**TABLE 18**
**RIVER VALLEY PGM PROPERTY CLAIMS**

| Township | Claim Number | Number of Units | Area Hectares | Agreement Date | Optioner |
|---|---|---|---|---|---|
| **Mustang-Impala JV Claims** | | | | | |
| Crerar | 1210817 | 16 | 256 | 25-Jan-99 | Racicot_Leblanc |
| Crerar | 1214609 | 4 | 64 | 2-Feb-99 | Racicot_Leblanc |
| Crerar | 1214610 | 4 | 64 | 2-Feb-99 | Racicot_Leblanc |
| Crerar | 1214637 | 16 | 256 | 25-Jan-99 | Racicot_Leblanc |
| Crerar | 1214771 | 12 | 192 | 2-Feb-99 | Racicot_Leblanc |
| Crerar | 1214772 | 4 | 64 | 2-Feb-99 | Racicot_Leblanc |
| Crerar | 1214773 | 6 | 96 | 2-Feb-99 | Racicot_Leblanc |
| Crerar | 1214776 | 1 | 16 | | YMU Staked |
| Crerar | 1229523 | 4 | 64 | 2-Feb-99 | Racicot_Leblanc |
| Crerar | 1229526 | 16 | 256 | 2-Feb-99 | Racicot_Leblanc |
| Crerar | 1229527 | 8 | 128 | 2-Feb-99 | Racicot_Leblanc |
| Crerar | 1230534 | 14 | 224 | 2-Feb-99 | Racicot_Leblanc |
| Crerar | 1230564 | 6 | 96 | 25-Feb-99 | Racicot_Leblanc |
| Crerar | 1231118 | 2 | 32 | 2-Feb-99 | Racicot_Leblanc |
| Crerar | 1231119 | 4 | 64 | 2-Feb-99 | Racicot_Leblanc |
| Crerar | 1231120 | 4 | 64 | 2-Feb-99 | Racicot_Leblanc |
| Crerar | 1231253 | 8 | 128 | 2-Feb-99 | Racicot_Leblanc |
| Crerar | 1231262 | 10 | 160 | 2-Feb-99 | Racicot_Leblanc |
| Crerar | 1231263 | 16 | 256 | 25-Feb-99 | Racicot_Leblanc |
| Crerar | 1231264 | 16 | 256 | 25-Feb-99 | Racicot_Leblanc |
| Crerar | 1231267 | 4 | 64 | 25-Feb-99 | Racicot_Leblanc |
| Crerar | 1235901 | 4 | 64 | 28-Jul-99 | Gervais et al. |
| Crerar | 1235902 | 8 | 128 | 28-Jul-99 | Gervais et al. |
| Crerar | 1235903 | 8 | 128 | 28-Jul-99 | Gervais et al. |
| Crerar | 1214779 | 8 | 128 | | YMU Staked |
| Dana | 1214638 | 15 | 240 | 25-Feb-99 | Racicot_Leblanc |
| Dana | 1214774 | 5 | 80 | | YMU Staked |
| Dana | 1214775 | 1 | 16 | | YMU Staked |
| Dana | 1228800 | 13 | 208 | 5-Aug-99 | der Weduwen et al. |
| Dana | 1229367 | 12 | 192 | 25-Feb-99 | Racicot_Leblanc |
| Dana | 1231181 | 1 | 16 | | YMU Staked |
| Dana | 1231265 | 4 | 64 | 25-Feb-99 | Racicot_Leblanc |
| Dana | 1235836 | 2 | 32 | 28-Jul-99 | Gervais et al. |
| Dana | 1235837 | 16 | 256 | 28-Jul-99 | Gervais et al. |
| Dana | 1235904 | 7 | 112 | 28-Jul-99 | Gervais et al. |
| Dana | 1236443 | 4 | 64 | 28-Jul-99 | Gervais et al. |
| Dana | 1236444 | 3 | 48 | 28-Jul-99 | Gervais et al. |
| Dana | 1237507 | 1 | 16 | | YMU Staked |
| Dana | 1237521 | 4 | 64 | | YMU Staked |
| Gibbons | 1231260 | 6 | 96 | 25-Feb-99 | Racicot_Leblanc |
| Henry | 1229160 | 15 | 240 | 9-Feb-99 | der Weduwen et al. |
| Henry | 1230060 | 8 | 128 | 17-Feb-99 | Racicot_Leblanc |
| Henry | 1230061 | 16 | 256 | 17-Feb-99 | Racicot_Leblanc |
| Henry | 1230062 | 16 | 256 | 17-Feb-99 | Racicot_Leblanc |
| Henry | 1230063 | 5 | 80 | 17-Feb-99 | Racicot_Leblanc |
| Henry | 1230064 | 8 | 128 | 17-Feb-99 | Racicot_Leblanc |
| Henry | 1230065 | 6 | 96 | 17-Feb-99 | Racicot_Leblanc |

**TABLE 18**
**RIVER VALLEY PGM PROPERTY STAKED CLAIMS (continued)**

| Township | Claim Number | Number of Units | Area Hectares | Agreement Date | Optioner |
|---|---|---|---|---|---|
| Henry | 1230066 | 16 | 256 | 17-Feb-99 | Racicot_Leblanc |
| Henry | 1230067 | 16 | 256 | 17-Feb-99 | Racicot_Leblanc |
| Henry | 1231258 | 16 | 256 | 25-Feb-99 | Racicot_Leblanc |
| Henry | 1230016 | 16 | 256 | 17-Feb-99 | Racicot_Leblanc |
| Henry | 1230019 | 16 | 256 | 17-Feb-99 | Racicot_Leblanc |
| Henry | 1230021 | 16 | 256 | 17-Feb-99 | Racicot_Leblanc |
| Henry | 1238315 | 6 | 96 | | YMU Staked |
| Henry | 1214778 | 12 | 192 | | YMU Staked |
| Henry | 1214780 | 2 | 32 | | YMU Staked |
| McWilliams | 1229152 | 12 | 192 | 9-Feb-99 | der Weduwen et al. |
| McWilliams | 1229153 | 15 | 240 | 9-Feb-99 | der Weduwen et al. |
| McWilliams | 1229154 | 15 | 240 | 9-Feb-99 | der Weduwen et al. |
| McWilliams | 1229155 | 16 | 256 | 9-Feb-99 | der Weduwen et al. |
| McWilliams | 1237522 | 1 | 16 | | YMU Staked |
| Henry | 1236439 | 16 | 256 | 14-Mar-01 | Gervais & Daigneault |
| Loughrin | 1236703 | 9 | 144 | 14-Mar-01 | Gervais & Daigneault |
| Loughrin | 1236704 | 16 | 256 | 14-Mar-01 | Gervais & Daigneault |
| Loughrin | 1236705 | 8 | 128 | 14-Mar-01 | Gervais & Daigneault |
| Loughrin | 1236706 | 15 | 240 | 14-Mar-01 | Gervais & Daigneault |
| Loughrin | 1236707 | 12 | 192 | 14-Mar-01 | Gervais & Daigneault |
| Loughrin | 1236708 | 16 | 256 | 14-Mar-01 | Gervais & Daigneault |
| Loughrin | 1236709 | 8 | 128 | 14-Mar-01 | Gervais & Daigneault |
| Loughrin | 1236711 | 14 | 224 | 14-Mar-01 | Gervais & Daigneault |
| Loughrin | 1236712 | 12 | 192 | 14-Mar-01 | Gervais & Daigneault |
| Loughrin | 1236713 | 4 | 64 | 14-Mar-01 | Gervais & Daigneault |
| Loughrin | 1236714 | 4 | 64 | 14-Mar-01 | Gervais & Daigneault |
| Loughrin | 1236715 | 1 | 16 | 14-Mar-01 | Gervais & Daigneault |
| **TOTALS** | **74** | **682** | **10,896** | | |
| | | | | | |
| **Mustang-Aquiline JV Claims** | | | | | |
| Crerar | 1231259 | 4 | 64 | 25-Feb-99 | Racicot_Leblanc |
| Dana | 1229373 | 14 | 224 | 25-Feb-99 | Racicot_Leblanc |
| Dana | 1229374 | 10 | 160 | 25-Feb-99 | Racicot_Leblanc |
| Dana | 1229482 | 2 | 32 | 25-Feb-99 | Racicot_Leblanc |
| Dana | 1231266 | 6 | 96 | 25-Feb-99 | Racicot_Leblanc |
| Henry | 1229159 | 15 | 240 | 9-Feb-99 | der Weduwen et al. |
| Henry | 1231261 | 16 | 256 | 25-Feb-99 | Racicot_Leblanc |
| Janes | 1229157 | 13 | 208 | 9-Feb-99 | der Weduwen et al. |
| Janes | 1229158 | 16 | 256 | 9-Feb-99 | der Weduwen et al. |
| **TOTALS** | **9** | **96** | **1,536** | | |
| | | | | | |
| **GRAND TOTAL** | **83** | **778** | **12,432** | | |

**July 28, 1999 Agreement**

Under the terms of this agreement, Mustang has the option to acquire 100% interest by:

1. Making the following cash payments:

| | |
|---|---|
| July 28, 1999 | $13,500 |
| July 28, 2000 | $15,000 |
| July 28, 2001 | $25,000 (all payments have been made) |

2. Issuing a total of 75,000 Mustang shares; 25,000 shares on closing, 25,000 shares in January 2000 and 25,000 shares on July 25, 2000 to the claim holders. (all shares issued) There are no Work Commitments specified in the agreement. A Net Smelter Return Royalty of 3% is payable on any production from the property. Mustang has the option to repurchase up to 2% for $1.1 million for each 1% and has the first right of refusal on the remaining 1% NSR.

**February 9, 1999**

Under the terms of this agreement, Mustang has the option to acquire 100% interest by a combination of cash payments (completed), issuing Mustang shares to claim owners and a work commitment of $300,000 by February 9, 2002. A Net Smelter Return Royalty of 3% is payable on any production from the property. Mustang has the option to repurchase 2% at $1 million for each 1%.

**August 5, 1999**

Mustang purchased the claims for $6,500 cash payment. The optionor retains 3% NSR which Mustang has the right to buy down to 1% for $375,000 for each 1%.

**Aquiline Sub-option Agreement**

In March 1999, Mustang entered into a sub-option agreement with **Aquiline Resources Inc**. ("Aquiline") whereby Aquiline can earn up to a 70% interest in a part of the River Valley property through a combination of shares, cash payments and work expenditures (see Figure 8). Terms of the agreement are as follows:

1. Cash Payments:

| | |
|---|---|
| March 4, 1999 | $15,000 |
| June 4, 1999 | $10,000 |
| March 4, 2000 | $30,000 |
| March 4, 2001 | $35,000 |

Cash payments have been received by Mustang

2. Work Expenditures:

| | |
|---|---|
| By September 1999 | $50,000 |
| March 2000 | $125,000 (which includes $50,000) |
| March 2001 | $300,000 |

3. On signing of the agreement, 100,000 common shares were issued.

Aquiline and Mustang subsequently agreed to extend the deadline to complete the $300,000 of work expenditures in return for Aquiline issuing an additional 200,000 common shares. (since issued).

**River Valley Joint Venture**

In December 1999, Mustang finalized an agreement with **Impala Platinum Holdings Limited** ("Implats") on the remainder of the mining claim units covering the River Valley property (at that time 511 mining claim units) including an area of interest.

Implats can earn a 60% interest in these lands by spending $6 million on the property over 5 years and making cash payments to Mustang of C$255,000 over four years. Implats has funded a total of $3.6 million to date.

The partners have created a technical committee to oversee the exploration program. Mustang will be the operator until Implats earns 60% interest. A minimum of $250,000 must be spent on an annual basis.

**Gervais Agreement (LG Property)**

In March 2001, Mustang entered into an agreement with Larry Gervais whereby Mustang purchased the rights to 13 claim blocks (135 claim units) in Loughrin and Henry townships.

Under terms of the agreement Mustang must make a cash payment of C$30,000 on signing and pay an additional $15,000 every 6 months, up to and including on the third anniversary date (6 payments for a total of C$120,000), to acquire 100% of all rights and title to the property. Mr. Gervais retains a 2% NSR. Mustang has the right to purchase the first 1% NSR for $1 million. Mustang also has a Right of First Refusal to purchase the remaining 1% NSR.

Between March 2001 and December 2001 Mustang spent a total of $178,289 on the LG Property. The property was subsequently transferred to the River Valley JV for consideration of $178,289 and currently forms part of the River Valley Joint Venture.

# 2. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

## 2.1 ACCESS

Access to the property is by travelling east on Highway 17 from Sudbury to the town of Warren, a distance of 58 km. From Warren one proceeds north on Highway 539, a paved highway, for a distance of 26 km to the village of River Valley, which is located near the junction of Highways 539 and 805, just south of the property (see Figure 7).

Access to the southern part of the property is by taking a logging road westerly, from its intersection with Highway 539, just south of the point at which Highway 539 crosses the Sturgeon River.

Access to the northern part of the claim group is by using bush roads and trails from Highway 805 and the abandoned CNR rail line which crosses the property.

## 2.2 CLIMATE

The area has a moderate climate and temperatures average about 25°C in summer and –8°C in winter. Annual precipitation averages about 60 cm of rain and 250 cm of snow.

## 2.3 LOCAL RESOURCES, INFRASTRUCTURE

Food, fuel and limited supplies are available in the village of River Valley located 2 to 3 km south of the property. More extensive supplies are available in the town of Sturgeon Falls, located 37 km to the southeast.

The full range of the equipment, supplies and services required for any mining development is available in Sudbury, a distance of 90 km from the property by road.

Water resources are available in the Sturgeon and Temagami Rivers, which cross the property, as well as numerous streams and beaver ponds.

## 2.4 PHYSIOGRAPHY

The topography in the area consists of gently rolling terrain consisting of low ridges comprised of bedrock and glacial till. Between these ridges are areas of wetland comprised mainly of flooded beaver ponds. Overall relief is on the order of 65 m, and elevation ranges from 250 m to 315 m above sea level. Vegetation at higher elevations consists of a mixture of maple, birch, poplar, spruce and pine. In wetter areas, spruce, tamarack, cedar and alder predominate. Local relief is generally less than 10 m and seldom exceeds 30 m.

The northern part of the property is largely covered by fluvial sands associated with the Temagami and Sturgeon Rivers. Outcrop in this area is particularly in areas underlain by pyroxene- and olivine-rich intrusive rocks. Good exposure is often found on the tops and flanks of hills formed by plagioclase-rich lithologies, particularly to the southwest of Martin Creek. Overburden is typically composed of glaciofluvial (gravel and sand) and glaciolacustrine (sand, gravelly sand and gravel) deposits (Barnett et al., 1991). Where present, glacial striae on exposed bedrock indicate an approximate north-south ice flow direction. Overburden can reach as much as 30 m in swampy areas.

## 3. HISTORY

The western third of Dana Township was mapped by E.L. Bruce of the **Ontario Department of Mines** ("ODM") in 1931 (Bruce 1932). The most comprehensive mapping of the entire area was by S. Lumbers of the ODM in the early 1970s (Lumbers 1971, 1973). Lumbers outlined the extent of the River Valley Intrusion ("RVI") as well as the location of the Grenville Front to the northwest. Davidson (1986) produced a detailed map of the western margin of the intrusion and better defined the Grenville Front.

More recently the intrusion has been mapped in Dana and Crerar Townships by Easton (of the OGS) and Hrominchuk (of Laurentian University) (Easton and Hrominchuk, 1999, Hrominchuk, 1999).

The RVI has seen only limited historical mineral exploration work. Previous exploration targeted copper/nickel mineralization in North Central Crerar Township. Little focus was placed on the PGM potential.

In 1956, McIntyre Porcupine Mines Limited completed two drillholes totalling 32.6 m. The best intersections were 0.46% Cu and 0.01% Ni over 0.6 m, and 1.3% Cu over 0.6 m.

From 1960 to 1966, **Tomrose Prospecting Syndicate** ("Tomrose"), later known as Tomrose Mines Ltd., carried out exploration work consisting of prospecting, drilling, trenching and sampling. It completed 113.7 m of packsack drilling, 20 pits and trenches. The highest values reported in the pits were 25% Cu and 0.26 oz Au/t. In 1963-1964 and 1966, it drilled an additional 16 drillholes totalling 1,592.3 m. No significant assays were reported but the limited data available refers to the fact that zones of pyrrhotite-chalcopyrite mineralization were intersected.

During 1965, Tomrose optioned the property to **Falconbridge Nickel Mines** ("Falconbridge"). Falconbridge completed ground magnetometer and electromagnetic

surveys on the property as well as six drillholes totalling 331.0 m. No significant assays are reported.

In 1966, Azen Mines Limited carried out a magnetometer survey on ten claims west of the Tomrose property. No drilling is reported.

Between 1983 and 1986 Albert Leblanc drilled three holes (1-83, 1-84 and 1-86) for a total of 104.85 m (344 feet) on two claim units in the northwest corner of Henry Township. No assay results are available.

In 1990, Albert Leblanc possibly in joint venture with **Teck Exploration Limited** ("Teck") drilled three holes (90-1 to 90-3) for a total of 403.56 m (1,324 feet). Only 14 samples were submitted for assay and up to 338 ppb Pt+Pd+Au was reported. It also appears that Teck logged the core from at least one hole (DDL-0143; 153.01 m). The drill log indicates a 34.78 m (114.1 feet) interval of sulphide mineralization with up to 4% disseminated pyrrhotite, chalcopyrite and pyrite. No assay results were reported.

During Mustang's 1999 prospecting program, it located two holes in the Tomrose zone (claim #1214610) that it believes were Teck drillholes.

Between 1994 to 1996, **WMC International Limited** ("WMC") held 187 claims or 1,541 claims units and covered most of the present Mustang property. The company was exploring for marginal type Ni-Cu-PGM mineralization associated with mafic intrusions. It carried out geological mapping, rock, soil and till sampling, mineralogical studies and an airborne geophysical survey. A total of 103 till samples, 103 soil samples and 122 rock samples were collected and analyzed. It is unknown how many samples were located on the Mustang claim group, however, geochemical results were generally disappointing.

The geophysical survey was completed by DIGHEM using a multi-coil, multi frequency electromagnetic system, supplemented by a high sensitivity Cesium magnetometer and a

four–channel VLF receiver. The survey consisted of 1,881 line kilometre at a 200 m line spacing. Two of the seven geophysical anomalies identified are located on the Mustang property in claims: 1230538, 1230060, 1230061, 1230062, 1230066 and 1230067. Follow up ground testing failed to locate sources of the anomalies. A ground magnetometer survey was recommended.

In 1998-1999, R. Bailey, L. Luhta and R. Orchard discovered two significant PGM prospects (Dana North and Azen Creek zones) associated with the northern contact of the River Valley Intrusion in Dana Township, north of the Mustang property. The claims hosting these showings are situated within the former Temagami Land Caution. The property was optioned by **Pacific Northwest Capital Corporation** ("PFN") in 1998, and is currently being explored under a joint venture agreement between PFN and **Anglo Platinum** ("Amplats") where in October 2002 the JV announced a resource at the Dana North area of 18,053,000 tonnes at 1.423 g (Pt+Pd+Au)/t of Measured and Indicated Resources and 5,382,000 tonnes at 1.15 g (Pt+Pd+Au)/t of Inferred Resources.

# 4. GEOLOGICAL SETTING

## 4.1 REGIONAL GEOLOGY

The River Valley area is located within the northern edge of the Grenville geologic province, just south of its boundary with the Southern Province. The Grenville Front and the Grenville Front Boundary Fault trend north-northeasterly through the western part of Dana Township along the northwestern contact of the River Valley Intrusion ("RVI"), (Figure 9).

The geology of the area is dominated by the RVI which historically has been described as a anorthosite to anorthositic gabbro. Recent mapping of the intrusion indicates that it is a layered intrusion dominated by gabbro, norite, gabbronorite, leucogabbronorite and leuconorite. It is similar in age (2.475 Ga) and character to the East Bull Lake and Agnew Lake Intrusions, located in the Southern Province west of Sudbury. Geochemical results also indicate a trend towards a high-aluminum, low-titanium, tholeiitic parental magma similar to that reported for other intrusions of the East Bull Lake Suite. As such, although it occurs within the Grenville Province, the RVI is classified as belonging to the Huronian-Nipissing magmatic belt ("HNMB"). The HNMB was previously discussed in more detail in Section 3.4.1, under the discussion to the regional geology of the East Bull Lake Property.

Because the RVI is situated within the Grenville Province, it has been affected by the high grade regional metamorphism of the Grenville Orogeny (1.1 Ga). Metamorphic grade ranges from lower to upper amphibolite facies. Various parts of the intrusion show differing degrees of preservation.

Dana North Zone
Lismer's Ridge
PFN-Amplats JV
Dana Twp.
McWilliams Twp.
Davis Twp.
Janes Twp.
Varley
Azen Zone
Mustang-Aquiline JV Property Boundary
Aquiline
Mustang -LG JV Property
Mustang-LG JV Property
Tomrose Zone
River Valley
Loughrin Twp.
Henry Twp.
Crerar Twp.
Gibbons Twp.
Mustang-Impala JV Property Boundary
N
0 1000 5000
Metres

**Legend:**

**GRENVILLE PROVINCE**

- 11 *River Valley Intrusion*
- 10 *Quartzo-Feldspathic Gneiss (Feldspathic Quartzite)*
- 9 *Granite Gneiss*
- 8 *Red Cedar Lake Gneiss*
- 7 *Pardo Gneiss*
- 6 *Unsubdivided Magmatitic Tonalitic to Granodioritic and Gneiss; Biotite Gneiss*

**GRENVILLE METAMORPHIC FRONT**

**Grenville Front Boundary Zone**

- 5 *Sheared Metamorphosed Huronian Sediments*
- 4 *Metamorphosed Nipissing Diabase ??*
- 3 *Sheared Granitic Rocks*

**GRENVILLE FRONT BOUNDARY FAULT**

**SOUTHERN PROVINCE**

**HURONIAN**

- 2 *Nipissing Diabase*
- 1 *Huronian Metasediments*

- *PGE Showings*
- *Sulphide Showings*
- *Fault*

*Map after Ontario division of Mines Preliminary Map P.844 and Mustang Minerals Corp. "Must_Imp_JV_Geol.dwg, Jan. 11, 2000, RVAL_Prop_Map_Grids.dwg"*

Figure 9.

MUSTANG MINERALS CORP.

# River Valley PGM Property

*Sudbury Area, Ontario, Canada*

***Regional Geology***

In the most preserved areas there are intact lenses between sheared sections. Igneous textures and mineralogy are preserved in these lenses, which can be up to 1 to 2 km long and 5 km wide. In moderately preserved areas the igneous mineralogy has been recrystallized and a metamorphic foliation may be developed. In the more deformed areas the intrusion has a gneissic to flattened gneissic fabric with complete recrystallization of the original mineralogy to an amphibole-garnet-scapolite-calc-silicate assemblage.

In general, north of the Sturgeon River large portions of the intrusion show preservation of primary igneous textures and mineralogy, while south of the Sturgeon River only a very small area in the southwest corner of the intrusion is not completely recrystallized.

Unravelling the stratigraphy of the RVI is hampered by the degree of metamorphic overprint, low regional dips, a lack of outcrop in key areas and layer parallel faulting.

A preliminary interpretation of the stratigraphy, based on the work by Easton and Hrominchuk in Dana and Crerar Townships, is presented below.

The lowermost zone of the RVI, the Marginal Zone consists of fine to medium grained partly chilled gabbronorite. This zone is heavily mineralized in Dana Township. An intrusion breccia is present where the intrusion is in contact with gneissic rocks.

An Inclusion/Fragment bearing zone is located above the Marginal Zone and is gradational to it. This zone contains abundant felsic and mafic to ultramafic inclusions or xenoliths. The matrix is gabbroic and contains fine grained disseminated sulphides.

The thickness of the above two zones may range up to 500 m in Crerar Township.

The inclusion bearing zone is overlain by a zone of vari-textured to massive gabbro-anorthosite to leucogabbronorite. This zone is up to 400 m thick.

This massive zone is overlain by the olivine gabbronorite zone in Dana Township. Melanogabbro and olivine melanogabbro layers are noted within the top of the massive gabbro anorthosite zone in Crerar Township.

A layered Gabbronorite zone overlies the olivine bearing rocks. The top of the section is not observed due to intense deformation of the rocks at this stratigraphic level.

There are general similarities with the EBLI stratigraphy. The RVI however represents a larger body and shows more evidence of a highly dynamic magma system.

The RVI shows both intrusive and tectonic contacts with the host rocks. In Dana Township, the western contact of the intrusion is entirely tectonic, situated as it is along the Grenville Front. The northern and eastern contacts in this area are primary (intrusive), although locally they are disrupted by mylonites associated with the Grenville Front.

The southern contact in Crerar Township is believed to be a major shear zone, although outcrop exposure is poor and this interpretation is somewhat tentative. The eastern contact of the intrusion north of the Sturgeon River in McWilliams Township is also probably also tectonic, but again outcrop exposure is poor. The southeast contact near the Tomrose showing is known to be intrusive.

The host rocks to the RVI are amphibolite facies gneisses. Rocks to the north of the Sturgeon River show greater preservation of pre-Grenvillian structures than those to the south. Four gneiss domains have been recognised.

The first gneiss domain is situated north and northeast of the intrusion, and has been called the Pardo Gneiss by Easton and Hrominchuk (1999). It consists of partially migmatized quartzofeldspathic gneiss (metagreywacke) and monzogranitic to granodioritic gneiss (metaplutonic rocks). These rocks as well as their migmatitic phases are cut by both Matachewan and Sudbury dykes indicating a Neo-Archean age for their formation.

The area east of the Temagami River and north of the Sturgeon River is underlain by the granodioritic Red Cedar Lake Gneiss. This may be a cataclastic equivalent to the Pardo Gneiss.

The southeast corner of the RVI is bounded by a quartzofeldspathic gneiss of undetermined origin. It is interpreted as a feldspathic quartzite. The intrusive nature of the RVI contact in this area suggests that it is older than the Huronian sedimentation. It may be related to pre-Huronian sedimentation associated with the rifting event that led to the emplacement of the RVI.

The southern contact of the RVI is bounded by migmatitic tonalitic to granodioritic gneisses, which are believed to be in fault contact with the RVI.

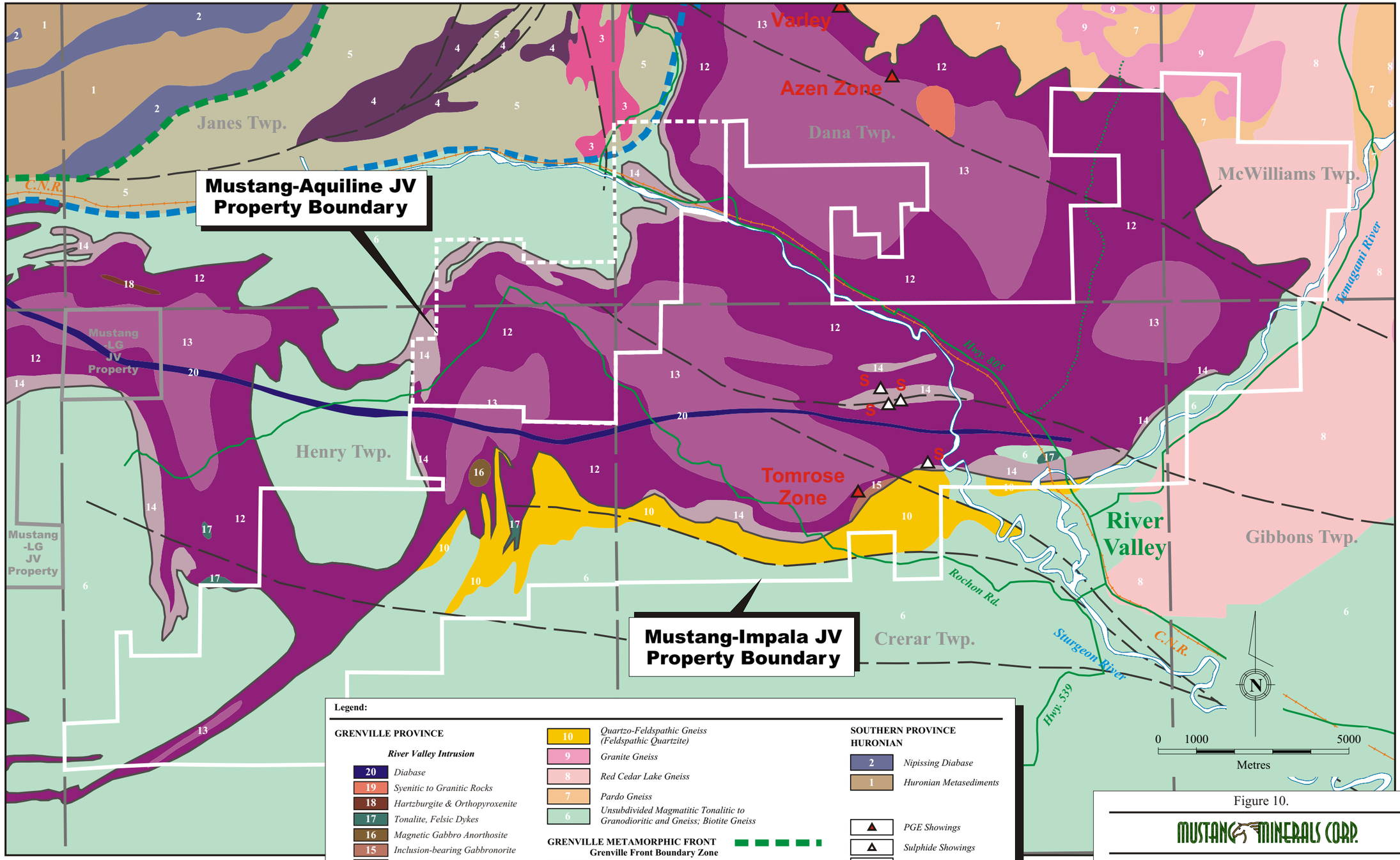
## 4.2 PROPERTY GEOLOGY

The River Valley Property covers a large part of the southeastern part of the RVI.

The geology of the property is known from the regional mapping by the OGS (Easton and Hrominchuk 1999, and Hrominchuk 1999) as well as the mapping by Mustang on grids covering the basal part of the intrusion in parts of north-central Crerar, southeast Dana and southwest McWilliams Townships.

The detailed geology of the dyke-like apophysis of the intrusion extending southwesterly through Henry Township on the southwestern part of the property is poorly understood. The property geology is shown on Figure 10.

The property covers a large portion of the lower part of the southeastern part of the intrusion.




**Legend:**

**GRENVILLE PROVINCE**

***River Valley Intrusion***

- 20 *Diabase*
- 19 *Syenitic to Granitic Rocks*
- 18 *Hartzburgite & Orthopyroxenite*
- 17 *Tonalite, Felsic Dykes*
- 16 *Magnetic Gabbro Anorthosite*
- 15 *Inclusion-bearing Gabbronorite*
- 14 *Gabbronorite-Norite*
- 13 *Anorthosite-Gabbroic Anorthosite*
- 12 *Leucogabbro-Gabbro*
- 11 *Metasedimentary Gneiss*
- 10 *Quartzo-Feldspathic Gneiss (Feldspathic Quartzite)*
- 9 *Granite Gneiss*
- 8 *Red Cedar Lake Gneiss*
- 7 *Pardo Gneiss*
- 6 *Unsubdivided Magmatitic Tonalitic to Granodioritic and Gneiss; Biotite Gneiss*

**GRENVILLE METAMORPHIC FRONT**
**Grenville Front Boundary Zone**

- 5 *Sheared Metamorphosed Huronian Sediments*
- 4 *Metamorphosed Nipissing Diabase ??*
- 3 *Sheared Granitic Rocks*

**GRENVILLE FRONT BOUNDARY FAULT**

**SOUTHERN PROVINCE HURONIAN**

- 2 *Nipissing Diabase*
- 1 *Huronian Metasediments*

- *PGE Showings*
- *Sulphide Showings*
- *Fault*

*Map after Ontario division of Mines Preliminary Map P.844 and Mustang Minerals Corp. "Must_Imp_JV_Geol.dwg, Jan. 11, 2000"*

Figure 10.

MUSTANG MINERALS CORP.

**River Valley PGM Property**

*Sudbury Area, Ontario, Canada*

***Property Geology***

Regional mapping and stratigraphic correlation by Easton and Hrominchuk subdivided the lower part of the RVI from base to top into a heterogeneous inclusion bearing zone, with an overlying vari-textured to massive gabbro-anorthosite to leucogabbro zone the top of which contains layers of melanogabbro and olivine-melanogabbro.

Mapping by Mustang on the South Grid in north-central Crerar Township appears to confirm this general stratigraphy. Although the mapping did not distinguish an inclusion bearing zone as such, inclusions were noted in the lower part of the intrusion in the area of the Tomrose showing (P. Wood pers. comm.). In addition the heterogeneous nature of the lower portion of the intrusion in this area is consistent with the description of the Inclusion Bearing Zone.

The central part of the South grid is dominated by massive to layered leucogabbro and anorthosite. This is consistent with Easton and Hrominchuk's vari-textured to massive gabbro-anorthosite to leucogabbro zone.

Several outcrops of more mafic gabbro noted on the northern part of the grid, may represent the melanogabbro units from the top of this zone.

Metamorphic grade is at least amphibolite facies and most of the original mineralogy has been recrystallized.

An increase in the intensity of deformation to the north has resulted in the development of straight and folded gneisses north of about 10+00N.

The south contact of the RVI observed on the South Grid is described as intrusive and not tectonic with a south 60° to 80° dip. This is at odds with the northwesterly dip for the igneous layering observed within the intrusion just north of this area, which suggests that the contact is tectonic.

Detailed mapping of the North Grid in the southwest corner of McWilliams Township by Mustang (Findlay 2000) allows subdivision of the lower part of the RVI stratigraphy into distinct mappable units.

The country rocks to the RVI in the North Grid area are predominantly composed of granite, syenite to quartz syenite, with lesser amounts of biotite-quartzofeldspathic gneiss of presumed sedimentary origin.

The reaction of these rocks with the RVI has formed a **Contact Zone** comprised of siliceous and deformed quartz-diorite/quartz-monzonite and quartz-gabbro/quartz-gabbronorite. As one moves from north to south into the intrusion, these rocks appear to be overturned and grade to fine to medium grained, equigranular gabbronorite of the **Border Zone**. The **Border Zone** is locally sulphide-enriched, with up to 5% very finely disseminated pyrrhotite, but usually does not carry significant amounts of chalcopyrite or PGMs.

The Border Zone is overlain by an heterogeneous assemblage of rock types, known as the Inclusion Bearing Chaotic Zone (IBCZ). The predominant rock type is medium to coarse grained gabbronorite with. numerous centimetre- to metre- scale, irregular to planar layers and fragments of fine grained equigranular gabbronorite, pegmatitic gabbronorite, magnetite-gabbronorite, norite, melanorite and feldspathic orthopyroxenite. The individual layers cannot be correlated between outcrops, but the assemblage as a whole is distinctive and continuous. The IBCZ ranges from 25m to 150m in surface width, and appears to extend across most of the North Grid. The IBCZ is the only stratigraphic unit mapped on the North Grid that consistently carries PGM-enriched sulphide mineralization. The mineralization consists of 0.5 to 5% disseminated and blebby chalcopyrite and pyrrhotite, and the sulphides may be present as erratic disseminations throughout the zone.

The zone exhibits pronounced compositional and textural variations in comparison to the more homogeneous overlying and underlying stratigraphic units. The compositional variations appear to be largely a function of orthopyroxene content, and in most rocks this

mineral appears to have been the principal cumulus phase. In contrast, the top of the IBCZ is marked by the first appearance of olivine gabbronorite in which olivine is a cumulus phase. This suggests that magma compositions were such that orthopyroxene crystallized as a cumulus phase in the border and chaotic zones, but olivine became the earliest cumulus phase in the next (overlying) crystallization cycle.

These features are interpreted as representing a zone of mixing of *in situ*, contaminated and differentiated magma (which gave rise to the contact zones) and a fresh pulse(s) of more primitive magma. This mixing process could have resulted in bringing the magma to sulphur saturation triggering the formation of an immiscible sulphide phase, thereby accounting for the mineralization within this zone.

The IBCZ is overlain by an intermittently exposed layer of olivine-gabbronorite which is associated with an erratic distribution of PGM values. Curiously, this layer is generally void of any visible sulphides. The olivine gabbronorite layer appears to mark the start of the Main Series, a cyclical package of rocks ranging from olivine gabbronorite, gabbronorite, gabbro, leucogabbro, to anorthositic gabbro. Locally, layers or zones of websterite, olivine-websterite, troctolite, magnetite-gabbronorite, and anorthosite are present, but these appear to have limited strike continuity.

## 5. DEPOSIT TYPES

The mineralization on the River Valley Property is located within the IBCZ of the RVI. The sulphides in this zone were precipitated in response to the magma reaching sulphur saturation through the mixing of a more primitive magma with a more evolved silica contaminated phase. The mineralization therefore is a hybrid of the contact style mineralization found at the EBLI and more classic reef-type mineralization formed by magma mixing.

Examples of other deposits of this type include the mineralization currently being explored by Pacific Northwest Capitalin conjunction with joint venture partner Anglo Platinum on its River Valley Property. In October 2002, a resource consisting of Measured and Indicated Resources of 18,053,000 tonnes at 1.423 g (Pd+Pt+Au)/t and Inferred Resources of 5,382,000 at 1.15 g (Pd+Pt+Au)/t) was announced on this property, which adjoins Mustang's River Valley Property on the north, similar mineralization occurs within the base of the Portimo Complex in Finland, where joint venture partners Outokumpu and Goldfields have announced a 2.9 million ounce resource (Measured, Indicated and Inferred Resources of 49.2 M tonnes at 1.86 g (Pd+Pt+Au)/t).

# 6. MINERALIZATION

## 6.1 GENERAL

The mineralization on the River Valley property can be classified into two distinct types:

1. mineralization within the IBCZ; and the overlying olivine gabbronorite layer and
2. mineralization within the Contact and Border Zones.

Minor magmatic sulphide mineralization can be found in most of the lithological units that form the Main Series. The mineralization, however, shows no lateral continuity and rarely exceeds 1% total sulphide content. This type of mineralization carries little or no PGM, and is of insufficient quantity to be of economic interest.

## 6.2 BORDER AND CONTACT ZONE MINERALIZATION

Sulphide mineralization is common in the equigranular gabbronorites and contaminated gabbroic to monzonitic rocks of the border and contact zones. Minor amounts (trace to 0.5%) of very fine sulphide disseminations are ubiquitous in these lithologies, and concentrations up to 6-8% are locally present. The predominant sulphide is pyrrhotite, and in most occurrences little or no chalcopyrite was observed. Although locally anomalous in PGM, sulphide mineralization in the border and contact zones tends to be fairly low grade, and elevated sulphide concentrations appear to be discontinuous.

Both WGM and Lapierre are of the opinion that the mineralization formed due to local contamination of the magma by wallrock inclusions inducing local sulphide saturation. The sulphide has little opportunity to mix with large quantities of magma, hence its lower metal contents.

## 6.3 INCLUSION BEARING CHAOTIC ZONE MINERALIZATION

The Inclusion Bearing Chaotic Zone (IBCZ) mineralization, also known as the North Zone, has been interpreted as a discrete stratiform zone of elevated sulphide content. The IBCZ is characterised by the occurrence of disseminated pyrrhotite and chalcopyrite in a recognizable stratigraphic position across much of the North Grid a distance of approximately 5.0 km. The zone extends from the border zone gabbronorite, through the IBCZ and into the overlying olivine gabbronorite of the Main Series. The mineralization has been traced intermittently across the property, with the gaps probably reflecting lack of exposure rather than lack of mineralization. It is probable that the sulphide zone is present along the contact across most of the grid, but trends off the grid to the northwest on to the PFN/Amplats property. The zone reaches its maximum surface width of ~200m but is typically on the order of 100m wide on surface in the southeast, and 50m wide in the northwest.

The sulphides appear to be almost exclusively chalcopyrite and pyrrhotite, and these minerals occur as both fine disseminations and coarser, 0.5-2 cm blebs. Sulphide concentrations, particularly those comprised by blebby chalcopyrite/pyrrhotite, are typically irregularly distributed in outcrops. Within the IBCZ, the medium to coarse grained gabbronoritic rocks tend to carry more copper-rich mineralization than the finer grained equigranular gabbronorite layers, and in some outcrops the sulphides are clearly concentrated in layers of the coarser material. The mineralization appears to be concentrated within the IBCZ, but blebby and disseminated sulphides occur in both the underlying border zone gabbronorite.

WGM expressed the view that the IBCZ mineralization is a hybrid representing mineralization of the contact-type in combination with mineralization formed from the more basic magma as it is forced through sulphide saturation by mixing with the contaminated magmas of the Border Zone. This view is a reasonable explanation of the type of mineralization found in the IBCZ. There may also be some secondary remobilization of the PGMs.

# 7. EXPLORATION

Work on the River Valley Property by Mustang has consisted of detailed surface exploration of the North and South Grids, as well as reconnaissance mapping, sampling and magnetometer surveys over large parts of the property. Several phases of drilling have been undertaken on the property on the North and South Grids. The locations of the work areas are shown on Figure 11. With higher values on surface and more continuous mineralization the North Grid is the priority exploration target.

## 7.1 SOUTH GRID

Mustang acquired the property in 1999. Between June 1 and July 15, 1999, Mustang carried out geological prospecting along the southern margin of the RVI in claims 1214610, 1231253 and 1214609 (Tomrose zone). Twenty grab samples were collected along the southern margin of the RVI. The samples were sent to XRAL Laboratories for analysis for Au, Pt and Pd. Prospecting located a large disseminated sulphide zone with gabbroic-anorthositic rocks along the southern margin of the RVI in the area of the Tomrose showing. The sampling confirmed that parts of this zone and the Tomrose showings are weakly enriched in PGMs.

A grid was cut in the fall of 1999 covering the southeast part of the property in the area of the Tomrose showing (South Grid). A total of 77.8 km of grid was cut.

A magnetometer survey was completed for Mustang on the grid in October and November of 1999 by Dan Patrie Exploration Ltd. Total magnetic field measurements were made on the 200 m spaced lines at 12.5 m spacing using an Envi Magnetometer manufactured by Scintrex Ltd.

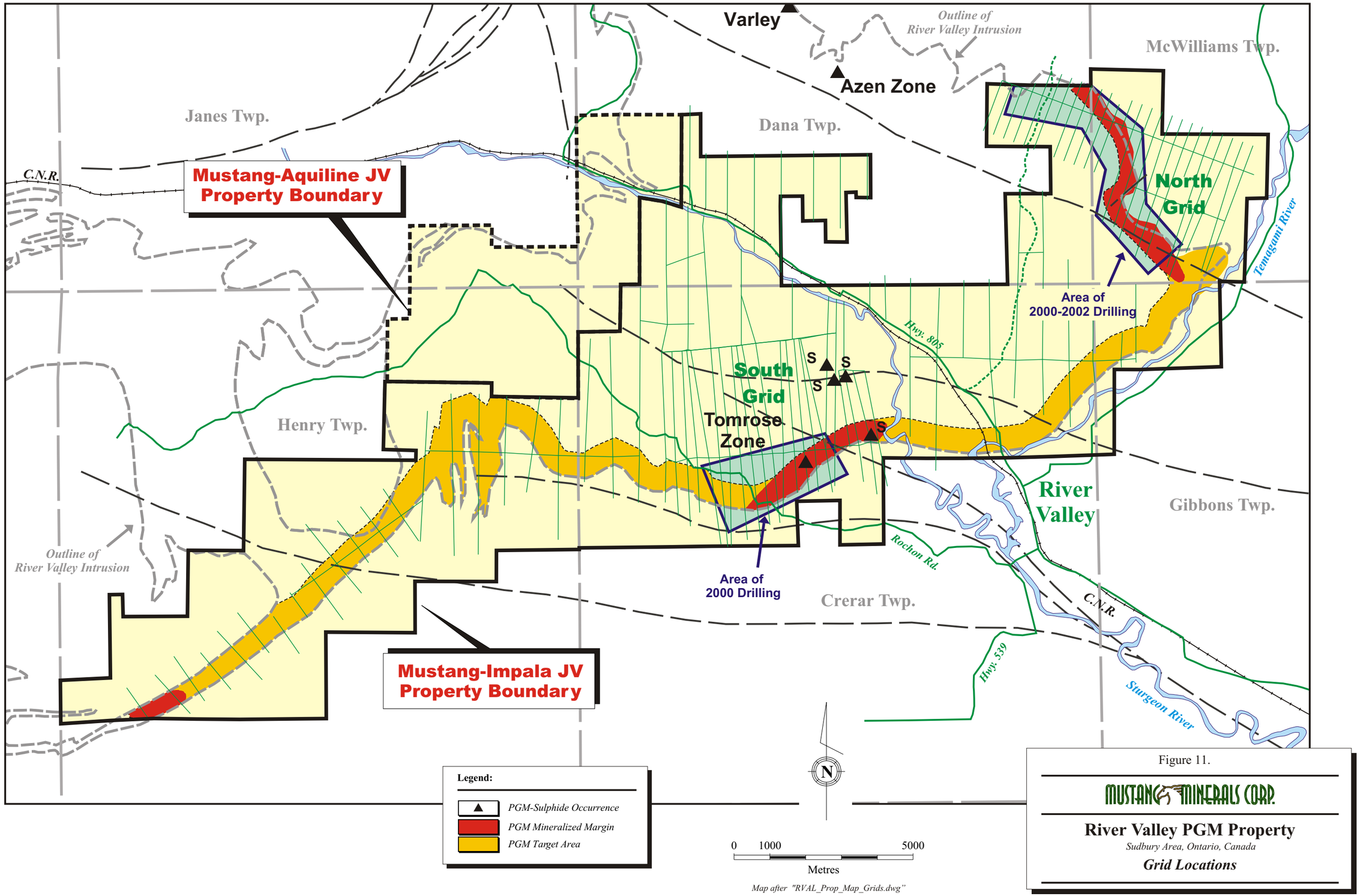



Figure 11.

MUSTANG MINERALS CORP.

**River Valley PGM Property**

*Sudbury Area, Ontario, Canada*

***Grid Locations***

On the South Grid a magnetic high is spatially associated with the Tomrose showing. A broad magnetic high is also associated with PGM enriched disseminated magnetite mineralization in leucogabbro in the west central part of the grid. A linear magnetic anomaly trends east-west across the northern part of the grid. Mapping suggests that it is related to a late diabase dyke.

Geological mapping and initial rock sampling was completed by Mustang from October to December 1999, with limited follow-up in May-June 2000.
Drilling was completed on the South grid during the period from Feb-May/01. A total of 17 holes were completed .

## 7.2 NORTH GRID

Between June 1 and July 15, 1999, Mustang carried out geological prospecting on the north margin of the RVI in claims 1214638, 1229154 and 1229155. It collected 49 grab samples along the northern margin of the RVI.

A grid was cut in the fall of 1999 covering the east end of the property (North Grid) A total of 47.8 km on linecutting was completed. A magnetometer survey was completed for Mustang on the grid in October and November of 1999 by Dan Patrie Exploration Ltd. Total magnetic field measurements were made on the 200 m spaced lines at 12.5 m spacing using an Envi Magnetometer manufactured by Scintrex Ltd.

The area underlain by the RVI on the western portion of the grid shows magnetic relief of up to 2,000 nanoteslas, with evidence of roughly east-west structures cutting the magnetic features. The area on the eastern part of the grid underlain by granitic gneiss shows a much more subdued magnetic relief except for the two easternmost lines. The magnetic high in this area is unexplained at this time.

Geological mapping of the two grids was completed by Mustang from October to December 1999. Rock samples were collected for analysis, at a density of about one sample per 250 m of line. Large areas of the North Grid are sand covered however, with only minor outcrop exposure resulting in a lower sample density in these areas. This work resulted in a single high value being obtained.

Work carried in 2000 included a continuation of the mapping and sampling initiated in 1999. Detailed 1:1000 scale mapping of the North Grid was completed between May 10, 2000, and September 7, 2000. A total of 423 samples were taken during this period, and approximately 56 line km of grid were mapped. Sampling was of a reconnaissance nature, with 1-3 kg grab samples obtained from outcrop where sulphide mineralization was encountered. Samples were also collected from umineralized exposures to document PGM concentrations in different rock units along traverse lines. Samples were submitted to XRAL Laboratories in Rouyn-Noranda for fire assay-DCP analysis of Pt, Pd, Au, Cu and Ni. A limited suite of samples underwent analysis to determine Rh, Os, Ir and Ru concentrations.

Mapping on the North Grid unravelled the complex igneous stratigraphy of this area and traced a mineralized zone about 100 m wide associated with what appears to be a zone of magma mixing parallel to the contact of the intrusion for a distance of 4.5 km. The discovery of the IBCZ (Figures 11 and 12) has greatly enhanced the potential of this area. About 60 km of dipole-dipole IP survey have been completed on this target, as well as targets identified by last years mapping on the South Grid. Interpretation of the IP results suggests the presence of several anomalies associated with mineralized zones. The IP anomalies and mineralization of the IBCZ are being tested by diamond drilling.

## 7.3 RECONNAISSANCE MAPPING AND SAMPLING

Linecutting was completed to cover the area between the North and South Grids, as well as targets on the southwestern and northern parts of the property. Grid lines were cut at 500 m spacing and reconnaissance mapping, sampling and magnetometer surveys were completed in this grid during the summer of 2000.

A total of 512 reconnaissance rock samples were collected. A sample assaying 899 ppb Pt+Pd+Au (0.486 g Pd/t, 0.409 g Pt/t and 0.004 g Au/t) was collected in Henry Township. This sample and several other localities with anomalous PGM values warrant follow-up.

## 7.4 AQUILINE OPTION

Aquiline has reported that it has completed reconnaissance soil sampling, mapping and prospecting on the claims it joint ventured from Mustang in the northwestern portion of the property. This work was carried out on short grid lines cut to cross the north contact of the intrusion at spacings between 300 and 700 m apart. A total of 173 rock samples were collected during the mapping. Soil samples were collected by augering to a maximum depth of 1.2 m or the bedrock interface at 15 intervals along the lines. This provided an additional 482 soil samples and 291 rock samples from this area. Assays were pending at the time of the Aquiline report.

Aquiline reported that it had drilled 8 drillholes on the property. The holes were of a reconnaissance nature and designed to test 5 of 15 induced polarization geophysical anomalies on the property. The holes were located south of the Sturgeon River and widely spaced. Drillholes JV-6 (10.5 m 0.44 g (Pd+Pt+Au)/t) and JV-7 (9.0 m 0.93 g (Pd+Pt+Au)/t) from the program were the only holes from the program to intersect any mineralization.

## 8. DRILLING

A total of 84 NQ surface diamond drillholes totalling 21,007 metres were completed between November 9, 2000 and May 16, 2002 on the North and South grids. On the South Grid, a total of 17 holes totalling 4,576 metres were completed. On the North Grid, a total of 67 holes were completed for a total of 16,431 metres (Table 19). Drilling on this grid has encountered the IBCZ, a zone of pervasive PGM mineralization with a strike length of 3.0 km (Figure 12). An additional 2.0 km of virtually untested IBCZ strike length remains to be explored.

Results of the drillholes are presented in Table 20.

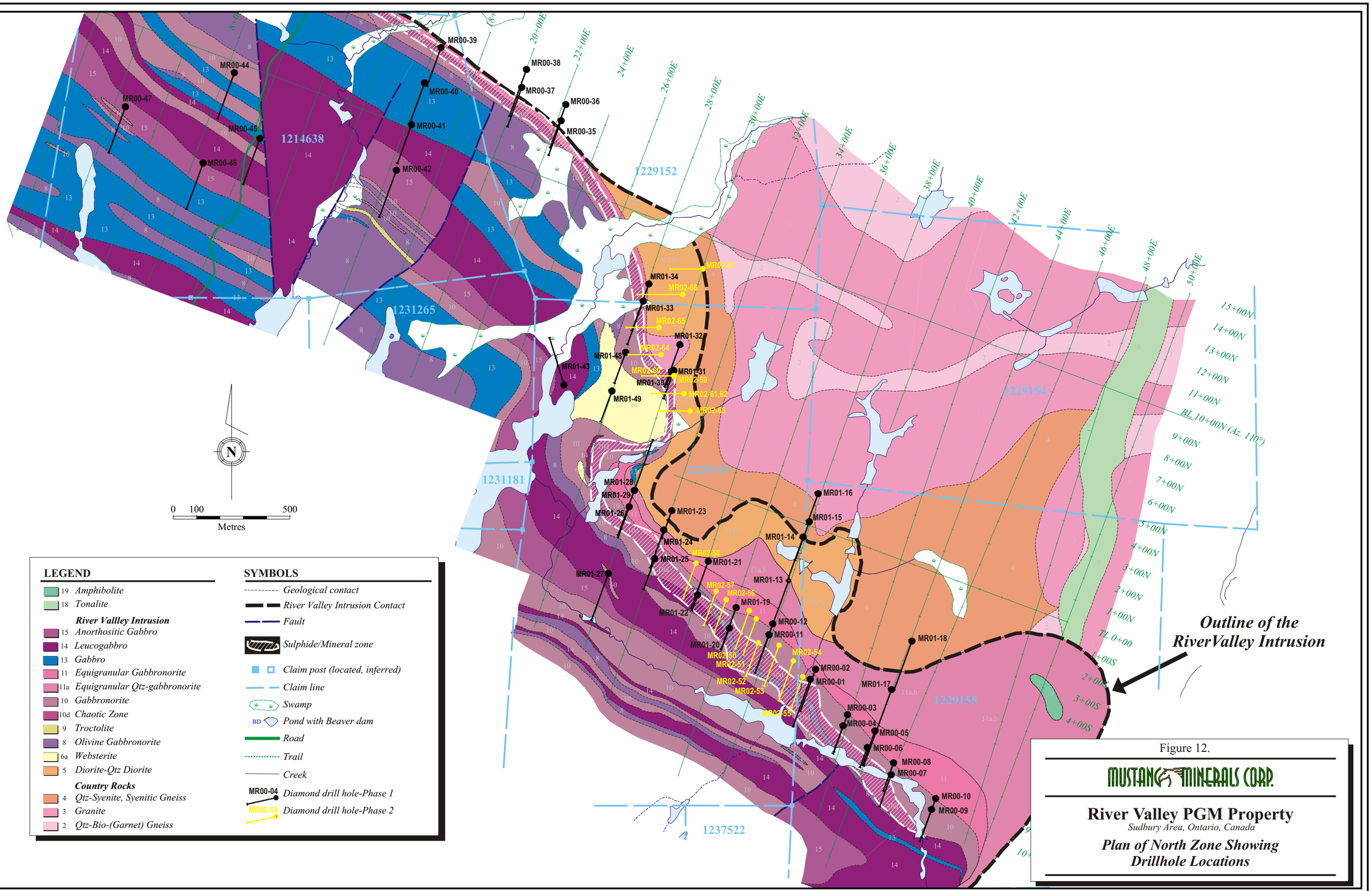
**TABLE 19**
**DRILLHOLE LOCATIONS NORTH AND SOUTH GRIDS**

**NORTH ZONE DRILL HOLES**

| Hole Number | E-UTM | N-UTM | Elevation | Azimuth | Inclination | Length(m) | Area Descriptor |
|---|---|---|---|---|---|---|---|
| MR00-01 | 565158 | 5164384 | 266 | 200 | -44 | 302 | North grid-Chaotic Zone |
| MR00-02 | 565181 | 5164427 | 268 | 200 | -45 | 272 | North grid-Chaotic Zone |
| MR00-03 | 565318 | 5164232 | 255 | 200 | -45 | 239 | North grid-Chaotic Zone |
| MR00-04 | 565299 | 5164184 | 252 | 200 | -45 | 179 | North grid-Chaotic Zone |
| MR00-05 | 565436 | 5164162 | 250 | 200 | -45 | 218 | North grid-Chaotic Zone |
| MR00-06 | 565403 | 5164091 | 249 | 200 | -45 | 128 | North grid-Chaotic Zone |
| MR00-07 | 565506 | 5163974 | 249 | 200 | -45 | 206 | North grid-Chaotic Zone |
| MR00-08 | 565516 | 5164025 | 252 | 200 | -45 | 183 | North grid-Chaotic Zone |
| MR00-09 | 565679 | 5163825 | 248 | 200 | -45 | 206 | North grid-Chaotic Zone |
| MR00-10 | 565697 | 5163872 | 252 | 200 | -45 | 251 | North grid-Chaotic Zone |
| MR00-11 | 564981 | 5164575 | 296 | 200 | -45 | 248 | North grid-Chaotic Zone |
| MR00-12 | 564997 | 5164622 | 302 | 200 | -45 | 281 | North grid-Chaotic Zone |
| MR01-13 | 565065 | 5164807 | 292 | 200 | -45 | 425 | Stratigraphic/Chaotic Zone |
| MR01-14 | 565128 | 5164995 | 290 | 200 | -45 | 290 | Stratigraphic |
| MR01-15 | 565154 | 5165061 | 301 | 200 | -45 | 250 | Stratigraphic |
| MR01-16 | 565192 | 5165181 | 301 | 200 | -45 | 200 | Stratigraphic |
| MR01-17 | 565507 | 5164340 | 289 | 200 | -45 | 494 | Stratigraphic/Chaotic Zone |
| MR01-18 | 565595 | 5164548 | 302 | 200 | -45 | 314 | Stratigraphic |
| MR01-19 | 564840 | 5164692 | 286 | 200 | -45 | 269 | North grid-Chaotic Zone |
| MR01-20 | 564810 | 5164604 | 292 | 200 | -45 | 161 | North grid-Chaotic Zone |
| MR01-21 | 564691 | 5164833 | 302 | 200 | -45 | 305 | North grid-Chaotic Zone |
| MR01-22 | 564675 | 5164750 | 294 | 200 | -50 | 110 | North grid-Chaotic Zone |
| MR01-23 | 564547 | 5165099 | 297 | 200 | -45 | 179 | North grid-Chaotic Zone |
| MR01-24 | 564529 | 5165025 | 297 | 200 | -45 | 245 | North grid-Chaotic Zone |
| MR01-25 | 564490 | 5164902 | 292 | 200 | -45 | 200 | North grid-Chaotic Zone |
| MR01-26 | 564369 | 5165139 | 305 | 200 | -45 | 203 | North grid-Chaotic Zone |
| MR01-27 | 564276 | 5164884 | 299 | 200 | -45 | 305 | North grid-Chaotic Zone |
| MR01-28 | 564397 | 5165223 | 294 | 20 | -45 | 326 | North grid-Chaotic Zone |
| MR01-29 | 564394 | 5165222 | 294 | 200 | -45 | 290 | North grid-Chaotic Zone |
| MR01-30 | 564572 | 5165710 | 274 | 200 | -45 | 86 | North grid-Chaotic Zone |
| MR01-31 | 564572 | 5165710 | 274 | 200 | -50 | 197 | North grid-Chaotic Zone |
| MR01-32 | 564585 | 5165821 | 325 | 200 | -45 | 278 | North grid-Chaotic Zone |
| MR01-33 | 564442 | 5166010 | 285 | 200 | -45 | 279 | North grid-Chaotic Zone |
| MR01-34 | 564465 | 5166082 | 282 | 200 | -45 | 302 | North grid-Chaotic Zone |
| MR01-35 | 564088 | 5166783 | 291 | 200 | -45 | 224 | North grid-Chaotic Zone |
| MR01-36 | 564108 | 5166852 | 286 | 200 | -45 | 278 | North grid-Chaotic Zone |
| MR01-37 | 563919 | 5166926 | 301 | 200 | -45 | 254 | North grid-Chaotic Zone |
| MR01-38 | 563939 | 5167003 | 300 | 200 | -45 | 302 | North grid-Chaotic Zone |
| MR01-39 | 563572 | 5167097 | 278 | 200 | -45 | 251 | North grid-Chaotic Zone |
| MR01-40 | 563501 | 5166945 | 290 | 200 | -45 | 251 | Stratigraphic |
| MR01-41 | 563445 | 5166766 | 293 | 200 | -45 | 251 | Stratigraphic |
| MR01-42 | 563380 | 5166570 | 293 | 200 | -45 | 302 | Stratigraphic |
| MR01-43 | 564100 | 5165648 | 284 | 340 | -45 | 300 | Stratigraphic |
| MR01-44 | 562684 | 5166989 | 290 | 200 | -45 | 299 | Stratigraphic |
| MR01-45 | 562794 | 5166707 | 290 | 200 | -45 | 299 | Stratigraphic |
| MR01-46 | 562528 | 5166643 | ~290 | 200 | -45 | 299 | Stratigraphic |
| MR01-47 | 562201 | 5166909 | ~290 | 200 | -45 | 299 | Stratigraphic |
| MR01-48 | 564365 | 5165788 | 288 | 200 | -45 | 200 | Stratigraphic |
| MR01-49 | 564306 | 5165622 | 300 | 200 | -45 | 200 | Stratigraphic |
| MR02-50 | 564890 | 5164690 | 275 | 200 | -44 | 242 | North grid-IBCZ & OGN |
| MR02-51 | 564924 | 5164630 | 270 | 200 | -45 | 233 | North grid-IBCZ & OGN |
| MR02-52 | 564938 | 5164542 | 265 | 200 | -45 | 216 | North grid-IBCZ & OGN |
| MR02-53 | 565024 | 5164530 | 270 | 200 | -45 | 264 | North grid-IBCZ & OGN |
| MR02-54 | 565436 | 5164162 | 260 | 200 | -45 | 259 | North grid-IBCZ & OGN |
| MR02-55 | 565403 | 5164091 | 250 | 200 | -45 | 200 | North grid-IBCZ & OGN |
| MR02-56 | 564797 | 5164726 | 275 | 200 | -45 | 215 | North grid-IBCZ & OGN |
| MR02-57 | 565516 | 5164025 | 280 | 200 | -45 | 221 | North grid-IBCZ & OGN |
| MR02-58 | 565679 | 5163825 | 285 | 200 | -45 | 229 | North grid-IBCZ & OGN |
| MR02-59 | 564573 | 5165687 | 280 | 270 | -45 | 197 | North grid-IBCZ & OGN |
| MR02-60 | 564573 | 5165687 | 280 | 270 | -65 | 200 | North grid-IBCZ & OGN |
| MR02-61 | 564615 | 5165611 | 280 | 270 | -45 | 200 | North grid-IBCZ & OGN |
| MR02-62 | 564615 | 5165611 | 280 | 270 | -65 | 260 | North grid-IBCZ & OGN |
| MR02-63 | 564642 | 5165536 | 275 | 270 | -45 | 194 | North grid-IBCZ & OGN |
| MR02-64 | 564517 | 5165778 | 270 | 270 | -45 | 200 | North grid-IBCZ & OGN |
| MR02-65 | 564508 | 5165895 | 275 | 270 | -45 | 200 | North grid-IBCZ & OGN |
| MR02-66 | 564610 | 5166037 | 270 | 270 | -45 | 275 | North grid-IBCZ & OGN |
| MR02-67 | 564697 | 5166146 | 270 | 270 | -45 | 200 | North grid-IBCZ & OGN |
| | | | | | **Total** | **16435** | |

**SOUTH GRID DRILL HOLES**

| Hole Number | E-UTM | N-UTM | Elevation | Azimuth | Inclination | Length(m) | Area Descriptor |
|---|---|---|---|---|---|---|---|
| MRS01-01 | 558443 | 5160211 | 262 | 180 | -45 | 203 | South Grid-Tomrose |
| MRS01-02 | 558473 | 5159950 | 260 | 180 | -45 | 332 | South Grid |
| MRS01-03 | 558650 | 5160128 | 265 | 180 | -50 | 302 | South Grid |
| MRS01-04 | 558671 | 5159908 | 253 | 180 | -45 | 260 | South Grid |
| MRS01-05 | 558272 | 5159941 | 284 | 180 | -45 | 392 | South Grid |
| MRS01-06 | 558329 | 5159610 | 271 | 0 | -45 | 299 | South Grid |
| MRS01-07 | 558328 | 5159686 | 268 | 0 | -45 | 180 | South Grid |
| MRS01-08 | 558258 | 5160001 | 281 | 0 | -45 | 200 | South Grid |
| MRS01-09 | 557567 | 5159214 | 285 | 0 | -45 | 281 | South Grid |
| MRS01-10 | 557578 | 5159095 | 270 | 0 | -45 | 350 | South Grid |
| MRS01-11 | 557078 | 5159191 | 265 | 0 | -45 | 299 | South Grid |
| MRS01-12 | 557057 | 5159683 | 265 | 0 | -45 | 200 | South Grid |
| MRS01-13 | 557030 | 5160315 | 278 | 0 | -45 | 275 | South Grid |
| MRS01-14 | 556850 | 5160207 | 272 | 0 | -45 | 211 | South Grid |
| MRS01-15 | 558916 | 5159834 | 247 | 0 | -45 | 281 | South Grid |
| MRS01-16 | 559234 | 5160424 | 255 | 0 | -45 | 260 | South Grid-Bradley |
| MRS01-17 | 559622 | 5160479 | 275 | 0 | -45 | 251 | South Grid |
| | | | | | **Total** | **4576** | |




**LEGEND**

- 19 *Amphibolite*
- 18 *Tonalite*

***River Vallley Intrusion***

- 15 *Anorthositic Gabbro*
- 14 *Leucogabbro*
- 13 *Gabbro*
- 11 *Equigranular Gabbronorite*
- 11a *Equigranular Qtz-gabbronorite*
- 10 *Gabbronorite*
- 10d *Chaotic Zone*
- 9 *Troctolite*
- 8 *Olivine Gabbronorite*
- 6a *Websterite*
- 5 *Diorite-Qtz Diorite*

***Country Rocks***

- 4 *Qtz-Syenite, Syenitic Gneiss*
- 3 *Granite*
- 2 *Qtz-Bio-(Garnet) Gneiss*

**SYMBOLS**

- *Geological contact*
- *River Valley Intrusion Contact*
- *Fault*
- *Sulphide/Mineral zone*
- *Claim post (located, inferred)*
- *Claim line*
- *Swamp*
- BD *Pond with Beaver dam*
- *Road*
- *Trail*
- *Creek*
- MR00-04 *Diamond drill hole-Phase 1*
- MR02-54 *Diamond drill hole-Phase 2*

Figure 12.

MUSTANG MINERALS CORP.

# River Valley PGM Property

*Sudbury Area, Ontario, Canada*

***Plan of North Zone Showing Drillhole Locations***

**TABLE 20**
**RESULTS OF DRILLHOLES, NORTH ZONE**
**RIVER VALLEY PROPERTY, NORTH GRID, SIGNIFICANT ASSAYS**

| Hole Number | From (metres) | To (metres) | width (metres) | Pt-Pd-Au (g/t) | Pt (g/t) | Pd (g/t) | Au (g/t) | Cu (%) | Ni (%) |
|---|---|---|---|---|---|---|---|---|---|
| **MR00-01** | 147.0 | 186.0 | 39.0 | **0.42** | 0.15 | 0.24 | 0.03 | 0.04 | 0.01 |
| Includes | 165.0 | 185.0 | 20.0 | **0.61** | 0.23 | 0.35 | 0.03 | 0.05 | 0.01 |
| | | | | | | | | | |
| **MR00-02** | 184.0 | 210.0 | 26.0 | **0.21** | 0.08 | 0.12 | 0.01 | 0.04 | 0.02 |
| | | | | | | | | | |
| **MR00-03** | 130.0 | 194.0 | 64.0 | **0.39** | 0.20 | 0.16 | 0.03 | 0.05 | 0.01 |
| Includes | 161.0 | 194.0 | 33.0 | **0.50** | 0.29 | 0.18 | 0.03 | 0.04 | 0.01 |
| Includes | 192.5 | 194.0 | 1.5 | **5.37** | 2.08 | 3.28 | 0.01 | 0.004 | 0.003 |
| | | | | | | | | | |
| **MR00-04** | 74.0 | 105.0 | 31.0 | **0.34** | 0.11 | 0.20 | 0.03 | 0.05 | 0.02 |
| Includes | 89.0 | 98.0 | 9.0 | **0.70** | 0.22 | 0.45 | 0.03 | 0.01 | 0.01 |
| | | | | | | | | | |
| **MR00-05** | 168.0 | 171.0 | 3.0 | **0.55** | 0.18 | 0.35 | 0.02 | 0.05 | 0.03 |
| | | | | | | | | | |
| **MR00-06** | 54.0 | 84.0 | 30.0 | **0.40** | 0.12 | 0.24 | 0.04 | 0.07 | 0.03 |
| | 94.0 | 120.0 | 26.0 | **0.48** | 0.16 | 0.29 | 0.03 | 0.05 | 0.02 |
| Includes | 102.0 | 119.0 | 17.0 | **0.61** | 0.21 | 0.36 | 0.04 | 0.03 | 0.01 |
| | | | | | | | | | |
| **MR00-07** | 43.0 | 92.0 | 49.0 | **0.71** | 0.26 | 0.40 | 0.05 | 0.05 | 0.01 |
| Includes | 45.0 | 74.0 | 29.0 | **0.88** | 0.29 | 0.53 | 0.06 | 0.06 | 0.02 |
| Includes | 45.0 | 49.0 | 4.0 | **1.64** | 0.54 | 0.97 | 0.13 | 0.08 | 0.03 |
| | | | | | | | | | |
| **MR00-08** | 68.0 | 126.0 | 58.0 | **0.36** | 0.11 | 0.22 | 0.03 | 0.05 | 0.02 |
| Includes | 105.0 | 126.0 | 21.0 | **0.56** | 0.17 | 0.35 | 0.04 | 0.05 | 0.02 |
| | | | | | | | | | |
| **MR00-09** | 133.0 | 139.0 | 6.0 | **1.58** | 0.50 | 1.10 | 0.09 | 0.07 | 0.01 |
| | | | | | | | | | |
| **MR00-10** | 133.0 | 137.0 | 4.0 | **1.02** | 0.36 | 0.63 | 0.03 | 0.003 | 0.003 |
| | 189.0 | 192.0 | 3.0 | **1.34** | 0.50 | 0.77 | 0.07 | 0.11 | 0.04 |
| | | | | | | | | | |
| **MR00-11** | 107.0 | 164.0 | 57.0 | **0.25** | 0.08 | 0.15 | 0.02 | 0.05 | 0.03 |
| | 218.0 | 236.0 | 18.0 | **0.26** | 0.14 | 0.10 | 0.02 | 0.02 | 0.006 |
| | | | | | | | | | |
| **MR00-12** | 122.0 | 209.0 | 87.0 | **0.20** | 0.06 | 0.12 | 0.02 | 0.03 | 0.02 |
| Includes | 139.0 | 157.0 | 18.0 | **0.51** | 0.15 | 0.32 | 0.04 | 0.05 | 0.04 |
| Includes | 156.0 | 157.0 | 1.0 | **5.10** | 1.50 | 3.5 | 0.07 | 0.05 | 0.04 |
| Includes | 195.0 | 209.0 | 14.0 | **0.39** | 0.12 | 0.24 | 0.03 | 0.07 | 0.06 |
| | 231.0 | 235.0 | 4.0 | **2.55** | 1.07 | 1.47 | 0.01 | 0.01 | 0.02 |
| Includes | 231.0 | 232.0 | 1.0 | **9.15** | 4.24 | 4.88 | 0.03 | 0.006 | 0.04 |
| | | | | | | | | | |
| **MR01-13** | 283.0 | 310.0 | 27.0 | **0.31** | 0.10 | 0.19 | 0.02 | 0.04 | 0.03 |
| | 317.0 | 346.0 | 29.0 | **0.32** | 0.12 | 0.18 | 0.02 | 0.03 | 0.01 |
| | | | | | | | | | |
| **MR01-17** | 364.0 | 469.0 | 105.0 | **0.41** | 0.18 | 0.19 | 0.044 | 0.06 | 0.04 |
| | | | | | | | | | |
| **MR01-19** | 53.0 | 108.0 | 55.0 | **0.33** | 0.12 | 0.19 | 0.02 | 0.06 | 0.02 |
| | 155.0 | 184.0 | 29.0 | **0.53** | 0.26 | 0.22 | 0.05 | 0.05 | 0.01 |
| | | | | | | | | | |

**TABLE 20**
**RESULTS OF DRILLHOLES, NORTH ZONE**
**RIVER VALLEY PROPERTY, NORTH GRID, SIGNIFICANT ASSAYS (continued)**

| Hole Number | From (metres) | To (metres) | width (metres) | Pt-Pd-Au (g/t) | Pt (g/t) | Pd (g/t) | Au (g/t) | Cu (%) | Ni (%) |
|---|---|---|---|---|---|---|---|---|---|
| **MR01-20** | 8.0 | 25.0 | 17.0 | **1.07** | 0.42 | 0.60 | 0.05 | 0.10 | 0.02 |
| Includes | 16.0 | 25.0 | 9.0 | **1.56** | 0.63 | 0.87 | 0.06 | 0.15 | 0.03 |
| Includes | 23.0 | 25.0 | 2.0 | **5.02** | 1.97 | 2.98 | 0.07 | 0.14 | 0.04 |
| Includes | 24.0 | 25.0 | 1.0 | **8.19** | 3.33 | 4.79 | 0.07 | 0.05 | 0.05 |
| | 60.0 | 81.0 | 21.0 | **0.79** | 0.41 | 0.32 | 0.06 | 0.05 | 0.01 |
| Includes | 60.0 | 74.0 | 14.0 | **0.89** | 0.46 | 0.37 | 0.06 | 0.06 | 0.01 |
| | | | | | | | | | |
| **MR01-21** | 81.0 | 145.0 | 64.0 | **0.49** | 0.15 | 0.31 | 0.03 | 0.07 | 0.04 |
| Includes | 117.0 | 145.0 | 28.0 | **0.64** | 0.20 | 0.41 | 0.03 | 0.09 | 0.05 |
| Includes | 135.0 | 145.0 | 10.0 | **1.12** | 0.35 | 0.74 | 0.03 | 0.07 | 0.05 |
| | | | | | | | | | |
| **MR01-22** | 42.0 | 85.0 | 43.0 | **0.45** | 0.23 | 0.18 | 0.04 | 0.04 | 0.01 |
| | | | | | | | | | |
| **MR01-23** | 119.0 | 143.0 | 24.0 | **0.27** | 0.09 | 0.16 | 0.02 | 0.05 | 0.03 |
| | | | | | | | | | |
| **MR01-24** | 117.0 | 154.0 | 37.0 | **0.36** | 0.14 | 0.2 | 0.02 | 0.06 | 0.02 |
| includes | 117.0 | 133.0 | 16.0 | **0.47** | 0.16 | 0.3 | 0.01 | 0.03 | 0.02 |
| | | | | | | | | | |
| **MR01-25** | 5.0 | 8.0 | 3.0 | **1.21** | 0.40 | 0.78 | 0.03 | 0.09 | 0.07 |
| | 48.0 | 64.0 | 16.0 | **0.26** | 0.12 | 0.11 | 0.03 | 0.06 | 0.01 |
| | 80.0 | 109.0 | 29.0 | **0.20** | 0.20 | 0.14 | 0.06 | 0.10 | 0.01 |
| | | | | | | | | | |
| **MR01-26** | 2.0 | 42.0 | 40.0 | **0.29** | 0.11 | 0.16 | 0.02 | 0.02 | 0.01 |
| | | | | | | | | | |
| **MR01-30** | 6.0 | 65.0 | 59.0 | **0.82** | 0.24 | 0.54 | 0.04 | 0.05 | 0.03 |
| includes | 13.0 | 35.0 | 22.0 | **1.47** | 0.41 | 0.99 | 0.07 | 0.09 | 0.06 |
| includes | 20.0 | 26.0 | 6.0 | **2.18** | 0.58 | 1.52 | 0.08 | 0.08 | 0.06 |
| | 57.0 | 65.0 | 8.0 | **0.80** | 0.25 | 0.54 | 0.01 | 0.005 | 0.008 |
| includes | 57.0 | 59.0 | 2.0 | **1.57** | 0.45 | 1.10 | 0.02 | 0.005 | 0.009 |
| | | | | | | | | | |
| **MR01-31** | 5.0 | 66.0 | 61.0 | **0.73** | 0.22 | 0.47 | 0.04 | 0.06 | 0.04 |
| includes | 12.0 | 44.0 | 32.0 | **1.13** | 0.33 | 0.75 | 0.05 | 0.09 | 0.06 |
| includes | 17.0 | 33.0 | 16.0 | **1.77** | 0.49 | 1.21 | 0.07 | 0.11 | 0.08 |
| includes | 23.0 | 33.0 | 10.0 | **2.00** | 0.55 | 1.37 | 0.08 | 0.13 | 0.09 |
| | | | | | | | | | |
| **MR01-32** | 155.0 | 187.0 | 32.0 | **0.62** | 0.18 | 0.41 | 0.03 | 0.07 | 0.04 |
| includes | 165.0 | 176.0 | 11.0 | **1.12** | 0.32 | 0.75 | 0.05 | 0.09 | 0.06 |
| includes | 165.0 | 170.0 | 5.0 | **1.37** | 0.37 | 0.93 | 0.07 | 0.09 | 0.06 |
| | | | | | | | | | |
| **MR01-33** | 101.0 | 108.0 | 7.0 | **1.37** | 0.80 | 0.40 | 0.17 | 0.16 | 0.02 |
| includes | 106.0 | 107.5 | 1.5 | **4.45** | 2.82 | 1.13 | 0.50 | 0.19 | 0.02 |
| | | | | | | | | | |
| **MR01-34** | 160.0 | 194.0 | 34.0 | **0.44** | 0.24 | 0.15 | 0.05 | 0.04 | 0.01 |
| | 239.0 | 251.0 | 12.0 | **0.32** | 0.18 | 0.09 | 0.05 | 0.18 | 0.04 |
| | | | | | | | | | |
| **MR01-35** | 90.0 | 99.5 | 9.5 | **0.38** | 0.09 | 0.27 | 0.02 | 0.04 | 0.05 |
| | | | | | | | | | |
| **MR01-36** | 140.0 | 146.0 | 6.0 | **0.38** | 0.10 | 0.26 | 0.02 | 0.05 | 0.03 |
| | | | | | | | | | |
| **MR01-37** | 95.0 | 104.0 | 9.0 | **0.36** | 0.10 | 0.25 | 0.01 | 0.02 | 0.03 |

**Table 20**
**RESULTS OF DRILLHOLES, NORTH ZONE**
**RIVER VALLEY PROPERTY, NORTH GRID, SIGNIFICANT ASSAYS (continued)**

| DRILL HOLE | **FROM (metres)** | **TO (metres)** | **WIDTH (metres)** | Pt+Pd+Au G/t | Au-g/t | Pt-g/t | Pd-g/t | Rock type |
|---|---|---|---|---|---|---|---|---|
| **MR02-50** | 65.5 | 66.5 | **1.0** | **4.80** | 0.10 | 3.92 | 0.78 | IBCZ |
| **MR02-51** | 99.0 | 109.5 | **10.5** | **1.32** | 0.16 | 0.33 | 0.83 | IBCZ |
| including | 103.5 | 109.5 | **6.0** | **1.84** | 0.02 | 0.53 | 1.29 | IBCZ |
| MR02-52 | 85.0 | 92.5 | **7.5** | **0.72** | 0.08 | 0.22 | 0.42 | IBCZ |
| and | 140.0 | 140.5 | **0.5** | **4.26** | 0.01 | 2.13 | 2.12 | OLGN |
| **MR02-53** | 126.5 | 140.0 | **13.5** | **0.88** | 0.02 | 0.23 | 0.62 | IBCZ |
| **MR02-55** | 162.5 | 167 | **4.5** | **1.00** | 0.02 | 0.29 | 0.69 | IBCZ |
| **MR02-56** | 159.5 | 164.0 | **4.5** | **0.82** | 0.06 | 0.42 | 0.34 | IBCZ |
| **MR02-57** | 47.0 | 80.0 | **33.0** | **0.62** | 0.06 | 0.16 | 0.41 | IBCZ |
| **MR02-58** | 92.5 | 94.5 | **2.0** | **3.71** | 0.02 | 1.08 | 2.61 | OLGN |
| and | 189.5 | 192.5 | **3.0** | **1.09** | 0.01 | 1.02 | 0.06 | IBCZ |
| **MR02-59** | 30.5 | 53.0 | **22.5** | **0.96** | 0.05 | 0.27 | 0.64 | IBCZ |
| including | 35.0 | 44.0 | **9.0** | **1.47** | 0.05 | 0.39 | 1.03 | IBCZ |
| and | 108.5 | 110.0 | **1.5** | **1.95** | 0.03 | 0.62 | 1.30 | OLGN |
| **MR02-60** | 53.0 | 73.3 | **20.3** | **1.03** | 0.05 | 0.32 | 0.67 | IBCZ |
| **MR02-61** | 33.5 | 44.0 | **10.5** | **1.24** | 0.06 | 0.36 | 0.81 | IBCZ |
| **MR02-62** | 54.5 | 80.0 | **25.5** | **1.01** | 0.06 | 0.31 | 0.64 | IBCZ |
| including | 68.0 | 80.0 | **12.0** | **1.30** | 0.07 | 0.40 | 0.83 | IBCZ |
| including | 77.0 | 80.0 | **3.0** | **2.01** | 0.09 | 0.59 | 1.43 | IBCZ |
| and | 153.7 | 158.9 | **5.2** | **2.15** | 0.06 | 0.49 | 1.60 | OLGN |
| including | 153.7 | 155.8 | **2.1** | **4.13** | 0.10 | 0.96 | 3.07 | OLGN |
| **MR02-63** | 51.5 | 53.5 | **2.0** | **1.16** | 0.07 | 0.29 | 0.80 | IBCZ |
| and | 73.2 | 78 | **4.8** | **2.13** | 0.05 | 0.69 | 1.40 | OLGN |
| and | 76.0 | 77.0 | **1.0** | **4.62** | 0.16 | 1.31 | 3.15 | OLGN |
| **MR02-64** | 38.0 | 65.0 | **27.0** | **1.03** | 0.05 | 0.29 | 0.69 | IBCZ |
| including | 38.0 | 44.0 | **6.0** | **1.29** | 0.06 | 0.31 | 0.92 | IBCZ |
| | 60.5 | 65.0 | **4.5** | **2.32** | 0.12 | 0.67 | 1.53 | IBCZ |

The IBCZ mineralization as observed in the drillholes consists of up to 10% disseminated pyrrhotite-chalcopyrite.

An interesting feature of the mineralization are the relatively sulphide poor samples associated with a chlorite-serpentine altered olivine gabbronorite layer associated with the IBCZ. Results in this layer can be very high grade, up to 9.15 g (Pt+Pd+Au)/t (4.88 g Pd/t, 4.24 g Pt/t and 0.03 g Au/t).

Above the IBCZ and the PGM-enriched olivine gabbronorite layer, the Main Series's sulphide content and grade is diminished. The PGM content of the sulphides that are present however is more variable, with higher PGM/Cu ratios then observed in the Border Zone, below. Thus, any significant concentrations of sulphides in this stratigraphy could be expected to have better PGM grades.

## 9. SAMPLING METHOD AND APPROACH

Rock sampling is carried out during geological mapping. Two to three kilogram rock samples are collected by the geologist. These are grab samples, the goal of which is to determine the presence of elevated PGM values and/or determine the character of observed sulphide mineralization.

The core is picked up at the drill site by Mustang personnel and taken to Mustang's Sudbury core logging facility where it was logged by Mustang's geologist. The core is stored in secure racks in Mustang's core logging area. After logging the core is sampled by sawing with a diamond saw or splitting using a Longyear core splitter. The half core samples were shipped by bus or courier to commercial laboratories. The other half of the core is stored for future reference.

Sampling is carried out either at 1.0 or 1.5 m intervals, with some smaller samples where the longer sample intervals would cross lithologic boundaries.

Trench sampling is carried out at 1.0 metre intervals or less depending where lithologies changed along the trench. Channel sampling was of a continuous nature and was completed across the strike of the mineralized horizon, hence perpendicular to the strike of the zone. The samples were generally 3-5 cm wide by up to 5-10 cm deep. Hammer and moil removed the sample which was immediately placed in a heavy duty sample bag. The sample was then tagged, sealed and stored in a secure place until transported by transport or bus directly to the analytical lab.

## 10. SAMPLE PREPARATION AND SECURITY

The reconnaissance rock samples are 1-3 kg grab samples obtained from outcrop where sulphide mineralization was encountered. Some samples were also collected from unmineralized exposures to document PGM concentrations in different rock units along traverse lines. Samples were submitted to XRAL Laboratories in Rouyn-Noranda for fire assay-DCP analysis of Pt, Pd, Au, Cu and Ni. A limited suite of samples underwent analysis to determine Rh, Os, Ir and Ru concentrations.

No sample preparation is carried out by Mustang on it's drill core. The half core samples were shipped by bus to commercial laboratories, where the sample was crushed to passing 10 mesh and approximately 100 grams pulverized to 90% passing 150 mesh. Thirty grams of each sample was analyzed for platinum, palladium and gold by fire assay ("FA") followed by a direct coupled plasma ("DCP") finish and geochemically analyzed for copper nickel by partial acid digestion followed by atomic absorption ("AA") finish. Base metal concentrations were determined by atomic absorption spectrometry (AA) after 0.25 to 0.3g of the pulp was subjected to aqua regia digestion.

The split core was sent to XRAL Laboratories in Rouyn-Noranda, Quebec for analysis with check samples carried out at ALS Chemex in Vancouver.

Drill core at River Valley was transported directly from the property under the supervision of the consulting geologist to the exploration office on Kelly Lake Road in Sudbury. The core was split using a mechanical saw and shipped to the laboratory. One half of the core is retained for future reference. Mineralized samples are stored under lock and key.

# 11. DATA CORROBORATION

## 11.1 GENERAL

The rock samples collected during geological mapping are not designed to provide a quantitative measure of grade, but merely an initial qualitative assessment of a target area. As such, no duplicate samples or standards have been routinely submitted with these samples as part of a QA/QC program.

## 11.2 DATA CORROBORATION BY WGM

During its site visit in December 1999 WGM examined outcrops in the field as well as the locations of drillholes. The outcrops examined by WGM confirmed that the geology is as shown on the maps prepared by Mustang and drillholes are located where indicated.

WGM also collected its own sample of the surface mineralization at the Tomrose Zone. The Tomrose Zone had previously been sampled by both the OGS and Mustang. Reported grab sample grades are up to 678 ppb Pt+Pd+Au. Most values however fell in the range of 100 to 300 ppb Pt+Pd+Au which can be considered anomalous for these gabbroic to anorthositic rocks in which background values range between 20 and 50 ppb. A sample of mineralization collected by WGM from a trench in the trench on the Tomrose Zone assayed 175 ppb Pt, 212 ppb Pd, and 22 ppb Au. This within the range reported previously for this mineralization.

Four check samples were collected from holes drilled in 2000 during a site visit in February 2001.

**TABLE 21**
**RESULTS OF CHECK SAMPLES FROM RIVER VALLEY DRILL CORE**

| Sample | Hole # | From | To | Original Sample | Original Assays | | | | | Check Assays - ACTLABS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Cu | Ni | Pt | Pd | Au | Au (ppb) | Pt (ppb) | Pd (ppb) | Cu (ppm) | Ni (ppm) |
| 3203 | MR-00-006 | 102 | 103 | 14175 | 732 | 305 | 403 | 704 | 54 | 72 | 478 | 670 | 467 | 546 |
| 3204 | MR-00-006 | 113 | 114 | 14186 | 788 | 272 | 397 | 858 | 57 | 35 | 358 | 575 | 369 | 305 |
| 3205 | MR-00-007 | 45 | 46 | 14211 | 982 | 310 | 490 | 1,027 | 114 | 108 | 570 | 886 | 627 | 441 |
| 3207 | MR-00-007 | 84 | 85 | 14250 | 152 | 57 | 304 | 158 | 14 | 18 | 294 | 190 | 173 | 195 |

While the quarter core check samples collected by WGM show a general correspondence with the values in the original samples, there is significant variability with the original results. This may be due to nugget effect and the relatively small size of the quarter core samples collected by WGM.

## 11.3 DATA CORROBORATION BY MUSTANG

Mustang conducts its own QA/QC program. Pulps from about 10 samples per hole, covering a range of assay values are sent to ALS Chemex for check assays. In addition, a known standard is inserted every 25 samples to check on laboratory precision.

Correlation between XRAL and ALS Chemex is good with correlation coefficients of above 0.98. ALS Chemex results however are about 15% higher than those at XRAL. The XRAL results for the commercial standard show good precision. The standard has not been submitted to ALS Chemex with the check samples. This should be done. If ALS Chemex also reports good precision for the standard, then the difference between the two labs is likely due to a difference in analytical procedures and some characteristic of the samples peculiar to the property, which has resulted in less than complete analysis of the PGMs at XRAL.

The lack of correspondence between the WGM quarter core check samples and the original samples may indicate the presence of nugget effect. If present, then one could expect considerable variation between splits of the same sample, with some being lower and some higher. This becomes a problem in resource estimation as it may lead to inclusion of material below cut-off due to an anomalously high value from a sample split or vice-versa. Additional

work, including check analysis of several splits of the coarse rejects from previously analyzed samples is recommended to investigate this issue.

## 12. ADJACENT PROPERTIES

PGM-Cu-Ni mineralization identified in the northern part of the RVI is currently under exploration by **Pacific Northwest Capital Corporation** ("PFN").

PFN has identified several zones of mineralization known as the Dana North, Pardo, Azen Creek and Lismer's Ridge zones. The Dana North Zone is further subdivided, from north to south, into the Road Zone, the North Zone, the Trench Zone and the South Zone. A third showing occurs to the north and is known as the Pardo Zone.

The mineralization occurs within the Marginal Zone of the intrusion and up to 100 m into the footwall rocks. Most of the mineralization is reported to occur hosted within a heterolithic breccia or inclusion rich phase in the margin of the intrusion. Host rocks include melanocratic to leucocratic breccias, and pegmatitic to vari-textured breccia zones. The mineralization occurs as disseminated to blebby sulphides, predominantly chalcopyrite.

The Dana Lake Zones have been tested by stripping and surface sampling as well as diamond drilling.

To date, assay results have been received from a total of 221 surface diamond drillholes at the Dana Lake and Lismer's Ridge areas, spanning five separate drill programs in the Dana Lake area. Mineralized mafic breccias have been outlined over a 900-m strike length, over widths of more than 40 m and to a vertical depth of 300 m.

In October 2002, PFN announced the results of a resource estimate completed by Derry, Booth, Michener & Wahl. A total of 825,900 measured and indicated ounces of palladium platinum and gold were announced from both the Dana Lake and Lismer's Ridge areas (18,053,000 tonnes @ 1.423 g (Pd+Pt+Au)/t, including 10,368,000 tonnes @ 1.617 g (Pd+Pt+Au)/t at Dana Lake and 7,865,000 tonnes at 1.161 g (Pd+Pt+Au)/t at Lismer's Ridge). Inferred resources of 200,600 ounces of palladium platinum and gold were

calculated from both areas (5,382,000 tonnes at 1.159 g (Pd+Pt+Au)/t, including 2,282,000 tonnes at 1.23 g (Pd+Pt+Au)/t at Dana Lake and 3,100,000 tonnes @ 1.107 g (Pd+Pt+Au)/t at Lismer's Ridge).

Derry Booth Michener & Wahl wrote that "significant potential exists to increase near surface resources through further drilling on the property both between and on strike from the currently defined mineralised zones".

## 13. INTERPRETATION AND CONCLUSIONS

Work to date on Mustang's River Valley property and by PFN on their property to the north has confirmed that the River Valley Intrusion is a layered, gabbroic/gabbronoritic to anorthositic intrusion which is enriched in PGMs. Because the intrusion is located along the Grenville Front metamorphic zone it has been variably deformed and metamorphosed. This and the lack of detailed mapping had previously hindered a correlation and interpretation of the magmatic stratigraphy. Mapping and sampling by Mustang on the North Grid at the eastern end of the intrusion has led to a basic understanding of the igneous stratigraphy in this area and has traced a mineralized horizon known as the IBCZ along strike for a distance of over 5.0 kilometres.

The mineralization occurs within what appears to be a zone of magma mixing, known as the IBCZ, which occurs at the contact between the Border Zone and the Main Series. The mineralization consists of a zone of disseminated pyrrhotite-chalcopyrite mineralization within vari-textured gabbronorites. Average grades range from 0.2 to 1.5 g (Pt+Pd+Au)/t over widths of 15 m to 80 m. Pd:Pt ratio average 3:1 with only minor Au. Drilling has traced this zone for a distance of 3.0 km. An additional 2.0 km remains virtually untested.

There are a few high grade relatively sulphide-poor samples associated with an overlying olivine gabbronorite layer. Grades range up to 9.15 g Pt+Pd+Au/1.0 m, with a PGM (g/t):Cu% ratio of 1628. These high PGM enriched samples tend to be confined to the layer at the top of the IBCZ stratigraphy. Drilling has followed this layer for a distance of at least 2.0 km.

## 14. RECOMMENDATIONS

Mustang Minerals has presented a program for additional exploration on the River Valley Property to Impala for consideration. The bulk of the program expenditure is for additional drilling on the two km of strike length between hole # 67 and the north west boundary of the property.

Additional drilling is warranted on this target in light of the resource announced on the PFN Property and the drill results in the vicinity of the center part of the property. An additional 2.0 km remains to be tested from the latest drilling to the northwest property boundary. Other targets on the property may be present towards the centre of the intrusion. At this time no program has been designed to look for potential reef style mineralization in the interior of the intrusion. Such a program may be warranted in the future and is under consideration by the Joint Venture.

# CERTIFICATE

**To Accompany the Report titled**
**"Report on the East Bull Lake and River valley Properties in the Sudbury Area**
**for Mustang Minerals Corp."**
**dated November 26, 2002**

I, Alar T. Soever, do hereby certify that:

1. I reside at 19 Marlow Avenue, Toronto, Ontario, Canada, M4J 3T8.

2. I am graduated from the University of Toronto in 1978 with a B.Sc. in Geology, and have been practicing my profession continuously since that time.

3. I am a member of the Association of Professional Geoscientists of Ontario (Member Number 0523) and the Association of Professional Engineers and Geoscientists of Saskatchewan (Member Number 10907).

4. I am a Senior Geologist with Watts, Griffis and McOuat Limited, a firm of consulting geologists and engineers, which has been authorized to practice professional engineering by the Professional Engineers Ontario since 1969.

5. I have experience working in the Sudbury area since 1998 and am familiar with the geology of the area, and the mafic intrusive rocks which host the Cu-Ni-PGE mineralization on the subject property.

6. I also have experience with other magmatic copper-nickel-PGE projects, including projects on the Wellgreen Intrusion in Yukon Territory, the Kiglapait Intrusion, Labrador, the Duluth Complex, Minnesota, the Muskox Intrusion, Nunavut, and layered mafic intrusions in Finland.

7. I am a qualified person for the purposes of National Instrument 43-101.

8. I have visited the properties on numerous occasions. I have also reviewed core from the properties at Mustang's offices in Sudbury. The date of my last visit to the East Bull Lake Property was on December 14, 1999. I last visited the River Valley Property on May 25, 2001. I have subsequently reviewed diamond drilling data examined core from the properties.

9. I collaborated with Mr. Ken Lapierre in preparing this report, however, I am responsible for all sections of this report.

10. I have no personal knowledge as of the date of this certificate of any material fact or change, which is not reflected in this report.

11. Neither I nor any affiliated entity of mine, is at present, or under an agreement, arrangement or understanding expects to become, an insider, associate, affiliated entity or employee of Mustang Minerals Corp. or any associated or affiliated entities.

12. Neither I nor any affiliated entity of mine own, directly or indirectly, nor expect to receive, any interest in the properties or securities of Mustang Minerals Corp., or any associated or affiliated companies.

13. Neither I nor any affiliated entity of mine, have earned the majority of our income during the preceding three years from Mustang Minerals Corp., or any associated or affiliated companies.

14. I have not previously worked on these properties with the exception of having prepared independent reports on the properties as follows:

- "*Report on Properties in the Sudbury and Shining Trees Areas, Ontario, and Lake County, Minnesota, for Wallbridge Mining Company Limited"*, dated October 19, 1999.

- *"Addendum to the Report on Properties in the Sudbury and Shining Trees Areas, Ontario, and Lake County, Minnesota, for Wallbridge Mining Company Limited"*, dated April 10, 2000.

- "*Report on the East Bull Lake and River Valley Properties, Sudbury Area, for Mustang Minerals Corp*."**,** dated March 15, 2000; and,

- "*Addendum to the Report on the East Bull Lake and River Valley Properties, Sudbury Area for Mustang Minerals Corp*.", dated July 18, 2000.

- "*Economic Parameters for a Hypothetical Disseminated PGE Deposit in the Sudbury Area for Mustang Minerals Corp.* ", dated December 18, 2000.

- "*A Mineralogical Study of Samples from the North Zone, River Valley Property, Ontario, for Mustang Minerals Corp.* ", dated May 3, 2001.

15. I have read the NI 43-101 and Form 443-101F1 and have prepared the technical report in compliance with this NI 43-101 and Form 443-101F1; and have prepared the report in conformity with generally accepted Canadian mining industry practice.

Alar Soever, B.Sc., P.Geo.
November 26, 2002

# CERTIFICATE

**To Accompany the Report entitled**
**"Report on the East Bull Lake and River valley Properties in the Sudbury Area**
**for Mustang Minerals Corp."**
**dated November 26, 2002**

I, Kenneth J. Lapierre, do hereby certify that:

1. I am a geologist and President of Lapierre Exploration Services Inc. since 1985,

2. I reside at 1809 Gemini Crescent, Sudbury, Ontario, P3E 5W9,

3. I graduated from the University of Western Ontario with an HBSc. (Honors Geology) in 1983,

4. I am a fellow (F4471) of the Geological Association of Canada, and a member of the Prospectors and Developers Association of Canada and the Association of Geoscientists of Ontario (#1240),

5. Pending approval of my application for membership in the Association of Professional Geoscientists of Ontario, I am not a “Qualified Person” for the purposes of National Instrument 43-101,

6. I have been practicing my profession continuously since 1983 and I have experience working in the Sudbury Area, and am familiar with the East Bull Lake and River Valley intrusions having previously worked on these properties and have written reports for these properties,

7. I have visited both properties on a continuous basis since 1998 and that my last visit at the East Bull Lake Property was on August 17, 2002, and that my last visit at the River Valley Property was August 26, 2002,

8. I provided input into all sections of this report.

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

10. I am a director and vice-president of Mustang Minerals Corp; the Company that controls both properties,

11. I do own shares of Mustang Minerals.

12. I have read this Instrument and Form 43-101 and that the technical report has been prepared in compliance with this Instrument and Form 43-101,

13. I consent to the various securities regulatory authorities, to the filing of this technical report or any extracts from or a summary of the technical report in the written disclosure being filed and that I confirm that I have read the written disclosure being filed and do not have any reason to believe that there are any misrepresentation in the information derived from the technical report or that the written disclosure contains any misrepresentation or the information contained in the technical report.

Kenneth J. Lapierre HBSc
November 26, 2002

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