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**ASSESSMENT REPORT
METALLIC MINERAL PERMITS
(No. 9397060150- 9397060153 and 9397120016-9397120021)**

Prepared for

Global Investment.com Financial Inc.
(Formerly Victory Ventures Inc.)

APEX Geoscience Ltd.

OCTOBER, 1999

D.J. BESSERER

**ASSESSMENT REPORT
METALLIC MINERAL PERMITS
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SUMMARY

Global Investment.com Financial Inc.'s Syd 1,2 and 3 properties, north-central Alberta, comprise about 80,824 hectares within 10 metallic and industrial mineral permits within the 1:250,000 scale National Topographic System map areas 83 N and 83 O. To date, APEX Geoscience Ltd. has conducted 91 man-days of field exploration on behalf of Global Investment.com Financial Inc. within the Syd 1 and Syd 2 mineral permits which comprised: (a) gridding; (b) ground geophysical surveying; (c) rotary core drilling; and (d) auger core drilling.

Based on a high-resolution fixed-wing airborne geophysical survey flown during 1998, 15 high to medium priority targets were chosen for ground evaluation within the Syd 1 and 2 mineral permits. A total of 64.6 line km's of gridding and 61.0 km's of ground geophysical surveying was conducted at thirteen spatially separate grids (15 targets) within the Syd 1 and 2 mineral permits, using 100 metre line spacing and 25 metre spaced stations. Results from combined magnetic and Very Low Frequency (VLF) ground geophysical surveying within the Syd 1 and Syd 2 indicate that four grids with high priority ground magnetic anomalies, four grids with medium priority anomalies and five grids with low priority anomalies exist. As well, 4.225 line km's of Horizontal Loop Electromagnetic ground geophysics (HLEM) was conducted over nine lines at eight grids but the response was flat. More recently, APEX Geoscience Ltd. has picked 11 magnetic targets for follow-up evaluation within the Syd 3 mineral permits.

Two high priority ground geophysical anomalies were drilled during 1998 within the Syd 1 mineral permit using a rotary drill rig and were cored to depths of 178.92 m and 173.73 m. No kimberlite and or related intrusions were intersected.

A three phase follow-up exploration program is recommended for the Syd mineral permits to continue the evaluation of potential for the presence of diamondiferous kimberlites or related intrusions. **Phase 1** should consist of a regional, systematic sampling program. **Phase 2** should consist of further ground geophysical surveying and evaluation at magnetic targets selected from the airborne geophysical survey data within the Syd mineral permits. **Phase 2** may commence after results from **Phase 1** have been received. **Phase 3** should consist of drill testing high to medium priority magnetic targets.

INTRODUCTION

Terms of Reference

APEX Geoscience Ltd. (APEX) was retained during the fall of 1997 as consultants by Victory Ventures Inc. (Victory) to conduct exploration on Victory's Syd mineral permits. This assessment report has been prepared on the basis of available published and unpublished material and fieldwork thereon. During 1999, Victory changed their name to Global Investment.com Financial Inc. (Investment.com) and will be referred to as Investment.com for the purposes of this report.

Property Description and Location

The Syd properties which are located in north-central Alberta, near the north shore of Lesser Slave Lake include, 80,824 hectares in 10 metallic mineral permits (Table 1; Appendix 1). These metallic mineral permits are separated into three distinct blocks, Syd 1, Syd 2 and Syd 3 (Syd mineral permits) and are geographically centered at 116° 05' 30" W, 55° 38' 00" N, 115° 10' 30" W, 55° 35' 00" E and 114° 38' 00" W, 55° 28' 00" E, respectively (Figure 1). The original land package included three other mineral permits which expired during September, 1999. The Syd mineral permits are covered by the National Topographic System (NTS) 1:250 000 scale map areas 83 N and 83 O.

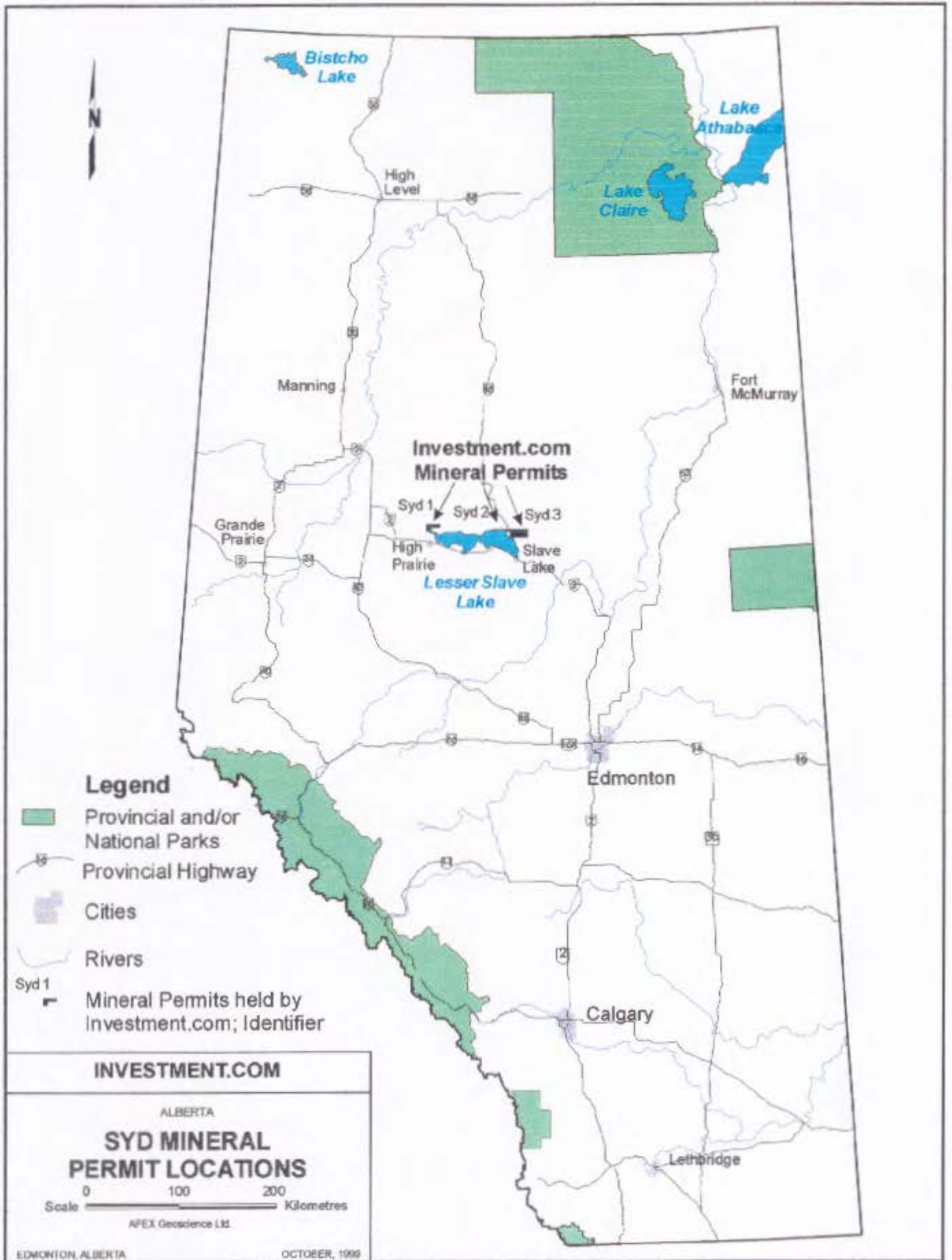


Figure 1

TABLE 1
PROPERTY DESCRIPTION OF THE SYD MINERAL PERMITS

Name	Permit Number	Areal Extent (hectare/acre)	Term Date	Expiry Date	Location (Mer-Rng-Twp)
Syd 1	9397060150	5,002/12,360	30-06-1997	*30-06-1999	W5-15-76
Syd 1	9397060151	9,216/22,773	30-06-1997	*30-06-1999	W5-13-77
Syd 1	9397060152	9,216/22,773	30-06-1997	*30-06-1999	W5-14-77
Syd 1	9397060153	9,216/22,773	30-06-1997	*30-06-1999	W5-15-77
Syd 2	9397120016	6,079/15,021	15-12-1997	15-12-1999	W5-06-75
Syd 3	9397120017	9,216/22,773	15-12-1997	15-12-1999	W5-03-74
Syd 3	9397120018	6,144/15,181	15-12-1997	15-12-1999	W5-04-74 W5-05-74
Syd 3	9397120019	9,088/22,456	15-12-1997	15-12-1999	W5-03-75 W5-04-74 W5-04-75 W5-05-74
Syd 3	9397120020	8,943/22,098	15-12-1997	15-12-1999	W5-05-75 W5-05-74
Syd 3	9397120021	8,704/21,507	15-12-1997	15-12-1999	W5-03-75
Total Areal Extent: 80,824 ha					

* Expiry date was extended by the Alberta government until October 29, 1999.

Accessibility, Climate and Local Resources

Access to the Syd mineral permits was facilitated by a network of paved and gravel all-weather roads, seismic lines and cutlines. Primary access routes to the Syd 1 mineral permits include Secondary Highways 679 and 750. Work within the Syd 1 mineral permits was based out of the nearby community of High Prairie located 20 km south southwest of

the property with daily deployments by truck, ski-doo and foot. Primary access routes to the Syd 2 mineral permits include Highway 88 and two forestry trunk roads located at km 44 and km 52 along Highway 88. Work within the Syd 2 mineral permits was based out of the nearby community of Slave Lake located about 30 km south of the property with daily deployments by truck, ski-doo and foot.

Primary access to the Syd 3 mineral permits is also along Highway 88. All necessary accommodation, food, supplies and fuel for fieldwork are available in the communities of High Prairie and Slave Lake.

Temperatures during the months of June to mid-September generally range from about 15 to 25°C. Snow may begin as early as mid-September and extend to mid-April, with spring break-up usually occurring between mid-April and early May. The regional physiography at or near the Syd mineral permits ranges from 650 to 1050 m above sea level. Vegetation in the area is primarily open or spruce-forested swamps in the low lying areas with lesser mixed deciduous and coniferous forest on the higher plateaus. Some areas within the Syd mineral permits have been deforested.

REGIONAL GEOLOGICAL SETTING

Outcrop in the area of the Syd mineral permits is generally poor and is typically limited to the main river valleys and creeks cutting through plateau edges. Bedrock in the area is covered by a veneer of glacial drift highly variable in thickness. The regional bedrock geology of northern Alberta is shown in Figure 2.

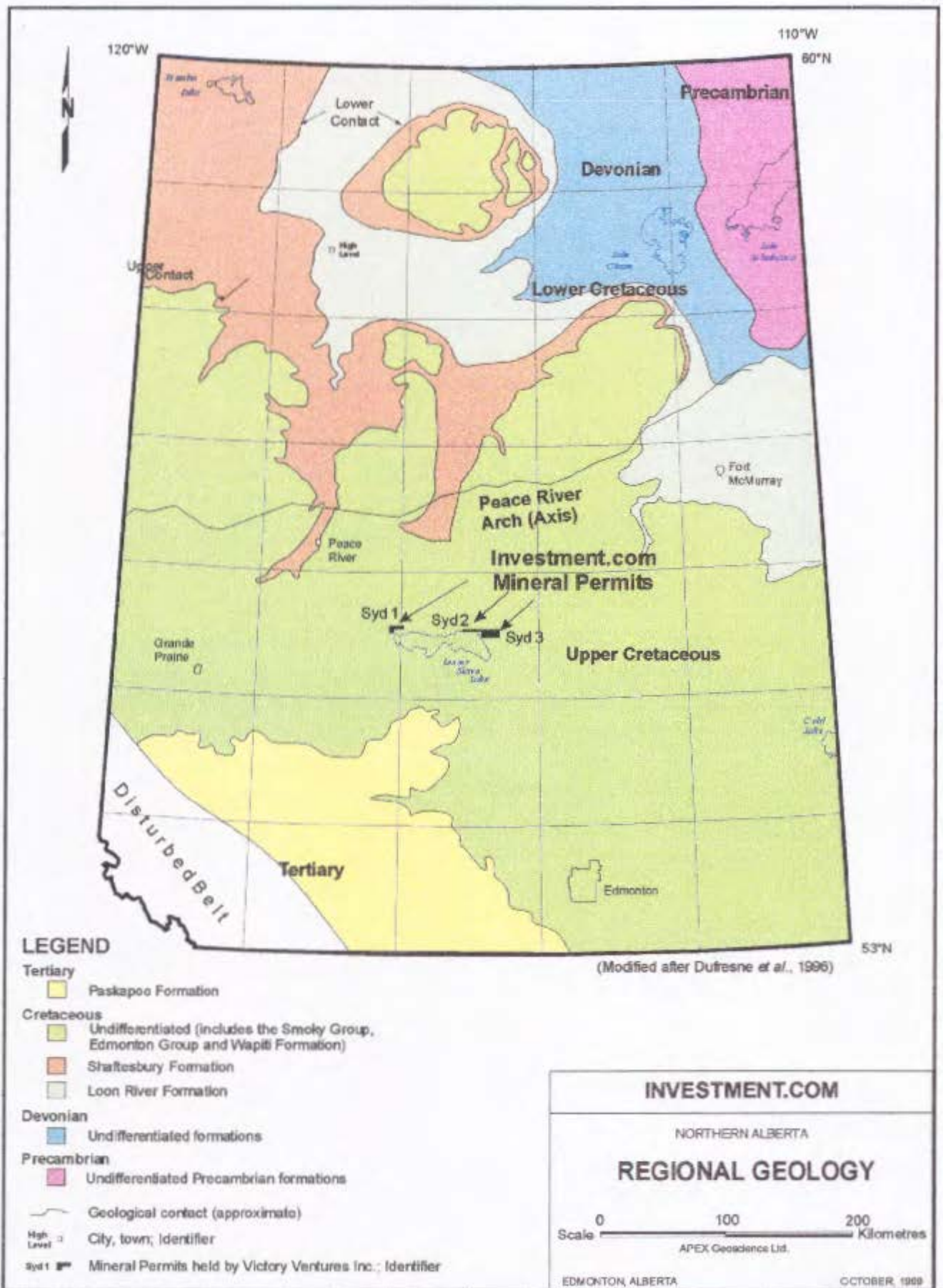


Figure 2

Precambrian

Interpretations of magnetic data and basement cores from petroleum exploration indicate that the Precambrian basement underlying the Phanerozoic succession in the Lesser Slave Lake area belongs to the Buffalo Head Terrane (BHT), sometimes referred to as the Buffalo Head Craton (Figure 3). The BHT is an area of high positive magnetic relief with a north to north-easterly fabric and has been classified as part of the Churchill Structural Province. The BHT is thought to represent either Archean crust that has been thermally reworked during the Hudsonian Orogeny (Proterozoic) (Burwash *et al.*, 1962; Burwash and Culbert, 1976; Burwash *et al.*, 1994) or an accreted Proterozoic terrane that may or may not have an Archean component (Ross and Stephenson, 1989; Ross *et al.*, 1991; Villeneuve *et al.*, 1993). Precambrian rocks that have been intersected in drill core from the BHT comprise felsic to intermediate metaplutonic rocks, felsic metavolcanic rocks and high-grade gneisses (Villeneuve *et al.*, 1993).

The area of Ashton Mining of Canada Inc.'s (Ashton) kimberlite discovery is underlain by basement of the BHT. The presence of a large number of eclogitic garnets and eclogitic pyroxenes in association with kimberlites or related intrusions in northern Alberta, may indicate the presence of a significant volume of accreted and subducted sedimentary protolith in basement rocks (Dufresne *et al.*, In Preparation).

Phanerozoic

The surface and near surface bedrock in the area of the Syd mineral permits consists of the Upper Cretaceous Smoky Group and an outlier of overlying Wapiti Formation (Figure 4). These units are generally poorly exposed except in some incised river and creek valleys located throughout the area. The Wapiti Formation is of particular interest in this area because it hosts the nearby Mountain Lake Kimberlite occurrence, located about 80 km east of High Prairie, which is a highly altered and poorly diamondiferous kimberlite (Leckie *et al.*, 1997; Figure 4). If kimberlites or related intrusions

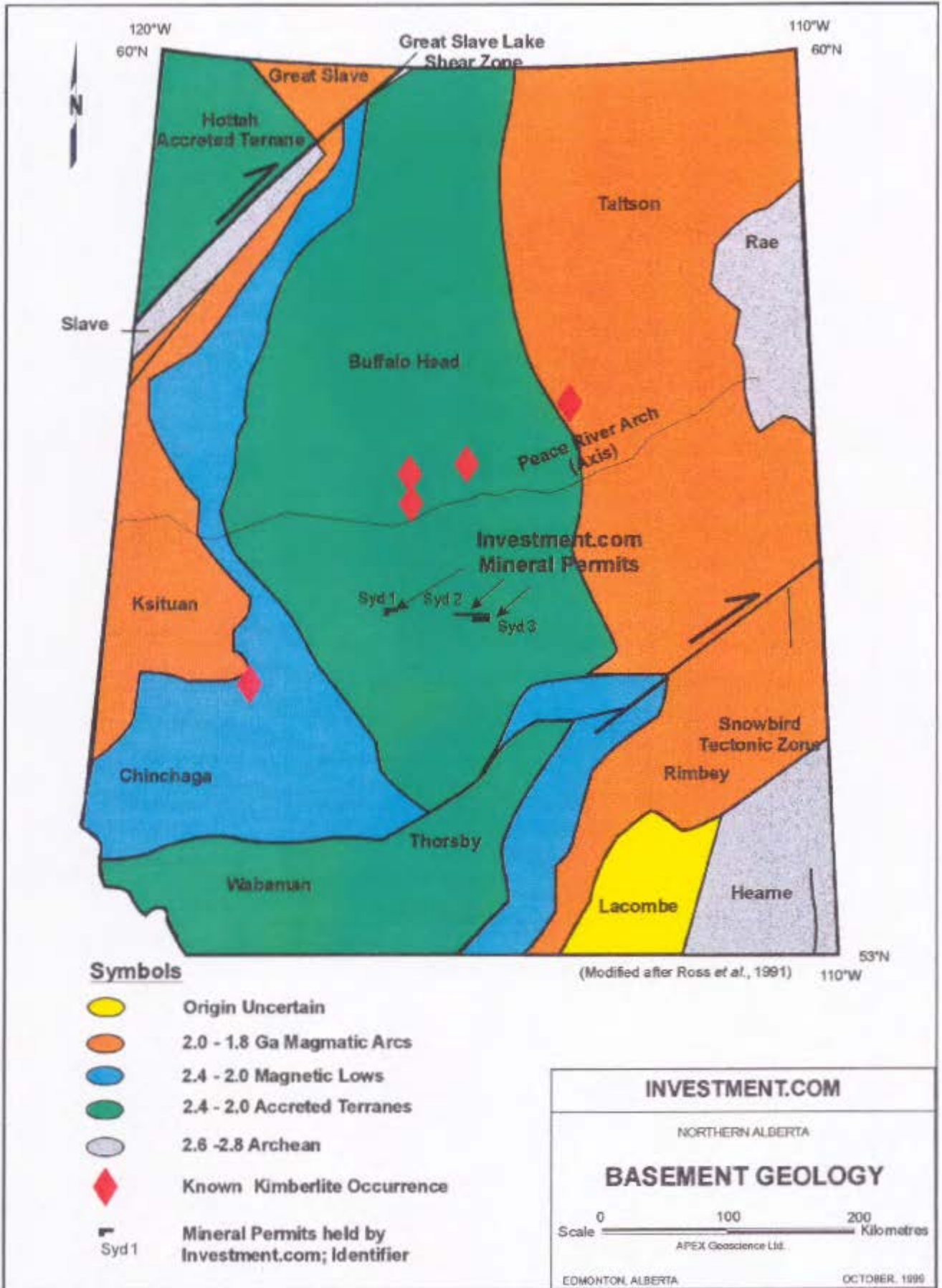
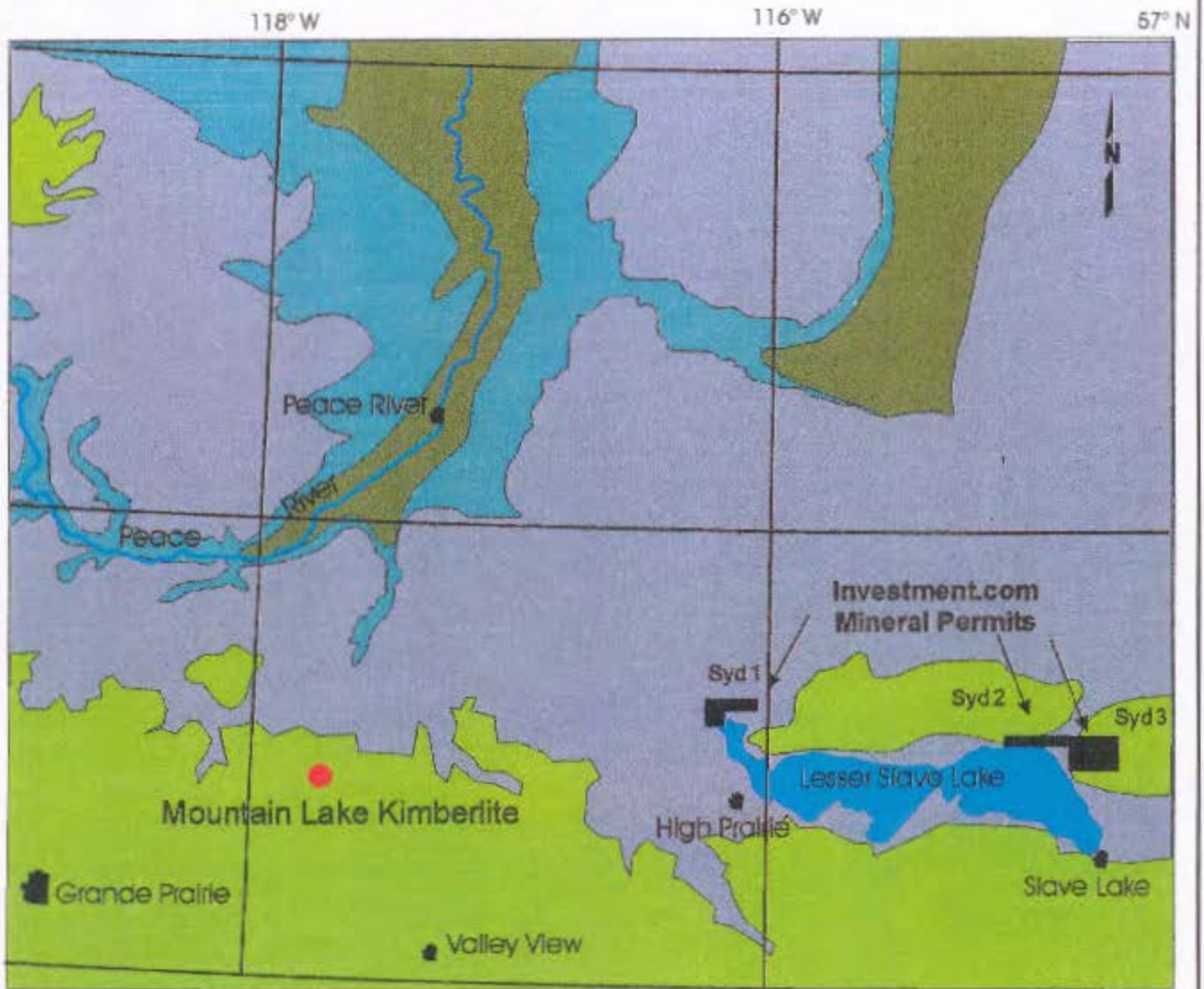


Figure 3



(Modified after Leckie *et al.*, 1997) 55° N


Legend

-  Wapiti Formation
-  Smoky Group
-  Dunvegan Formation
-  Shaftesbury Formation
-  Syd 1 Mineral Permits held by Investment.com; Identifier
-  Cities
-  Rivers

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NORTH-CENTRAL ALBERTA

**GEOLOGY OF THE SYD
MINERAL PERMIT AREA**

Scale  50 Kilometres

APEX Geoscience Ltd.

EDMONTON, ALBERTAOCTOBER, 1999

Figure 4

are present on the Syd mineral permits, they would most likely be at or very near surface if they are coeval with the Mountain Lake Kimberlite occurrence. Table 2 shows the general stratigraphy for the Lesser Slave Lake area.

Quaternary

Limited information is available with respect to the surficial geology in the area of the Syd mineral permits. What is known, is that glacial deposits mantle most of the area with few exceptions. Geomorphic structures such as glacial fluting and glacial stria indicates that glaciation encroached on the area from the north-east. Till thickness in the immediate vicinity of the Syd mineral permits ranges from 20 to 170 m. Three major buried valley systems are present in the area: (a) the High Prairie Buried Valley System; (b) the Atikameg Buried Valley System; and (c) the Doucette Buried Valley System (Vogwill, 1978) (Figure 5). As they are currently mapped, none of these buried valley systems cross within the boundaries of the Syd mineral permits (Figure 5).

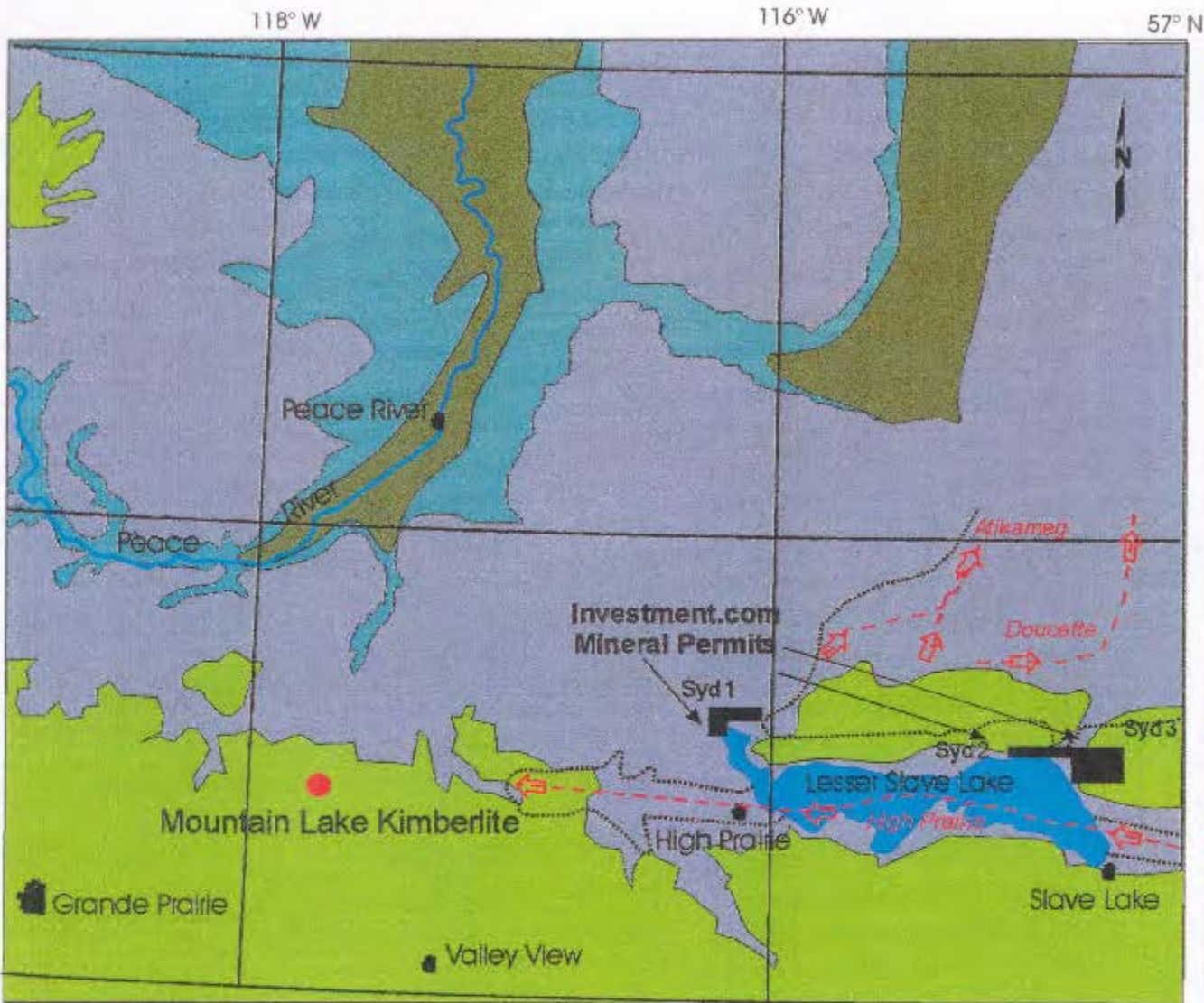
PREVIOUS EXPLORATION

There has been no known mineral exploration at or near the Syd mineral permits in the recent past. However, both petroleum and gravel exploration and development continue in the area today.

1998 EXPLORATION ACTIVITIES

Personnel and Man-Days

The personnel that were employed by APEX to conduct fieldwork within the Syd mineral permits include, Mr. Dean Besserer (party leader), Mr. L. Chin (geologist), Mr. C. Buchanan (technician) and Mr. R. Diduch (technician). Mr. M.B. Dufresne provided overall project supervision.



(Modified after Leckie et al., 1997) 55° N

Legend

- Wapiti Formation
- Smoky Group
- Dunvegan Formation
- Shaftesbury Formation
- Syd 1** Mineral Permits held by Investment.com; Identifier
- Cities
- Rivers
- Thalweg and Flow Direction
- Limit of Paleochannel

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NORTH-CENTRAL ALBERTA

LOCATION OF BURIED VALLEY SYSTEMS

Scale
0
50
 Kilometres

APEX Geoscience Ltd.

EDMONTON, ALBERTA
OCTOBER, 1999

Figure 5

TABLE 2
GENERALIZED STRATIGRAPHY OF THE LESSER SLAVE LAKE AREA*

SYSTEM	GROUP	FORMATION	MEMBER	DOMINANT LITHOLOGY
Upper Cretaceous		Wapiti		Sandstones and minor siltstone with conglomerates.
Cretaceous	Smoky			Thin bedded dark marine shales.
		Dunvegan		Marine or nonmarine and deltaic sandstones.
	Ft. St. John	Shaftesbury	Upper	Friable, dark marine shales with bentonitic layers.
			Fish Scale Zone	Fish scale bearing siltstones.
			Lower	Friable, dark marine shales with bentonitic layers.
Lower Cretaceous		Peace River	Paddy	Sandstones with minor shale and coal beds.
			Cadotte	Fine grained calcareous or sideritic sandstones.
			Harmon	Dark grey non-calcareous shales.
		Spirit River		Shales and clayey sandstones.
		Bullhead	Gething	

*Modified after Green *et al.*, (1970) and Glass, (1990).

Mr. L. Chin and Mr. C. Buchanan mobilized on February 24, 1998 to High Prairie from Edmonton where they were met by Mr. D.J. Besserer. In total, 20 days were spent conducting gridding and ground geophysical surveying within the Syd 1 and Syd 2 mineral permits (Figures 6 and 7). The crew demobilized from the field to Edmonton on March 16, 1998. On March 20, 1998 APEX and Geotronics Surveys Ltd. mobilized to Slave Lake from Edmonton to perform HLEM on selected grids and demobilized on March 24. In total,

91 field man-days were performed on behalf of Victory within the Syd 1 and Syd 2 mineral permits (Appendix 2).

Airborne Geophysical Surveys

During 1998 a high-resolution fixed-wing airborne magnetic (HRAM) survey was flown by Spectra Exploration Geoscience Corp. (Spectra) within the Syd 1,2 and 3 mineral permits. In total, the survey encompassed about 9,578 line kilometres. Data from the HRAM survey conducted on the Syd mineral permits, on behalf of Investment.com, by Spectra Exploration Geoscience Corp. (Spectra) indicate the presence of numerous prospective magnetic anomalies which do not appear to be culture or paleodrainage related. During 1998, Mr. M.B. Dufresne and Mr. D.J. Besserer selected 90 airborne magnetic anomalies from within the Syd 1 and Syd 2 mineral permits. The geophysical maps and data used include: (a) first vertical derivative; (b) calculated vertical and horizontal gradient of total magnetic intensity; (c) target enhancement or bandpass; (d) horizontal gradient of the first vertical derivative; and (e) profiles of the total magnetic field, diurnal magnetic variation, magnetic noise, topography and removed culture. Selected airborne magnetic anomalies were reviewed and prioritized. As well, another 11 anomalies were selected by Mr. D.J. Besserer from within the Syd 3 mineral permits during 1999. The geophysical maps and data used for the Syd 3 targets include: (a) first vertical derivative; (b) calculated vertical and horizontal gradient of total magnetic intensity; (c) target enhancement or bandpass, and (d) horizontal gradient of the first vertical derivative. The profiles of the total magnetic field, diurnal magnetic variation, magnetic noise, topography and removed culture were not looked at when picking the Syd 3 geophysical anomalies.

Ground Geophysical Surveys

A magnetic and Very Low Frequency Electromagnetic (VLF) ground geophysical survey was conducted using a GEM Systems, GSM-19 combined Overhauser Proton

Procession magnetometer and VLF unit. The fieldwork consisted of gridding and ground geophysics at 13 spatially separate grids, using line spacings of 100 m and station intervals of 25 m. In total of 64.6 km's of gridding and 61 km's of combined magnetic and VLF ground geophysics were conducted within the Syd 1 and Syd 2 mineral permits (Figure 6 and 7).

After evaluation of the results from the magnetic and VLF ground geophysical surveys, grids 1 to 5 within Syd 1 mineral permits and grids 6, 7 and 9 within the Syd 2 mineral permits were chosen for further ground geophysical evaluation with Horizontal Loop Electromagnetic ground geophysical surveying (HLEM). In total, 4.225 km's of HLEM was performed over nine lines, using 25 m stations (Mark, 1998). The detailed statistics of grids 1 to 13 on are presented in Appendix 3.

Seismic Data Review

Extensive proprietary seismic data from within the Syd mineral permits is currently publicly available. During March and April, 1998, Mr. M.B. Dufresne and Mr. D.J. Besserer reviewed a number of seismic profiles at Kary Data Consultants Ltd. Calgary, Alberta.

Drilling

Two rotary drill holes were completed (identifiers 8VIP001 and 8VIP002) at 2 high priority anomalies and were drilled to depths of 178.92 m and 173.73 m respectively (Figure 6). Each drillhole tested both overburden and bedrock, using an Elgin Exploration Company Limited CT350 failing rotary drill rig mounted on a Nodwell tracked carrier equipped with Chistensen 3 inch wireline coring equipment. Select samples were sent to Calgary Petrographics Limited, Calgary Alberta, the Saskatchewan Research Council, Saskatoon, Saskatchewan and Activation Laboratories Ltd., Ancaster, Ontario, for thin section, diamond indicator mineral analysis and geochemistry respectively. As well, on

June 17, 1998, one auger drill hole was completed at the same location as rotary drill hole 8VIP001 to help further explain the cause of the magnetic anomaly. The auger drill hole was drilled to a depth of 26.3 metres (Figure 6). Appendix 4 contains drill hole logs and sample information from each of the drill holes. Appendix 5 contains the analytical results.

RESULTS

Airborne Geophysical Surveys

Fifty-three airborne magnetic anomalies within the Syd 1 mineral permits, and 37 magnetic anomalies within the Syd 2 mineral permits were chosen for follow-up review (Figure 6 and 7). That is, magnetic anomalies were chosen based upon characteristics that are similar to the magnetic signatures for the Mountain Lake Kimberlite northeast of Grande Prairie (Leckie *et al.*, 1997) and other kimberlites or associated intrusive rocks in the Western Canada Sedimentary Basin of Alberta and Saskatchewan. A summary of the anomalies that underwent ground geophysical evaluation is provided in Appendix 6.

Ground Geophysical Surveys

The results from the ground geophysical surveys at grids 1, 4, 6 and 7 indicate high priority magnetic anomalies that range from 30 to 350 nT above background. Other anomalies include, 4 grids with medium priority magnetic anomalies (grids 2, 3, 5 and 12), and 5 grids with low priority magnetic anomalies (grids 8, 9, 10, 11 and 13), and these are shown in Figures 6 and 7. Magnetic contour maps for all ground evaluated magnetic anomalies are shown in Appendix 7. As well, Geophysical Exploration & Development Corporation (GEDCO) independently reviewed and provided depth estimates of eight magnetic anomalies from within the Syd 1 and 2 mineral permits (H.H. Hassan, 1998). The GEDCO report is in Appendix 8.

Results from the HLEM ground geophysical survey at grids 1 to 5 within the Syd 1 mineral permits and grids 6, 7, and 9 within the Syd 2 mineral permits were reviewed by Geotronics Surveys Ltd. (Geotronics). The response from the HLEM survey over previously defined magnetic anomalies was flat. From this data, it was concluded that if kimberlites are present that they either: (a) have a conductivity similar to the surrounding host; or (b) are at a greater depth than the depth of the penetration of the coil separation. Complete details and results from the HLEM survey along with depth calculations from seven of the magnetic anomalies are available in Mark, 1998. The Geotronics report is in Appendix 8.

Syd 1

The Syd 1 mineral permits contain 2 of the 4 high priority magnetic anomalies (grid 1; anomaly 47 and grid 4; anomaly 10) and 3 of the 4 medium priority magnetic anomalies (grid 2; anomaly 36; grid 3; anomaly 28 and grid 5; anomaly 8). A single grid contained an anomaly classified as low priority due to its association with a low swampy area (Figure 6). Further details on all of these anomalies are presented in Appendices 3 and 6.

Syd 2

The Syd 2 mineral permits contain 2 of the 4 high priority magnetic anomalies (grid 6; anomalies 54 & 55 and grid 7; anomaly 56) and a single medium priority magnetic anomaly (grid 12; anomaly 83). The Syd 2 mineral permits contain four grids with anomalies classified as low priority (Figure 7). Further details on all of these anomalies are presented in Appendices 3 and 6.

Syd 3

The Syd 3 mineral permits contain one high priority magnetic anomaly, nine low priority anomalies and one unranked anomaly. There are no grids as of yet within the Syd 3 mineral permits. That is, no ground checking has been done with respect to any of the anomalies within the Syd 3 mineral permits. Further details on all of these anomalies are presented in Appendices 3 and 6.

Seismic Data Review

A review of proprietary seismic profiles by Mr. M.B. Dufresne and Mr. D.J. Besserer, has revealed the presence of several interesting seismic disturbances. These disturbances are in the vicinity of or possibly coincident with two high priority geophysical targets within the Syd 1 mineral permits (grid 1 and grid 4) and one high priority target within the Syd 2 mineral permits (grid 7).

Drilling

The results from 84 samples submitted for geochemical analysis and 5 thin sections from drillholes 8VIP001 and 8VIP002 (Figure 6) were received. All data received showed no direct evidence to the presence of kimberlite. As well, no diamond indicator minerals were picked from basal till and/or core samples submitted to the SRC. The auger drill hole that was drilled at the 8VIP001 site to a total depth of 26.3 metres (auger98-1). A magnetite rich layer, approximately 2-3 metres in thickness was discovered and is believed to be the source of the magnetic anomaly. The drill logs for all three holes are in Appendix 4.

DISCUSSION OF FACTORS AFFECTING DIAMOND POTENTIAL

Ages of Kimberlitic Volcanism in and Adjacent to Alberta

The age of kimberlitic volcanism in Alberta is considered to be relevant to Investment.com's Syd mineral permits in the Lesser Slave Lake area, as it may have a bearing on the volcanism style and, therefore, preservation potential for pipes of different ages and styles. In addition, the age and style of kimberlitic volcanism may affect the diamond content. As an example, Early Tertiary kimberlite pipes of the Lac de Gras region, N.W.T. are typically small, carrot shaped pipes that can be highly diamondiferous. In comparison, the kimberlite pipes at Fort à la Corne, Saskatchewan and Mountain Lake, Alberta, which are mostly lenticular stratabound pyroclastic deposits are poorly diamondiferous (Scott-Smith *et al.*, 1994, Leckie *et al.*, 1997). In Alberta, evidence exists for numerous ages of alkaline volcanic activity. Dufresne *et al.*, 1996 describes the temporal relationship between Alberta volcanic events, Canadian occurrences of kimberlites and related intrusions, and selected kimberlites and related intrusions from around the world.

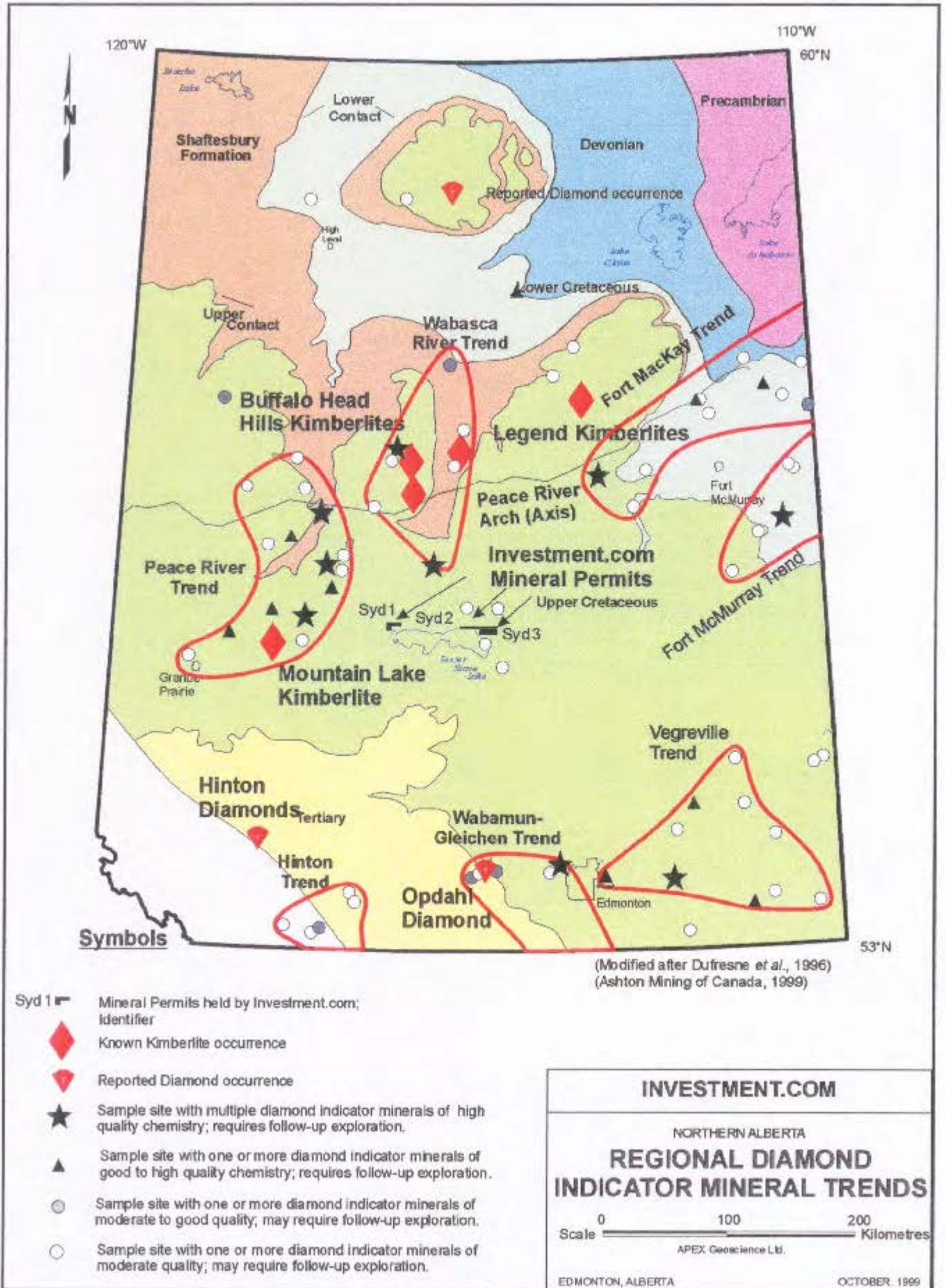
The oldest known volcanic rocks in Alberta have been dated between 1,100 and 1,580 Ma and are represented by the dioritic Moyie Sills and andesitic Purcell Lavas, which are restricted to the Clark Range in southwestern Alberta (Hunt, 1962; Hoy, 1989). Neither of these is related to any known kimberlite or related intrusion in Alberta or elsewhere in western or northern Canada. The next oldest volcanic rocks in Alberta consist of a series of Upper Devonian to Lower Mississippian alkaline mafic to ultramafic diatremes that straddle the Alberta-British Columbia (B.C.) border in southeastern B.C. and southwestern Alberta (Pell, 1987 a,b). Outside of the Rocky Mountains, no kimberlites or diatremes have been discovered in Alberta or Saskatchewan of this age, with the possible exception of diatreme material associated with the Elbow Diatreme in southern Saskatchewan (Gent, 1992). Proterozoic or Paleozoic kimberlitic intrusions are not likely to be an important

factor within any of the Syd mineral permits due to the limited extent of known kimberlites associated with this volcanic event across western and northern Canada. Also, if pipes of this age were formed within any of the Syd mineral permits they would likely have been eroded or would be deeply buried at present.

The next major group of alkaline volcanics that are evident in Alberta span from Albian to Eocene in age (approximately 113 Ma to 48 Ma). This group includes the Buffalo Head Hills kimberlites, the Mountain Lake Kimberlite, the Legend kimberlites and the Sweet Grass intrusives (Dufresne *et al.*, 1996; Montello Resources Ltd., 1998; Ashton Mining of Canada Inc., 1997).

Buffalo Head Hills Kimberlites

To date, Ashton has reported the discovery of 32 kimberlite pipes in the Buffalo Head Hills (Figure 9) area in the northwest quarter of NTS 1:250 000 scale map area 84B (Carlson *et al.*, 1998). Ashton has also reported that many of the pipes are diamondiferous yielding initial diamond counts encouraging enough to warrant mini-bulk sampling with further results pending (Ashton Mining of Canada Inc., 1999). Diamond evaluation for all of the pipes is in the very early stages of exploration, however, Ashton has reported that the K14 pipe has yielded an average grade of 36 carats per 100 tonnes in an 8 tonne sample collected by drilling (Ashton Mining of Canada Inc., 1997). The Buffalo Head Hills kimberlite field is roughly centered over: (a) the axis of the Peace River Arch (PRA); (b) one of the largest residual gravity lows in Alberta; (c) an area of highly thickened crust based upon seismic refraction data; and (d) the magnetically high Buffalo Head Craton, an interpreted Proterozoic accreted terrane (Dufresne *et al.*, 1996). The pipes are in an area of structurally complex basement that is reflected in the Phanerozoic sediments and by the number of surrounding oil and gas fields. The kimberlite pipes display characteristics such as stratigraphically conformable pyroclastic aprons and deep paleo-weathering profiles that



Symbols

- Syd 1 Mineral Permits held by Investment.com; Identifier
- Known Kimberlite occurrence
- Reported Diamond occurrence
- Sample site with multiple diamond indicator minerals of high quality chemistry; requires follow-up exploration.
- Sample site with one or more diamond indicator minerals of good to high quality chemistry; requires follow-up exploration.
- Sample site with one or more diamond indicator minerals of moderate to good quality; may require follow-up exploration.
- Sample site with one or more diamond indicator minerals of moderate quality; may require follow-up exploration.

(Modified after Dufresne *et al.*, 1996)
 (Ashton Mining of Canada, 1999)

53°N

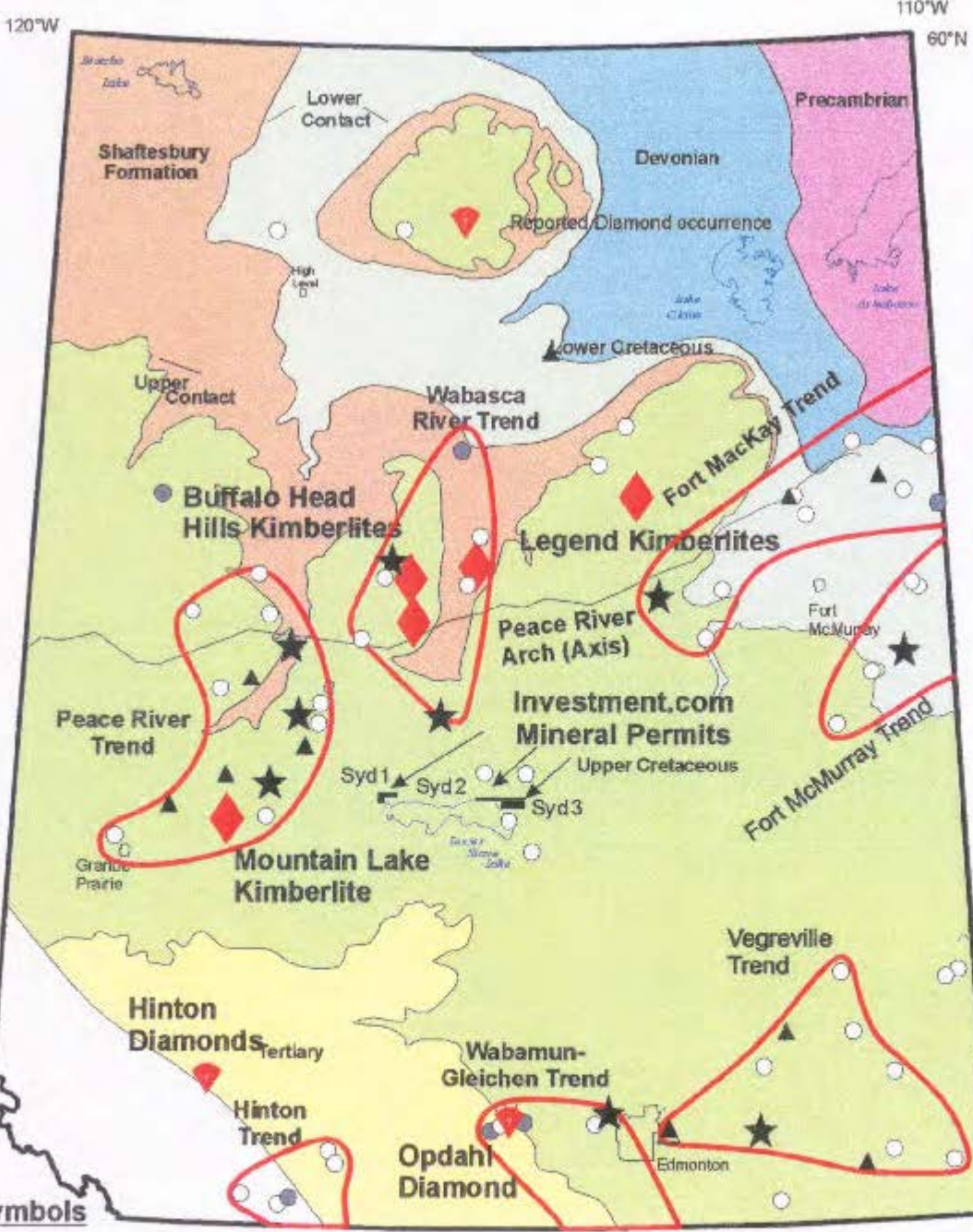


Figure 9

indicate the pipes are roughly coeval with the sedimentary units by which they are hosted (Hillier *pers. comm.*, 1997).

Dating of the Buffalo Head Hills kimberlites was based upon U-Pb geochronology of perovskite which gave dates of 86 +/-3 and 88 +/-5 million years, approximately Middle Santonian in age (Carlson *et al.*, 1998). This date is supported by the conformable pyroclastic aprons and the deeply developed weathering profiles. The weathering profiles in the Ashton pipes may also indicate that some of the pipes were exposed during uplift of the PRA. This theory is based upon missing stratigraphic units in the nearby Birch Mountains which were eroded sometime between the Early Turonian (91 Ma) and the Early Campanian (84 Ma) (Dufresne *et al.*, In Preparation).

Ashton has reported the presence of olivine dominated tuffaceous volcanic kimberlite with crater and diatreme facies, and a full suite of diamond indicator minerals including: olivine (forsterite); chromium pyrope; calcic knorringite; chrome diopside; augite; enstatite; and various chrome spinels (primarily aluminous magnesian chromites). Ashton has also reported that their Buffalo Head Hills pipes contain significant numbers of G10 peridotitic pyrope garnets (Carlson *et al.*, 1998). If pipes of a similar age and style to that of the Ashton pipes are within the Syd mineral permits, they should be preserved but may be, in places, at depths of greater than 275m.

Mountain Lake Kimberlite

Monopros' Mountain Lake Kimberlite located 75 km northeast of Grande Prairie (Leckie *et al.*, 1997), is hosted by sediments of the Wapiti Formation (Figure 8; Table 2). The Mountain Lake Kimberlite is about 75 Ma, and is roughly age equivalent to Late Cretaceous bentonites in the Belly River Formation. The Mountain Lake pipe is poorly diamondiferous and appears to be dominantly comprised of a conformable succession of

pyroclastics within the sediments and may in fact be stratabound or lenticular in shape as opposed to a traditional carrot shaped pipe (*Ibid*). If pipes of this age and style of volcanism are within the Syd mineral permits, they should be relatively near surface but retain good preservation potential with current levels of erosion.

Legend Kimberlites

Montellos' Legend property kimberlites are located north-east of the Ashtons' Buffalo Head Hills kimberlites but are not underlain by what is considered to be the BHT. The eight kimberlites discovered to date have been dated between 71 and 82 Ma. The kimberlites commonly contain olivine and picro-ilmenites whereas chromites and chrome diopsides are rare. Atleast one of the kimberlites is weakly diamondiferous (Montello Resources Ltd., 1998, 1999).

Sweet Grass Arch Intrusives

Tertiary intrusions in the vicinity of the Sweetgrass Arch of southern Alberta represent the youngest generation of known alkaline volcanic activity in Alberta (Williams and Dyer, 1930; Russel and Landes, 1940; Irish, 1971). The Sweetgrass intrusions are potassic in composition and were dated at 49 to 54 Ma by Burwash *et al.*, (1962); Taylor *et al.*, (1964); Folinsbee *et al.*, (1965); Kjarsgaard, (1994 a, b); and Kjarsgaard and Davis, (1994). Kjarsgaard (1994 a) suggested that these intrusions are predominantly minettes and have low diamond potential due to their overall geochemistry and contained indicator minerals. Although the intrusions found thus far in southern Alberta have low diamond potential, the highly diamondiferous Lac de Gras kimberlites of the Northwest Territories are predominantly Early Tertiary in age, therefore the potential for kimberlites of this age should not be ignored.

CONCLUSIONS

The results from the 1998 winter exploration program indicate that several grids contain magnetic anomalies and that these anomalies have the potential to be a kimberlitic or intrusive body. High priority anomalies not already drill tested, should be the initial targets tested in any future drilling program. All three of Victory's Syd mineral permits are underlain by a favorable geological and tectonic framework with some similarities to the framework underlying the Buffalo Head Hills and Mountain Lake kimberlites. Therefore, each of the permit areas has at least moderate to high potential to host kimberlitic pipes based upon: (a) results reported by Ashton to date for their diamondiferous kimberlites in the Buffalo Head Hills area; (b) existing preliminary geological information for each of the Syd mineral permits such as, the presence of favourable basement terranes, favourable structures and strata which were deposited coeval or prior to the intrusion of other kimberlites in Western Canada; and (c) presence of highly prospective magnetic anomalies from airborne geophysical surveys over the Syd 1, 2 and Syd 3 mineral permits and ground geophysical surveys over the Syd 1 and Syd 2 mineral permits. A systematic sampling program at or near the Syd mineral permits will help to prioritize both specific magnetic anomalies and clusters of anomalies for follow-up exploration.

If kimberlites are discovered on any of the Syd mineral permits, the potential for discovery of diamonds in the pipes is considered to be high on the basis of the tectonic framework that underlies each of the three properties. Once a kimberlite field is discovered, the risk for finding an economic diamondiferous pipe can be significantly lowered. As an example, the Lac de Gras kimberlite field in the Northwest Territories, which is comprised of about an estimated 200 kimberlite pipes, is ovoid in shape and is about 65 km wide and 170 km long (EnerSource, 1997). Approximately half of the pipes are diamondiferous and it is likely that diamonds will be produced from between 10 to 20 pipes over time. Exploration within the Lac de Gras kimberlite field has been highly

successful since the initial pipes were discovered in 1991 (M.B. Dufresne, *pers. comm.*, 1999).

RECOMMENDATIONS

A three phase follow-up exploration program is recommended for the Syd mineral permits to continue the evaluation of potential for the presence of diamondiferous kimberlites or related intrusions.

Phase 1

This should consist of a regional, systematic sampling program. Heavy mineral panned concentrate samples, stream sediment samples, till samples and soil samples should be collected at or in a down-ice location from magnetic anomalies. The estimated cost to conduct the **Phase 1** program is about \$60,000, based on a two week truck supported sampling program.

Phase 2

This should consist of further ground geophysical surveying and evaluation at magnetic targets selected from the airborne geophysical survey data within the Syd mineral permits. **Phase 2** may commence after results from **Phase 1** have been received. The estimated cost to conduct the **Phase 2** program is about \$50,000, based on about 20 field days of gridding and geophysical surveying, but is dependant on the number and size of the grids completed.

Phase 3

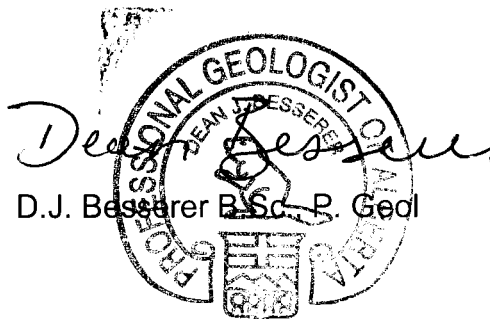
Drill testing high to medium priority magnetic targets. The purpose of the drilling will be to establish the source of the magnetic anomalies, as well as to obtain samples of the basal till and bedrock for diamond indicator mineral and geochemical testing. The estimated cost to conduct the **Phase 3**

program is about \$150,000 but is dependant on the number of holes drilled and the depth of each hole.

Phase 3 may commence during or subsequent to both **Phase 1** and **Phase 2**. A statement of expenditures for the fieldwork completed do date is included in Appendix 9.

PERMIT TO PRACTICE APEX Geoscience Ltd. Signature <i>[Handwritten Signature]</i> Date <i>October 29, 1999</i> PERMIT NUMBER: P-5824 The Association of Professional Engineers, Geologists and Geophysicists of Alberta

APEX Geoscience Ltd.



October, 1999
Edmonton, Alberta

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CERTIFICATION

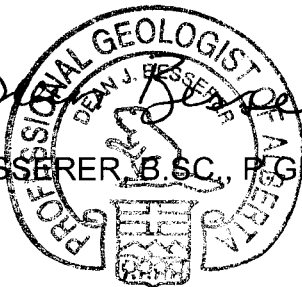
I, D.J. BESSERER OF [REDACTED], EAST YORK, ONTARIO, CERTIFY AND DECLARE THAT I AM A GRADUATE OF THE UNIVERSITY OF WESTERN ONTARIO, LONDON WITH A B.SC. DEGREE IN GEOLOGY (1994). I AM REGISTERED AS A PROFESSIONAL GEOLOGIST WITH THE ASSOCIATION OF PROFESSIONAL ENGINEERS, GEOLOGISTS AND GEOPHYSICISTS OF ALBERTA.

MY EXPERIENCE INCLUDES SERVICE AS A CONTRACT GEOLOGICAL ASSISTANT WITH THE MINISTRY OF NORTHERN DEVELOPMENT AND MINES, ONTARIO, FROM 1991 TO 1992 AND THE GEOLOGICAL SURVEY OF CANADA, OTTAWA IN 1993. SINCE 1994, I HAVE CONDUCTED AND DIRECTED PROPERTY EXAMINATIONS AND EXPLORATION PROGRAMS ON BEHALF OF COMPANIES AS A GEOLOGIST IN THE EMPLOY OF APEX GEOSCIENCE LTD.

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D.J. BESSERER, B.Sc., P.GEOL.

OCTOBER, 1999
EDMONTON, ALBERTA



APPENDIX 1

DETAILED LAND HOLDINGS DESCRIPTION

AGREEMENT D E T A I L R E P O R T

LAND STATUS AUTOMATED SYSTEM
MINERAL RESOURCES BASIC AGREEMENT SEARCH

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----- DESIGNATED REPRESENTATIVE -----

NAME AND ADDRESS	STATUS: ACTIVE
800-6322 001 KIZAN, WILLIAM WALTER 6607 103 AVE NW EDMONTON	ALBERTA T6A 0T9

----- CURRENT PARTICIPANTS -----

LAST TRANSFER DATE:	TRANSFER PENDING: N
CLIENT ID RELATION STATUS	INTEREST
800-6322 001 OWNER ACTIVE KIZAN, WILLIAM WALTER	33.3400000
801-3877 001 OWNER ACTIVE DAHROUGE, JODY RICHARD	33.3300000
804-7687 001 OWNER ACTIVE HAJDUK, RICHARD BOGDAN	33.3300000

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REPORT DATE: 1998-04-27 TIME: 16:35:58

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LAND DESCRIPTION:
5-05-074; 1-36

METALLIC AND INDUSTRIAL MINERALS

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001 6607 103 AVE NW
EDMONTON ALBERTA T6A 0T9

----- CURRENT PARTICIPANTS -----

LAST TRANSFER DATE: TRANSFER PENDING: N

CLIENT ID	RELATION	STATUS	INTEREST
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NAME AND ADDRESS STATUS: ACTIVE
800-6322 KIZAN, WILLIAM WALTER
001 6607 103 AVE NW
EDMONTON ALBERTA T6A 0T9

----- CURRENT PARTICIPANTS -----

LAST TRANSFER DATE: TRANSFER PENDING: N
CLIENT ID RELATION STATUS INTEREST
800-6322 001 OWNER ACTIVE 33.3400000
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HAJDUK, RICHARD BOGDAN

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05-074: 24, 25, 36

METALLIC AND INDUSTRIAL MINERALS

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LAND STATUS AUTOMATED SYSTEM
MINERAL RESOURCES BASIC AGREEMENT SEARCH

METALLIC AND INDUSTRIAL MINERALS PERMIT

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SALE/ORDER IN COUNCIL DATE:		ORIGINAL EXPIRY DATE:	2007-12-15
PAYMENT ORIGIN:	APPL. - MET. AND IND. MINERALS	ORIGINAL AREA:	8,943.0000
		PAYMENT AMOUNT:	\$0.00

----- R E L A T E D A G R E E M E N T S / A M E N D M E N T S -----

DATE	DESCRIPTION	AGREEMENT TYPE NUMBER	TYPE DESCRIPTION
1997-12-15	ORIGINATING APPLICATION	A93 971529	APPL-MET. AND IND. MINERALS PERMIT

----- D E S I G N A T E D R E P R E S E N T A T I V E -----

NAME AND ADDRESS	STATUS: ACTIVE	
800-6322 KIZAN, WILLIAM WALTER 001 6607 103 AVE NW EDMONTON		ALBERTA T6A 0T9

----- C U R R E N T P A R T I C I P A N T S -----

LAST TRANSFER DATE:	TRANSFER PENDING: N		
CLIENT ID	RELATION	STATUS	INTEREST
800-6322 001	OWNER	ACTIVE	33.3400000
KIZAN, WILLIAM WALTER			
801-3877 001	OWNER	ACTIVE	33.3300000
DAHROUGE, JODY RICHARD			
804-7687 001	OWNER	ACTIVE	33.3300000
HAJDUK, RICHARD BOGDAN			

ENR-LSAS
REPORT DATE: 1998-04-27 TIME: 16:35:58

LAND STATUS AUTOMATED SYSTEM
MINERAL RESOURCES BASIC AGREEMENT SEARCH

LSMC0420
PAGE = 2

AGREEMENT TYPE/NUMBER: 093 9397120020 METALLIC AND INDUSTRIAL MINERALS PERMIT

----- LAND / ZONE DESCRIPTION -----

LAND DESCRIPTION:
5-05-074: 3,4,5, NWP PORTION(S) LYING OUTSIDE SEED PRODUCTION TIMBER STAND
FOREST RESEARCH PLOT
NE 16N, SE, SWP PORTION(S) LYING OUTSIDE LESSER SLAVE LAKE PROVINCIAL
PARK
7,8,9 PORTION(S) LYING OUTSIDE SEED PRODUCTION TIMBER STAND
FOREST RESEARCH PLOT
W 18N, SE, SWP PORTION(S) LYING OUTSIDE SEED PRODUCTION TIMBER STAND
FOREST RESEARCH PLOT;
9,10,15,23,26,29-32,34,35
5-05-075: 3,5,6E,18N,SE,19,20,29-34

METALLIC AND INDUSTRIAL MINERALS

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* NO WAY RESPONSIBLE FOR LOSS OR DAMAGE ARISING FROM ANY ERRORS OR OMISSIONS IN THIS SEARCH AND ANY PERSON MAKING *
* USE OF OR RELYING IN ANY WAY ON THIS SEARCH HEREBY RELEASES HER MAJESTY THE QUEEN IN RIGHT OF ALBERTA FROM ANY *
* LIABILITY FOR SUCH LOSS OR DAMAGE. *

*** END OF AGREEMENT ***

*** END OF REPORT ***

LAND STATUS AUTOMATED SYSTEM
MINERAL RESOURCES BASIC AGREEMENT SEARCH

LSMC0420
PAGE = 1

ENR-LSAS
REPORT DATE: 1998-04-27 TIME: 16:35:58

AGREEMENT TYPE/NUMBER: 093-9397120021 METALLIC AND INDUSTRIAL MINERALS PERMIT

----- CURRENT STATUS -----

STATUS:	ACTIVE	LAST UPDATE DATE:	1998-01-29
AGREEMENT AREA:	8,704.0000	TERM:	10 YRS 0 MTHS 0 DAYS
TERM DATE:	1997-12-15		
CURRENT EXPIRY DATE:	2007-12-15	CANCELLATION TYPE:	
CANCELLATION DATE:		SECURITY DEPOSIT AMOUNT:	\$0.00
SECURITY TYPE:		ENCUMBRANCE COUNT:	0
OFFSET COMPENSATION:	N		
WELL COUNT:	0		

----- ORIGIN DATA -----

SALE/ORDER IN COUNCIL DATE:		ORIGINAL EXPIRY DATE:	2007-12-15
PAYMENT ORIGIN:	APPL. - MET. AND IND. MINERALS	ORIGINAL AREA:	8,704.0000
		PAYMENT AMOUNT:	\$0.00

----- RELATED AGREEMENTS / AMENDMENTS -----

DATE	DESCRIPTION	AGREEMENT TYPE NUMBER	TYPE DESCRIPTION
1997-12-15	ORIGINATING APPLICATION	A93 971530	APPL-MET. AND IND. MINERALS PERMIT

----- DESIGNATED REPRESENTATIVE -----

NAME AND ADDRESS	STATUS: ACTIVE
800-6322 001 KIZAN, WILLIAM WALTER 6607 103 AVE NW EDMONTON	ALBERTA T6A 0T9

----- CURRENT PARTICIPANTS -----

LAST TRANSFER DATE:	TRANSFER PENDING: N		
CLIENT ID	RELATION	STATUS	INTEREST
800-6322 001	OWNER	ACTIVE	33.3400000
	KIZAN, WILLIAM WALTER		
801-3877 001	OWNER	ACTIVE	33.3300000
	DAHROUGE, JODY RICHARD		
804-7687 001	OWNER	ACTIVE	33.3300000
	HAJDUK, RICHARD BOGDAN		

LAND STATUS AUTOMATED SYSTEM
MINERAL RESOURCES BASIC AGREEMENT SEARCH

LSMC0420
PAGE = 2

ENR-LSAS
REPORT DATE: 1998-04-27 TIME: 16:35:58

AGREEMENT TYPE/NUMBER: 093 9397120021 METALLIC AND INDUSTRIAL MINERALS PERMIT

----- LAND / ZONE DESCRIPTION -----

LAND DESCRIPTION:
5-03-075: 1-18;20-30;32-36
METALLIC AND INDUSTRIAL MINERALS

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* LIABILITY FOR SUCH LOSS OR DAMAGE. *

*** END OF AGREEMENT ***

ENR-LSAS
REPORT DATE: 1998-03-31 TIME: 13:55:11

LAND STATUS ESTIMATED SYSTEM
MINERAL RESOURCES BASIC AGREEMENT SEARCH

LSMC042U
PAGE = 1

AGREEMENT TYPE/NUMBER: 093 9397060150 METALLIC AND INDUSTRIAL MINERALS PERMIT

----- C U R R E N T S T A T U S -----

STATUS:	ACTIVE	LAST UPDATE DATE:	1997-08-15
AGREEMENT AREA:	5,002.2700	TERM:	10 YRS 0 MTHS 0 DAYS
TERM DATE:	1997-06-30		
CURRENT EXPIRY DATE:	2007-06-30	CANCELLATION TYPE:	
CANCELLATION DATE:		SECURITY DEPOSIT AMOUNT:	\$0.00
SECURITY TYPE:		ENCUMBRANCE COUNT:	0
OFFSET COMPENSATION:	N		
WELL COUNT:	0		

----- O R I G I N D A T A -----

SALE/ORDER IN COUNCIL DATE:		ORIGINAL EXPIRY DATE:	2007-06-30
PAYMENT ORIGIN:	APPL. - MET. AND IND. MINERALS	ORIGINAL AREA:	5,002.2700
		PAYMENT AMOUNT:	\$0.00

----- R E L A T E D A G R E E M E N T S / A M E N D M E N T S -----

DATE	DESCRIPTION	AGREEMENT TYPE NUMBER	TYPE DESCRIPTION
1997-06-30	ORIGINATING APPLICATION	A93 97493	APPL-MET. AND IND. MINERALS PERMIT

----- D E S I G N A T E D R E P R E S E N T A T I V E -----

NAME AND ADDRESS	STATUS: ACTIVE
800-6322 001 KIZAN, WILLIAM WALTER 6607 103 AVE NW EDMONTON	ALBERTA T6A 0T9

----- C U R R E N T P A R T I C I P A N T S -----

LAST TRANSFER DATE:	TRANSFER PENDING: N
CLIENT ID RELATION STATUS	INTEREST
800-6322 001 OWNER ACTIVE KIZAN, WILLIAM WALTER	100.0000000

----- L A N D / Z O N E D E S C R I P T I O N -----

LAND DESCRIPTION:
5-15-076: 1N,SE,SWP PORTION(S) LYING OUTSIDE BUFFALO BAY WETLANDS FOR
TOMORROW PROJECT.;
2NP,SEP PORTION(S) LYING OUTSIDE BUFFALO BAY WETLANDS FOR
TOMORROW PROJECT.;

ENR-LSAS
REPORT DATE: 1998-03-31 TIME: 13:55:11

LAND STATUS AUTOMATED SYSTEM
MINERAL RESOURCES BASIC AGREEMENT SEARCH

LSMC0420
PAGE = 2

AGREEMENT TYPE/NUMBER: 093 9397060150 METALLIC AND INDUSTRIAL MINERALS PERMIT

----- LAND / ZONE DESCRIPTION -----

CONTINUED ...

7SP PORTION(S) LYING OUTSIDE BUFFALO BAY WETLANDS FOR
TOMORROW PROJECT AND PORTION(S) LYING OUTSIDE LOT 89 OF
THE BIG PRAIRIE SETTLEMENT.,
NWP PORTION(S) LYING OUTSIDE LOTS 88 AND 89 OF THE BIG
PRAIRIE SETTLEMENT.,
NEP PORTION(S) LYING OUTSIDE BUFFALO BAY WETLANDS FOR
TOMORROW PROJECT AND PORTION(S) LYING OUTSIDE LOTS 88
AND 89 OF THE BIG PRAIRIE SETTLEMENT.;
8NWP PORTION(S) LYING OUTSIDE BUFFALO BAY WETLANDS FOR
TOMORROW PROJECT.;
11SP,NEP PORTION(S) LYING OUTSIDE BUFFALO BAY WETLANDS FOR
TOMORROW PROJECT.;
12P PORTION(S) LYING OUTSIDE BUFFALO BAY WETLANDS FOR
TOMORROW PROJECT.;
13SP PORTION(S) LYING OUTSIDE BUFFALO BAY WETLANDS FOR
TOMORROW PROJECT.,
NWP PORTION(S) LYING OUTSIDE BUFFALO BAY WETLANDS FOR
TOMORROW PROJECT, LOT 61 OF THE HEART RIVER AND SALT
PRAIRIE SETTLEMENT, HALCRO INDIAN RESERVE NO. 150C AND
THE HUDSON'S BAY COMPANY RESERVE.,
NEP PORTION(S) LYING OUTSIDE LOT 61 OF THE HEART RIVER AND
SALT PRAIRIE SETTLEMENT AND PORTION(S) LYING OUTSIDE
HALCRO INDIAN RESERVE NO. 150C.;
14NP PORTION(S) LYING OUTSIDE BUFFALO BAY WETLANDS FOR
TOMORROW PROJECT.;
17NP,SWP PORTION(S) LYING OUTSIDE BUFFALO BAY WETLANDS FOR
TOMORROW PROJECT.;
18SP PORTION(S) LYING OUTSIDE LOT 88 OF THE BIG PRAIRIE
SETTLEMENT.,
N;19;20N,SEP PORTION(S) LYING OUTSIDE BUFFALO BAY WETLANDS FOR
TOMORROW PROJECT.,
SW;21WP PORTION(S) LYING OUTSIDE BUFFALO BAY WETLANDS FOR
TOMORROW PROJECT.,
NEP PORTION(S) LYING OUTSIDE BUFFALO BAY WETLANDS FOR
TOMORROW PROJECT AND PORTION(S) LYING OUTSIDE PAKASHAN
INDIAN RESERVE NO. 150D.;
22SEP,NWP PORTION(S) LYING OUTSIDE BUFFALO BAY WETLANDS FOR
TOMORROW PROJECT.,
NE;23N,SE,SWP PORTION(S) LYING OUTSIDE BUFFALO BAY WETLANDS FOR
TOMORROW PROJECT.;
24SEP PORTION(S) LYING OUTSIDE HALCRO INDIAN RESERVE NO. 150C.,
SWP PORTION(S) LYING OUTSIDE HALCRO INDIAN RESERVE NO. 150C
AND PORTION(S) LYING OUTSIDE LOT 61 OF THE HEART RIVER
AND SALT PRAIRIE SETTLEMENT.,
NWP PORTION(S) LYING OUTSIDE HALCRO INDIAN RESERVE NO. 150C.,
NE;25;26;27E,WP PORTION(S) LYING OUTSIDE PAKASHAN INDIAN RESERVE NO.
150D.;
28SP,NEP PORTION(S) LYING OUTSIDE PAKASHAN INDIAN RESERVE NO.
150D.;
29P PORTION(S) LYING OUTSIDE PAKASHAN INDIAN RESERVE NO.
150D.;

LAND STATUS AUTOMATED SYSTEM
MINERAL RESOURCES BASIC AGREEMENT SEARCH

LSMC0420
PAGE = 3

ENR-LSAS
REPORT DATE: 1998-03-31 TIME: 13:55:11

AGREEMENT TYPE/NUMBER: 093 9397060150 METALLIC AND INDUSTRIAL MINERALS PERMIT

----- L A N D / Z O N E D E S C R I P T I O N -----

CONTINUED ...

30;31;32N,SEP PORTION(S) LYING OUTSIDE PAKASHAN INDIAN RESERVE NO.
150D..
SW;33SP PORTION(S) LYING OUTSIDE PAKASHAN INDIAN RESERVE NO.
150D..
N;34-36

METALLIC AND INDUSTRIAL MINERALS

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*** END OF AGREEMENT ***

LAND STATUS AUTOMATED SYSTEM
MINERAL RESOURCES BASIC AGREEMENT SEARCH

ENR-LSAS
REPORT DATE: 1998-03-31 TIME: 13:55:11

LSMC0420
PAGE = 1

AGREEMENT TYPE/NUMBER: 093 9397060151 METALLIC AND INDUSTRIAL MINERALS PERMIT

----- C U R R E N T S T A T U S -----

STATUS:	ACTIVE	LAST UPDATE DATE:	1997-08-15
AGREEMENT AREA:	9,216.0000	TERM:	10 YRS 0 MTHS 0 DAYS
TERM DATE:	1997-06-30		
CURRENT EXPIRY DATE:	2007-06-30		
CANCELLATION DATE:		CANCELLATION TYPE:	
SECURITY TYPE:		SECURITY DEPOSIT AMOUNT:	\$0.00
OFFSET COMPENSATION:	N	ENCUMBRANCE COUNT:	0
WELL COUNT:	0		

----- O R I G I N D A T A -----

SALE/ORDER IN COUNCIL DATE:		ORIGINAL EXPIRY DATE:	2007-06-30
PAYMENT ORIGIN:	APPL. - MET. AND IND. MINERALS	ORIGINAL AREA:	9,216.0000
		PAYMENT AMOUNT:	\$0.00

----- R E L A T E D A G R E E M E N T S / A M E N D M E N T S -----

DATE	DESCRIPTION	AGREEMENT TYPE NUMBER	TYPE DESCRIPTION
1997-06-30	ORIGINATING APPLICATION	A93 97494	APPL-MET. AND IND. MINERALS PERMIT

----- D E S I G N A T E D R E P R E S E N T A T I V E -----

NAME AND ADDRESS	STATUS: ACTIVE	
800-6322 KIZAN, WILLIAM WALTER 001 6607 103 AVE NW EDMONTON	ALBERTA	T6A 0T9

----- C U R R E N T P A R T I C I P A N T S -----

LAST TRANSFER DATE:	TRANSFER PENDING: N
CLIENT ID RELATION STATUS	INTEREST
800-6322 001 OWNER ACTIVE KIZAN, WILLIAM WALTER	100.0000000

----- L A N D / Z O N E D E S C R I P T I O N -----

LAND DESCRIPTION:
5-13-077: 1-36

ENR-LSAS
REPORT DATE: 1998-03-31 TIME: 13:55:11

AGREEMENT TYPE/NUMBER: 093 9397060151 METALLIC AND INDUSTRIAL MINERALS PERMIT

----- L A N D / Z O N E D E S C R I P T I O N -----

CONTINUED ...

METALLIC AND INDUSTRIAL MINERALS

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*** END OF AGREEMENT ***

AGREEMENT TYPE/NUMBER: 093 9397060152 METALLIC AND INDUSTRIAL MINERALS PERMIT

----- C U R R E N T S T A T U S -----

STATUS:	ACTIVE	LAST UPDATE DATE:	1997-08-15
AGREEMENT AREA:	9,216.0000	TERM:	10 YRS 0 MTHS 0 DAYS
TERM DATE:	1997-06-30		
CURRENT EXPIRY DATE:	2007-06-30	CANCELLATION TYPE:	
CANCELLATION DATE:		SECURITY DEPOSIT AMOUNT:	\$0.00
SECURITY TYPE:		ENCUMBRANCE COUNT:	0
OFFSET COMPENSATION:	N		
WELL COUNT:	0		

----- O R I G I N D A T A -----

SALE/ORDER IN COUNCIL DATE:		ORIGINAL EXPIRY DATE:	2007-06-30
PAYMENT ORIGIN:	APPL. - MET. AND IND. MINERALS	ORIGINAL AREA:	9,216.0000
		PAYMENT AMOUNT:	\$0.00

----- R E L A T E D A G R E E M E N T S / A M E N D M E N T S -----

DATE	DESCRIPTION	AGREEMENT TYPE NUMBER	TYPE DESCRIPTION
1997-06-30	ORIGINATING APPLICATION	A93 97495	APPL-MET. AND IND. MINERALS PERMIT

----- D E S I G N A T E D R E P R E S E N T A T I V E -----

NAME AND ADDRESS	STATUS: ACTIVE	
800-6322 001 KIZAN, WILLIAM WALTER 6607 103 AVE NW EDMONTON	ALBERTA	T6A 0T9

----- C U R R E N T P A R T I C I P A N T S -----

LAST TRANSFER DATE:	TRANSFER PENDING: N
CLIENT ID RELATION STATUS	INTEREST
800-6322 001 OWNER ACTIVE KIZAN, WILLIAM WALTER	100.0000000

----- L A N D / Z O N E D E S C R I P T I O N -----

LAND DESCRIPTION:
5-14-077: 1-36

ENR-LSAS
REPORT DATE: 1998-03-31 TIME: 13:55:11

LAND STATUS AUTOMATED SYSTEM
MINERAL RESOURCES BASIC AGREEMENT SEARCH

LSMC0420
PAGE = 2

AGREEMENT TYPE/NUMBER: 093 9397060152 METALLIC AND INDUSTRIAL MINERALS PERMIT

----- L A N D / Z O N E D E S C R I P T I O N -----

CONTINUED ...

METALLIC AND INDUSTRIAL MINERALS

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*** END OF AGREEMENT ***

ENR-LSAS
REPORT DATE: 1998-03-31 TIME: 13:55:11

LAND STATUS AUTOMATED SYSTEM
MINERAL RESOURCES BASIC AGREEMENT SEARCH

LSMC0420
PAGE = 1

AGREEMENT TYPE/NUMBER: 093 9397060153 METALLIC AND INDUSTRIAL MINERALS PERMIT

----- C U R R E N T S T A T U S -----

STATUS:	ACTIVE	LAST UPDATE DATE:	1997-08-15
AGREEMENT AREA:	9,216.0000	TERM:	10 YRS 0 MTHS 0 DAYS
TERM DATE:	1997-06-30		
CURRENT EXPIRY DATE:	2007-06-30		
CANCELLATION DATE:		CANCELLATION TYPE:	
SECURITY TYPE:		SECURITY DEPOSIT AMOUNT:	\$0.00
OFFSET COMPENSATION:	N	ENCUMBRANCE COUNT:	0
WELL COUNT:	0		

----- O R I G I N D A T A -----

SALE/ORDER IN COUNCIL DATE:		ORIGINAL EXPIRY DATE:	2007-06-30
PAYMENT ORIGIN:	APPL. - MET. AND IND. MINERALS	ORIGINAL AREA:	9,216.0000
		PAYMENT AMOUNT:	\$0.00

----- R E L A T E D A G R E E M E N T S / A M E N D M E N T S -----

DATE	DESCRIPTION	AGREEMENT TYPE NUMBER	TYPE DESCRIPTION
1997-06-30	ORIGINATING APPLICATION	A93 97496	APPL-MET. AND IND. MINERALS PERMIT

----- D E S I G N A T E D R E P R E S E N T A T I V E -----

NAME AND ADDRESS	STATUS: ACTIVE
800-6322 001 KIZAN, WILLIAM WALTER 6607 103 AVE NW EDMONTON	ALBERTA TGA 0T9

----- C U R R E N T P A R T I C I P A N T S -----

LAST TRANSFER DATE:	TRANSFER PENDING: N
CLIENT ID RELATION STATUS	INTEREST
800-6322 001 OWNER ACTIVE KIZAN, WILLIAM WALTER	100.0000000

----- L A N D / Z O N E D E S C R I P T I O N -----

LAND DESCRIPTION:
5-15-077: 1-36

ENR-LSAS
REPORT DATE: 1998-03-31 TIME: 13:55:11

LAND STATUS AUTOMATED SYSTEM
MINERAL RESOURCES BASIC AGREEMENT SEARCH

LSMC0420
PAGE = 2

AGREEMENT TYPE/NUMBER: 093 9397060153 METALLIC AND INDUSTRIAL MINERALS PERMIT

----- L A N D / Z O N E D E S C R I P T I O N -----

CONTINUED ...

METALLIC AND INDUSTRIAL MINERALS

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* LIABILITY FOR SUCH LOSS OR DAMAGE. *

*** END OF AGREEMENT ***

LAND STATUS AUTOMATED SYSTEM
MINERAL RESOURCES BASIC AGREEMENT SEARCH

LSMC0420
PAGE = 1

ENR-LSAS
REPORT DATE: 1998-03-31 TIME: 13:55:11

AGREEMENT TYPE/NUMBER: 093 9397120016 METALLIC AND INDUSTRIAL MINERALS PERMIT

----- C U R R E N T S T A T U S -----

STATUS:	ACTIVE	LAST UPDATE DATE:	1998-01-22
AGREEMENT AREA:	6,079.0000	TERM:	10 YRS 0 MTHS 0 DAYS
TERM DATE:	1997-12-15		
CURRENT EXPIRY DATE:	2007-12-15		
CANCELLATION DATE:		CANCELLATION TYPE:	
SECURITY TYPE:		SECURITY DEPOSIT AMOUNT:	\$0.00
OFFSET COMPENSATION:	N	ENCUMBRANCE COUNT:	0
WELL COUNT:	0		

----- O R I G I N D A T A -----

SALE/ORDER IN COUNCIL DATE:		ORIGINAL EXPIRY DATE:	2007-12-15
PAYMENT ORIGIN:	APPL. - MET. AND IND. MINERALS	ORIGINAL AREA:	6,079.0000
		PAYMENT AMOUNT:	\$0.00

----- R E L A T E D A G R E E M E N T S / A M E N D M E N T S -----

DATE	DESCRIPTION	AGREEMENT TYPE NUMBER	TYPE DESCRIPTION
1997-12-15	ORIGINATING APPLICATION	A93 971525	APPL-MET. AND IND. MINERALS PERMIT

----- D E S I G N A T E D R E P R E S E N T A T I V E -----

NAME AND ADDRESS	STATUS: ACTIVE
800-6322 KIZAN, WILLIAM WALTER 001 6607 103 AVE NW EDMONTON	ALBERTA T6A 0T9

----- C U R R E N T P A R T I C I P A N T S -----

LAST TRANSFER DATE:	TRANSFER PENDING: N
CLIENT ID RELATION STATUS	INTEREST
800-6322 001 OWNER ACTIVE KIZAN, WILLIAM WALTER	100.0000000

----- L A N D / Z O N E D E S C R I P T I O N -----

LAND DESCRIPTION:

5-06-075: 19E,SWP PORTION(S) LYING OUTSIDE LESSER SLAVE LAKE.;
20-24;25NE;28-33;34SP PORTION(S) LYING OUTSIDE SURFACE MATERIALS REMOVAL.,
N;35SP PORTION(S) LYING OUTSIDE SURFACE MATERIALS REMOVAL.,
N;36

ENR-L
REPORT DATE: 1998-03-31 TIME: 13:55:11

LAND STATUS AUTOMATED SYSTEM
MINERAL RESOURCE BASIC AGREEMENT SEARCH

LSMC0420
PAGE = 2

AGREEMENT TYPE/NUMBER: 093 9397120016 METALLIC AND INDUSTRIAL MINERALS PERMIT

----- L A N D / Z O N E D E S C R I P T I O N -----

CONTINUED ...

5-07-075: 24NP,SEP PORTION(S) LYING OUTSIDE LESSER SLAVE LAKE.;
25NE,L11,L13,L14;31N;32N;33N;34N,L7,L8;35;36
5-08-075: 31N,SW;32N;33N;34N,SE;35;36N,L4-L8

METALLIC AND INDUSTRIAL MINERALS

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* LIABILITY FOR SUCH LOSS OR DAMAGE. *

*** END OF AGREEMENT ***

*** END OF REPORT ***

APPENDIX 2

FIELD PERSONNEL AND MAN-DAYS

APPENDIX 2

FIELD PERSONNEL AND MAN-DAYS

NAME AND ADDRESS	DATES	MAN-DAYS
Dean Besserer #1-52122 Range Road 210 Sherwood Park, Alberta	February 23, 27, 28 March 28 to April 12	20
Lonnie Chin 2512-106st Edmonton, Alberta	February 23 to March 16	22
Dan Vernet #301 10018-83 Ave Edmonton, Alberta	March 28 to April 12 April 29	17
Chris Buchanan 28 Mill Road Edmonton, Alberta	February 23 to March 3 March 20 to March 24	14
Roman Diduch #1-11515-41 Ave Edmonton, Alberta	February 27 to March 16	18
TOTAL		91

APPENDIX 3

DETAILED GIRD STATISTICS

APPENDIX 4

DRILL LOGS

QUICKLOG (Anomaly 47)
DRILL HOLE - 8VIP001
(APEX Project 98217)

Footage Unit-Comments

0-80	Poor recovery, sandy till
80-120	Sand
120-130	Sandy/silty shale
130-495	Shale
495-515	Sand
515-587	shale
587	End of Hole

NOTE: Other small changes within major stratigraphic units

247	1 inch carbonate
279-280	Carbonate
329-330	two clasts? Abundant coal/woody fragments
341	Mud?sand clast
432	Small 0.5 inch bentonite - whitish/gray, waxy
433	1 Inch bentonite
434	6 inch bentonite
460-461	Carbonate
462.5	1 inch carbonate
467	thin carbonate unit
480	1 inch carbonate
494-495	6 or 7 clasts within the shale
506-507	Carbonate
538-539	Carbonate
430-475	Carbon rich shale, abundant shelly material (fizzes with acid throughout) Shale is sulphidic towards EOH

Drill Log
Drill Hole - Auger98-1

Meterage	Unit-Comments
0-26.3	Sand/ till* (may contain coaly intervals; rusty in places; pebble layers are common)

*magnetite rich lenses exist in the till.

VICTORY DRILLING SAMPLE SUMMARY

HOLE#	SAMPLE LABEL	SAMPLE INTERVAL		SAMPLE TYPE	DESCRIPTION
		FROM	TO		
1	8DVP01-001	31.77	31.97	Geochem	silty sandstone (sst) light grey, moderate to poorly bedded or laminated
1	8DVP01-002	36.64	36.84	Geochem	silty sst light grey, moderate to poorly bedded or laminated
1	8DVP01-003	46.68	46.88	Geochem	medium grey moderately laminated silty shale and siltstones
1	8DVP01-004	47.27	47.47	Geochem	medium grey well bioturbated silty shale
1	8DVP01-005	50.77	50.97	Geochem	medium grey well bioturbated silty shale immediately underlying lmst bed
1	8DVP01-006	54.66	54.86	Geochem	medium grey well bioturbated silty shale
1	8DVP01-007	60.76	60.96	Geochem	medium to dark grey silty shale with minor to moderate bioturbation
1	8DVP01-008	66.86	67.06	Geochem	grey brown poorly to moderately bioturbated poorly bedded silty shale
1	8DVP01-009	72.95	73.15	Geochem	grey brown poorly to moderately bioturbated poorly bedded silty shale
1	8DVP01-010	79.05	79.25	Geochem	grey brown moderately well to well bedded shale with minor silt
1	8DVP01-011	85.14	85.34	Geochem	fine crystalline limestone and overlying well bedded grey brown shale
1	8DVP01-012	91.24	91.44	Geochem	poorly bedded med brown silty shale
1	8DVP01-013	97.33	97.53	Geochem	poorly bedded med brown silty shale
1	8DVP01-014	103.43	103.63	Geochem	poorly bedded med brown silty shale
1	8DVP01-015	109.53	109.73	Geochem	med brown silty shale with pebble lense
1	8DVP01-016	115.62	115.82	Geochem	poorly bedded med brown silty shale
1	8DVP01-017	121.72	121.92	Geochem	poorly bedded med brown silty shale
1	8DVP01-018	127.82	128.02	Geochem	poorly bedded med brown silty shale
1	8DVP01-019	133.91	134.11	Geochem	poorly bedded med brown silty shale
1	8DVP01-020	139	139.2	Geochem	medium grey brown silty shale with abundant mollusc shell fragments
1	8DVP01-021	143.06	143.26	Geochem	medium to light grey massive siltstones
1	8DVP01-022	149.15	149.35	Geochem	massive to poorly bedded light grey siltstones
1	8DVP01-023	151.61	151.91	Geochem	dark green brown sulfidic, well sorted sandstones, 20 to 25% sulfide grains
1	8DVP01-024	154.65	154.94	Geochem	grey green well sorted sst with < 5% sulfide grains
1	8DVP01-025	155.77	156.02	Geochem	bioturbated sandy, med grey siltstones
1	8DVP01-026	160.35	160.55	Geochem	med to dark grey silty shale with minor carbonaceous clasts
1	8DVP01-027	167.44	167.64	Geochem	poorly bedded med brown silty shale
1	8DVP01-028	173.54	173.74	Geochem	poorly bedded med brown silty shale
1	8DVP01-029	178.72	178.92	Geochem	poorly bedded med brown silty shale
1	8DVP01-030	131.62	132.02	Geochem	steel grey and white 5 cm interval of waxy bentonite in dark brown black shale
2	8DVP02-001	62.32	62.52	Geochem	poorly bedded bioturbated medium grey siltstone
2	8DVP02-002	64.63	64.83	Geochem	poorly bedded bioturbated medium grey siltstone
2	8DVP02-003	65.38	65.58	Geochem	dark grey-brown silty, poorly bioturbated silty shale
2	8DVP02-004	67.56	67.76	Geochem	dark grey-brown silty, poorly bioturbated silty shale

HOLE#	SAMPLE LABEL	SAMPLE INTERVAL		SAMPLE TYPE	DESCRIPTION
		FROM	TO		
2	8DVP02-005	71.15	71.35	Geochem	dark grey-brown silty, poorly biotrubated silty shale
2	8DVP02-006	73.17	73.37	Geochem	dark grey-brown silty, poorly biotrubated silty shale
2	8DVP02-007	75.2	75.4	Geochem	dark grey-brown silty, poorly biotrubated silty shale
2	8DVP02-008	77.24	77.44	Geochem	dark grey-brown silty, poorly biotrubated silty shale
2	8DVP02-009	79.38	79.58	Geochem	dark grey-brown silty, poorly biotrubated silty shale
2	8DVP02-010	80.88	81.08	Geochem	dark grey-brown silty, poorly biotrubated silty shale
2	8DVP02-011	83.35	83.55	Geochem	dark grey-brown silty, poorly biotrubated silty shale
2	8DVP02-012	87.01	87.21	Geochem	dark grey-brown silty, poorly biotrubated silty shale
2	8DVP02-013	88.39	88.59	Geochem	dark grey-brown silty, poorly biotrubated silty shale
2	8DVP02-014	90.39	90.59	Geochem	medium grey massive siltstone
2	8DVP02-015	92.44	92.64	Geochem	medium grey massive siltstone
2	8DVP02-016	96.57	96.77	Geochem	medium grey massive siltstone
2	8DVP02-017	98.54	98.74	Geochem	massive medium grey brwon silty shale
2	8DVP02-018	101.07	101.27	Geochem	massive medium grey brwon silty shale, with centimeter scale sand and pebble lense
2	8DVP02-019	103.07	103.27	Geochem	moderately well bedded med grey silty shale
2	8DVP02-020	103.76	103.96	Geochem	moderately well bedded med grey silty shale
2	8DVP02-021	105.76	105.96	Geochem	moderately well bedded med grey silty shale
2	8DVP02-022	107.72	107.92	Geochem	moderately well bedded med grey silty shale
2	8DVP02-023	109.73	109.93	Geochem	moderately well bedded med grey silty shale
2	8DVP02-024	111.73	111.93	Geochem	moderately well bedded med grey silty shale
2	8DVP02-025	113.82	114.02	Geochem	moderately well bedded med grey silty carbonaceous shale
2	8DVP02-026	115.82	116.02	Geochem	moderately well bedded med grey silty carbonaceous shale
2	8DVP02-027	117.82	118.02	Geochem	moderately well bedded med grey silty carbonaceous shale
2	8DVP02-028	120.02	120.22	Geochem	well laminated balck brwon biuminous shale
2	8DVP02-029	121.98	122.18	Geochem	med grey brown, moderately to poorly bedded silty shale
2	8DVP02-030	123.92	124.1	Geochem	med grey brown, moderately to poorly bedded silty shale
2	8DVP02-031	125.92	126.12	Geochem	med grey brown, moderately to poorly bedded silty shale
2	8DVP02-032	128.3	128.5	Geochem	med grey brown, moderately to poorly bedded silty shale
2	8DVP02-033	130.3	130.5	Geochem	med grey brown, moderately to poorly bedded silty shale
2	8DVP02-034	131.19	131.39	Geochem	med grey poorly bedded sand siltstone
2	8DVP02-035	133.51	133.76	Geochem	dark green brown sulfidic, well sorted sandstones, 30 to 35% sulfide grains
2	8DVP02-036	136.17	136.37	Geochem	dark green brown sulfidic, well sorted sandstones, 30 to 35% sulfide grains
2	8DVP02-037	137.51	137.71	Geochem	medium grey-brown sandy siltstone
2	8DVP02-038	139.51	139.71	Geochem	poorly bedded dark grey-brown silty shale
2	8DVP02-039	141.71	141.91	Geochem	poorly bedded dark grey-brown silty shale
2	8DVP02-040	143.76	143.96	Geochem	poorly bedded dark grey-brown silty shale with abundant mollusc shell fragments
2	8DVP02-041	146.55	146.75	Geochem	dark grey-brown poor to moderately bedded silty shale

HOLE#	SAMPLE LABEL	SAMPLE INTERVAL		SAMPLE TYPE	DESCRIPTION
		FROM	TO		
2	8DVP02-042	148.55	148.75	Geochem	dark grey-brown poor to moderately bedded silty shale
2	8DVP02-043	150.52	150.72	Geochem	dark grey-brown moderately well bedded shale with minor silt
2	8DVP02-044	152.39	152.59	Geochem	dark grey-brown moderately well bedded shale with minor silt
2	8DVP02-045	154.39	154.59	Geochem	dark grey-brown moderately well bedded shale with minor silt
2	8DVP02-046	156.45	156.65	Geochem	dark grey-brown moderately well bedded shale with minor silt
2	8DVP02-047	158.5	158.7	Geochem	dark grey-brown moderately well bedded shale with minor silt
2	8DVP02-048	160.5	160.7	Geochem	dark grey-brown moderately well bedded shale with minor silt
2	8DVP02-049	162.55	162.75	Geochem	dark grey-brown moderately well bedded shale with minor silt
2	8DVP02-050	166.59	166.79	Geochem	dark grey-brown moderately well bedded shale with minor silt
2	8DVP02-051	168.64	168.84	Geochem	dark grey-brown moderately well bedded shale with minor silt
2	8DVP02-052	171.42	171.62	Geochem	dark grey-brown moderately well bedded shale with minor silt
2	8DVP02-053	173.42	173.62	Geochem	dark grey-brown moderately well bedded shale with minor silt
2	8DVP02-054	112.05	112.32	Geochem	steel grey and white 5 cm interval of waxy bentonite in dark brown black shale
1	8VIP01-001	20.65	24.38	Diam Indicator	All recovered till
1	8VIP01-002	26.47	34.53	Diam Indicator	Sandstones and silty sandstones at the top of bedrock
2	8VIP02-001	2.7	7.01	Diam Indicator	Yellow brown to brown black clay and silt rich tills, clasts range from 0.5 to 6cm in diameter, granitic and lithic clasts, abundance increases with depth.
2	8VIP02-002	24.82	32.75	Diam Indicator	Dark brown black sandy clay till with mixed granitic and clastic clasts
2	8VIP02-003	53.96	57.4	Diam Indicator	med brownish grey sand and silty clay, numerous clasts of cm scale, granitic and clastic
2	8VIP02-004	62.32	66.41	Diam Indicator	med to dark grey siltstone and grey brown shale

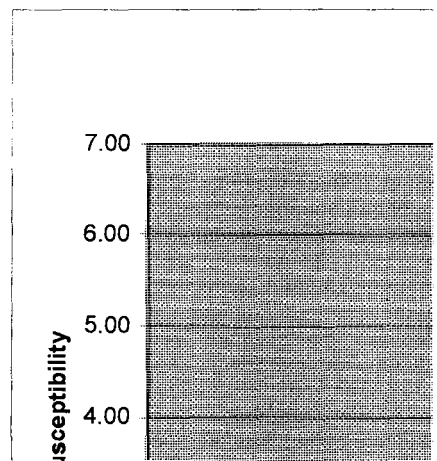
DRILLHOLE 8VIP001

— KAPPANSTER

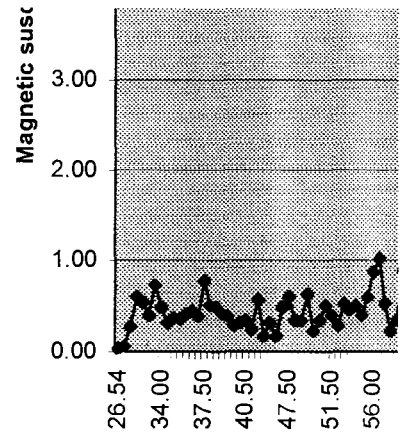
Point (m)	Reading	Notes
26.54	0.04	Green sand
27.33	0.06	Sand
29.50	0.28	Muddy sand
32.00	0.60	Shale
32.50	0.54	"
33.00	0.40	"
33.50	0.73	"
34.00	0.49	"
34.50	0.32	"
35.00	0.37	"
35.50	0.36	"
36.00	0.41	"
36.50	0.45	"
37.00	0.39	"
37.50	0.78	"
37.75	0.51	Sandy lens
38.00	0.49	Shale
38.50	0.42	"
39.00	0.39	"
39.50	0.29	"
40.15	0.32	Calcite Concretion
40.50	0.35	Shale
41.00	0.24	"
41.50	0.57	"
42.00	0.17	"
42.50	0.32	"
45.50	0.17	Ground core
47.35	0.49	Sandy lens?
47.50	0.60	Shale
48.00	0.34	Shale
48.50	0.34	Ground shale
49.50	0.63	Shale
50.00	0.23	Calcite Concretion
50.50	0.35	Shale
51.00	0.51	"
51.50	0.40	"
52.00	0.29	"
52.50	0.53	"
53.00	0.46	"
53.50	0.51	"
54.00	0.40	"
54.50	0.60	"
56.00	0.87	"
56.50	1.02	"
57.00	0.53	"
57.50	0.23	"
60.50	0.34	"
61.00	0.88	"
61.50	0.67	"
62.00	0.68	"
62.50	0.40	"
63.00	0.45	"
63.50	0.48	"
64.00	0.84	"
65.50	1.99	Slightly ground core
66.50	0.53	Shale
67.00	0.98	"
67.50	0.60	"
68.00	0.60	"
68.50	0.85	"
69.00	1.29	"
69.50	1.70	"
70.00	0.63	"
70.50	0.54	"

71.00	0.53	"
71.50	0.99	"
72.00	0.90	"
72.50	0.53	"
73.00	0.48	"
74.00	0.46	"
74.50	0.51	"
75.00	0.46	"
75.50	0.45	"
76.00	0.46	"
76.50	0.39	"
77.00	0.46	"
77.50	0.51	"
78.00	0.54	"
78.50	0.49	"
79.00	0.54	"
80.00	0.21	"
80.50	0.53	"
81.00	1.35	"
81.50	0.42	"
82.00	0.46	"
83.75	0.37	"
84.50	0.32	"
85.00	0.46	"
85.25	0.31	Calcite Concretion
86.00	0.46	Shale
86.50	0.67	"
87.00	0.60	"
87.50	2.09	"
88.00	0.84	"
89.00	1.01	"
89.50	0.24	"
90.00	0.20	"
90.50	0.22	"
91.00	0.23	"
92.00	0.18	"
92.50	0.23	"
93.00	0.43	"
93.50	0.17	"
94.00	0.24	"
95.00	0.21	"
95.50	0.10	"
96.00	0.50	"
96.50	0.21	"
97.00	0.18	"
97.50	0.50	"
98.00	0.28	"
98.50	0.24	"
99.00	0.29	"
99.50	0.26	"
100.00	0.26	"
100.50	0.26	"
101.00	0.26	"
101.50	0.21	"
102.00	0.20	"
102.50	0.21	"
103.00	0.43	"
103.50	0.39	"
105.50	0.21	"
106.00	0.23	"
106.50	0.32	"
107.00	0.20	"
107.50	0.31	"
108.00	0.29	"
108.50	0.42	"
109.00	0.46	"
109.50	0.23	"

110.50	0.24	"
111.00	0.49	"
111.50	0.17	"
112.00	0.23	"
112.50	0.29	"
112.75	0.23	Calcite Concretion
113.00	0.15	Shale
113.50	0.23	"
114.00	1.77	Calcite Concretion w sulphides
114.50	0.12	Shale
115.00	0.24	"
115.50	0.31	"
116.00	0.12	"
116.50	0.21	"
117.00	0.12	"
117.50	0.15	"
118.00	0.24	"
118.50	0.31	"
119.50	0.10	"
120.00	0.23	"
120.50	0.21	"
121.00	0.20	"
121.50	0.24	"
122.50	0.20	"
123.00	0.24	"
123.50	0.40	Shale with fossiis
124.50	0.17	Shale
125.50	0.15	"
126.00	0.20	"
126.50	0.06	"
127.00	0.23	"
127.50	0.24	"
128.00	0.68	"
129.00	0.31	"
129.50	0.21	"
130.00	0.23	"
130.50	0.21	"
131.00	0.29	"
131.50	0.26	"
131.65	0.45	1cm bentonite
132.00	0.67	Shale with fossiis
132.25	0.09	10cm bentonite
132.50	0.60	Shale
133.00	0.12	"
133.50	0.24	"
134.00	0.39	"
134.50	0.14	"
135.00	0.14	"
135.50	0.15	"
136.00	0.23	"
136.50	0.14	"
137.00	0.06	Shale with innoceramus
137.50	0.10	Shale
138.00	0.23	"
138.50	0.13	"
139.00	0.18	"
139.50	0.14	"
140.00	0.14	"
140.50	0.18	"
140.80	0.12	Calcite Concretion
141.50	0.29	Shale w many innoc.
142.25	0.26	Shale w many innoc.
142.50	0.23	Shale
143.00	0.21	"
145.00	0.17	"
145.50	0.17	"
146.00	0.21	"



147.00	0.18	"
147.50	0.15	"
148.00	0.12	"
148.50	0.23	"
149.00	0.34	"
149.50	0.14	"
150.00	0.28	"
150.75	0.15	Sandy shale
151.25	0.15	"
152.00	0.18	"
154.00	0.14	"
154.50	0.35	"
155.00	0.14	"
155.50	0.06	Sandy shale
156.00	0.14	"
156.50	0.20	"
157.50	0.15	"
158.00	0.14	"
159.00	0.18	"
159.50	0.12	"
160.00	6.25	Shale w many fossils and sulphide replacement
162.00	0.15	Shale
162.50	0.17	"
163.00	0.23	"
163.50	0.09	"
164.00	0.18	"
164.25	0.20	Calcite Concretion
164.50	0.21	Shale
165.50	0.07	"
166.00	0.06	"
166.50	0.09	"
167.00	0.14	"
167.50	0.13	"
168.50	0.21	"
169.00	0.18	"
169.50	0.20	"
170.00	0.24	"
170.50	0.23	"
171.00	0.15	"
171.50	0.20	"
172.00	0.21	"
172.50	0.18	"
173.00	0.21	"
173.50	0.24	"
174.00	0.17	"
174.50	0.20	"
175.00	0.24	"
175.50	0.24	"
176.00	0.23	"
176.50	0.23	"
177.00	0.17	"
177.50	0.23	"
178.00	0.14	"
178.50	0.20	"



8VIP002 Magnetic Susceptibility

Point (m)	Reading	Notes
3.00	0.35	Muddy till
3.50	0.54	"
4.00	0.24	"
5.00	0.29	"
5.50	0.57	"
6.00	0.37	"
6.50	0.28	"
7.00	0.65	"
7.50	0.24	"
8.00	0.26	"
8.50	0.24	"
9.00	0.24	"
10.50	0.39	"
11.00	0.29	"
11.50	0.21	"
12.00	0.23	"
14.00	0.48	"
14.50	0.37	"
15.00	0.39	"
15.50	0.31	"
16.00	0.32	"
16.50	0.32	"
17.00	0.23	"
17.50	0.28	"
18.00	0.32	"
19.00	0.31	"
19.50	0.17	"
20.00	0.40	"
20.50	0.39	"
21.00	0.35	"
21.50	0.57	Sandy interval
22.00	0.37	Muddy till
22.50	0.29	"
23.00	0.21	"
23.50	0.39	Very little sand
24.00	0.88	Muddy with thin sand lenses
24.25	3.58	"
24.50	9.59	Very muddy till
25.00	3.13	"
25.50	1.90	Sandy till
26.00	1.09	"
26.25	4.43	Thin beige lenses in muddy till
26.35	1.34	5cm sandy (coarse + grey)
26.50	14.00	Muddy till
26.75	5.13	Muddy till
29.25	0.03	Quartzite boulder
29.50	2.23	Silty till
30.00	1.23	"
30.45	0.67	"
32.10	0.74	"
32.50	0.32	Sandy till
33.00	0.37	"
33.50	0.37	"
34.00	0.04	Ground core- muddy till
34.50	0.23	"
35.00	0.29	"
35.50	0.40	"
37.00	32.00	Sandy (coarse) till, minor pebbles
37.50	0.34	"
38.00	0.46	"
38.50	0.23	"
39.00	0.40	"
39.50	0.39	"
40.00	0.29	"
40.50	0.35	"
41.00	0.37	"
41.50	0.29	"
42.00	0.35	"
42.50	0.35	"
43.00	0.39	"
43.50	0.34	"
44.00	0.48	"
45.00	0.39	"
45.50	0.31	"
46.00	0.35	"
46.50	1.57	Quartzite pebbles
47.00	0.29	Sandy till with minor pebbles
47.50	0.35	"
48.00	0.34	"

48.50	0.25	"
49.00	0.34	"
49.50	0.32	"
50.00	0.34	"
50.50	0.34	"
51.00	0.32	"
51.50	0.24	"
52.50	0.40	"
53.00	0.37	"
53.50	8.26	Sandy with diorite (?) pebbles
53.75	0.34	Sandy till with minor pebbles
54.00	1.07	"
54.50	0.34	"
55.00	0.32	"
55.25	0.34	"
55.50	0.15	15cm quartzite cobble
56.00	0.37	"
56.50	0.35	"
57.00	0.35	"
57.50	0.40	Very silty with pebbles.
60.00	0.67	"
60.50	0.56	"
62.00	0.34	Ground core- muddy till
62.50	0.93	Silty till/shale(?) w sandy lenses.
62.75	1.18	"
63.00	0.55	"
63.50	0.81	"
64.00	0.70	"
64.50	0.67	Carbonate concretion
65.00	0.51	V. silty shale
65.50	0.76	"
65.75	0.76	Ground core, pebbles
66.00	0.90	Silty shale
66.50	0.21	Shale with minor silt
67.00	0.46	"
67.50	0.20	"
68.00	0.23	"
68.50	0.29	"
69.00	0.12	"
69.50	0.21	"
70.00	0.23	"
70.50	0.20	"
71.00	0.21	"
71.50	0.28	"
72.00	0.21	"
72.50	0.24	"
73.00	0.21	"
73.50	0.24	"
74.00	0.29	"
74.50	0.24	"
75.00	0.63	Carbonate concretion
75.50	0.21	Shale with minor silt
76.00	0.23	"
76.50	0.24	Muddy shale
77.00	0.28	"
77.50	0.29	"
78.00	0.34	"
78.50	0.28	"
79.00	0.32	"
79.50	0.26	"
80.00	0.23	"
80.50	0.24	"
81.00	0.24	"
81.50	0.28	"
82.00	0.28	"
83.00	0.35	"
83.50	0.37	"
84.00	0.23	"
84.50	0.29	"
85.00	0.31	"
87.00	0.39	"
87.50	0.63	Shale with sand and pebbles
88.00	0.63	"
88.50	0.26	Shale
89.00	0.21	"
89.50	0.17	Shale with silt lenses and minor py.
90.00	0.34	"
90.50	0.29	"
90.75	0.81	15cm lithified unit
91.00	0.46	Shale with silt lenses
91.50	0.39	"
92.00	0.42	"

APPENDIX 5

ANALYTICAL REPORTS

ACTLABS

ACTIVATION LABORATORIES LTD

Invoice No.: 15338
Work Order: 15450
Invoice Date: 07-MAY-98
Date Submitted: 22-APR-98
Your Reference: 98217
Account Number: 1449

PEX GEOSCIENCE LTD.
SUITE 200, 9797 - 45 AVE.
EDMONTON, ALBERTA
T6E 5V8

ATTN: D. VERNET

CERTIFICATE OF ANALYSIS

8 ROCKS(PREP.REV1) were submitted for analysis.

The following analytical packages were requested. Please see current fee schedule for elements and detection limits.

REPORT 15338 CODE 1H INAA(INAA.REV1)
REPORT 15338 B TOTAL DIGESTION ICP

This report may only be reproduced in its entirety without the express consent of ACTIVATION LABS. If no instructions were received or will be received within 90 days from the date of this report, excess material will be discarded. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

CERTIFIED BY :



DR E.HOFFMAN/GENERAL MANAGER

RECEIVED
MAY 13 1998
ACTIVATION LABS

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA %	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SN %	SR %	TA PPM	TH PPM
8VDH01-001	<2	<5	9.1	580	<0.5	<1	24	92	5	3.31	5	<1	<5	<1	0.89	<20	83	1.0	15	<3	<0.01	<0.05	<0.5	5.7
8VDH01-002	4	<5	9.4	650	<0.5	2	14	110	4	4.24	5	<1	<5	3	0.92	86	78	1.2	15	<3	<0.02	<0.05	<0.5	6.0
8VDH01-003	<2	<5	12	670	<0.5	1	13	95	4	3.36	5	<1	<5	<1	0.90	<20	69	1.1	13	<3	<0.01	<0.05	<0.5	5.9
8VDH01-004	3	<5	9.9	590	<0.5	<1	11	95	4	3.62	5	<1	<5	2	0.77	<20	45	1.0	13	<3	<0.01	<0.05	<0.5	5.7
8VDH01-005	4	<5	11	940	1.4	6	11	89	4	3.27	4	<1	<5	<1	0.69	<20	48	1.1	13	<3	<0.01	<0.05	<0.5	5.4
8VDH01-006	<2	<5	13	770	1.0	2	11	89	5	3.32	6	<1	<5	4	0.77	<20	76	1.2	13	<3	<0.01	<0.05	<0.5	6.5
8VDH01-007	3	<5	19	710	<0.5	2	10	83	4	3.13	6	<1	<5	2	0.76	<20	69	1.1	11	<3	<0.01	<0.05	<0.5	7.4
8VDH01-008	7	<5	19	770	1.2	<1	14	99	4	4.24	6	<1	<5	<1	0.85	<20	70	1.1	14	<3	<0.01	<0.05	<0.5	6.5
8VDH01-009	4	<5	13	840	<0.5	2	14	98	5	3.76	5	<1	<5	4	0.95	<20	68	1.2	15	<3	<0.01	0.09	<0.5	6.1
8VDH01-010	<2	<5	8.9	970	<0.5	<1	14	89	6	4.36	5	<1	<5	3	0.82	<20	82	1.2	16	<3	<0.01	<0.05	<0.5	6.9
8VDH01-011	<2	<5	5.2	570	<0.5	25	6	45	3	2.46	2	<1	<5	<1	0.44	<20	49	0.5	6.7	<3	<0.01	<0.05	<0.5	2.7
8VDH01-012	2	<5	32	980	2.5	<1	14	100	9	3.71	5	<1	<5	3	0.56	<20	100	0.9	16	<3	<0.01	<0.05	1.4	9.4
8VDH01-013	5	<5	19	870	2.2	<1	11	100	8	3.06	7	<1	<5	3	0.53	<20	100	0.8	13	<3	<0.01	<0.05	<0.5	9.6
8VDH01-014	4	<5	22	680	1.7	<1	15	95	6	3.26	6	<1	<5	<1	0.58	84	94	0.8	13	<3	<0.01	<0.05	<0.5	9.1
8VDH01-015	<2	<5	36	800	1.9	1	14	91	6	3.62	6	<1	<5	<1	0.52	<20	100	1.2	12	<3	<0.01	<0.05	2.2	9.5
8VDH01-016	<2	<5	20	800	1.9	<1	13	95	7	3.84	6	<1	<5	3	0.56	<20	100	1.0	14	<3	<0.01	<0.05	1.7	9.7
8VDH01-017	<2	<5	19	910	2.8	<1	14	110	8	3.58	6	<1	<5	6	0.55	<20	100	1.2	15	<3	<0.01	<0.05	<0.5	9.5
8VDH01-018	<2	<5	14	790	3.5	<1	12	100	9	3.71	5	<1	<5	<1	0.47	<20	130	1.1	15	<3	<0.01	0.05	<0.5	9.4
8VDH01-019	4	<5	47	770	7.0	2	16	71	6	4.78	5	<1	<5	73	0.42	58	65	3.8	11	12	<0.01	<0.05	1.4	9.1
8VDH01-020	<2	<5	44	820	7.9	3	16	91	8	4.80	5	<1	<5	65	0.39	<20	98	3.9	13	5	<0.01	<0.05	<0.5	9.5
8VDH01-021	<2	<5	25	690	1.6	<1	14	94	7	3.57	7	<1	<5	4	0.51	<20	100	0.7	13	<3	<0.01	<0.05	<0.5	9.3
8VDH01-022	<2	<5	27	730	1.9	<1	14	100	7	2.97	7	<1	<5	3	0.48	63	89	0.8	13	<3	<0.01	<0.05	1.2	9.3
8VDH01-023	2	<5	30	450	1.5	<1	7	50	3	2.20	7	<1	<5	<1	0.24	<20	63	0.4	4.7	<3	<0.01	<0.05	<0.5	4.9
8VDH01-024	<2	<5	26	530	1.1	<1	6	59	3	1.80	9	<1	<5	2	0.26	<20	47	0.5	4.8	<3	<0.01	<0.05	<0.5	5.8
8VDH01-025	2	<5	38	720	1.7	<1	9	85	5	3.48	8	<1	<5	2	0.37	<20	65	0.6	8.8	<3	<0.01	<0.05	<0.5	8.6
8VDH01-026	<2	<5	31	730	2.2	<1	11	97	7	2.73	6	<1	<5	<1	0.41	57	110	0.8	12	<3	<0.01	<0.05	<0.5	9.2
8VDH01-027	2	<5	28	760	2.2	<1	12	110	8	2.76	7	<1	<5	4	0.42	<20	120	0.7	14	<3	<0.01	<0.05	0.9	10
8VDH01-028	<2	<5	26	730	2.6	2	12	100	8	2.85	6	<1	<5	3	0.43	<20	110	0.7	14	<3	<0.01	<0.05	0.9	10
8VDH01-029	6	<5	34	720	2.8	<1	14	100	7	3.16	6	<1	<5	4	0.41	68	110	0.8	14	<3	<0.01	<0.05	1.5	10
8VDH02-001	3	<5	11	600	<0.5	<1	11	79	4	3.78	5	<1	<5	<1	0.57	56	60	1.0	13	<3	<0.01	<0.05	<0.5	5.4
8VDH02-002	<2	<5	16	630	<0.5	2	12	93	6	3.77	5	<1	<5	<1	0.59	68	69	1.2	14	<3	<0.01	<0.05	1.0	6.8
8VDH02-003	4	<5	29	720	1.8	<1	12	99	8	3.21	5	<1	<5	<1	0.35	<20	110	1.1	15	<3	<0.01	<0.05	1.1	9.5
8VDH02-004	4	<5	17	760	2.8	<1	11	96	7	3.25	7	<1	<5	6	0.38	<20	87	0.9	14	<3	<0.01	<0.05	0.9	9.6
8VDH02-005	2	<5	17	790	1.9	<1	10	110	9	3.14	6	<1	<5	<1	0.42	<20	120	0.9	15	<3	<0.01	<0.05	1.2	10
8VDH02-006	2	<5	21	750	2.6	<1	10	99	8	3.16	7	<1	<5	4	0.44	<20	94	0.7	14	<3	<0.01	<0.05	1.2	9.8
8VDH02-007	2	<5	31	940	2.6	<1	17	110	9	3.62	6	<1	<5	4	0.48	<20	120	1.0	16	<3	<0.01	<0.05	1.8	11
8VDH02-008	3	<5	22	720	1.6	<1	15	97	7	3.64	6	<1	<5	<1	0.51	<20	110	0.9	13	<3	<0.01	<0.05	1.8	9.7
8VDH02-009	<2	<5	27	850	2.1	<1	16	100	8	3.75	7	<1	<5	3	0.47	100	110	0.9	15	<3	<0.01	<0.05	1.0	11
8VDH02-010	<2	<5	20	800	1.3	<1	13	100	7	3.35	6	<1	<5	3	0.59	<20	110	0.7	14	<3	<0.01	<0.05	<0.5	9.2
8VDH02-011	<2	<5	28	690	1.3	<1	15	91	6	5.50	5	<1	<5	<1	0.46	<20	93	0.9	12	<3	<0.01	<0.05	1.1	7.8
8VDH02-012	2	<5	27	600	1.5	<1	13	87	6	4.10	6	<1	<5	<1	0.45	<20	110	0.9	12	<3	<0.01	<0.05	1.2	7.9
8VDH02-013	<2	<5	21	810	1.1	<1	16	110	8	3.45	7	<1	<5	2	0.57	<20	110	0.8	15	<3	<0.01	0.07	<0.5	9.8
8VDH02-014	<2	<5	11	710	1.0	<1	16	120	7	3.67	6	<1	<5	4	0.58	<20	93	0.8	15	<3	<0.01	<0.05	1.3	9.8
8VDH02-015	2	<5	43	750	<0.5	<1	16	110	8	3.93	6	<1	<5	<1	0.53	<20	110	1.0	14	<3	<0.01	<0.05	1.4	9.1
8VDH02-016	<2	<5	18	880	1.9	<1	15	110	8	3.24	5	<1	<5	<1	0.56	<20	140	1.3	15	<3	<0.01	<0.05	<0.5	10

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA %	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SN %	SR %	TA PPM	TH PPM
8VDHO2-017	<2	<5	13	990	1.4	<1	14	110	7	3.68	5	<1	<5	5	0.58	<20	120	1.3	16	<3	<0.01	<0.05	<0.5	11
8VDHO2-018	4	<5	17	780	2.4	<1	12	87	6	3.15	6	<1	<5	5	0.68	<20	<15	1.7	15	<3	<0.01	<0.05	1.1	8.4
8VDHO2-019	<2	<5	14	850	2.1	<1	13	110	8	3.33	5	<1	<5	6	0.55	<20	130	1.1	15	<3	<0.01	0.06	<0.5	9.0
8VDHO2-020	4	<5	26	980	4.5	1	14	120	8	4.01	5	<1	<5	7	0.49	<21	120	2.6	17	<3	<0.01	<0.05	<0.5	11
8VDHO2-021	6	<5	23	870	4.0	<1	13	120	8	3.85	5	<1	<5	<1	0.54	<21	120	1.5	17	<3	<0.01	<0.05	<0.5	10
8VDHO2-022	3	<5	17	880	2.4	<1	12	110	7	3.47	5	<1	<5	6	0.50	<20	110	1.4	15	<3	<0.01	<0.05	<0.5	9.5
8VDHO2-023	2	<5	22	900	4.3	<1	12	110	8	3.90	5	<1	<5	8	0.53	<20	110	2.1	16	5	<0.01	<0.05	<0.5	10
8VDHO2-024	<2	<5	30	710	3.1	6	7	21	<1	2.64	6	<1	<5	34	0.86	<20	<15	2.9	6.9	<3	<0.01	<0.05	1.3	13
8VDHO2-025	3	<5	51	850	8.3	3	17	74	6	5.18	4	<1	<5	69	0.49	<20	97	4.9	12	8	<0.01	<0.05	<0.5	9.8
8VDHO2-026	<2	<5	38	810	7.9	6	14	81	6	4.28	4	<1	<5	66	0.40	<20	98	4.3	12	12	<0.01	<0.05	<0.5	8.0
8VDHO2-027	5	<5	40	960	8.0	3	16	99	8	4.69	4	<1	<5	66	0.44	<20	100	3.8	13	5	<0.01	<0.05	<0.5	10
8VDHO2-028	<2	<5	32	990	7.4	4	14	98	7	4.08	4	<1	<5	57	0.42	120	100	3.8	14	4	<0.01	<0.05	1.4	9.8
8VDHO2-029	4	<5	41	800	3.4	<1	14	100	7	3.91	6	<1	<5	14	0.52	<20	110	1.5	13	<3	<0.01	<0.05	<0.5	9.4
8VDHO2-030	2	<5	27	830	2.0	<1	13	89	6	4.81	5	<1	<5	2	0.48	<20	82	0.8	12	<3	<0.01	<0.05	<0.5	8.3
8VDHO2-031	5	<5	33	870	4.0	4	12	67	4	3.47	5	<1	<5	32	0.59	<20	78	2.8	11	<3	<0.01	<0.05	<0.5	7.2
8VDHO2-032	4	<5	25	940	2.2	<1	15	100	7	3.03	6	<1	<5	5	0.51	<20	120	0.9	14	<3	<0.01	<0.05	<0.5	10
8VDHO2-033	<2	<5	36	940	2.1	<1	15	94	7	2.73	6	<1	<5	3	0.49	<20	<15	1.1	13	<3	<0.01	<0.05	<0.5	9.4
8VDHO2-034	<2	<5	38	710	<0.5	<1	13	81	5	2.17	5	<1	<5	1	0.38	<20	85	0.9	9.5	<3	<0.01	<0.05	<0.5	7.7
8VDHO2-035	<2	<5	27	500	1.5	<1	6	46	2	3.18	5	<1	<5	1	0.23	<20	53	0.4	4.6	<3	<0.01	<0.05	<0.5	4.4
8VDHO2-036	3	<5	27	570	1.9	<1	6	50	2	1.79	5	<1	<5	2	0.24	<20	68	0.6	4.5	<3	<0.01	<0.05	<0.5	4.5
8VDHO2-037	2	<5	40	550	1.9	<1	10	79	3	2.67	7	<1	<5	5	0.34	<20	68	0.8	7.2	<3	<0.01	<0.05	0.9	8.5
8VDHO2-038	<2	<5	23	920	<0.5	<1	12	97	6	2.76	6	<1	<5	7	0.47	<20	110	0.8	13	<3	<0.01	<0.05	<0.5	9.7
8VDHO2-039	2	<5	25	840	1.8	<1	11	91	6	2.89	6	<1	<5	3	0.49	<20	87	0.9	11	<3	<0.01	<0.05	1.4	9.0
8VDHO2-040	<2	<5	29	770	2.4	<1	12	90	6	3.03	6	<1	<5	<1	0.46	<20	110	1.0	12	<3	<0.01	<0.05	<0.5	9.8
8VDHO2-041	5	<5	27	960	3.0	<1	11	97	7	3.11	5	<1	<5	5	0.45	<20	120	0.8	14	<3	<0.01	<0.05	<0.5	11
8VDHO2-042	2	<5	25	860	2.0	<1	12	95	6	2.56	6	<1	<5	<1	0.50	<20	110	0.8	12	<3	<0.01	<0.05	1.4	9.8
8VDHO2-043	<2	<5	31	940	3.6	<1	14	110	8	3.24	6	<1	<5	3	0.46	<20	130	1.2	15	<3	<0.01	<0.05	<0.5	12
8VDHO2-044	<2	<5	26	820	2.1	<1	11	91	7	3.89	5	<1	<5	7	0.41	<20	110	0.8	12	<3	<0.01	<0.05	<0.5	9.3
8VDHO2-045	<2	<5	25	790	2.2	<1	11	91	6	2.54	6	<1	<5	2	0.43	<20	100	0.8	12	3	<0.01	<0.05	<0.5	8.9
8VDHO2-046	4	<5	29	920	2.4	<1	13	100	7	2.86	6	<1	<5	7	0.44	<20	130	0.8	15	<3	<0.01	<0.05	1.2	10
8VDHO2-047	<2	<5	31	950	2.4	<1	14	110	7	3.14	5	<1	<5	4	0.49	<20	140	0.9	15	<3	<0.01	<0.05	1.2	11
8VDHO2-048	2	<5	29	890	2.7	<1	13	100	7	2.74	6	<1	<5	3	0.45	<20	110	0.9	14	<3	<0.01	<0.05	<0.5	10
8VDHO2-049	4	<5	37	970	2.6	<1	16	100	7	2.90	6	<1	<5	2	0.46	<20	130	1.1	14	<3	<0.01	<0.05	1.4	11
8VDHO2-050	<2	<5	30	930	2.6	<1	16	120	8	2.84	6	<1	<5	4	0.49	<20	120	0.9	15	<3	<0.01	<0.05	1.8	11
8VDHO2-051	<2	<5	20	840	1.2	<1	13	97	6	2.39	7	<1	<5	7	0.46	<20	110	0.9	13	4	<0.01	<0.05	0.7	9.9
8VDHO2-052	<2	<5	14	760	1.0	<1	12	77	5	3.19	7	<1	<5	9	0.41	<20	79	1.0	10	<3	<0.01	<0.05	1.3	8.5
8VDHO2-053	2	<5	7.2	850	1.1	<1	10	90	6	1.94	6	<1	<5	6	0.46	<20	110	0.8	11	5	<0.01	<0.05	<0.5	9.2

Sample description	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
8VDHO1-001	2.6	10	124	22	32	16	3.5	1.0	<0.5	2.2	0.42	25.50
8VDHO1-002	1.5	12	122	23	40	17	4.0	1.2	<0.5	2.6	0.49	23.49
8VDHO1-003	2.1	16	127	24	37	16	3.8	1.0	0.6	2.2	0.44	23.89
8VDHO1-004	2.1	<1	96	23	38	20	3.7	1.2	<0.5	2.4	0.42	25.75
8VDHO1-005	1.4	5	92	24	39	18	3.9	1.2	0.6	2.4	0.46	25.26
8VDHO1-006	2.0	<1	96	28	44	20	4.1	1.0	<0.5	2.4	0.41	25.28
8VDHO1-007	3.1	8	53	26	44	22	3.9	1.1	<0.5	2.3	0.42	25.39
8VDHO1-008	2.6	<1	91	27	46	20	4.1	1.3	0.8	2.2	0.47	25.46
8VDHO1-009	1.9	6	97	26	42	24	4.3	1.3	0.6	2.5	0.45	25.52
8VDHO1-010	2.5	<1	148	32	48	24	4.9	1.5	1.1	2.8	0.55	25.43
8VDHO1-011	<0.5	<1	<50	16	24	7	2.3	0.8	<0.5	1.5	0.23	24.29
8VDHO1-012	3.5	<1	115	39	61	30	5.4	1.3	0.9	3.2	0.54	23.12
8VDHO1-013	3.5	5	84	40	67	30	5.8	1.4	0.9	3.5	0.60	23.40
8VDHO1-014	2.7	2	121	37	61	24	5.1	1.2	0.8	3.2	0.61	25.41
8VDHO1-015	4.1	3	149	43	68	27	5.7	1.4	1.0	3.2	0.57	26.28
8VDHO1-016	3.1	<1	99	41	65	27	5.6	1.4	1.0	3.3	0.61	23.34
8VDHO1-017	3.1	3	118	42	70	30	5.6	1.4	0.9	3.1	0.61	23.44
8VDHO1-018	3.6	2	145	42	64	27	5.4	1.3	<0.5	3.0	0.56	22.12
8VDHO1-019	13	<1	176	34	55	24	4.7	1.0	<0.5	2.6	0.47	23.02
8VDHO1-020	11	<1	206	38	58	30	5.0	1.3	0.9	2.8	0.57	21.95
8VDHO1-021	3.1	<1	117	39	61	30	5.1	1.1	1.2	3.2	0.58	24.42
8VDHO1-022	2.6	3	107	39	60	23	4.7	1.2	0.9	2.8	0.56	24.39
8VDHO1-023	2.2	<1	<50	21	33	13	2.9	0.7	<0.5	1.3	0.25	31.45
8VDHO1-024	1.7	4	<50	22	36	16	3.1	0.8	0.6	1.7	0.32	27.61
8VDHO1-025	3.1	<1	79	33	53	22	4.9	1.2	0.8	2.7	0.47	26.68
8VDHO1-026	3.5	4	128	39	56	28	5.0	1.3	0.8	3.0	0.55	27.47
8VDHO1-027	3.9	2	133	44	67	26	5.7	1.4	0.8	3.4	0.58	23.90
8VDHO1-028	4.0	3	88	43	66	31	5.7	1.5	0.8	3.5	0.64	25.46
8VDHO1-029	3.5	<1	90	43	66	28	5.7	1.5	0.8	3.3	0.58	25.53
8VDHO2-001	2.3	<1	94	24	37	19	3.9	1.1	<0.5	2.5	0.43	26.69
8VDHO2-002	2.3	2	112	27	44	18	4.1	1.2	0.7	2.5	0.46	26.04
8VDHO2-003	3.6	<1	166	40	61	31	5.3	1.3	1.0	3.1	0.56	25.35
8VDHO2-004	3.3	<1	113	41	65	29	6.0	1.5	0.7	3.3	0.60	24.16
8VDHO2-005	3.3	2	139	44	68	31	5.7	1.4	<0.5	3.3	0.58	24.90
8VDHO2-006	3.6	2	115	41	67	29	5.6	1.4	0.9	3.4	0.60	25.49
8VDHO2-007	3.2	<1	114	48	76	33	6.3	1.6	0.8	3.7	0.62	20.98
8VDHO2-008	2.8	<1	131	40	63	28	5.2	1.1	0.9	3.1	0.60	26.11
8VDHO2-009	3.5	<1	141	46	74	31	6.3	1.4	0.9	3.3	0.60	23.36
8VDHO2-010	2.8	2	88	40	62	29	5.4	1.4	0.6	3.1	0.57	25.49
8VDHO2-011	2.4	<1	106	35	54	25	5.0	1.3	0.8	3.0	0.55	27.18
8VDHO2-012	2.8	<1	102	34	55	25	5.4	1.4	0.9	2.5	0.45	26.90
8VDHO2-013	3.2	2	124	41	66	28	5.3	1.3	0.8	3.2	0.61	24.72
8VDHO2-014	3.0	<1	131	42	65	27	5.4	1.4	0.8	3.3	0.63	24.27
8VDHO2-015	3.5	<1	125	41	64	28	5.2	1.3	0.9	3.3	0.60	23.97
8VDHO2-016	3.7	<1	177	40	64	29	4.8	1.4	<0.5	3.5	0.54	22.51

Sample description	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
8VDH02-017	3.8	<1	135	42	70	32	5.1	1.5	0.7	3.6	0.52	24.44
8VDH02-018	3.4	<1	<50	33	55	26	4.5	1.3	0.9	3.1	0.46	24.63
8VDH02-019	3.2	3	174	39	64	31	4.9	1.4	0.6	3.5	0.56	21.62
8VDH02-020	6.8	<1	182	44	74	35	5.8	1.6	<0.5	4.1	0.68	22.00
8VDH02-021	4.1	<1	185	44	73	35	5.3	1.6	<0.5	3.8	0.60	20.72
8VDH02-022	4.0	<1	128	38	61	29	4.7	1.4	<0.5	3.4	0.51	24.30
8VDH02-023	4.9	<1	157	41	66	33	5.0	1.3	0.9	3.6	0.59	21.74
8VDH02-024	11	<1	153	40	65	33	5.1	1.3	<0.5	2.8	0.44	25.35
8VDH02-025	13	<1	204	36	61	31	5.1	1.6	0.9	2.9	0.49	22.60
8VDH02-026	12	<1	178	34	55	28	4.6	1.3	0.6	2.9	0.50	21.54
8VDH02-027	11	<1	196	38	63	35	5.1	1.5	<0.5	3.3	0.52	21.07
8VDH02-028	12	2	213	40	65	26	5.1	1.4	<0.5	3.3	0.52	20.75
8VDH02-029	3.9	<1	128	39	64	27	5.3	1.4	<0.5	3.5	0.47	23.05
8VDH02-030	2.8	<1	141	33	54	22	4.0	1.1	<0.5	2.9	0.47	25.53
8VDH02-031	5.5	<1	129	27	47	23	3.7	1.1	0.7	2.2	0.36	23.11
8VDH02-032	3.3	<1	157	39	59	26	4.5	1.1	<0.5	3.3	0.53	25.94
8VDH02-033	3.4	2	172	37	59	23	4.2	1.2	0.6	3.1	0.45	25.75
8VDH02-034	2.4	<1	118	31	54	24	3.8	1.1	<0.5	2.5	0.41	27.68
8VDH02-035	1.3	<1	64	19	32	12	2.7	0.6	<0.5	1.3	0.19	33.49
8VDH02-036	1.4	<1	64	19	32	14	2.4	0.8	<0.5	1.4	0.20	28.53
8VDH02-037	2.4	<1	116	27	45	23	3.8	1.2	0.6	2.3	0.36	30.14
8VDH02-038	3.4	<1	151	38	58	31	4.7	1.2	<0.5	3.5	0.51	22.12
8VDH02-039	2.9	<1	129	35	55	23	4.2	1.3	<0.5	3.3	0.49	26.12
8VDH02-040	3.5	3	135	37	59	26	4.4	1.2	0.6	3.4	0.53	24.29
8VDH02-041	3.2	<1	133	41	65	31	4.9	1.4	0.9	3.5	0.52	24.14
8VDH02-042	3.8	<1	130	37	57	23	4.4	1.4	<0.5	3.4	0.53	24.62
8VDH02-043	3.3	2	168	45	71	33	5.3	1.6	1.1	3.7	0.55	24.38
8VDH02-044	2.6	<1	111	36	58	22	4.4	1.3	0.9	3.0	0.46	25.27
8VDH02-045	3.1	<1	151	37	59	26	4.4	1.2	0.9	3.0	0.44	26.49
8VDH02-046	3.2	<1	154	42	66	24	5.1	1.5	0.8	3.7	0.51	25.92
8VDH02-047	3.5	<1	171	44	68	33	5.2	1.5	1.0	3.9	0.57	25.14
8VDH02-048	3.2	<1	138	41	65	35	5.1	1.4	0.9	3.8	0.57	23.67
8VDH02-049	3.1	<1	160	43	67	34	5.1	1.5	1.1	3.5	0.50	26.61
8VDH02-050	3.7	<1	143	44	70	35	5.3	1.5	0.9	3.7	0.56	22.23
8VDH02-051	2.9	<1	136	39	62	26	4.7	1.4	1.0	3.2	0.50	26.50
8VDH02-052	3.8	<1	118	35	57	28	5.0	1.5	0.9	3.4	0.52	27.44
8VDH02-053	3.1	<1	126	34	53	25	4.1	1.3	<0.5	2.9	0.51	28.61

Sample description	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	MN PPM	SR PPM	CD PPM	BI PPM	V PPM	CA %	P %	MG %	TI %	AL %	K %	Y PPM	BE PPM
8VDH01-001	2.	38.	12.	100.	0.6	64.	288.	202.	<0.5	<5.	143.	1.34	0.057	1.24	0.35	7.31	1.40	18.	<2.
8VDH01-002	<2.	40.	14.	95.	0.5	46.	487.	187.	<0.5	<5.	134.	1.38	0.089	1.27	0.37	7.44	1.40	20.	<2.
8VDH01-003	<2.	33.	12.	90.	0.4	40.	283.	195.	<0.5	<5.	129.	1.25	0.060	1.17	0.34	7.29	1.47	18.	<2.
8VDH01-004	<2.	37.	15.	95.	<0.4	41.	404.	202.	1.0	<5.	137.	1.50	0.077	1.23	0.34	7.32	1.48	22.	<2.
8VDH01-005	<2.	35.	8.	88.	0.5	39.	720.	212.	0.5	<5.	123.	6.44	0.124	1.07	0.31	6.66	1.34	24.	<2.
8VDH01-006	<2.	31.	13.	100.	<0.4	37.	245.	201.	0.6	<5.	144.	1.38	0.080	1.20	0.33	7.13	1.58	22.	<2.
8VDH01-007	<2.	30.	17.	97.	0.4	35.	224.	237.	<0.5	<5.	135.	1.36	0.097	1.24	0.32	7.60	1.47	22.	<2.
8VDH01-008	2.	36.	18.	109.	0.4	47.	469.	200.	<0.5	<5.	154.	1.27	0.092	1.14	0.38	7.62	1.75	24.	<2.
8VDH01-009	<2.	45.	14.	115.	0.4	48.	359.	202.	0.6	<5.	156.	1.08	0.072	1.18	0.39	8.04	1.71	22.	<2.
8VDH01-010	<2.	40.	12.	117.	<0.4	44.	438.	220.	0.6	<5.	173.	1.48	0.181	1.24	0.37	7.93	1.73	29.	<2.
8VDH01-011	<2.	18.	11.	48.	<0.4	19.	947.	229.	0.5	<5.	67.	23.14	0.059	0.63	0.16	3.53	0.80	16.	<2.
8VDH01-012	<2.	36.	26.	131.	<0.4	47.	121.	176.	<0.5	<5.	226.	0.82	0.079	1.02	0.38	8.24	2.07	28.	<2.
8VDH01-013	<2.	23.	19.	113.	<0.4	35.	117.	143.	0.5	<5.	200.	0.41	0.064	0.87	0.36	7.29	1.96	28.	<2.
8VDH01-014	<2.	24.	19.	119.	0.4	42.	169.	130.	<0.5	<5.	217.	0.41	0.077	0.94	0.36	6.85	1.95	25.	<2.
8VDH01-015	<2.	24.	22.	128.	<0.4	39.	300.	276.	0.7	<5.	261.	2.39	0.757	0.91	0.35	7.23	2.23	36.	<2.
8VDH01-016	<2.	27.	20.	132.	<0.4	50.	199.	157.	<0.5	<5.	240.	0.46	0.078	1.11	0.38	8.25	2.24	29.	<2.
8VDH01-017	<2.	34.	14.	137.	<0.4	51.	204.	134.	<0.5	<5.	275.	0.41	0.081	0.95	0.39	7.57	2.12	26.	<2.
8VDH01-018	<2.	33.	22.	139.	<0.4	48.	173.	148.	<0.5	<5.	284.	0.43	0.071	1.01	0.40	8.33	2.31	28.	<2.
8VDH01-019	64.	49.	18.	184.	0.5	79.	142.	187.	3.4	<5.	317.	3.38	0.074	0.98	0.28	6.83	1.48	29.	<2.
8VDH01-020	58.	42.	25.	177.	0.6	76.	139.	163.	2.6	<5.	336.	3.12	0.059	0.81	0.30	7.19	1.70	25.	<2.
8VDH01-021	<2.	21.	18.	114.	<0.4	37.	128.	122.	0.5	<5.	236.	0.26	0.051	0.79	0.35	6.69	2.02	23.	<2.
8VDH01-022	<2.	22.	21.	124.	<0.4	40.	130.	124.	<0.5	<5.	265.	0.28	0.049	0.79	0.39	7.16	2.10	23.	<2.
8VDH01-023	<2.	9.	11.	49.	<0.4	16.	53.	86.	<0.5	<5.	165.	0.43	0.039	0.34	0.15	3.03	1.24	13.	<2.
8VDH01-024	<2.	8.	10.	47.	<0.4	15.	43.	72.	<0.5	<5.	156.	0.19	0.047	0.28	0.16	2.64	1.04	13.	<2.
8VDH01-025	2.	14.	12.	86.	<0.4	25.	109.	104.	<0.5	<5.	209.	0.24	0.062	0.49	0.26	4.93	1.53	23.	<2.
8VDH01-026	<2.	24.	22.	124.	<0.4	42.	99.	138.	<0.5	<5.	260.	0.34	0.076	0.69	0.37	7.16	2.07	26.	<2.
8VDH01-027	<2.	24.	20.	126.	<0.4	42.	93.	153.	<0.5	<5.	259.	0.42	0.079	0.72	0.40	7.75	2.21	29.	<2.
8VDH01-028	<2.	25.	16.	120.	<0.4	39.	237.	176.	0.6	<5.	238.	2.32	0.086	0.73	0.38	7.50	2.14	31.	<2.
8VDH01-029	<2.	26.	17.	140.	<0.4	45.	93.	155.	0.6	<5.	263.	0.29	0.077	0.73	0.41	8.00	2.23	29.	<2.
8VDH02-001	<2.	40.	14.	104.	0.4	42.	511.	163.	0.7	<5.	155.	1.40	0.088	1.19	0.35	7.22	1.65	24.	<2.
8VDH02-002	2.	44.	16.	116.	<0.4	48.	390.	163.	0.5	<5.	175.	1.27	0.071	1.23	0.38	7.89	1.79	23.	<2.
8VDH02-003	<2.	33.	18.	140.	<0.4	43.	113.	160.	<0.5	<5.	246.	0.66	0.078	0.99	0.40	8.42	2.19	29.	<2.
8VDH02-004	<2.	30.	17.	109.	<0.4	31.	91.	142.	<0.5	<5.	212.	0.47	0.063	0.84	0.35	6.99	1.98	29.	<2.
8VDH02-005	<2.	27.	19.	129.	<0.4	40.	105.	152.	0.5	<5.	237.	0.43	0.065	0.94	0.41	7.80	2.20	29.	<2.
8VDH02-006	<2.	25.	19.	118.	<0.4	36.	116.	141.	<0.5	<5.	203.	0.40	0.061	0.88	0.36	7.36	1.95	26.	<2.
8VDH02-007	<2.	30.	21.	144.	<0.4	46.	165.	155.	<0.5	<5.	271.	0.44	0.076	0.99	0.40	8.21	2.32	29.	<2.
8VDH02-008	<2.	28.	17.	133.	<0.4	47.	224.	140.	<0.5	<5.	229.	0.49	0.088	1.00	0.38	7.52	2.11	28.	<2.
8VDH02-009	<2.	27.	14.	131.	<0.4	43.	162.	151.	<0.5	<5.	245.	0.43	0.072	0.96	0.37	7.81	2.25	26.	<2.
8VDH02-010	<2.	24.	16.	123.	<0.4	40.	167.	137.	<0.5	<5.	222.	0.41	0.076	0.96	0.36	6.97	2.00	25.	<2.
8VDH02-011	<2.	22.	15.	106.	<0.4	37.	283.	130.	<0.5	<5.	217.	0.78	0.065	1.08	0.32	6.21	1.92	28.	<2.
8VDH02-012	<2.	22.	17.	105.	<0.4	35.	133.	131.	<0.5	<5.	254.	0.37	0.060	0.90	0.31	6.31	2.11	24.	<2.
8VDH02-013	<2.	28.	11.	132.	<0.4	52.	316.	133.	<0.5	<5.	254.	0.32	0.069	0.97	0.40	7.55	2.23	25.	<2.
8VDH02-014	<2.	29.	22.	133.	<0.4	52.	1005.	133.	<0.5	<5.	256.	0.37	0.072	0.97	0.41	7.58	2.21	26.	<2.
8VDH02-015	2.	28.	18.	135.	<0.4	52.	389.	131.	<0.5	<5.	267.	0.38	0.071	0.96	0.39	7.48	2.16	25.	<2.
8VDH02-016	<2.	28.	17.	137.	<0.4	51.	212.	132.	<0.5	<5.	275.	0.31	0.073	0.94	0.39	7.60	2.22	25.	<2.

Sample description	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	MN PPM	SR PPM	CD PPM	BI PPM	V PPM	CA %	P %	MG %	TI %	AL %	K %	Y PPM	BE PPM
8VDH02-017	<2.	29.	22.	144.	<0.4	50.	192.	144.	<0.5	<5.	270.	0.48	0.070	1.01	0.41	8.22	2.31	26.	<2.
8VDH02-018	<2.	28.	16.	120.	<0.4	36.	152.	175.	<0.5	<5.	224.	0.54	0.061	1.09	0.40	7.91	1.71	23.	<2.
8VDH02-019	<2.	29.	20.	136.	<0.4	47.	169.	136.	<0.5	<5.	269.	0.32	0.077	0.97	0.39	7.97	2.22	26.	<2.
8VDH02-020	4.	50.	23.	174.	0.6	57.	217.	158.	2.1	<5.	399.	0.60	0.115	0.98	0.41	8.31	2.38	36.	<2.
8VDH02-021	3.	37.	23.	147.	<0.4	51.	206.	139.	0.7	<5.	307.	0.44	0.083	0.97	0.40	7.98	2.28	29.	<2.
8VDH02-022	<2.	35.	19.	139.	<0.4	49.	213.	141.	<0.5	<5.	293.	0.49	0.074	0.98	0.40	7.97	2.26	28.	<2.
8VDH02-023	5.	44.	15.	157.	<0.4	53.	230.	149.	1.1	<5.	339.	0.47	0.076	1.03	0.42	8.44	2.34	31.	<2.
8VDH02-024	32.	18.	21.	102.	<0.4	28.	264.	265.	1.5	<5.	111.	6.40	0.062	1.65	0.19	8.17	0.64	26.	<2.
8VDH02-025	69.	46.	21.	195.	0.5	74.	182.	180.	2.9	<5.	316.	3.54	0.089	0.90	0.31	7.23	1.58	29.	<2.
8VDH02-026	61.	40.	14.	168.	0.6	72.	162.	181.	2.9	<5.	326.	7.45	0.069	0.70	0.28	6.39	1.55	25.	<2.
8VDH02-027	58.	43.	17.	188.	0.4	75.	125.	150.	2.6	<5.	323.	2.69	0.063	0.76	0.32	6.98	1.83	25.	<2.
8VDH02-028	55.	42.	21.	181.	0.5	92.	318.	169.	2.2	<5.	289.	4.00	0.068	0.82	0.31	7.28	1.88	28.	<2.
8VDH02-029	10.	27.	19.	124.	0.5	43.	135.	128.	<0.5	<5.	274.	0.55	0.091	0.77	0.36	6.61	1.99	28.	<2.
8VDH02-030	<2.	19.	16.	114.	<0.4	38.	115.	111.	<0.5	<5.	243.	0.20	0.047	0.73	0.36	6.46	1.93	23.	<2.
8VDH02-031	29.	29.	23.	117.	0.5	45.	218.	189.	1.6	<5.	283.	5.04	0.072	1.12	0.28	7.76	1.36	19.	<2.
8VDH02-032	<2.	23.	16.	126.	<0.4	50.	140.	125.	<0.5	<5.	267.	0.24	0.048	0.81	0.39	7.36	2.17	24.	<2.
8VDH02-033	2.	21.	16.	127.	<0.4	42.	118.	121.	<0.5	<5.	264.	0.20	0.045	0.75	0.38	7.07	2.08	22.	<2.
8VDH02-034	<2.	19.	17.	107.	<0.4	34.	88.	111.	<0.5	<5.	247.	0.18	0.040	0.59	0.32	5.69	1.73	19.	<2.
8VDH02-035	<2.	8.	12.	49.	<0.4	15.	139.	79.	<0.5	<5.	154.	0.38	0.039	0.48	0.15	2.94	1.13	13.	<2.
8VDH02-036	<2.	8.	9.	44.	<0.4	12.	29.	71.	<0.5	<5.	147.	0.13	0.037	0.28	0.13	2.44	1.01	11.	<2.
8VDH02-037	<2.	11.	18.	85.	<0.4	23.	117.	91.	<0.5	<5.	240.	0.25	0.076	0.40	0.22	3.78	1.32	19.	<2.
8VDH02-038	<2.	21.	18.	115.	0.4	34.	99.	127.	0.5	<5.	229.	0.30	0.076	0.65	0.36	6.36	1.95	23.	<2.
8VDH02-039	<2.	19.	15.	110.	<0.4	36.	81.	116.	<0.5	<5.	226.	0.22	0.059	0.60	0.32	5.84	1.80	20.	<2.
8VDH02-040	<2.	21.	20.	112.	<0.4	38.	92.	128.	0.7	<5.	236.	0.42	0.061	0.60	0.34	6.33	1.85	22.	<2.
8VDH02-041	<2.	27.	27.	130.	<0.4	44.	92.	148.	0.6	<5.	278.	0.23	0.056	0.76	0.41	7.94	2.25	24.	<2.
8VDH02-042	<2.	20.	18.	110.	<0.4	35.	100.	127.	<0.5	<5.	252.	0.19	0.050	0.66	0.36	6.55	1.93	22.	<2.
8VDH02-043	<2.	30.	26.	146.	<0.4	50.	90.	153.	<0.5	<5.	273.	0.24	0.068	0.76	0.41	8.06	2.28	29.	<2.
8VDH02-044	3.	22.	24.	119.	<0.4	39.	89.	137.	<0.5	<5.	243.	0.31	0.065	0.66	0.36	7.00	2.02	26.	<2.
8VDH02-045	<2.	21.	22.	110.	<0.4	36.	80.	131.	<0.5	<5.	246.	0.20	0.055	0.64	0.35	6.73	1.93	23.	<2.
8VDH02-046	<2.	24.	26.	126.	<0.4	42.	85.	146.	<0.5	<5.	255.	0.36	0.078	0.70	0.37	7.43	2.10	26.	<2.
8VDH02-047	<2.	27.	25.	137.	<0.4	45.	98.	148.	<0.5	<5.	269.	0.29	0.081	0.75	0.39	7.75	2.21	29.	<2.
8VDH02-048	<2.	25.	23.	128.	<0.4	42.	78.	141.	0.6	<5.	250.	0.26	0.071	0.67	0.37	7.15	2.03	28.	<2.
8VDH02-049	<2.	25.	22.	143.	<0.4	43.	94.	150.	<0.5	<5.	261.	0.24	0.065	0.74	0.40	7.92	2.22	26.	<2.
8VDH02-050	<2.	26.	27.	144.	0.5	44.	91.	152.	<0.5	<5.	251.	0.24	0.065	0.74	0.41	7.95	2.24	26.	<2.
8VDH02-051	<2.	20.	22.	105.	<0.4	32.	80.	130.	0.5	<5.	194.	0.23	0.064	0.60	0.33	6.35	1.88	23.	<2.
8VDH02-052	<2.	19.	19.	90.	<0.4	38.	149.	130.	0.6	<5.	162.	0.41	0.119	0.54	0.29	5.48	1.68	31.	<2.
8VDH02-053	<2.	23.	14.	100.	<0.4	31.	89.	127.	<0.5	<5.	176.	0.25	0.075	0.60	0.34	6.04	1.87	24.	<2.

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CERTIFICATE OF ANALYSIS

ROCKS (PREP.REV1) were submitted for analysis.

The following analytical packages were requested. Please see
our current fee schedule for elements and detection limits.

REPORT 15358 CODE 1H INAA (INAA.REV1)
REPORT 15358 B TOTAL DIGESTION ICP

This report may only be reproduced in its entirety without the express
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will be discarded. Our liability is limited solely to the analytical
cost of these analyses. Test results are representative only of material
submitted for analysis.

CERTIFIED BY/:



DR E. HOFFMAN / GENERAL MANAGER

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MAY 19 1998

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA %	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SN %	SR %	TA PPM	TH PPM
8VDH01-030	<2	<5	61	680	10	2	19	63	6	5.80	6	<1	<5	100	0.57	150	73	6.5	11	19	<0.01	<0.05	<0.5	9.2
8VDH01-054	<2	<5	77	760	10	2	23	73	8	6.90	5	<1	<5	95	0.46	100	80	6.1	11	18	<0.01	<0.05	<0.5	9.2

Sample description	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
8VDH01-030	20	2	256	50	79	35	7.1	1.6	1.4	4.4	0.71	22.78
8VDH01-054	21	<1	257	50	80	35	7.1	1.7	1.3	4.4	0.73	22.71

Sample description	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	MN PPM	SR PPM	CD PPM	BI PPM	V PPM	CA %	P %	MG %	TI %	AL %	K %	Y PPM	BE PPM
8VDHO1-030	108.	64.	19.	243.	<0.4	124.	173.	231.	4.4	<5.	359.	2.29	0.154	1.36	0.28	7.76	1.37	56.	2.
8VDHO1-054	107.	70.	23.	264.	<0.4	126.	197.	168.	4.5	<5.	330.	1.94	0.162	0.83	0.31	8.12	1.67	61.	2.

Saskatchewan Research Council Geoanalytical Services
125-15 Innovation Blvd., Saskatoon, SK., S7N 2X8
Phone:306-933-5426 Fax:306-933-5656

226 BESSERER APEX GEOSCIENCE MAY 26/98 (6) [DIA. INDICATORS]

- 1 SAMPLE WEIGHT IN KG OT98.45
- 2 MID FRACTION -1.00+0.18MM DRY WEIGHT IN GRAMS
- 3 FRANTZ LOWERS @ 0.34 AMPS IN GRAMS
- 4 FRANTZ UPPERS @ 0.04 AMPS IN GRAMS
- 5 PYROPIC GARNET GRAIN COUNT
- 6 Cr-DIOPSIDE GRAIN COUNT

7
8
9

	SWT	MWT	LOWER1	UPPER1	PG	CR
8V1P01 001	4.05	810.10	28.26	10.60	0	0
8V1P01 002	18.55	31.86	1.43	0.80	0	0
8V1P02 001	15.30	2053.9	4.40	8.68	0	0
8V1P02 002	16.05	1387.6	4.25	9.12	0	0
8V1P02 003	13.90	2716.9	4.79	16.96	0	0
8V1P02 004	13.70	309.33	5.33	1.60	0	0

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MAY 29 1998

M224

INDICATOR MINERAL GRAIN DESCRIPTION

GEOLOGIST/COMPANY: _____ GROUP #: 0798:45

DATE _____

SAMPLE #	PYROPE	CR. DIOP.	ECLOG (POSS)	BLACK OPAQUE	OTHER	DEF. COUNT	GEN. COUNT
1 8VIP01-001	0	0	0	0	0	0	0
COMMENTS: Loaded in carbon Few pyrite 1/6 BLK OP. Picked							
2 8VIP01-002	0	0	0	0	0	0	0
COMMENTS: SOME CARBON, LOTS OF PYRITE All BLK. OP. Picked							
3 8VIP02-001	0	0	0	25	0	0	25
COMMENTS: SOME CARBON, FEW PYRITE 1/3 BLK OP. PICKED							
4 8VIP02-002	0	0	0	9			
COMMENTS: LOADED IN PYRITE SOME CARBON 1/3 BLK OP. PICKED							
5 8VIP02-003	0	0	0	6	0	0	6
COMMENTS: Loaded in Pyrite Lots of carbon 1/3 BLK OP PICKED							
6 8VIP02-004	0	0	0	0	0	0	0
COMMENTS: Some pyrite Lots of carbon All BLK. OP. Picked							
7							
COMMENTS:							
8							
COMMENTS:							
9							
COMMENTS:							
10							
COMMENTS:							
11							
COMMENTS:							
COMMENTS:							

19990026

APPENDIX 6

SYD1 AND SYD 2 MINERAL PERMIT
GROUND EVALUATED MAGNETIC ANOMALIES

SYD1 AND SYD 2 MINERAL PERMIT
GROUND EVALUATED MAGNETIC ANOMALIES

Grid	Anomaly	Line	Fiducial	Description
1	47	L270	6425	Edge of anomaly that crosses line at 6130.
1	47	L270	6430	1 gamma anomaly similar to 6425 that continues anomaly 7162.
1	47	L280	7162	Good looking 3 gamma with minor dipole effect, labeled as possible G?, well defined peak – culture? topo high?
2	36	L390	11502	Nice sharp 1 gamma peak, good looking anomaly.
3	28	L430	1125	Shoulder anomaly 0.5-1 gamma, looks to edge of good anomaly on prior line at 1283.
3	28	L440	1283	Very interesting broad shallow 4 gamma shoulder good looking anomaly with well at edge.
4	10	L600	2480	Called possible pipeline? Sharp shallow 1-2 nt peak
5	8	L340	9233	Shoulder in trough and in topo low in profile.
6	54	L310	7448	Very sharp 7-8 nt peak, high noise, culture?
	55	L330	6618	Weak shoulder of 1 nt, culture?
7	56	L120	5910	Excellent 3-4 nt, shallow well defined anomaly.
8	60	L240	950	Data not received.
9	57	L220	1755	Data not received.
10	61	L580	4160	Data not received.
11	63	L530	2462	Data not received.
	64	L510	1658	Data not received.
12	83	L360	5235	Data not received.
13	16	L510	911	Same anomaly as 16, on 2 lines, sharp 1-2 nt peak.
13	16	L520	1178	Well defined 3 nT peak, good anomaly, drainage?

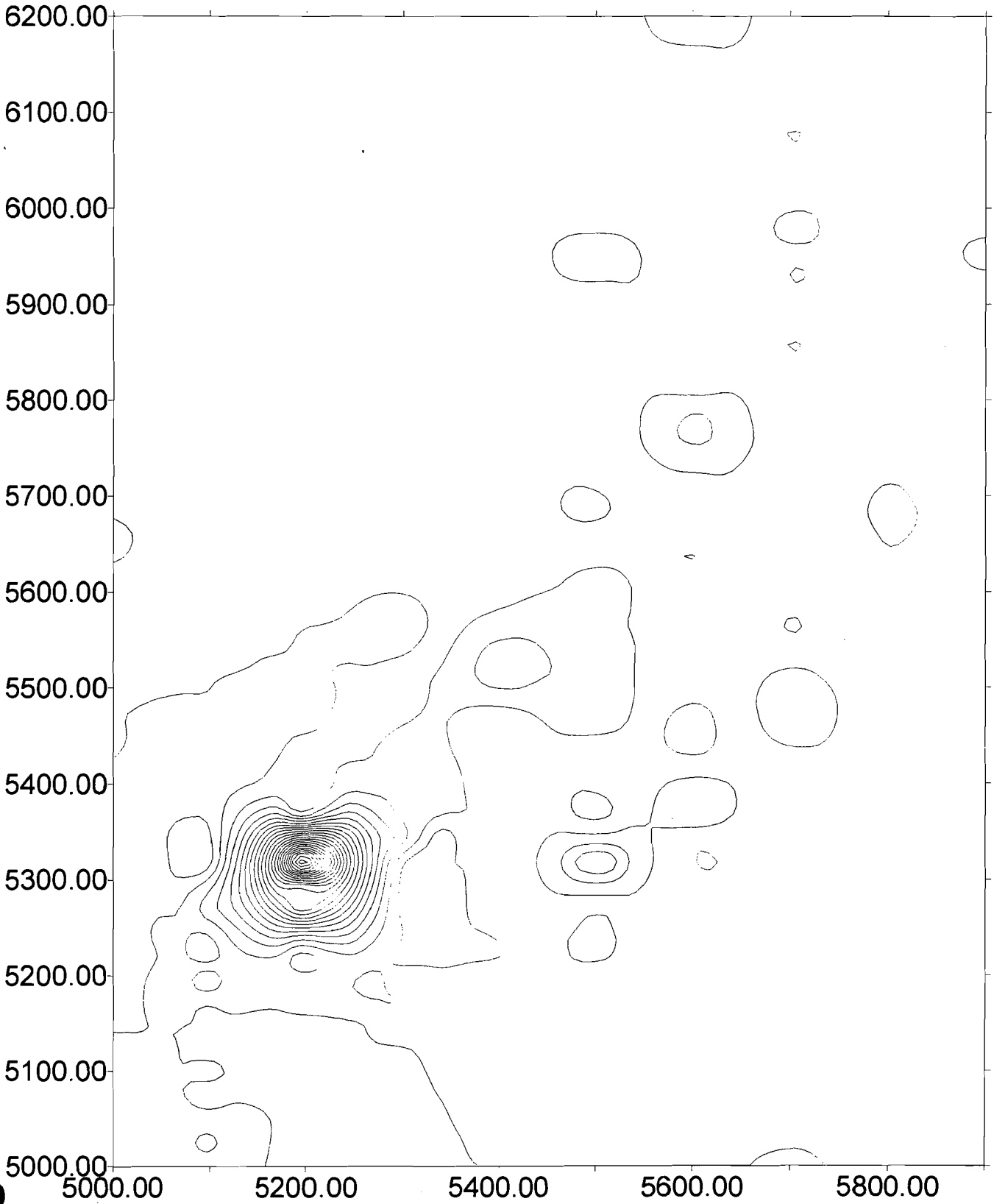
APPENDIX 7

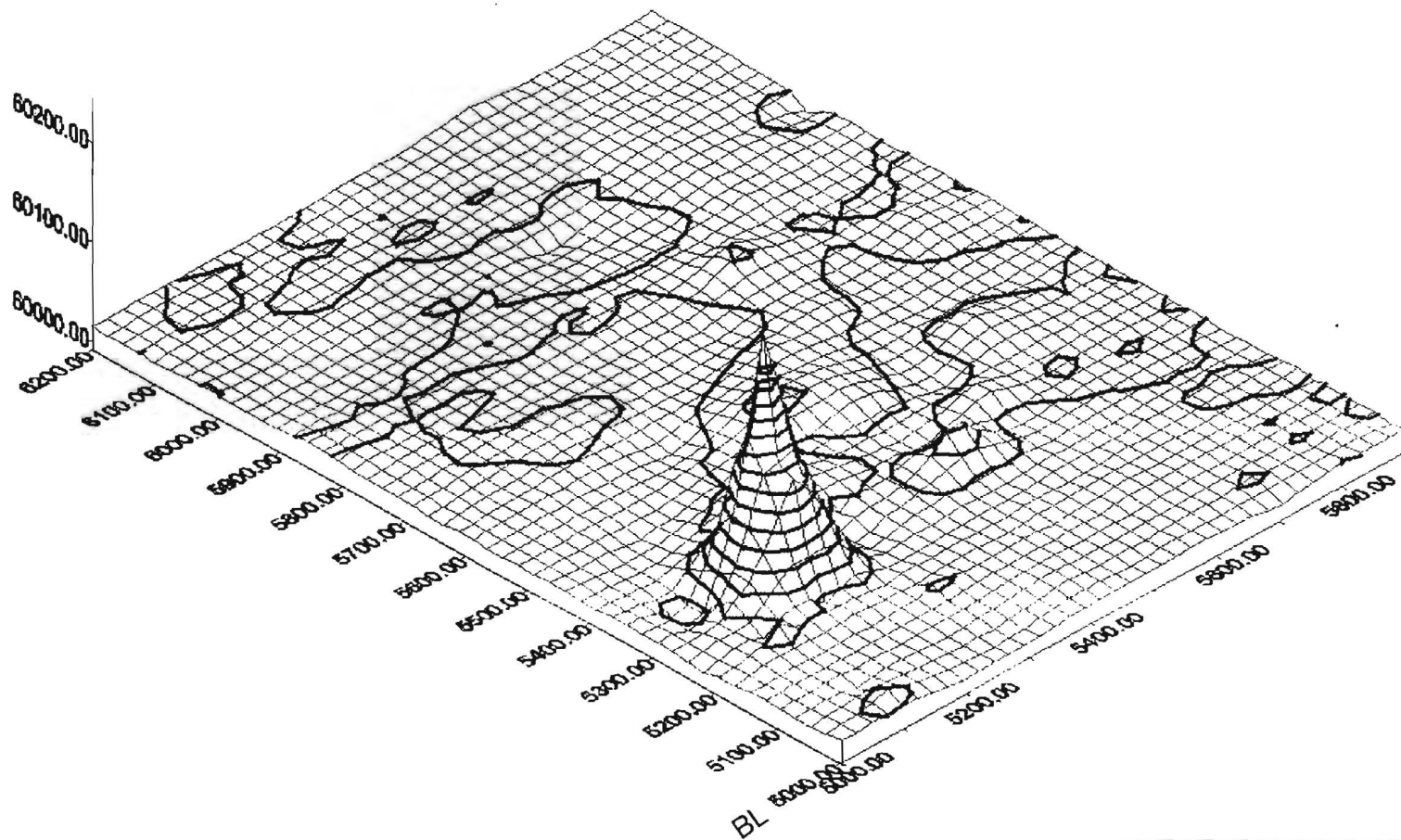
GROUND GEOPHYSICAL CONTOUR MAPS

Victory Ventures Winter Geophysical Grid Information Summary

GRID #	ANOMALY	50+00E 50+00N		B.L. AZIMUTH	PRIORITY	CLAIM BLOCK	ACCESS	COMMENTS
		EASTING	NORTHING					
1	47	542535	6169633	90	HIGH	SYD1	EXCELLENT	open field
2	36	569121	6167849	90	MEDIUM	SYD1	EXCELLENT	near logging road
3	28	566514	6167277	90	MEDIUM	SYD1	GOOD	just west of grid 2
4	10	550369	6163771	90	HIGH	SYD1	EXCELLENT	by tower on sec hwy 679
5	NONE	569134	6169260	90	MEDIUM	SYD1	GOOD	no anomaly, mounds, glacial?
6	54 AND 55	625715	6162650	0	MED TO LOW	SYD2	EXCELLENT	linear trend
7	56	611058	6167020	90	HIGH	SYD2	GOOD	middle of cutblock
8	60	620131	6164477	90	NONE	SYD2	EXCELLENT	middle of road swamp and located at the end
9	57	622756	6164487	90	MED TO LOW	SYD2	EXCELLENT	of a linear trend
10	61	621541	6156988	90	MED TO LOW	SYD2	POOR	bottom of large valley
11	63 AND 64	623754	6158086	90	LOW	SYD2	POOR	
12	83	614900	6161260	90	MED TO HIGH	SYD2	POOR	
13	NE OF 10	551474	6165060	90	MED TO LOW	SYD1	POOR	slough in farmers field

VICTORY GRID 1 MAGNETIC CONTOUR MAP





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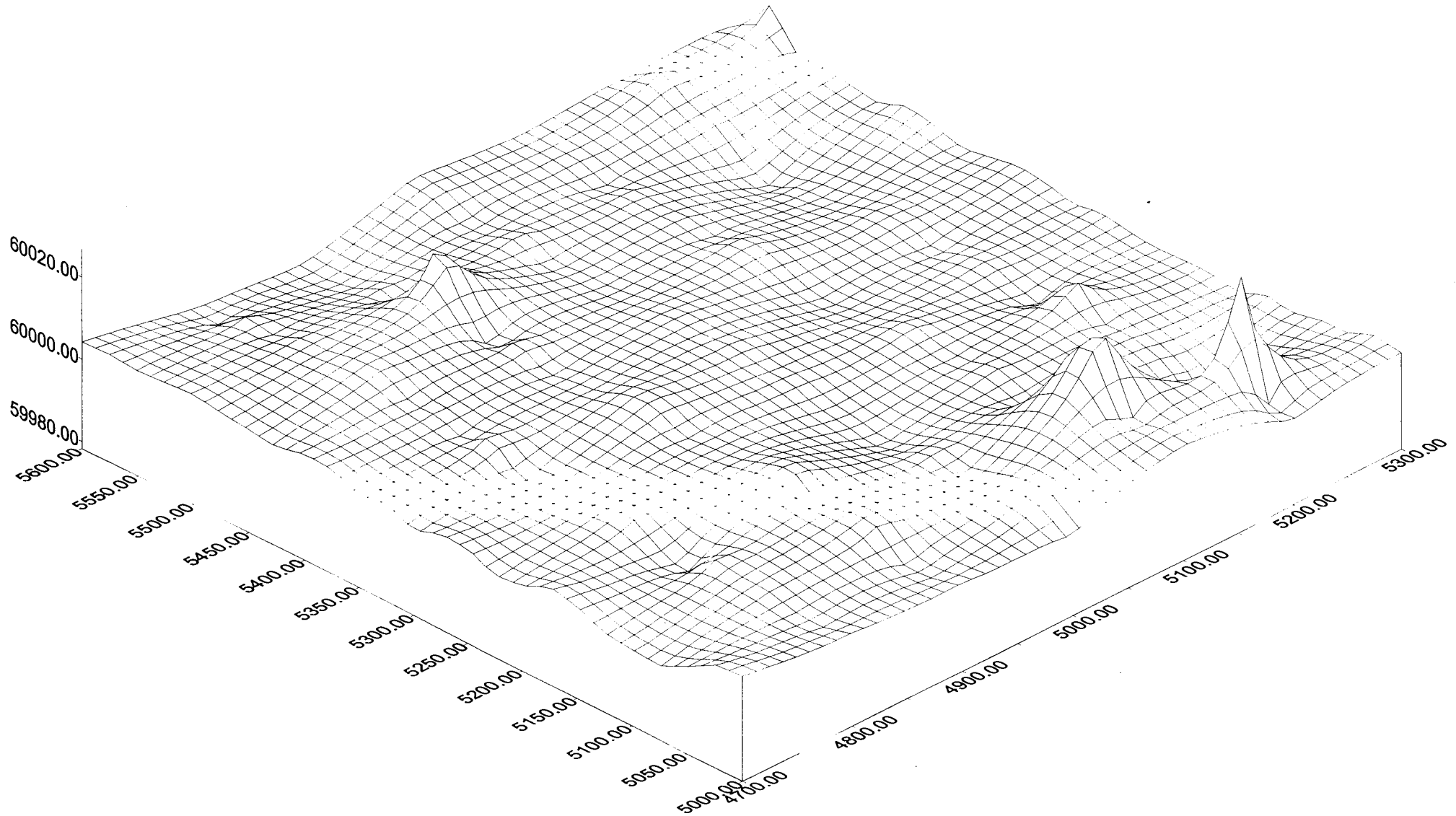
LESSER SLAVE LAKE AREA

**GRID 1 MAGNETIC SURFACE
CONTOUR MAP**
(Vertical Scale in nT)
(Horizontal Scale in meters)

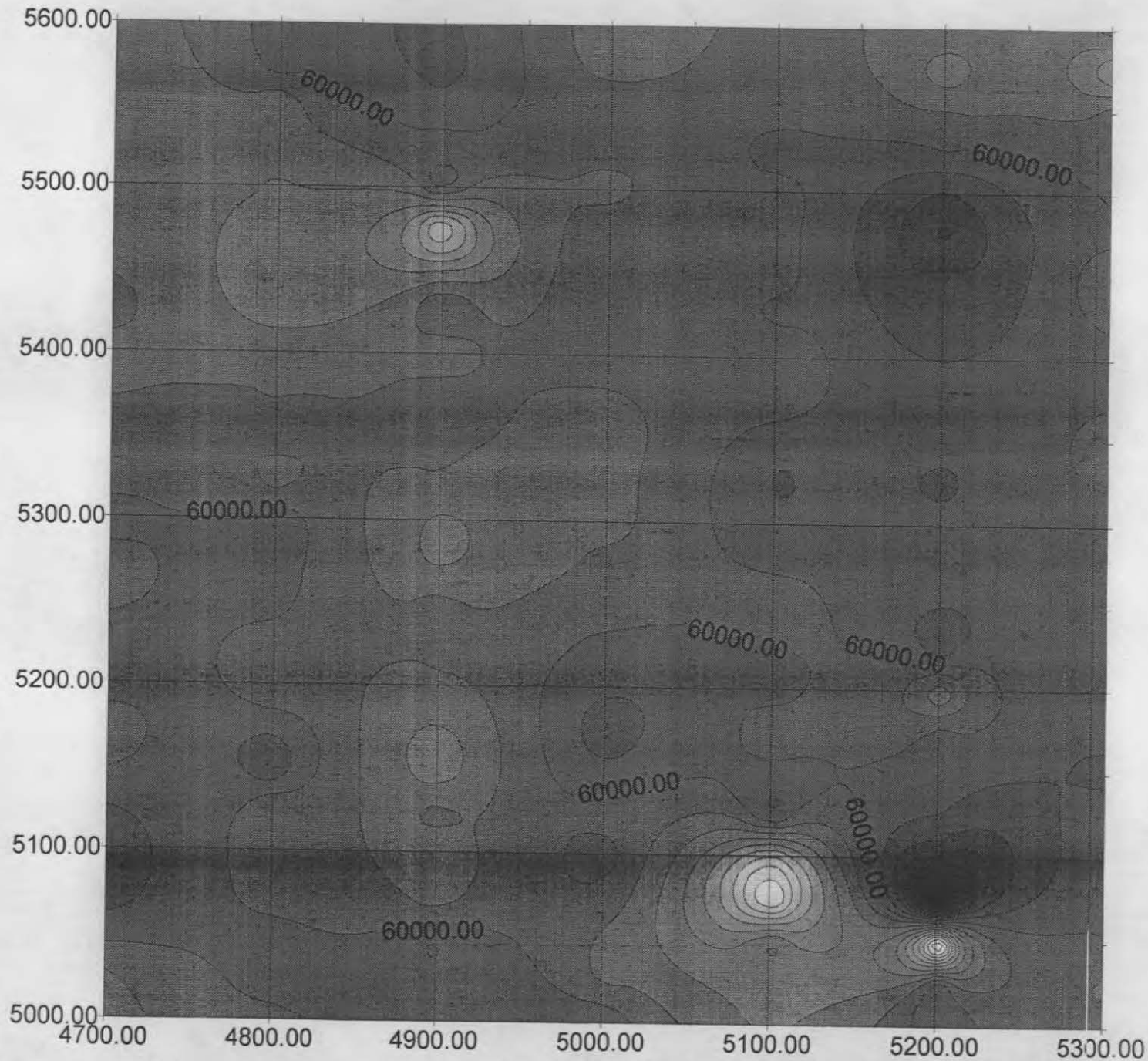
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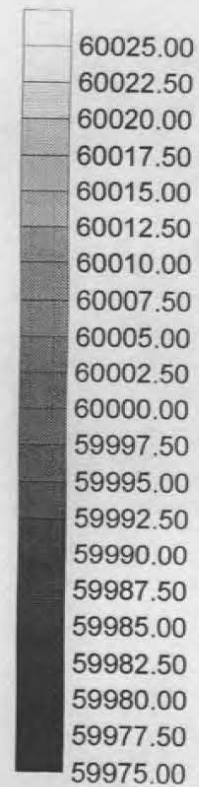
VICTORY GRID 2
MAGNETIC SURFACE CONTOUR MAP
(Vertical Scale in nT)
(Vertical Exaggeration 3.6x)



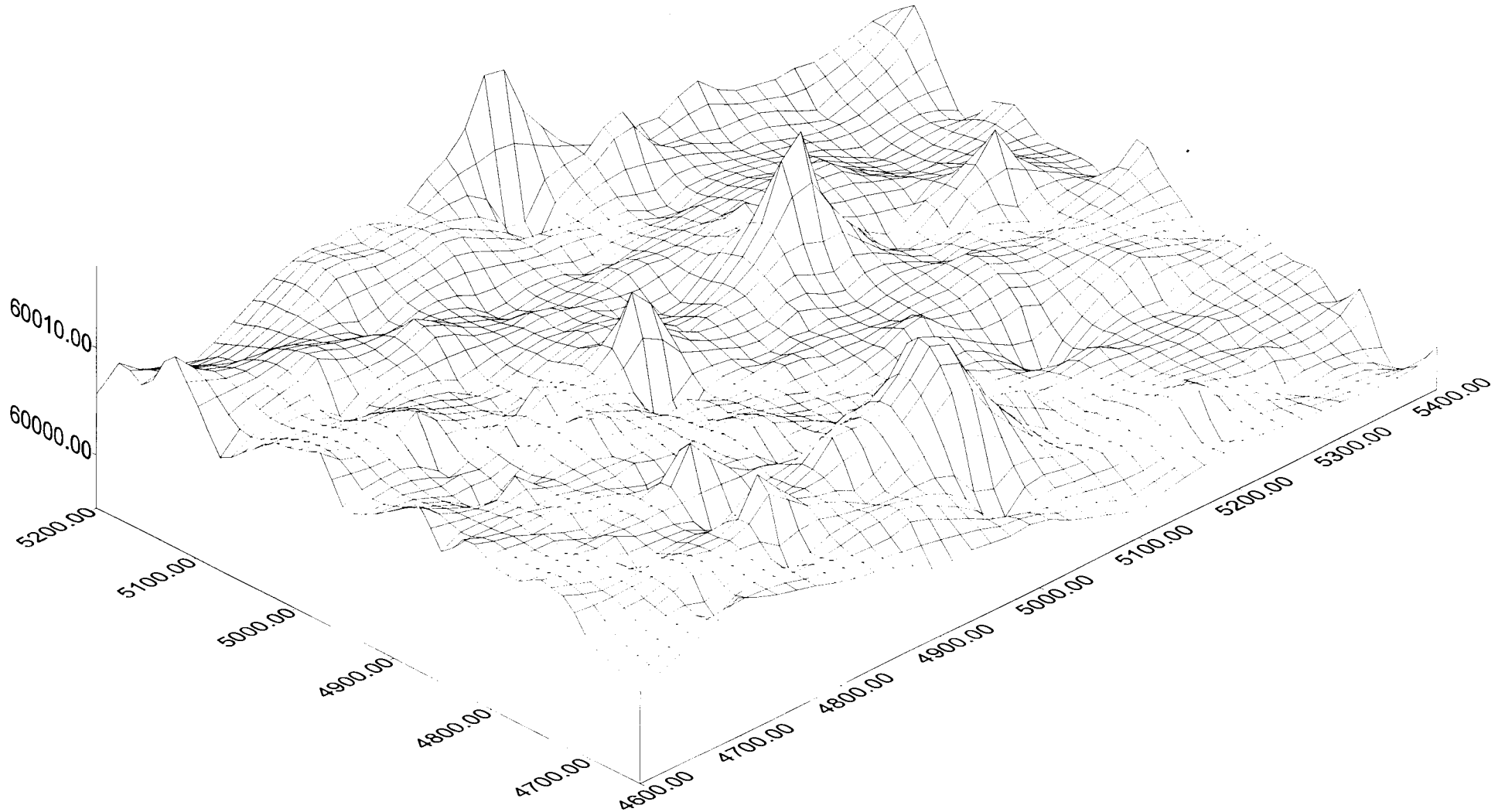
VICTOR GRID 2
MAGNETIC CONTOUR MAP



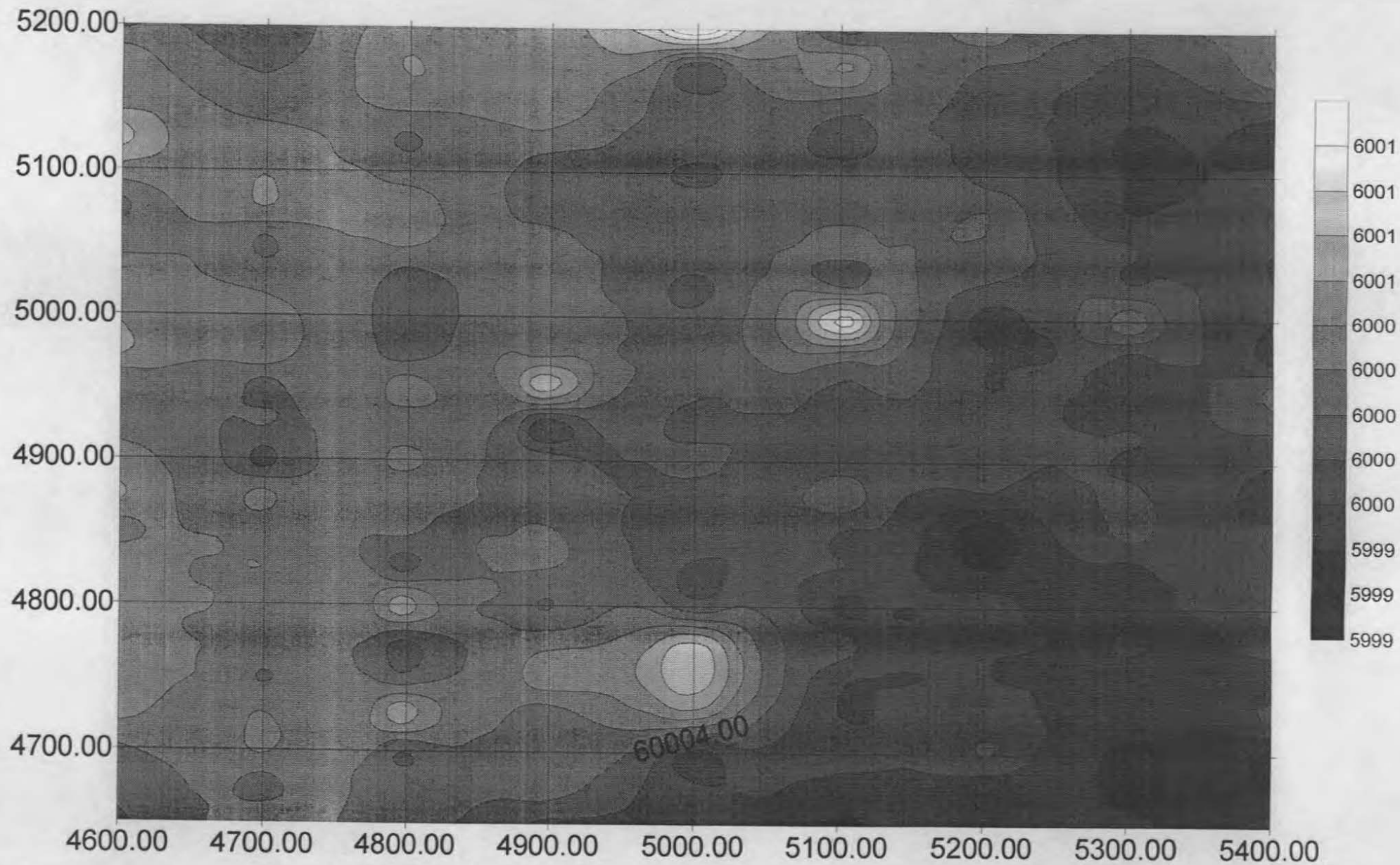
Scale

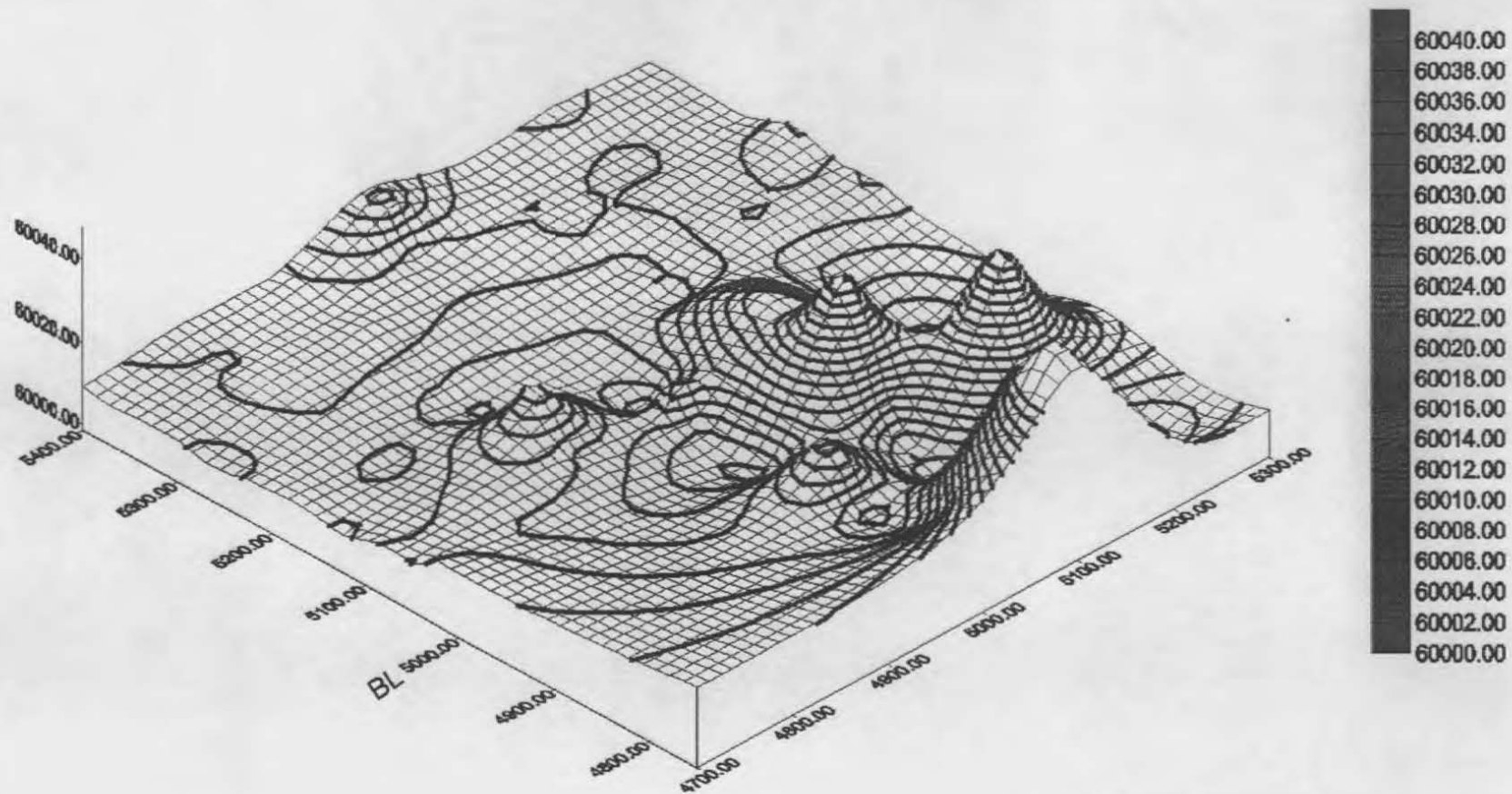


VICTORY GRID 3
CORRECTED MAGNETIC SURFACE CONTOUR MAP
(Vertical Scale in nT)
(Vertical Exaggeration 6.8x)



VICTORY GRID 3
CORRECTED MAGNETIC CONTOUR MAP





VICTORY VENTURES LTD.

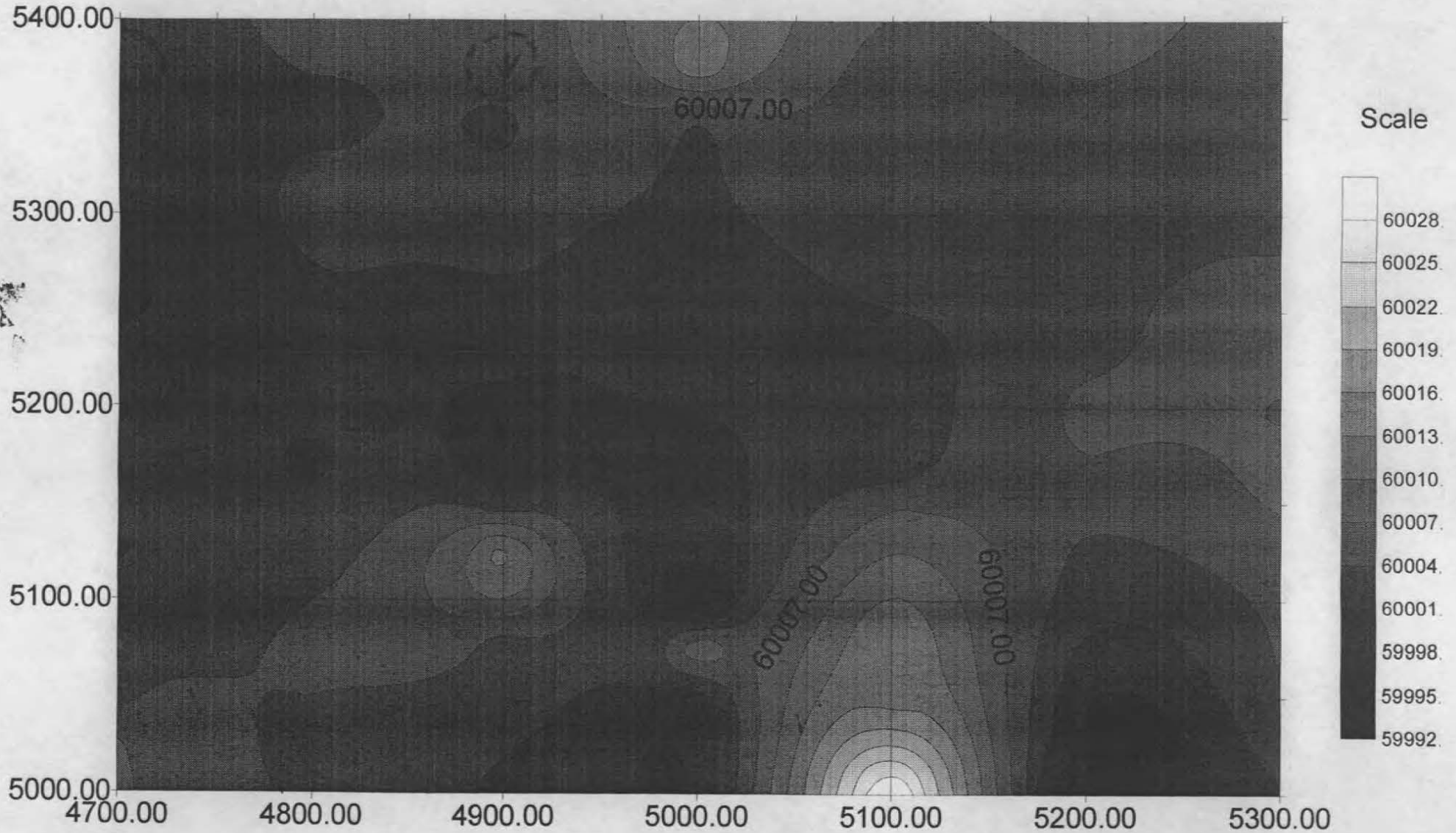
LESSER SLAVE LAKE AREA

**GRID 4 MAGNETIC SURFACE
 CONTOUR MAP**
 (Vertical Scale in nT)
 (Horizontal Scale in meters)

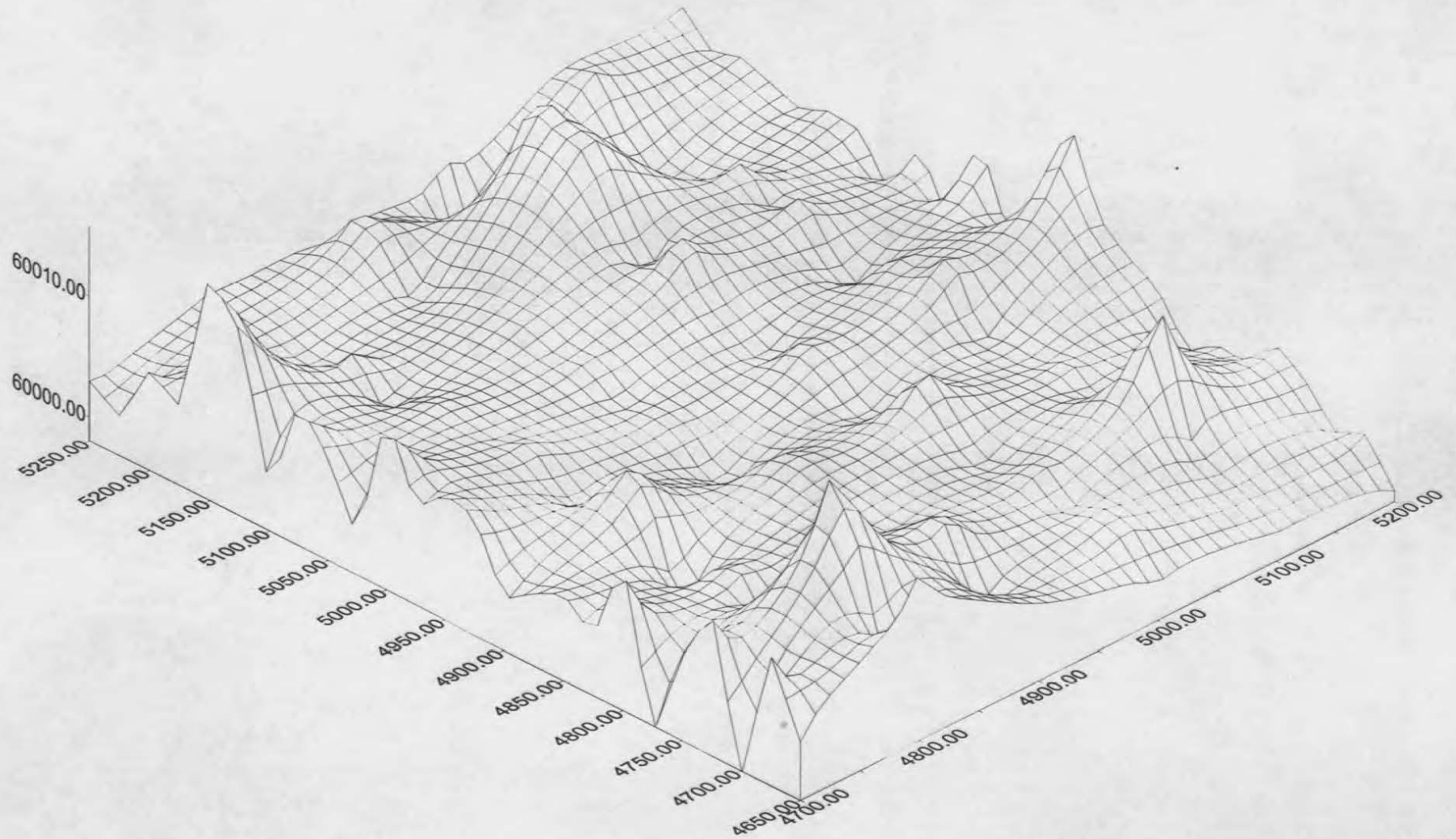
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VICTORY GRID 4
MAGNETIC CONTOUR MAP



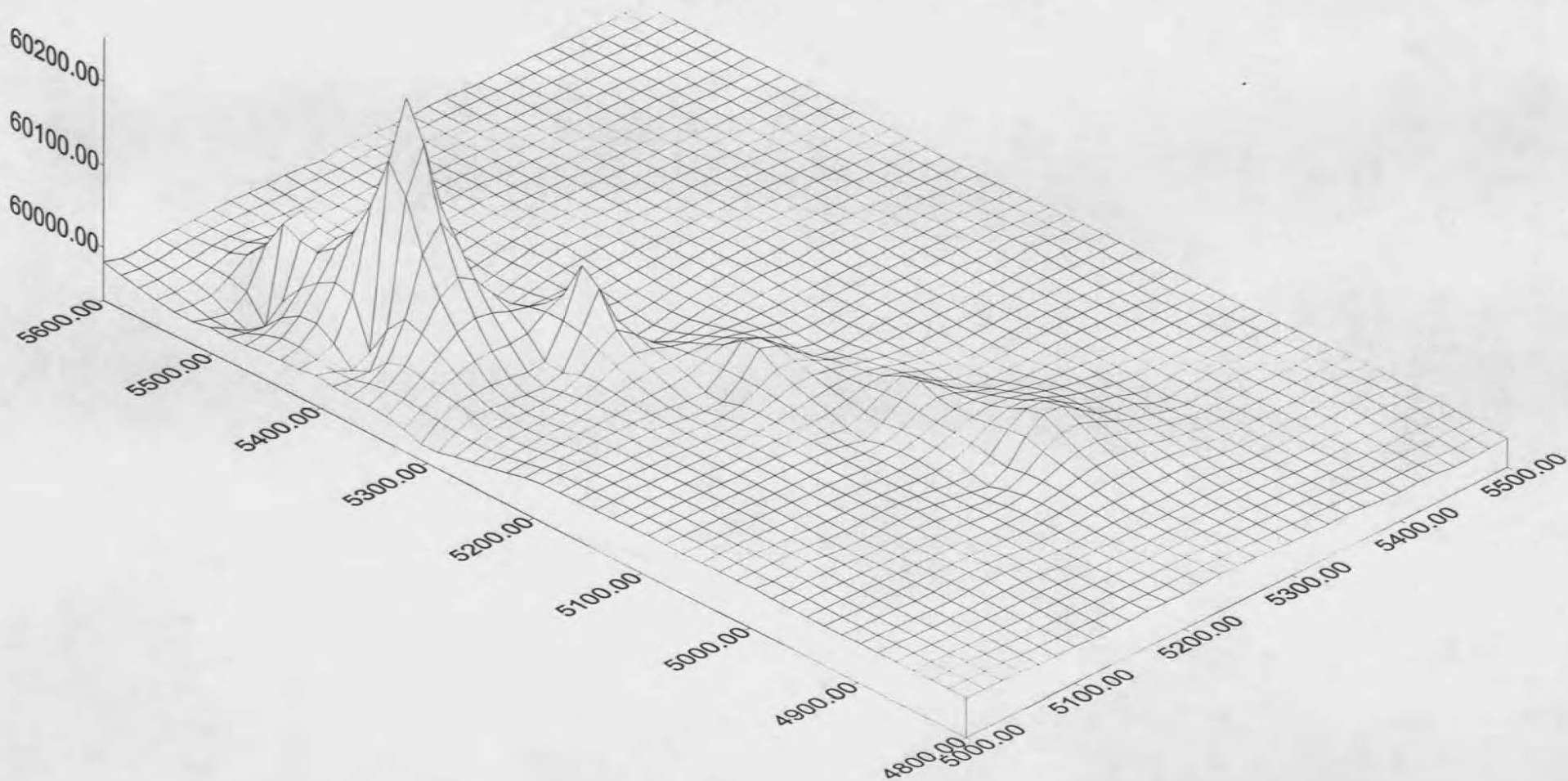
VICTORY GRID 5
MAGNETIC SURFACE CONTOUR MAP
(Vertical Scale in nT)
(Vertical Exaggeration 6.8x)



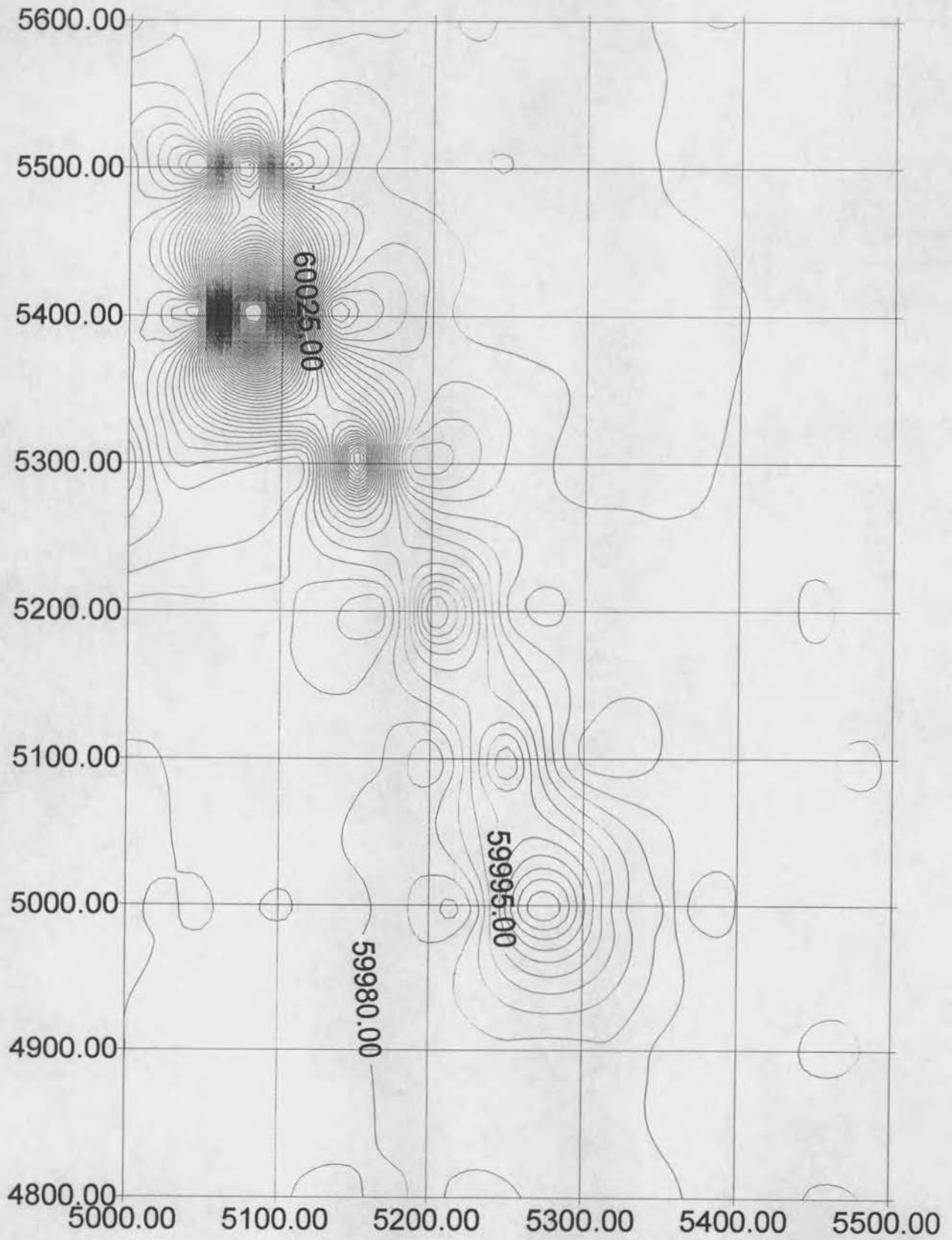
VICTORY GRID 5 MAGNETIC CONTOUR MAP

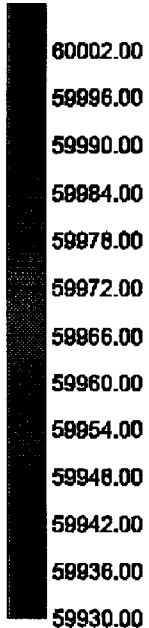
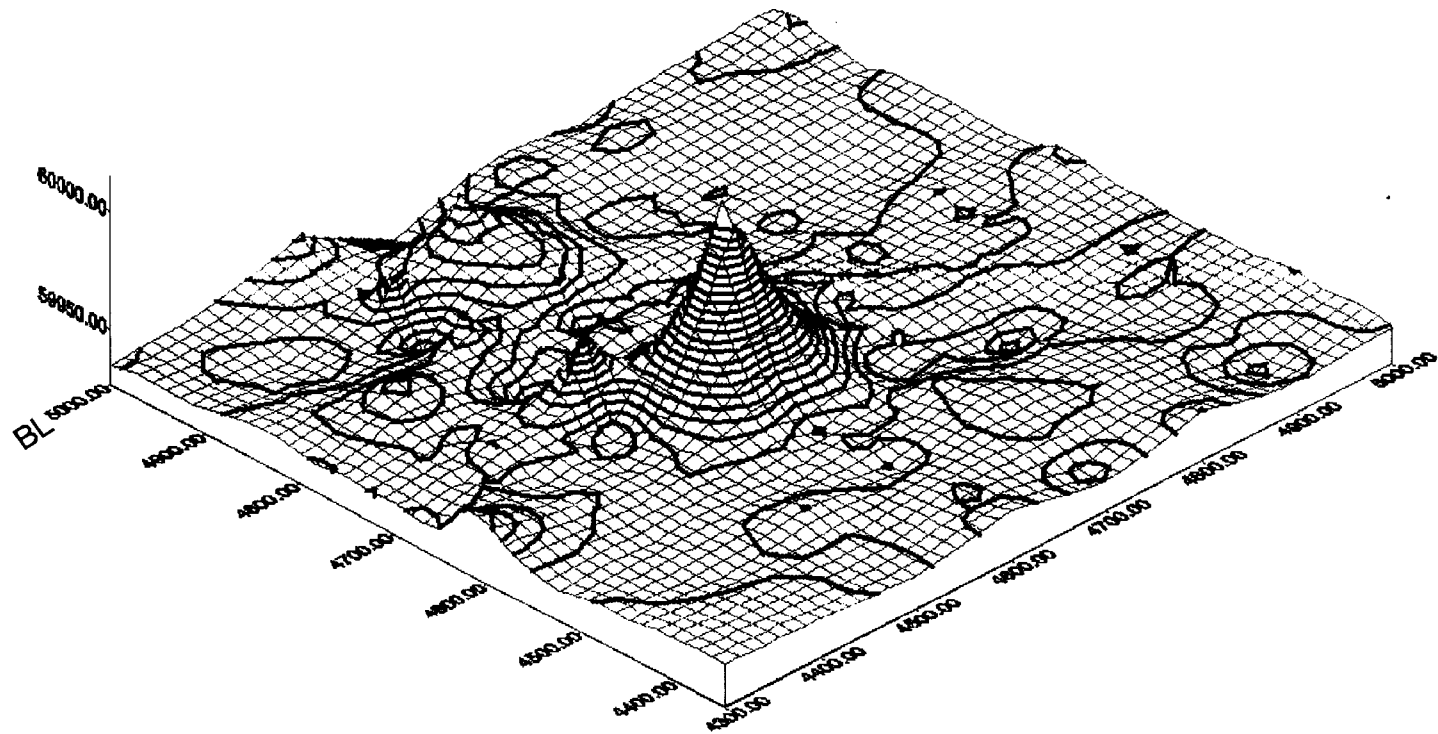


VICTORY GRID 6
MAGNETIC SURFACE CONTOUR MAP
(Vertical Scale in nT)
(Vertical Exaggeration 0.85x)



VICTORY GRID 6 MAGNETIC CONTOUR MAP



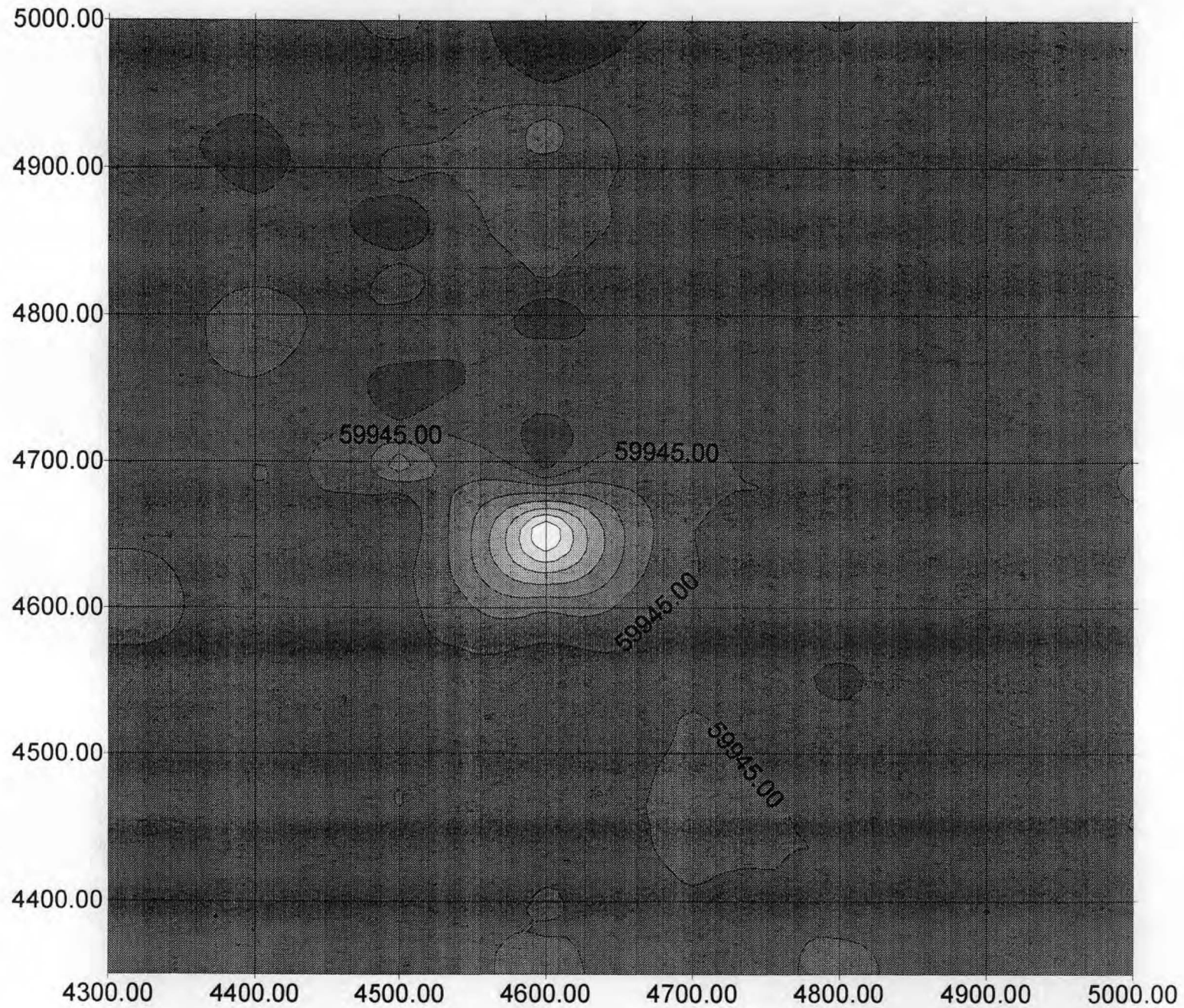


VICTORY VENTURES LTD.

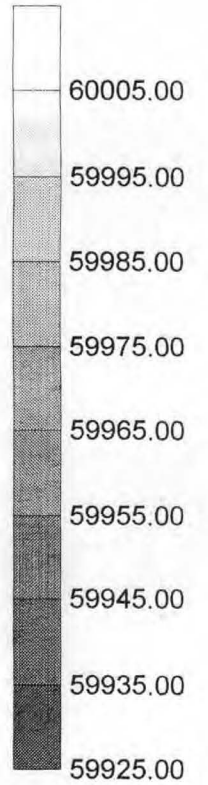
LESSER SLAVE LAKE AREA
**GRID 7 MAGNETIC SURFACE
 CONTOUR MAP**
 (Vertical Scale in nT)
 (Horizontal Scale in meters)

APEX Geoscience Ltd.
 EDMONTON, ALBERTA FEBRUARY, 1998

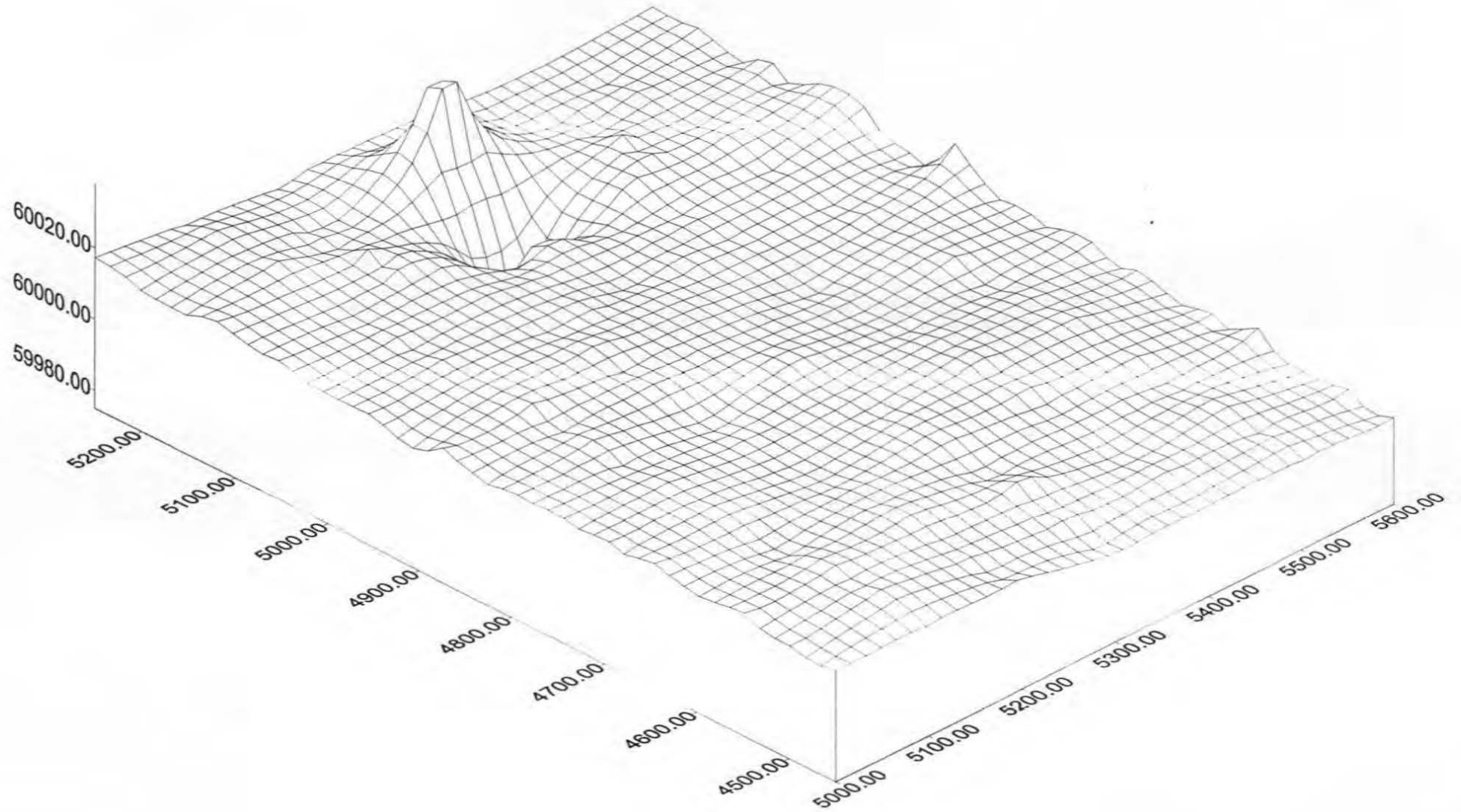
VICTOR GRID 7
MAGNETIC CONTOUR MAP



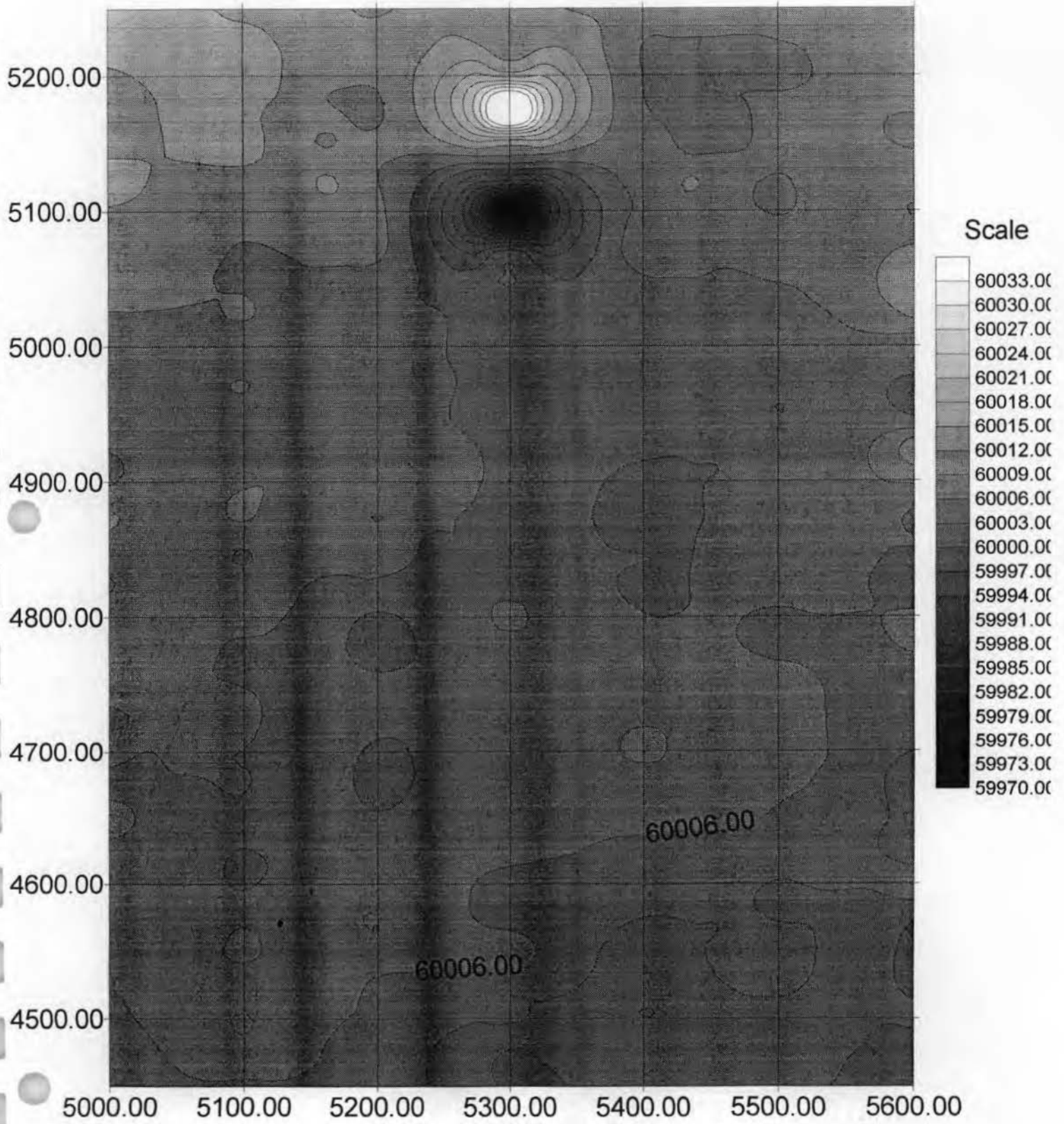
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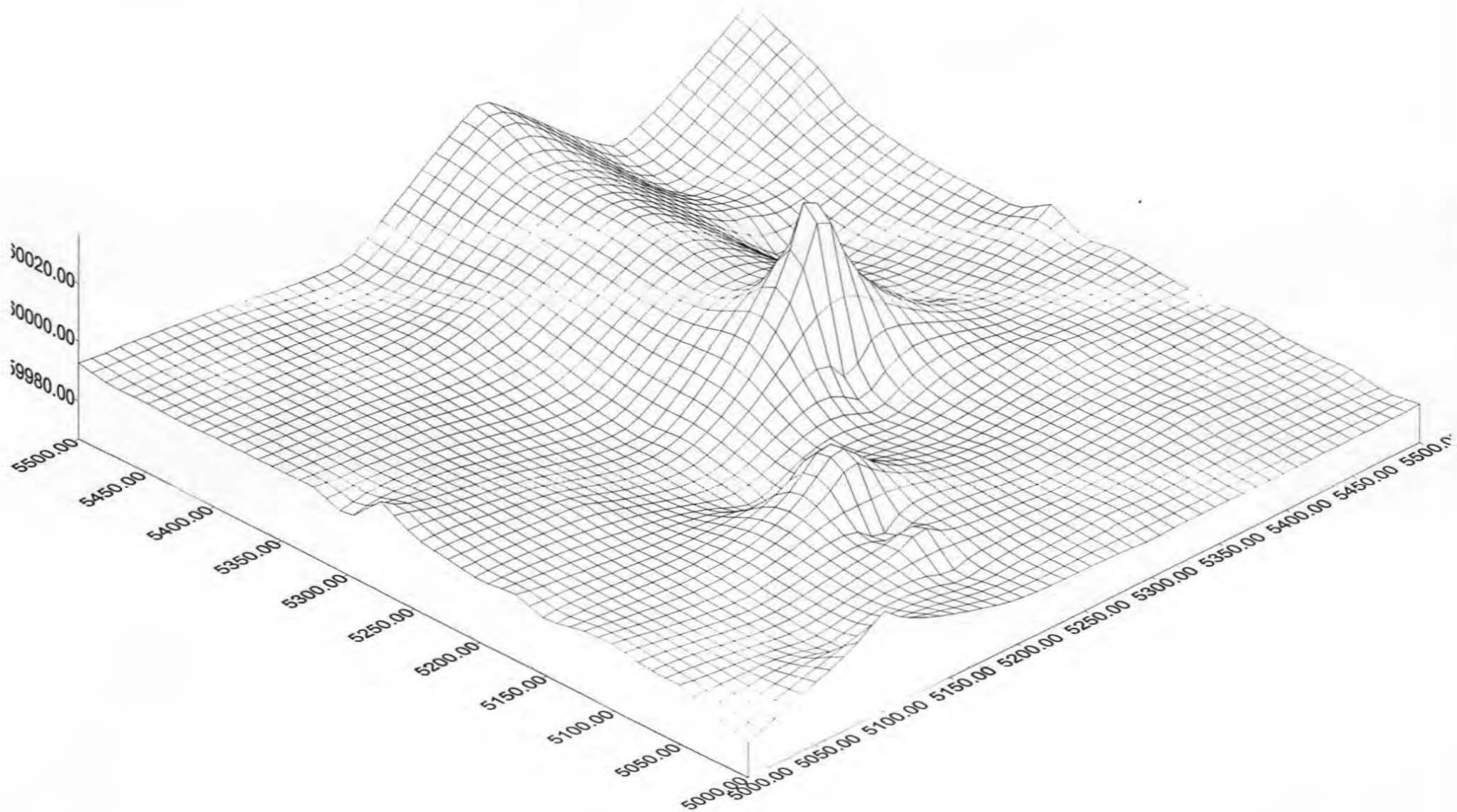
VICTOR GRID 8
MAGNETIC SURFACE CONTOUR MAP
(Vertical Scale in nT)
(Vertical Exaggeration 3.6x)



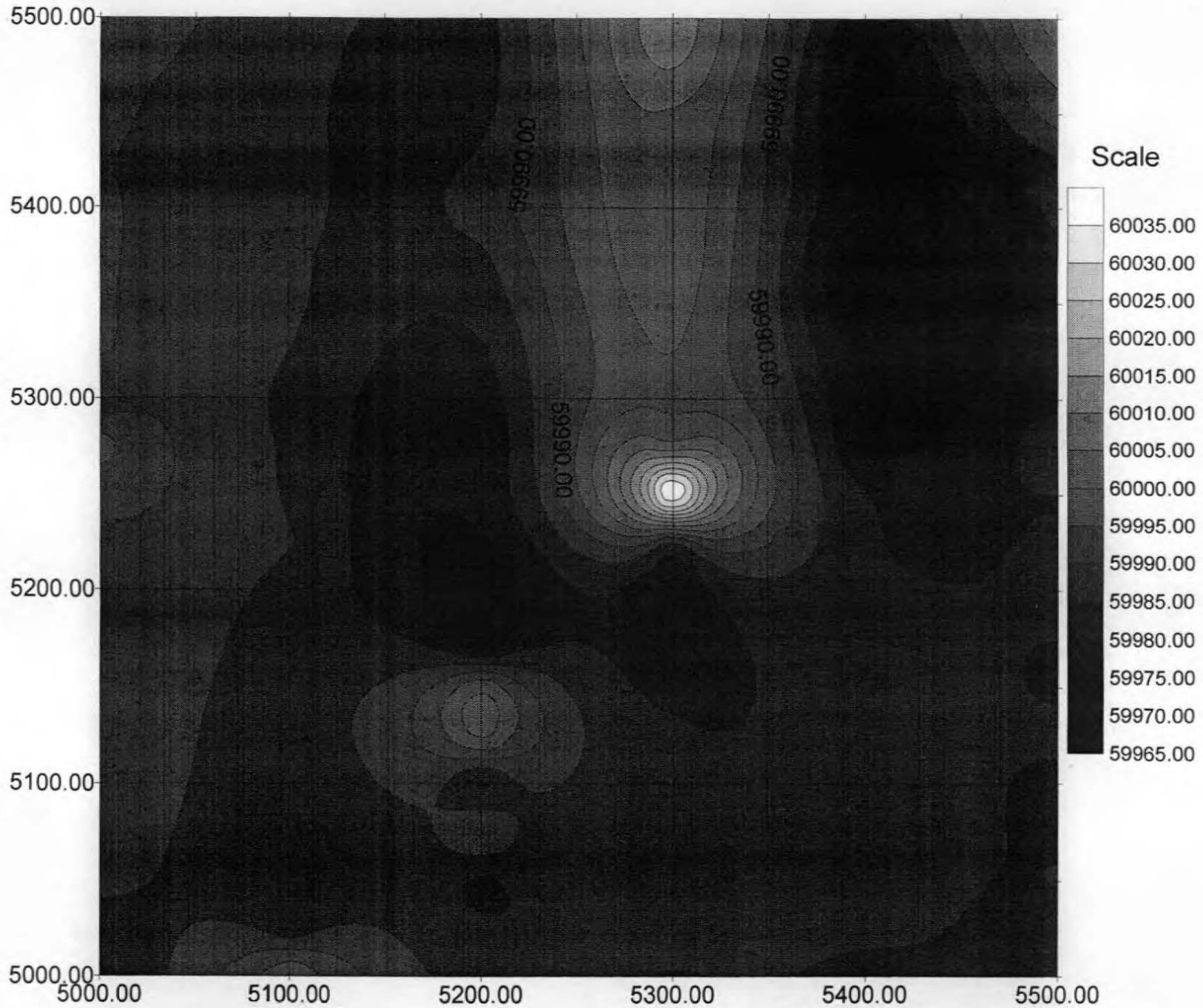
VICTORY GRID 8 MAGNETIC CONTOUR MAP



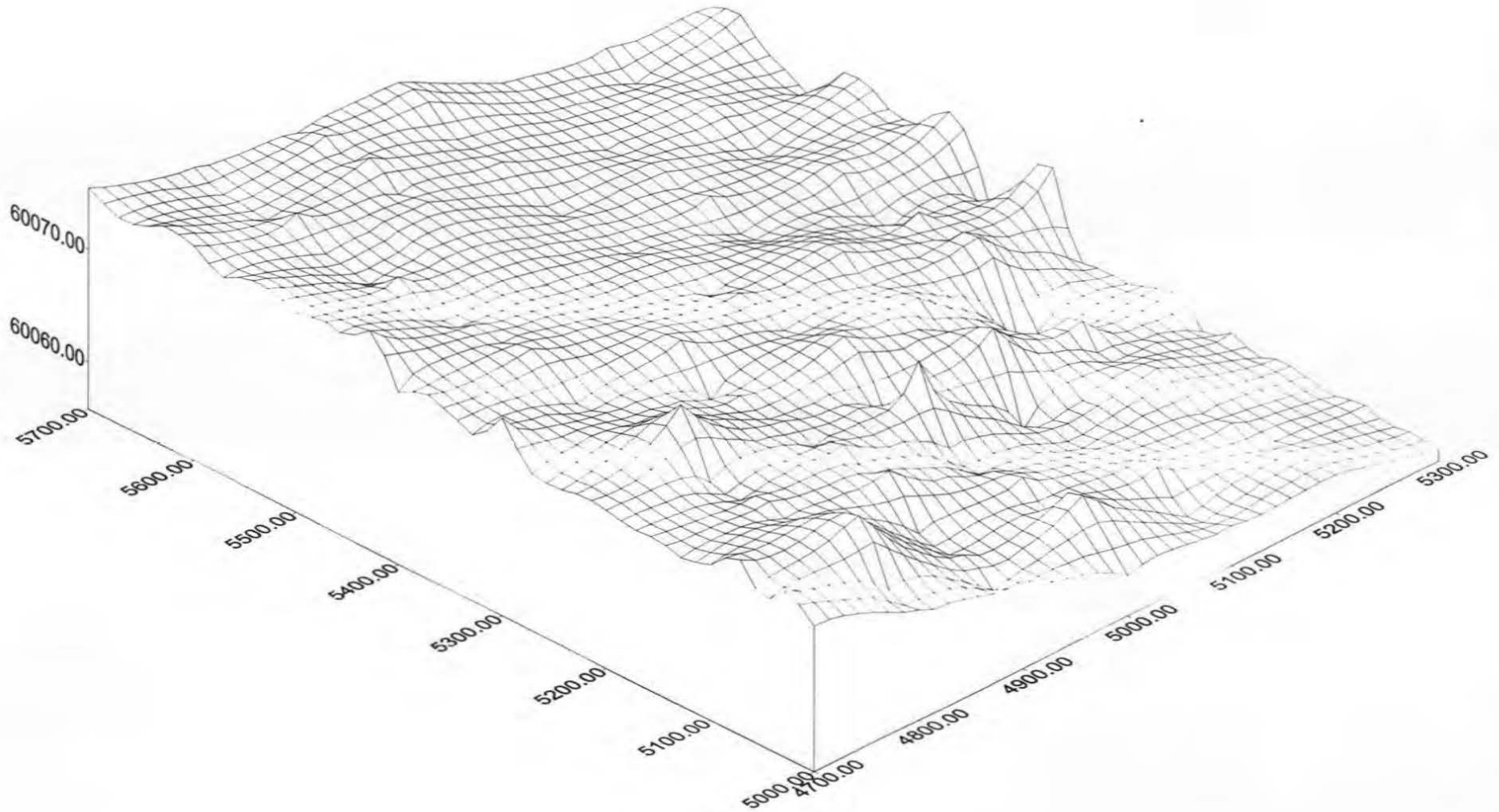
VICTORY GRID 9
MAGNETIC SURFACE CONTOUR MAP
(Vertical Scale in nT)
(Vertical Exaggeration 3.6x)



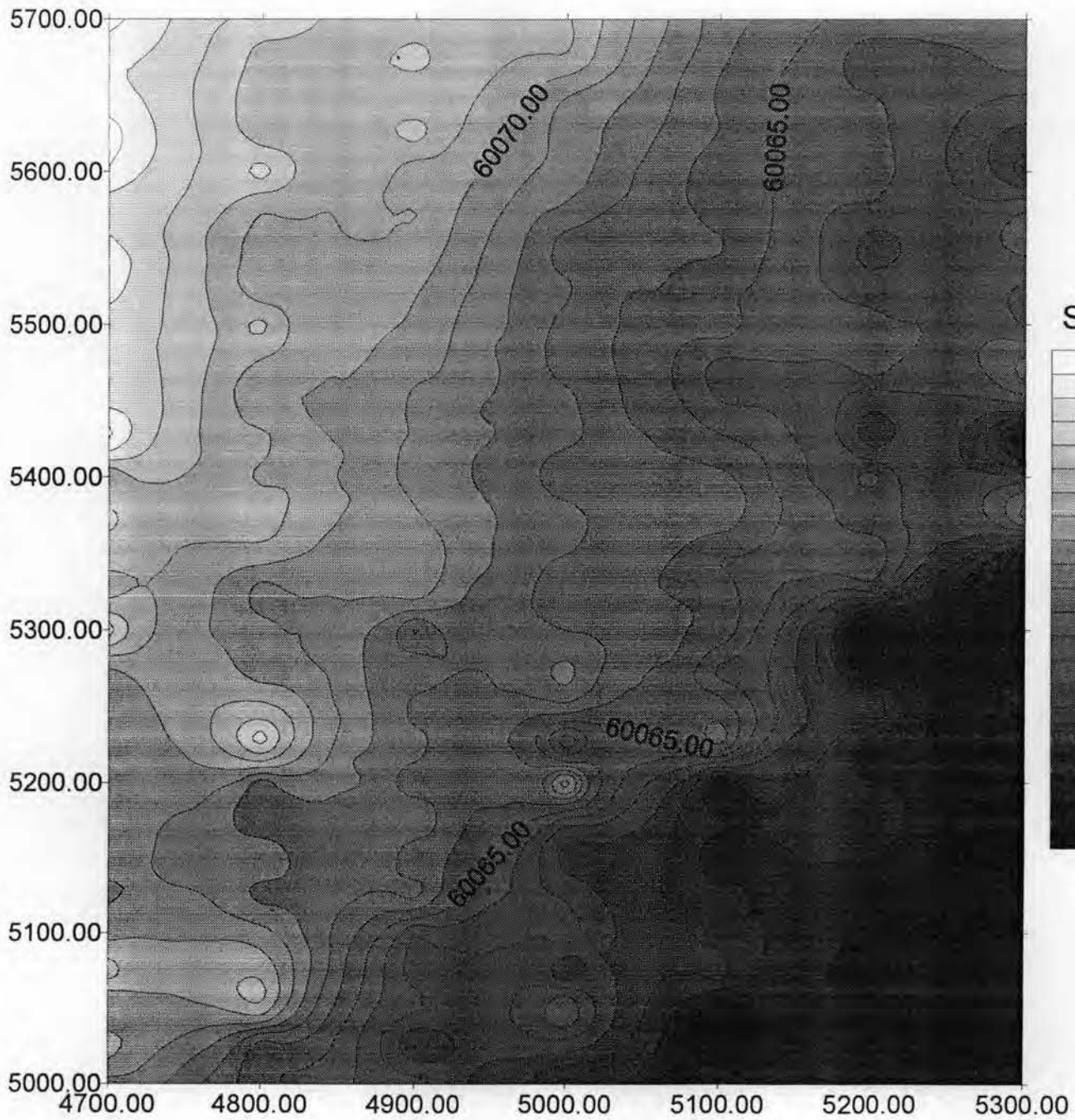
VICTOR GRID 9
MAGNETIC CONTOUR MAP



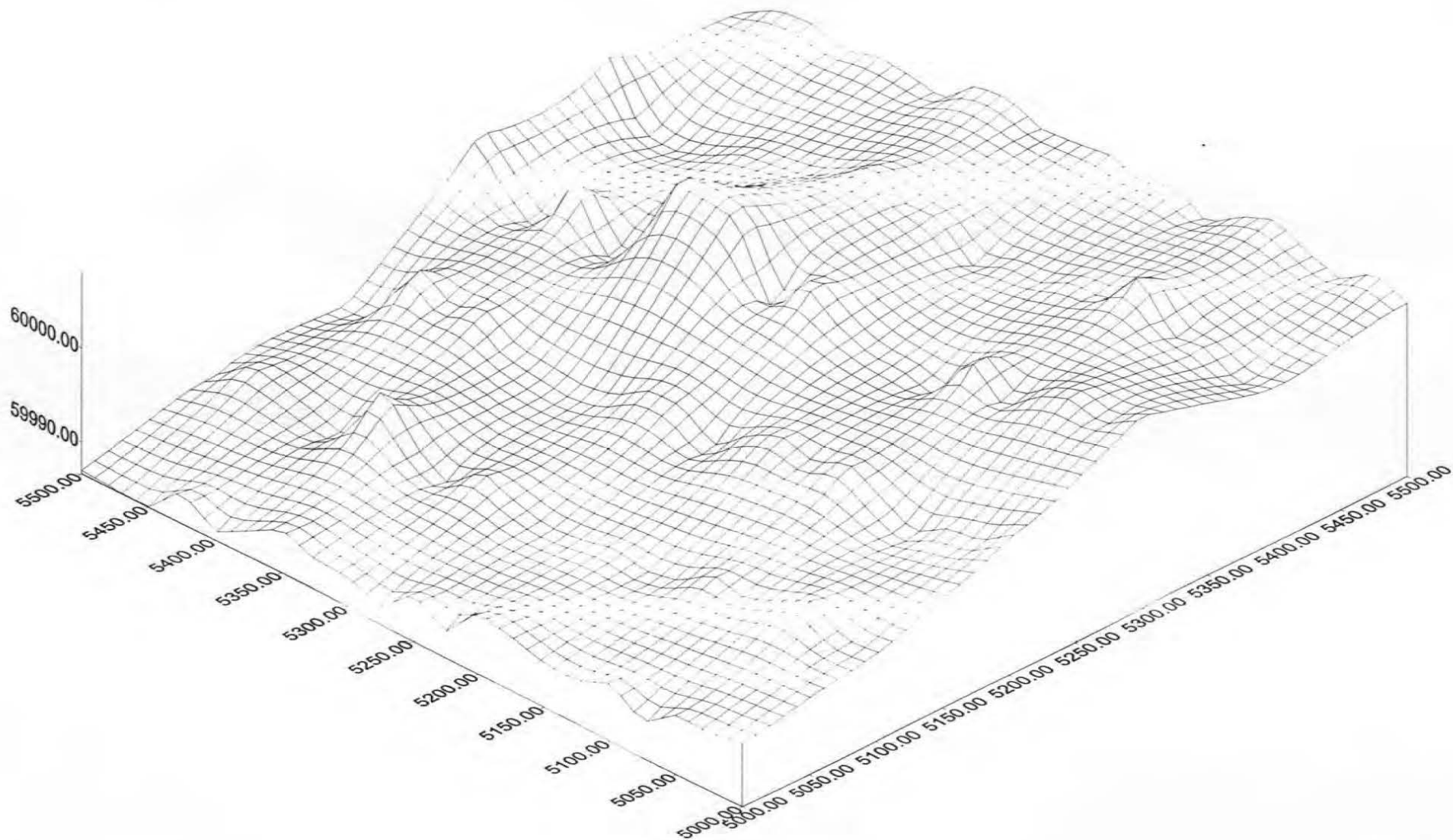
VICTOR GRID 11
MAGNETIC SURFACE CONTOUR MAP
(Vertical Scale in nT)
(Vertical Exaggeration 6.8x)



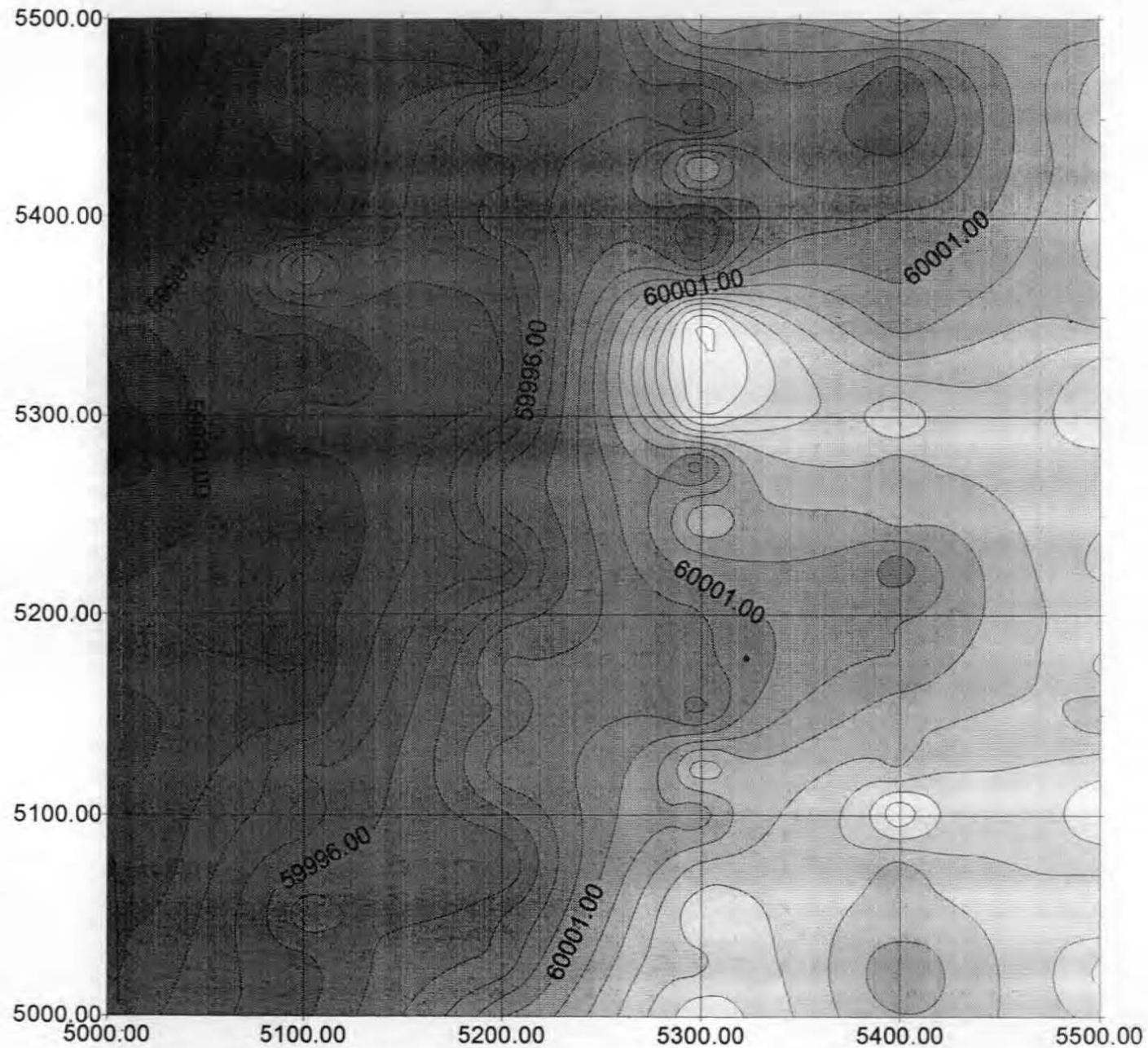
VICTORY GRID 11 CORRECTED MAGNETIC CONTOUR MAP



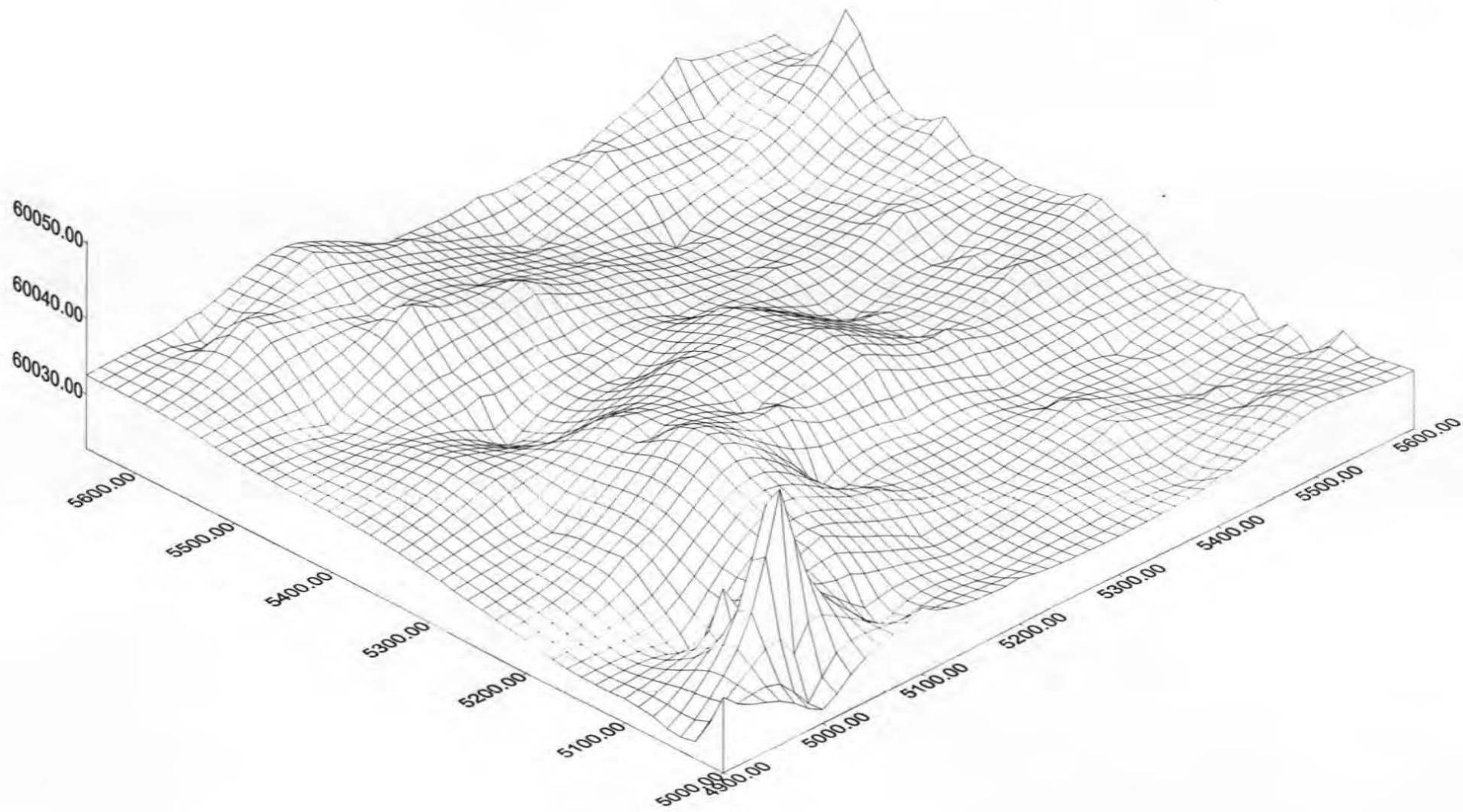
VICTOR GRID 12
MAGNETIC SURFACE CONTOUR MAP
(Vertical Scale in nT)
(Vertical Exaggeration 6.8x)



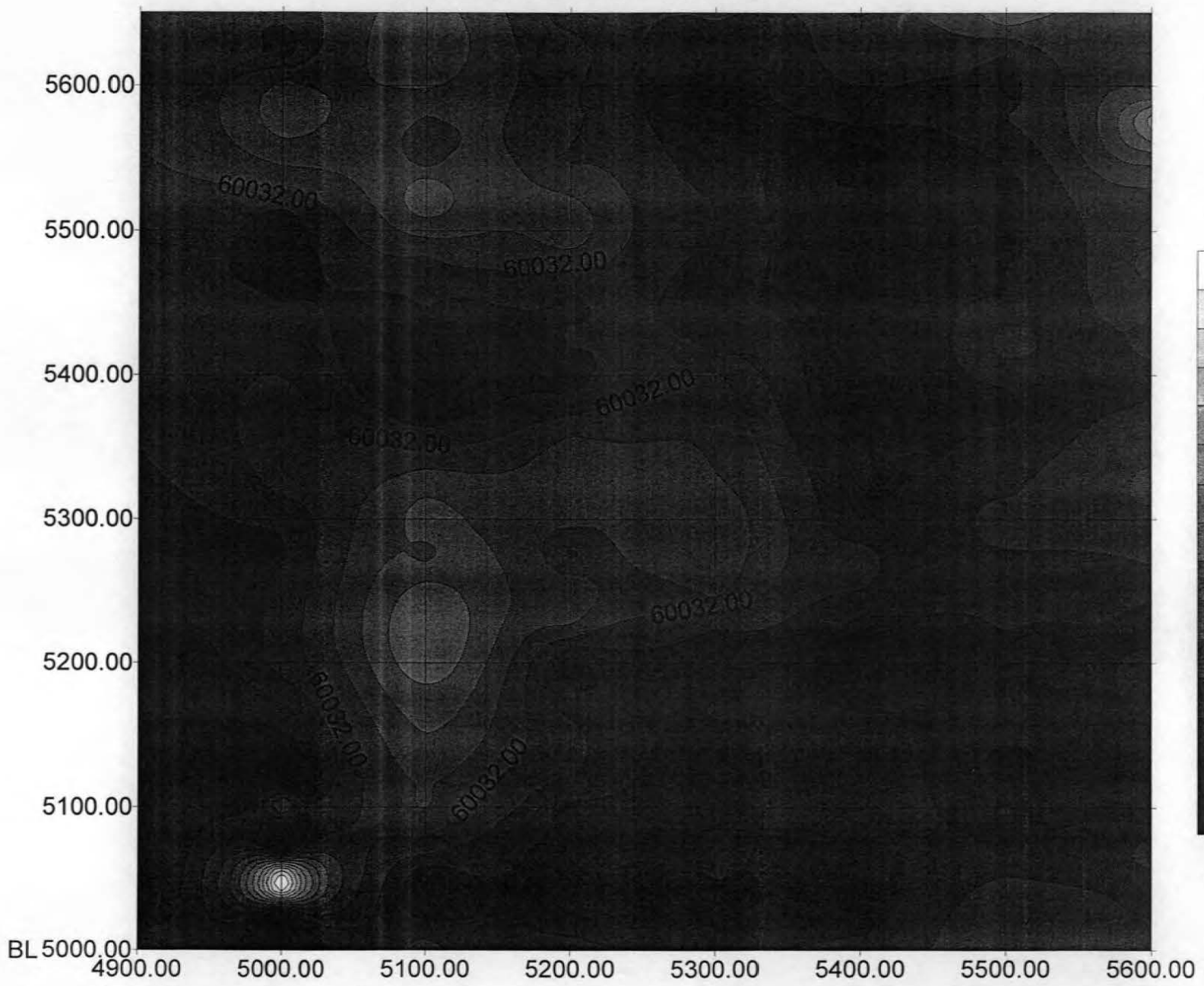
VICTORY GRID 12 MAGNETIC CONTOUR MAP



VICTORY GRID 13
CORRECTED MAGNETIC SURFACE CONTOUR MAP
(Vertical Scale in nT)
(Vertical Exaggeration 6.8x)



VICTORY GRID 13 MAGNETIC CONTOUR MAP

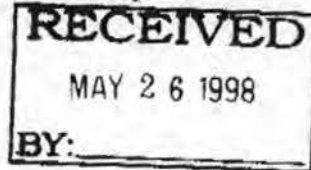


APPENDIX 8

GEDCO AND GEOTRONICS REPORTS



Geophysical Exploration & Development Corporation



DEPTH ESTIMATES OF EIGHT MAGNETIC ANOMALIES IN THE VICTORY AREA, ALBERTA

for Apex Geoscience Ltd.

Apex Geoscience Ltd. of Edmonton has carried out a reconnaissance ground magnetic surveys over six areas for Victory Ventures Inc. in order to delineate potential targets for kimberlite exploration. The magnetic readings were taken at equal intervals of 25m along lines with 100m separations. The raw magnetic data were diurnally corrected against a second magnetometer stationed in the surveyed areas. Apex was able to identify at least eight anomalies in these areas. These anomalies are in general circular in shape, have short overall wavelengths (<250m) and have small to strong magnetic amplitudes (5-350nT). Apex has contracted GEDCO to estimate the depth to magnetic sources of these anomalies, which is the main objective of this report.

We were provided with poor quality faxed maps and digital data grids. We were not asked to map the data. We were asked to extract profiles and estimate depths.

The sampling interval of 25m constrains our depth resolution to $\pm 15m$. We did not have an opportunity to review the acquisition procedures, so we have assumed that the data are accurate as presented.

Ground magnetic surveys are extremely difficult to interpret, especially out of context. We urge the client to interpret these results in the context of airborne magnetic surveys covering a larger area, air photo coverage, and any other geophysical information available.

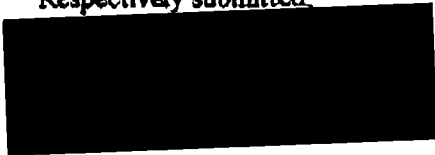
Anomaly 47 is a particularly interesting anomaly because of its apparent complex nature and shallow depth. However, it could be an old seismic garbage dump as easily as being a kimberlite. A gravity survey and an IP survey would help to define the nature of this anomaly more completely, and these surveys are warranted either before or after drilling.

We have used Peters half-slope method to empirically calculate the depth of these anomalies (Figures 1 to 14) assuming that the target is a kimberlite pipe (depth index = 1.8). The results which indicate that most of the targets are of shallow depths are summarized in Table (1). Although the sampling rate (1 reading/25m) of the surveys is not adequate to accurately calculate the depth of these anomalies we feel that our estimates are very reasonable judging from the wavelengths and the magnitude of these anomalies.

1200, 815 • 8th Avenue S.W., Calgary, Alberta, Canada T2P 3P2 Tel: (403) 262-5780 Fax: (403) 262-8632

We have also rated the targets into three categories ranging from excellent (I) to poor (III) according to their magnitude, shape and association with possible geomorphological features. Anomalies rated as I such as anomaly No. 47 (Figures 9 and 10) deserve further investigation more than anomalies rated as III.

Respectively submitted.



H H. Hassan, Geophysicist

John W. Peirce
John W. Peirce, P. Geoph.
Managing Partner

May 25, 1998

J:\K0850473\Apex\Apex.report.wpd

PERMIT TO PRACTICE
<small>GEOPHYSICAL EXPLORATION & DEVELOPMENT CORPORATION</small>
Signature <i>John W. Peirce</i>
Date <i>May 25, 1998</i>
PERMIT NUMBER: P 5340
The Association of Professional Engineers, Geologists and Geophysicists of Alberta

Table 1. Peters half-slope depth estimates of ground magnetic anomalies identified on six mining properties in Alberta. Grid#

ANOMALY ID	QUALITY	FIGURE No.	LINE No.	ANOMALY CENTER	PROPERTY NAME	DEPTH (m)	COMMENTS
10A	II	Figure 1	4900	5090N	Victory 4	15m	Cluster of several anomalies with amplitude ranging from 5-30nT.
10B		Figure 2	5000	5100N		15m	
10C		Figure 2	5000	4960N		15-30m	
10D		Figure 3	5100	4975N		15-30m	
10E		Figure 4	5200	4950N		15-30m	
10F		Figure 5	5300	5200N		15-30m	
28A	III	Figure 6	5100	4975N	Victory 2	15m	Fair 20nT anomaly. Part of general cluster of anomalies.
28B	III	Figure 7	5000	4775N		15m	Fair 15nT anomaly. Part of general cluster of anomalies.
36	II	Figure 8	5100	5050N	Victory 3	15m	Fair 25nT anomaly. Part of general cluster of anomalies.
47	I	Figure 9	5200	5275N	Victory 1	15m	Very strong isolated anomaly with a maximum amplitude of 300nT (?). -
47		Figure 10	5300	5450N		15m	
54	III	Figure 11	5400	5050E	Victory 6	15-30	Very strong 350nT anomaly. However, it appears to be part of linear.
54		Figure 12	5500	5100E		15m	
55	III	Figure 13	5300	5175E		15m	
56	II	Figure 14	4600	4625N	Victory 7	30m	Strong isolated 80nT anomaly.

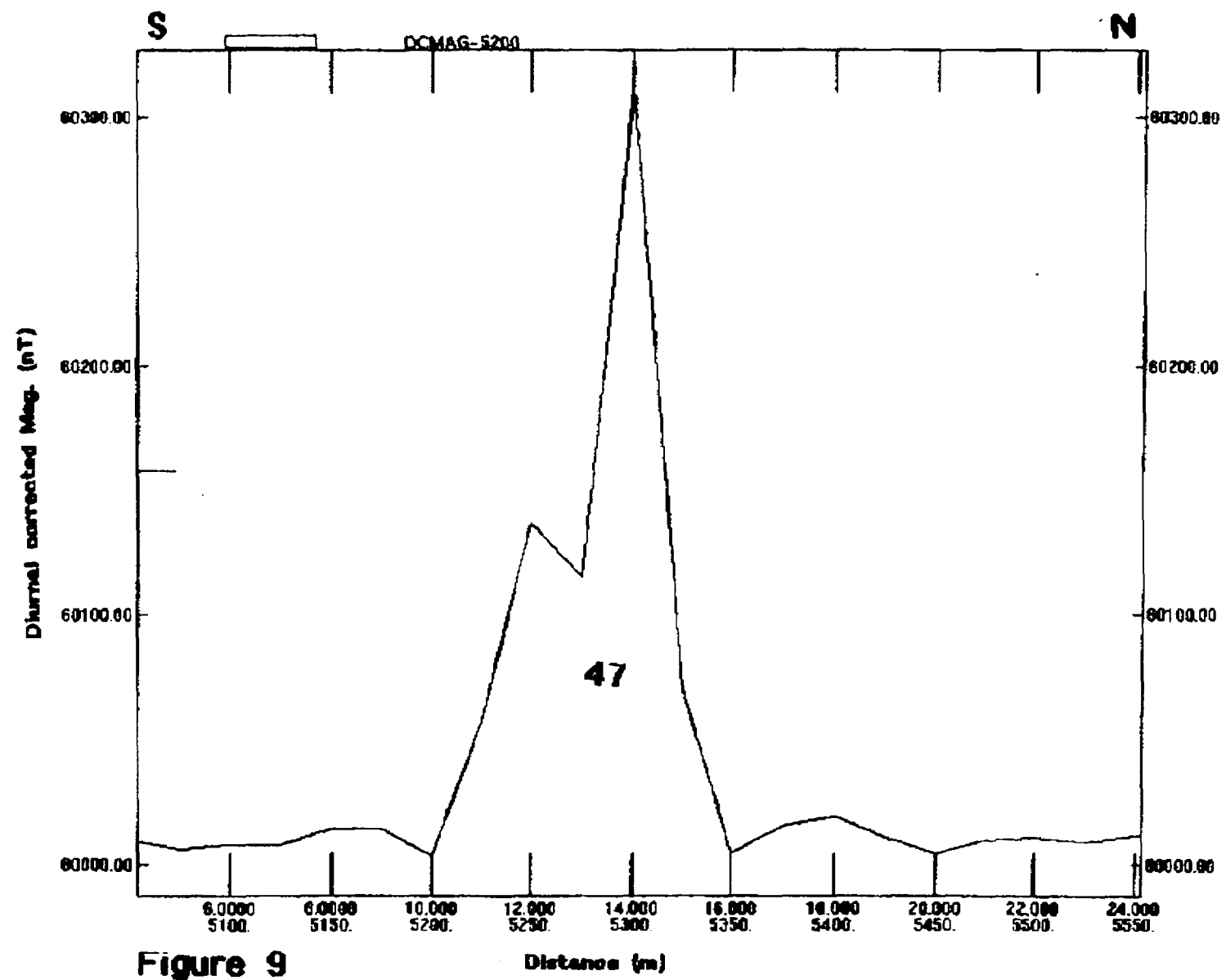


Figure 9

Distance (m)

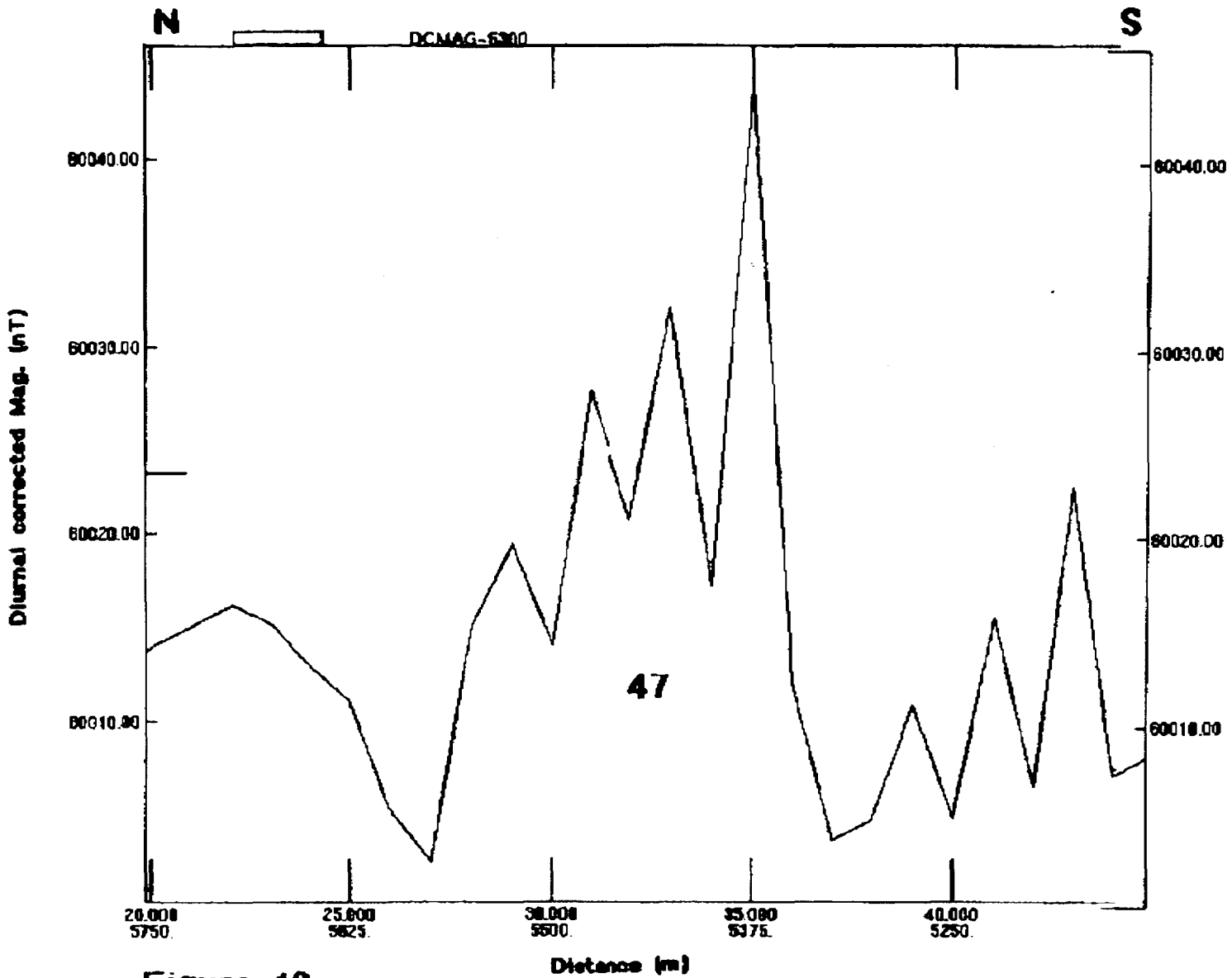


Figure 10

TOTAL P.17

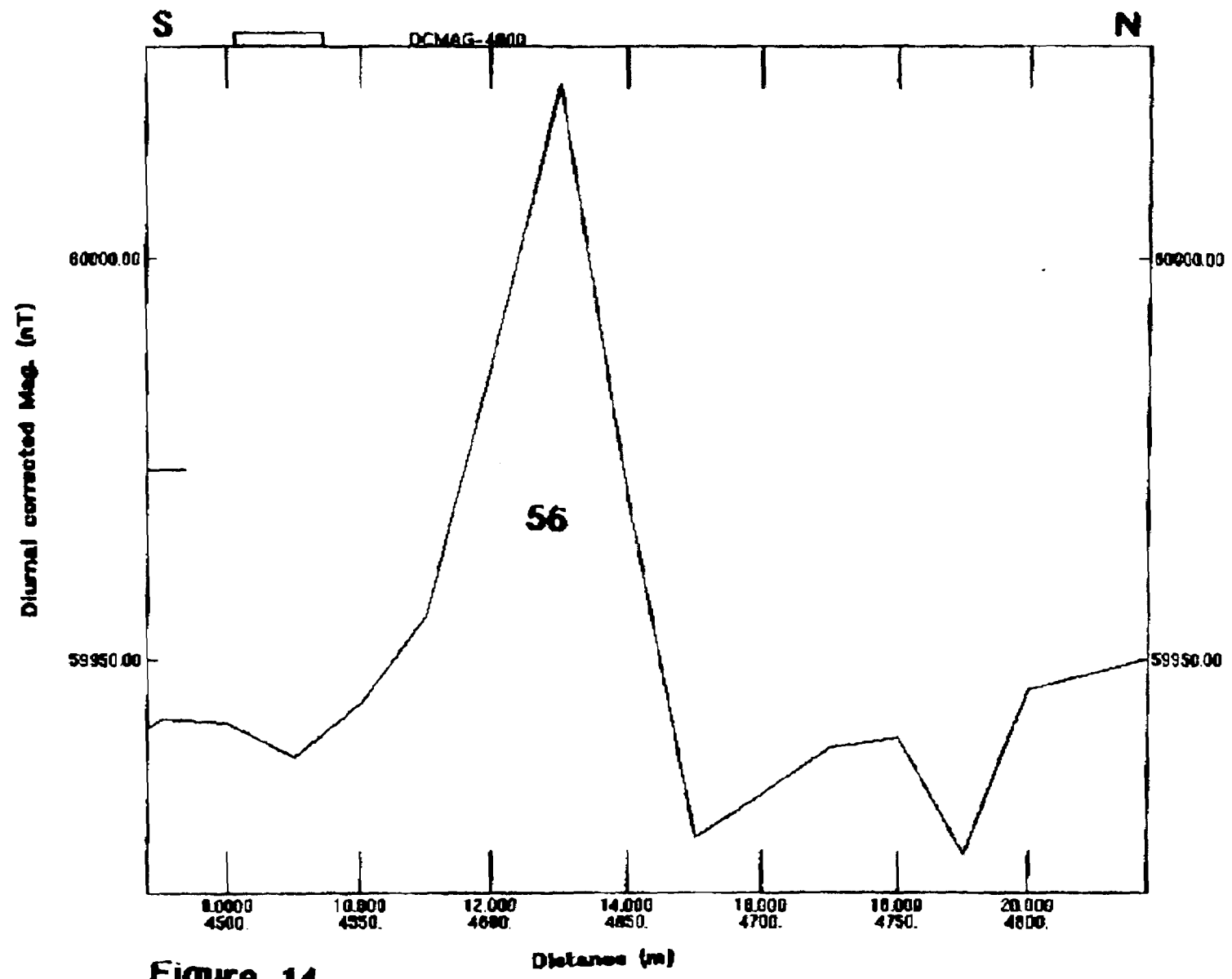


Figure 14

GEOPHYSICAL REPORT

ON A

HORIZONTAL LOOP ELECTROMAGNETIC SURVEY

OVER THE

SYD CLAIM GROUP

LESSER SLAVE LAKE AREA

ALBERTA

PROPERTY LOCATION : Centre is located 25 km NNW of town of
Baddeck, Nova Scotia
N.T.S. - 11K/2

WRITTEN FOR : **VICTORY VENTURES INC.**
311 - Beatty Street
Vancouver, British Columbia

WRITTEN BY : David G. Mark, P.Ge.,
GEOTRONICS SURVEYS LTD.
#405 - 535 Howe Street
Vancouver, British Columbia V6C 2Z4

DATED : April 14, 1998



TABLE OF CONTENTS

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SUMMARY

HLEM surveying was carried out during March 1998 over several grids on the Syd Claims belonging to Victory Ventures Inc. and located within the Lesser Slave Lake area of Northern Alberta. The terrain is relatively flat.

The main purpose of the surveying was to determine whether the magnetic anomalies were conductive and therefore more likely to indicate kimberlite pipes. HLEM surveying is being used successfully in the area to locate and/or map kimberlite pipes.

The horizontal loop electromagnetic (HLEM) survey was carried out with an Apex Parametrics MaxMin II electromagnetometer in the horizontal loop mode. The coil spacing was 100 m; the reading interval, 12.5 or 25 m, and the frequencies read, 222, 444, 888, 1777, and 3555 Hz. The HLEM readings were categorized and examined for any anomalous responses. The amount surveyed was 4,225 meters.

Depth calculations were carried out on seven of the magnetic anomalies and given within this report in table format.

CONCLUSIONS

1. The responses from the HLEM survey was quite flat. If the magnetic anomalies are reflecting kimberlite pipes, than the explanation could be that the kimberlite pipes have a conductivity similar to that of the surrounding host rock or they are at a depth greater than the depth penetration of the coil separation used.
2. The one exception was that there was a very small response of 2% across the grid 4 anomaly located at 5000N on line 5100E. This supports the possibility of this particular magnetic high being caused by a kimberlite pipe.
3. Depths to the magnetic causative sources were calculated to vary from 23 to 55 meters.

GEOPHYSICAL REPORT
ON A
HORIZONTAL LOOP ELECTROMAGNETIC SURVEY
OVER THE
SYD CLAIM GROUP
LESSER SLAVE LAKE AREA
ALBERTA

INTRODUCTION

This report discusses the survey procedure, compilation of data, interpretation methods, and results of a horizontal loop electromagnetic (HLEM) surveying carried out along nine lines within eight grids within the Syd Claim Group which occurs within the Lesser Slave Lake area of Northern Alberta.

The surveying was carried out by David O'Neill, geophysical technician., under the direction of David Mark, P.Geo., consulting geophysicist, both of whom are with Geotronics Surveys Ltd. Mr. O'Neill was assisted by Chris Buchanan, a geologic technician with Apex Geoscience Ltd. and who located all the field work. The work was carried out from March 20 to 25, 1998.

The number of meters of HLEM survey carried out were 4,225.

The purpose of the HLEM work was to determine the response to magnetic anomalies previously delineated by ground surveys and located by an airborne survey across the entire property. The purpose of the exploration was to locate kimberlite pipes which may carry diamonds. HLEM surveying often responds to kimberlite pipes since the kimberlite alters into a material that is sometimes electrically conductive relative to the host rock. It is

understood that HLEM surveying has been used successfully in the Northern Alberta diamond play in the exploration for kimberlite pipes.

The terrain was very flat resulting in a very low noise level of the data.

There was no linecutting done. However, much of the surveying was done across open fields. There was some brush and/or trees encountered on some of the grids.

INSTRUMENTATION AND THEORY

A MaxMin II portable 2-man electromagnetometer, manufactured by Apex Parametrics Ltd. of Toronto, Ontario was used for the HLEM survey. This particular instrument has the advantage of flexibility over most other EM units in that it can operate with different modes and frequencies as well as having a variety of distances between transmitter and receiver. Five frequencies can be used (222, 444, 888, 1777 and 3555 Hertz), and six different coil separations (25, 50, 100, 150, 200 and 250 meters).

In all electromagnetic prospecting, a transmitter induces an alternating magnetic field (called the primary field) by having a strong alternating current move through a coil of wire. This primary field travels through any medium and if a conductive mass such as a sulphide body is present, the primary field induces a secondary alternating current in the conductor, and this current in turn induces a secondary magnetic field. The receiver picks up the primary field and, if a conductor is present, the secondary field. The fields are expressed as a vector which has two components, the "in-phase" (or real) component and the "out-of-phase" (or quadrature) component. For the MaxMin instrument, the results are expressed as the percent deviation of each component from what the values would be if no secondary field (and therefore no conductor) was present. For the VLF-EM receiver, the tilt angle in degrees of the distorted electromagnetic field with a conductor is measured from that which it would have been if the field was not distorted with no conductor.

Since the fields lose strength proportionally with the distance they travel, a distant conductor has less of an effect than a close conductor. Also, the lower the frequency of the primary field, the further the field can travel and therefore the greater the depth penetration.

The MaxMin II EM unit can vary the strength of the primary field and so use different separations between transmitter and receiver coils, change the frequency of the primary field for varying depth penetrations, and use three different ways of orienting the coils to duplicate the survey in three styles so that more accuracy is possible in the interpretation of the data.

The use of the MaxMin II electromagnetometer allows for better discrimination between low conductive structures such as clay beds and barren shear zones and more conductive bodies like massive sulphide mineralization. It also gives several different types of data over a given area so that statistical analysis can result in less error in the interpretation.

SURVEY PROCEDURE

Thirteen survey grids were previously put in by Apex field technicians/geologists for the purpose of running ground magnetic surveys in order to more accurately delineate magnetic anomalies that were located by the airborne survey. Eight of these grids were surveyed by HLEM with one line being done across each of the grids usually checking out one anomaly each. The exception is grid 4 where two lines were carried out to check out four magnetic anomalies.

The surveying was done as follows:

GRID	LINE	MAG. ANOMALY LOCATION	STATIONS	LENGTH	READING INTERVAL
1	5200E	5325N	5000N to 5600N	600 meters	25 meters
2	5100E	5050N, 5200N	4900N to 5300N	300 meters	25 meters
3	5000E	5200N	4900N to 5300N	300 meters	25 meters
4	5100E	4775N, 5000N	4600N to 5200N	600 meters	25 meters
4	5200E	4937N	4700N to 5100N	400 meters	25 meters
5	5000E	5150N	4950N to 5350N	400 meters	25 meters
6	5400E	5075N	4875N to 5350N	475 meters	25 meters
7	4600E	5325N	4400N to 4900N	500 meters	12.5 meters
9	5300E	---	5050N to 5700N	650 meters	25 meters

The HLEM readings were taken with the separation between the transmitter and receiver being 100 m.

The receiver operator read and recorded the in-phase and out-of-phase responses for all five frequencies. Also, calibration and phase mixing tests were conducted three times a day and the appropriate corrections made when necessary.

COMPILATION OF DATA

The readings were organized into categories of the frequencies, both in-phase and out-of-phase and then examined for any anomalous responses. The responses were very flat, except for one very small response, and therefore no further compilation of data was carried out. The data is given at the end of the report.

INTERPRETATION PITFALLS

One of the main problems with EM surveying is conductive overburden which could occur on the Syd Claims. If the overburden thickness is uniform, then the problem is minimized. The conductive overburden (or conductive host rock) causes the in-phase and out-of-phase profiles to separate from each other and away from the zero line as well as alters the amplitude of the negative peak for both the in-phase and out-of-phase. One therefore moves the zero line to correlate with the background reading of the in-phase profile and/or the out-of-phase profile and then uses special quantitative interpretation procedures.

More difficult problems are produced, however, if the thickness of the conductive overburden undulates, or if there exists a buried bedrock trough, or ridge. This can produce an EM profile similar in shape to that over a normal conductor. However, this feature will become minimal at lower frequencies and, therefore, this type of "false conductor" can be sorted out.

The dip of the conductor is probably the most difficult piece of information to interpret from the EM profiles. The major cause is non-uniform conductive overburden which tends to affect the shape (from which the dip is taken) of the EM profile over a conductor. Another cause of the problem is two closely spaced conductors so that one affects the shape of the other.

Another problem is geological noise, which is produced from such features as faults, fracture zones, contacts, and graphitic horizons. This can also affect the shape of the EM profile over a conductor.

Often, interpretations can be carried out using two different models. The most common difficulty of this type is deciding whether the causative source is one wide conductor, or two narrow conductors. Often the interpretation for each case produces similar results (i.e. similar dip, similar depth-to-top).

MAGNETIC DEPTH CALCULATIONS

Depth calculations to the causative source were carried out over several of the magnetic anomalies within the property as given in the following table. To do this, a model of a vertical cylinder was assumed which is a shape that is close to that of a kimberlite pipe.

GRID	LINE	STATION	BACKGROUND	AMPLITUDE	DEPTH
1	5200E	5325N	60,009 nT	60,312 nT	23 m
1	5200E	5275N	60,009 nT	60,136 nT	26 m
4	5100E	4775N	60,014 nT	60,051 nT	55 m ?
4	5100E	5000N	60,014 nT	60,033 nT	36 m ?
4	5200E	4937N	60,012 nT	60,047 nT	34 m
6	5400E	5075N	59,977 nT	60,325 nT	22 m
7	4600E	4650N	59,942 nT	60,022 nT	33 m

Following are comments on the table:

1. The two anomalies shown for grid 1 appear as one anomaly on the plan map but in profile form appear to have two separate causative sources spaced 50 meters apart.
2. Lonnie Chin, geologist with Apex Geoscience, stated to the writer that the grid 1 anomaly was drilled at 5325N and encountered about 23 meters of overburden. This is exactly the same as the depth calculated to the source of the magnetic anomaly. Therefore, the causative source is within the bedrock, which apparently was a shale, or within the basal till close to the bedrock.
3. The question marks after the depths shown for the two grid 4 anomalies on line 5100E are there because the depths are considered quite approximate due to the irregular shape of each of the anomalies.
4. The amplitude for the anomaly shown on line 5200E for grid 4 is extrapolated and thus occurs between two readings.

DISCUSSION OF RESULTS

The HLEM results as mentioned above are very flat indicating that if the magnetic anomalies are reflecting kimberlite pipes, they are not conductive relative to the surrounding host rock. For example, if shales underlie any of the kimberlites, as occurred below the grid 1 anomaly, then the conductivity contrast would probably be low since shale is a rock-type that is generally more conductive than most other rock-types.

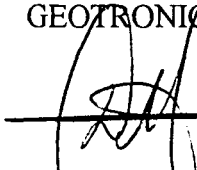
Another possible explanation is that the magnetic-indicated kimberlite pipes are at a depth greater than the depth penetration of the coil separation used. With a coil separation of 100 meters, the depth penetration would be in the 50-to 75-meter range (the better the conductivity contrast, the deeper the depth penetration). If shale underlies any of the magnetic anomalies, then the conductivity contrast would probably be on the low side meaning the depth penetration would be closer to 50 meters. However, the depths to the causative sources calculated from some of the magnetic anomalies are 55 meters or lower.

Also, generally speaking, the depth to a magnetic causative source across a kimberlite pipe is deeper than that of a conductive causative source. Therefore, the coil separation used should have been adequate.

The one small exception to the flat HLEM response is across the grid 4 anomaly located at 5000N on line 5100E. Here, a slightly anomalous response of 2% in phase was recorded. Although the response is low, it does support the possibility of the occurrence of a kimberlite pipe.

There is a difference in the background readings from one grid to the next. This is quite likely due to the differences in conductivity of the overburden and/or host rock. Also the results of some of the grids, for example grid 9, are a little noisier than that of the others. This would be due to extra brush to contend with since there was no line cutting. However, the noise level was quite low and thus was not a problem.

Respectively submitted,
GEOTRONICS SURVEYS LTD.


David G. Mark, P. Geo.,
Geophysicist



April 14, 1998

APPENDIX 9

STATEMENT OF EXPENDITURES

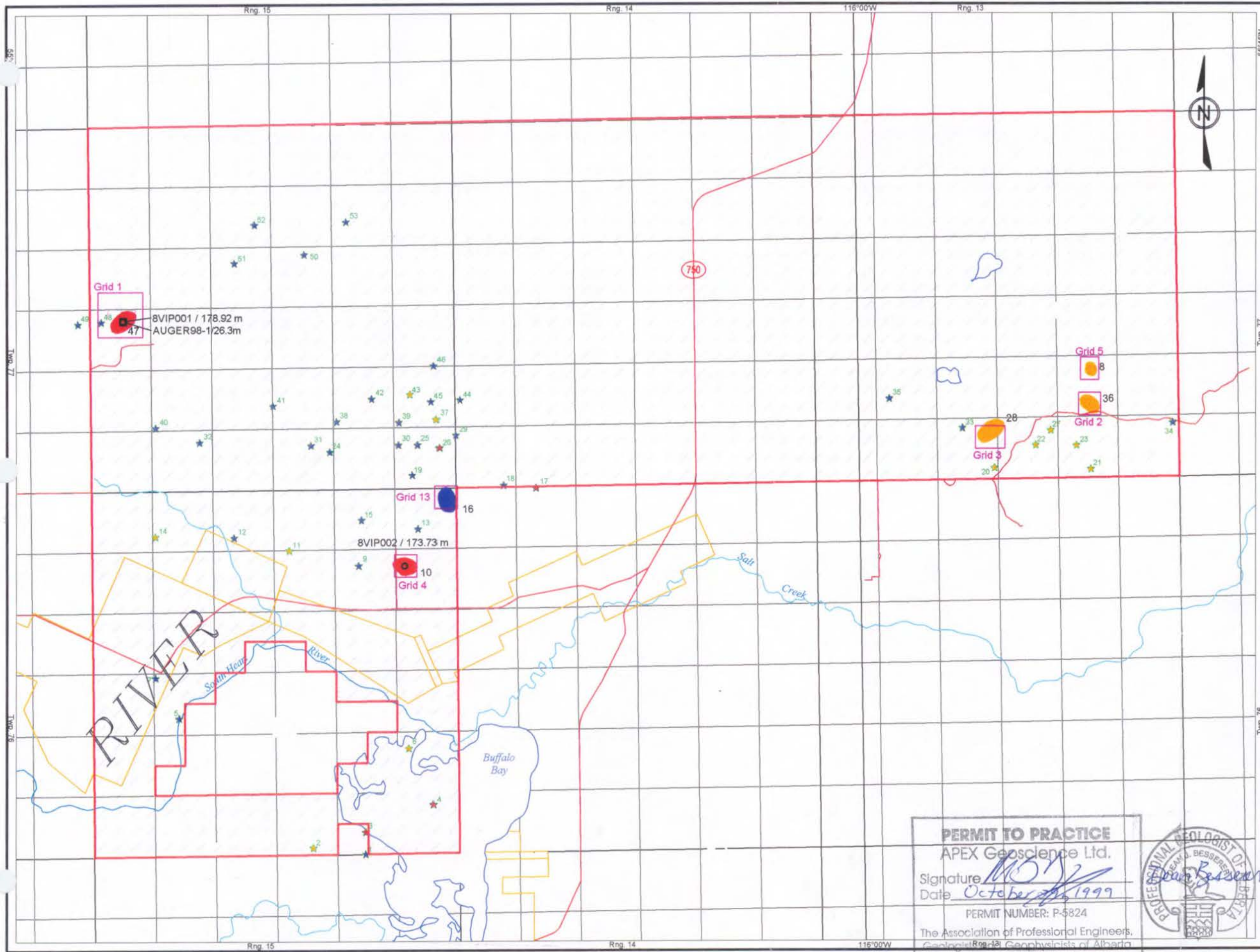
APPENDIX 9

STATEMENT OF EXPENDITURES*

Airborne Geophysical Survey (Spectra) (Includes data acquisition and processing)	\$102,272.98
Geotronics HLEM Ground Geophysical Survey (Includes data acquisition and reporting)	\$5,787
Drilling	\$76,109.30
APEX Geoscience Ltd. (Includes project management; analytical; core logging; gridding; ground geophysical surveying; reporting; interpretation etc. Total from 15 invoices)	\$107,922.49
Victory Ventures Inc. (Includes travel; management; administration of permits; courier; maps etc.)	\$52,490.47

<i>TOTAL EXPENDITURES WITH RESPECT TO THE SYD 1, 2 and 3 MINERAL PERMITS</i>	\$344,582.24

*Numbers from Global Investment.com Financial Inc. records.



Symbols

- Syd1 Mineral Permits
- 10 High Priority Ground Magnetic Geophysical Anomaly; Anomaly Number
- 36 Medium Priority Ground Magnetic Geophysical Anomaly; Anomaly Number
- 16 Low Priority Ground Magnetic Geophysical Anomaly; Anomaly Number
- ★ 17 High Priority Airborne Magnetic Geophysical Anomaly; Anomaly Number
- ★ 20 Medium Priority Airborne Magnetic Geophysical Anomaly; Anomaly Number
- ★ 33 Low Priority Airborne Magnetic Geophysical Anomaly; Anomaly Number
- Ground geophysical survey grid completed during March, 1998
- Grid 4
- 750 Secondary Highway
- Gravel Road
- Rivers
- Lakes
- Reserves
- 8VIP001 / 179.8m 1998 Rotary Core Drill hole; identifier; depth of hole
- AUGER98-1 / 26.3m 1998 Auger Drill Hole; Identifier; depth of hole

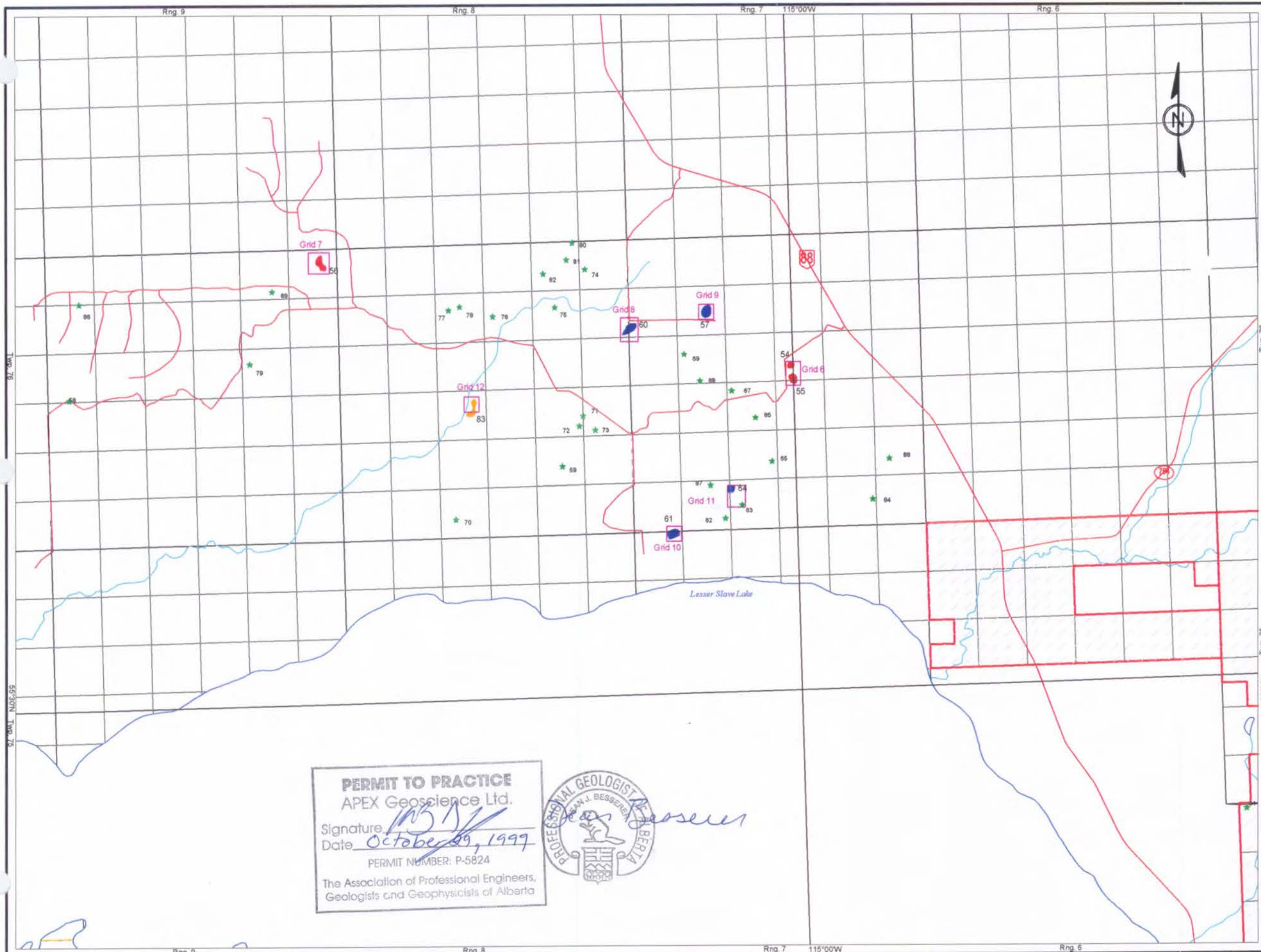
PERMIT TO PRACTICE
 APEX Geoscience Ltd.
 Signature: *[Signature]*
 Date: *October 1999*
 PERMIT NUMBER: P-5824
 The Association of Professional Engineers,
 Geologists, and Geophysicists of Alberta



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NORTH-CENTRAL ALBERTA
**SYD 1 GRID, ANOMALY,
 DRILL HOLE LOCATIONS,
 AND ACCESS**
 NTS 93N,0
 SCALE 0 1 2 3 4 KILOMETRES
 APEX Geoscience Ltd.
 EDMONTON, ALBERTA OCTOBER, 1999

FIGURE 6



Symbols

- Syd2 Mineral Permits
- 55 High Priority Ground Magnetic Geophysical Anomaly; Anomaly Number
- 83 Medium Priority Ground Magnetic Geophysical Anomaly; Anomaly Number
- 60 Low Priority Ground Magnetic Geophysical Anomaly; Anomaly Number
- 88 Undetermined Priority Ground Magnetic Geophysical Anomaly; Anomaly Number
- Ground geophysical survey grid completed during March, 1998
- Grid 6
- Secondary Highway
- Gravel Road
- Rivers
- Lakes
- Reserves

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 Date: *October 29, 1999*
 PERMIT NUMBER: P-5824
 The Association of Professional Engineers,
 Geologists and Geophysicists of Alberta



















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NORTH-CENTRAL ALBERTA
**SYD 2 GRID,
 ANOMALY LOCATIONS,
 AND ACCESS**
 NTS 83N,0
 SCALE 0 1.25 2.5 3.75 5 KILOMETRES
 APEX Geoscience Ltd.
 EDMONTON, ALBERTA OCTOBER, 1999

FIGURE 7



Symbols

-  Syd3 Mineral Permits
-  Exclusions
-  High Priority Geophysical Anomaly Number
-  High Priority Airborne Magnetic Geophysical Anomaly; Anomaly Number
-  Low Priority Airborne Magnetic Geophysical Anomaly;
-  Undetermined Priority Ground Magnetic Geophysical Anomaly; Anomaly Number
-  Ground geophysical survey grid completed during March, 1998
-  Grid 6
-  Primary Highway
-  Gravel Road
-  Trails in open fields
-  Proposed access (existing seismic lines)
-  Proposed new cut
-  Possible Drill Site for Summer Program
-  Rivers
-  Lakes

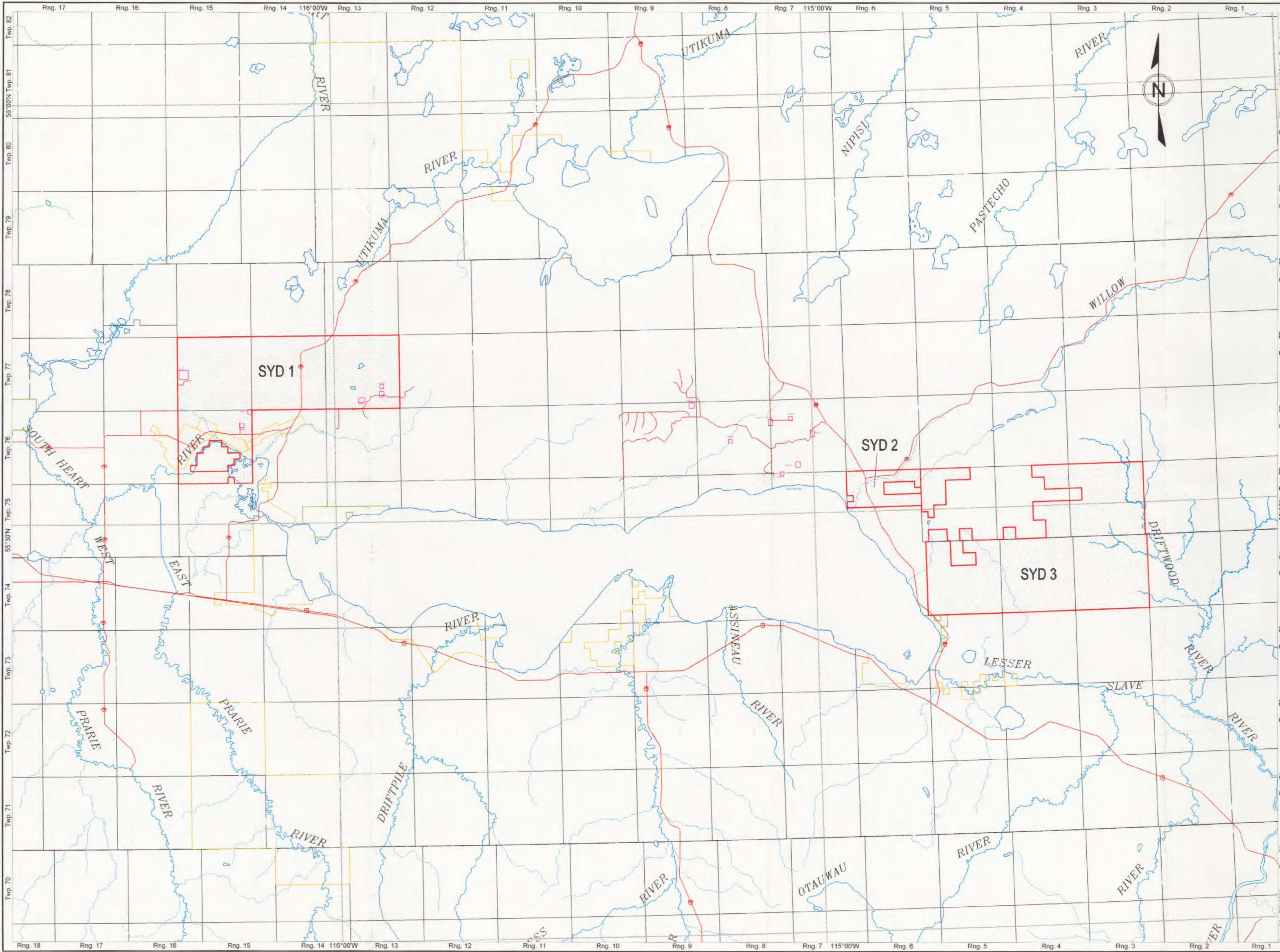
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 Date: *October 29, 1997*
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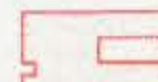











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NORTH-CENTRAL ALBERTA
SYD3 ANOMALY LOCATIONS AND ACCESS
 NTS 83N/0
 SCALE 0 1 2 3 4 KILOMETRES
 APEX Geoscience Ltd.
 EDMONTON, ALBERTA
 OCTOBER, 1999

FIGURE 8



- ### Symbols
-  Syd1 Mineral Permits
 -  Syd2 Mineral Permits
 -  Syd3 Mineral Permits
 -  Ground geophysical survey grid completed during March, 1998
 -  Grid 4
 -  Primary Highway
 -  Secondary Highway
 -  Gravel Road
 -  Rivers
 -  Lakes
 -  Reserves

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NORTH-CENTRAL ALBERTA

SYD 1, 2, 3 MINERAL PERMIT LOCATIONS

NTS 83N.0

SCALE 0 5 10 15 20 KILOMETRES

1:250,000

APEX Geoscience Ltd.

EDMONTON, ALBERTA JANUARY, 2000