86-616-15202

Owner/Operator: **ASITKA RESOURCE CORPORATION**

GEOPHYSICAL REPORT

ON AN

AIRBORNE VLF-ELECTROMAGNETOMETER AND MAGNETOMETER SURVEY

GRACE 1-4 CLAIMS OMINECA MINING DIVISION

LATITUDE 57°09'N LONGITUDE 126°52'W

NTS 94E/2W

AUTHORS: E. Trent Pezzot, B.Sc.,
Geophysicist
Glen E. White, B.Sc.,P.Eng.
Consulting Geophysicist

DATE OF WORK: March 16 & 20, 1986

DATE OF REPORT: October 14,1986

WESTERN GEOPHYSICAL AERO DATA LTD.

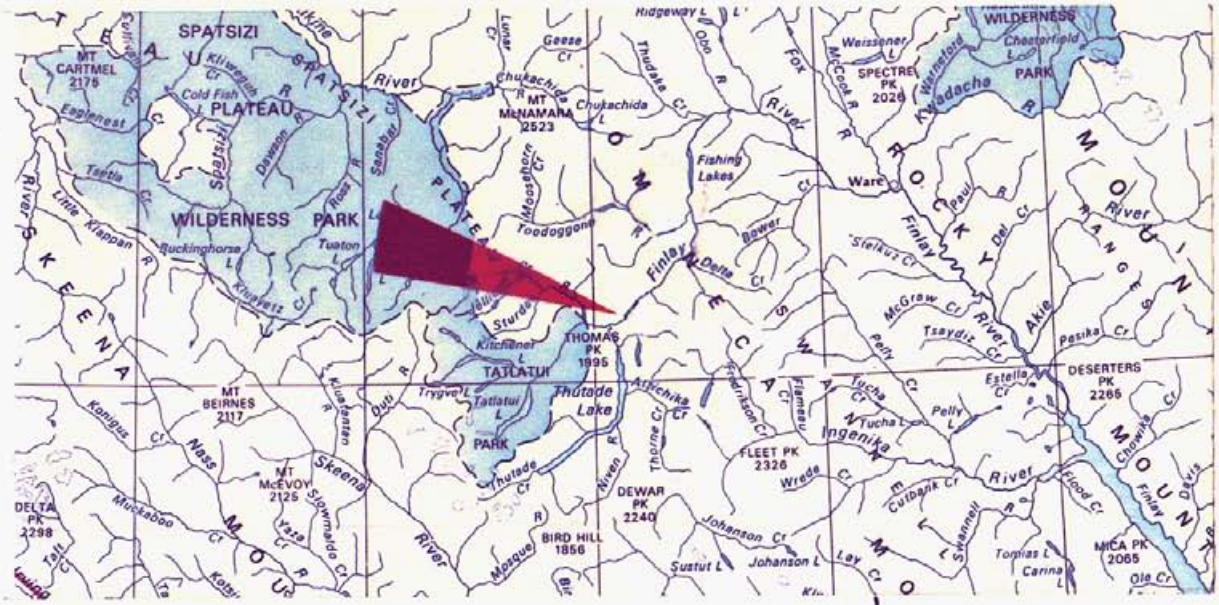
TABLE OF CONTENTS **PAGE**

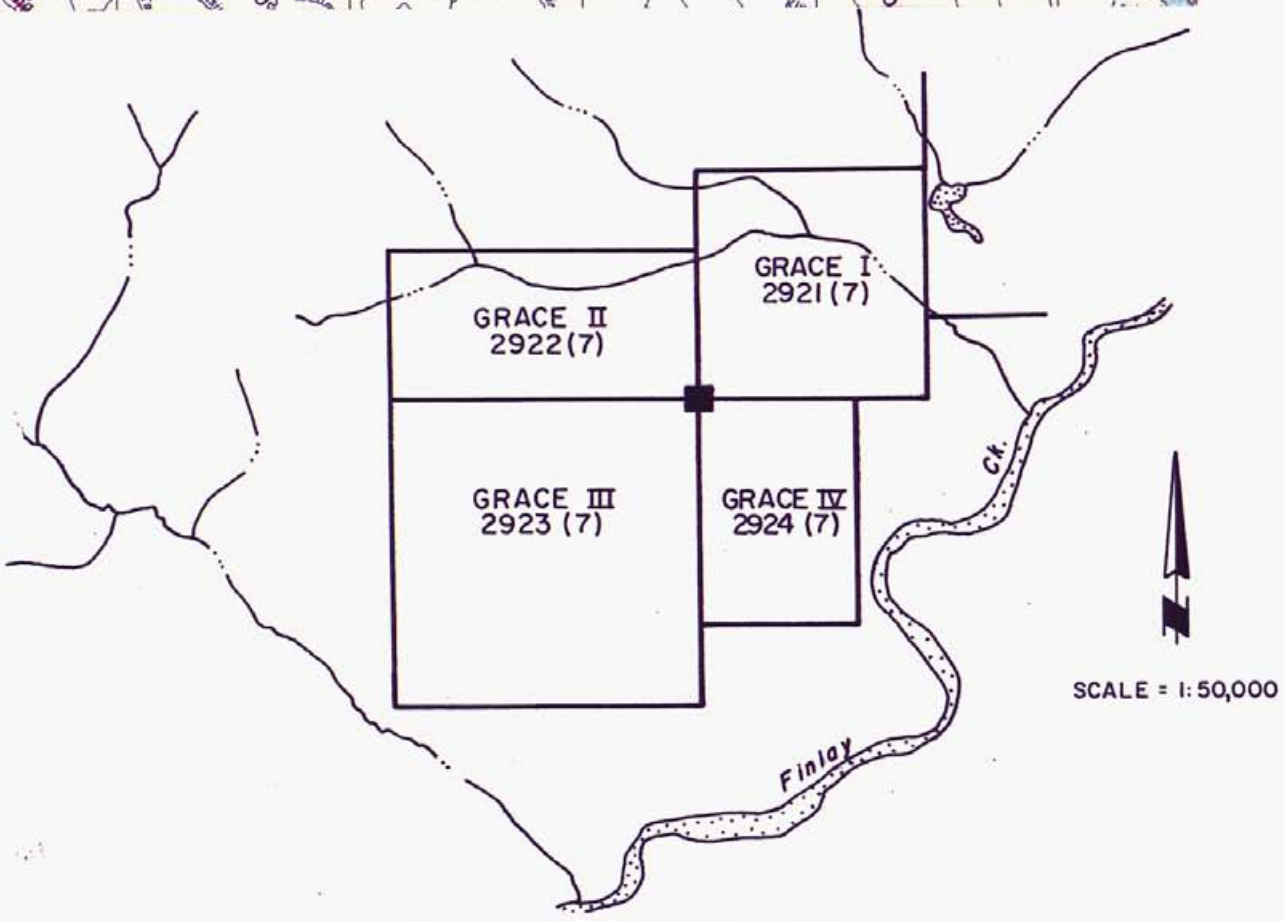
INTRODUCTION 1
PROPERTY 1
LOCATION AND ACCESS 1-2
HISTORY AND PREVIOUS WORK 2-3
GENERAL GEOLOGY 3-4
PROPERTY GEOLOGY AND MINERALIZATION 4-5
AIRBORNE VLF-ELECTROMAGNETIC & MAGNETIC SURVEY ... 5-6
DATA PROCESSING 6
DISCUSSION OF RESULTS 6-10
SUMMARY AND CONCLUSIONS 10-11
RECOMMENDATIONS 11-12
INSTRUMENT SPECIFICATIONS..... 13-18
COST BREAKDOWN 19
STATEMENT OF QUALIFICATIONS
E. TRENT PEZZOT, B.Sc. 20
GLEN E. WHITE, B.Sc., P.Eng. 21

ILLUSTRATIONS

Figure 1 - Location and Claims Map
Figure 2 - Magnetic Intensity Contour Map
Figure 3 - VLF-EM Profiles (Seattle)
Figure 4 - VLF-EM Profiles (Annapolis)

Plate 1 - General Geology
Plate 2 - Magnetic Response Examples





ASITKA RESOURCE CORP.

— GRACE I-IV CLAIMS —

LOCATION AND CLAIMS MAP

Western Geophysical Aero Data Ltd.

FIGURE 1

INTRODUCTION

A regional program, totalling over 10,000 line kilometres of airborne magnetometer and VLF-electromagnetometer surveying, was conducted in the Toodoggone Gold Belt area in early 1986. Western Geophysical Aero Data Ltd. was commissioned by **Asitka Resource Corporation** to recover and examine in detail the data gathered across the **Grace 1-4** mineral claims.

These claims are located along the northern bank of the Finlay River. It was the intention of this survey to assist the geological mapping of the area and direct ground exploration to any favorably anomalous locations. Approximately 149 kilometres of data has been examined to evaluate the **Grace** claims area.

PROPERTY

The **Grace** claims are comprised of 39 contiguous units as described below and outlined on Figure 1.

CLAIM NAME	RECORD NO.	UNITS	EXPIRY DATE
Grace 1	2921	9	July 25/86
Grace 2	2922	8	July 25/86
Grace 3	2923	16	July 25/86
Grace 4	2924	6	July 25/86

LOCATION AND ACCESS

The Toodoggone River area is located approximately 280 kilometres north of Smithers, B.C. The **Grace** claim group is located along the northern bank of the Finlay River in NTS 94E/2 and the **Omineca Mining Division.** Approximate geographical coordinates of the center of the claim group are latitude 57°09'N and longitude 126°52'W (see Figure 1).

Access to the area is normally achieved via fixed wing aircraft from Smithers, B.C. to any of the larger lakes in the area or to the Sturdee River airstrip, located some 15km west-northwest of the **Grace** claim group. Historically a number of helicopter companies have established summer bases at the Sturdee River airstrip and have been available for casual charter to nearby properties.

HISTORY AND PREVIOUS WORK

The Toodoggone area was investigated for placer gold in the 1920's and 1930's. A public company, Two Brothers Valley Gold Mines Ltd., undertook considerable test work, including drilling in 1934. Most of this work was directed towards extensive gravel deposits principally near the junction of McClair Creek and the Toodoggone River.

Gold-silver mineralization was discovered on the Chappelle (Baker Mine) property by Kennco Explorations (Western) Ltd. in 1969. DuPont of Canada Exploration Ltd. acquired the property in 1974 and began production at a milling rate of 90 tonnes per day in 1980.

Numerous other gold-silver discoveries were made in the 1970's and 1980's, including the Lawyers deposit which was discovered by Kennco in 1973 and optioned by SEREM Ltd. in 1979. Work on this property to date has included considerable trenching, drilling and underground development and a feasibility study is currently underway.

The Toodoggone area has been the scene of intense exploration activity during the past four years with numerous companies exploring over 3,000 mineral claim units. Exploration and development expenditures to date are estimated to be in the order of $33 million.

No detailed exploration of the **Grace** claims is known of by the authors.

GENERAL GEOLOGY

The claim group lies within what is often termed the Toodoggone River epithermal precious metal district which is mapped as a 100 by 25 kilometre northwest trending belt of volcanic, sedimentary and intrusive rocks extending from Thuade Lake in the south to the Stikine River in the north. Permian age limestones, argillites and cherts of the Asitka group are the oldest rocks in the area and normally are in fault contact with Takla volcanic rocks of Upper Triassic age. Lower Jurassic Toodoggone volcanics, consisting predominantly of subaerial dacite, latite, trachyte and rhyolite pyroclastics, unconformably overlie the Takla group. These rocks are bordered to the east by the Hazelton Group, consisting of intermediate volcanic conglomerate, breccia, lakas and feldspar porphyry dikes and sills. The Hazelton Group ranges from Lower to Upper Jurassic age and may include members of the Toodoggone Group. Acid to intermediate stocks and plugs intrude many of the sedimentary and volcanic rocks of the area.

Regional fault systems trend northwesterly and northerly throughout the Toodoggone area. Epithermal deposits are the most common type of precious metal mineralization in the area and are predominantly associated with the Toodoggone volcanics. They occur as massive quartz veins or as silicified and amethystine breccia zones generally close to major northwest faults and associated with siliceous volcanic centres, exhalative vents and zones of alteration within the Triassic and Jurassic volcanics. Vein minerals are acanthite, pyrite, electrum, chalcopyrite, native gold, sphalerite and galena and grades range from 0.1 to 1.0 oz/T Au and 1.0 to 20.0 oz/T Ag.

MINISTRY MAPPING 1971 TO 1984, MAINLY 1981–1984. ADDITIONAL SOURCES OF INFORMATION: ASSESSMENT REPORTS, GEOLOGICAL SURVEY OF CANADA OPEN FILE 483, 1977; RADIOMETRIC DATING (K Ar) BY J. HARAKAL, THE UNIVERSITY OF BRITISH COLUMBIA

LEGEND

QUATERNARY

PLEISTOCENE AND RECENT

UNCONSOLIDATED GLACIAL, FLUVIOGLACIAL, ALLUVIAL, AND COLLUVIAL DEPOSITS

CRETACEOUS

UPPER CRETACEOUS

SUSTUT GROUP *(TANGO CREEK FORMATION)*

K — POLYMICTIC CONGLOMERATE, SANDSTONE, SHALE, CARBONACEOUS MUDSTONE

JURASSIC

LOWER AND (?) MIDDLE JURASSIC

"TOODOGGONE VOLCANICS" (?) HAZELTON GROUP

9 — UNDIVIDED, PREDOMINANTLY GREY, GREEN, PURPLE AND ORANGE BROWN HORNBLENDE PLAGIOCLASE AND PLAGIOCLASE PHYRIC ANDESITE PORPHYRY FLOWS, TUFFS, BRECCIA, SOME LAHAR, CONGLOMERATE, GREYWACKE, SILTSTONE, RARE RHYOLITE PERLITE; INCLUDES SOME DYKES AND SILLS

LOWER TO MIDDLE JURASSIC

"TOODOGGONE VOLCANICS" (CARTER, 1972)

GREY DACITE

8 — DARK TO PALE GREY OR GREEN QUARTZOSE BIOTITE HORNBLENDE PLAGIOCLASE ASH FLOWS OF ANDESITIC AND RARELY DACITIC COMPOSITION; VARIABLY WELDED WITH LOCALLY WELL DEVELOPED COMPACTION LAYERING; CONTAINS ABUNDANT GREY DACITE AND RARE GRANITIC CLASTS; OUTCROPS ARE COMMONLY BLOCKY AND STRONGLY JOINTED — 182 ± 8, 183 ± 8 Ma (GSC) HORNBLENDE

8A — POLYMICTIC CONGLOMERATE WITH ABUNDANT TAKLA AND GREY DACITE CLASTS IN A QUARTZOSE SANDSTONE MATRIX

8B — GREYWACKE CONGLOMERATE DERIVED ENTIRELY FROM GREY DACITE

TOODOGGONE CRYSTAL ASH TUFFS AND FLOWS

7 — RECESSIVE, GREY, MAUVE, PURPLE QUARTZOSE PLAGIOCLASE CRYSTAL TUFF, LAPILLI TUFF AND BRECCIA WITH LESSER AGGLOMERATE, LAHAR, AND EPICLASTIC BEDS; INCLUDES SOME WELDED TUFFS AND PYROXENE HORNBLENDE FELDSPAR PORPHYRY FLOWS WHICH ARE LOCALLY DOMINANT; SOME MEMBERS CONTAIN NO QUARTZ; PINK WEATHERING WHERE LAUMONTITE IS ABUNDANT — 189 ± 8 Ma HORNBLENDE

7A — *EPICLASTIC RED BEDS* — ARKOSIC SANDSTONE, SILTSTONE, CONGLOMERATE AND SLIDE DEBRIS; CONTAINS SOME CRYSTAL TUFF

TUFF PEAK FORMATION

6 — PALE PURPLE, GREY, AND GREEN BIOTITE AUGITE HORNBLENDE PLAGIOCLASE PORPHYRY FLOWS; SOME AUTOBRECCIATED FLOWS; MINOR SILLS AND PLUGS; SOME CRYSTAL AND LAPILLI TUFF — 197 ± 7 Ma BIOTITE, 200 ± 7 Ma HORNBLENDE

6A — CONGLOMERATE OR LAHAR DERIVED FROM UNITS 6 AND 6B WITH GRADED AND CROSSLAMINATED MUDSTONE AND SANDSTONE INTERBEDS; DEBRIS FLOWS, LAPILLI AND CRYSTAL TUFFS

6B — FLOWS SIMILAR TO UNIT 6 BUT CONTAINING SPARSE ORTHOCLASE MEGACRYSTS

McCLAIR CREEK FORMATION

5 — PURPLE, LAVENDER, GREY, RARELY GREY GREEN, CROWDED, FINE TO MEDIUM-GRAINED PLAGIOCLASE PORPHYRITIC FLOWS; INCLUDES SOME LAPILLI TUFF, BRECCIA, AND MINOR EPICLASTIC BEDS

5A — INTRUSIVE DOME WITH AUTOBRECCIATED CARAPACE AND FLANKING BRECCIA

MAFIC FLOW AND TUFF UNIT

4 — *BASALT FLOWS*—THIN BEDDED, PURPLE TO DARK GREEN, COMMONLY EPIDOTIZED FINE-GRAINED PYROXENE BASALT FLOWS AND TUFFS; INCLUDES SOME SILLS AND DYKES

4A — PURPLE TO MAUVE, MEDIUM-GRAINED PORPHYRITIC BASALT, LOCALLY MAUVE TO PINK, ZEOLITIZED WITH LAUMONTITE; POSSIBLE INTRUSIVE (LACCOLITH)

4B — LAPILLI, CRYSTAL, AND ASH TUFF, WELL BEDDED; INCLUDES MINOR THINLY BEDDED SANDSTONE AND RARE CALCAREOUS SILTSTONE (MARL); TOTALLY OR IN PART EQUIVALENT TO UNIT 7

4C — PYROXENE BIOTITE HORNBLENDE PORPHYRY FLOWS WITH TRACES OF QUARTZ AND K-FELDSPAR; INTERBEDDED MINOR BRECCIA AND LAPILLI TUFF; TOTALLY OR IN PART EQUIVALENT TO UNIT 6

JURASSIC *(CONTINUED)*

LOWER TO MIDDLE JURASSIC *(CONTINUED)*

"TOODOGGONE VOLCANICS" (CARTER, 1972) *(CONTINUED)*

LAWYERS—METSANTAN QUARTZOSE ANDESITE

3 — GREEN TO GREY QUARTZOSE PYROXENE (?) BIOTITE HORNBLENDE PLAGIOCLASE PORPHYRY FLOWS AND TUFFS; QUARTZ CONTENT RANGES FROM NEGLIGIBLE TO ABOUT 3 PER CENT IN THE NORTH; FLOWS PREDOMINATE WITH LOCAL FLOW BRECCIA; LAPILLI TUFF AND RARE WELDED TUFF UNITS, TOWARD THE SOUTH ASH FLOWS ARE COMMON, INCLUDING RARE SURGE DEPOSITS; THE UNIT CONTAINS EXTENSIVE ZONES OF EPIDOTIZED, PYRITIC ROCK WITH CHARACTERISTIC SALMON PINK AND ORANGE PLAGIOCLASE CRYSTALS — 168 ± 6 Ma HYDROTHERMAL ADULARIA

MOYEZ CREEK VOLCANICLASTICS

2 — CONGLOMERATE WITH SOME GRANITIC CLASTS, GRADED, CROSS-BEDDED GREYWACKE, WELL BEDDED CRYSTAL TUFF, EPICLASTIC SEDIMENTS, LOCAL LAMINATED CALCAREOUS SILT (MARL); RARE THIN LIMESTONE AND CHERT; LOCAL COARSE LANDSLIDE DEBRIS AND LAHAR; IN PART OR TOTALLY EQUIVALENT TO UNIT 6A

2A — CRYSTAL TUFFS IN THIN, WELL-LAYERED UNITS; SOME EPICLASTIC SANDSTONE AND MUDSTONE; RARE PLANT FRAGMENTS IN SOME BEDS; MINOR LAPILLI TUFF

ADDOOGATCHO CREEK FORMATION

1 — PALE REDDISH GREY TO DARK RED BROWN QUARTZOSE BIOTITE HORNBLENDE PHYRIC ASH FLOWS; THE ROCKS CONTAIN MINOR SANIDINE AND RARE AUGITE; WELDING IS WIDESPREAD AND RANGES FROM INCIPIENT TO EUTAXITIC; LOCALLY ORANGE TO BROWN VITROPHYRIC CLASTS ARE COMMON; INCLUDES LAPILLI TUFF AND BRECCIA UNITS AS WELL AS MINOR LAYERED GROUND SURGE DEPOSITS — 199 ± 7, 202 ± 7 Ma BIOTITE, 200 ± 7 Ma HORNBLENDE, 190 ± 7 Ma HYDROTHERMAL ALUNITE (WHOLE ROCK), 204 ± 7 Ma BIOTITE

1A — CRYSTAL ASH TUFF, LAPILLI TUFF AND RARE AGGLOMERATE WITH INTERSPERSED EPICLASTIC BEDS; TUFFACEOUS SEDIMENTS AND MINOR CONGLOMERATE THAT LOCALLY CONTAINS GRANITIC CLASTS; MINOR HORNBLENDE PLAGIOCLASE PHYRIC FLOWS FORMING SINGLE OR THIN COMPOSITE FLOW UNITS

1B — *QUARTZOSE PLAGIOCLASE PORPHYRY* — JOINTED, DOMAL INTRUSION (?) OF HOMOGENOUS-APPEARING GREY TO GREEN, CHLORITIZED AND EPIDOTE-ALTERED ROCK CONTAINING ABUNDANT INCLUSIONS OF TAKLA VOLCANICS AND RARE METAMORPHIC ROCK CLASTS

TRIASSIC

UPPER TRIASSIC

TAKLA GROUP

Tt — DARK GREEN AUGITE PORPHYRY BASALT FLOWS AND BRECCIAS WITH LESSER FINE GRAINED ANDESITE TO BASALT FLOWS AND MINOR INTERBEDDED SILTSTONE, TUFFACEOUS SEDIMENTS, AND CHERT; CONTAINS LIMESTONE LENSES THAT MAY BE PART OF THE ASITKA GROUP

PALEOZOIC

PERMIAN

P — **ASITKA GROUP?**

PREDOMINANTLY LIMESTONE (INCLUDING MARBLE AND MINOR SKARN) WITH SOME ARGILLITE, BLACK SHALE, AND CHERT UNITS; COMPOSED OF LIMESTONE, CHERT ARGILLITE, AND BASALT (Pv c) MAY BE IN PART OR TOTALLY TAKLA GROUP

INTRUSIVE ROCKS

JURASSIC

LOWER JURASSIC (DYKES, SILLS, AND SMALL PLUGS)

A — BASALT

B — AUGITE HORNBLENDE PORPHYRY — BASALTIC STOCK, DOMAL INTRUSION (OR TAKLA INLIER) — 210 ± 8 Ma HORNBLENDE

C — BIOTITE HORNBLENDE DIORITE GABBRO

D — PYROXENE PLAGIOCLASE PORPHYRY

LOWER TO MIDDLE JURASSIC (DYKES AND STOCKS)

E — QUARTZ MONZONITE, GRANODIORITE—MEGACRYSTIC IN PART, MINOR SYENITE OR QUARTZOSE SYENITE ALONG CONTACTS

E1 — GRANODIORITE, QUARTZ DIORITE — MEDIUM GRAINED, PORPHYRITIC, FOLIATED IN PART

F — FELDSPAR PORPHYRY HORNBLENDE FELDSPAR PORPHYRY — DYKES AND PLUGS, RARE QUARTZ FELDSPAR PORPHYRY

SYMBOLS

MINERAL OCCURRENCE (MINERAL INVENTORY FILE NUMBER) — × 43

MINERAL PROSPECT (MINERAL INVENTORY FILE NUMBER) — ⚒ 34

EXPLORATION CAMP — ⊖

PLACER WORKINGS

PARK BOUNDARY

ROAD

MAIN OUTCROP AREAS

FAULT (OBSERVED, INFERRED)

THRUST OR REVERSE FAULT (OBSERVED, INFERRED)

GEOLOGIC CONTACT (DEFINED, ASSUMED)

BEDDING, LAYERING, FOLIATION (HORIZONTAL, INCLINED, VERTICAL) — + 10/ /

FOLD AXES

FOSSIL LOCALITY (PLANT DEBRIS) — Ⓕ

RADIOMETRIC DATE SAMPLE SITE, AGE IN Ma — Ⓐ104

VOLCANIC VENT

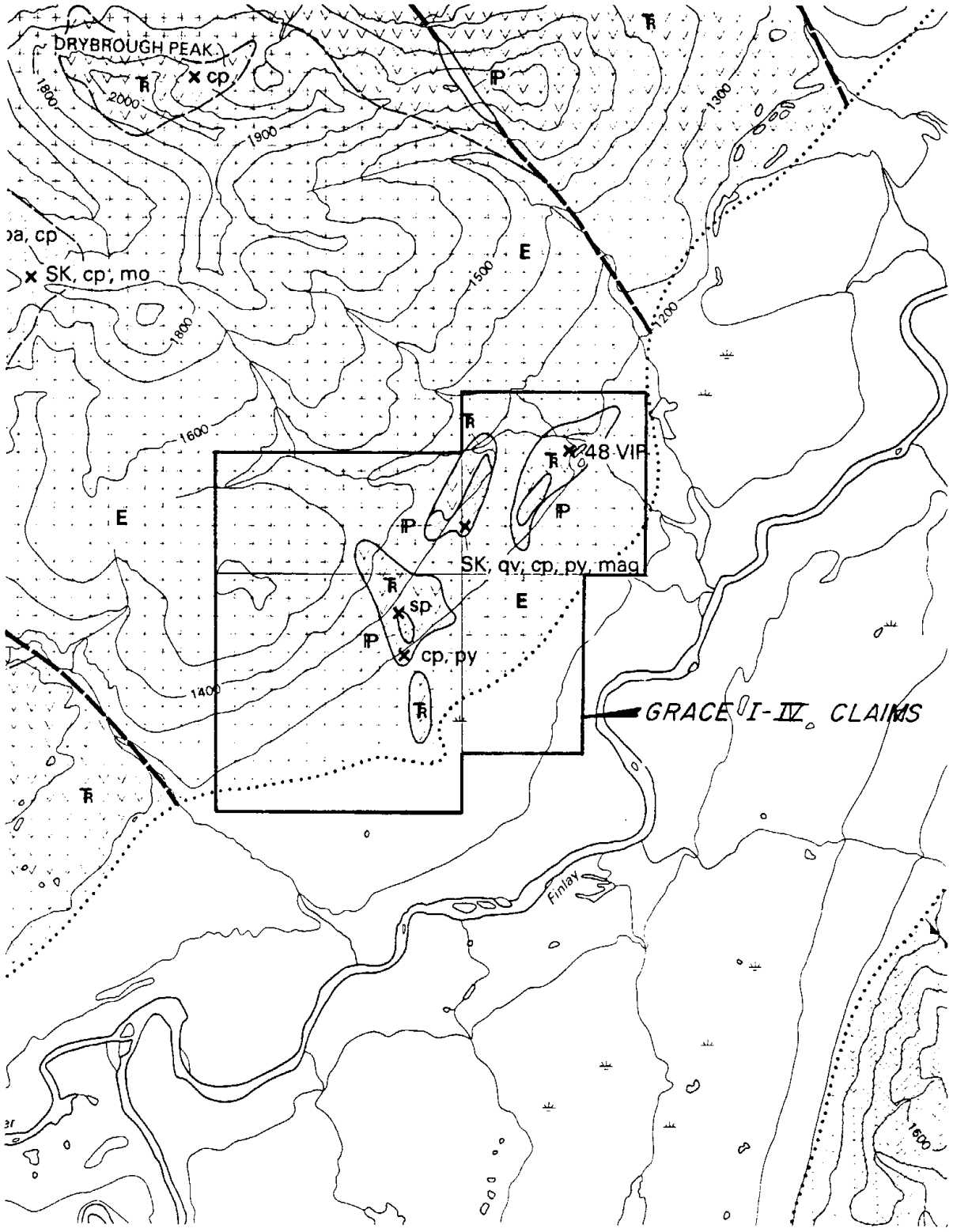
HYDROTHERMAL ALTERATION

FERRICRETE, QUATERNARY FERRUGINOUS BRECCIA — (iv)

SILICA, CLAY MINERALS ± ALUNITE, BARITE — (iii)

CLAY MINERALS ± ALUNITE, SILICA, HEMATITE — (ii)

GOSSAN, LIMONITIC ZONE — (i)



GENERAL GEOLOGY

SCALE = 1: 50:000

Western Geophysical Aero Data Ltd.

PLATE 1

Examples include Baker mine, a fissure vein system developed in Takla volcanic rocks, but spatially related to dikes believed to be associated with Toodoggone volcanic rocks. Pre-mining indicated reserves were 90,000 tonnes grading 30 grams/tonne gold and 600 grams/tonne silver. Recovered grades during the three year mine life were about half the indicated grades due to initial mill recovery problems and greater than expected dilution during mining.

The Lawyers deposit has gold-silver mineralization in banded chalcedony-quartz stockwork veins and breccia zones developed in Toodoggone volcanic rocks. Three potential ore zones have been defined to date and recently announced reserves are 1 million tonnes grading 7.27 grams/tonne gold and 254 grams/tonne silver. Numerous other epithermal gold-silver deposits in the area are hosted by lower and middle units of the Toodoggone volcanic sequence. These include the Sha, Saunders, Graves, Moosehorn, Mets, Metasantan, AL, JD and Golden Lion prospects.

PROPERTY GEOLOGY AND MINERALIZATION

The B.C. Department of Mines preliminary map 61, titled "Geology of the Toodoggone River Area, NTS 94E," is the most recently published geological map of the claims area. This work was authored by L.J. Diakow, A. Panteleyev and T.G. Schroeder in 1985 and the portion covering the subject claims is reproduced as Plate 1 of this report.

The majority of the claims area is underlain by a lower to middle Jurassic quartz monzonite and granodiorite intrusive. This body lies in fault contact with upper Triassic Takla group volcanic rocks both to the northeast and southwest of the claims area.

Four small windows of Takla group volcanics and Permian age

Asitka Group sediments are mapped within the **Grace** claims as illustrated on Plate 1. A number of occurrences of pyrite, sphalerite and chalcopyrite are observed in these windows, including the VIP property (mineral inventory #48) on the **Grace 1** claim.

AIRBORNE VLF-ELECTROMAGNETIC AND MAGNETIC SURVEY

This survey simultaneously monitors and records the output signal from a proton precession magnetometer and two VLF-EM receivers installed in a bird designed to be towed 100 feet below a helicopter. A gimbal and shock mounted TV camera, fixed to the helicopter skid, provides input signal to a video cassette recorder allowing for accurate flight path recovery by correlation between the flight path cassette and air photographs of the survey area. A KING KRA-10A radar altimeter allows the pilot to continually monitor and control terrain clearance along any flight path.

Continuous measurements of the earth's total magnetic field intensity and of the total horizontal VLF-EM field strength of two transmission frequencies are stored in three independent modes: an analogue strip chart recorder, digital magnetic tapes and a digital video recovery system. A three-pen analogue power recorder provides direct, unfiltered recordings of the three geophysical instrument output signals. A Hewlett-Packard 9875 tape drive system digitally records all information as it is processed through an onboard micro-computer. The magnetic and electromagnetic data is also processed through the onboard micro-computer, incorporating an analogue to digital converter and a character generator, then superimposed along with the date, real time and terrain clearance upon the actual flight path video recording to allow exact correlation between geophysical data and ground location. The input signals are averaged and updated on the video display every second.

Correlation between the strip chart, digital tape and the video flight path recovery tape is controlled via fiducial marks common to all systems. Line identification, flight direction and pertinent survey information are recorded on the audio track of the video recording tape.

DATA PROCESSING

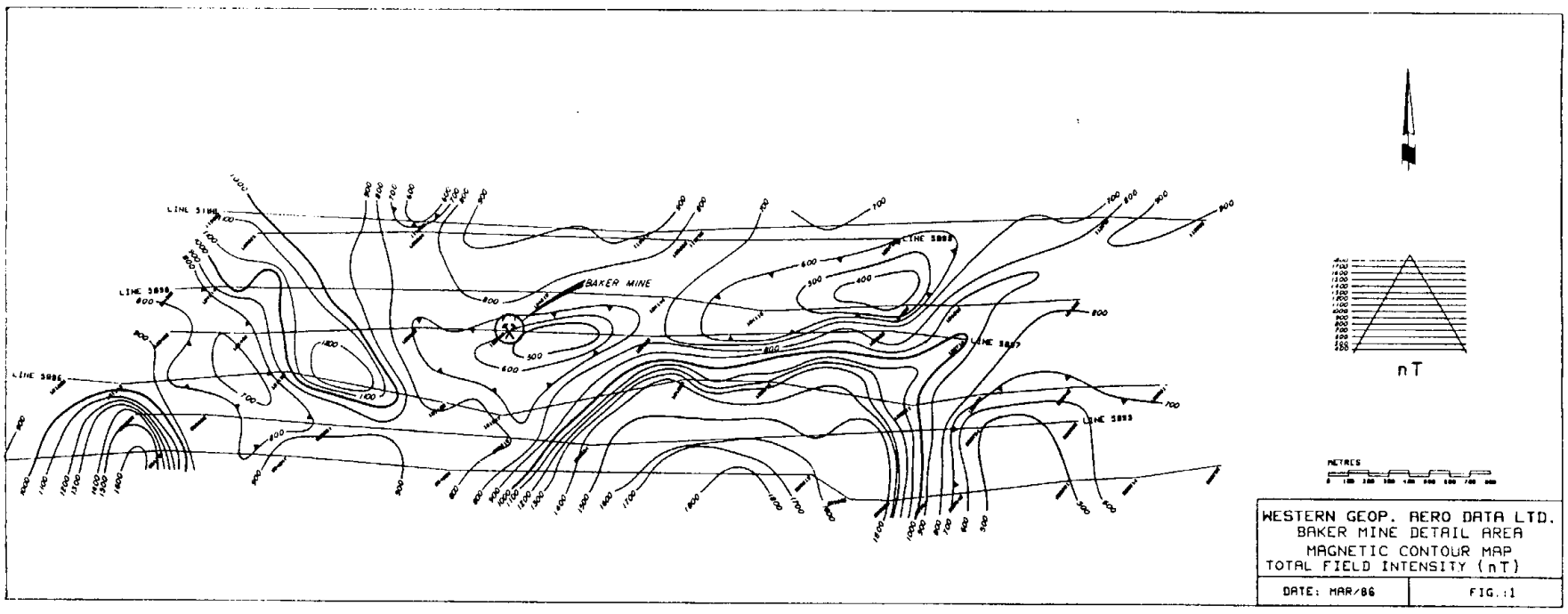
Field data is digitally recorded, with the time of day fiducial, on magnetic cassettes in a format compatible with the Hewlett-Packard 9845 computer. The recovered flight path locations are digitized and the field data is processed to produce plan maps of each of the parameters. A variety of formats are available in which to display this data.

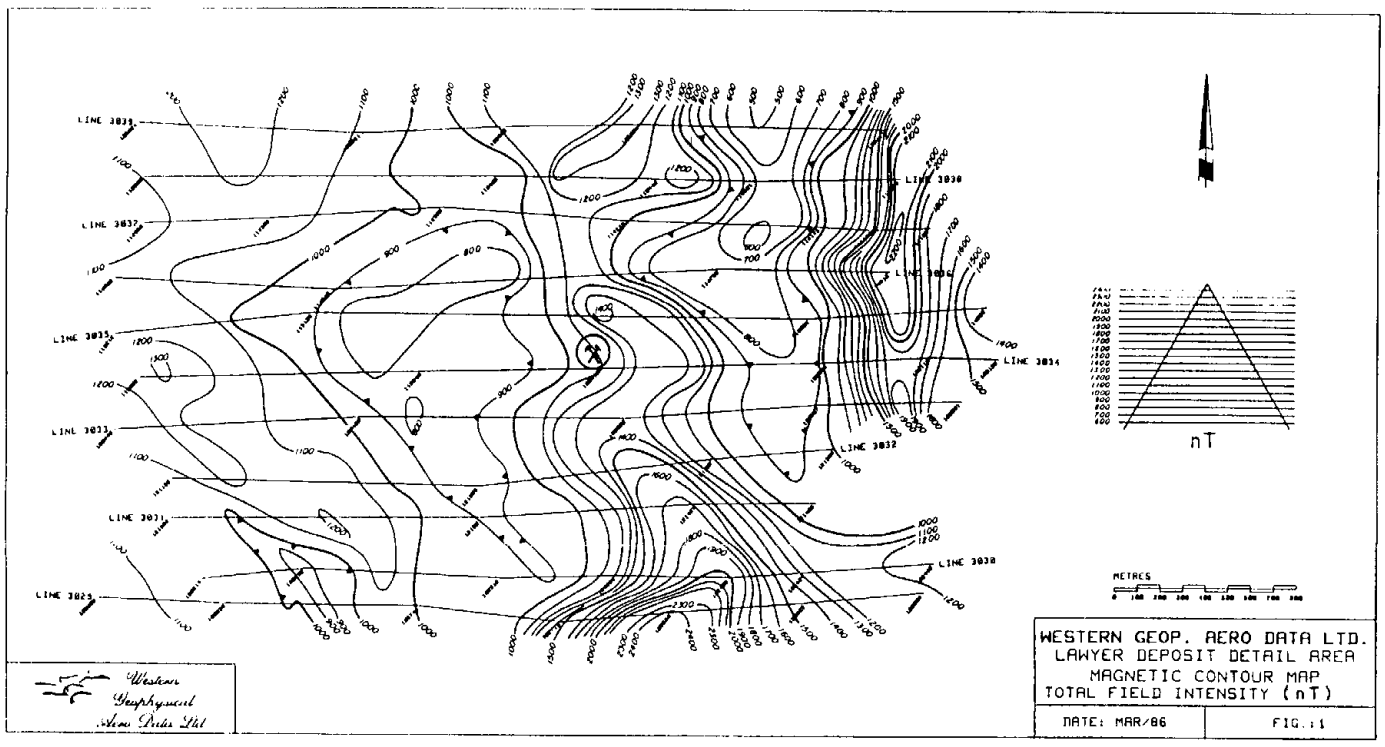
Total field intensity magnetic information is routinely edited for noise spikes and corrected for any diurnal variations recorded on a base magnetometer located in the survey area.

Total field intensity VLF-EM signals are sensitive to topographic changes and sensor oscillation. Oscillation effects can be reduced by filters tuned to the dominant period. Long period effects attributable to topography can be removed by high pass filtering the planimetric data.

DISCUSSION OF RESULTS

The **Grace** claim group was surveyed on March 16 and March 20, 1986. Some 149 kilometres of data have been examined to evaluate this area. Survey lines were flown east-west on 200 metre centres with data being recorded digitally at one second intervals, providing an average station spacing of 25 metres. The sensors were towed beneath the helicopter and maintained an average terrain clearance of approximately 60 metres. The magnetic data is presented in contour form as





MAGNETIC RESPONSE EXAMPLES
BASE VALUE 58,000 – nT

Western Geophysical Aero Data Ltd.

PLATE 2

Figure 2 of this report and the VLF-EM data in profile format as Figures 3 and 4 representing the Seattle and Annapolis frequencies respectively.

This survey was flown as part of a regional package covering the Toodoggone Gold Belt from the Finlay River in the south to the Chukachida River in the north. Over 10,000 line kilometres of data was gathered to assist the geological mapping of the area as well as to locate specific targets for ground exploration.

The magnetic data is a useful tool for mapping both regional and local geological structures. Many localized magnetic variations are observed which are attributed to lithological changes, however the geological information is typically too sparce to define direct correlations between magnetics and lithology.

There are however two distinctive magnetic signatures observed which appear consistant across the large survey area. Firstly, Jurassic intrusions appear as magnetic highs; typically with an intensity of greater than 59,300nT. Secondly, major fault and shear zones appear as linear magnetic lows, generally with intensities of less than 59,000nT, and often positioned along the flanks of intrusive bodies. The combination of these two signatures are observed across many of the larger epithermal precious metal deposits in the area. Plate 2 of this report illustrates this effect at the Baker Mine, Lawyers and Thesis deposits. The magnetic response is interpreted as reflecting only the general geological environment of these area and does not map any mineralization directly.

A large area of magnetic high values, of the intensity normally associated with Jurassic intrusions, covers the western portion of the **Grace** claim group. A number of

closed magnetic highs and lows are contained within this large feature. Elsewhere in the Toodoggone River area, Jurassic intrusions generally produce a broad area of magnetic values greater than 59,300nT which surround a small core of higher values. This is interpreted as the reflection of the intrusive mass surrounding a feeder stock, dyke or chute. Using this analogy, the magnetic data suggests that the large Jurassic intrusion, which is geologically mapped as covering the **Grace** claim group (Plate 1), is actually an area composed of a number of smaller, closely spaced intrusions.

The magnetic data suggests that these intrusive bodies do not cover as much of the **Grace** claims as is indicated by the government geology map (Plate 1). The lower magnetic values observed across the eastern half of the claim block are of the intensity typically reflected by the Toodoggone volcanic series or the Triassic Takla Group.

The extremely low magnetic intensities observed along the Finlay River are likely a result of increased overburden thickness along the valley bottom.

Four windows of Takla and Asitka group outcrops are geologically mapped within the **Grace** claims area. They are located near the edge of the magnetically delineated intrusive mass. Two of these features, one located in the southeast corner of **Grace 3** and the other in the center of **Grace 1**, are directly correlated to closed magnetic lows. The other two windows are located along magnetic low trends. The magnetic data infers that these sulphide bearing outcrops are more extensive than the geological mapping indicates.

The two geologically defined southeasterly trending faults which border the **Grace** claims are clearly delineated by

magnetic low lineations. Furthermore, a third major fault is magnetically mapped midway between these structures, crossing the **Grace 2,3 and 4** claims as illustrated on Figure 2. This fault bisects the area of Takla and Asitka group outcrops and may be structurally related to them. A closed magnetic low, located in the northwest corner of the **Grace 2** claim, is part of this fault pattern, but is also very similar to the magnetic feature surrounding the VIP mineral occurance located on the **Grace 1** claim in a window of Takla group volcanics.

A number of smaller faults are also observed in the magnetic data. The VIP mineral occurance may be located near the intersection of two of these features as drawn on the magnetic contour map, Figure 2.

The VLF-EM data is presented in profile format on Figures 3 and 4. No Seattle frequency data is available on lines 7019 through 7034 inclusive.

Both the Seattle and Annapolis frequency data are very quiet. No strong, high conductivity responses are observed however there are a number of weak lineations present. The most clearly defined of these is a slight conductivity increase which follows the magnetically delineated fault zone crossing the center of the claim group. The geologically and magnetically mapped fault in the northeast corner of the survey area is also reflected by weak conductivity increases as noted on Figure 3. No significant VLF-EM response appears to be related to the sulphide mineralization mapped within the Asitka and Takla Group outcrops.

Those VLF-EM responses which are anomalous on the basis of their amplitude or apparent line to line correlation have been flagged on the appropriate profile map and also

transferred to Figure 2 for easy comparison to the magnetic data. These anomalies are all generated by surface or very near surface features.

SUMMARY AND CONCLUSIONS

The area of the **Grace** claim group was included as part of a regional airborne magnetic and VLF-electromagnetic survey conducted in the Toodoggone Gold Belt area. One hundred forty-nine line kilometres of this data was recovered and examined in detail on behalf of **Asitka Resource Corporation** to evaluate the **Grace** claim group.

The B.C. Department of Mines maps the claims area as being almost entirely underlain by a large Jurassic intrusion. The magnetic data suggests that the intrusive material is restricted to the western portion of the claims area. This data also shows that the large, geologically mapped, intrusion is actually composed of a number of small, closely spaced intrusions.

Four outcrops of Takla group volcanics and Asitka Group sediments are geologically mapped on the **Grace** claims as windows within the Jurassic intrusion. The magnetic data suggests these outcrops are located along the edge of a cluster of intrusions and that they are likely more extensive than currently mapped.

The **Grace** claims lie between two northwesterly trending geologically inferred regional faults. The magnetic data clearly supports this interpretation. In addition, a third, parallel fault system is magnetically delineated midway between the above mentioned structures. This fault bisects the area of sulphide bearing Takla and Asitka Group outcrops and is likely structurally related.

A number of smaller, localized faults are also evident in the area and may be related to the observed mineralization.

Weak VLF-EM responses follow the major fault systems. No significant conductivity increase is observed in the vicinity of the reported sulphide mineralization on the property.

RECOMMENDATIONS

The most important type of economic mineralization identified in the Toodoggone area are epithermal precious and base metal deposits, hosted principally by volcanic units. Mineralization occurs primarily in fissure veins, quartz stockworks breccia zones and areas of silicification, generally close to major fault systems and associated with intrusive activity.

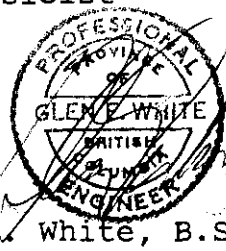
The results of the airborne survey indicate that these structural conditions are present within the subject claim group. Previously mapped occurrences of quartz veinlets, pyrite, chalcopyrite, sphalerite, molybdenite and magnetite on the property confirms the potential for precious metal mineralization. Continued exploration for this type of deposit is strongly recommended for this property.

General geological prospecting and soil geochemical analysis is recommended as the next exploration phase. Efforts should be concentrated in two areas; along the magnetically defined edge of the intrusion and in the vicinity of the magnetically delineated fault zones. Particular attention should be afforded to the closed magnetic low located along the northern border of the **Grace** 2 claim.

Contingent upon favorable results, trenching and diamond drilling may be warranted.

Respectfully submitted,

E. Trent Pezzot, B.Sc.
Geophysicist



Glen E. White, B.Sc., P.Eng.
Consulting Geophysicist

INSTRUMENT SPECIFICATIONS

BARRINGER AIRBORNE MAGNETOMETER

MODEL:	Nimbin M-123
TYPE:	Proton Precession
RANGE:	20,000 to 100,000 gammas
ACCURACY:	± 1 gamma at 24 V d.c.
SENSITIVITY:	1 gamma throughout range
CYCLE RATES:	
Continuous -	0.6, 0.8, 1.2 and 1.9 seconds
Automatic -	2 seconds to 99 minutes in 1 second steps
Manual -	Pushbutton single cycling at 1.9 seconds
External -	Actuated by a 2.5 to 12 volt pulse longer than 1 millisecond.
OUTPUTS:	
Analogue -	0 to 99 gammas or 0 to 990 gammas - automatic stepping
Visual -	5 digit numeric display directly in gammas
EXTERNAL OUTPUTS:	
Analogue -	2 channels, 0 to 99 gammas or 0 TO 990 gammas at 1 m.a. or 1 volt full scale deflection.
Digital -	BCD 1, 2, 4, 8 code, TTL compatible
SIZE:	Instrument set in console 30 cm X 10 cm X 25 cm
WEIGHT:	3.5 Kg.
POWER REQUIREMENTS:	12 to 30 volts dc, 60 to 200 milliamps maximum.
DETECTOR:	Noise cancelling torroidal coil installed in air foil.

INSTRUMENT SPECIFICATIONS

SABRE AIRBORNE VLF SYSTEM

Source of Primary Field:	-VLF radio stations in the frequency range of 14 KHz to 30 KHz
Type of Measurement:	-Horizontal field strength
Number of Channels:	Two; Seattle, Washington at 24.8 KHz Annapolis, Maryland at 21.4 KHz
Type of Sensor:	-Two ferrite antennae arrays, one for each channel, mounted in magnetometer bird
Output:	-0 - 100 mV displayed on two analogue meters (one for each channel) -recorder output posts mounted on rear of instrument panel
Power Supply:	-Eight alkaline "AA" cells in main instrument case (life 300 hours) -Two 9-volt alkaline transistor batteries in bird (life 300 hours)
Instrument Console:	-Dimensions - 30 cm X 10 cm X 25 cm -Weight - 3.5 Kg

INSTRUMENT SPECIFICATIONS

FLIGHT PATH RECOVERY SYSTEM

i) T.V. Camera:

Model:	RCA TC2055 Vidicon
Power Supply:	12 volt DC
Lens:	variable, selected on basis of expected terrain clearance.
Mounting:	Gimbal and shock mounted in housing, mounted on helicopter skid.

ii) Video Recorder:

Model:	Sony SLO-340
Power Supply:	12 volt DC / 120 volt AC (60Hz)
Tape:	Betamax 1/2" video cassette - optional length.
Dimensions:	30 cm X 13 cm X 35 cm
Weight:	8.8 Kg
Audio Input:	Microphone in - 60 db low impedance microphone
Video Input:	1.0 volt P-P, 75Ω unbalanced, sync negative from camera.

iii) Altimeter:

Model:	KING KRA-10A Radar Altimeter
Power Supply:	27.5 volts DC
Output:	0-25 volt (1 volt /1000 feet) DC signal to analogue meter, 0-10 v (4mv/ft) analogue signal to microprocessor.
Mounting:	fixed to T.V. camera housing, attached to helicopter skid.

INSTRUMENT SPECIFICATIONS

DATA RECORDING SYSTEM

i) Chart Recorder

Type:	Esterline Angus Miniservo III Bench AC Ammeter - Voltmeter Power Recorder.
Model:	MS 413B
Specification:	S-22719, 3-pen servo recorder
Amplifiers:	Three independent isolated DC amplifiers (1 per channel) providing range of acceptable input signals.
Chart:	10 cm calibrated width z-fold chart.
Chart Drive:	Multispeed stepper motor chart drive, Type D850, with speeds of 2,5,10,15,30 and 60 cm/hr. and cm/min.
Controls:	Separate front mounted slide switches for power on-off, chart drive on-off, chart speed cm/hr. - cm/min. Six position chart speed selector individual front zero controls for each channel.
Power Requirements:	115/230 volts AC at 50/60 Hz (Approximately 30 W).
Writing System:	Disposable fibre tipped ink cartridge (variable colors)
Dimensions:	38.6 cm X 16.5 cm X 43.2 cm
Weight:	9.3 kg.

ii) Digital Video Recording System

Type:	L.M. Microcontrols Ltd. Microprocessor Control Data Acquisition System.
Model:	DADG - 68
Power Requirements:	10 - 14 volts DC, Maximum 2 amps.
Input Signal:	3,0 - 100 mvolt DC signals 1,0 - 25 DC signals
Microprocessor:	Motorola MC-6800
CRT Controller:	Motorola MC-6845
Character Generator:	Motorola MCM-6670
Analogue/Digital Convertor:	Intersil 7109
Multiplexer:	Intersil IH 6208
Digital Clock:	National MM 5318 chip 9 volt internal rechargeable nickle-cadmium battery.
Fiducial Generator:	internally variable time set controls relay contact and audio output.
Dimensions:	30 cm X 30 cm X 13 cm
Weight:	3 kg.

iii) Digital Magnetic Tape

Type:	Hewlett Packard cartridge tape unit.
Model:	9875A
Power Requirements:	24 volt d.c.
Data Format:	HP'S Standard Interchange Format (SIF)
Tape Cartridge:	HP 98200A 225K byte cartridge compatible with HP Series 9800 desktop computers.

Tape Drive:	Dual tape drives providing up to 8 hours continual recording time.
Controller:	Internal micro-computer provides 23 built in commands External computer generated commands.

COST BREAKDOWN

The geophysical data was analyzed and this report prepared for an all inclusive fee of **$5,500.00.** This figure includes the proportional cost of the larger field program as well as the computer and office expenses and is considered to be the full assessment value of this report.

TOTAL ASSESSMENT VALUE	**$5,500.00**

STATEMENT OF QUALIFICATIONS

NAME: PEZZOT, E. Trent

PROFESSION: Geophysicist - Geologist

EDUCATION: University of British Columbia -
B.Sc. - Honors Geophysics and Geology

PROFESSIONAL
ASSOCIATIONS: Society of Exploration Geophysicist

EXPERIENCE: Three years undergraduate work in geology -
Geological Survey of Canada, consultants.

Three years Petroleum Geophysicist,
Senior Grade, Amoco Canada Petroleum Co. Ltd.

Two years consulting geophysicist,
Consulting Geologist - British Columbia,
Alberta, Saskatchewan, N.W.T., Yukon,
Western U.S.A.

Seven years geophysicist with
White Geophysical Inc. and Western
Geophysical Aero Data.

GRACE 2 GRACE 1
GRACE 3 GRACE 4

X Tommy

FINLAY RIVER

GEOLOGY LEGEND:

TRIASSIC
Takla Group
basalt, andesite, interbedded lst of Asitka Grp.

PERMIAN
Asitka Group
limestone – minor shale, chert, argillite

Geologic contact

Fault – defined, assumed

Outcrop boundary

X Mineral occurance

KEY:

INSTRUMENT: Barringer M-123 Magnetometer

Data corrected for diurnal variations

Base value= 58000 nT

Contour interval= 100 nT

Sensor Elevation = 60 metres

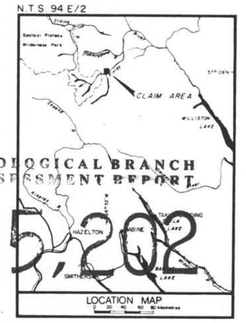
Claim boundary

Claim post

Inferred fault

VLF–EM Conductor

N.T.S. 94 E/2



PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
GLEN E. WHITE

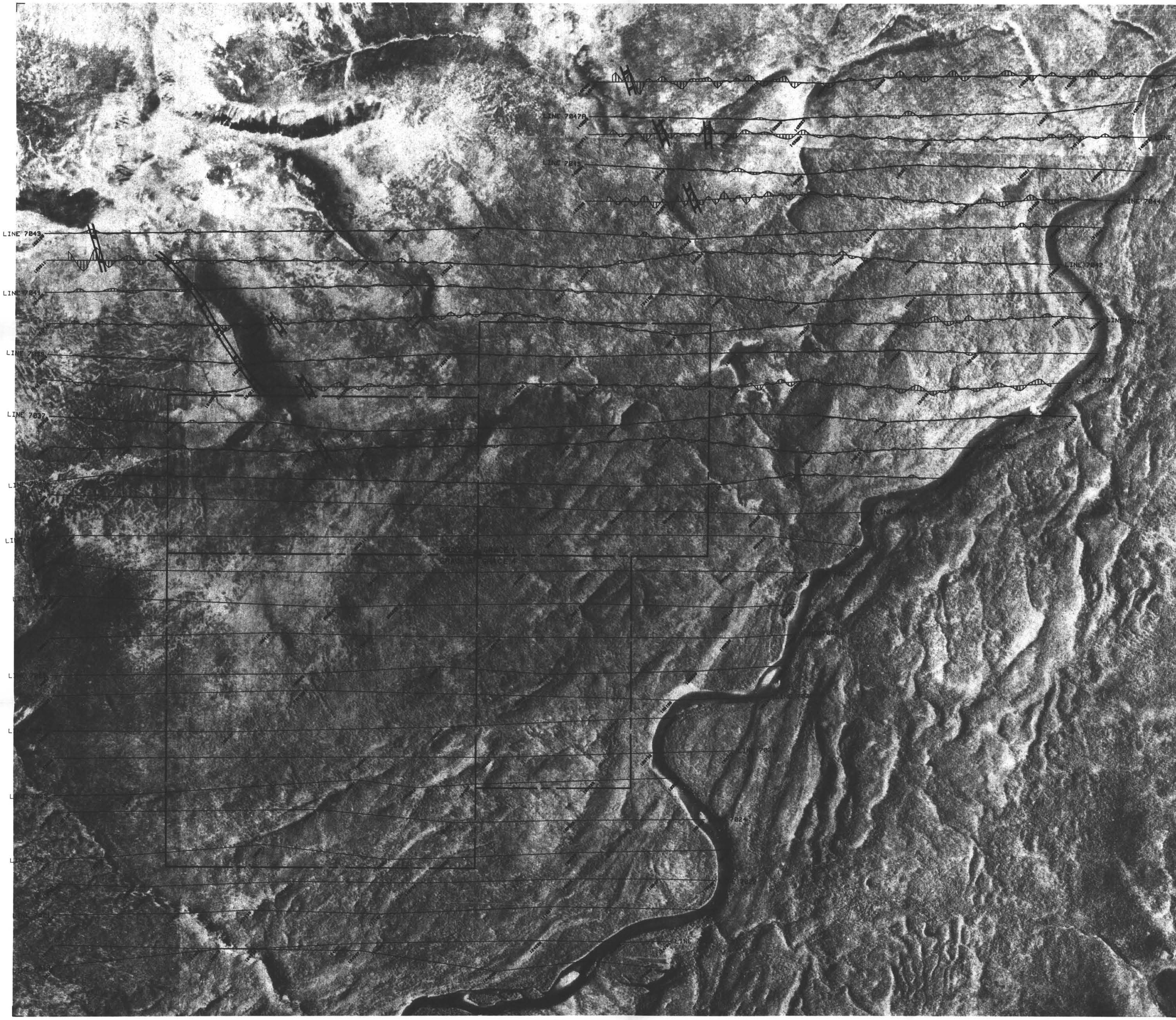
METRES
0 100 200 300 400 500 600 700 800

ASITKA RESOURCE CORPORATION
GRACE 1 – 4 CLAIMS
MAGNETIC CONTOUR MAP
TOTAL FIELD INTENSITY (nT)

DATE: MAR/86 | FIG.: 2

Western Geophysical Aero Data Ltd.

To accompany the Geophysical Report on the Grace 1 – 4 Claims



KEY

INSTRUMENT: Sabre Total Field Intensity VLF-EM

Transmitter Station: Seattle, Wa. (24.8 Khz.)

Data corrected for long period terrain effects

Vertical Scale = 10% / cm.

Sensor Elevation= 60 metres

Claim boundary

Claim post

VLF-EM Conductor

GEOLOGICAL BRANCH ASSESSMENT REPORT

15,202

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA GLEN E. WHITE

METRES

0 100 200 300 400 500 600 700 800

ASITKA RESOURCE CORPORATION

GRACE 1 - 4 CLAIMS

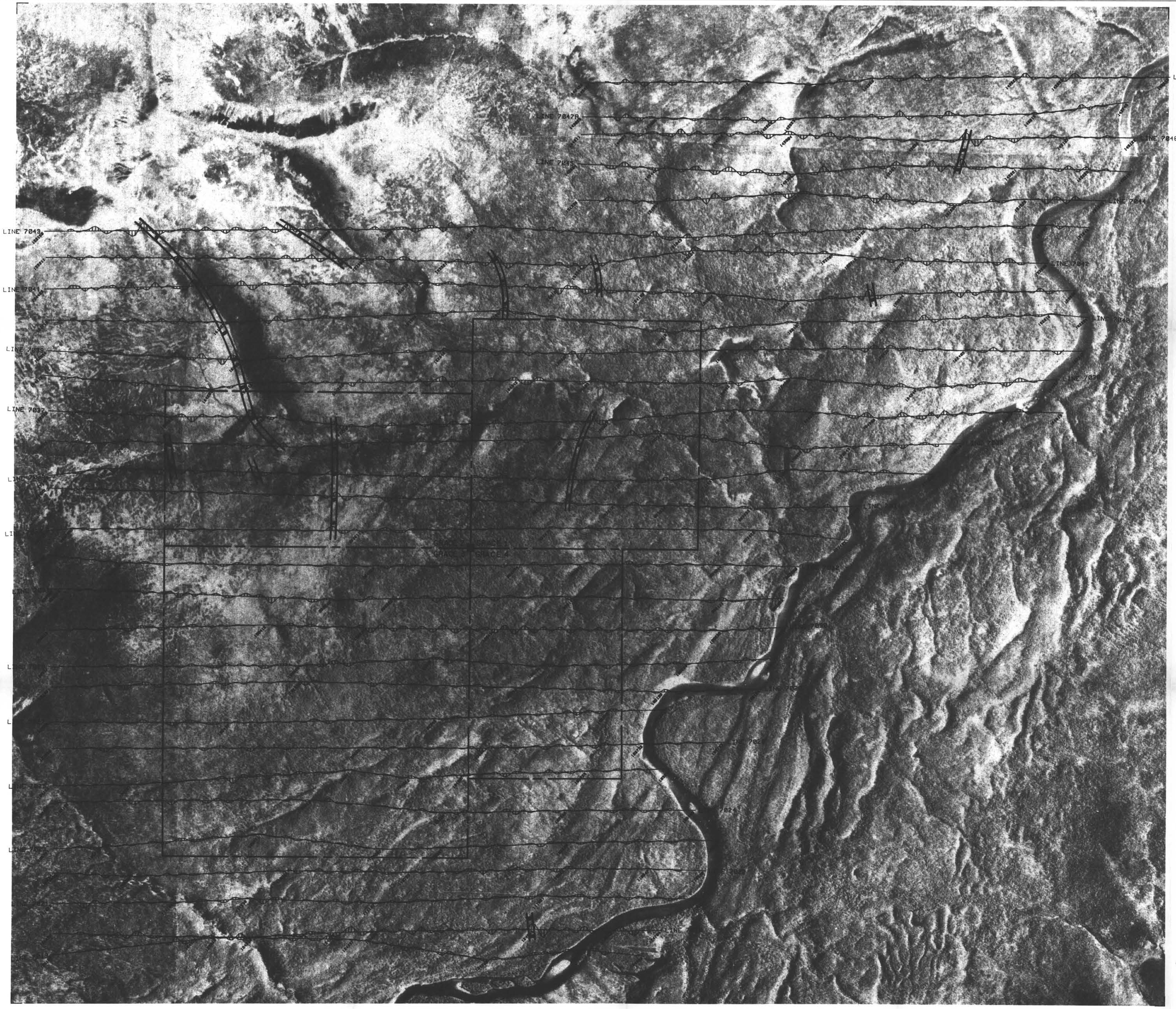
VLF-EM PROFILES (SEATTLE)

TOTAL HORIZONTAL FIELD INTENSITY (%)

DATE: MAR/86	FIG.: 3

Western Geophysical Aero Data Ltd.

To accompany the Geophysical Report on the Grace 1 - 4 Claims



KEY

INSTRUMENT: Sabre Total Field Intensity VLF-EM

Transmitter Station: Annapolis, Md. (21.4 Khz.)

Data corrected for long period terrain effects

Vertical Scale = 10% / cm.

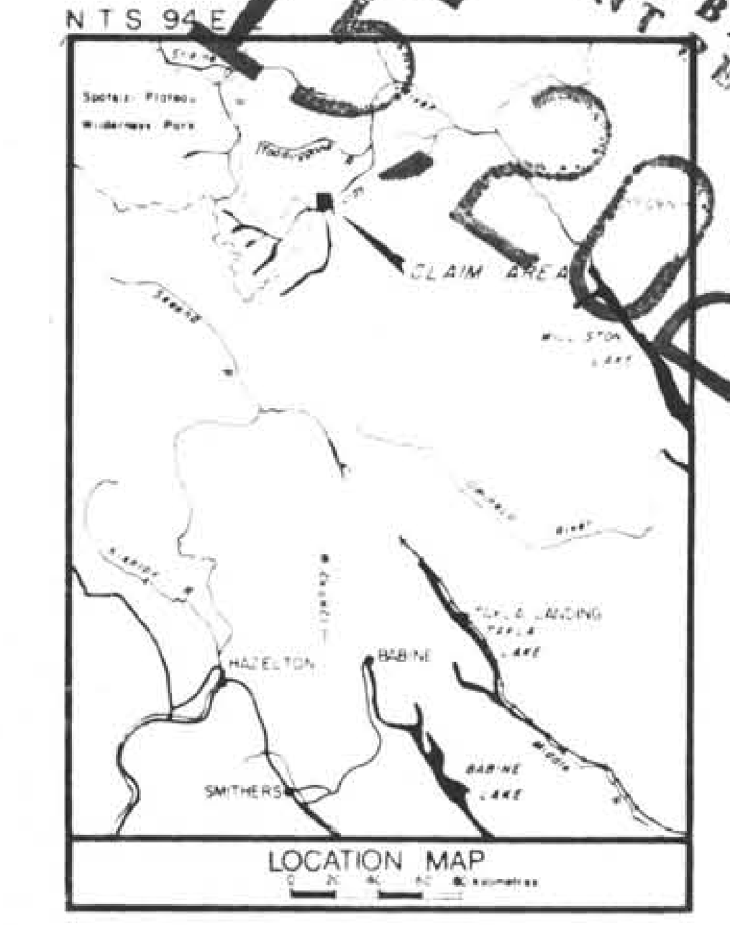
Sensor Elevation= 60 metres

Claim boundary

Claim post

VLF-EM Conductor

NTS 94E



METRES

0 100 200 300 400 500 600 700 800

ASITKA RESOURCE CORPORATION

GRACE 1 - 4 CLAIMS

VLF-EM PROFILES (ANNAPOLIS)

TOTAL HORIZONTAL FIELD INTENSITY (%)

DATE: MAR/86	FIG.: 4

Western Geophysical Aero Data Ltd.

To accompany the Geophysical Report on the Grace 1 - 4 Claims