ARIS SUMMARY SHEET

District Geologist, Smithers Off Confidential: 90.03.28 ASSESSMENT REPORT 18595 MINING DIVISION: Omineca PROPERTY: Black 57 15 30 LOCATION: LAT LONG 127 04 00 UTM 09 6347586 616626 094E06E NTS CAMP: 051 Toodoggone Camp LAIM(S): OPERATOR(S): Black I,Black III Lexington Res. AUTHOR(S): Kidlark, R.G. EPORT YEAR: 1989, 33 Pages COMMODITIES SEARCHED FOR: Gold, Silver EYWORDS: Jurassic, Toodoggone Volcanics, Quartz monzonite, Granodiorite ORK DONE: Geophysical 1.9 km EMGR Map(s) - 2; Scale(s) - 1:2500, 1:10 0001.9 km MAGG Map(s) - 1; Scale(s) - 1:2500ELATED EPORTS: 16068,17252

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GEOPHYSICAL ASSESSMENT REPORT ON THE BLACK CLAIM GROUP

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OMINECA MINING DIVISION

GEOLOGICAL BRANCH ASSESSMENT REPORT





FILMED

LEXINGTON RESOURCES LTD. 780 - 885 Dunsmuir Street Vancouver, B.C. V6C 1N8

By

Roger G. Kidlark, B.Sc., F.G.A.C. ASHWORTH EXPLORATIONS LIMITED 718 - 744 West Hastings Street Vancouver, B.C. V6C 1A5

January 13, 1989

SUMMARY

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The Black Claim Group consists of two contiguous mineral claims totalling 35 units. The claims are situated 250 kilometres north of the town of Smithers, British Columbia, in the Toodoggone River mining camp.

Major deposits in the area include the Baker Mine, the Lawyer's property and the Al property. The Baker Mine was the Toodoggone's first lode gold-silver producer and was in operation from 1980 to 1983. The Lawyer's property has drill-indicated reserves of 1,937,000 tons grading 0.196 oz/ton gold and 7.10 oz/ton silver. The Al property has proven-probable reserves of 262,000 tons grading 0.25 oz/ton gold.

The Black group is underlain by the Black Lake quartz monzonite and granodiorite stocks and dykes of Lower to Middle Jurassic age.

A test geophysical survey was carried out on the Black I claim and the results were not significant.

A second and third phase exploration program has been recommended. Phase II will consist of geological mapping, prospecting, rock sampling and reconnaissance soil sampling at an estimated cost of \$22,000. Phase III would consist of a follow-up program of detailed geological mapping, soil sampling, geophysics and trenching.

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1. INTRODUCTION

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This report was prepared at the request of Lexington Resources Ltd., to describe the results of a test geophysical survey carried out on the Black Claim Group by Ashworth Explorations Limited of Vancouver, British Columbia. The field work was carried out on November 2, 1988 by the author and one geophysical operator. The purpose of the project was to test the geophysical response across an inferred fault zone.

2. LOCATION, ACCESS AND PHYSIOGRAPHY

The Black Claim Group is located in the Toodoggone River area, 250 kilometres north of Smithers, B.C., approximately two kilometres southeast of the Baker gold-silver mine of DuPont of Canada Exploration Ltd. and five kilometres northwest of the Shas deposit (Figure 1).

Coordinates of the claim are latitude 57° 15'N and longitude 127° 04'W and the area is on NTS map sheet 94E/6E.

Access is via fixed-wing aircraft from Smithers to the Sturdee airstrip, then by ground vehicle along the Baker Mine road which crosscuts the northeastern corner of the claim.

Elevations are relatively moderate and most of the property lies along a rolling creek valley. At the northeast and southwest corner steeper slopes rise in elevation from 1400 to 1600 metres.





3. CLAIM STATUS

The contiguous Black I and Black III claims are owned by Hugh Harlington and Carolyn Beban and are operated by Lexington Resources Ltd., 780 - 885 Dunsmuir Street, Vancouver, B.C., V6C 1N5. Pertinent data is as follows (Figure 2):

CLAIM NAME	UNITS	RECORD NO.	RECORD DATE	EXPIRY DATE
Black I	15	6922	March 25/85	March 25/89
Black III	20	6924	March 25/85	March 25/89
Total	35			

4. AREA HISTORY

J.P. Sorbara (1988) summarizes the regional history as follows:

Mining exploration in the Toodoggone River area dates back to the early 1930's, when placer mining was done on McClair Creek and the Toodoggone River, and lead-zinc showings at the head of Thutade Lake were staked. Several high-grade gold showings were reportedly discovered in the 1930's, but apparently these were not followed up.

The Toodoggone River area remained largely unexplored until the late 1960's, when several companies actively searched for low grade, high tonnage copper-molybdenum porphyry deposits. As a result of that period of intensive exploration, a number of significant precious metal deposits have been discovered. These include the Baker Mine orebody, and the Lawyers and Al deposits, which are expected to commence production this year (Figure 3, Table 1).

The Baker Mine was the Toodoggone's first lode gold-silver producer. It was operated by DuPont of Canada Exploration Ltd. from 1980 to 1983. The Baker Mine's "A" Vein produced 34,000 oz gold and 673,000 oz silver. The "B" Vein is currently being actively explored, and has possible ore reserves of 50,000 tonnes (Schroeter and Lefebure, 1987).

The Lawyer's property is owned by Cheni Gold Mines Inc. Surface and underground drilling has defined reserves of 1,937,000 million tons grading 0.196 oz/ton gold and 7.10 oz/ton silver (Tegart, 1988).

The Al property is owned by Energex Minerals Ltd., which is currently conducting a \$3.7 million exploration program on the property. Current proven-probable reserves are 262,000 tons grading 0.25 oz/ton gold. A 6 tpd pilot mill has produced approximately 350 oz of gold (Schroeter and Lefebure, 1987).

More than thirty companies, including many major mining companies, are now actively exploring or holding ground in the Toodoggone River area. The economics of exploration and production have been

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TABLE1Schroeter, 1987MAJOR EXPLORATION PROPERTIES IN THE TOODOGGONE GOLD CAMP

PROPERTY NAME	OPERATOR	YEAR OF DISCOVERY (New Discovery)	DIMENSIONS (Drill Tested) Length × Width × Depth (Min.) (m) (m) (m)) MINER ORE	ALOGY GANGUE	RESERVES (tonnes (#. g/tonne)
BAKER (ex-Chapelle)	Multinational Resources Inc.	1969	435 × 0,5 to 9 × 150	Electrum, argentite, with minor chalcopyrite, sphalerite, pyrite, galena, bornite, polybasite, stromeverite	Quartz, chlorite, calcite and trace flourite	 Produced 1 168 175 g Au (34072 oz.) and 23 084 969 Ag (673326 oz.) from 77 500 tonnes (85500 tons), 1980–1983
	(ex-DuPont of Canada Exploration Ltd.)	(1986)				 Active exploration on 'B' Vein. Possible 50 000 tonnes outlined
LAWYERS AGB Zone Cliff Creek Zone Duke's Ridge Zone	Serem Inc.	1973	$500 \times 60 \text{ to } 75 \times 150 \\ 660 \times 9 \times 250 \\ 480 \times 5 \times 100$	Native gold, native silver, electrum, argentite, with minor pyrite, chalcopyrite, sphalerite, galena and chalcocite	Chalcedony, quartz, amethyst, calcite, with minor adularia, hematite, barite, kaolinite, illite, montmorillonite	Total = 941 000 @ 7.2 Au (0.21 oz./ton) and 260 Ag (7.61 oz.) AGB — 50%; Cliff Creek — 45% Duke's Ridge — 5%. Note: 20% of known surfac strike-lengths drilled
AL Thesis III Zone BV Zone Bonanza-Ridge Zone	Energex Minerals Ltd.	1981	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Native gold with minor pyrite, tetrahedrite, electrum, argentite, chalcopyrite, galena and sphalerite	Quartz, barite, calcite with minor alunite, illite, hematite, sericite	Thesis III 121 624 @ 8.49 Au BV 117 926 @ 8.54 Au Total 239 550 @ 8.51 Au (open pittable) 1986: Pilot mill @ 6 tpd. ~12 000 g produced
SHAS Creek Zone	International Shasta Resources Inc.	1982	370× 5 to 23×100	Native silver, electrum, argentite, with minor native gold, galena, chalcopyrite and sphalerite	Chalcedony, quartz with minor barite	2 176 800 @ 2.7 Au (0.079 oz./ton) inct. 471 640 @ 5.9 Au (0.172 oz/ton)
METS	Manson Creek Resources Ltd.	1981	125× 5 to 9× 60	Native gold, pyrite	Quartz, barite, hematite	OPEN, includes 13m @ 18 Au
SILVER POND West Zone Cloud Creek Zone	St. Joe Canada Inc.	1985		Electrum, pyrite, argentite, with minor chalcopyrite and tetrahedrite	Quartz, kaolinite, alunite	OPEN, includes values to 44 Au
JD Vein Zone Gasp Zone Gumbo Zone	Energex Minerals Ltd.	1981	$\begin{array}{c} 600 \times 1 \text{ to } 4.6 \times 50 \\ 150 \times 20 \qquad \times \begin{array}{c} 2 \\ 400 \times 10 \qquad \times \end{array} \end{array}$	Native gold, native silver, with minor galena, sphalerite, chalcopyrite and pyrite	Quartz, calcite, with minor hematite, barite, and various clays	OPEN, includes 27 210 @ 5.5 Au — Gumbo Zone (open pittable)
METSANTAN Several Zones	Lacana Mining Corp.	1981	550× 4 to 7×100 (Ridge Zone)	Chalcopyrite, galena, pyrite, sphalerite and trace polybasite	Quartz, amethyst, sericite, kaolinite, barite	OPEN, includes 4m @ 7.54 Au and 20m @ 6.3 Au
MOOSEHORN	Cyprus Metals (Canada) Ltd.	1981	670×1 to 5×?	Pyrite + argentite?	Amethyst, quartz, calcite	OPEN, include assays to 16.1 Au
GOLDEN LION	Newmont Exploration of Canada Ltd.	1981	200×2 to 10×20	Galena, sphalerite, with minor pyrite, chalcopyrite, acanthite and linarite	Quartz, barite, calcite, hematite	OPEN, includes assays to 35 Au and 7540 Ag
GOLDEN NEIGHBOUR	Lacana Mining Corp.	1980	460 × 3 to 130 × ? (geochemical anomaly)	Pyrite, argentite, sphalerite, galena, molybdenite	Quartz, kaolinite	OPEN
GOLDEN STRANGER	Western Horizons Resources Ltd.	1983	464) × 3 to 45 × ? (trenched)	Pyrite, chalcopyrite, galena, sphalerite	Amethyst, quarte	OPEN, includes 4m @ 11.7 Au (trench)

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improved by the recent completion of the Omineca Resource Road to the Sturdee airstrip, which allows overland access to the area.

Schroeter (1987) reports that the Shas deposit which is owned by International Shasta Resources Inc. has reserves of 2,176,800 tons grading 0.079 oz/ton gold which includes 471,640 tons grading 0.172 oz/ton gold (Schroeter, 1987).

5. PROPERTY HISTORY

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In the fall of 1985 Hi-Tec Resources carried out a limited geochemical sampling program on the Black I to III claims for the Toodoggone Syndicate (Bell, 1985). The majority of the work was done on the Black II claim and a number of gold, silver and copper anomalies were reported. There were no sample locations or results report on the Black I and III claims.

Aeromagnetic data from the 1986 regional survey of the Toodoggone Gold Belt was obtained from an area covering the Black claim group by Hermary and White (1987). The data was interpreted as generally reflecting the geometry and compositional variation of the Black Lake intrusive and indicated the presence of numerous faults bordering and intersecting the intrusive body.

In early 1988 Western Geophysical Aero Data Ltd. reprocessed, interpreted the 1986 aeromagnetic data over the Black I and III claims and concluded the following:

The northeastern edge of the Black Lake intrusion is clearly evident in the magnetic data as being controlled by a major northwesterly trending fault. A number of other faults are also observed on the total field and vertical second derivative contour plots indicating that the intrusive body has been deformed by an intersecting pattern of northwesterly and northeasterly trending faults. Some of these faults coincide with drainage systems and appear to be related to the Chappelle (Baker Mine) and Castle Mountain mineral deposits, located about 2 kilometers northwest of the Black I claim. Some of the

magnetically inferred faults are surrounded or flanked by areas of low magnetic intensity. Either alteration effects or the presence of a thin cover of overburden or volcanic rocks could cause this magnetic signature (Woods, 1988).

No other work has been recorded on the Black Claim Group.

6. **REGIONAL GEOLOGY**

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The general geology of the area is shown on Preliminary Map 61, B.C. Ministry of Energy, Mines and Petroleum Resources by L.J. Diakow, A. Panteleyev and T.G. Schroeter, 1985 and on Open File, Geological Survey of Canada, by H. Gabrielse, C.J. Dodds, J.L. Mansy and G.H. Eisbacher, 1977.

The Toodoggone River area is set within the Intermontane Belt. The main geologic units are the Upper Cretaceous Sustut Group, the Lower to Middle Jurassic Toodoggone Volcanics, the Upper Triassic Takla Group and Permian carbonate units thought to belong to the Asitka Group (Figure 3).

Several Jurassic intrusive bodies of quartz monzonitic to granodioritic composition, irregular in size and shape (belonging to the Omineca Intrusives) intruded the volcano-sedimentary complex in several localities. Swarms of dykes and small stocks are related to these intrusions.

The Takla rocks are the product of a volcanic event that may have been accompanied by an uplift of the whole area, possibly changing the environment from submarine to sub-areal. The result is a complex of interlayered volcanic and sedimentary rocks. Uplift was followed by a period of regression and related deformations. This period of regression followed a volcanic episode during which the cyclic Toodoggone Volcanic rocks were formed. The event





started with a quartzose acidic extrusion, followed by a mafic extrusion, and then by several intermediate extrusions. Much of the volcanics were porphyritic flows, but within each cycle there are pyroclastic units and conglomerates, lahars and sandstones (reworked pyroclastics).

Of the structural elements, the most prominent are three fault zones, trending northwest-southeast, which are intermittently exposed where outcrop is developed and are clearly outlined by the airborne geophysics. Faulting had a major role not only in distribution of geologic units, but also in the emplacement of minerals. The same northwest-southeast trend is also the general strike of the majority of the lithostratigraphic members.

Local uplifts accompanying intrusions resulted in several domal structures, characterized by a circular distribution of volcano-sedimentary units surrounding an intrusive core.

The Toodoggone River area is an important host of numerous precious metal and base metal prospects. Four main mineral deposit types have been identified:

- porphyry - occurring mainly in Takla Group volcanics and Omineca intrusives.

- skarn - contact of limestones (Asitka, and some in Takla) with intrusive.

- stratabound - occurring in Takla limestones interbedded with cherts.

- epithermal - occurring mainly in Toodoggone Volcanics and in Takla rocks.

Of the four, the epithermal type is the most important, and has been subdivided into two subtypes: fissure vein deposits associated with fracture zones and

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possibly caldera formations, and hydrothermally altered and mineralized deposits (associated with major fault zones).

Most common ore minerals in epithermal type deposits are argentite, electrum, native gold and silver. Baker Mine and Lawyers Deposit are the two most prominent deposits of this type in the area.

7. **PROPERTY GEOLOGY**

The Black claims are underlain by the Black Lake quartz monzonite and granodiorite stocks and dykes of Lower to Middle Jurassic age (Figure 4).

A major fault puts this intrusive body in contact with the Triassic Takla and Jurassic Toodoggone volcanics to the north and east of the property.

The Baker Mine fault is associated with gold mineralization and is inferred to trend northwesterly across the property.

A reinterpretation of the aeromagnetic data by Hermary and White (1987) indicates several fault zones occur on the subject claims with northwest and northeast trends which coincide with the major structural trends in the Toodoggone region.

8. 1988 PROGRAM

8.1 SCOPE AND PURPOSE

On November 2, 1988 the author and a geotechnician laid out a flagged grid and carried out a VLF-EM and magnetometer geophysical survey over the Black I claim. The objective was to test the effectiveness of VLF-EM and magnetometer

in following possible mineralized trends and to establish new unrecognized conductive trends.

8.2 METHODS AND PROCEDURES

Utilizing a compass, hipchain and topographic features, four flagged lines were laid out (Map 1). A total of 1.2 kilometres of line were surveyed. Line intervals varied from 150 to 200 metres and stations were at 25 metre spacings. Geophysical readings were taken at all stations and all data was sent to Interpretex Resources Ltd. of Delta, B.C. for processing.

An E.D.A. Omni Plus system (ser. #38) was used to simultaneously measure total field magnetics data and VLF-EM data from Annapolis (21.4 KHz) and Seattle (24.8 KHz) transmitters. Parameters measured were total magnetic field strength, and VLF-EM strength, in-phase dip angle and quadrature (see Appendix A for Equipment Specifications).

The VLF-EM in-phase and quadrature results were corrected to have the operator facing north. There were no other calculations made to the VLF-EM data. Total field magnetic data were corrected for diurnal variation by the internal programming of the Omni IV base station. The Omni IV program interpolates a base station reading corresponding to the time of each field reading and corrects the field reading to a set datum value.

All collected geophysical data was sent to Interpretex Resources Ltd. for processing. A summary report by Interpretex is presented in Appendix B.

8.3 PRESENTATION

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- VLF-EM in-phase, out-of-phase and field strength readings are presented in profile form on Map 2 at a scale of 1:2500.
- Magnetic data was profiled and is presented on Map 3 at a scale of 1:2500.
 - Field readings and calculated values are listed in Appendix C.

8.4 MAGNETOMETER AND VLF-EM SURVEY (summarized from report by Matich, Appendix B)

Magnetic data in this area were stable and quiet. The range in magnetic field readings was 58850 gammas to 59350 gammas. No significant magnetic anomalies or trends were observed and there was no correlation of magnetic field highs or lows with VLF-EM anomalies.

VLF-EM results show broad conductors at 325S on line 1W and at 275S on line 2W. The in-phase amplitude of these conductors is in the moderate range (30%). However, the quadrature response is weak and the field strength response is so weak and broad that it is difficult to define the anomaly.

8.5 INTERPRETATION

The large peak to peak lateral distance in the in-phase readings and the negligible quadrature and field strength responses indicate that the only observed conductors on this grid are weak and wide. The source of these conductors would therefore appear to be conductive overburden.

8.6 DISCUSSION OF RESULTS

The geophysical survey covered less than 5% of the property and results were inconclusive. No geological mapping or prospecting has been carried out on the property to date. These steps should be completed to properly evaluate the potential of the claims.

9. CONCLUSIONS

The Black Claim Group is considered to have good potential for hosting a precious metal deposit for the following reasons:

- 1) The property lies in the Toodoggone gold camp, is adjacent to the Baker gold-silver mine and is in close proximity to the Shas deposit.
- Geophysical surveys have inferred that the major structure at the Baker Mine trends across the northern section of the property.

For these reasons, further work is recommended.

10. RECOMMENDATIONS

Phase II

- 1) Perform geological mapping, prospecting and rock sampling over the entire property to locate any mineralization or alteration zones.
- Run several soil reconnaissance lines to test the geochemical response in soils.

Phase III

Phase III would consist of a follow-up program and would include detailed geological mapping, soil sampling, geophysics and trenching.

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11. PROPOSED BUDGET

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(One Project Geologist, one Geotechnician; 7 days)

Project Preparation		\$	1,000
Mob/Demob (includes transportation, freight and wages)			4,800
Field Crew			3,745
Field Costs			4,000
Lab AnalysisSay 100 silt and soil samples @ \$14/sampleSay 20 rock samples @ \$18/sample	1,400 540		1,940
Supervision and Report			3,350
Sub-total		\$	18,835
Administration 15%			2,825
Total		\$	21,660
	(Sa	iy \$	<u>22,000</u>)

Respectfully submitted,

Roger G. Kidlark, B.Sc., F.G.A.C.

PERSONNEL

The following personnel were employed during the 1988 Field Program on the Black Claim Group.

Roger Kidlark

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Project Geologist Geophysical Operator

Brian Chore

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CERTIFICATE

I, ROGER G. KIDLARK, of 303 - 9110 Halston Court, Burnaby, B.C., do hereby certify that:

- 1. I am a graduate of the University of Toronto with a Bachelor of Science Degree in Geology, 1974.
- 2. I am a Fellow in good standing with the Geological Association of Canada.
- 3. I have practised my profession as a geologist for twelve years in British Columbia, Yukon and Northwest Territories, Ontario and Nova Scotia.
- 4. The information, opinions and recommendations in this report are based on fieldwork carried out under my direction, and on published and unpublished literature. I was present on the subject property on November 2, 1988.
- 5. I have no direct, indirect or contingent interest in the subject claims or the securities of Lexington Resources Ltd.
- 6. I consent to the use of this report in a Prospectus or Statement of Material Facts for the purpose of private or public financing.

Roger G. Kidlark, B.Sc., F.G.A.C.

ALC: NO.

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Dated at Vancouver, January 13, 1989

ITEMIZED COST STATEMENT

(Geologist, Geophysical Operator;	Novemb	er 2, 1988	3)	
Project preparation			\$	400
Mob/Demob (includes transportation, freight and v	wages)			3,400
Field Crew				
Project Geologist \$325/day x 1 day	\$	325		
Geophysical Operator \$250/day x 1 day	· · · ·	250		575
Field Costs				
Helicopter Support \$650/hr x 4 hrs	\$	2,600		
Food and Accommodation \$70/day x 2 mandays		140		
Communications		35		
Geophysical Instrument Rental plus computer				
and plotter $225/day \times 1 day$		225		
Air Cargo		120		
Supplies		25		3,145
Supervision and Report				
Report Writing	\$	500		
Map plotting and Drafting		600		
Word Processing, Copying, Binding		150		1,250
Sub-total			\$	8,770
Administration 15%				<u>1,315</u>
Total			\$	10,085

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APPENDIX A

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MAGNETOMETER AND VLF-EM EQUIPMENT SPECIFICATIONS

Specifications

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Frequency Tuning Range	15 to 30 kHz, with bandwidth of 150 Hz; tuning range accommodates new Puerto Rico station at 28.5 kHz.
Transmitting Stations Measured	. Up to 3 stations can be automatically measured at any given grid location within frequency tuning range.
Recorded VI F Magnetic	
Parameters	. Vertical in-phase, vertical quadrature (out-of-phase), total field strength (or optional horizontal amplitude), dip angle.
Standard Memory Capacity	1300 combined VLF magnetic and VLF electric measurements as well as gradiometer and magnetometer readings.
Display	. Custom designed, ruggedized liquid crystal display with built-in heater and an operating temperature range from -40°C to +55°C. The display contains six numeric digits, decimal point, battery status monitor, signal strength status monitor and function descriptors.
RS232C Serial VO Interface	. Variable baud rate from 300 to 9600 baud, 8 data bits, 2 stop bits, no parity.
Test Mode	A. Diagnostic Testing (data and programmable memory). B. Self Test (hardware).
Sensor Head	Contains 3 orthogonally mounted coils with automatic tilt compensation.
Operating Environmental	
Range	40°C to +55°C; 0 – 100% relative humidity; Weatherproof.
Power Supply	Non-magnetic rechargeable sealed lead-acid 18V DC battery cartridge or belt; 18V DC disposable battery belt; 12V DC external power source for base station operation only.
Weights and Dimensions	
Instrument Console Sensor Head VLF Electronics Module Lead Acid Battery Cartridge Lead Acid Battery Belt	3.8 kg, 122 x 246 x 210 mm. .0.9 kg, 140 dia. x 130 mm. .1.7 kg, 280 x 190 x 60 mm. .1.8 kg, 138 x 95 x 75 mm. .1.8 kg, 540 x 100 x 40 mm.
Disposable Battery Belt	. 1.2 kg, 540 x 100 x 40 mm.

EDA Instruments Inc 4 Thorncliffe Park Drive Toronto, Ontario Canada M4H 1H1 Telex: 06 23222 EDA TOR Cables: Instruments Toror Telephone. (416) 425-780 Fax: (416) 425-8135

In USA. EDA Instruments Inc. 5151 Ward Road Wheat Ridge, Colorado U.S.A. 80033 Telephone (303) 422-911 . A standard of the

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	Physical Dimensions Wt(kg): w x h x d(mm)
•	Instrument console only
	Sensors
	Magnetometer remote sensor
	Environment
	Electronics Operating temperature range40 C to +55 C Relative humidity 0 to 100% (weather-proof)
	Magnetometer Sensors Temperature range
	VLF Sensor Temperature range45 C to +55 C Relative humidity 0 to 100% (weather-proof)
	Standard Memory Capacity
	Field unit
	Electronics
	RS-232C serial I/O 300 to 9600 baud(programmable); 8 data bits, 2 stop bits; no parity
	Electronics console Enclosure contains electronics and battery pack (if not contained in separate belt). Front panel includes liquid crystal display (LCD), and keypad.
	Power Supply Internal battery pack or external battery belt; or 12V car battery (base station).

Table 1-1 Technical Summary

APPENDIX B

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GEOPHYSICAL REPORT - INTERPRETEX RESOURCES LTD.

1. INTRODUCTION

A combined electromagnetic (VLF-EM) and magnetic survey program was carried out on a reconnaissance grid located in the Omineca mining division, B.C. in November 1988.

Objectives

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- to establish a correlation between magnetic minerals and mineralized trends,
- to test the effectiveness of VLF-EM in following possible mineralized trends and to establish new unrecognized conductive trends.
- to establish geophysical areas of interest for future exploration.

2. SURVEY SPECIFICATIONS

Survey Parameters

- survey line separation 150 m
- survey station spacing 25 m
- VLF-EM survey total 1.9 km
- magnetic survey total 1.9 km

Equipment Parameters

- VLF-EM and Magnetic Surveys

- EDA Omni Plus combined VLF-EM and magnetometer
- In-phase (dip angle) and Quadrature (out-of-phase) measured in percent at each station
- VLF-EM Field Strength measured at each station
- transmitting stations used NLK (24.8 kHz) Seattle, Wash.
 - NSS (21.4 kHz) Annapolis, Md.

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- NAA (24.0 kHz) Cutler, Ma.
- earth's total magnetic field measured in gammas (nT)
- magnetic variations controlled by automatic magnetic base station recording every 30 seconds
- instrument accuracy +/- 0.1 gamma
- station repeatability better than +/- 3 gammas in low gradients.

Equipment Specifications - see Appendix I

-2-3. DATA Calculations Total Field Magnetic Survey Total field magnetic readinos were individually corrected for variations in the earth's magnetic field using magnetic base station values. The formula used for magnetic corrections was; CTFR = TFR + (DBL - BSR)where: CTFR = Corrected Total Field Reading TFR = Total Field Reading = Datum Base Level = 59130 gammas DBL BSR = Base Station Reading Presentation - VLF-EM in-phase, out-of-phase and field strength readings are presented in profile form on Figure # 1 at a scale of 1:2500

- Magnetic data were profiled and are presented on Figure # 2 at a scale of 1:2500
- Field readings and calculated values are listed in Appendix II.

4. INTERPRETATION

Discussion of Results

Magnetic data in this area were stable and quiet. The range in magnetic field readings was 58850 gammas to 59350 gammas. No significant magnetic anomalies or trends were observed and there was no correlation of magnetic field highs or lows with VLF-EM anomalies.

VLF-EM results show broad conductors at 3258 on line 1W and at 2758 on line 2W. The in-phase amplitude of these conductors is in the moderate range (30%). However, the quadrature response is weak and and the field strength response is so weak and broad that is difficult to define the anomaly.

Conclusions

Due to its limited nature, this survey did not establish any geochysical trends nor did it discover any significant anomalies.

The large peak to peak lateral distance in the in-phase readings and the negligable quadrature and field strength responses indicate that the only observed conductors on this grid are weak and wide. The source of these conductors would therefore appear to be conductive overburden. 5. RECOMMENDATIONS

A larger VLF-EM and magnetic survey is required to properly develop the Black property. In order to get away from the problem of conductive overburden, it is recommended that futher geophysical exploration concentrate on the surrounding hills rather than the creek beds this survey covered.

CERTIFICATE

I, Thomas Raymond Matich. Geophysicist of Surrey, British Columbia. Canada, hereby certify that:

1. I received a B.Sc. degree in Geochysics from the University of British Columbia in 1982.

2. I have been practising my profession since graduation.

3. I hold no direct or indirect interest in, nor expect to receive any benefits from, the mineral property or properties described in this report.

Date: December 31, 1988 Signed: Jour Matt

Vancouver, Thomas Raymond Matich British Columbia B.Sc.

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APPENDIX C

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FIELD DATA WORK SHEETS

	INTERPRE Area:	tex resour Ominica	CES LTD.	Data list	ing	(Line # S	tation + -	= Northing = Southing	s and Eastings, is and Westings)	Current File Name: BLDAT.WR1 From File: BL.XYZ
	Grid:	BLACK PRO	PERTY					•	•	
	Date:	December	1988							
	data typ	E(S):					INSTRUMEN	T TYPE:		DATA DETAILS:
	# 1.	Total Fie	ld Magnet	ic Values			EDA VLF-	EM/Magnetic	: System	Corrected total magnetic field
	# 2.	Base Stat	ion Magne	etic Value	5		H		a -	Base Station Values
	₹ 3.	iotal Fie	ld Magnet	ic Values			* *			Field Values
j -	· · · · · · · · · · · · · · · · · · ·	VLF-LR IN	-Phase Va	lives			EDA VLF-	EM/Magnetic	: Svstem	Facing northerly using Seattle Transmitte
	* 5. * 6.	VLF-EN GU VLF-EN Fi	adrature eld Stren	iour-or-p ngth	nase)					Facing northerly using Seattle Transmitte Seattle total field strength
1	N/S	E/W								
	LINE #	STATION	# 1.	# 2.	# 3.	# 4.	* 5.	# 6.		
	line -4							•		
	-550	-300	59105.3	59113.2	59137.9	-0.7	-4.7	42.49		
	-550	-275	58902.3	58912.9	59140.6	1.8	-4.1	42.59		
	-550	-250	58861.8	58870.9	59139.1	2.5	-3.3	42.78		
	-550	-225	58934	58940.6	59136.6	-1.5	-3	41.78		
	-550	-200	58991.6	58997.6	59136	-2.1	-2.7	40.67		
	-550	-175	59215	59223.8	59138.8	-1.6	-2.3	39.67		
	-550	-150	09238.6	59249.2	59140.6	-0.5	-2.1	38.52		
ŀ	-000	-125	274223.7	37263./	59139.8	3.4	-1.6	38.58		
	066-	-100	50765 7	33361.9	23173"8	5.2	-1	59.68		
	-330	-50	50050	50070 D	53138.3 50143.0	5.0	-1.9	41.08		
	-550	-30	J7230 59170 0	50150 1	3314C.3	10.0	-3.1	39.61		
	-550	0	59182 9	59186 9	59176	12.0	-2.5	40.44		
	line -3	v	JJ10C2 J	33100.3		11.5	-c.J	45° 01		
	-400	-300	59295.1	59287.2	59122.1	-18	-6 🛦	A1. 79		
, .	-400	-275	59098.3	59096.8	59128.5	-12.4	-4.2	40.93		
	-400	-250	59109.6	59109.6	59130	-12.7	-4.6	41.06		
	-400	-225	59117.1	59109.3	59122.2	-0,7	-1.7	41.31		
I	-400	-200	59224.5	59225.1	59130.6	-6.8	-4	42.97		
	-400	-175	59146	59148.8	59132.8	-9.8	-6.5	40.15		
	-400	-150	59152.2	59150.1	59127.9	-7.1	-6	38.76		
	-400	-125	59111.4	59108.9	59127.5	-4,8	-5.5	39.25		
	-400	-100	59187.8	59191	59133.2	-0.7	-4.9	39.41		
	-400	-75	59172.7	59173.9	59131.2	-7.2	-7	39.36		
l	-400) -50	59350.7	59350.7	59130	-2.4	-6.1	39.22		
	-400	-25	59165.9	59162.4	59126.5	-2.5	-5.8	40.95		
ł	-400) 0	59315.2	59315.6	59130.4	-1.7	-6	41.75		
	line -2							··		
•	-150	-700	59138.2	59164.1	59155.9	2.2	-5.6	41.58		
	-150	-675	59336.3	59366.5	59160.2	0	-5.2	40.27		
	-150	-650	59176.9	59205	59158.1	-1.3	-5.3	40.87		
I,	-150	-625	33130.8	39138.5	59157.7	-3.9	-4.5	39.9		
,	-15(-600	22101*2	23151-5	- 53155. /	5.CT.	-3.9	53.41		
	-15(5766/./	37534.9	5315/.2	-8.40000	-1.9	3/.13 25 Di		
i	-1EV -13/	000- 00-	JJ300.0	2341P	20157 2	-4./	-1./	30, 94		
	-100	-525	333/8.8 50741 /	334V3 6077/ 4	50154.2	-5,4	-6.5	33.13		
1	-12(· -DU0	53314.6	50909 4	501101.5	-1.9	-4.4	55.60		
	-130 -154	· -4/3	JJC/C.J	JJCJC,1 50176 D	JJ147.C	. V _1 3	-4.b	33.07		
	-150	0°C#~~ (⊐C∆_ (22110. /	50100 A	J3140.1 50146 0	-1.0	6.0- 0-0-0-0-	24.33		
	1.00	- -	J 3000. C	931AC+4	J7140.C	-0.3	0, 30000	JC. 0C		
I										

-150	-400	59185.9	59199.7	59143.8	5.1	-7.2	31.46
-150	-375	59265.5	59266, 9	59131.4	17	-5.4	33.18
-150	-350	59194.2	59202	59137.8	23.9	-3.7	35.49
-150	-325	59031.1	59036.1	59135	34, 3	0.1	37.19
-150	-300	59187.5	59185.8	59128.3	28.3	-1.2	42.81
-150	-275	59108.4	59108, 4	59130	15.1	-2.8	42.81
-150	-250	59046.9	59052.1	59135.2	10.1	-1.8	42.85
-150	-225	59012.5	59013.1	59130.6	7.2	-0.6	43.87
-150	-200	59164.9	59166.4	59131.5	1.8	-1.3	41.67
-150	-175	59275.6	59277.4	59131.8	6.3	-0.8	42.65
-150	-150	59200.8	59204.7	59133.9	13.3	2.7	42.31
-150	-125	59212.3	59214.9	59132.6	8.5	2	43.89
-150	-100	59287.9	59294.8	59136.9	7.8	3.3	44.78
line -1							
0	-700	59295.2	59314.9	59149.7	2.4	-8.40000	39.67
0	-675	59152.9	59173.1	59150.2	0.9	-7.5	42.05
0	-650	59144.3	59164.5	59150.2	-3.1	-6.4	43.53
0	-625	59252.2	59273.3	59151.1	-6.1	-5.5	45.08
0	-600	59283.8	59305.1	59151.3	-10.4	-6.6	43.37
0	-575	59240.8	59262.8	59152	-9.90000	-6.3	40.44
0	-550	59343	59364.9	59151.9	-5.2	-7.2	39.22
0	-525	59229.6	59252.6	59153	-7.8	-10.1	38.8
0	-500	59291.8	59319	59157.2	-3.9	-12.4	34.7
. 0	-475	59115.3	59144.5	59159.2	8.400001	-10.7	34.56
0	-450	59083.6	59114.6	59161	16.2	-9.8	36.13
0	-425	58915.7	58946.3	59160.6	26.6	-7.5	39.25
0	-400	59072	59100.7	59158.7	20.6	-5.1	46.71
0	-375	59097.5	59128.5	59161	15.3	-5.1	48.52
0	-350	59133.3	59161.1	59157.8	8.2	-2.7	51.28
0	-325	59226	59250.7	59154.7	0.4	-0.6	51.35
0	-300	59117.5	59144.5	59157	0	0.6	49.46
0	-275	59192.5	59222.8	59160.3	-1.3	5	50.26
0	-250	59134.6	59162.6	59158	-5.6	3	49.86
0	-225	59159.2	59184.7	59155.5	-10.7	3.5	48.39
0	-200	59167.9	59191,5	59153.6	-10.4	4.3	46.02
0	-175	59117.7	59138.3	59150.6	-8.7	4.9	45.14
0	-150	59228.6	59248.4	59149.8	-3.1	6.1	43.95
0	-125	59184.2	59203.3	59149.1	-2.2	5.7	44.98
0	-100	59151.4	59170.6	59149.2	-0.7	6	45.81
0	-75	59153.1	59172,4	59149.3	-2	5.9	49.32
0	-50	59144.2	59161.8	59147.6	-3	7	49.78
0	-25	59176.3	59186.9	59140.6	-5.6	7.7	52.88

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