55-589-13866

6/86

VLF - EM

GEOPHYSICAL REPORTS

SWIMMING BEAR AND SLEEPING GIANT

MINERAL CLAIMS

OMENICA M.D.

WHITESAIL LAKE MAP-AREA (93E/6W

53° 28' N 127° 17' W

For:

Nuspar Resources Ltd.
305 - 535 Thurlow St.
Vancouver, B.C.

1985

By: Dr. T.A. Richards
R. R. #1
Hazelton, B.C.

INDEX

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LOCATION AND ACCESS

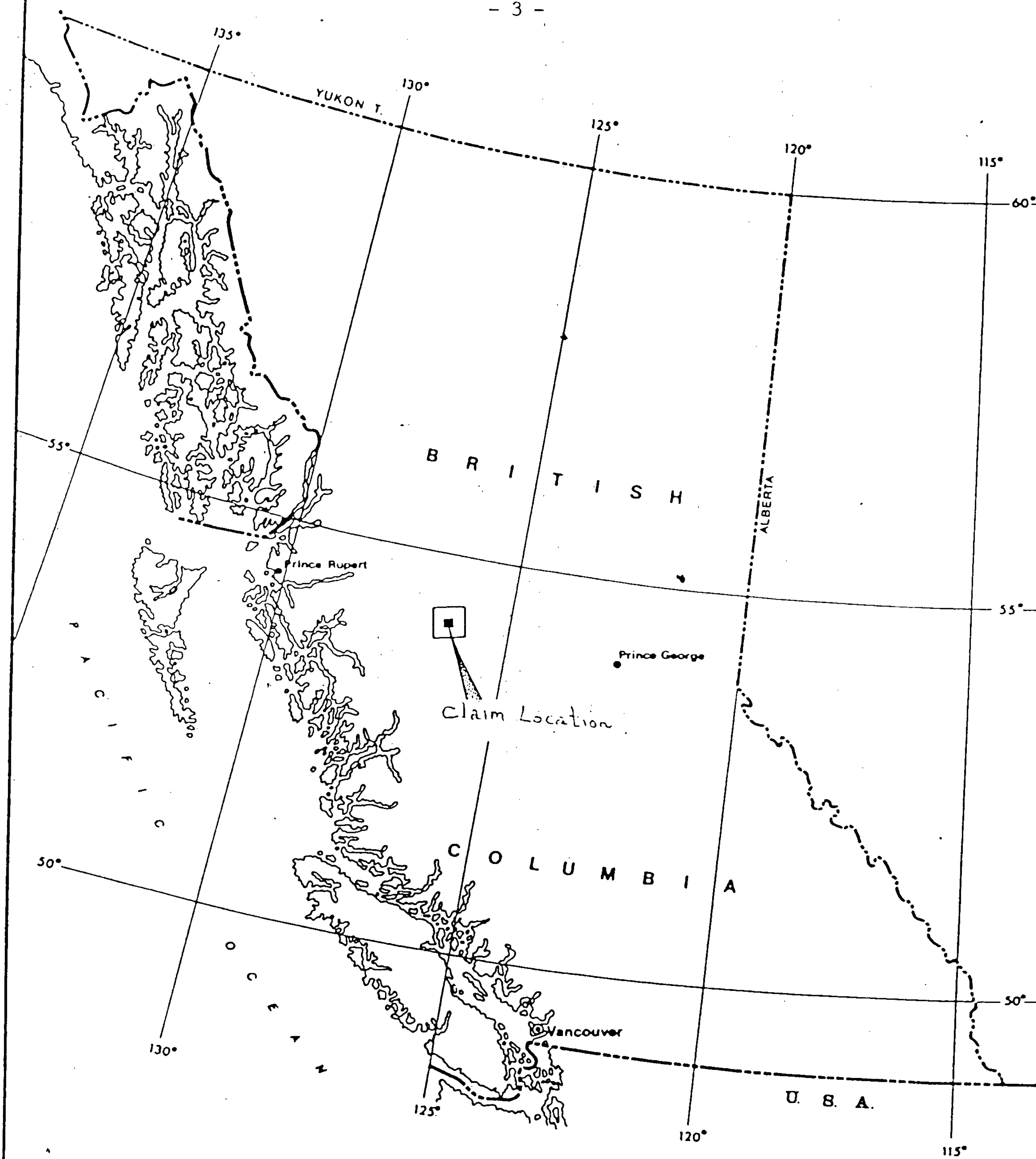
The claims are situated in west central British Columbia (53^{o} 28'N latitude and 127^{o} 17' W longitude), in the Whitesail Lake map area (93E/6W). The property is located on the south shore of Coles Lake near the eastern flank of the Coast Range Mountains. It is some 130 kilometers south of Houston, B.C. (Figure 1.)

Access is by helicopter from Smithers or Houston B.C., or by float plane to Coles Lake from Smithers. The property is about 20 kilometers south of the end of the Kemano-Tahtsa road, a point that represents a convenient service point for supplying the property.

PHYSIOGRAPHY

The property lies between 4200 and 3000 feet elevation, south of Coles Lake. The area is one of moderate to gentle relief along a north-facing slope. Numersus small notherly trending creeks transect the southern portion of the property. The grain of the northern portion of the property is east-west, aligned parallel to Coles Lake. The intersection of the northerly trending grain with the easterly grain results in an upredicable, hummocky topography not amendable to straight-line traverses.

Mature sub alpine balsam and hemlock cover the property, with whitebark pine conspicuous on rocky knobs. The southern extreme of the property is underlain by the beginning of alpine meadows. Under brush is thick between 3300 to 4000 feet on north facing slopes. Swamp underlies much of the northwest part of the Swimming Bear.



Swimming Bear - Sleeping Giant

LOCATION MAP

OMINECA M.D., B.C. NTS 93 E

DATE: Sept. 1983	SCALE: 100 miles	FIG. 1

CLAIMS AND OWNERSHIP

The Swimming Bear Group consists of 40 units and comprises the following blocks;

Claim	Units	Record No.	Expiry
Sleeping Giant	20	5339	June 23
Swimming Bear	20	5340	June 23

The claims were staked by T.A. Richards and were acquired by Nuspar Resources Ltd. under an option agreement.

PREVIOUS WORK

The 1984 Assessent Report for Nuspar Resources Ltd., comprises the only record of previous work in the immediate claims area. Preliminary exploration revealed a set of northwest to northeast trending quartz veins, stringers and stockwalks up to 3 meters width, that contain anomalous gold up to 1690 ppb Au and silver up to 165 ppm.

PRESENT WORK

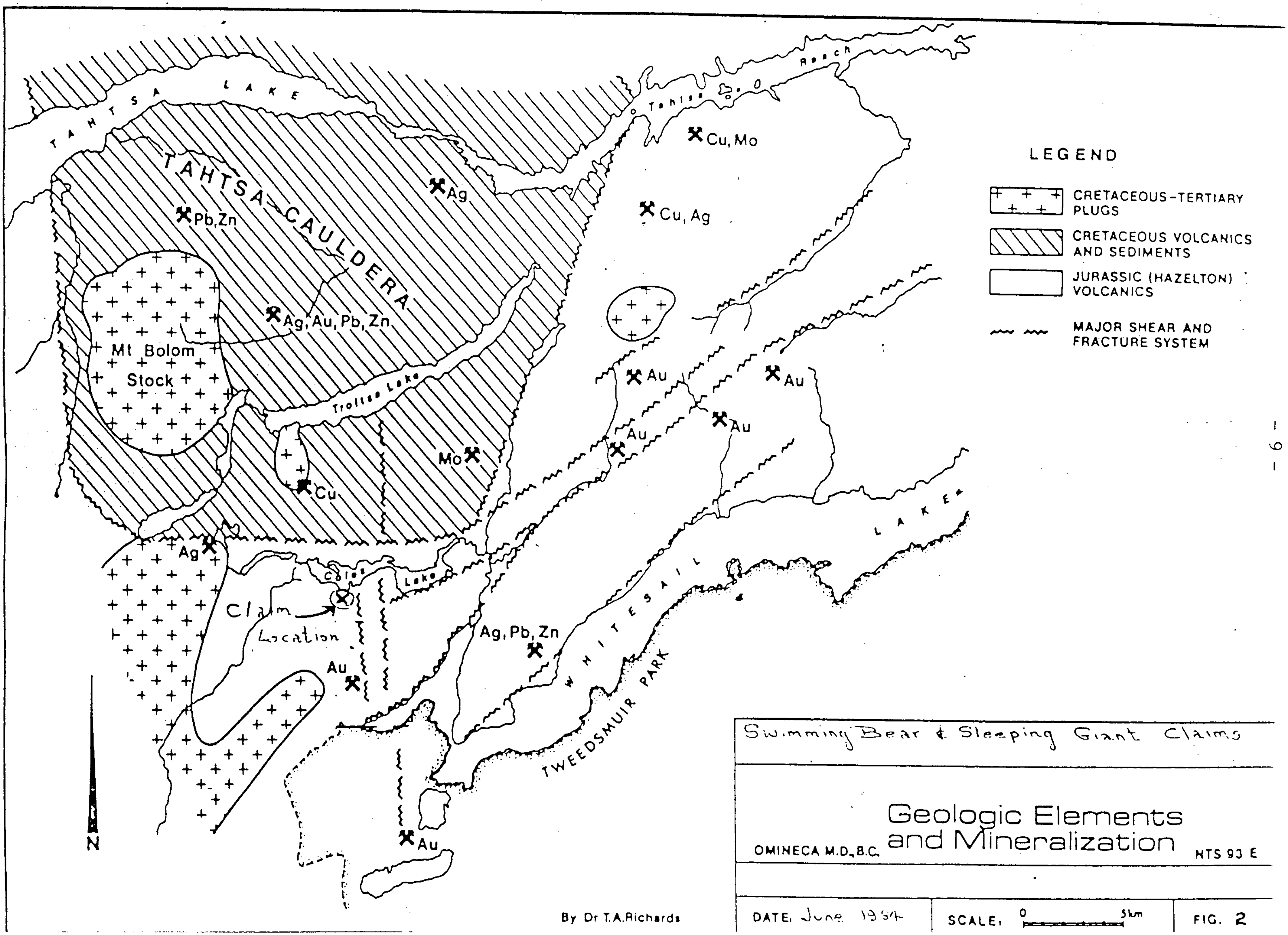
Present work consisted of two men operating a Phoenic VLF - EM-2 and laying out a grid. The purpose of the survey was to determine if the northerly trending veins and the easterly trending structures of the southern margin of the Tahtsa Caldera could be interpreted using VLF geophysics. Prior to this work, an air photo linear map was prepared for the Little Whitesail Lake Coles Lake area, and is included in the pocket.

Work was completed in early June, 1985. Conditions could be described as highly unpredictable, with south facing slopes mostly open; and heavily timbered areas and north slopes snow-bound. Fifteen kilometers of line was run, with VLF-EM recordings made at 50 meter intervals. Lines were placed using hip-chain and compass, and ribboned at appropriate intervals. An east west base line was located using a 100 meter nylon chain for tie-in purposes.

GEOLOGICAL SETTING

The Whitesail area lies along the eastern margin of the Coast Plutonic Complex. Upper Paleozoix metamorphic rocks within the Coast Plutonic Complex represent the oldest rocks known in the area. Immediately east of the Coast Plutonic Complex, Lower Jurassic volcanic and sedimentary rocks of the Hazelton Group predominate. These are overlain by generally epiclastic rocks of the Upper Jurassic Ashman Formation and the Lower Cretaceous Skeena Group, followed by volcanic rocks of the Upper Cretaceous Kasalka Group. The final major rock-forming events in the area were episodes of Tertiary volcanism that deposited the siliceous volcanic rocks of the Ootsa Lake Group and the basalts of the Endako Group. A variety of intrusive rocks outcrop in the area. They range in composition from granite to gabbro and they range in age from Paleozic (?) to Tertiary. The area is cut by major systems of generally north-easterly or northerly trending faults. For detailed geological descriptions see Duffell (1959), Hodder and MacIntyre (1980), Tipper et al. (1979) and Woodsworth (1980).

A resurgent caldera (Tahtsa caldera), at least 20 km in diameter, was mapped about 7 km north of the claims by D.G. MacIntyre. The collapsed caldera centre is occupied by rocks of the Kasalka and Skeena Groups and by a variety of intrusions. Several potentially economic mineral deposits are associated with small granodioritic stocks around the priphery of the caldera, possibly localized at intersections between ring and radial fractures related to caldera development (Hodder and MacIntyre, 1980). Recent work by T.A. Richards (1984) and G. Woodsworth (1980) indicates that the caldera extends further south than previously mapped and that a section of the caldera ring fracture zone underlies the Coles property.



Swimming Bear & Sleeping Giant Claims

OMINECA M.D., B.C. **Geologic Elements and Mineralization** NTS 93 E

DATE: June 1984 | SCALE: 0 — 5km | FIG. 2

PROPERTY GEOLOGY

The property is underlain by subaerial volcanics of the Lower Jurassic Hazelton Group. These volcanics comprise a thick-bedded sequence of interbedded, coarse-to-fine-grained, lapilli tuffs, feldspar prphyry, tuffaceous mudstone, volcanic sandstone, conglomerate and minor argillite. The rocks are of general andesite composition and are dominantly pyroclastic. Colouration varies from brick red, maroon, to purple, with green colouration present due to local epidotization (not related to mineralization). Units are usually very massive forming rounded knobs.

The claim block is transected by a set of northerly trending shear zones, outlined by the drainage pattern. Dykes of feldspar porphyry to rhyolite are present in some of the fault zones. These fault zones are continuations of these noted to the south, on the Coles property. Towards Coles Lake, the grain of the country trends in an east to east-northeast direction. This switch in pattern is controlled by a major east-west fault system that marks the southern boundary of Tahtsa Caldera.

THE VHF METHOD (Lajoie, 1981)

INTRODUCTION

VHF means Very Low Frequency. This geophysical exploration method makes use of powerful radio transmitters set up in different parts of the world for military communication purposes. The radio frequencies are in the range of 15 to 25 kilocycles/second. These are low frequencies when compared to those transmitted for ordinary AM radio. The locations of some of these trnsmitters are shown in Figure 3.

The radio waves transmitted by a VLF transmitter will cause electric currents to flow in conductive material, such as conductive rocks, thousands of miles away. The electric currents induced in conductive rocks will produce 'secondary' radio waves from the VLF transmitter.

The objective of the VLF method then is to measure deviations in the magnetic field of the VLF radio wave and from this information interpret the location of conductive rocks in the ground.

TARGET MINERALS AND ROCKS

The VHF method is used to locate conductive material in the ground, this is, material which will easily pass electric current, in the same way that a copper wire will easily pass electric current.

The best common geologic conductors are massive sulphide type deposits and graphite. To be conductive, the massive sulphide deposits must have a high grade of the conductive minerals: pyrite, pyrrhotite, chalcopyrite, galena and some others. Two minerals however which are definitely not conductive are hematite and sphalerite. The key factor for a deposit to be conductive is the degree of electrical continuity between the conductive materials. When the conductive minerals are very well interconnected, as is often the case in a massive sulphide deposit, the whole deposit will be conductive and will likely be detected by the VLF method. On the other hand, if the conductive minerals are not very well interconnected, as in a porphyry copper deposit for example, then the deposit as a whole will not be conductive, and therefore will not be detected by the VLF method. The latter case is similar to a copper wire which is cut up into many pieces; although each separate piece is conductive, the whole wire is not. For detection by VLF, the target must also have a reasonable strike length of greater than about 30 meters.

There are other conductive materials found in the earth which

AREAS OF VLF SIGNALS

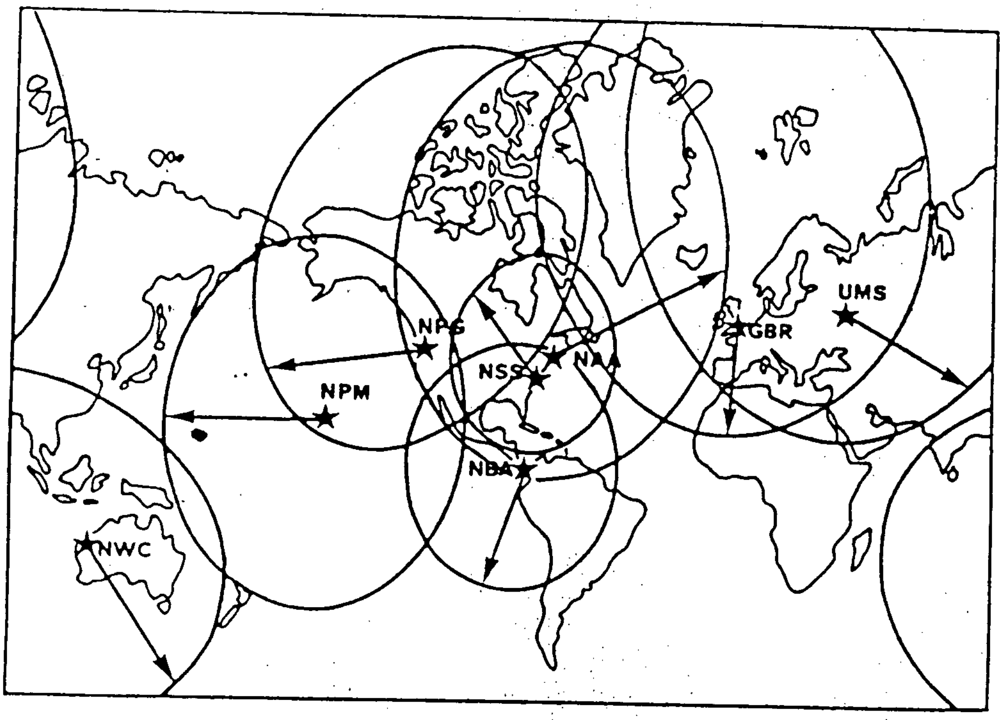


FIGURE 4: VLF transmitters and their range of influence.

are less conductive than massive sulphide deposits and graphite, but nevertheless can cause VLF anomalies. Some of these are fault zones, clay materials, and some sedimentary rocks like chalk and marls when in the wet state. Power lines, railroads and underground pipes are examples of man-made conductors which will also cause strong VLF anomalies.

PRINCIPLE OF OPERATION

The upper half of Figure 4 shows schematically a VLF antenna and a propogating electromagnetic wave. The magnetic field component of the electromagnetic wave at any point is horizontal and perpedicular to the antenna direction. In order for the electromagnetic wave to induce electric currents in a geologic conductor, the magnetic field must cut across the strike of the conductor, that is be perpendicular to it. This means that the geologic conductor should strike towards the VLF antenna in order to have electric current induced in it. This is illustrated in the lower half of Figure 4 which both 'C1' conductors will have currents induced in them because they strike towards the antenna, whereas both conductors 'C2' will not.

Figure 5 shows a cross section of a geologic conductor, the primary VLF magnetic field from the VLF antenna, and the secondary magnetic field due to the currents induced in the geologic conductor. As can be seen in Figure 5, the secondary magnetic field direction is up on the left side of the conductor and down on the right side of the conductor. Therefore, adding the secondary field to the primary field will result in a total or resultant field which will be tilted slightly up on the left side and slightly down on the right side of the conductor. A measurement of the tilt of the total or resultant VLF field will therefore result in a positive tilt on the left and a negative tilt on the right, the crossover point being directly on top of the conductor as shown by the "tilt profile" in Figure 5. Note also that on top of the conductor the secondary field is in the same direction s teh primary field. Therefore the total horizontal field strength is increased directly over the conductor, as shown by the "field strength" profile in Figure 5.

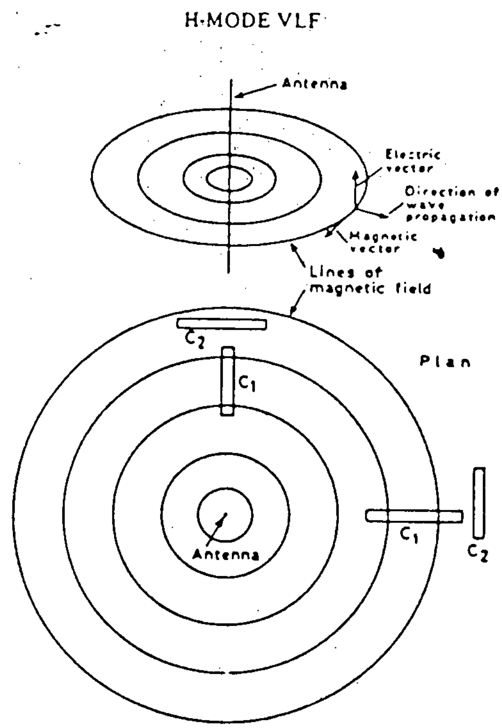


Fig. 5 - The VLF field (from Parasnis).

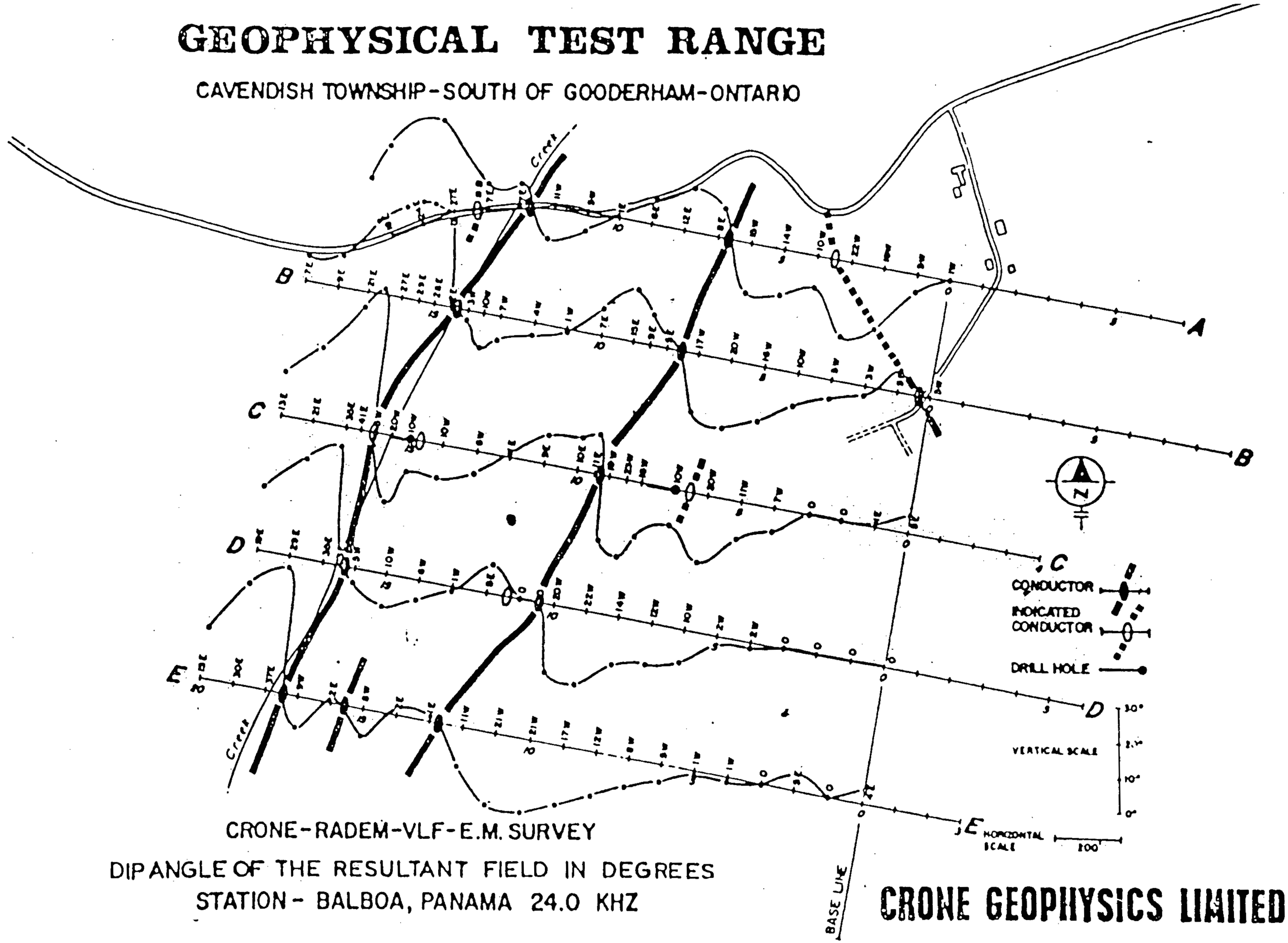


Fig. 6 - Example of a VLF tilt angle survey. (Courtesy of Crone Geophysics Ltd.)

VLF - EM SURVEY

A Phoenix - VLF - 16Em unit was used to run the geophysical survey. Readings were standardized at the 08+00E - 4+50 N station that was coincident with the location of the fly-camp. When possible, two transmitting stations were recorded. Seattle, at 24.8 KHz (F) was used from June 1 to June 5, and Australia (22.3 KHz) on June 6, as Seattle could not be received. F-2 station was Hawaii, at 23.4, excepting after 11 A.M. on June 5th when it ceased transmitting. Cutler, Main (24.0 KHz) substituted for Hawaii for the remainder of June 5h. Results are plotted on the maps in the pocket.

INTERPRETATION OF RESULTS

The survey was run to determine if the vein systems noted in 1984 on the claims could be picked up using VLF methods, and to determine the extent of the structures controlling the veins. The veins presently known trend north to north east, and are intermittently exposed in like-trending gullies in the north central part of the claims.

On the claims, two linear trends, one northeast to northwest trending, the other east-west trending, intersect, resulting in an irregular, hummocky topography that underlies the north portion of the claims. An air photo Linear map of the western end of Whitesail Lake to Coles Lake was prepared to define the regional linear trend and compare it with the pattern noted in the Coles Lake area.

The plots of VLF - EM cross-over data confirms a correlation between the pattern of geomorphic linears, and vein trends.

F-1 (Seattle) plots (in pocket) indicate a west-north west trend in the northern portion of the claims, which conforms to a well developed north-west linear trend noted along the north shore of Coles Lake. Although this trend is not strongly defined on the property, the inferred locus of cross-overs indicates that this trend does exsist on the claims. This trend parallels the southern boundary of the Tahtsa Caldera..

F-2 (Hawaii) outlined a much stronger north to northeast trending locus of cross-overs, best developed in the eastern part of the area. These trends coincide with the distribution of photo-linears and with the trace of veins found during the 1984 exploration of the property. As snow cover wa extensive, a precise correlation of vein location and the trace of cross-over could not be made. However, the extrapolation to the south of cross-overs on line 3+00S., 2+00E, 7+00E and 8+00E roughly coincide with known veins, which occupy shear zones. It is probable, therefore, that these conductor traces are defining extensions of the fault systems that control the setting of this suite of veins on the Swimming Bear claim. This would infer that the structures hosting the veins are extensive and known to be well in excess of a kilometer length.

Follow-up on these features is required to allow the step to be made from correlation to cause and effect.

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Woodsworth, G., 1980, Geology of Whitesail Lake (93E) map-area B.C.: Geol. Survey of Canada, O.F. 708.

ITEMIZED COST STATEMENT

Time:			
Dr. T.A. Richards	- 8 days @ 350/day =	$2,800.00	
B. Holden - Prospector	- 7 days @ 150/day =	1,050.00	
Employee Expenses		210.00	
			$ 4,060.00
Transportation			
Helicopter		1,023.60	
Truck/Fuel - 3 days @35/day		105.00	
			1,128.60
Food 14 man days @35/day			280.00
Supplies (ribbon, filament)			75.00
Camp Costs 25/man/day, 14 days			350.00
Equipment Rentals VLF - EM 10 days @30/day			300.00
Meals/Accommodation			95.00
Office/Expiditing - 25/day			200.00
Engineering Reports:			
T.L. 'Orsa: 25% of 750.00		187.50	
V.Cukor: 25% of 1,228.42		307.10	494.60
Shipping			45.00
Report Preparation			
Data Compilation 2¼ days @ 350/day		875.00	
Darafting/Supplies 6 hrs @ 15/hr.		90.00	
Secretarial/Copying		100.00	
			1,065.00
Total			8,093.20

AUTHORS RESUME

Dr. T.A. Richards
RR#1,
Hazelton, B.C.
VOJ IYO

1. Collection, interpretation and presentation of data is wholly the reponsibility of Dr. T.A. Richards.

2. I received my B Sc., Geology from the University of B.C. in 1965 and my Ph D.,Geology from the University of B.C. in 1971.

3. I am a Fellow of the Geological Association of Canada.

4. I was a Research Scientist with the Geological Survey of Canada, Cordilleran Section from 1972 to 1978.

5. I have been involved in mineral exploration in British Columbia from 1979 to the present.

Specifications PHOENIX VLF - EM - 2 ELECTROMAGNETIC UNIT

Parameters Measured	:	Orientation and magnitude of the major and minor axes of the ellipse of polarization.
Frequency Selection, Front Panel	:	Dual channel, front panel selectable (F1 or F2) each with independent precision 10-turn dial gain control.
Frequency Selection, Internal	:	F1 and F2 can be selected by internal switches within the range 14.0 to 29.9 kHz in 100 Hz increments.
Detection And Filtering	:	Superheterodyne detection and digital filtering provide a much narrower bandwidth and thus greater rejection of interfering stations and 60 cycle noise than conventional receivers.
Meter Display	:	2 ranges: 0 to 300 or 0 to 1000. Background is typically set at 100. Meter is also used as dip angle null indicator and battery test.
Audio	:	Crystal speaker. 2500 Hz used as null indicator.
Clinometer	:	±90°, ±0.5° resolution. Normal locking, push button release.
Battery	:	One standard 9v transistor radio battery. Average life expectancy - 1 to 3 months (battery drain is 3 mA)
Temperature Range	:	-40° to + 60° C.
Dimensions	:	8 x 22 x 14 cm (3 x 9 x 6 inches).
Weight	:	850 grams (1.9 pounds).

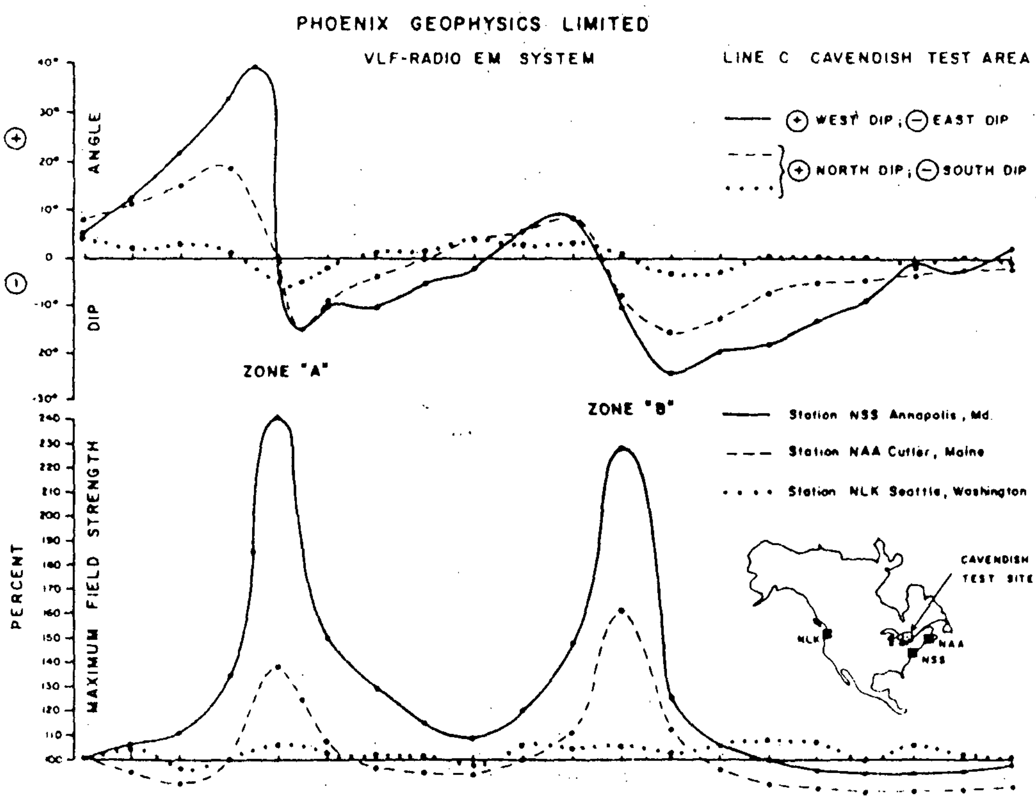
All of the established stations may be selected, or alternatively, a local VLF transmitter may be used which transmits at any frequency in the range 14.0 to 29.9 kHz.

VLF Station	Frequency (kHz)
Bordeaux, France	15.1
Odessa (Black Sea)	15.6
Rugby, U.K.	16.0
Moscow, U.S.S.R.	17.1
Yosamai, Japan	17.4
Hegoland, Norway	17.6
Malabar, Java	19.0
Oxford, U.K.	19.6
Paris, France	20.7
Annapolis, Maryland	21.4
Northwest Cape, Australia	22.3
Laulualei, Hawaii	23.4
Buenos Aires, Argentina	23.6
Cutler, Maine	24.0
Seattle, Washington	24.8
Rome, Italy	27.2
Aguada, Puerto Rico	28.5

Field Data

The results below illustrate the need for using two orthogonal stations when the strike of the prospective conductor is not well-known. The dip angle and amplitude data measured using station NLK in Seattle, Washington, show only a very weak anomaly associated with the two conductive sulphide zones at Cavendish, Ontario.

The results obtained using Cutler, Maine reveal a more prominent anomaly, but the best response was obtained using Annapolis, Maryland since the station lies almost due south and the transmitted electromagnetic field is thus maximum-coupled with the North-South trending conductors.



Station	Fld Str	Dip	f_2
BL 0 W 0 E	54	2°R	
0+50E	56	2°R	
1+00E	60	2°R	
1+50E	56	4°R	
2+00E	60	4°R	
2+50E	62	0	
3+00E	68	4°L	
3+50E	64	4°L	
4+00E	64	4°L	
4+50E	60	2°L	
5+00E	66	4°R	
5+50E	68	0°	
6+00E	64	1°L	
6+50E	66	3°R	
7+00E	68	9°R	
7+50E	78	7°R	
8+00E	84	6°R	
8+50E	8[illegible]	0°	
9+00E	84	0	
9+50	80	2°L	
10+00E	82	1°L	
10+50E	78	0	
10+50 station at Lake EDGE			

Seattle — λ f_1: 24.8
Hawaii — f_2 23.4

KHz

Sta				
10+00E 0+50S	82	0°		
10+00E 1+00S	80	2°R		
9+50E 1+00S	78	2°R		
9+50E 1+50S	82	2°R		
9+50E 2+00S	82	2°L		
10+00E 2+00S	80	7°L		
10+00E 2+50S	79	2°R		
3+00S	78	4°R		
3+50S	76	4°R		
10+00E 4+00S	72	3°R		
4+50S	72	5°R		
5+00S	68	5°R	58	10°R
5+50S	70	8R	64	12R

} [illegible] null small cr

Hewall f_2 – Nulls at 025°.

scallop

f_1 – Nulls at 140°

10+00E, 3+00S	–	–	64	5R
10+50E, 3+00S	80	5R	68	5R
11+00,	74	0	62	8R
11+50,	80	0	64	7R
12+00	76	2L	60	2R
12+50,	76	2R	60	0
13+00, 3+00S	78	3R	60	3L
9+50E, 3+00S	76	2R	60	9R
9+00 "	74	6L	61	15R
8+50E	80	7L	66	10R
8+00E, 3+00S	80	0	66	13R

– at lake shore

9+70 E – 020 Gully Steep

f_2 f_1

	F2 Hawaii		F1 Settle		
+00E 2+50S	88;	0	70;	10R	
2+00S	86	2R	71	5R	
1+50S	90	2L	80	2R	
1+00S	>100	2L	80	2R	
0+50S	98	3R	90	1R	
+00E 0+00			62	0	line at -14m

Start 8+00E - N of o post

			82	6L	
+00E 0+50N	90	5R			
1+00	90	10R	85	8L	
1+50	82	6R	86	2L	
2+00	88	3L	84	2L	Cr creek
+00E 2+50	90	6R	80	2L	
3+00N	82	6R	90	4L	
3+50N	82	3R	88	2R	
4+00	84	3R	84	2R	
+00E 4+50N	82	8R	82	4R	Creek

Camp

June 3 - Camp

64-7R 62-2L

June 3/85

EM Survey Swimming Pond / Steep Gulch

Start at STN 10+00E; 5+50S

STN	F1 Seattle		F2 Hawaii		Comments
10+00E, 6+00	56	13R	28	14R	hill; 30° N
6+50S	56	14R	24	12R	20N
7+00S	58	14R	14	16R	
7+50S	60	14R	15	14R	uniform 20° slope N
10+00 8+00	64	10R	10	12R	
8+50	60	7R	46	15R	S. Gully
10+00 9+00	56	6R	50		Bdg in cliffs 070/60N
			Rusty Gully		
10+00E, 6+00S					
10+50E, 6+00	52	10R	50	12R	Gulley at 10+40
11+00 6+00	54	10R	64	10R	
11+50	56	12R	64	6R	F1 ⊥ to hill
12+00	54	12R	60	6R	
12+50E 6+00S	50	9R	66	16R	
9+50E 6+00S	62	15R	62	2R	Aor Fe vein Gr.
9+00E 6+00	[illegible]	8R	66	9R	
8+71 6+00S	60	0	60	0	in Cr. Gulley
8+50 6+00S	56	8R	70	0	edge - side of gully
7+00E 6+00S	56	10R	80	4R	steep
+50E -	51	14R	70	0	Topo almost
00E -	64	20R	74	0	Top

Stn	F₁		F₂		
3+50E; 1+50S	30	6R	74	4L	gentle N
4+00	28	8R	74	1L	mod slope N
4+50	30	6R	76	2R	
5+00	28	6R	76	4R	flat
5+50	30	4R	82	6R	Rolling
~~6+00~~ 5+72 — intersect 500 (550) [illegible]					
~~6+50~~			Gulley		
~~7+00~~					
6+00E 1+50S	26	10R	80	4R	open-end [illegible]
6+50E	30	10R	86	10R	Steep E
7+00E	30	4R	90	4R	Flat
7+50E	32	0	96	0	Flat
8+00	30	3L	90	4L	gentle N, [illegible]
8+50	30	1L	88	6L	Flat
9+00	28	5L	82	2L	E Slope [illegible]
9+50	30	2R	84	0	Flat
~~10+00~~					
~~10+50~~					
10+00E 00N	32	2R	92	0	flat Swamp
0+50N	32	3R	86	2L	Flat
1+00N	32	2R	90	1L	Flat
1+50N	28	4R	84	1L	Flat
2+00	30	0	88	2R	Flat
2+50	30	3L	88	5L	Flat
3+00	28	1R	98	8L	Flat
3+50	32	2L	98	9L	Flat
4+00	28	2L	>100	4L	"
4+50	28	0	>100	2L	
10+00E 5+00N	30	1L	>100	1R	[illegible]

STN	F₁		F₂		Comment
6+50E 6+00S	64	10R	82	10R	across [illegible]
6+00	64	14R	86	5R	N Slope, gentle
5+50	64	9R	80	14R	Steep gully
5+20 6+00S	60	12R	84	10R	into deep gully Trends 025
Chain Down Gulley:					[illegible] in Gulley
5+20E 6+00S BRG 025°	~~58~~	~~[illegible]~~	88		in Gulley
+50m	58	8R	88	15R	in Gully
+77m					
Δ BRG 000°					
+100m	56	4R	88	[illegible]	in gully
+110					
Δ BRG — 012° — Down Gulley					
+150	60	1R	88	17R	
5+20E 4+50S					
92					
Δ BRG — 000° W N					
5+00E, 4+00S	58	1L	90	15R	[illegible]
5+00E 3+50S	58	2R	92	14R	
3+00	62	2L	92	12R	
5+00E 2+50	64	1L	86	12R	[illegible]
2+00	[illegible]	[illegible]	88	8R	(some gusts of 12 PM Noon)
1+50	74	7R	88	3R	Top of knob

		F_1		F_2		
6+00E	11+00N	68	0	64	7L	Lake shore fl[illegible]
6+50E	"	62	2R	62	5L	"
7+00		56	7L	60	2L	L. Shore [illegible]
7+50	11+00	68	8L	64	4L	" "
7+50E	10+50N	62	7L	64	0	Flat [illegible]
8+00E	10+50N	64	3L	60	4L	Flat "
8+00	10+00	60	4L	60	4L	gentle [illegible] slope
	9+50	60	0	62	3R	Flat [illegible]
8+00E	9+00	60	4R	62	6R	v gentle N
	8+50	64	4R	62	4R	"
8+00	8+00	70	6R	64	5R	E Slope - [illegible]
	7+50	76	2R	66	4R	Steep S Slope
8+00	7+00	80	5L	68	3L	[illegible]
	6+50	84	2L	60	2L	Steep N
8+00	6+00	92	3L	60	1R	Top of Ridge [illegible]
	5+50	98	0	58	3R	SE [illegible] hill
[illegible]	500	100	0	60	4R	Flat By Creek

Tie to 4+50 → 5m

Am June ~~4~~

62 2L 32 - 10R

overcast mild, snow breaking quickly - going snow [illegible] snowshoes

June 4/85, Coles Lake

STN		F_1 Seattle		F_2 Hawaii		Comments
3+00E, 00+00		72	7R	40	2L	[illegible]
	0+50S	68	6R	42	0	Gentle N
3+00	(S) 1+00	68	8R	42	4L	Mod N. Slope
	1+50	64	12R	40	4L	[illegible] ridge S [illegible]
3+00	1+64	66	14R	40	4L	in wide gully E-W
	2+00	70	12R	38	2L	Mod N slope
3+00	2+50S	70	8R	38	2L	flat
	3+00	62	7R	36	0	Draw EW
3+00E	3+50S	60	10R	34	2L	050 Draw
offset)	-3+60	30° W 45		Go up Draw 210°		
	-3+94	▲ 150° up Gully: Steep Snow				
▲ 3+94		64	18R	34	6L	
3+50E	3+00S	70	6R	36	2L	Gentle NW, [illegible]
4+00E		70	10R	34	2R	Gentle, in EW [illegible]
4+50E	3+00S	66	7R	34	6R	gentle E slope [illegible]
5+00		64	3R	34	8R	gentle E slope
5+50 E	3+00S	70	0	36	14R	gentle [illegible]
5+74		Hit	NS	line	June	3/85
6+00E	3+00	76	6R	42	8R	Gentle N slope
6+50E		80	6R	46	14R	Mod N slope
7+00E	3+00	78	14R	50	6R	Mod N slope
7+50		74	14R	46	6L	Mod N slope

(End)

STN		F_1		F_2		
0+50W	0+00	70	2R	58	0	flat
1+00W		78	2R	58	2R	Mod E slope
1+50W	0+00	70	2R	60	5R	Flat, [illegible]
2+00		66	2R	44	2R	Mod [illegible] slope
2+50	0+00	66	5R	52	2L	Steep N [illegible]
3+00W		66	8R	54	2L	by Cr, slope br
3+50	0+00	72	8R	58	7L	in Creek,
4+00		76	6R	60	6L	flat by Cr
4+50;	0+00	74	4R	60	4L	mod E slope
5+00		76	1R	60	3L	mod S slope
5+50W;	0+00	68	4L	60	0	mod SW slope
→ 6+00W		64	2R	62	0	Mod-gentle E slope
6+50W	0+00	66	4R	64	2R	Flat
7+00	0+00	66	4R	64	4R	mod N. slope
7+50W		70	4R	62	8R	gentle W
8+00		70	6R	64	6R	in gulley, gentl W
8+50W		70	4R	60	12R	gentle W
9+00		70	2R	56	8R	Steep W
9+50W	0+00	70	6R	56	10R	mod W
10+00		74	6R	56	3R	" "
10+50W		78	2L	54	8R	Steep W Lake Shore
10+50W	0+50S	68	3R	64	8R	Steep NW
	1+00S	68	0	58	4R	Very Steep NW
10+50W	1+50S	66	2R	54	6R	V. Steep NW
	2+00S	66	2R	54	4R	mod N
	2+50S	62	4R	50	1R	" N
	3+00S	62	2R	50	0	Flat in V-gully

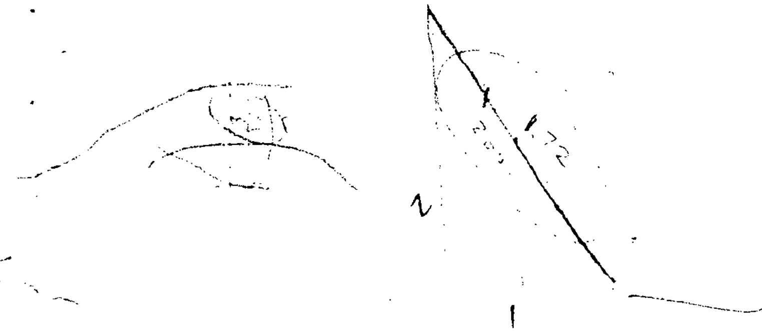
3rd By rusty pipe pos - shoe [illegible] | [illegible] 170°

STN		F_1		F_2		Comments
2+50E	3+00S	74	12R	40	6L	open, E W [illegible]
2+00E	3+00S	74	6R	50	2R	S edge of cliff
2+00E	3+30S	74	12R	40	4L	N slope. [illegible]
1+50E	3+30S	72	10R	50	8R	S slope short
1+00E	3+30S	78	10R	50	6R	edge of Bluff
1+00E	3+50S	76	8R	46	6R	S of lines
0+70	—	close	line	cross		
0+50E	3+50S	80	10R	48	8R	Gentle N
00+00E	3+50S	70	6R	50	6R	gentle N;
00+00E	4+00S	80	9R	50	5R	MS slope N
00+00	4+50S	78	14R	50	4R	Steep N
0+00	3+00S	76	8R	48	6R	Mod N slope
	2+50	74	12R	58	3R	open NS gulley
0+00	2+00	76	3R	58	10R	open N slope [illegible]
	1+50	78	6R	54	4R	N slope edge of [illegible]
0+00	1+00	74	2R	66	2R	Flat
	0+70	76	4L	56	4R	Flat. Swamp

Swamp below

Tie in 0+00, 0+00 – 11m short

0+00	0+00			56	2R	Flat



Stn	F1		F2		
10+00W 3+00	62	6R	50	0	Mod E; crick
9+50	60	2L	46	5R	gentle E
9+00W 3+00	62	2R	54	5R	Flat
8+50W	64	4L	54	10R	Flat
8+00W; 3+00S	72	2R	60	1R	Flat.
7+50W	66	6R	56	2L	gentle S
7+00W; 3+00S	65	4R	52	0	Flat, Crick
6+50	66	6R	54	2L	gentle N
6+00, 3+00	66	7R	52	0	mod gentle N
5+50	64	6R	52	3R	Mod NW
5+00W, 3+00S	62	7R	53	2R	mod E - at Creek
4+50	64	5R	52	3R	flat cross Cr
4+00,	64	8R	50	2R	gentle NW
3+50	62	6R	48	3R	mod N
3+68 —	4 N around Steep Bluff				
3+00W, 3+00S	62	6R	46	0	v/Steep N
2+50W	64	6R	46	0	Steep N
2+00W;	62	6R	48	5R	Steep N
1+50	62	4R	50	8R	mod Steep N
1+00W 3+00S	68	4R	50	6R	mod Steep N
0+50	64	4R	52	2R	mod St N

Chain +3~ to 00+00 + NS.
at 200S

STN	F_1		F_2		Comments
3+00 – 50m	70	4R	44	0	Lakeshore
100m	68	0	44	2R	Lakeshore
150m	66	2L	off Air		Lakeshore
200m	64	2R	11:06 AM		
250m	76	3R	off		"
300m	74	8L	off (radio)		
350m	66	8L	radio		"
400m	68	4L			"
					Est [illegible] by graph
~~0+00E – 9+00~~N					
0+00E, 8+00N	68	4L	[illegible]		See 400M above
7+50	68	2L	[illegible]		gentle N
7+00N	66	0	"		"
6+50	70	0	"		"
0+00 6+00	70	2L	[illegible]		mod N
5+50	72	0	"		" "
5+00	72	1R	"		" "
0+00 4+50	70	0	"		Mod N slope
4+00	72	1L	"		Flat on top
3+50	70	0	"		Flat on top
3+00	70	2R	"		open [illegible]
2+50	70	2L			"
2+00	72	6L	"		Steep S, Divide
1+88	74	8L			E-W lake Swamp
0+00 1+50N	68	2L	"		gentle N
1+00	66	2L	"		"
0+50	66	0			

June 5, 1985 Clear to rapidly overcast

Start BL 3+00E

STN		F_1 - Seattle		F_2 - Hawaii		Comments
3+00E	0+00	68	8R	36	2L	mod N slope
	0+50	70	8R	36	2L	mod N, [illegible]
3+00E	1+00N	66	3R	38	3L	Top of [illegible]
	1+50	68	4R	38	3L	on flat
3+00E	2+00N	62	2R	38	2L	"
	2+50	64	3R	38	6L	Flat, edge of [illegible]
3+00E	3+00	66	3R	40	2L	mod steep S
	3+50	68	5R	38	2L	Flat, on top of [illegible]
3+00	4+00	66	3R	40	5L	Gentle N
	4+39	66	2R	40	8L	E-W swamp [illegible]
3+00E	4+66	74	5R	44	3L	N side swamp
	5+00	72	5R	44	3L	Steep S, at [illegible]
3+00E	5+50N	72	6R	45	4L	gentle NW
	5+65	72	5R	48	0	Middle Str. 035
	5+78	Ribbon		[illegible]		?
	6+00	72	2R	44	2R	NW edge of [illegible]
	6+50	72	4R	44	0	mod-gentle E
3+00E	7+00N	72	4R	44	2L	mod steep SE
	7+50	76	4R	46	2L	Flat on top
	8+00	72	4R	48	2R	flat on top
	8+50N	70	2R	46	4R	mod NW slope
	9+00	68	2R	44	4R	Mod-Steep [illegible]
	9+50	72	3R	42	6R	"
	10+00	70	4R	42	1R	steep NW
	10+50	70	3R	42	4L	" edge of [illegible]
	10+55	Lake shore				

(at 600 W, 0+00 NS.

F₁ = Seattle

F₂ Cutler Maine 24.0 kHz

(Hawaii off air … 11 AM)

		f_1		f_2		Comments
3+00W	2+00N	36	2R	34	1R	mod N [illegible]
	1+50	36	2R	32	2L	gentle E
	1+00	36	2R	32	2R	mod N
	0+50	36	3R	32	3R	flat by [illegible]
	tie	in to		3+00W		0+00NS Dead on!

Grounded Circle Pattern

St.		Seattle f_1		Cutler f_2		Comments
6+00W	0+00N	38	0	32	0	mod SE
	0+50N	38	2L	32	0	gentle roll
	1+00	42	0	32	7R	gentle NW
6+00	1+50	40	4R	28	12R	steep N
	2+00	42	4R	28	7R	flat
	2+50	42	4R	26	4R	gentle NW
	3+00	44	2R	28	5R	gentle NW
	3+50	44	2R	26	4R	mod N
6+00	4+00	42	2R	25	2R	gentle N
	4+50	44	2R	26	2R	flat
	5+00	42	0	26	0	gentle N
	5+31	38	0	26	2R	lake shore
5+50W	5+00N	40	0	26	0	gentle open
5+00	"	42	4R	26	0	gentle W
4+50	"	38	2R	26	3R	"
4+00		38	2R	26	1L	" N
3+33	"	40	4R	28	4R	" swamps
3+00		40	2R	28	6R	gentle S
3+00W	4+50N	44	6L	28	2R	gentle N
	4+00N	42	0	26	6R	gentle N
	3+50	40	2L	18	6R	mod SE
	3+00	38	2L	30	2R	mod gentle E
	2+50	36	1R	38	4R	flat

f_1 NW Cape Australia 22.3 KHz
25 6R, nulls at 095°

f_2 Hawaii, Lualualei 23.4 KHz
nulls @ 035°

Stn	F1		F2		Comments
4+50W; 1+50S	34	2R	66	0	Flat
5+00W (4+50)	36	2R	66	0	Flat
5+50W; 1+50S	36	4R	64	0	Flat, by Creek
6+00 (5+50)	38	4R	66	2R	Flat;
6+50W; 1+50S	36	5R	65	1R	Flat
7+00W (6+50)	40	5R	66	2L	Flat;
7+50 (7+00)	40	4R	70	1L	EW Rock roll
8+00 (7+50)	38	6R	72	0	Steep N (Ridge
8+50W (8+00) 1+50S	40	5R	72	1R	mod N, EW Creek
9+00W (8+50)	42	4R	74	4R	gentle E
9+50W (9+00)	38	3R	70	4R	gentle open
10+00 (9+50)	42	2R	74	8R	Rolling
10+50 (10+00) 1+50S	40	2R	68	1R	mod. gentle N
11+00 (10+50)	42	3R	74	0	Mod steep N

Read 10+50 as 1+00W left out

June 6/ Clear to overcast.
Snow melting rapidly.

STN	f_1	f_2	Comments
	f_1 (~~Seattle Air~~) NW Cape Australia 22.3. 25 6R Null @ 095°	f_2: Hawaii Lualualei 23.4 KHz Null @ 035°	

STN	Australia f_1		Hawaii f_2		Comments
3+00E 1+50S	34	5R	72	4L	mod Steep S, [illegible]
2+50E	36	8R	72	3L	Top of Ro[illegible]
2+00E, 1+50S	36	8R	72	4R	mod N;
1+50	36	8R	68	6R	mod N
1+00E, 1+50S	36	8R	66	6R	gentle N,
0+50E	34	10R	64	4R	gentle-mod NW
0+00 1+50S	34	8R	64	4R	Steep N; Creek [illegible]
0+50W	34	8R	64	4R	Steep N
1+50W (1+00) ★	32	8R	64	3R	mod gentle N
1+75W (1+25)	32	6R	62	4R	Strong 050 Gully
2+00W (1+50) 1+50S	32	8R	60	3R	gentle S, [illegible]
2+50 (2+00)	36	4R	58	2R	Steep S. [illegible]
2+69 (2+19)	small area		[illegible]		
3+00 (2+50)	34	6R	58	1R	mod S
3+50 (3+00)	32	5R	50	1L	N edge of [illegible]
4+00 (3+50)	38	4R	62	2L	[illegible]

(★ Note 1+00 not listed)

Stn	F_1		F_2		
3+50E; 1+50S	30	6R	74	4L	gentle N
4+00	28	8R	74	1L	mod steep N
4+50	30	6R	76	2R	" " "
5+00	28	6R	76	4R	flat
5+50	30	4R	82	6R	Rolling
~~6+00~~ 6+72 — intersect 500 (550) line NS from					
~~6+50~~			Gulley		
~~7+00~~					
6+00E 1+50S	26	10R	80	4R	open-end of EW R
6+50E	30	10R	86	10R	Steep E
7+00E	30	4R	90	4R	Flat
7+50E	32	0	96	0	Flat
8+00	30	3L	90	4L	gentle N, [illegible]
8+50	30	1L	88	6L	Flat
9+00	28	5L	82	2L	E Slope stn on [illegible]
9+50	30	2R	84	0	Flat
~~10+00~~					
~~10+50~~					
10+00E 00N	32	2R	92	0	Flat Swamp
0+50N	32	3R	86	2L	Flat
1+00N	32	2R	90	1L	Flat
1+50N	28	4R	84	1L	Flat
2+00	30	0	88	2R	Flat
2+50	30	3L	88	5L	Flat
3+00	28	1R	98	8L	Flat
3+50	32	2L	98	9L	Flat
4+00	28	2L	>100	4L	"
4+50	28	0	>100	2L	
10+00E 5+00N	30	1L	>100	1R	mouth of Cr

VLF-EM SURVEY

Swimming Bear and Sleeping Giant Mineral Claims

Coles Creek Area

Whitesail Lake Map-area (93E/6)

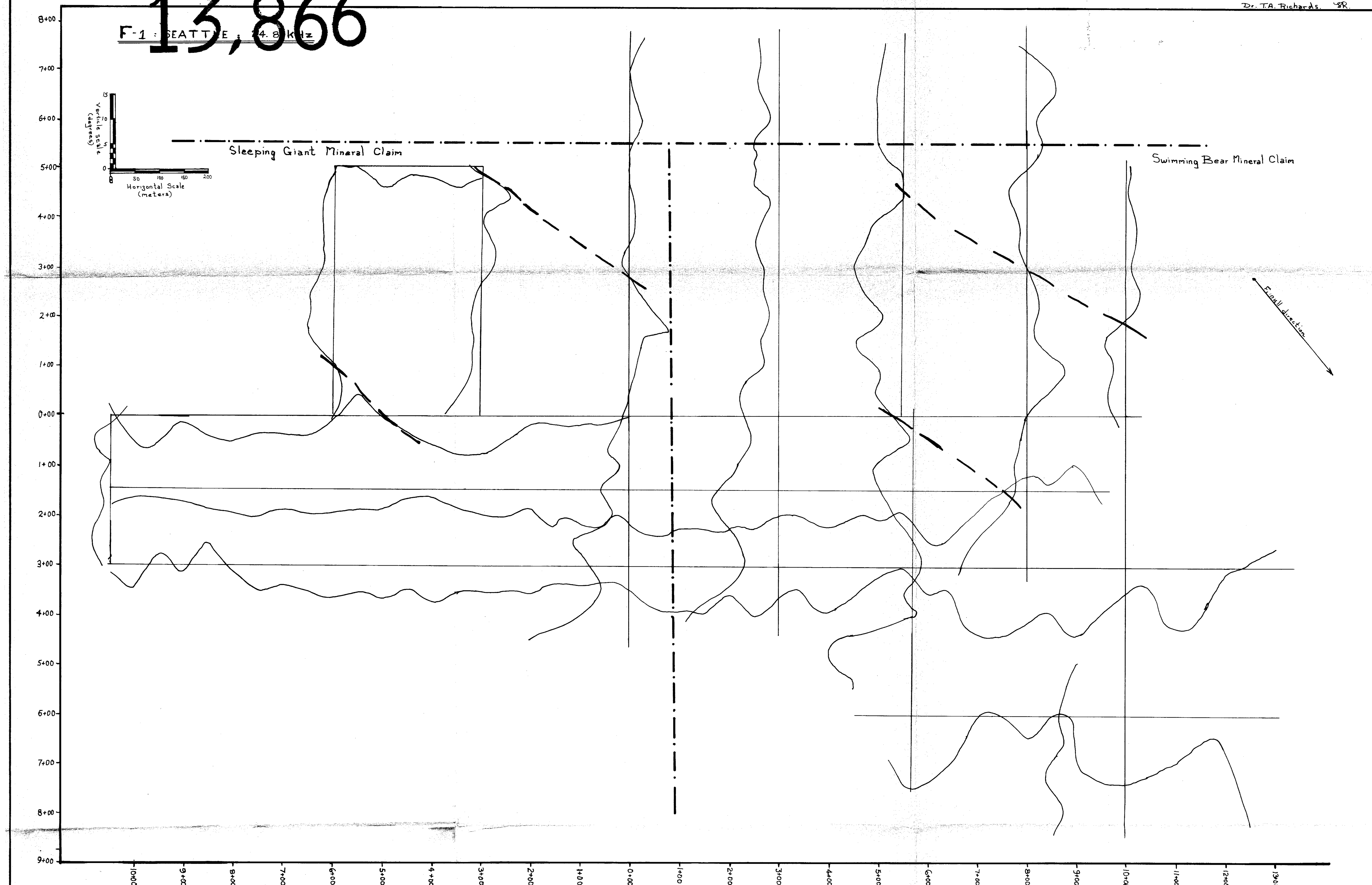
Omenica Mining Division

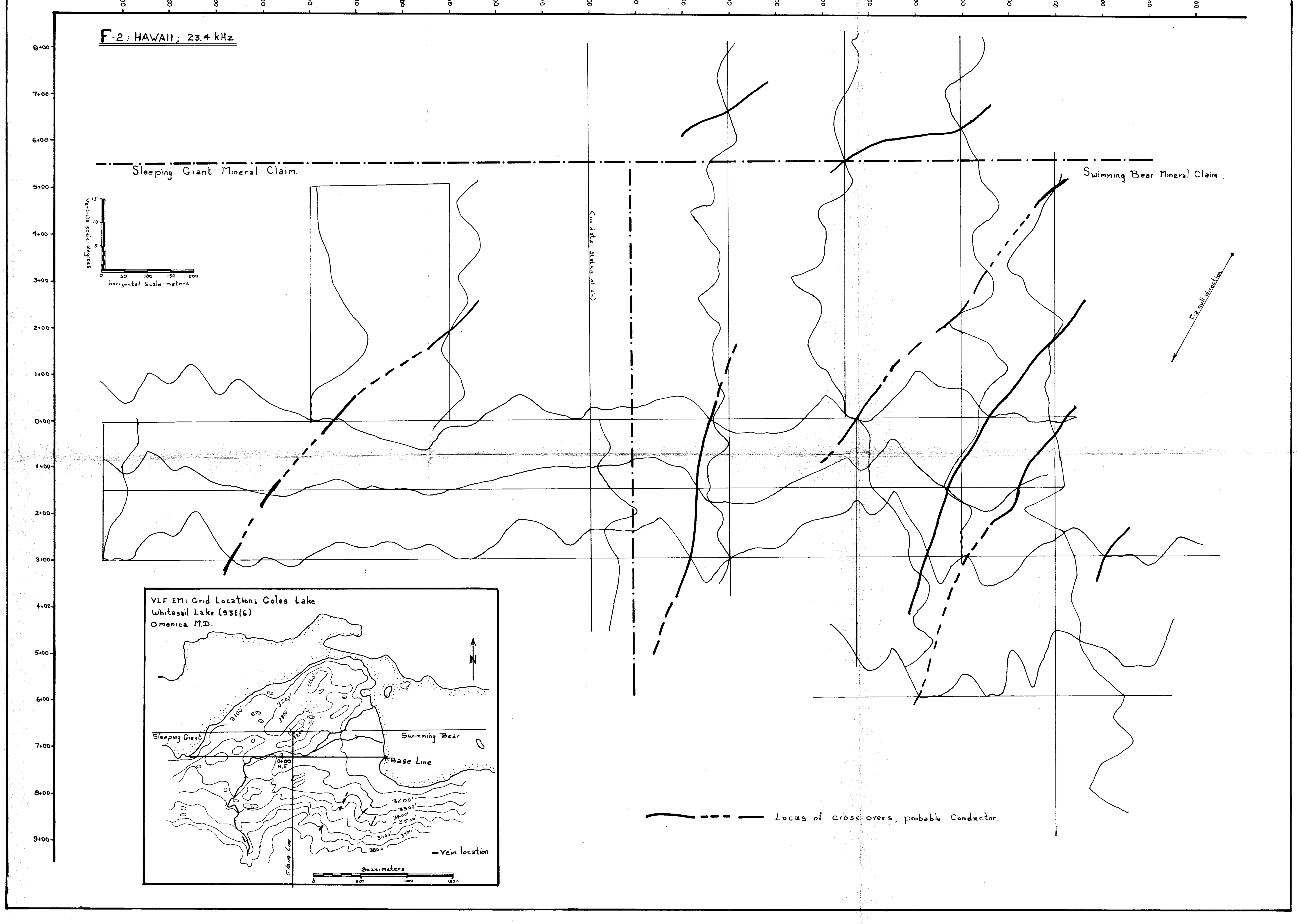
GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,866

For: Nuspar Resources Ltd.,
305-535 Thurlow St.,
Vancouver, B.C.
1985

Dr. T.A. Richards '85





LINEATION MAP: Whitesail Lake Map-area (93E/6E & 93E/11SE)

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13,866