85-155-13548
01/86

GEOPHYSICAL REPORT

ON A

VLF-EM SURVEY

OVER THE

BOSTOCK CLAIM GROUP

HEDLEY AREA

SIMILKAMEEN MINING DIVISION

BRITISH COLUMBIA

PROPERTY	: 10 km due southwest of Hedley, B.C. on Pettigrew Creek
	: 49° 16' North Latitude 120° 13' West Longitude
	: N.T.S. 92H/8E
WRITTEN FOR	: PACIFIC SEADRIFT RESOURCES LTD. #540-800 West Pender Street Vancouver, B.C., V6C 2V6
SURVEYED BY	: TRANS-ARCTIC EXPLORATION LTD. #815-850 West Hastings Vancouver, B.C., V6C 1
WRITTEN BY	: David G. Mark, Geophys GEOTRONICS SURVEYS LTD. #403-750 West Pender S Vancouver, B.C., V6C 2
DATED	: April 4, 1985

GEOTRONICS SURVEYS LTD.
Engineering & Mining Geophysicists
VANCOUVER, CANADA

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Cover = title page

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SUMMARY

A VLF-EM survey was carried out over a portion of the Bostock Claim Group owned by Pacific Seadrift Resources Ltd. of Vancouver, B.C., during December, 1984. The claims are located on Pettigrew Creek, 10 km southwest of the town of Hedley. Access is easily gained by a four-wheel drive vehicle. The terrain consists of gentle to moderate slopes forested with moderately dense coniferous trees. The purpose of the surveys was to aid in the mapping of geology as well as to locate probable areas for exploration of gold mineralization.

Most of the property is underlain by Upper Triassic Nicola Group volcanics and sediments. The northern part is underlain by Coast Intrusive granites. Plugs and dykes of gabbro occur throughout the Nicola Group of rocks. Bands of metamorphosed limestone, calcareous argillites and argillites associatedwith basic intrusives are mineralized with gold-bearing arsenopyrite in the Hedley Mascot Gold Mines and Nickel Plate Mines.Also gold within quartz veins have been discovered in one of the properties of Banbury Gold Mines located 8 km north.

The VLF-EM readings were taken every 20 meters on 40-meter separated north-south lines. They were then Fraser-filtered,plotted and countoured.

CONCLUSIONS

The VLF-EM anomalies have reflected conductors that are probably geological structure such as faults, shears and contacts. Some or parts of these anomalies could also be reflecting sulphide zones directly. Conductor a has strong exploration interest because of its strong intensity.

Some of the most interesting parts of the VLF-EM anomalies are those that appear to indicate cross-structure since these would be prime areas to look for sulphide and gold/silver mineralization. In this regard, conductor b is of particular interest because of its complexity, indicating cross-structure.

In general, the VLF-EM survey has revealed interesting results which require further field work to help determine their causative sources.

RECOMMENDATIONS

Further work is recommended as follows:

1. The VLF-EM survey should be continued over the remainder of the property.

2. Take large soil samples every 50 m along contour lines preferably about 100 m apart in elevation. In the lab, the total sample should be pulverized, and not screened at all in order to preclude the screening out of coarser gold. The anomalous samples should then be followed up by sampling on a tight grid, say 15 to 20 m centers on a grid, say 200 m square.

3. At the same time, careful geological mapping should be carried out preferably by a geologist familiar with gold occurring within volcanic flows. One large benefit of this will be a better interpretation of any geophysics that are carried out.

4. The defined soil anomalies in gold should then be 'cat' trenched.

5. Resistivity - IP mapping and/or MaxMin EM should then be considered in order to optimize drill targets.

6. Diamond drilling should then be carried out using a large diameter drill and a face discharge bit.

GEOPHYSICAL REPORT

ON A

VLF-EM SURVEY

OVER THE

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HEDLEY AREA

SIMILKAMEEN MINING DIVISION

BRITISH COLUMBIA

INTRODUCTION AND GENERAL REMARKS

This report discusses the survey procedure, compilation of data and the interpretation of a VLF-EM survey carried out over a portion of the Bostock Claim Group during the period of Dec. 29th, 1984 to January 4th, 1985.

The surveys were carried out by Trans-Arctic Explorations Ltd. under the supervision of E.A. Dodd, geophysical technician. A total of 29 line km of VLF-EM survey were done.

The primary purpose of the VLF-EM survey was to delineate geological structure as an aid in the exploration for gold mineralization with the secondary purpose being to map sulphides.

PROPERTY AND OWNERSHIP

The property consists of four claims containing a total of 80 units staked within the Similkameen Mining Division as shown on Sheet2 and as described below:

Claim Name	No. Units	Record No.	Expiry Date
Grumpy	20	1787	Jan. 4, 1986
Bostock 2	20	1798	Jan. 10, 1986
Bostock 3	20	1799	Jan. 10, 1986
Bostock 4	20	1800	Jan. 10, 1986

The expiry date shown takes into account the survey under discussion as being accepted for assessment credits.

The four claims are owned by Pacific Seadrift Resources Ltd. of Vancouver, British Columbia.

LOCATION AND ACCESS

The northeastern corner of the property is located 10 km southwest of the town of Hedley, B.C. The claims are located along Pettigrew Creek which is a northerly-flowing tributary of the Whistle Creek, a northeasterly-flowing tributary of the Similkameen River.

The geographical coordinates are 49° 16' north latitude and 120° 13' west longitude.

Access is gained by travelling 7 km west of Hedley to the southwesterly-running Whistle Creek forestry access road. 11 km south-

west on this road, one takes a south-running road. The northern boundary of the property is just over 2 km from the intersection. Access roads run throughout the property. Four-wheel drive is recommended.

PHYSIOGRAPHY

The property lies at the southern end of the physiographic division known as the Thompson Plateau which is part of the Interior Plateau System. The terrain is generally that of rolling hills with gentle to moderate slopes over the property. The general trend of the topography runs northerly with Pettigrew Creek.

Elevations vary from 1,400 meters a.s.l. on the north boundary of the property at Pettigrew Creek to 1,920 meters a.s.l. at the southeastern corner of the property.

The main water source is Pettigrew Creek which flows northerly across the property. Otherwise the property is fairly dry and water supply would depend on seasonal run-off.

The forest cover consists of fir, pine and spruce and varies from closely growing, immature stands to more widely spaced, mature stands.

PREVIOUS WORK

Airborne magnetic and VLF-EM surveys were carried out across the property during the spring of 1983. The results are in a report written by the writer, dated February 16, 1984.

GEOLOGY

The following is quoted from Sookochoff's March, 1983 report:

"According to Map 88A - Princeton the general area is underlain by the Upper Triassic Nicola Group of volcanics, sediments and schists which are intruded by the Jurrasic Coast Intrusives and intrusives of peridotite, pyroxenite and gabbro.

"The Coast Intrusives are predominant in enveloping the Nicola group which forms a band stretching from south of Princeton to beyond Kamloops Lake in the north. The same intrusives and intrusives of peridotite, pyroxenite and gabbro.

"The Coast Intrusives are predominant in enveloping the Nicola group which forms a band stretching from south of Princeton to beyond Kamloops Lake in the north. The same intrusives in addition to the more mafic rock intrusives and pink and grey granite and granodiorite of the Upper Cretaceous Otter Intrusions occur as stocks and plugs within the Nicola band.

"The latest rocks of the region, the Kingsvale and Princeton Group of volcanics occur as varisized cappings throughout the area.

"The Nicola group consists of a succession of lavas of unknown thickness with irregular intercalations of tuffaceous and argillaceous lenses and occasional beds of limestone. Dawson states that 'there seems to be further in several places, a blending of materials originally volcanic with quartzose sediments,...'

"Flow breccias are probably more common than massive lava with the different types also mixed together. An unusual case of a flow is a greenish rock containing rounded fragments of what appears to be a red syenite but is actually a flow breccia feldspar porphyry.

"The sedimentary rocks are more restricted with some sediments of considerable extent, however more commonly as small patches of fine-grained, well-bedded tuff or tuffaceous argillite and small lenses of blue-grey limestone all through the volcanic rocks.

"Breccias are common in certain areas. The breccias consist of angular fragments 'half an inch to an inch in size', of predominantly volcanic rocks with argillite which are frequently associated with tuff or greywacke of 'an eighth of an inch across' subangular grains.

"At the Hedley Camp gold deposits at Hedley, the stratified Nicola Rocks of thin bedded quartzite, argillite, tuff and breccia, in part much silicified, are floored of a large body of granodiorite and intruded by gabbro stocks, dykes and sills.

"The granodiorite rarely is found in the sediments, however the basic intrusions are abundantly represented through the ore zone. The 'Climax stock' was originally believed to be a stock, however, the lower contact is concordant with the intruded sediments so that the body closely resembles a large irregular sill. On the eastern part of the Climax stock, the 'sills and dykes' are porphyries.

"Extensive development of coarse garnet and pyroxene skarns occurs as a halo on the surface of the porphyry sills which are in contact with limestone. The known ore shoots occur in the skarn not more than '250 feet' from the limestone contact.

"The main Nickel Plate orebodies varied from '10 feet to more than 100 feet' in thickness and were up to '500 feet in length and 350 feet in width'. The orebodies occurred within a zone plunging N20W at 30 degrees for a slope distance of '3,000 feet'. Within the zone, there were at least seven irregular sheet-like deposits overlapping an echelon. In addition to ore within the skarn zones, gold mineralization also occurs in cross-cutting fractures of the 'dykes and sills'."

The Bostock 2, 3, 4 and Grumpy mineral claims are indicated to be mostly underlain by the Nicola Group. The Nicola series of rocks contain volcano-sedimentary units favourable to the potential occurrence of gold mineralization. The northern part of the property is underlain by Coast Intrusive granites.

One of the main interests in the area is the recent discovery made by Banbury Gold on its property about 11 km due north. It is described as follows:

"Four shear zones are known on the property, the principal one being on the Maple Leaf claim. This is an irregular, branching zone striking north and dipping 60 degrees to the west, with ore shoots developed at intervals along it. The zone itself is as much as 30 feet wide, but the greatest width of quartz is 12 feet. The ore minerals occur in the quartz, but are not evenly disseminated. The shear meets the diorite at an acute angle, and is best mineralized in the metamorphic rocks near the contact, but is barren in the dioritic. ...Gold values are erratic, varying from 0.02 ounces to 0.80 ounce a ton..."

INSTRUMENTATION AND THEORY

A VLF-EM receiver, Model 27, manufactured by Sabre Electronic Instruments Ltd. of Burnaby, B.C. was used for the VLF-EM survey. This instrument is designed to measure the electromagnetic component of the very low frequency field (VLF-EM), which for this survey is transmitted at 24.8 KHz from Seattle, Washington.

In all electromagnetic prospecting, a transmitter produces an alternating magnetic field (primary) by a strong alternating current usually through a coil of wire. If a conductive mass such as a sulphide body is within this magnetic field, a secondary alter-

nating current is induced within it which in turn induces a secondary magnetic field that distorts the primary magnetic field. It is this distortion that the EM receiver measures. TheVLF-EM uses a frequency range from 16 to 24 KHz, whereas most EM instruments use frequencies ranging from a few hundred to a few thousand Hz. Because of its relatively high frequency, the VLF-EM can pick up bodies of a much lower conductivity and therefore is more susceptible to clay beds, electrolyte-filling fault of shear zones and porous horizons, graphite, carbonaceous sediments, lithological contacts as well as sulphide bodies of too low a conductivity for other EM methods to pick up. Consequentlythe VLF-EM has additional uses in mapping structure and in picking up sulphide bodies of too low a conductivity for conventionalEM methods and too small for induced polarization. (In places itcan be used instead of I.P.). However, its susceptibility to lower conductive bodies results in a number of anomalies, many ofthem difficult to exlain and, thus, VLF-EM preferably should not be interpreted without a good geological knowledge of the property and/or other geophysical and geochemical surveys.

FIELD PROCEDURE

The survey consisted of 29 line km of VLF-EM survey over the northeastern corner of the property as shown on Map 2.

The base line was placed on a bearing of due east 380 m south of the northern property boundary. It was extended for 1,240 m being well flagged with florescent orange survey flagging. The cross lines were run perpendicular (north-south) to the base line at a 400 m spacing with the instrument readings taken at a 20 m interval facing towards the transmitter at Seattle.

COMPILATION OF DATA

The VLF-EM field results were plotted on Map 3 at a scale of 1:4,000. They were then reduced by applying the Fraser-filter and the filtered results subsequently plotted on Map 4 at a scale of 1:4,000 as well. The filtered data was plotted between actual reading stations. The positive dip-angle readings were then contoured at an interval of 4°.

The Fraser-filter is essentially a 4-point difference operator, which transforms zero crossings into peaks, and a low pass smoothing operator which induces the inherent high frequency noise in the data. Therefore, the noisy, non-contourable data are transformed into less noisy, contourable data. Another advantage of this filter is that a conductor that does not show up as a crossover on the unfiltered data quite often shows up on thefiltered data.

DISCUSSION OF RESULTS

The major cause of the VLF-EM anomalies, as a rule, are geologic structures such as fault, shear and breccia zones. It is therefore logical to interpret VLF-EM anomalies to likely be caused by these structural zones. Of course, sulphides may also be a causative source. But in the writer's experience, when VLF-EM anomalies correlate with sulphide mineralization,the anomalies are usually reflecting the structure associated with the mineralization rather than the mineralization itself.

The major trend of the VLF-EM anomalies, as seen on Map 4, is northeasterly. Considering the VLF-EM anomalies are likely reflecting structure, the major strike of structure on this proper-

ty is concluded to be in this direction. There are also some anomalies that trend northwesterly.

There is some variation in intensity from one VLF-EM anomaly to the next. This is not only due to the conductivity of a causative source, but also the direction it strikes relative to the direction to the transmitter. In other words, those conductors lying closer to the same direction as the direction to the transmitter (southwest in this case), can be picked up easier than those that are lying at a greater angle. Depending upon itsconductivity, a conductor may not be picked up at all if it is attoo great an angle. However, on this particular survey are some VLF-EM conductors that have strong intensity and yet are at a lowoptimum direction to Seattle. This is therefore an indication of the causative source being a strong conductor.

The survey has produced interesting results throughout the property, particularly the VLF-EM highs. These highs are of greater economic interest since they may be reflecting sulphides, fracturing and/or alteration any of which could be associated with gold mineralization. The highs often are at points of intersection of two or three conductors striking in two or three different directions. If the conductors are in fact geological structures, then the points of intersection become amenable to mineralizing fluids.

One very strong anomaly occurs at the southern part of the survey area. It trends northeasterly and is open at both the northeast and southwest ends. It has been labelled by the lower case letter a. It appears the center part of the anomaly has been faulted to the west. Because of its strong intensity, it is of greater exploration interest since it may reflect gold mineralization. Alternatively, the anomaly could be reflecting the contact between

the Nicola Group rocks and the granite intrusive to the north, which strikes in the same direction. However, as best can be determined, the contact is 200 to 300 m further north where other VLFEM anomalies may be reflecting it. Nevertheless, G.S.C. geological mapping is quite crude for the purpose of correlating with the VLF-EM results.

Conductor b is also an anomaly of exploration interest because of its complexity suggesting cross-structure. It appears, however, that it occurs in the granites which is not known to host mineralization in the area.

Little else can be said about the VLF-EM survey results at this time since no other work has been done which can be correlated and therefore give the VLF-EM results interpretational meaning.

Respectfully submitted,
GEOTRONICS SURVEYS LTD.

David G. Mark,
Geophysicist

April 4, 1985

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GEOPHYSICIST'S CERTIFICATE

I, DAVID G. MARK, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geophysicist of Geotronics Surveys Ltd., with offices located at #403-750 West Pender Street, Vancouver, British Columbia.

I further certify:

1. That I am a graduate of the University of British Columbia (1968) and hold a B.Sc. degree in Geophysics.

2. I have been practising my profession for the past 17 years and have been active in the mining industry for the past 20 years.

3. That I am an active member of the Society of Exploration Geophysicists and a member of the European Association for Exploration Geophysicists.

4. This report is compiled from data obtained from a VLF-EM survey carried out by Trans-Arctic Explorations Ltd., under the supervision of E.A. Dodd, (a geophysical technician of many years experience) from December 29th, 1984 to January 4th, 1985.

5. I am not a shareholder of Pacific Seadrift Resources Ltd. nor do I hold any interest in the Bostock 2, 3, 4 and Grumpy mineral claims, nor will I receive any interest as a result of writing this report.

David G. Mark
Geophysicist

April 4, 1985

AFFIDAVIT OF EXPENSES

The VLF-EM survey was carried out from December 29th, 1984 to January 4th, 1985 on the Bostock 3 claim, Pettigrew Creek, Similkameen M.D., B.C. to the value of the following:

FIELD:

2-Crew chief/instrument operators, 126 hrs. @ $30/hr	$3,780
2-Surveyor Assistants (Chain men), 126 hrs. @ $20/hr	2,520
1-Supervisor, 7 days @ $150/day	1,050
1-Camp Cook/Expeditor, 7 days @ $100/day	700
3-4x4 3/4 ton trucks, 7 days @ $90/day each (includes gas and oil)	1,890
3-Pantera Arctic Cat snowmobiles, 7 days @$80/day each	1,680
Room and Board, 6 men 7 days @ $300/day	2,100
Survey Supplies	300
	14,370

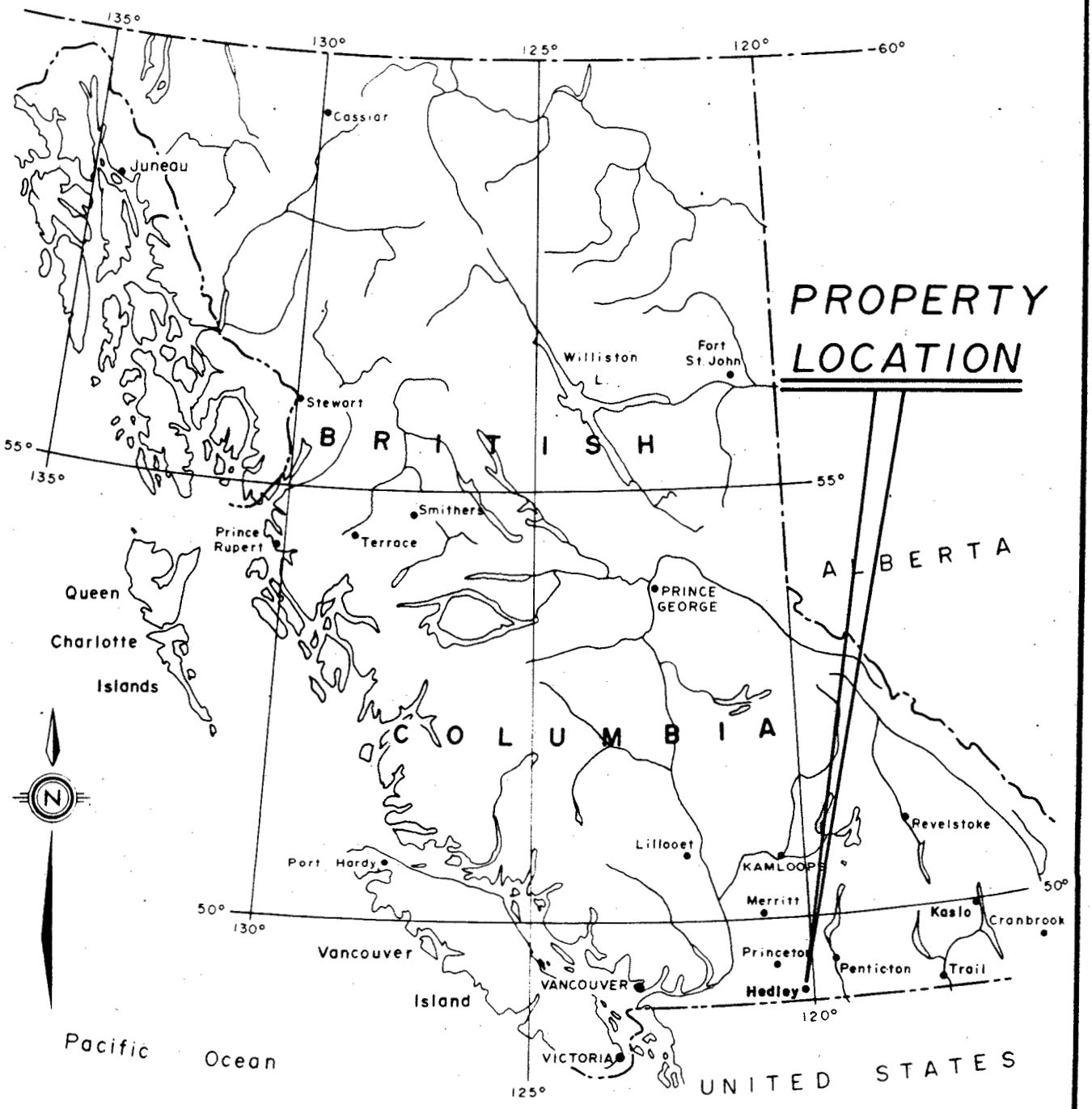
OFFICE:

Geophysicist	500
Geophysical technician, 14 hrs @ $25/hr	400
Drafting and printing	450
Report typing, compilation	150
	1,500

TOTAL $15,870

Respectfully submitted,
TRANS-ARCTIC EXPLORATIONS LTD.

Richard Simpson,
Geophysical Technician,
Manager

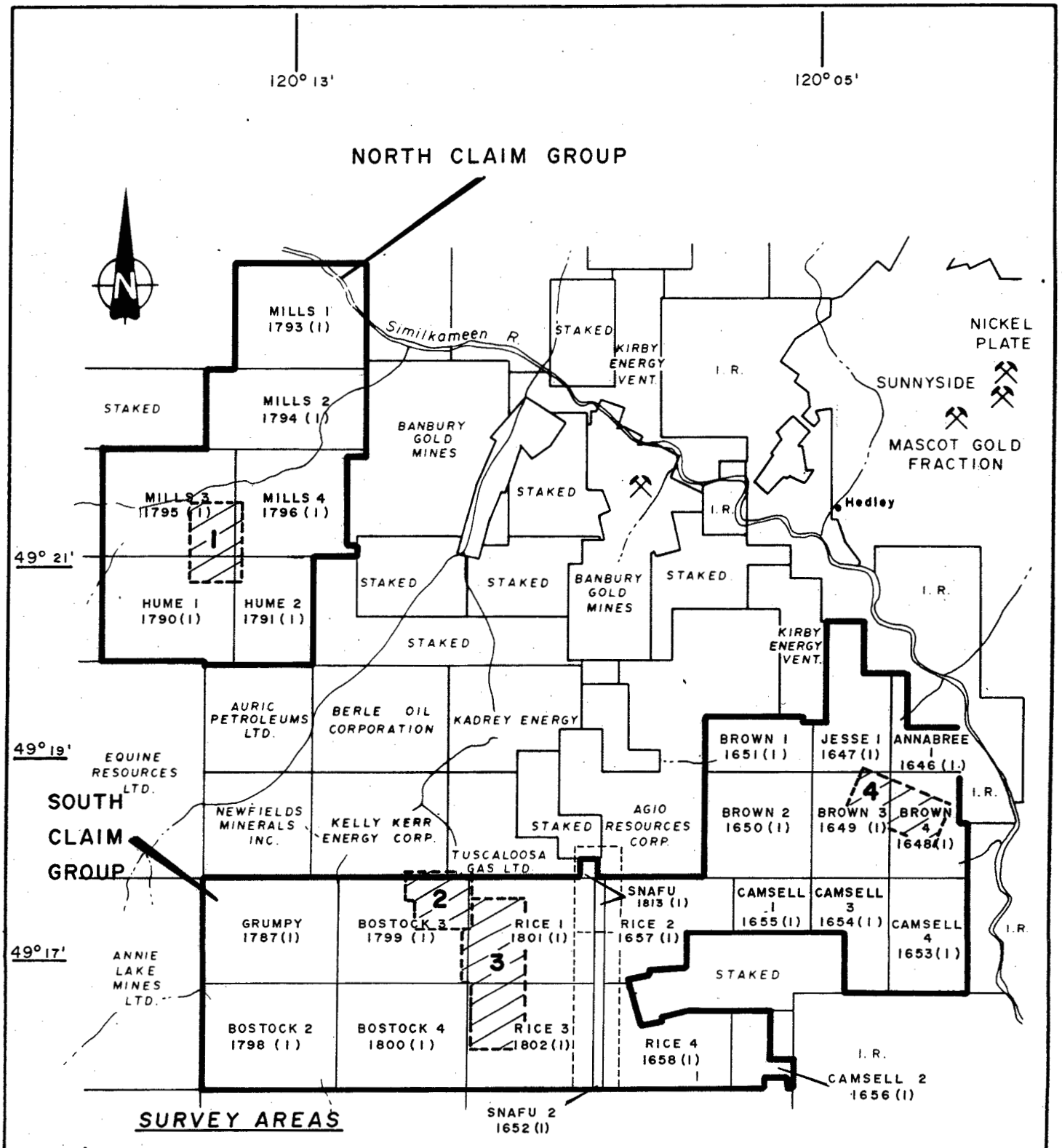


PACIFIC SEADRIFT RESOURCES LTD.

100 0 100 200 300 400 Km.

100 0 100 200 Mi.

MAP 1 BRAD'S DRAFTING SERVICES



SURVEY AREAS

1 MILLS GROUP & HUME 1

2 BOSTOCK GROUP

3 CAMSELL & RICE GROUP

4 BROWN GROUP

1 Km. 0 2 Km. 4 Km.

PACIFIC SEADRIFT RESOURCES LTD.

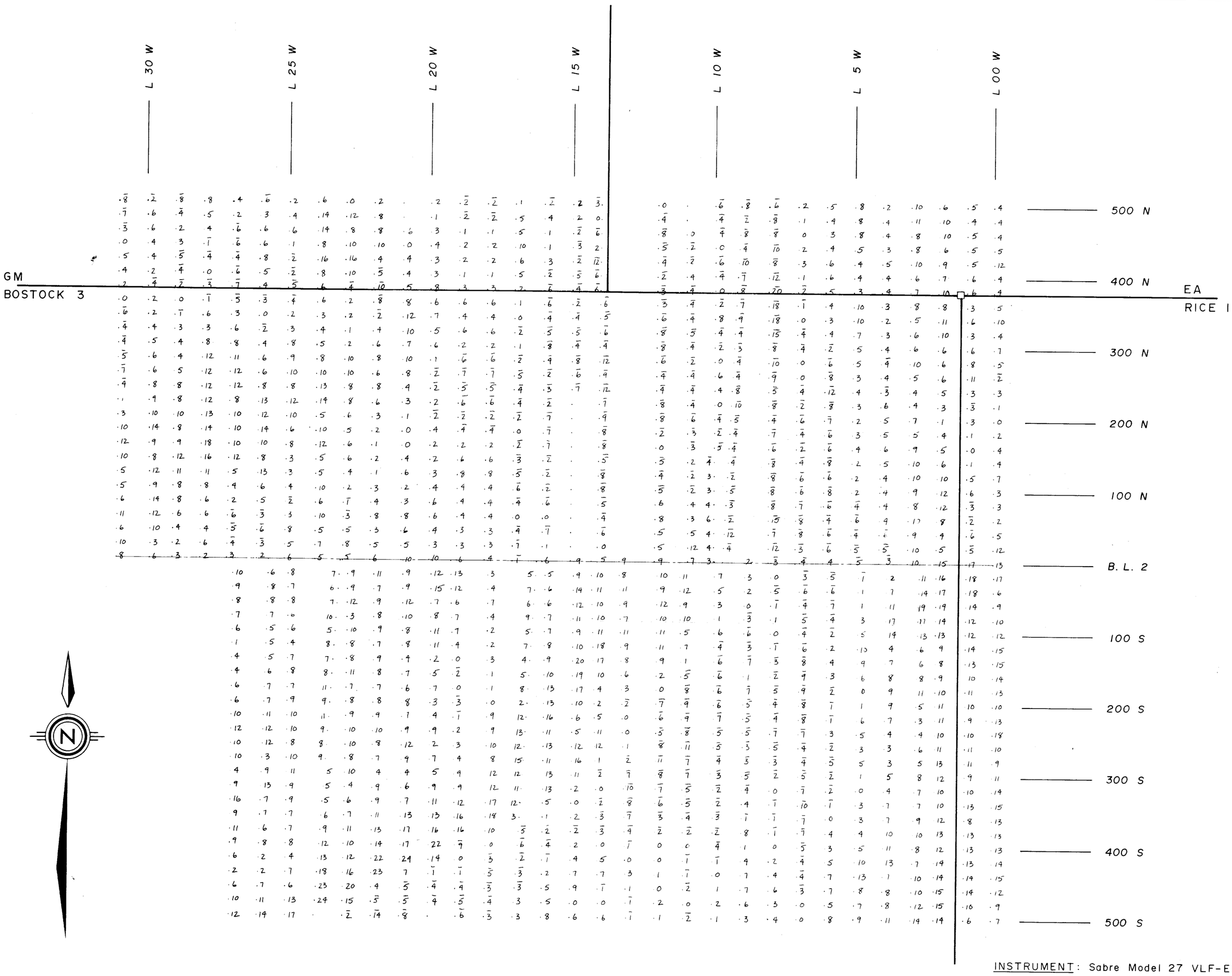
NORTH AND SOUTH CLAIM GROUPS

HEDLEY AREA, B.C.

SIMILKAMEEN, OSOYOOS M. D.

CLAIM LOCATION MAP

SCALE:	DATE:	MAP:	DRAWN BY:
1: 100,000	April 85.	2	B. D. S.



INSTRUMENT: Sabre Model 27 VLF-EM Unit.

To Accompany Report By: DAVID G. MARK, Geophysicist.

TRANSMITTER

SEATTLE 24.8 KHz.

LEGEND

Claim boundary

I.D. post (located)

Survey station

Base line

200 m 0 200 m

Field Work Carried Out By: TRANS-ARCTIC EXPLORATIONS LTD.

PACIFIC SEADRIFT RESOURCES LTD.

BOSTOCK GROUP

PETTIGREW CREEK, HEDLEY AREA, B. C.

SIMILKAMEEN M. D.

VLF-EM SURVEY

RAW DATA

SCALE:	DATE:	MAP:	N.T.S.	DRAFTED BY:
1: 4,000	April 85.	3	92 H/8 E	B. D. S.

L 30 W | L 25 W | L 20 W | L 15 W | L 10 W | L 5 W | L 00 W

500 N
400 N
300 N
200 N
100 N
B. L. 2
100 S
200 S
300 S
400 S
500 S

GM BOSTOCK 3

EA RICE 1

b

b

a

a

N

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,548

LEGEND

Claim boundary

I.D. post (located)

Survey station

Base line

TRANSMITTER

SEATTLE 24.8 KHz.

CONTOUR INTERVAL

0 degree

4 degrees and higher

Note: Only positive values contoured.

200 m 0 200 m

Field Work Carried Out By: TRANS-ARCTIC EXPLORATIONS LTD.

INSTRUMENT: Sabre Model 27 VLF-EM Unit.

To Accompany Report By: DAVID G. MARK, Geophysicist.

PACIFIC SEADRIFT RESOURCES LTD.

BOSTOCK GROUP

PETTIGREW CREEK, HEDLEY AREA, B. C.

SIMILKAMEEN M. D.

VLF-EM SURVEY

FRASER FILTERED DATA & CONTOURS

SCALE:	DATE:	MAP:	N.T.S.	DRAFTED BY:
1:4,000	April 85.	4	92 H/8 E	B. D. S.