

ARIS SUMMARY SHEET

District Geologist, Nelson

Off Confidential: 89.05.13

ASSESSMENT REPORT 17786

MINING DIVISION: Fort Steele

PROPERTY: Perth
LOCATION: LAT 49 31 30 LONG 116 01 00
UTM 11 5486065 571166
NTS 082F09E

CLAIM(S): Perth
OPERATOR(S): Trans-Arctic Ex.
AUTHOR(S): Cruickshank, P.
REPORT YEAR: 1988, 27 Pages

COMMODITIES

SEARCHED FOR: Gold

GEOLOGICAL

SUMMARY: The property occurs near the contact between the Creston Formation and the Kitchener-Siyeh Formation. The underlying rocks are the Creston Formation argillites and quartzites. The Old Baldy Fault appears to strike northeast through the claim. Nearby, quartz veins in the Creston quartzites carry free gold.

WORK

DONE:

Geophysical
EMGR 4.4 km; VLF
Map(s) - 2; Scale(s) - 1:1000



TYPE OF REPORT/SURVEY(S) Geophysical	TOTAL COST \$2,440.00
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AUTHOR(S) Patrick Cruickshank SIGNATURE(S) *[Signature]*

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED August 13 YEAR OF WORK '88

PROPERTY NAME(S) Perth Claim

COMMODITIES PRESENT gold

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN N/A

MINING DIVISION Fort Steele NTS 82F/9E, 82G/12W

LATITUDE 49° 31.5' north LONGITUDE 116° 01' west

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

Perth Claim, 1 unit, Record #2647

OWNER(S)

- (1) (Registered) Richard Simpson
- (2) (Beneficial) Trans-Arctic Explorations Ltd.

MAILING ADDRESS

815-850 West Hastings Street, Vancouver, B.C., V6C 1E2

GEOLOGICAL BRANCH ASSESSMENT REPORT

OPERATOR(S) (that is, Company paying for the work)

- (1) Trans-Arctic Explorations Ltd.
- (2)

MAILING ADDRESS

815-850 West Hastings Street, Vancouver, B.C., V6C 1E2

17,786

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):

The property occurs near the contact between the Creston formation and the Kitchener-Siyeh Formation. Property is underlain by the Creston formation composed mostly of argillites and quartzites. The Old Baldy Fault appears to strike northeasterly through the claim. Quartz veins in the Creston quartzites carry free gold.

REFERENCES TO PREVIOUS WORK Previous work done on overlying Perry Claims quoted in report, no previous work known on this claim.

FILMED

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ACTION:	SUB-RECORDER RECEIVED
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	M.R. # \$..... VANCOUVER, B.C.

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Property Location Map

1:8,600,000

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Claim Location Map

1: 50,000

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In Back Pocket

VLF-EM Survey
Raw Data & Profiles,
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1: 1,000

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VLF-EM Survey
Fraser Filtered
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SUMMARY

A VLF-EM survey was carried out over the Perth Claim during the period of May 6 to 9, 1988. The property is located 15 km west of Cranbrook, British Columbia on Rome Creek. Access to the property is easily gained by a two wheel drive vehicle. The terrain consists of moderate to mostly steep slopes covered with light to moderately dense coniferous trees as well as alpine meadow. The purpose of the work was to locate probable areas of gold-sulphide mineralization as is found on the nearby Leader A Claim. Of particular interest were intrusive porphyries known to be associated with gold deposits in the area.

The property occurs near the contact between the Creston Formation and the Kitchener-Siyeh Formation, the contact of which occurs along Perry Creek. Covering the property is the Creston Formation, which is composed mostly of argillites and quartzites. Northwest of Perry Creek is the Kitchener-Siyeh Formation which is composed of impure magnesium limestone, argillites, and calcareous quartzites. On the nearby Leader A Claim occurs an auriferous quartz vein returning assays up to 0.598 oz gold/ton and 10.56 oz silver/ton across 0.58 m.

The VLF-EM readings were taken every 20 meters on 40-meter separated lines bearing N57°W within the claim. The data was then reduced, plotted and contoured.

CONCLUSIONS

1. The VLF-EM survey has mapped conductors with two strike directions; northeasterly and northerly.
2. The northeasterly trend is the more prominent one, with three sub-parallel conductors ranging from 75 to 150 metres apart. These conductors very likely reflect the Old Baldy Fault and related structures, as mapped by Rice.
3. Two VLF conductors are shown striking northerly, crossing the other three. Higher VLF-EM values where the different conductors cross could reflect the intersections of two systems of geologic structures. If this is the case, then these areas are prime exploration targets.

RECOMMENDATIONS

1. Detailed geologic mapping should be carried out over this grid, to help determine the structural causes of the VLF-EM conductors. Special attention should be given to the areas where the VLF-EM conductors cross each other.
2. Trenching should be conducted in areas of interest, to further assist in qualifying the VLF-EM conductors. This would help to determine what mineralization occurs, and in what association, with the VLF-EM conductors.

GEOPHYSICAL REPORT

ON A

VLF-EM SURVEY

OVER THE

PERTH CLAIM

ROME CREEK, CRANBROOK AREA

FORT STEELE 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 the Perth Claim during the period of May 6 to 9, 1988.

The surveys were supervised by Trans-Arctic Explorations Ltd. and carried out by C.P.S. Explorations, under the field supervision of Chris Sywulsky, instrument technician, with Ken Andrews as field assistant. A total of 4.4 line km of VLF-EM survey were done.

The primary purpose of the exploration program was to look for gold deposits such as are common in this area, as, for example, the auriferous quartz veins containing sulphides on the Leader A Claim (Wellington). Of particular interest were porphyritic intrusives (flows?) commonly known as 'miner's porphyries' which in this area frequently occur with gold deposits. The VLF-EM

survey was carried out to delineate geological structure such as fault and shear zones or sulphide deposits either of which could be related to gold deposits.

PROPERTY AND OWNERSHIP

The property consists of one claim totalling 1 unit staked within the Fort Steele Mining Division as shown on Map 2 and as described below:

<u>Claim Name</u>	<u>No. Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
Perth	1	2647(5)	May 13, 1998

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

The claim is owned by Trans-Arctic Explorations Ltd. of Vancouver, British Columbia, though the registered owner is Richard S. Simpson, also of Vancouver.

LOCATION AND ACCESS

The property is located 15 km west of Cranbrook adjacent to Rome Creek, where it intersects with Perry Creek and Lisbon Creek.

The geographical coordinates are 49°31.5.'N latitude and 116°01'W longitude.

Access is easily gained by travelling north from Cranbrook on Highway #95A for 15 km to Wycliffe. One then turns south and travels southwesterly along the Perry Creek access road to the

northeast boundary of the property about 2 km past Old Town, a distance of about 11 km.

PHYSIOGRAPHY

The property lies to the west of the Rocky Mountain trench within the Purcell Mountains which are physiographic divisions of the Columbia Mountain System. The terrain consists of steep, partially logged slopes throughout most of the property. It lies on the southeast side of the northeasterly-trending valley of Perry Creek.

Elevations vary from about 1,650 m a.s.l. at its initial post, to about 1,780 m a.s.l. on its southernmost corner, to give an elevation difference of 130 m.

The main water sources are Perry Creek as well as northerly-flowing and northwesterly-flowing tributaries of Perry Creek (France, Rome, Staples creeks).

The forest cover consists of mainly mature Jack Pine and varies from closely growing, immature stands to more widely spaced, mature stands. The only exception is a small burned-out area on the summit.

HISTORY OF PREVIOUS WORK

Since the claim was staked, no previous work has been done.

The history of the area goes back to the 1880's when prospectors working the Perry Creek placers discovered the vein now covered

by the Leader A Claim located about 5 miles northwest. Little ore has been shipped from this vein, even though assays have run as high as 4.8 oz/ton Au and 6.8 oz/ton Ag. There are also high values in lead, zinc and copper.

GEOLOGY OF AREA

The following is quoted from L. Sookochoff's 1985 Geological Evaluation Report on the overlying Perry claims:

"The general geological setting of the area is of the Proterozoic Lower Purcell Group which is divided into three Formations. In the Hellroaring Creek - Angus Creek - Perry Creek area the Creston and Kitchener Formation predominate and are lenticularly northeasterly trending, commonly in a fault contact and bounded to the north and south by the Aldridge Formation.

"The basal Aldridge Formation - the oldest formation known to occur in the area - is composed mainly of grey to brownish grey, rusty weathering argillite and argillaceous quartzite.

"The Creston Formation is transitional from the Aldridge Formation and embraces that succession of greyish argillaceous quartzites which is included between the dark rusty weathering, argillaceous quartzites of the lower Aldridge Formation and the thin bedded, calcereous rocks of the upper Kitchener Formation. In general, the Creston Formation consists of argillaceous quartzites, purer quartzites and argillites whose beds average about one foot in thickness. Narrow beds, pods, and lenses of calcareous rocks occur in the upper part of the formation. These are more numerous toward the top of the Creston and where they are abundant, the strata are considered to belong to the overlying Kitchener Formation.

"The Kitchener Formation consists predominantly of impure, magnesium limestone, argillite and calcereous quartzite. Limestone and calcareous rocks compose the bulk of the formation and serve to distinguish it from the underlying formations. The upper part is generally argillaceous. Due to the formation containing easily deformed rocks, great stretches of it have been altered to chlorite and talc-carbonate schist.

"The Creston Formation is host to gold quartz veins on Perry Creek, a northeasterly flowing tributary of the St. Mary River with the confluence 13 km northwest of Cranbrook. The deposits occur in the argillaceous quartzites which are well bedded in beds '2 inches to 2 feet' in thickness, the latter separates by thin beds of meta-argillites.

"Placering within Perry Creek has resulted in the discovery of a number of very strong parallel quartz ledges, some of great width and traceable for five miles running S20°W or about parallel with the general direction of the creek and dipping nearly parallel.

"One exposure of a series of ledges is initially of a 10 foot quartz ledge highest upon the hill. Fifteen hundred feet lower is the Big Ledge about 40 feet wide. Four hundred feet lower is an eight foot ledge and some 1,000 feet lower a series of some three or four five-foot ledges parallel to each other and about 100 feet apart.

"The country rock is composed of hard shales or slates with quartzites in thin beds. In many places on the lower side of the ledge is exposed an igneous dyke of 'miner's porphyry' from which free gold is often derived."

STRUCTURE

"The general structure of the area is of a broad, northerly striking anticline exposing the core of the Proterozoic rocks with younger rocks to the west and east. The regional St. Mary's fault trends east northeast to the north of the property area and creates a fault contact with the Aldridge and younger formations.

"The St. Mary's fault, which is steep and where exposed marked by breccia, appears to represent dominantly vertical adjustments between filtering blocks but has many characteristics of a strike-slip fault. The structural block south of St. Mary's fault consists chiefly of west dipping west facing strata repeated successively westward by a series of steep northerly trending longitudinal faults.

"It is along these north-south faults south of the St. Mary's fault that localize some of the mineralized zones and past producers in the Perry claim group area.

"The Running Wolf and the Rome Valley showings which are enveloped by the Perry claim group occur along Baldy Creek Fault within the Creston Formation."

MINERALIZATION

"Mineralization in the Perry claim group is predominantly of vein deposits localized along fractures. The mineralization consists of galena, sphalerite, pyrite, pyrrhotite, chalcopyrite, arsenopyrite, hematite and in a few instances, scheelite.

"The Quartz Mountain - Rice (55) mineralization occurs as gold bearing iron and copper sulphides hosted by quartz. Two mineralized quartz outcrops are separated by a stock or dyke of diorite. The upper quartz showing is up to 75 feet wide with a continuity of several hundred feet. The quartz is reportedly auriferous but low grade.

"On the second showing 600 feet east and downhill, samples reportedly returned a value of slightly over .25 oz Au/ton for the 105 foot length. Specimens with free gold assayed over one oz Au/ton.

"The Anderson mineralization (56) on the northwest side of Perry Creek and on the east side of Sawmill Creek at elevations of 5,000 and 6,000 feet were worked in 1937, 1938 and 1940. Production during these years totalled 410 tons resulting in 102 oz Au, 166 oz Ag and 440 lbs Pb.

"The Anderson mineralization is reflected by a gold bearing quartz vein exposure in underground workings. The quartz vein is characteristically glassy and fractured, is between 15 and 28 inches wide with values occurring as free gold.

"The area is underlain by green, purple and white argillaceous quartzites of the Creston Formation.

"The Burdial mineralization (57) occurs in irregular quartz veins which are hosted by sheared and faulted argillaceous quartzite in the zone of the Perry Creek fault. The quartz is in places well mineralized with galena, sphalerite and pyrite.

"The Rome Valley mineralization occurs within a quartz vein of from two to 25 feet wide occupying a fissure in a fault zone.

The quartz locally contains small amounts of pyrite and galena from which values are reported to range from \$1.10 to \$19.95 per ton (\$35/oz Au).

"The Running Wolf mineralization (59) occurs within quartz veins occupying fissures in greatly altered creston argillaceous quartzite. The quartz veins contain occasional specks of pyrite and are reported to carry gold."

PROPERTY

Rice's G.S.C. map shows the Perth Claim is almost entirely underlain by the Creston Formation which trends northeasterly through the property. To the northwest and across Perry Creek the Perry claims are underlain by the Kitchener Formation.

Guy Royer, geologist, prospected and mapped portions of the Perry claim group (which in 1984 surrounded the Perth Claim) and describes the work as follows:

"The rocks on the Perry Claim Group are sedimentary and can be described as interbedded layers of quartzites and argillites with carbonates sometimes present. Chlorite schist also exists on the property. Most of the quartzites are quite argillaceous and frequently in the field the contacts between them are quite arbitrary since the two types may be interbedded within one outcrop.

"All the carbonates noted were on the north edge of the claims with much of the quartzites obviously containing significant quantities. The quartzites vary in colour from grey to green or purplish and where heavily iron stained, is brick red. The argillites are quite variable, certain layers are very slaty

and schistose and in the latter types are significant amounts of chlorite. The colour varies from grey to green with some layers rather iron stained. The slaty and schistose layers are very transitional to each other and to quartzite. Within any single outcrop it is rare for all layers to conform to one single rock type.

"The mica schist is a soft, often slaty rock that is near-colourless to bright green, most often being grey-green in colour. The colour correlates with the chlorite content, i.e. near-colourless varieties would contain very little of this bright green mineral. Although aphanitic in most cases, one can deduce that sericite and/or related micas are the dominant constituents of the rock. Occasional flecks of sericite up to 5 mm long were noted. Some of the mica schist reveals perfect slaty cleavage. In fact the schist is gradational to a rusty slate which is always noted to be adjacent to the mica schist. Also the mica schist sometimes grades into a rusty argillite which lacks any cleavage planes. The thickness of the mica schist varies from 6 cm to 4 m, though commonly it is 1 m. No sulphides were noted in the mica schist, but considering the very fine grain size of the rock, this is not surprising.

"Most of the outcrops visited are along road cuts because a layer of overburden conceals most of the rocks. Groups of trenches have recently been excavated along a couple of roads to expose more outcrop. Much of this exhumed rock is intensely fractured and iron stained. But no visible sulphides were noted by the author. Neither were any glimpsed in the quartz veins which are quite erratically distributed. Most of these veins are only a few cm wide, though some are as much as 20 cm.

"The dominant strike of the sediments are approximately N30°E which corresponds with the other strata in

the area. The dips are moderately steep averaging 060° with almost all measurable ones dipping southeast. Several sedimentary structures are often discernable. Those include cross-bedding and ripple marks on the quartzites. Some Liesegang rings may also be present, which are particularly prominent in the mica schist. Some of the quartzites are extremely well banded with most layers being 4 - 7 mm wide. No microscopic fossils were noted which is to be expected of Pre-Cambrian rocks. There were no discernable features in the outcrops to suggest faulting. Some of the slates show almost perfect cleavage.

"Some pyrite and traces of galena are present in the quartzites where quartz bedding is particularly prominent. There are prodigious amounts of iron staining in some of the sedimentary beds. Pyrite, however, was not noted in the argillites and argillaceous quartzite beds, neither was it common in the purer quartzites. Most of the pyrite and all the galena noted in hand specimens are found on the north edge of the claims, but never were these minerals noted in anything more than trace amounts. But judging by the iron content, many sulphides may occur microscopically.

"There is evidence of placer workings on Perry Creek adjacent to the Perry claims. Despite the scarcity of visible sulphides on most of these, the prodigious amount of iron staining may be quite significant. And the trace amounts of galena are more common within these claims than within the surrounding area."

MINERAL DEPOSITS IN CLOSE PROXIMITY

The following is a description of two deposits occurring along the Old Baldy Fault and is taken from Rice's Memoir 228, dated

1941. The Rome and Valley group occurs nearby, and the Running Wolf deposit occurs to the southwest.

Rome and Valley Group

"The Rome and Valley group consists of twenty-three claims held by location, controlled by J.M. Baird and associates of Cranbrook, B.C. It is located near the head of Rome Creek, a tributary of Perry Creek, about a mile from the Perry Creek road near Sawmill Creek.

"The deposits consist of two or more large and persistent quartz veins apparently occupying fissures in a fault zone. In a few places they contain small amounts of pyrite and galena. Crystals of pyromorphite (lead phosphate) were seen in one open-cut. Assays from samples taken by the owners are reported to range from \$1.10 to \$19.95 a ton in gold (gold at \$35 an ounce).

"The main workings consist of thirteen open-cuts, ten of which expose a vein striking north 15 degrees east and dipping 35 degrees to 50 degrees southeast. The vein has been traced for 1,550 feet and probably continues for at least another 1,000 feet to the north. It varies in width from 2 to 25 feet and averages about 9 feet. The remaining open-cuts are located on a parallel vein of the same type and apparently comparable in size with the first described.

Running Wolf Group

"The Running Wolf group is located on French Creek, a tributary of Perry Creek, and is reached by a trail about a mile long from the Perry Creek road.

"The deposit consists of a number of quartz veins occupying fissures in greatly altered Creston argillaceous quartzite. The workings consist of five adits, three of which are now caved. The main adit exposes three veins, each about 30 feet wide. Two of these veins occupy fissures striking in the same direction as the fault zone on the Rome and Valley group and approximately in line with it. The third vein is in a cross fracture. A few hundred feet down the hill another adit has been driven along a vein that parallels the main veins above. The veins are composed of massive quartz with occasional specks of pyrite and are reported to carry gold. They have been fractured by post-mineral movements along the original faults.

"The Rome and Valley and the Running Wolf groups are apparently on the same zone of fracturing and faulting, and this zone probably continues south across the ridge between Perry Creek and Moyie River at Old Baldy Mountain. Exposed on the Ridge at this point is a strong fracture zone that is occupied by a large quartz vein."

VLF-EM SURVEY

1. 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 cur-

rent usually through a coil of wire. If a conductive mass such as a sulphide body is within this magnetic field, a secondary alternating 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. The VLF-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 or 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. Consequently the VLF-EM has additional uses in mapping structure and in picking up sulphide bodies of too low a conductivity for conventional EM methods and too small for induced polarization. (In places it can be used instead of I.P.). However, its susceptibility to lower conductive bodies results in a number of anomalies, many of them difficult to explain and, thus, VLF-EM preferably should not be interpreted without a good geological knowledge of the property and/or other geophysical and geochemical surveys.

2. Survey Procedure

The survey consisted of 4.4 line km of VLF-EM survey of the property as shown on Maps 3 and 4.

The base line, located along the claim location line on a bearing of $N33^{\circ}E$, was established for 450 m between the initial and final posts. The survey lines were run perpendicular to the base line ($S57^{\circ}E$) at 40 m spacings, with the intersection points blazed on trees.

The instrument readings were taken every 20 m along the survey lines facing towards the transmitter at Seattle.

3. Compilation of Data

The VLF-EM field results were plotted on Map 3 at a scale of 1:1,000. They were then reduced by applying the Fraser-filter. The filtered results were subsequently plotted on Map 4, at the same scale. The filtered data were 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 the filtered data.

4. 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 as likely to be caused by these structural zones. Of course, sulphides may also be a causative source. But where VLF-EM anomalies correlate with sulphide mineralization, the anomalies are often reflecting the structure associated with the mineralization rather than the mineralization itself.

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 parallel or sub-parallel to the direction of the transmitter (S55W in this case), can be picked up easier than those that are lying at a greater angle. Depending upon its conductivity, a conductor may not be picked up at all if it is at too great an angle.

VLF-EM highs are of particular 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 represent areas that could be amenable to mineralizing fluids.

From the Fraser-filtered data, the writer has attempted to draw in the conductors as indicated by the contouring. The results are plotted on Map 4 with the Fraser-filtered data.

From the plot of the conductors it would appear that the primary direction of structure on this property is northeasterly with the secondary direction being northerly. This agrees with geological mapping on the Perry claims, which indicates that fault and shear zones as well as bedding planes strike northeasterly. The northeasterly conductors are much stronger than the northerly conductors. The conductors bend and twist along their lengths as they cross each other, suggesting cross-faulting. This amount of activity makes absolute location of the conductors difficult.

The most prominent conductors on the property, conductors A, B, and C, bend and twist, possibly merging at their southernmost edge. They trend northeasterly, sub-parallelizing each other within a zone varying from 75 to 150 metres wide. This trend correlates with the topographic contours, and more importantly, the Old Baldy fault. The Old Baldy fault has been mapped on the Perry claims to strike N30°E, approximately through the Perth claim. It is a strong possibility that these VLF-EM conductors reflect the Old Baldy fault, or associated structures.

Considering the gold found in veins striking northeasterly in the Rome and Valley Group nearby, this zone is a good target for further exploration.

Conductors D and E strike northerly and could reflect cross-faulting. Higher VLF values occur at the intersections of the two trends. These points of intersection are prime areas of interest as they could reflect crossing geologic structures, which are amenable to mineralization. Geological mapping of this grid, with some trenching, is recommended.

Respectfully submitted,
GEOTRONICS SURVEYS LTD.



Patrick Cruickshank,
Geophysicist

August 13, 1988

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Leech, G.B., Geology Map - St. Mary Lake, British Columbia, Sheet 82 F/9, G.S.C. Map 15-1957, 1957.

Mark, David G., Report on a VLF-EM Survey and Geological Mapping over the Perry Claim Group, November 23, 1984.

Rice H.M.A. - Cranbrook Map-Area, British Columbia, G.S.C. Memoir 207, 1937.

Rice H.M.A. - Nelson Map Area, East Half, British Columbia, G.S.C. Memoir 228, 1966.

Schofield, S.J. Geology of Cranbrook Area, British Columbia, 1915.

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Sookochoff, L. Geological Evaluation Report for Amstar American Petroleum Corp. on the Perry Claim Group, March 26, 1985.

Minister of Mines Reports

1915 - p. 113,

1930 - p. 243,

1932 - p. 162,

1950 - p. 155

GEOPHYSICIST'S CERTIFICATE

I, M.A. PATRICK CRUICKSHANK, 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 530-800 West Pender Street, Vancouver, British Columbia.

I further certify:

1. I am a graduate of the University of British Columbia (1986) and hold a B.A.Sc. degree in Geophysics Engineering.
2. I have been practising my profession for two years.
3. I am registered with the British Columbia Association of Professional Engineers as an Engineer-in-Training, in geophysics.
4. This report is compiled from data obtained from a VLF-EM survey carried out by a crew of C.P.S. Explorations from May 6 to 9, 1988, under the supervision of Richard S. Simpson and under the field supervision of Chris Sywulsky, field technician.
5. I hold no direct nor indirect interest in Trans-Arctic Explorations nor in the property discussed in this report, nor do I expect to receive any interest as a result of writing this report.



Patrick Cruickshank
Geophysicist

August 13, 1988
47/G431

AFFIDAVIT OF EXPENSES

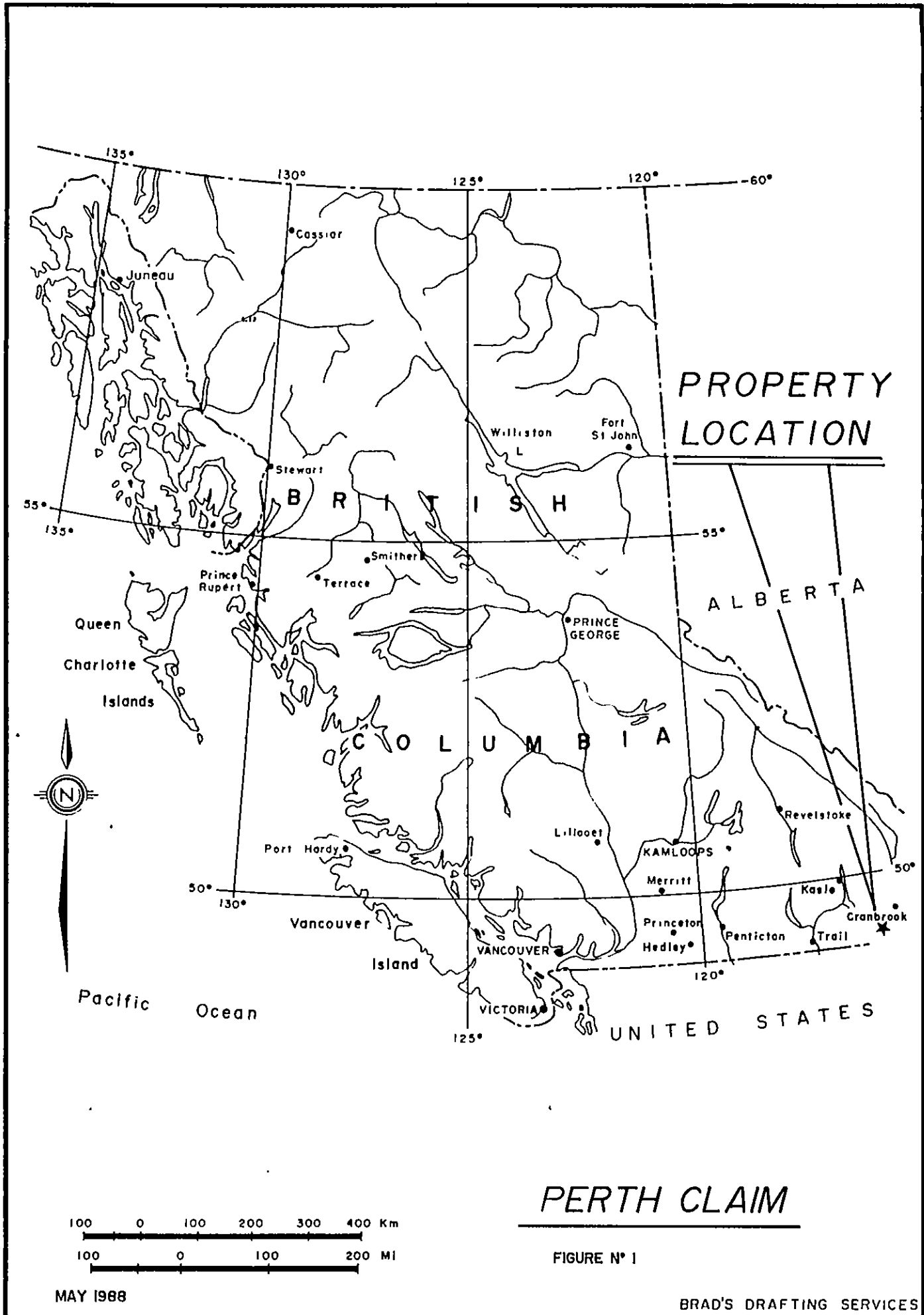
The VLF-EM survey, geological mapping, trenching and prospecting were carried out during the period of July 31, 1983 to June 15, 1984 on the Perry Claim Group, in the Cranbrook Area, Fort Steele Mining Division, B.C., to the value of the following:

1 instrument operator, 3 days @ \$175/day	\$ 525
1 Surveyors assistant (compassman), 3 days @ \$140/day	420
1 4X4 3/4 ton truck, 3 days @ \$90/day (incl. gas and mileage)	270
1 VLF-EM instrument rental, 3 days @ 430/day	90
2 men, room and board, 3 days @ \$35/day/man	210
Supplies	75
Drafting	300
Report interpretation and compilation	<u>550</u>
Grand Total	<u><u>\$ 2,440</u></u>

Respectfully submitted,
TRANS-ARCTIC EXPLORATIONS LTD.

E.G. Winter

E.G. Winter,
Manager



PROPERTY
LOCATION

B R I T I S H

A L B E R T A

C O L U M B I A

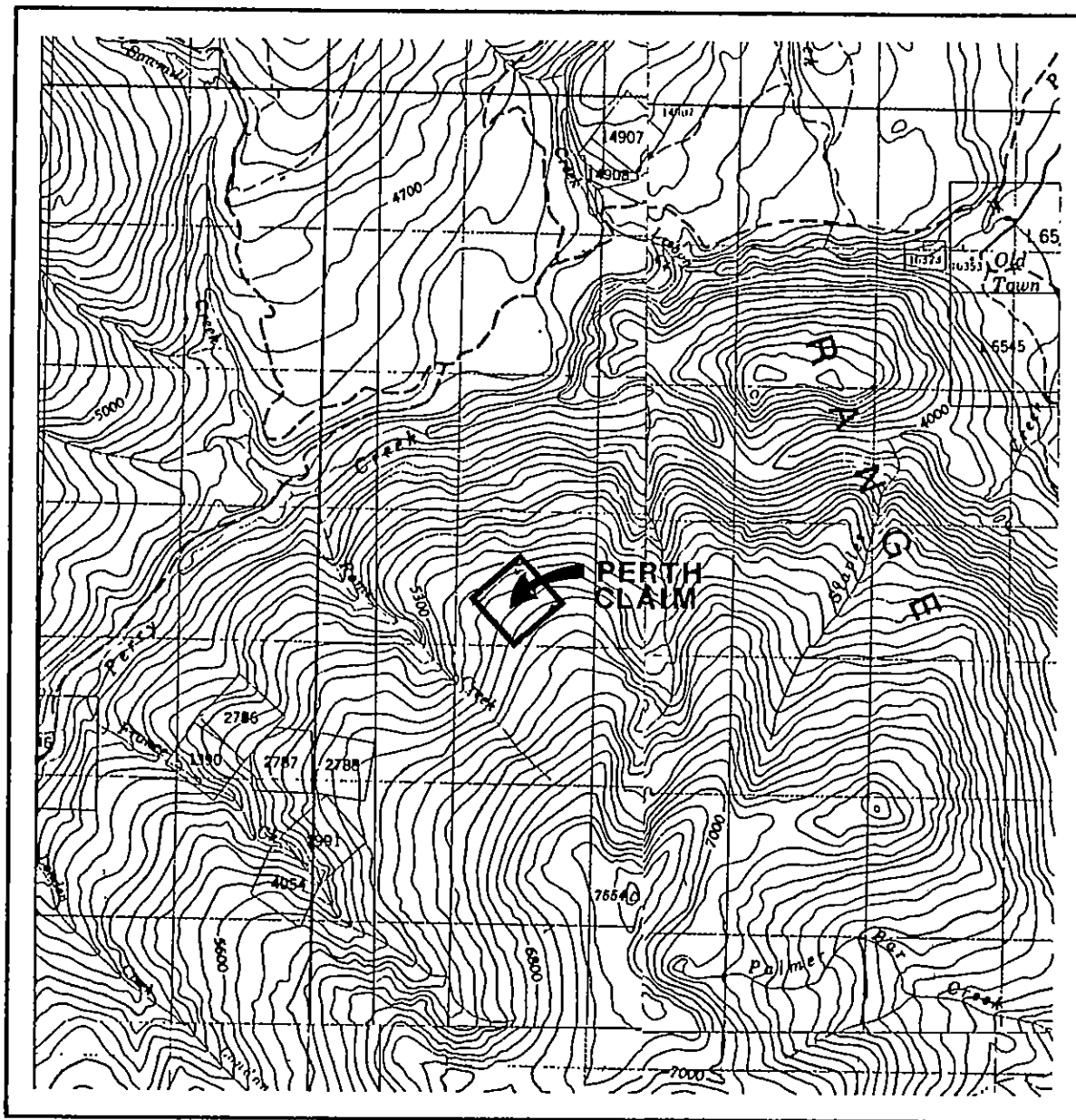
U N I T E D S T A T E S

PERTH CLAIM

FIGURE N° 1

MAY 1988

BRAD'S DRAFTING SERVICES



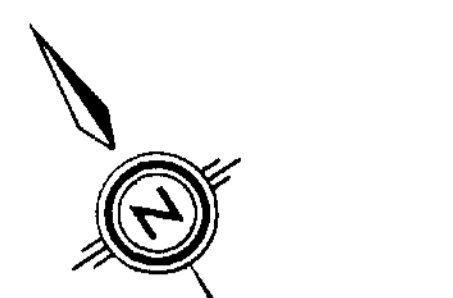
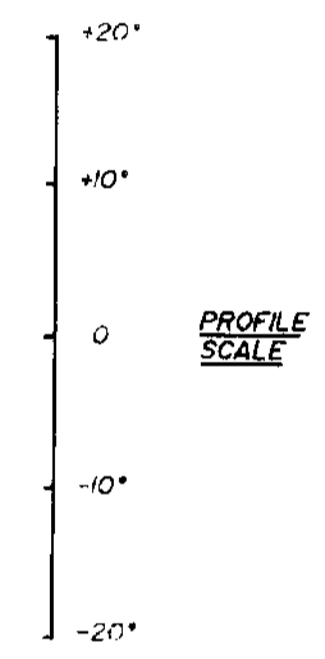
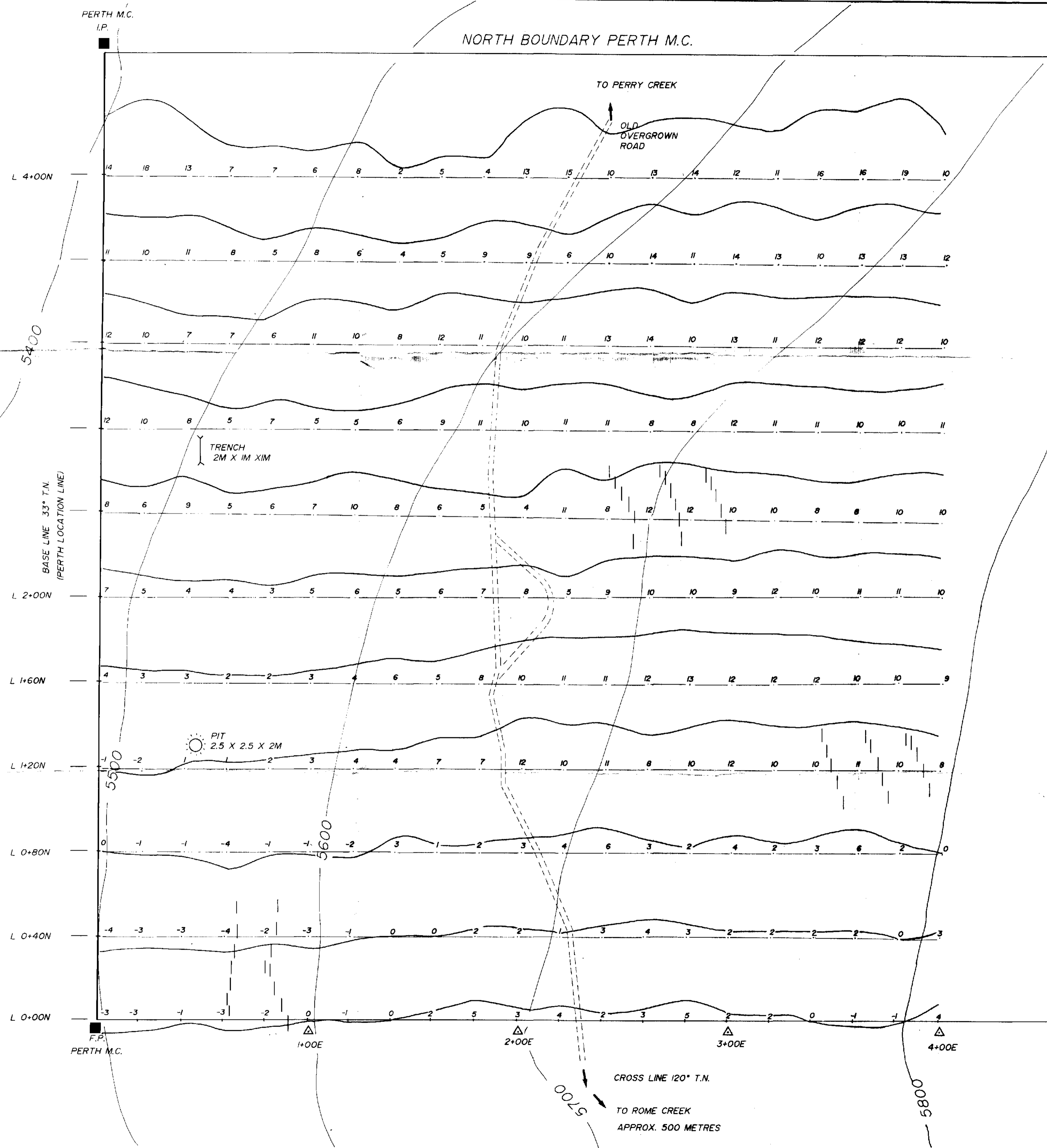
TRANS-ARCTIC EXPLORATIONS LTD.

PERTH CLAIM

PERRY/ROME CREEKS, KIMBERLY AREA
FORT STEELE, M.D., B.C.

CLAIM LOCATION MAP

SCALE: 1:50,000	DATE: MAY 88	FIGURE: 2	N.T.S. 82F/9E
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SEATTLE VLF TRANSMITTER

- LEGEND**
- ||| AREAS OF OUTCROP
 - OLD ROAD
 - - - TRENCH
 - ⊙ PIT
 - △ INSTRUMENT STATION
 - PERTH LOCATION POST



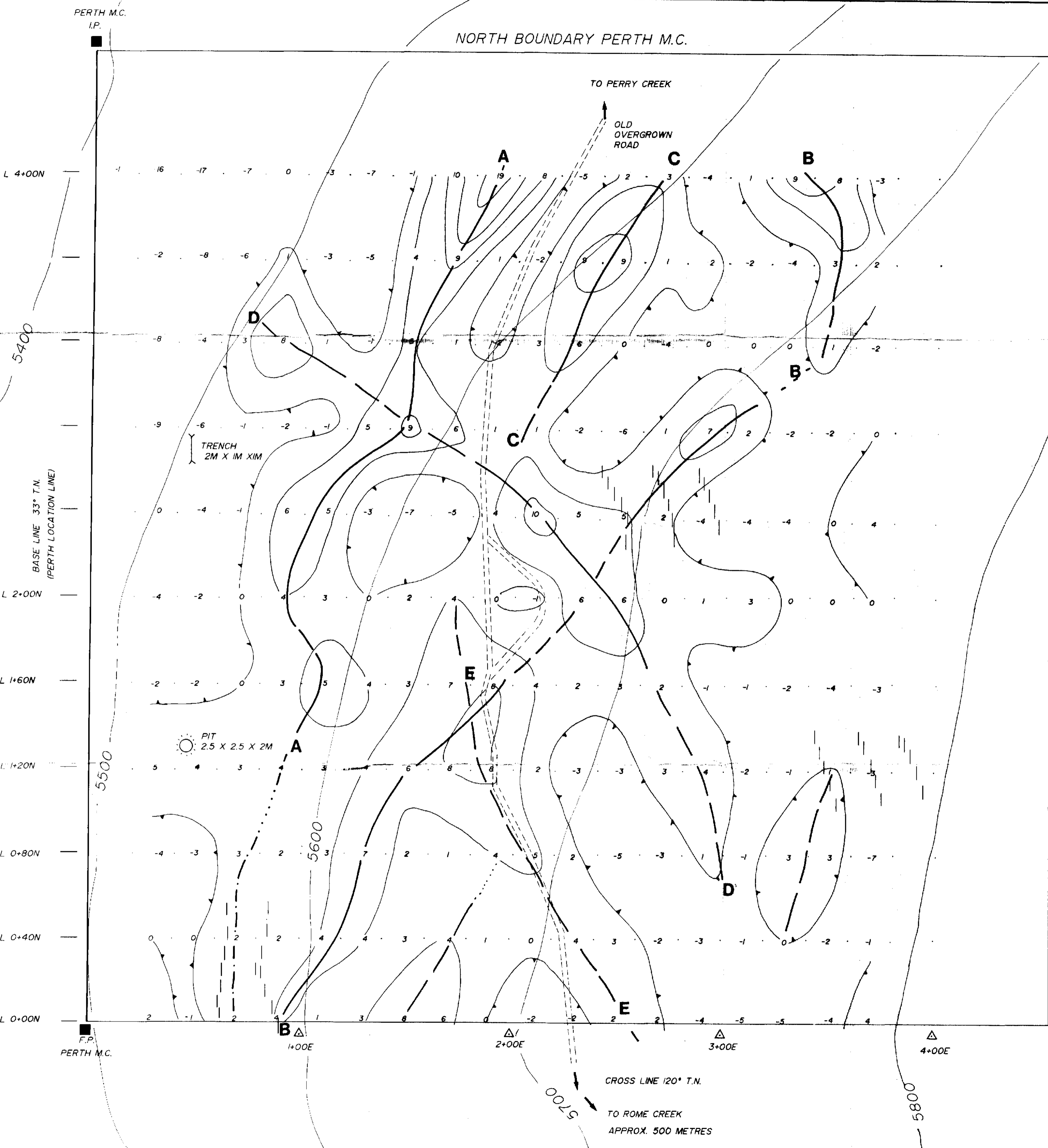
GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,786

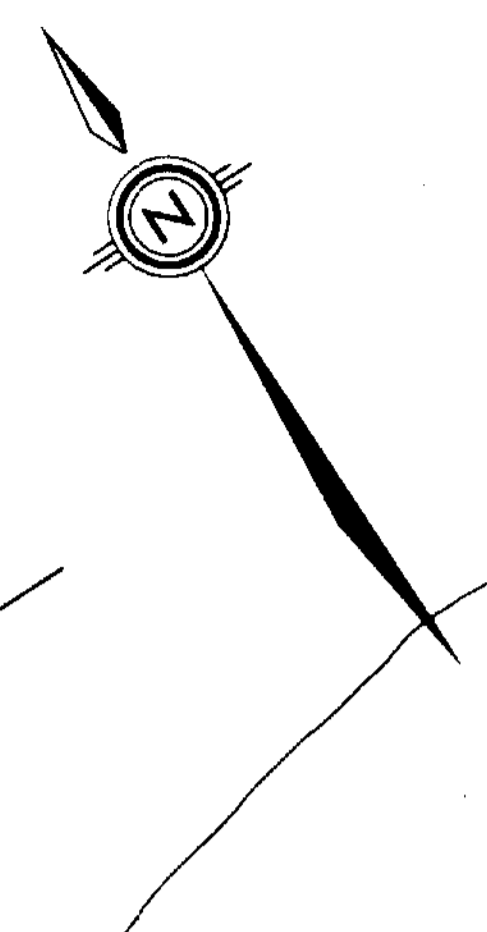
TRANS-ARCTIC EXPLORATIONS LTD.
PERTH CLAIM
116°01' 49°31.5'
PERRY/ROME CREEKS, KIMBERLY AREA
FORT STEELE M.D., B.C.

VLF-EM SURVEY
RAW DATA AND PROFILES

SCALE 1 cm = 10m	DATE MAY 1988	A.L.S. BDF/SE	FIGURE 3	DRAFTED BY BDS / km
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EAST BOUNDARY PERTH M.C.



LEGEND

- ▨ AREAS OF OUTCROP
- OLD ROAD
- Y TRENCH
- PIT
- △ INSTRUMENT STATION
- PERTH LOCATION POST
- 4° CONTOUR INTERVAL
- VLF-EM CONDUCTORS
- DEFINED
- - - PROBABLE
- ... POSSIBLE



GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,786

TRANS-ARCTIC EXPLORATIONS LTD.

PERTH CLAIM
116°01' 49°31.5'
PERRY/ROME CREEKS, KIMBERLY AREA
FORT STEELE M.D., B.C.

FRASER FILTERED DATA
AND CONTOURS

SCALE 1 cm = 10m	DATE MAY 1988	N.T.S. 82P/9E	FIGURE 4	DRAWN BY B.S.
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