

LOG NO: 0928	RD.
ACTION:	
FILE #:	

**DETAILED GEOLOGY AND GEOCHEMISTRY
PUNCH WEST, PUNCH EAST, KCM WEST
AND KCM EAST MINERAL CLAIMS
SNASS CREEK-TULAMEEN RIVER AREA
HOPE, B.C.
SIMILKAMEEN & NEW WESTMINSTER MINING DIVISIONS
NTS 92 H/6 E + 7 W
LATITUDE 49°16'N, LONGITUDE 121°00'W**

FILMED

Prepared for
LOCKE RICH MINERALS LTD.

ARCTEX ENGINEERING SERVICES

**Paul Kallock
Consulting Geologist**

August 22, 1988

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

17,824

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APPENDIX:

Certificates of Geochemical Analysis
with Analytical Procedures
Rock Sample Descriptions

MAPS:

(Pocket inside back cover)

Punch Bowl Claim Group 1:2500 Scale Maps Of:

Geology;

Soil and Rock Geochemistry - Gold;

Soil and Rock Geochemistry - Arsenic.

{ Trench Area 3+50S 0+50W, 1:250 Scale;

Geology and Rock Geochemistry as inset on 1:2500 scale maps

**DETAILED GEOLOGY AND GEOCHEMISTRY
PUNCH WEST, PUNCH EAST, KCM WEST
AND KCM EAST MINERAL CLAIMS
SNASS CREEK-TULAMEEN RIVER AREA
HOPE, B.C.**

SUMMARY

The Punch Bowl claim group is located 33 km east of Hope B.C. The property is underlain by clastic sedimentary rocks of the Upper Jurassic (?) Dewdney Creek Group, younger granitic intrusives, and by Tertiary (?) intermediate volcanics. Pick-and-shovel trenching has been carried out on a quartz-arsenopyrite vein which contains gold values between 80 and 285 ppb in chip samples. Elsewhere on the property a rock chip sample of pyritic and silicified sedimentary rock has returned 300 ppb gold and 450 ppm arsenic from outcrops near an earlier 830 ppb Au soil anomaly.

Concurrent with geological mapping and trenching, a soil geochemical survey programme consisting of 313 samples has extended the previous year's grid to the east and south. A large, low-intensity anomaly ranging between 15 and 30 ppb Au is present in the south central part of the grid.

An expanded budget of \$45,100 is proposed to complete a soil geochemical survey and geological mapping of the remaining accessible parts of the claim group. Furthermore, a heavy mineral pan-concentrate sampling survey of Punch Bowl Creek and its tributaries is proposed. Also included in the budget are provisions for initial testing of anomalies by diamond drilling. A Phase 3 programme of additional geological and geochemical follow-up plus diamond drilling would require \$125,000. Phase 4 diamond drilling, if required, should allow for a budget of \$200,000. Total budget for Phases 2, 3 and 4 would require \$370,100.

INTRODUCTION

The Punch West and East and KCM West and East mineral claims are located in southwestern British Columbia near the divide between south-flowing Snass Creek and east-flowing Tulameen River, approximately 33 km east of Hope, B.C. The claims are situated along the boundary between the Similkameen and New Westminster mining divisions. Co-ordinates latitude 49°16' north and longitude 121°00' west cross the property. Elevation ranges from 1220 m to 2310 m. The property lies within NTS map sheets 92 H/6 E and 92 H/7 W. Statistics of the claims are as follows:

<i>Claim Name</i>	<i>Record No.</i>	<i>No. of Units</i>	<i>Record Date</i>
Punch West	2208(8)	20	August 7, 1984
Punch East	2207(8)	20	" "
KCM West	2206(8)	20	" "
KCM East	2205(8)	20	" "

Each claim is comprised of 20 units (500 hectares) giving a total of 2000 hectares in the claim group.

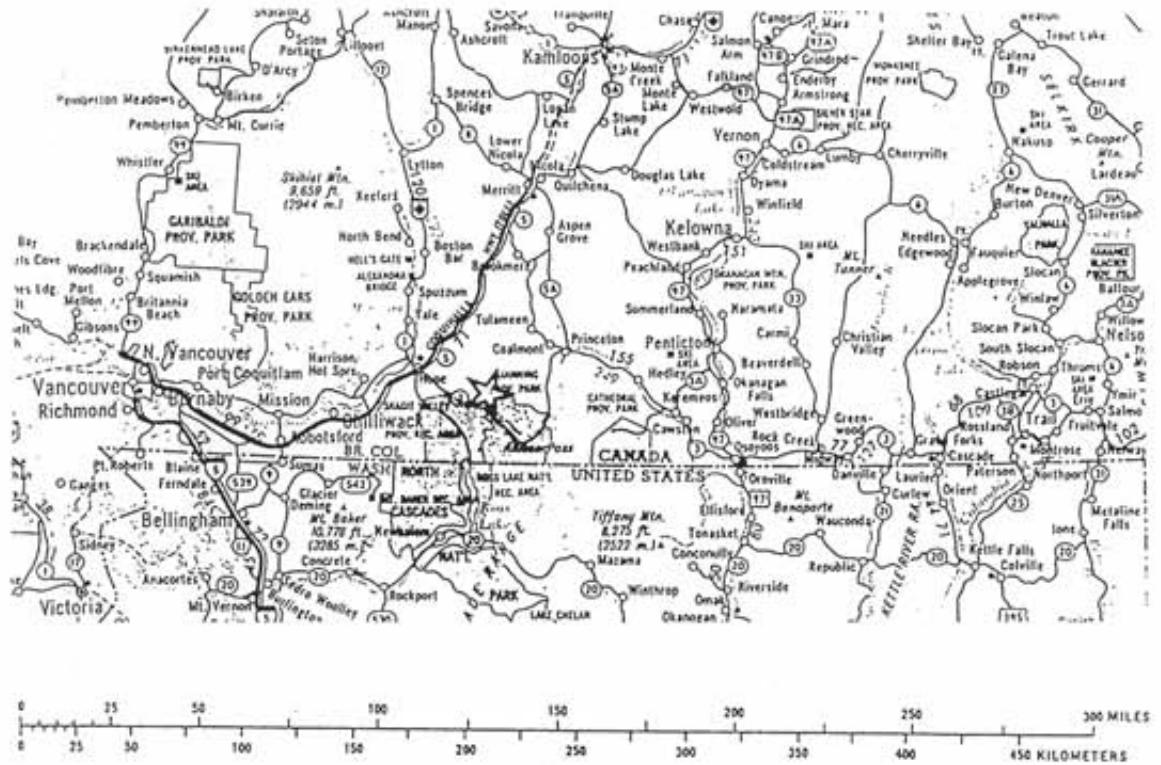
Access to the property is best accomplished by helicopter stationed at Hope, 33 km to the west. Current logging operation with road access is approximately 3 km to the north of the claim group in the Tulameen River drainage.

Several old claim posts and an old trench or caved adit in the Punch Bowl Creek grid area attest to past exploration. More recently, during 1986 and 1987, Merritt Minerals Inc. conducted a soil survey over part of the Punch Bowl claim group. During late July 1987, a soil geochemical survey and a geological mapping programme were conducted on the property by Arctex Engineering Services. A similar exploration programme including pick-and-shovel trenching was also undertaken in July 1988 and is the subject of this report.

REGIONAL GEOLOGICAL SETTING

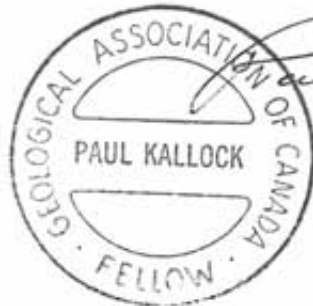
The Punch claim group lies between the Cascade Fold Belt and Intermontane Belt of southern B.C. The claim area is underlain by Upper Triassic and Lower Cretaceous clastic sediments which were deposited in a basinal environment. Later wrench faulting took place along the Hozameen Fault to the west and the Pasayten Fault to the east. Major dextral transcurrent movement has taken place along the Pasayten Fault in Late Cretaceous or Early Tertiary time.

Location Map



Punch Bowl Claim Group

Snass Creek B.C. Similkameen & New Westminster M.D. 92H/6E+7W

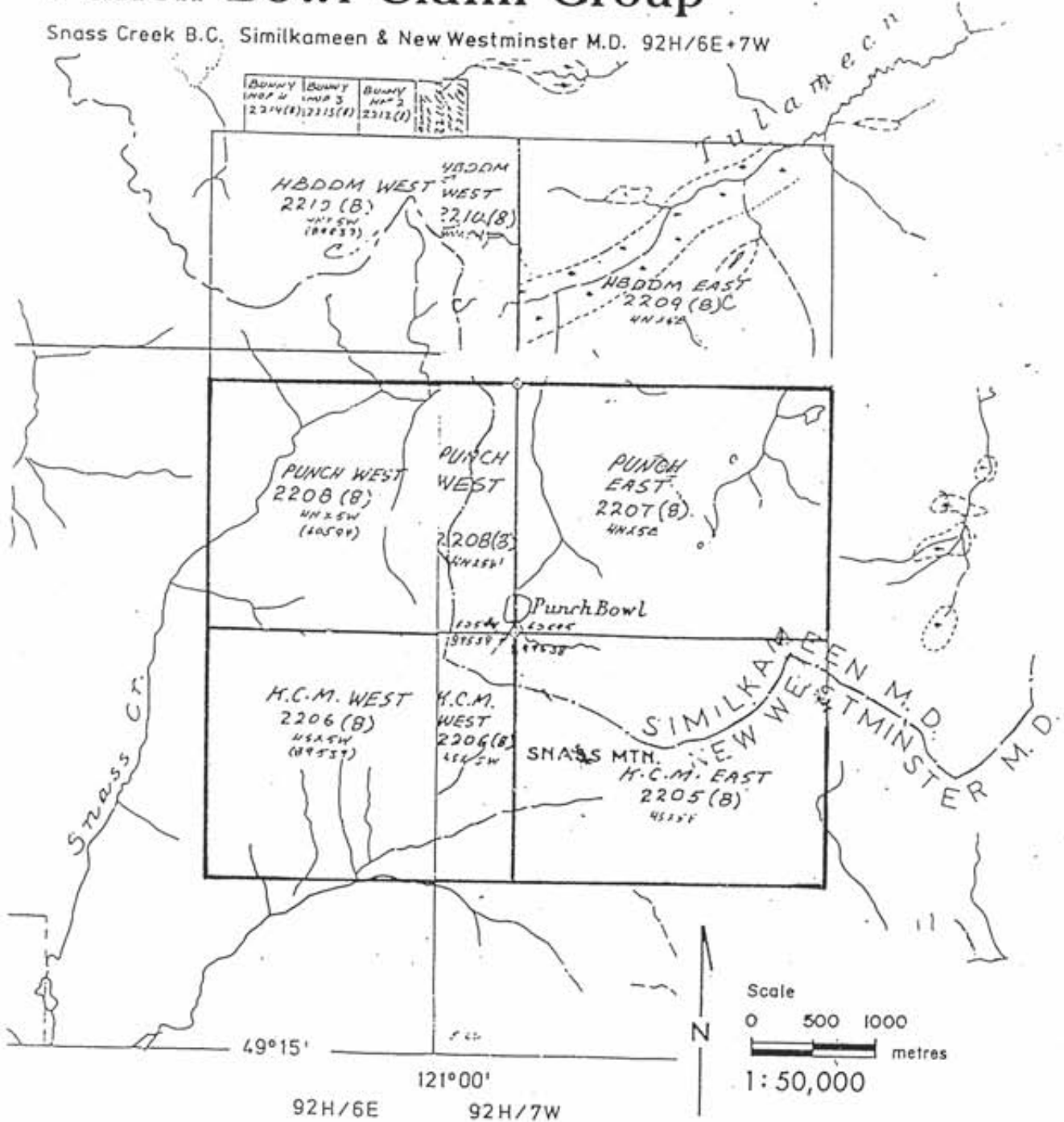


Paul Kallock
 To accompany report by
 Paul Kallock, Geologist
 August 1988
 ARCTEX ENGINEERING SERVICES

LOCKE RICH MINERALS LTD.

Punch Bowl Claim Group

Snass Creek B.C. Similkameen & New Westminster M.D. 92H/6E+7W



Claim Map

To accompany report by Paul Kallock, Geologist August 1988

ARCTEX ENGINEERING SERVICES

LOCKE RICH MINERALS LTD.

Quartz diorite intrusion during Late Cretaceous (Lightning Creek or Black Peak stocks) has taken place in the region. Subsequent intrusion of quartz monzonite took place during Late Tertiary (Needle Peak Pluton) (Roddick et al., 1976).

PROPERTY GEOLOGY

Stratigraphy

Geological mapping during 1988 was extended to the east from the 1987 grid area. As seen on the geology map in the pocket of this report most of the outcrop area that was examined is composed of coarse clastic and argillitic sedimentary rock of the Upper Jurassic (?) Dewdney Creek Group. Boulder conglomerate is present in the southeast and southwest part of the map area. Clasts are well rounded and less than 1 m in diameter. They are composed predominantly of quartz, chert, and felsic granitic rocks. Argillite and siltstone is more abundant than sandstone east and south of Punch Bowl Lake. Trend of beds is generally northwest with moderate southwest dips.

Numerous small dykes or sills of fine-grained to weakly porphyritic diorite intrude the sedimentary rocks of the Dewdney Creek Group. Contacts are generally sharp with only a few centimetres of clay or siliceous alteration present.

In the eastern and northeastern part of the map area, massive intermediate volcanic rocks including dacite, dacite breccia, and lesser andesite are present as caps on the higher mountains. Although bedding was not seen at close hand, from a distance topographic features indicate northwesterly trends with northeast dips to beds or flows. Age of the volcanics is questionable. Two kilometres north of Punch Bowl Lake intermediate volcanics belonging to the Coquihalla Volcanic Complex of early Miocene Age have been mapped by Ray (1986). Perhaps the volcanics in the map area are part of the same complex.

A wide variety of dykes, ranging from rhyolite to basalt are also present on the claims. Age of the dykes is younger than Dewdney Creek Group but it is not known if they are coeval with the diorite or volcanics or if they are younger.

Structure

The Dewdney Creek Group displays moderate folding. Locally, especially near diorite intrusive bodies, folding is stronger. For example, detailed mapping at 3+50S 0+50W reveals anticlinal and synclinal structures within a few metres of each other. However, the general trend of bedding toward the northwest is maintained.

Another major east-west fault with a coincident quartz-siderite-carbonate vein was mapped at 2+25S 2+00E. It is parallel to a fault which was mapped the previous year 75 m to the south. Both are within an area of high arsenic soil geochemistry.

At 6+00S 4+25E a north-south trending zone of strong fracturing and brecciation of coarse clastic sedimentary rock contains irregular patches of pyrite and sporadic limonite distribution. This zone of disruption can be traced south to 7+35S 4+50E where numerous northeast-trending calcite-siderite-pyrite veins bisect the north-south structure. One hundred and fifty metres toward the west another major north-south structure was observed at 8+50S 2+92E. Here, an orange oxide-stained quartz-carbonate vein is exposed. From numerous float boulders and rubble-crop the vein is at least 45 m long and 2 to 3 m wide. It trends N10°W with an undetermined dip. On strike of the vein toward the south is an outcrop of intensely fractured boulder conglomerate with intense limonite.

Mineralization and Rock Geochemistry

Previous exploration had located a quartz sulphide vein near 3+50S 0+50E. Six trenches were dug by pick and shovel on this vein and chip samples were collected. Trenches varied from 0.5 to 1.5 m deep and 2 to 3 m long. Total volume of material excavated was approximately 8.75 m³. A geology map of the trench area at 1:250 scale is included in the pocket of this report.

Quartz with minor carbonate and limonite and 1-3% arsenopyrite are present in the southern five trenches. The vein has a maximum of 0.25 m width. In the southern end of the south trench the vein pinches to less than 1 cm in a clay-altered shear zone. Toward the north end the quartz widens to 0.6 m but contains no visible sulphides in trench 3+28S 0+58W. Only minor narrow barren quartz with no wallrock alteration was present in the north trench at 3+17S 0+63W. Values of gold in the five trenches which were sampled varied from 80 to 285 ppb (parts per billion) Au. Arsenic ranged from 1300 to greater than 10,000 ppm (parts per million). The 25 m long vein is hosted in banded argillite and fine- to medium-grained diorite. Best values are located at the contact between the two rock types which trends N30°W70°W in the southern part of the trench area.

Several rock chip samples were gathered elsewhere on the claims. At 6+00S 4+20E coarse sandstone and fine conglomerate are locally brecciated and contain patchy pyrite and irregular silicification. A composite sample of pyritic and silicified material was collected from a 3 m² area. It contained 300 ppb gold and 450 ppm arsenic. Weak to moderate limonite on most broken fractures is also characteristic of the outcrop on this side of the saddle. Soil geochemistry from the previous exploration season had encountered 830 ppb Au in the saddle immediately below (west of) 6+00S 4+20E. Unfortunately, several metres of snow were still present in the saddle during the current exploration programme.

Iron oxide-stained argillite is present south of the mineralized outcrops near the saddle. Farther south at 7+35S 4+50E numerous northeast-trending calcite siderite veins with minor pyrite are present. Two rock samples collected from this area did not contain significant gold or arsenic.

At 8+50S 2+92E, 150 m west of the previously described area, a quartz-carbonate-orange limonite vein estimated to be 3 m wide and at least 45 m long is poorly exposed in the valley which leads northward to the snow-filled saddle. A sample across 1.0 m of the vein contained ppb Au and 12 ppm As.

A fault zone at 2+00S 1+90E contains a quartz, calcite and siderite vein which is parallel to a fault near 3+00S 2+50E which was mapped the previous year. Both faults trend westward toward the trench area. Two samples gathered from the northern vein did not contain significant Au or As.

Pyritic and silicified sedimentary rock were sampled at three locations on the north and northwest slopes of Snass Mountain. No favourable results were returned for gold or arsenic.

SOIL GEOCHEMICAL SURVEY

During the 1988 exploration programme the grid area was extended to the east and south from the survey of the previous season. A similar grid pattern, with east-west lines spread 100 m apart and soil sample stations at 50 m intervals along these lines, is shown on the geochemical survey map in the pocket of this report. A total of 19.05 km of grid line was surveyed in the 1988 programme.

Samples were retrieved at a depth between 15 and 35 cm below the surface by the use of a narrow-bladed spade. Soil samples were collected in Kraft paper envelopes and shipped to Chemex Labs in North Vancouver, B.C.

A total of 313 samples were collected. All were analysed for gold and arsenic. Certificates of analysis and analytical procedures are included in the Appendix.

Statistical treatment of the 1987 soil geochemical survey using 286 samples had established that anomalous gold values were greater than 11 ppb and those between 6 and 10 ppb could be considered threshold value. Arsenic values between 24 and 107 ppm were threshold, and values over 107 ppm could be considered anomalous (Kallock, 1987). Similar sampling methods and similar analytical procedures by the same laboratory combined with the same geological environment enhance the applicability of the 1987 statistical parameters for use with the 313 samples collected in the 1988 programme.

Gold

Gold in soils ranges from less than 5 ppb, which is below detection limit, to 40 ppb. In the population of 313 samples, 266 samples returned less than 5 ppb Au. Most of the anomalous samples with 11 or more ppb Au occur as a south and southwest extension from the 1987 anomaly of 20 ppb Au at 8+00S 2+00E. Nine samples ranging from 15 to 30 ppb Au are present on lines 9S, 10S and 11S between 0+00 and 3+00E. The area is thought to be underlain by sandstone of the Dewdney Creek but no detailed examination has been made.

From the slopes which drain toward the southwest corner of Punch Bowl Lake several anomalous gold values were obtained. They are comparable to values which are present in the fault-controlled gullies to the west. Their source may have been as far west as the gold mineralization in the quartz-arsenopyrite vein at the trench area near 3+50S 0+50W.

Other single point anomalous values of gold in soils are scattered in the eastern part of the grid area. The highest value of the survey, 40 ppb Au, occurs at 4+00S 9+00E. No outcrops are present in the immediate area. Float is mostly medium-grained sedimentary rock.

Arsenic

The highest arsenic value in soils occurs at 11+00S 4+00E where 770 ppm are present. Boulder conglomerate outcrops to the north and probably in steep slopes to the northeast above this sample. This area is also roughly on trend to the southeast from the quartz-carbonate vein which outcrops at 8+50S 2+92E.

Numerous contiguous anomalous (greater than 107 ppm arsenic) samples are present on the slopes southwest of Punch Bowl Lake. This area is an extension of the 1987 arsenic anomaly eastward from the trench area at 3+50S 0+50W. Besides the northwest-trending quartz-arsenopyrite vein in the trench area, east-west trending veins with associated fault zones near lines 2+00S and 3+00S may also be contributing to the arsenic values downslope toward the east and northeast. A more speculative source for the arsenic could be a north-trenching vein-fault which lies west of Punch Bowl Lake and east of (below) the lowest outcrops near 3+00S 3+00E. A southern projection of this speculative fault zone would pass through the snow-covered saddle near 6+00S 4+00E where anomalous gold is present in soils and rocks.

One hundred ppm As is present at 7+00S 6+50E. Downslope toward the north 160 and 110 ppm As are encountered on lines 6+00S and 5+00S, respectively. Argillite and locally silicified and pyritic metasediments are present in the upper slopes of this anomaly.

CONCLUSIONS

Hand-trenching at 3+50S 10+50W has delineated a quartz-arsenopyrite vein which is at least 25 m long and averages approximately 0.3 m wide. The vein carries 80 to 285 ppb gold. Appreciable silver is also expected, as determined from previous sampling of the vein. Extension of the vein to the northwest is limited to possibly 10 metres. Toward the southeast the vein pinches to less than 1 cm adjacent to a snow-filled depression which halted excavations. This depression is expected to be underlain by an east-west fault as seen in gullies to the east. Therefore, a potential for additional mineralization does exist near surface.

Snow also hindered detailed soil sampling at 6+00S 4+00E where the 1987 programme had detected 830 ppb Au. However, a chip sample of outcrops on the east bank of the saddle at 6+00S 4+20E did return 300 ppb Au and 450 ppm As from pyritic and locally brecciated sedimentary rock. It is speculated that a major north-south fault structure underlies the saddle at 6+00S 4+00E; hence, there is a potential for additional gold mineralization in this area.

A broad area, nearly 300 m by 300 m, of anomalous gold in soils is present in the south-central part of the grid area. Seven soil samples contained values between 15 and 30 ppb Au. A value of 770 ppm As was returned from soil 100 m southeast of this anomaly in an area of boulder conglomerate outcrops.

A strong arsenic anomaly southwest of Punch Bowl Lake has been further defined during the 1988 exploration programme. Source of the arsenic (and weak gold values) may emanate from (1) the quartz arsenopyrite vein in the trench area near 3+50S 0+50W, (2) east-west quartz-carbonate veins and fault zones in the gullies above the lake, (3) a north-south mineralized fault which may underlie the talus slopes west of the lake, or (4) a combination of the above.

Mapping in the eastern part of the grid area has shown the presence of additional boulder conglomerate of the Dewdney Creek Group. Extensive thickness of volcanics caps the higher peaks in this area. They may belong to the Tertiary Coquihalla Volcanic Complex.

RECOMMENDATIONS

The saddle area near 6+00S 4+00E needs careful examination and sampling, including hand-trenching late in the season when all snow has melted. A fault or other fracture controlling mineralization which can explain the high gold value from rock at 6+00S 4+20E should be considered.

At least one more trench should be excavated along the southeast projection of the quartz-arsenopyrite vein at 3+50S 0+50W. This will also have to be accomplished late in the season when most snow has melted.

Geological mapping and fill-in soil geochemical sampling should be undertaken in anomalous areas in the south-central part of the grid between 0+00 and 3+00E on lines 9+00S, 10+00S and 11+00S. Similar investigation should be made east of the 770 ppm As anomaly at 11+00S 4+00E. This area is very steep and will require caution.

Exploration including soil geochemical sampling and geological mapping should continue on the remainder of the property. First priority may include the area adjacent to the pyritic "porphyry-type" mineralization in the north part of the claims. Also, in this area, heavy-metal pan concentrate sampling of Punch Bowl Creek and its tributaries at 50 m intervals may detect placer gold. Subsequently, a source area may be delineated.

COST ESTIMATE

Phase 1 has been completed and is documented by this current report.

Phase 2

Detailed soil and rock geochemical survey with geological mapping in areas detected in Phase 1; continued soil geochemistry and geological mapping in remainder of claim group, including heavy-metal pan concentrate sampling.

Geological mapping and rock geochemical sampling	\$10,000	
Detailed soil sampling and hand-trenching	4,000	
Geochemical analyses and assays	10,000	
Camp, food, supplies	4,000	
Helicopter and transportation	4,000	
Engineering and supervision	5,000	
Reporting	<u>4,000</u>	
	41,000	
Contingencies at 10%	<u>4,100</u>	
Total, Phase 2	45,100	\$45,100

Phase 3

Geological and geochemical
follow-up plus diamond drilling,
allow

\$125,000

125,000

Phase 4

Continued diamond drilling,
allow

\$200,000

200,000

Total, Phases 2, 3, and 4

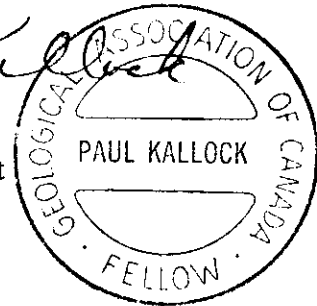
\$370,100

Results of each Phase should be compiled into an engineering report; continuance to the subsequent Phase should be contingent upon favourable conclusions and recommendations from an Engineer.

Respectfully submitted,



Paul Kallock
Consulting Geologist



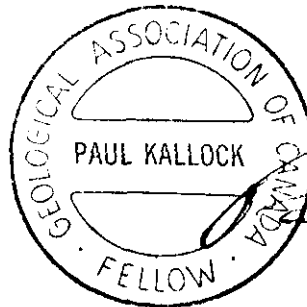
Vancouver, B.C.
August 22, 1988

GEOLOGIST'S CERTIFICATE
PAUL KALLOCK

I, Paul Kallock, do state: that I am a Geologist with Arctex Engineering Services, 301 - 1855 Balsam Street, Vancouver, B.C.

I Further State That:

1. I have a B.Sc. degree in Geology from Washington State University, 1970. I am a Fellow of the Geological Association of Canada.
2. I have engaged in mineral exploration since 1970, both for major mining and exploration companies and as an independent geologist.
3. I have authored the report entitled, "Detailed Geology and Geochemistry, Punch West, Punch East, KCM West and KCM East Mineral Claims, Snass Creek, B.C., Similkameen & New Westminster Mining Division, B.C." The report is based on my fieldwork carried out on the property and on previously accumulated geologic data.
4. I have no direct or indirect interest in any manner in either the property or securities of Locke Rich Minerals Ltd., or its affiliates, nor do I anticipate to receive any such interest.
5. I consent to the use of this report in a prospectus, or in a statement of material facts related to the raising of funds. Sheets of analyses in the Appendix could be omitted from a prospectus because all values are plotted on maps.



Paul Kallock
Geologist

Vancouver, B.C.

August 22, 1988

REFERENCES

- Kallock, P. 1987. Geological and geochemical investigation, Punch West, Punch East, KCM West and KCM East mineral claims, Similkameen and New Westminster Mining Divisions. Report for Merritt Minerals Inc.
- Ray, G.E. 1986. The Hozameen fault system and related Coquihalla serpentine belt of southwestern B.C. *Can. J. Earth Sci.* 23: 1022-1041.
- Roddick, J.A., Muller, J.E. and Okulitch, A.V. 1979. Fraser River Sheet 92 Geology Map 1386A. G.S.C.
- Wright, R.L., Nagel, J., and McTaggart, K.C. 1982. Alpine ultramafic rocks of southwestern B.C. *Can. J. Earth Sci.* 19: 1156-1173.

COST STATEMENT, 1988 PROGRAMME

Wages

L.B. Goldsmith, July 3, 4, 1/2 5, 1/4 14, 3/4 15, 21, total 4-1/2 days at \$400/day	\$ 1,800.00	
Services - P. Kallock, July 5-13, 19-22, total 13 days at \$330/day	4,290.00	
Services - A. Charest, July 4-13, total 10 days at \$230/day	2,300.00	
Services - G. Dion, July 5-13, total 9 days at \$230/day	<u>2,070.00</u>	
	<u>10,460.00</u>	\$10,460.00

Accommodation, Meals

\$1,157.78 divided by 36.5 man days = \$31.72/man/day		1,157.78
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Transportation

Helicopter	1,340.30	
607 km at \$.30/km	182.10	
Gas	<u>60.00</u>	
	<u>1,582.40</u>	1,582.40

Analyses

328 samples cost = \$12.43/sample	4,075.50	4,075.50
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Report

Drafting, photocopying, prints, word processing, materials	1,390.27	<u>1,390.27</u>
	Total	\$18,665.95

APPENDIX



Chemex Labs Inc.

Analytical Chemists * Geochemists * Registered Assayers
994 WEST GLENDALE AVE., SUITE 7, SPARKS,
NEVADA, U.S.A. 89431
PHONE (702) 356-3395

To: ARCTEX ENGINEERING SERVICES

2390 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

A8819001

Comments: CC: PAUL KALLOCK CC: C.M. IZZARD

CERTIFICATE A8819001

ARCTEX ENGINEERING SERVICES
PROJECT : PUNCH BOWL
P.O.# : NONE

Samples submitted to our lab in Vancouver, BC.
This report was printed on 25-JUL-88.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	15	Rock Geochem: Crush, split, ring

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
100	15	Au ppb: Fuse 10 g sample	FA-AAS	5	10000
13	15	As ppm: HNO ₃ -aqua regia digest	AAS-HYDRIDE/EDL	1	10000

COPY



Chemex Labs Inc.

Analytical Chemists * Geochemists * Registered Assayers
 994 WEST GLENDALE AVE., SUITE 7, SPARKS,
 NEVADA, U.S.A. 89431
 PHONE (702) 356-5395

To: ARCTEX ENGINEERING SERVICES

2390 - 1055 W. HASTINGS ST.
 VANCOUVER, B.C.
 V6E 2E9

Project: PUNCH BOWL
 Comments: CC: PAUL KALLOCK CC: C.M. IZZARD

Page No. : 1
 Tot. Pages: 1
 Date : 25-JUL-88
 Invoice # : I-8819001
 P.O. # : NONE

CERTIFICATE OF ANALYSIS A8819001

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	As ppm						
2+00S 1+90E	205 ---	< 5	23						
2+00S 2+00E	205 ---	< 5	39						
3+28S 0+58W	205 ---	80	1300						
3+34S 0+55W	205 ---	95	7500						
3+39S 0+52W	205 ---	200	>10000						
3+44S 0+49W	205 ---	285	2100						
3+48S 0+47W	205 ---	265	5000						
3+50S 3+00E	205 ---	10	70						
6+00S 4+20E	205 ---	300	450						
6+90S 7+00E	205 ---	10	53						
7+05S 7+50E	205 ---	< 5	16						
7+35S 4+50E	205 ---	< 5	27						
7+55S 4+50E	205 ---	< 5	10						
8+00S 16+25E	205 ---	< 5	17						
8+50S 2+92E	205 ---	< 5	12						

COPY

CERTIFICATION :

Shank Vankh



Chemex Labs Inc.

Analytical Chemists * Geochemists * Registered Assayers
994 WEST GLENDALE AVE., SUITE 7, SPARKS,
NEVADA, U.S.A. 89431
PHONE (702) 356-5395

To: ARCTEX ENGINEERING SERVICES

2390 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

A8818999

Comments: CC: PAUL KALLOCK CC: C.M. IZZARD

CERTIFICATE A8818999

ARCTEX ENGINEERING SERVICES
PROJECT : PUNCH BOWL
P.O.# : NONE

Samples submitted to our lab in Vancouver, BC.
This report was printed on 25-JUL-88.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	185	Dry, sieve -80 mesh; soil, sed.
203	6	Dry, sieve -35 mesh and ring
217	4	Geochem: Ring only, no crush/split

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
100	195	Au ppb: Fuse 10 g sample	FA-AAS	5	10000
13	195	As ppm: HNO ₃ -aqua regia digest	AAS-HYDRIDE/EDL	1	10000

COPY



Chemex Labs Inc.

Analytical Chemists * Geochemists * Registered Assayers
994 WEST GLENDALE AVE., SUITE 7, SPARKS,
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PHONE (702) 356-5395

To: ARCTEX ENGINEERING SERVICES

2390 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

Project: PUNCH BOWL

Comments: CC: PAUL KALLOCK CC: C M IZZARD

Page No. : 1
Tot. Pages: 5
Date : 25-JUL-88
Invoice #: I-8818999
P.O. #: NONE

CERTIFICATE OF ANALYSIS A8818999

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	As ppm						
1+00N 3+50E	201	--	10	25					
1+00N 4+00E	201	---	10	19					
1+00N 4+50E	201	---	5	22					
1+00N 5+00E	201	---	5	15					
1+00N 5+50E	201	---	5	29					
1+00N 6+00E	201	---	5	22					
1+00N 6+50E	201	---	5	23					
1+00N 7+00E	201	---	5	36					
1+00N 7+50E	201	---	5	20					
1+00N 8+00E	201	---	5	9					
1+00N 8+50E	201	---	10	24					
1+00N 9+00E	201	---	5	9					
1+00N 9+50E	201	---	5	10					
1+00N 10+00E	201	---	10	14					
1+00N 10+50E	201	---	5	33					
1+00N 11+00E	201	---	5	20					
1+00N 11+50E	201	---	5	38					
1+00N 12+00E	201	---	5	63					
1+00N 12+50E	201	---	5	46					
1+00N 13+00E	201	---	5	55					
1+00N 13+50E	201	---	5	17					
1+00N 14+00E	201	---	5	19					
1+00N 14+50E	201	---	10	29					
1+00N 15+00E	201	---	5	10					
1+00N 15+50E	201	---	5	16					
1+00N 16+00E	201	---	5	16					
1+00N 16+50E	201	---	5	27					
0+00N 0+50E	201	---	5	16					
0+00N 1+00E	201	---	5	11					
0+00N 1+50E	201	---	5	17					
0+00N 2+00E	201	---	10	27					
0+00N 2+50E	201	---	5	22					
0+00N 3+00E	217	---	5	10					
0+00N 3+50E	201	---	5	36					
0+00N 4+00E	201	---	5	33					
0+00N 4+50E	201	---	5	23					
0+00N 5+00E	201	---	5	11					
0+00N 5+50E	201	---	5	14					
0+00N 6+00E	201	---	5	12					
0+00N 6+50E	201	---	5	5					

COPY

CERTIFICATION :

Frank Vank



Chemex Labs Inc.

Analytical Chemists * Geochemists * Registered Assayers
994 WEST GLENDALE AVE., SUITE 7, SPARKS,
NEVADA, U.S.A. 89431
PHONE (702) 356-5395

To: ARCTEX ENGINEERING SERVICES

2390 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

Project: PUNCH BOWL

Comments: CC: PAUL KALLOCK CC: C.M. IZZARD

Page No. : 2
Tot. Pages: 5
Date : 25-JUL-88
Invoice # : I-8818999
P.O. # : NONE

CERTIFICATE OF ANALYSIS A8818999

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	As ppm																		
0+00N 7+00E	201	--	< 5	51																	
0+00N 7+50E	201	--	1 5	17																	
0+00N 8+00E	201	--	< 5	23																	
0+00N 8+50E	201	--	< 5	27																	
0+00N 9+00E	201	--	< 5	12																	
0+00N 9+50E	201	--	< 5	14																	
0+00N 10+00E	201	--	< 5	15																	
0+00N 10+50E	201	--	< 5	25																	
0+00N 11+00E	201	--	< 5	22																	
0+00N 11+50E	201	--	< 5	39																	
1+00S 1+00E	201	--	< 5	10																	
1+00S 1+50E	201	--	< 5	11																	
1+00S 2+00E	201	--	< 5	11																	
1+00S 2+50E	201	--	< 5	53																	
1+00S 3+00E	201	--	< 5	22																	
1+00S 3+50E	201	--	< 5	22																	
1+00S 4+00E	217	--	< 5	14																	
1+00S 4+50E	201	--	< 5	15																	
1+00S 5+00E	217	--	< 5	32																	
1+00S 5+50E	201	--	< 5	25																	
1+00S 7+75E	201	--	< 5	14																	
1+00S 8+00E	201	--	< 5	15																	
1+00S 8+50E	201	--	< 5	10																	
1+00S 9+00E	201	--	< 5	14																	
1+00S 9+50E	201	--	< 5	16																	
1+00S 10+00E	201	--	< 5	12																	
1+00S 10+50E	201	--	< 5	17																	
1+00S 11+00E	201	--	< 5	6																	
1+00S 11+50E	201	--	< 5	12																	
1+00S 12+00E	201	--	< 5	19																	
1+00S 12+50E	201	--	< 5	6																	
1+00S 13+00E	201	--	< 5	17																	
1+00S 13+50E	201	--	< 5	17																	
1+00S 14+00E	201	--	< 5	11																	
1+00S 14+50E	201	--	< 5	20																	
2+00S 0+50E	201	--	< 5	12																	
2+00S 1+00E	201	--	< 5	11																	
2+00S 1+50E	201	--	< 5	15																	
2+00S 3+50E	201	--	< 5	51																	
2+00S 4+00E	203	--	1 5	210																	

COPY

CERTIFICATION : *John Vink*



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 NEVADA, U.S.A. 89431
 PHONE (702) 356-5395

To: ARCTEX ENGINEERING SERVICES

2390 - 1055 W. HASTINGS ST.
 VANCOUVER, B.C.
 V6E 2E9

Project: PUNCH BOWL
 Comments: CC: PAUL KALLOCK CC: C.M. IZZARD

Page No. : 3
 Tot. Pages: 5
 Date : 25-JUL-88
 Invoice # : I-8818999
 P.O. # : NONE

CERTIFICATE OF ANALYSIS A8818999

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	As ppm						
2+00S 4+50E	201	---	5	63					
2+00S 5+00E	201	---	5	100					
2+00S 5+50E	201	---	5	100					
2+00S 6+00E	201	---	5	350					
2+00S 6+50E	201	---	5	39					
2+00S 7+00E	201	---	5	11					
2+00S 7+50E	201	---	5	22					
2+00S 8+00E	201	---	5	20					
2+00S 8+50E	201	---	5	19					
2+00S 9+00E	201	---	5	10					
2+00S 9+50E	201	---	5	4					
2+00S 10+00E	201	---	5	7					
2+00S 10+50E	201	---	5	23					
2+00S 11+00E	201	---	5	17					
2+00S 11+50E	201	---	5	20					
2+00S 12+00E	201	---	5	22					
2+00S 12+50E	201	---	5	10					
2+00S 13+00E	201	---	5	20					
2+00S 13+50E	201	---	5	160					
2+00S 14+00E	201	---	5	43					
2+00S 14+50E	201	---	5	15					
2+00S 15+00E	201	---	5	10					
3+00S 2+50E	201	---	5	59					
3+00S 3+00E	201	---	5	53					
3+00S 3+50E	201	---	5	61					
3+00S 4+00E	201	---	5	410					
3+00S 4+50E	201	---	5	570					
3+00S 5+00E	201	---	5	60					
3+00S 5+50E	201	---	5	160					
3+00S 6+00E	201	---	5	48					
3+00S 6+50E	201	---	5	17					
3+00S 7+00E	201	---	5	20					
3+00S 7+50E	201	---	5	16					
3+00S 8+00E	201	---	5	9					
3+00S 8+50E	201	---	5	15					
3+00S 9+00E	201	---	5	5					
3+00S 9+50E	201	---	5	12					
3+00S 10+00E	201	---	5	10					
3+00S 10+50E	201	---	5	9					
3+00S 11+00E	201	---	5	9					

COPY

CERTIFICATION : *Theresa Voth*



Chemex Labs Inc.

Analytical Chemists * Geochemists * Registered Assayers
994 WEST GLENDALE AVE., SUITE 7, SPARKS,
NEVADA, U.S.A. 89431
PHONE (702) 356-5395

To: ARCTEX ENGINEERING SERVICES

2390 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

Project: PUNCH BOWL

Comments: CC: PAUL KALLOCK CC: C.M. IZZARD

Page No. : 4
Tot. Pages: 5
Date : 25-JUL-88
Invoice #: I-8818999
P.O. #: NONE

CERTIFICATE OF ANALYSIS A8818999

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	As ppm																	
3+00S 11+50E	201	---	5	12																
3+00S 12+00E	201	---	5	5																
3+00S 12+50E	201	---	5	5																
3+00S 13+00E	203	---	5	12																
3+00S 13+50E	201	---	5	41																
4+00S 4+50E	203	---	5	190																
4+00S 5+00E	201	---	20	150																
4+00S 5+50E	201	---	5	16																
4+00S 7+00E	201	---	5	19																
4+00S 7+50E	201	---	5	10																
4+00S 8+00E	201	---	5	25																
4+00S 8+50E	201	---	5	19																
4+00S 9+00E	201	---	40	16																
4+00S 9+50E	201	---	5	14																
4+00S 10+00E	201	---	5	11																
4+00S 10+50E	201	---	5	11																
4+00S 11+00E	201	---	5	7																
4+00S 11+50E	201	---	5	9																
4+00S 12+00E	201	---	5	9																
4+00S 12+50E	201	---	5	4																
4+00S 13+00E	201	---	5	15																
4+00S 13+50E	201	---	5	16																
4+75S 19+25E	201	---	10	20																
5+00S 4+50E	201	---	5	38																
5+00S 5+00E	201	---	5	50																
5+00S 5+50E	201	---	5	16																
5+00S 6+00E	201	---	5	15																
5+00S 6+50E	201	---	5	43																
5+00S 7+00E	201	---	15	110																
5+00S 7+50E	201	---	20	20																
5+00S 8+50E	203	---	5	24																
5+00S 10+00E	217	---	5	6																
5+00S 11+00E	201	---	5	23																
5+00S 11+50E	201	---	5	14																
5+00S 13+50E	203	---	5	14																
5+00S 14+00E	201	---	10	19																
5+00S 15+00E	201	---	5	11																
5+00S 15+50E	201	---	35	10																
5+00S 16+00E	201	---	5	7																
5+00S 16+50E	201	---	5	10																

COPY

CERTIFICATION: *John Vank*



Chemex Labs Inc.

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NEVADA, U.S.A. 89431
PHONE (702) 356-5395

To: ARCTEX ENGINEERING SERVICES

2390 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

Project: PUNCH BOWL
Comments: CC: PAUL KALLOCK CC: C.M. IZZARD

Page No. : 5
Tot. Pages: 5
Date : 25-JUL-88
Invoice # : 1-8818999
P.O. # : NONE

CERTIFICATE OF ANALYSIS A8818999

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	As ppm						
5+00S 17+50E	201	--	^ 5	10					
5+00S 18+00E	201	--	^ 5	9					
5+00S 18+50E	201	--	^ 5	6					
5+00S 19+50E	201	--	^ 5	14					
5+00S 20+00E	201	--	^ 5	4					
5+00S 20+50E	201	--	^ 5	3					
5+00S 21+00E	201	--	^ 5	12					
5+00S 21+50E	201	--	^ 5	7					
5+00S 21+75E	201	--	^ 5	5					
6+00S 3+75E	201	--	^ 5	67					
6+00S 4+25E	201	--	^ 5	71					
6+00S 4+50E	201	--	^ 5	20					
6+00S 4+75E	201	--	^ 5	32					
6+00S 5+00E	201	--	^ 5	38					
6+00S 5+35E	201	--	^ 5	9					
6+00S 6+00E	201	--	^ 5	33					
6+00S 6+50E	201	--	^ 5	160					
6+00S 8+35E	201	--	^ 5	36					
6+00S 8+50E	201	--	^ 5	45					
6+00S 9+00E	203	--	^ 5	80					
6+00S 9+50E	201	--	^ 5	41					
6+00S 10+00E	201	--	^ 5	36					
6+00S 10+50E	201	--	^ 5	39					
6+00S 14+50E	201	--	^ 5	36					
6+00S 15+00E	201	--	^ 5	6					
6+00S 15+50E	201	--	^ 5	5					
6+00S 16+00E	201	--	^ 5	7					
6+00S 16+50E	201	--	^ 5	7					
6+00S 17+00E	201	--	^ 5	10					
6+00S 17+50E	201	--	^ 5	5					
6+00S 18+00E	201	--	^ 5	6					
6+00S 18+50E	201	--	^ 5	20					
6+00S 19+00E	201	--	^ 5	19					
6+00S 20+00E	201	--	^ 5	7					
6+00S 20+50E	201	--	^ 5	16					

COPY

CERTIFICATION : *Frank Vmbr*



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NEVADA, U.S.A. 89431
PHONE (702) 356-5395

To: ARCTEX ENGINEERING SERVICES

2390 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

A8819000

Comments: CC: PAUL KALLOCK CC: C.M. IZZARD

CERTIFICATE A8819000

ARCTEX ENGINEERING SERVICES

PROJECT : PUNCH BOWL

P O # : NONE

Samples submitted to our lab in Vancouver, BC.
This report was printed on 22-JUL-88.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	118	Dry, sieve -80 mesh; soil, sed.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
100	118	Au ppb: Fuse 10 g sample	FA-AAS	5	10000
13	118	As ppm: HNO ₃ -aqua regia digest	AAS-HYDRIDE/EDL	1	10000



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To: ARCTEX ENGINEERING SERVICES

2390 - 1055 W. HASTINGS ST.
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Page No. : 1
Tot. Pages: 3
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Invoice #: I-8819000
P.O. #: NONE

CERTIFICATE OF ANALYSIS A8819000

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	As ppm																
7+00S 4+50E	201	---	^	5	60														
7+00S 5+00E	201	---	^	5	35														
7+00S 5+50E	201	---	^	5	70														
7+00S 6+00E	201	---	^	5	60														
7+00S 6+50E	201	---	^	5	100														
7+00S 7+00E	201	---	^	5	45														
7+00S 8+00E	201	---	^	5	29														
7+00S 8+50E	201	---	^	5	32														
7+00S 9+00E	201	---	^	5	43														
7+00S 10+00E	201	---	^	5	50														
7+00S 10+50E	201	---	^	5	38														
7+00S 11+00E	201	---	^	5	39														
7+00S 11+50E	201	---	^	5	24														
7+00S 14+50E	201	---	^	5	22														
7+00S 14+90E	201	---	^	5	14														
7+00S 16+50E	201	---	^	5	11														
7+00S 17+00E	201	---	^	5	9														
7+00S 17+50E	201	---	^	5	4														
7+00S 18+00E	201	---	^	5	16														
7+00S 19+50E	201	---	^	5	10														
7+00S 20+00E	201	---	^	5	5														
7+00S 20+50E	201	---	^	5	4														
7+00S 21+00E	201	---	^	5	5														
7+00S 21+50E	201	---	^	5	9														
7+50S 25+50E	201	---	^	5	9														
8+00S 4+50E	201	---	^	5	25														
8+00S 5+00E	201	---	10	5	36														
8+00S 5+50E	201	---	^	5	23														
8+00S 6+00E	201	---	^	5	20														
8+00S 6+50E	201	---	^	5	20														
8+00S 7+00E	201	---	^	5	60														
8+00S 7+50E	201	---	^	5	140														
8+00S 13+50E	201	---	^	5	70														
8+00S 14+00E	201	---	^	5	130														
8+00S 16+00E	201	---	^	5	120														
8+00S 16+25E	201	---	^	5	41														
8+00S 17+00E	201	---	^	5	15														
8+00S 18+00E	201	---	^	5	16														
8+00S 20+75E	201	---	10	5	25														
8+00S 21+00E	201	---	^	5	17														

CERTIFICATION : *John V...*



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Page No.: 2
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 P.O. #: NONE

CERTIFICATE OF ANALYSIS A8819000

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	As ppm										
8+00S 21+50E	201	---	5	11									
8+00S 21+75E	201	---	5	5									
8+00S 23+00E	201	---	5	9									
8+00S 23+50E	201	---	5	20									
8+00S 24+00E	201	---	5	22									
9+00S 0+50E	201	---	30	11									
9+00S 1+00E	201	---	5	17									
9+00S 1+50E	201	---	5	25									
9+00S 2+00E	201	---	25	11									
9+00S 2+50E	201	---	10	100									
9+00S 3+00E	201	---	5	29									
9+00S 0+00	201	---	10	35									
9+00S 0+50W	201	---	5	16									
9+00S 1+00W	201	---	5	9									
9+00S 1+50W	201	---	5	10									
9+00S 2+00W	201	---	5	14									
9+00S 2+50W	201	---	5	9									
9+00S 3+00W	201	---	5	6									
9+00S 3+50W	201	---	5	5									
9+00S 4+00W	201	---	5	6									
10+00S 0+50E	201	---	15	16									
10+00S 1+00E	201	---	20	23									
10+00S 1+50E	201	---	10	9									
10+00S 2+00E	201	---	25	29									
10+00S 2+50E	201	---	15	36									
10+00S 3+00E	201	---	15	32									
10+00S 0+00	201	---	30	59									
10+00S 0+50W	201	---	5	69									
10+00S 1+00W	201	---	15	7									
10+00S 1+50W	201	---	5	9									
10+00S 2+00W	201	---	5	6									
10+00S 2+50W	201	---	20	5									
10+00S 3+00W	201	---	35	19									
10+00S 3+50W	201	---	5	5									
10+00S 4+00W	201	---	5	5									
10+00S 4+50W	201	---	10	3									
10+00S 5+00W	201	---	5	3									
11+00S 0+50E	201	---	10	16									
11+00S 1+00E	201	---	5	15									
11+00S 1+50E	201	---	30	39									

CERTIFICATION :

Thush Vank



Chemex Labs Inc.

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To: ARCTEX ENGINEERING SERVICES

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Page No. : 3
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 Invoice # : I-8819000
 P.O. # : NONE

CERTIFICATE OF ANALYSIS A8819000

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	As ppm						
11+00S 2+00E	201	---	5	36					
11+00S 2+50E	201	---	5	11					
11+00S 3+00E	201	---	5	14					
11+00S 3+50E	201	---	5	53					
11+00S 4+00E	201	---	10	770					
11+00S 0+00	201	---	5	16					
11+00S 0+50W	201	---	5	10					
11+00S 1+00W	201	---	5	23					
11+00S 1+50W	201	---	5	7					
11+00S 2+00W	201	---	5	10					
11+00S 2+50W	201	---	5	9					
11+00S 3+00W	201	---	5	9					
11+00S 3+50W	201	---	5	7					
11+00S 4+00W	201	---	5	6					
11+00S 4+50W	201	---	5	6					
11+00S 5+00W	201	---	5	7					
11+00S 5+50W	201	---	5	11					
11+00S 6+00W	201	---	5	4					
12+00S 0+50E	201	---	5	38					
12+00S 1+00E	201	---	5	50					
12+00S 1+50E	201	---	10	120					
12+00S 2+00E	201	---	5	27					
12+00S 2+50E	201	---	5	29					
12+00S 3+00E	201	---	5	41					
12+00S 3+50E	201	---	10	10					
12+00S 0+00	201	---	10	41					
12+00S 0+50W	201	---	5	10					
12+00S 1+00W	201	---	5	19					
12+00S 1+50W	201	---	5	11					
12+00S 2+00W	201	---	5	12					
12+00S 2+50W	201	---	5	15					
12+00S 3+00W	201	---	5	11					
12+00S 3+50W	201	---	5	12					
12+00S 4+00W	201	---	5	10					
12+00S 4+50W	201	---	5	7					
12+00S 5+00W	201	---	5	10					
12+00S 5+50W	201	---	5	11					
12+00S 6+00W	201	---	5	7					

CERTIFICATION : *John Vonk*

ROCK SAMPLE DESCRIPTIONS

		<i>Au,</i> <i>ppb</i>	<i>As,</i> <i>ppm</i>
8+50S 2+92E	1.0 chip sample of orange iron oxide-stained quartz-carbonate vein with traces of fine disseminated pyrite.	<5	12
8+00S 16+25E	Chips of six moraine cobbles of float of black pyritic argillite and grey siliceous sandstone, each with 1-3% pyrite.	<5	17
7+55S 4+50E	Chips of float cobbles of light grey moderate argillic and siliceous altered sandstone with	<5	10
7+35S 4+50E	0.35 m chip sample across N70°E65°N calcite, siderite, limonite vein hosted in weakly brecciated and silicified coarse sandstone or pebble conglomerate.	<5	27
7+05S 7+50E	Grab sample of outcrop of very siliceous and fine grained light grey metasediment with numerous hairline quartz veinlets and pyrite.	<5	16
6+90S 7+00E	Chip across 1.0 m of outcrop of fine-grained moderately siliceous metasediment with 3% pyrite.	10	53
6+00S 4+20E	Select chip samples of pyritic coarse sandstone and brecciated sandstone from 3 m ² area. Strong yellow limonite on fracture surfaces.	300	450
3+50S 3+00E	0.15 m chip sample across N45°W90°, quartz, calcite, siderite vein, includes 0.05 m clay on south wall, hosted in sandstone and pebble conglomerate near basalt dyke.	10	70
3+48S 0+47W	0.3 m chip sample in trench; includes 2 cm quartz with trace of arsenopyrite, 4 cm of black shale on hangingwall, remainder is broken argillic altered diorite on footwall.	265	5000

		<i>Au,</i> <i>ppb</i>	<i>As,</i> <i>ppm</i>
3+44S 0+49W	0.34 m chip sample in trench; 2 cm soft hematite-clay on hangingwall, remainder is quartz vein with minor carbonate and 1-2% arsenopyrite.	285	2100
3+39S 0+52W	0.30 m chip sample in trench; includes 0.2 m of quartz vein with 2% arsenopyrite, remainder is broken limonite and metasediments in footwall. Hangingwall is diorite.	200	10,000
3+34S 0+55W	0.30 m chip sample in trench; includes 0.25 m of quartz vein with 1-2% arsenopyrite, remainder is argillic altered metasediments.	95	7500
3+28S 0+58W	0.80 m chip sample in trench; vein trends N32°W58°5; from footwall includes 0.10 m argillic altered breccia with brown hematite matrix; 0.60 m broken quartz with weak limonite, no sulphides; 0.10 m soft clay-hematite metasediments in hangingwall.	80	1300
2+00S 2+00E	Grab sample of outcrop of pebble conglomerate or breccia (?), clasts are subangular to 1 cm, bleached white on surface with black carbonaceous (?) matrix, located near north-trending 75° west-dipping fault zone.	<5	39
2+00S 1+90E	0.3 m chip sample across N60°W75°N calcite, limonite, siderite quartz in fault breccia zone.	<5	23

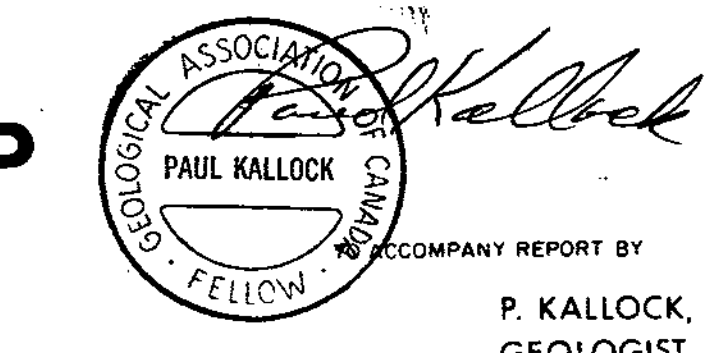
GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,824

LOCKE RICH MINERALS LTD.

Punch Bowl Claim Group N.T.S. 92H / 6E & 7W
SNASS CREEK B.C. SIMILKAMEEN & NEW WESTMINSTER MINING DIVISIONS

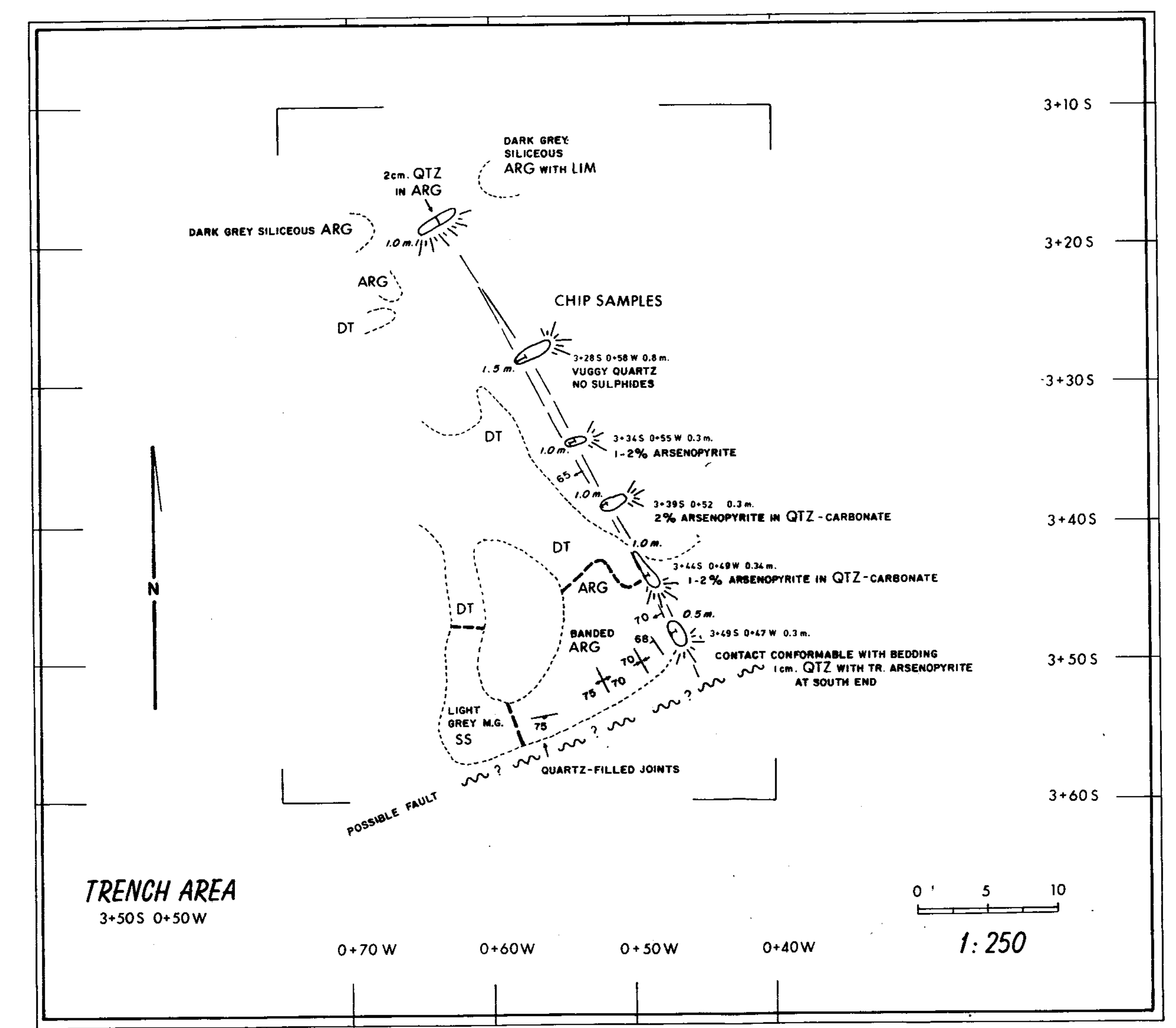
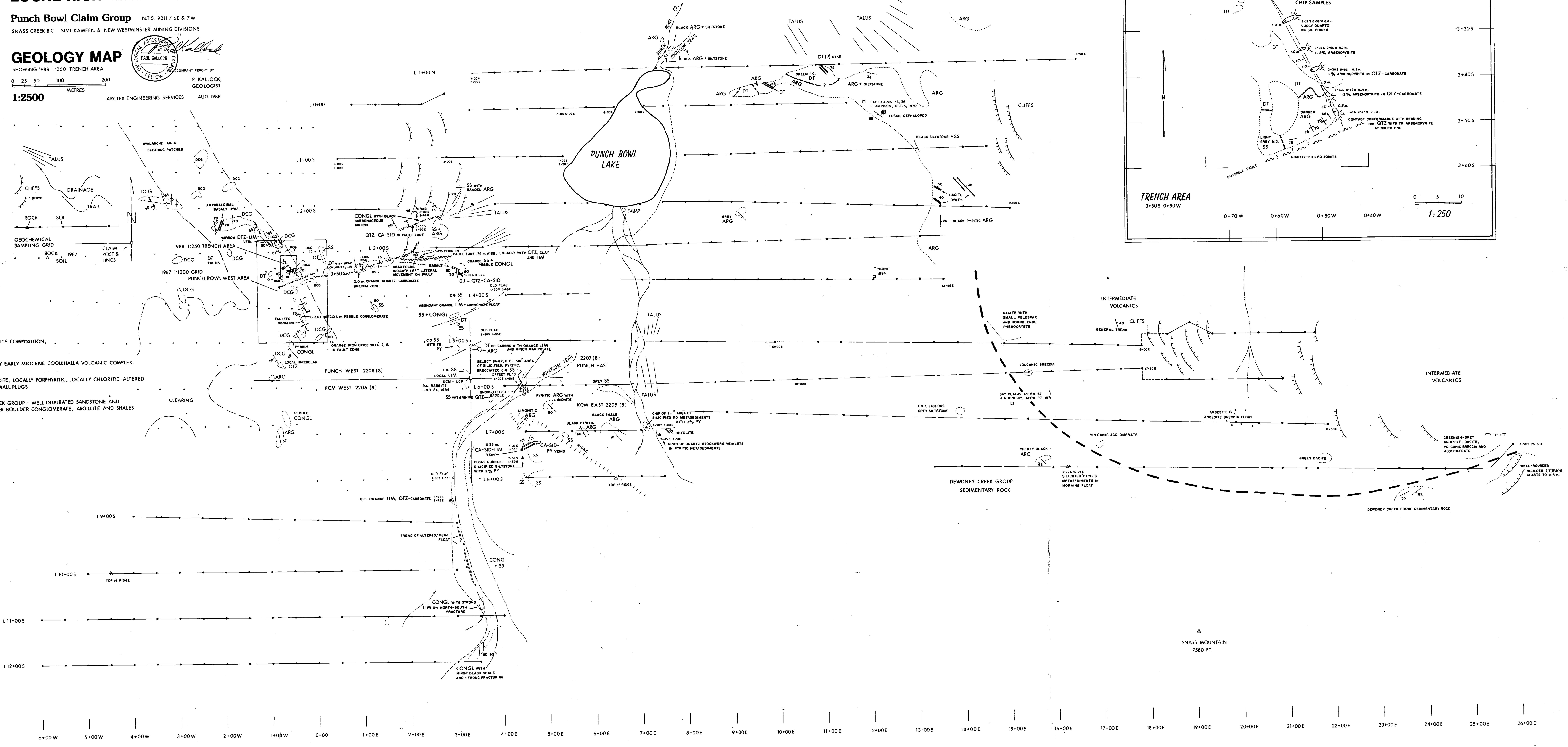
GEOLOGY MAP
SHOWING 1988 1:250 TRENCH AREA
1:2500
ARCTEX ENGINEERING SERVICES
P. KALLOCK, GEOLOGIST
AUG 1988



- GEOLOGICAL CONTACT**
- OUTCROP
 - ATTITUDE OF JOINTING
 - ATTITUDE OF BEDDING
 - SYNCLINE
 - ANTICLINE WITH PLUNGE ANGLE
 - OVERTURNED ANTICLINE
 - TREND + ATTITUDE OF FAULT ZONE
 - ATTITUDE OF VEIN
 - ATTITUDE OF DYKE

- STRATIGRAPHY**
- DYKES OR SILLS OF BASALT TO RHYOLITE COMPOSITION; GRANODIORITE DYKES.
 - INTERMEDIATE VOLCANICS: POSSIBLY EARLY MIOCENE COQUHALLA VOLCANIC COMPLEX.
 - MEDIUM TO COARSE-GRAINED DIORITE, LOCALLY PORPHYRITIC, LOCALLY CHLORITIC-ALTERED. OCCURS AS DYKES, SILLS OR SMALL PLUGS.
 - DCG UPPER JURASSIC (?) DEWDNEY CREEK GROUP: WELL INDURATED SANDSTONE AND PEBBLE CONGLOMERATE; LESSER BOULDER CONGLOMERATE, ARGILLITE AND SHALES.

- ABBREVIATIONS USED**
- ARG ARGILLITE
 - SS SANDSTONE
 - CONG CONGLOMERATE
 - DT DIORITE
 - CA CALCITE
 - SID SIDERITE
 - LIM LIMONITE
 - PY PYRITE
 - FR - MD - CG FINE - MEDIUM - COARSE - GRAINED



GEOLOGICAL BRANCH
ASSESSMENT REPORT

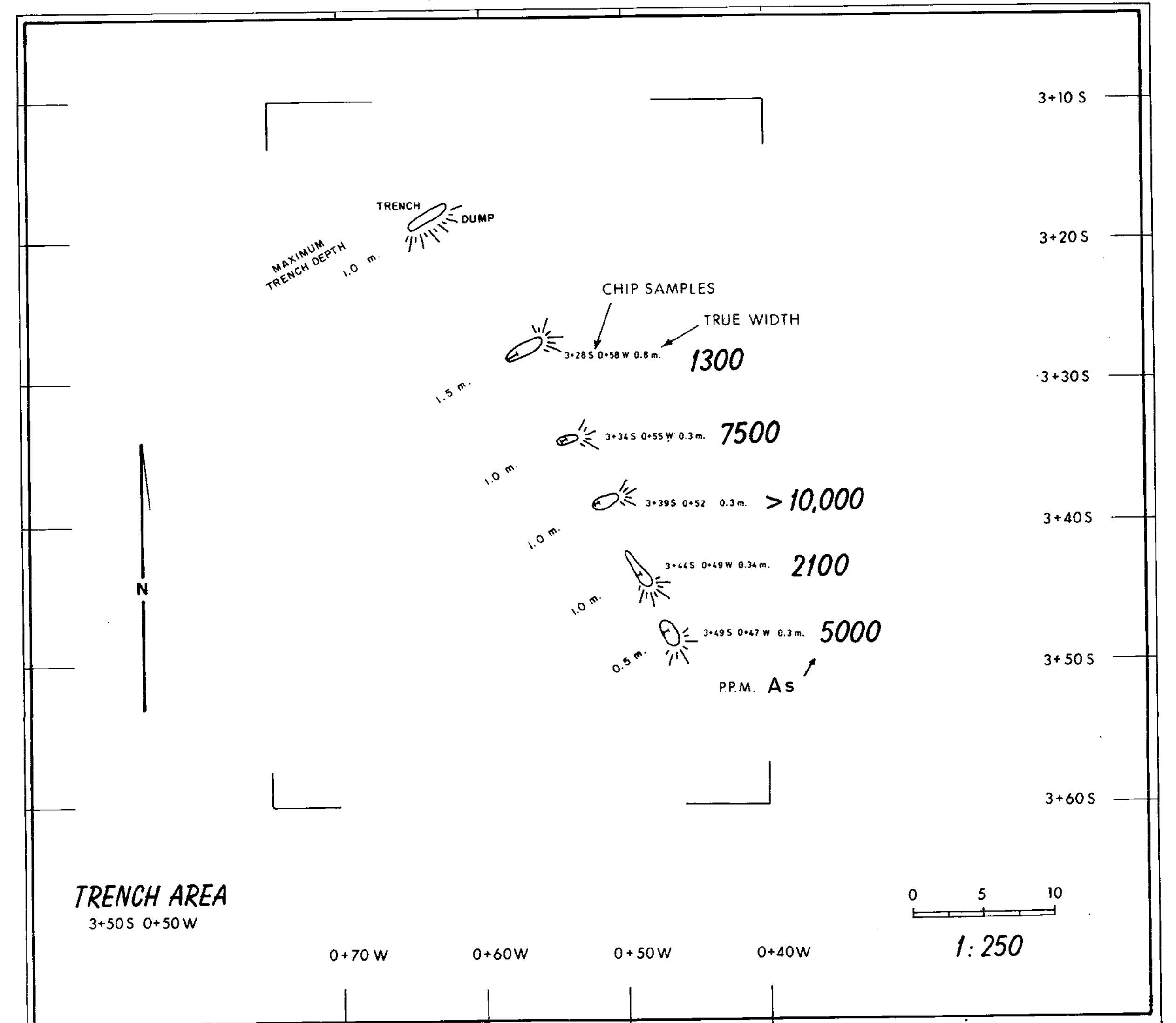
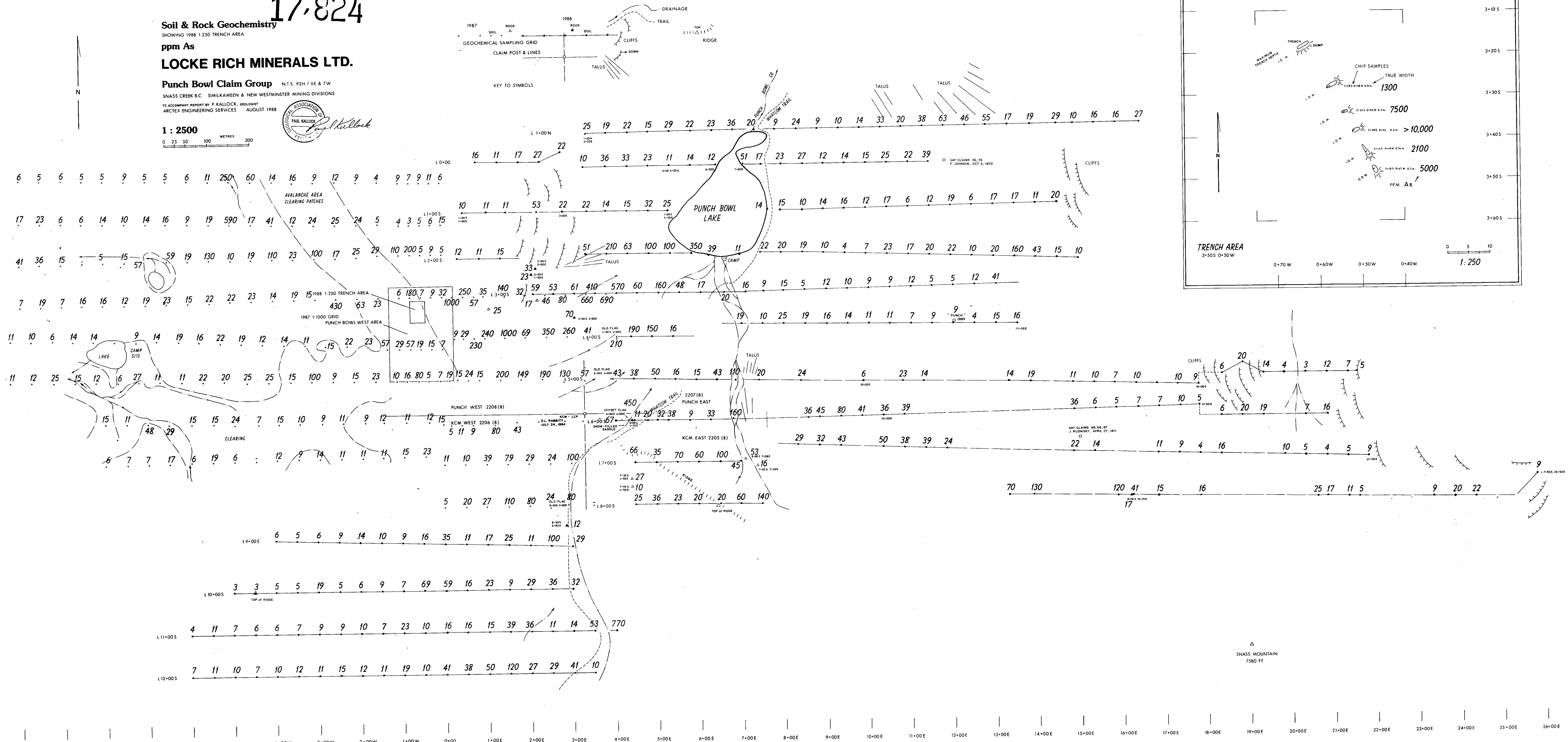
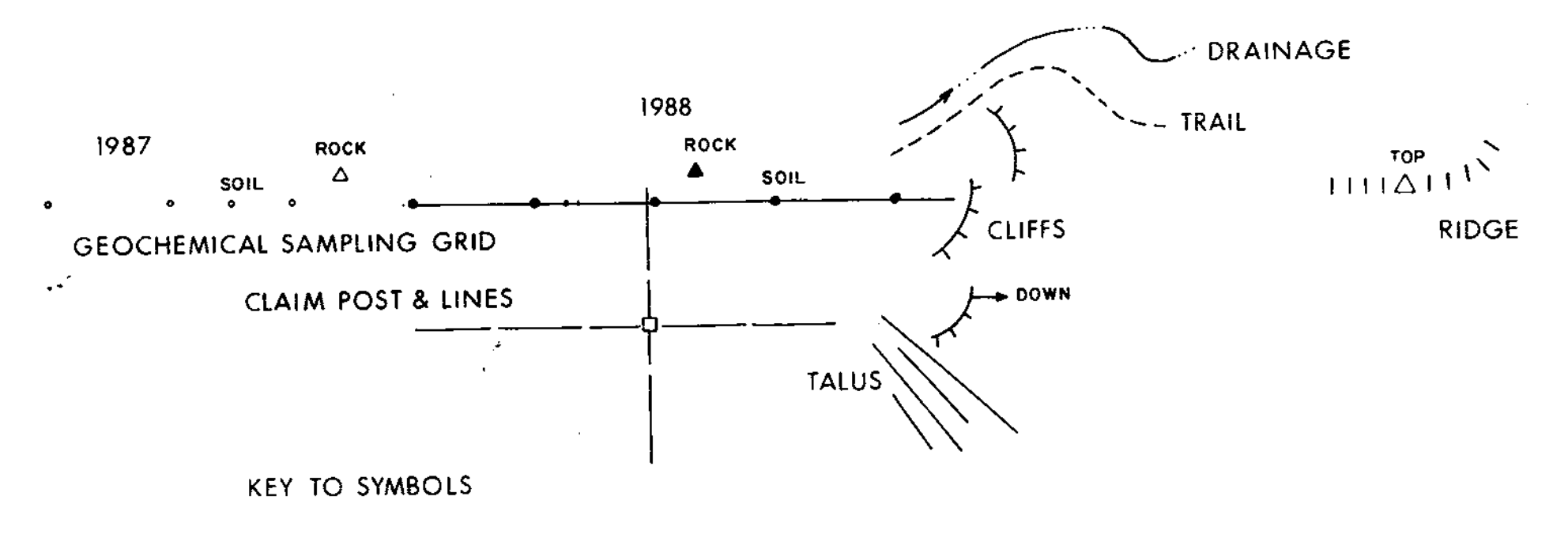
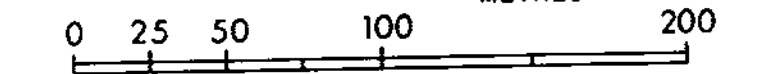
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Soil & Rock Geochemistry
SHOWING 1988 1:250 TRENCH AREA

ppm As
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TO ACCOMPANY REPORT BY P. KALLOCK, GEOLOGIST
ARCTEX ENGINEERING SERVICES AUGUST 1988

1 : 2500



SNASS MOUNTAIN
7580 FT.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

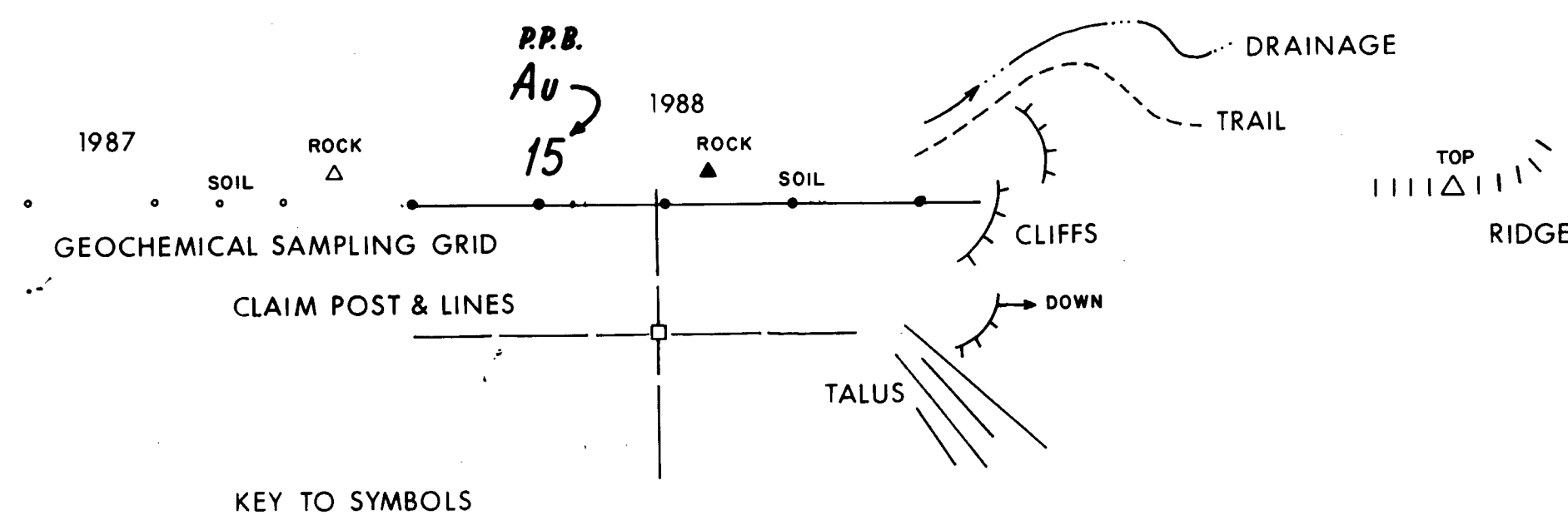
Soil & Rock Geochemistry **17,824**
SHOWING 1988 1:250 TRENCH AREA
ppb Au

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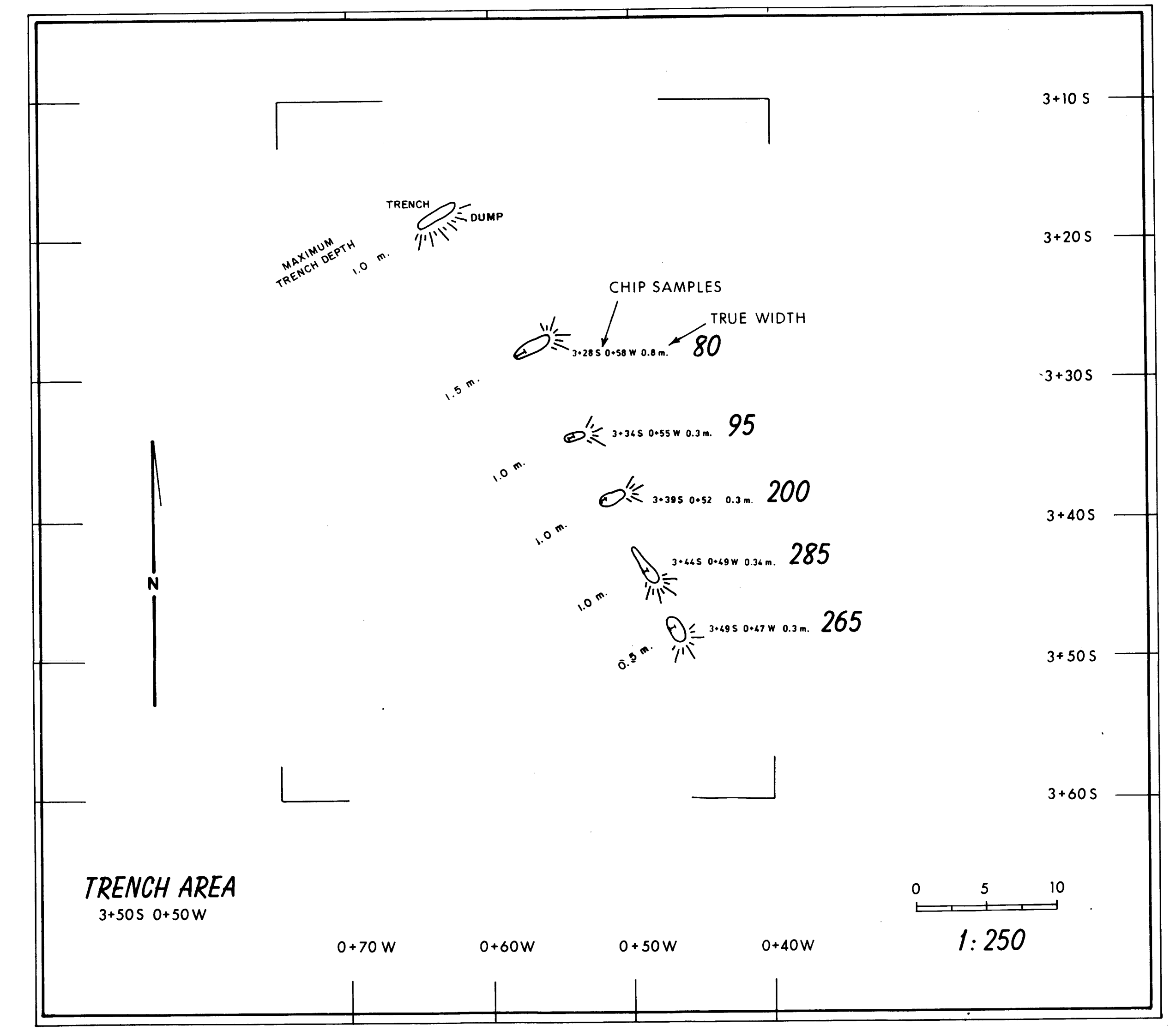
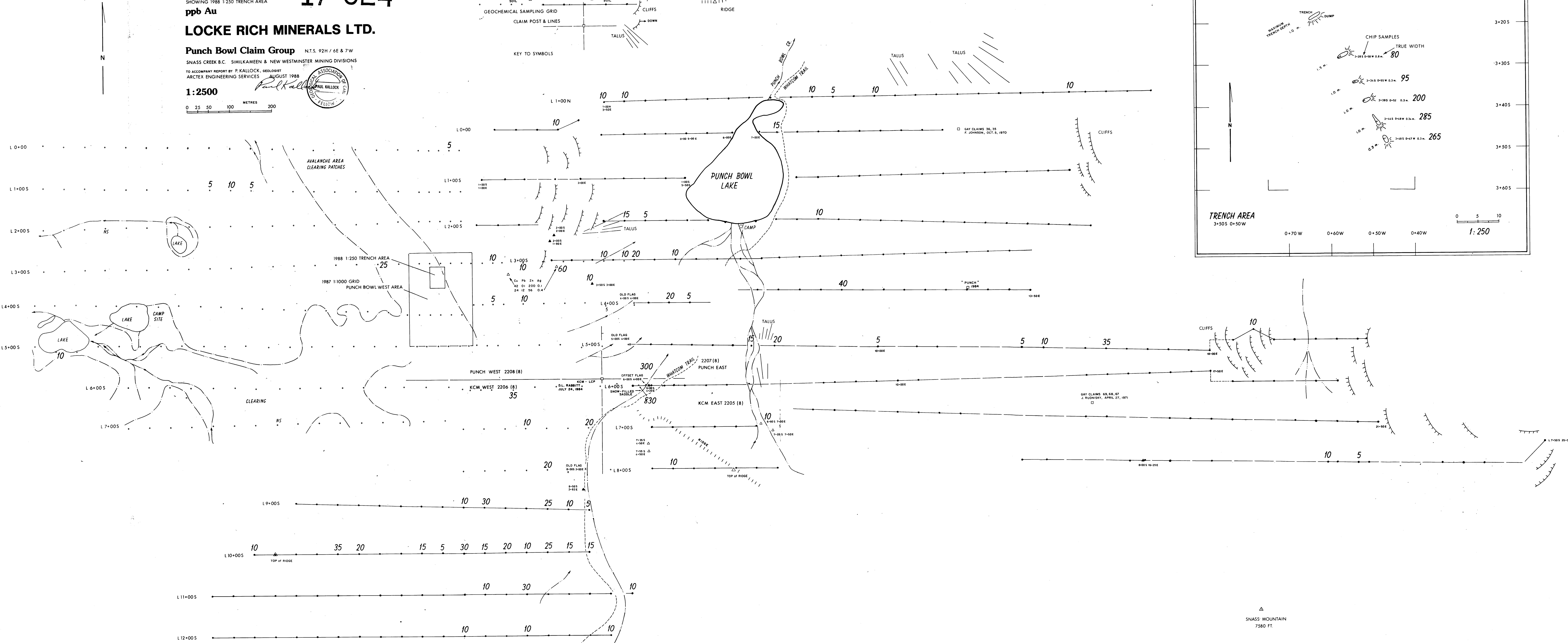
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1:2500

0 25 50 100 200 METRES



VALUES < 5 ppb NOT SHOWN



10+00W 9+00W 8+00W 7+00W 6+00W 5+00W 4+00W 3+00W 2+00W 1+00W 0+00 1+00E 2+00E 3+00E 4+00E 5+00E 6+00E 7+00E 8+00E 9+00E 10+00E 11+00E 12+00E 13+00E 14+00E 15+00E 16+00E 17+00E 18+00E 19+00E 20+00E 21+00E 22+00E 23+00E 24+00E 25+00E 26+00E

▲
SNASS MOUNTAIN
7580 FT