

BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM
MINISTRY OF ENERGY AND MINES
GEOLOGICAL SURVEY BRANCH

PROGRAM YEAR: 1995/1996

REPORT #: PAP 95-41

NAME: ALAN RAVEN

92 REIVED

BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM
PROSPECTING REPORT FORM (continued)

JAN 30 1996

PROSPECTORS ASSISTANCE PROGRAM

B. TECHNICAL REPORT

- One technical report to be completed for each project area.
- Refer to Program Requirements/Regulations, section 15, 16 and 17.
- If work was performed on claims a copy of the applicable assessment report may be submitted in lieu of the supporting data (see section 16) required with this TECHNICAL REPORT.

Name ALAN RAVEN Reference Number 95-96-792

LOCATION/COMMODITIES

Project Area (as listed in Part A) TOMMY JACK CREEK MINFILE No. if applicable _____

Location of Project Area NTS 94D/4E Lat 56°07'N Long 127°37'W

Description of Location and Access AREA OF CONFLUENCE OF TOMMY JACK CREEK AND SICINTINE RIVER, N.E. OF MT. TOMMY JACK. ACCESS BY HELICOPTER FROM SMITHERS

Main Commodities Searched For Au, Ag.

Known Mineral Occurrences in Project Area Au, Ag. TOMMY JACK PROPERTY (132 UNITS) EXPLORED BY NORANDA, CRADCAP, INTERTECH MINERALS.

WORK PERFORMED

1. Conventional Prospecting (area) 1800 - 2000 HECTARES
2. Geological Mapping (hectares/scale) 16 KM OF TRAVERSES. 1:10,000 / 1:5000
3. Geochemical (type and no. of samples) 132 SOIL, 15 ROCK
4. Geophysical (type and line km) _____
5. Physical Work (type and amount) _____
6. Drilling (no., holes, size, depth in m, total m) _____
7. Other (specify) _____

SIGNIFICANT RESULTS

Commodities Au Claim Name T.J. 10

Location (show on map) Lat _____ Long _____ Elevation _____

Best assay/sample type SOIL SAMPLE Au 7000 PPB, Ag 12.4,

Description of mineralization, host rocks, anomalies Bowser Group Sediments (intruded) by diorite sills (Stocks?) Mineralization Au, Ag, Pb, Zn Cu. gold tetrahedrite, pyrite, galena, sphalerite, chalcopyrite in and stz-carbonate veins, breccia zones. Anomalies investigated were to the east of unnamed creek.

Supporting data must be submitted with this TECHNICAL REPORT

GEOLOGICAL, PROSPECTING AND GEOCHEMICAL REPORT

on the

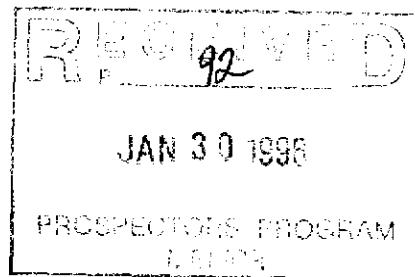
T.I. 9 AND T.I. 10 MINERAL CLAIMS

Omineca Mining Division - British Columbia

Lat. 56° 07' N

Long. 127° 37' W

N.T.S. 94 D/4E



by

Alan R. Raven

September, 1995

Prince George, BC

TABLE OF CONTENTS

SUMMARY	1
CONCLUSION	1
INTRODUCTION	1-2
LOCATION, ACCESS, PHYSIOGRAPHY	2
CLAIM DATA	2
HISTORY	2-3
GEOLOGY	
Regional Geology	3-4
Property Geology	4-5
Mineralization and Alteration	5-6
GEOCHEMICAL SURVEYS	
Rock Geochemistry	6
Soil Geochemistry	6-8
DISCUSSION OF RESULTS	8
REFERENCES	9

SUMMARY

The Tommy Jack prospect consists of T.J. 9 Mineral Claim (1 unit) and T.J. 10 Mineral Claim (18 units).

The prospect lies in the Atna Range near the confluence of Tommy Jack Creek with the Sicintine River.

These claims cover a large zone of pervasive carbonate alteration which contain widespread gold-silver-lead-zinc bearing quartz-carbonate veins. These veins occur in shears and stockworks in Bowser Group sediments and in granodiorite and dacite sills and dikes.

The geochemical survey and prospecting have expanded the gold multi-element anomaly located east of Unnamed Creek. A follow-up program is proposed to more fully define the area of interest.

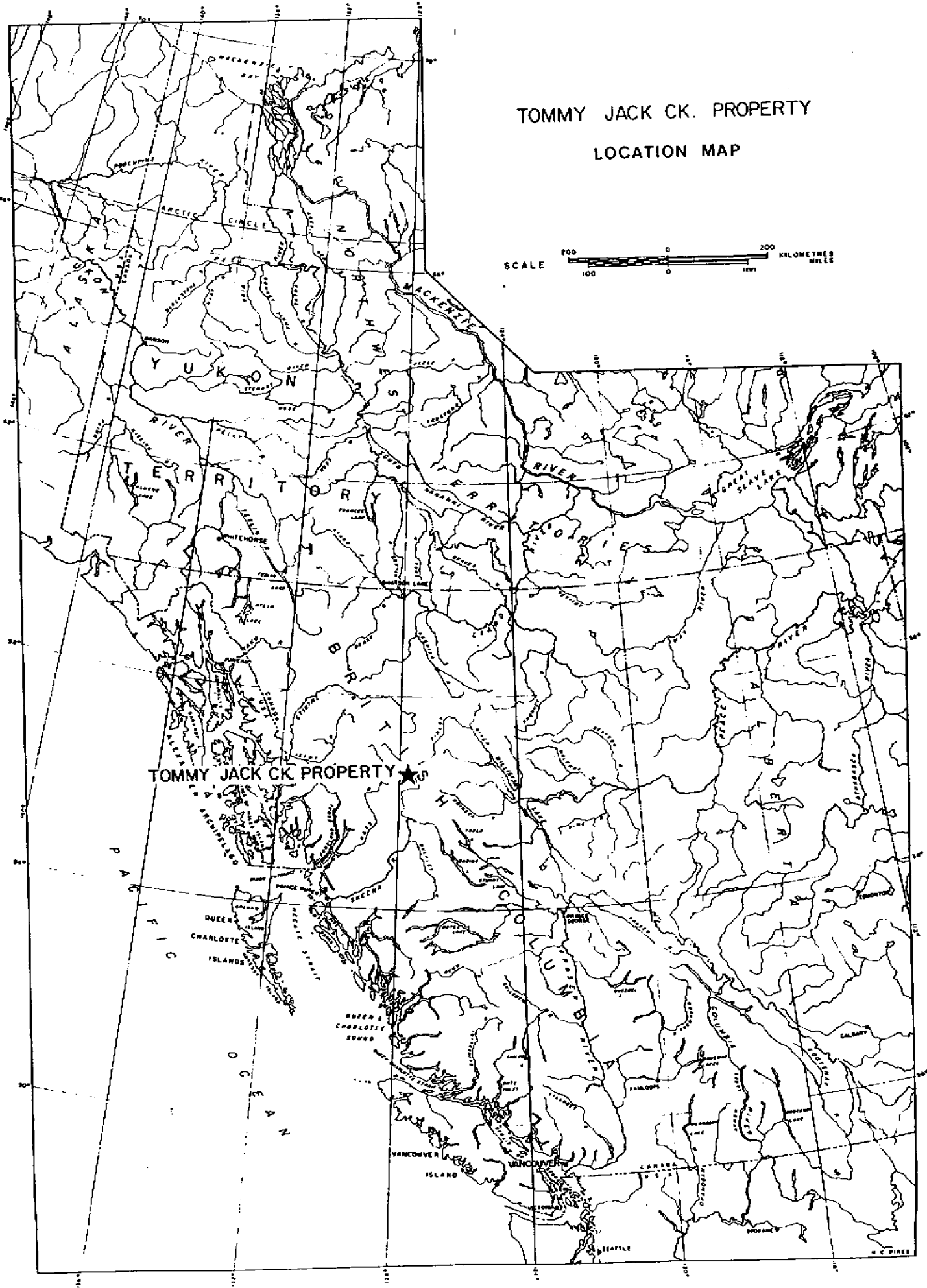
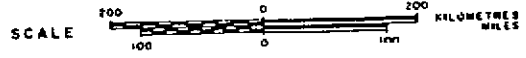
CONCLUSION

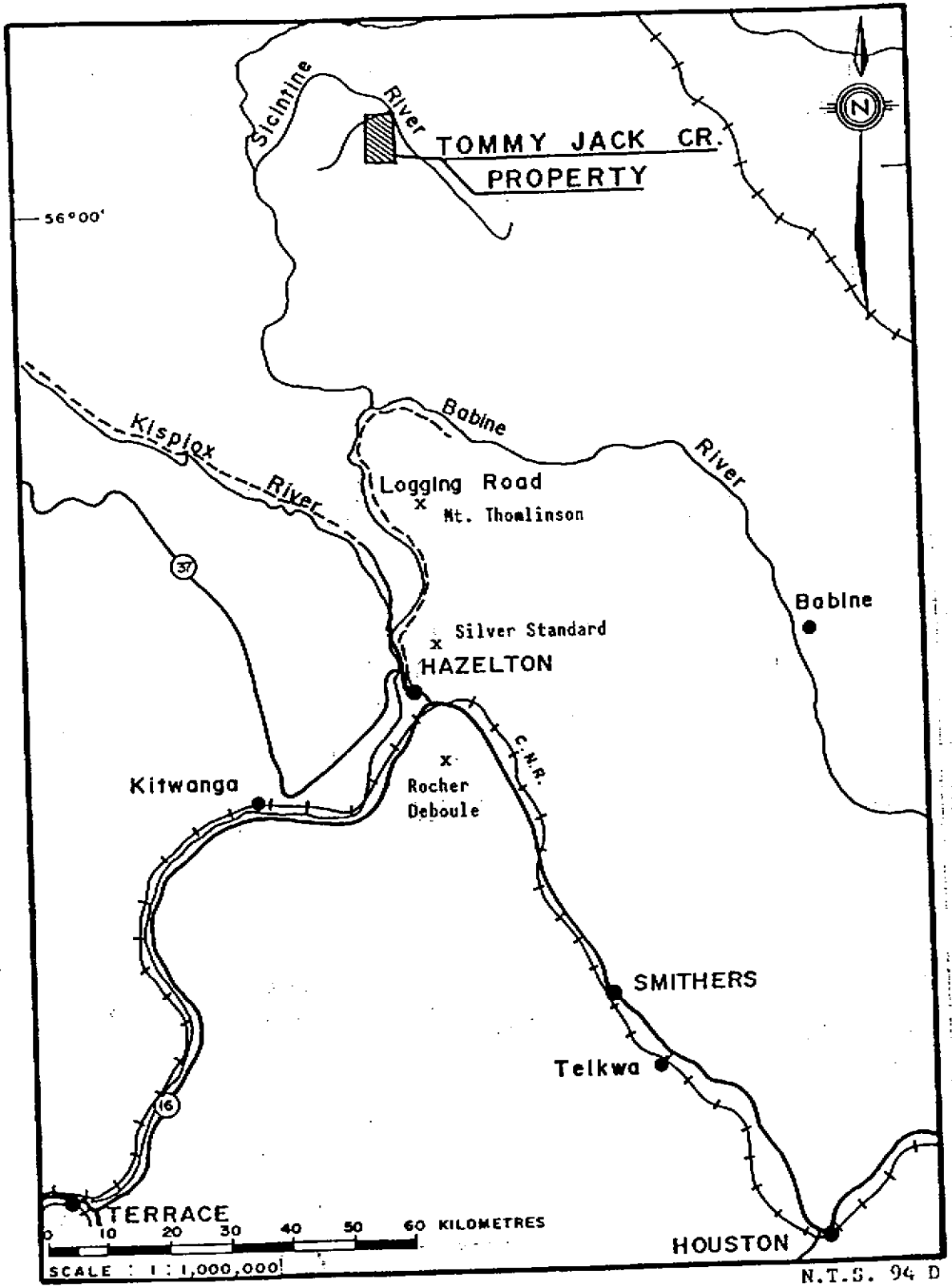
Results of the 1995 seasons program has confirmed and expanded the gold multi-element anomaly to the east of Unnamed Creek. The anomaly now has a strike length of 800 metres and is open to the north and south. The positive and encouraging results will result in further surveys in the near future.

INTRODUCTION

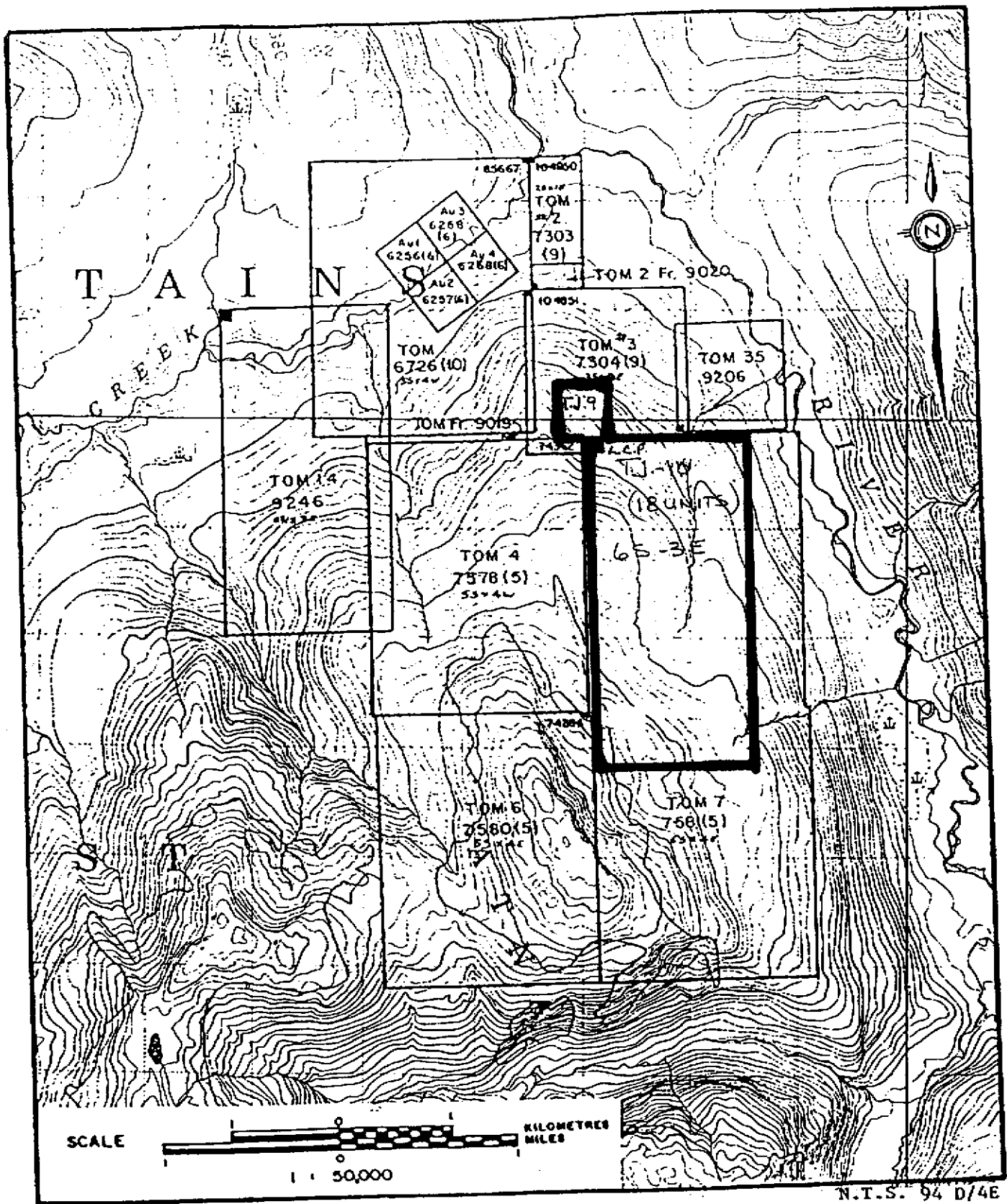
The Tommy Jack prospect is composed of 19 claim units in the Sicintine River area of British Columbia. The claims cover gold-silver-lead-zinc mineralization in quartz-carbonate veins in shear zones and in and around granodiorite dikes and sills in altered Bowser Group sediments.

TOMMY JACK CK. PROPERTY
LOCATION MAP





ACCESS MAP
TOMMY JACK CREEK PROPERTY
 Liard Mining Division - British Columbia



CLAIM MAP

TOMMY JACK CREEK PROPERTY

Omineca Mining Division - British Columbia

The 1995 program consisted of 5 kilometres of grid lines (hipchain and flagged), 132 soil samples, 15 rock samples, and approximately 16 kilometres of prospecting traverses.

LOCATION, ACCESS, PHYSIOGRAPHY

The Tommy Jack Creek property is situated 95 kilometres north of Hazelton (Figure 1). It lies immediately to the south of the confluence of Tommy Jack Creek with the Sicintine River, which in turn flows into the Skeena River (Figure 2).

Access at present is by helicopter, about an hour flight from Smithers. Road access to within 45 kilometres is provided by logging roads up the east side of the Skeena River.

The property is in the Atna range of the Skeena Mountains. Slopes are gentle to moderately steep with elevations ranging from 800 to 1760 metres. A heavy virgin forest growth of balsam fir, hemlock, and spruce covers most of the claim area up to 1500 metres elevation, above which heather, scrub fir, grass-covered areas, and talus predominate.

CLAIM DATA

The Tommy Jack Creek prospect comprises 19 claim units as follows:

<u>Claim Name</u>	<u>Type</u>	<u># of Units</u>	<u>Record #</u>	<u>Recording Date</u>	<u>Expiry</u>
T.J. 9	2 Post	1	338271	July 18, 1995	2000
T.J.10	Mod. Grid	18	338272	July 20, 1995	2000

HISTORY

According to Myers (1988), the mineral showings in the area were known by Indian trappers such as Tommy Jack from Hazelton and were worked to some extent in the 1930's and

1940's. The earliest record of any work is by Canex Aerial Exploration who, in 1964 and 1965, carried out soil geochemical sampling over a 1460 by 1650 metre grid and delineated widespread silver, lead, and arsenic anomalies (Thompson, 1964). Some trenching was undertaken on a massive galena vein and in 1968, three short holes were drilled near the old camp on Tommy Jack Creek. Results of the trenching and drilling are not available.

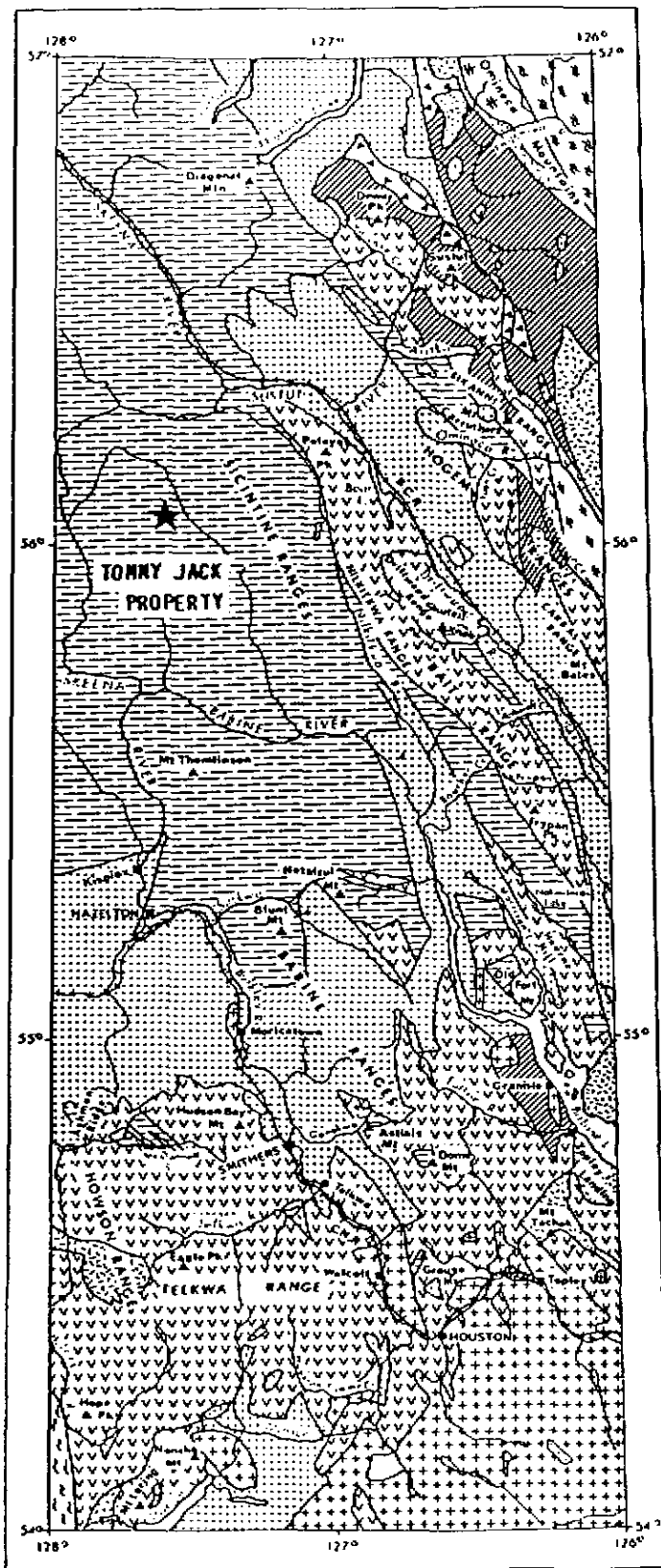
The Tommy Jack property (132 units) was acquired in 1984 by Noranda who subsequently carried out line cutting, geochemical surveys (1228 samples), two kilometres of VLF-electromagnetic survey, 18.6 kilometres of magnetic survey and 2454 metres of diamond drilling in 35 holes (Meyers 1985, 1986, 1988). Intertech acquired an option in late 1987 and initiated a program of line cutting and geochemical sampling in 1988 (Poloni, 1988). In 1989 Intertech carried out a program of geochemical surveys, V.L.F. survey, mapping and prospecting.

GEOLOGY

Regional Geology












The Tommy Jack Creek property is in the Intermontane Belt, one of the five major subdivisions of the Canadian Cordillera. The belt consists predominantly of Mesozoic volcanic and sedimentary rocks and is bounded on the east by metamorphic rocks of the Omineca Belt and on the west by granitic and metamorphic rocks of the Coast Crystalline Belt.

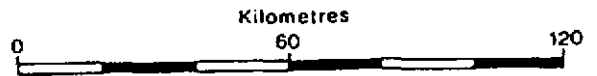
The rocks underlying the claim area are part of a thick assemblage of marine and non-marine sediments composed of shale, siltstone, sandstone and conglomerate (Figure 4). The assemblage, referred to as the Bowser Lake Group, was deposited in a broad basin (Bowser Basin) at least 200 kilometres wide and 300 kilometres long. The basin is interpreted by



GENERAL GEOLOGY
of the
SMITHERS, HAZELTON
and
MCCONNELL CREEK MAP-AREAS

LEGEND

- Tertiary (Paleocene to Miocene)
 -  Ootsa Lake and Endako Groups
- Lower Cretaceous (Hauterivian) to Eocene
 -  Skeena and Sustut Groups
- Middle to Upper Jurassic (Bathonian to Oxfordian)
 -  Bowser Lake Group
- Lower to Middle Jurassic (Sinemurian to Callovian)
 -  Hazelton Group
- Upper Triassic to Lower Jurassic
 -  Intrusive Rocks
- Upper Triassic
 -  Takla Group
- Upper Paleozoic
 -  Asitka Group
 -  Cache Creek Group
 -  Lay Range Assemblage
- Crystalline Terranes
 -  Omineca Crystalline Belt
 -  Coast Plutonic Complex



G.S.C.

After Tipper and Richards (1974)

Eisbacher (1977) to be a marginal basin (developed along the continental margin), open to the west and filled with sediments derived from a tectonically thickened welt in the east and from older terranes and volcanic chains on the west. Subsequent sea floor spreading and subduction resulted in 1) the welding of older volcanic-plutonic terranes onto the outer continental crust and 2) uplift and deformation of rocks of the Bowser Basin.

Intrusive into the Bowser Group sedimentary rocks are a series of stocks and small batholiths of porphyritic granodiorite and quartz monzonite termed the Bulkley Intrusions. They lie in a belt 80 kilometres wide and 300 kilometres long, and include a cluster of intrusions in the Atna and Sicintine Ranges in the north and extend southward to include the Quanchus Intrusions in the Whitesail Lake area. The Tommy Jack Creek property is ten kilometres north of the known northern limit of this belt. The Bulkley Intrusions have a number of common characteristics including:

- 1) Cretaceous age (70 to 84 million years),
- 2) high level characteristics,
- 3) host to a number of important copper-molybdenum and molybdenum-tungsten deposits (see Carter, 1981) such as Mount Thomlinson and Glacier Gulch, and
- 4) host to a number of important precious and base metal deposits such as the Silver Standard and Rocher Deboule Mines, both near Hazelton.

Property Geology

Geological mapping on the property has been hampered by lack of outcrops and heavy forest cover. Outcrops are mainly confined to creek beds (Figure 5). Mapping by Myers (1985, 1986, 1988) and by Allen (1989) shows that the property is underlain by shale, argillite, siltstone,

and arkosic sandstone of the Bowser Group. All are varying shades of grey and blue grey with altered equivalents (pervasively carbonatized) weathering to a characteristic tan or brown color. The presence of plant fossils, coal beds, and poorly preserved pelecypods indicate that the rocks were deposited in a shallow marine condition. Bedding attitudes appear to generally trend northeasterly with moderate to shallow dips to the east.

Narrow widely scattered dikes and sills of altered granodiorite or dacite occur throughout the area of interest which is covered by the T.J. 10 mineral claim. Presumably related to a stock, buried or not yet encountered in mapping, they range from about one to four metres wide. A prominent circular feature, visible on air photos, is postulated to represent an uplift related to a possible buried stock.

The amount of faulting is not well known, also because of lack of outcrop. A number of air photo lineaments undoubtedly reflect underlying faults. These features trend mainly north-northeasterly to north-northwesterly, similar to the few orientations observed in outcrops.

Mineralization and Alteration

Gold, silver lead, zinc, and copper mineralization occurs in quartz-carbonate veins which appear to be widespread on the Tommy Jack Creek property. Mineralization encountered in float typically comprises coarsely banded sulfide-quartz veins containing discontinuous patches and layers of coarse pyrite, galena, sphalerite, and chalcopyrite or pyrite with or without fine-grained disseminated arsenopyrite. Carbonate minerals in the veins include calcite, dolomite, and ankerite.

Galena and sphalerite also occur in veinlets on the east side of Unnamed Creek near line 7200 N. Drill hole 87-16, drilled by Noranda to test this mineralization intersected anomalous

gold and silver values (200 parts per billion, 51 parts per million, respectively) over an interval of 17.7 metres at the top of the hole.

Elsewhere, quartz and carbonate minerals occur as scattered but widespread veinlets throughout the mapped area.

A significant feature of the Tommy Jack Creek property is pervasive ankeritic carbonate alteration which occurs over an area of 3.5 by 2 kilometres. The alteration is difficult to distinguish in fresh rock but where weathered, the sedimentary rocks (both coarse- and fine-grained clastics) have a characteristic tan color. The color has developed even in drill core exposed for a year in open core boxes.

Other alteration minerals observed are sericite, which occurs in carbonate-altered granodiorite and locally in carbonate veinlets, and chlorite, developed from mafic minerals in granodiorite.

GEOCHEMICAL SURVEYS

Rock Geochemistry

A total of 15 rock samples were collected during the course of mapping and prospecting. Sample descriptions and gold, silver, and arsenic values are presented in Table 1 and sample sites and selected results plotted on Figure 4 and 5.

Data contained within the Allen report (1989) suggests that the widespread carbonatization, mineralization are all genetically interrelated.

Soil Geochemistry

A total of 132 soil samples were collected from the Tommy Jack Creek prospect, using

steel bladed shovels. The most common soil types encountered were "B" horizon glacial till and sparse residual soil intermingled with rubbly suboutcrop. Samples were obtained at depths of 10 to 50 centimetres, usually well below the "A" horizon.

Site specific information was noted on specially prepared forms. Samples were placed in Kraft paper bags and shipped to Chemex Laboratories Ltd. Gold was determined by fire assay preconcentration followed by atomic absorption analysis and 30 standard elements were determined by inductively coupled plasma spectrometry. Analytical results are presented in Appendix I. Gold values are reported in parts per billion (ppb) and other elements in parts per million (ppm).

Using background data from both Noranda and Intertech surveys, ranges of anomalous values were established as follows:

<u>Element</u>	<u>Observed Range of Values</u>	<u>Background</u>	<u>Weakly Anomalous</u>	<u>Anomalous</u>	<u>Highly Anomalous</u>
Gold	1 - 1950	1 - 25	26 - 50	51 - 600	+100
Silver	0.1 - 112.2	0.1 - 1.8	1.9 - 3.7	3.8 - 7.5	+7.5
Arsenic	1 - 1199	1 - 80	81 - 160	161 - 320	+320
Cadmium	0.1 - 13.6	0.1 - 0.3	0.4 - 0.6	0.7 - 1.2	+1.2
Lead	1 - 1114	1 - 50	51 - 100	101 - 200	+200
Antimony	1 - 1481	1 - 2	3 - 4	5 - 8	+8
Zinc	30 - 498	30 - 150	151 - 300	301 - 600	+600

Statistical data show significant correlation of gold with zinc, cadmium, arsenic, silver, and lead (in order of increasing correlation coefficients). An interesting feature of the statistical plots is the presence of several populations. This indicates the existence of complex environmental conditions or possibly two or more styles of mineralization, or both. Environmental conditions are definitely not uniform, in that two main soil types were sampled. Gentle topography and local swampy areas undoubtedly have an effect on hydromorphic dispersion of the more soluble

elements. Also of interest are the relatively high background values of lead, arsenic, and silver. The South-east anomaly is characterized by gold values up to 7000 ppb, silver up to 124 ppm, arsenic up to 656 ppm, lead up to 2770 ppm, zinc up to 308 ppm, cadmium up to 4.5 ppm, and antimony up to 12 ppm. This anomaly is of particular interest because of its size (as much as 350 metres wide) and strength, and because high grade gold values (2.17 ounces per ton) have been found in quartz vein float (Allen 1989). This anomaly may be the southern extension of a lead-silver anomalous area defined by wide spaced sampling by Noranda that lies on the east side of and parallel to Unnamed Creek.

DISCUSSION OF RESULTS

The primary focus of this program was to confirm and expand the gold multi-element soil anomaly east of Unnamed Creek. We were successful in fulfilling this objective.

The reconnaissance soil survey, 200 metre line spacing and 20 metre sample spacing, did indicate an extension of the soil anomaly for a total of 800 metres in length. The anomaly is not defined adequately at this point but is open to the north and south. A more closely spaced soil survey with V.L.F. and possibly MAG support would give a target area for an I.P. survey to be done in the future.

Prospecting in the area did locate additional outcrop, some of which are mineralized, some quartz veins and breccia zones.

TABLE I

Sample #	Rock Samples Description
721-1	Qtz. Vein Material, Immediate Vicinity of Fault Breccia, Minor Py Not Anomalous
721-1	Fault Bx. Material, Very Vuggy, Qtz., Limonite Dark Red-Brown "Gossan" Not Anomalous
722-1	Sil. Sdst. Rusty o/c, Qtz. Veinging, Minor Py Not Anomalous
723-1	Brecciated Sdst, Carb. Alt. No Visible Min. Not Anomalous
724-1	o/c, Alt. Sdst. Bx, Man. Stain, Limonite, Hydrozincite? Sphalerite, Galena, Chalco, Py Au. 140 ppb Ag. 87.4 ppm Pb. 6360 ppm Zn. >10000 ppm Cd 85.5 ppm
724-2	Sub o/c, Rubble Train, 1+25N - 0+25E Ck. Traverse Sil. Grey Sdst., Bx, Galena, Sphalerite, Chalco Py Au. 80 Ag. 41.4 Pb. 3950 An. >10000 Cd. >100
724-3	o/c Qtz.-Bx Fault Zone Noranda Grid 7299N.10740E Au. 85 Ag. 4.2 Pb. 208 Zn. 532 Cd. 2.0
724-4	o/c Nor. Grid 7299N.10740E Sdst., Grey, Bx Carb. Alt., Sil. Minor Galena Au. <5 Ag. 3.0 Pb. 494 Zn. 2670 Cd. 19.5
727-1	o/c Bx Sdst Location 17880N.Z3100E Area of Fault Zone Au. 15 Ag. 0.6 Pb. 10 Zn. 38 Cd. <0.5
727-2	o/c, Qtz. Vein, Vuggy, Fe Stained Minor Py 17880N.23100E Au. 470 Ag. 1.6 Pb. 8 Zn. 58 Cd.<0.5
727-3	oc, Qtz. Vein Sdst <2 cm Wide Py, Chalco, Sphalerite Au. 290 Ag. 1.2 Pb. 46 Zn. 256 Cd. 1.0
729-1	Float, Sdst, Qtz. Tockwork, Galena, Chalco, Sphalerite on Fractures, Fractures are Qtz. Carb. Filled (Veinlets) Location 0+25N Ck. Traverse Au. <5 Ag. 6.8 Pb. 684 Zn. 1740 Cd. 13.0
729-2	Float, Highly Mineralized, Sulphides 20% Volume Sphalerite, Galena, Chalco, Py, Sil. Fault Bx Au. 175 Ag. 118 Pb. >10000 Zn. >10000 Cd. >100.0
729-3	Sub o/c Sil. Sdst, Sil., Qtz. Stockwork Location 1+25N-0+25E Ck. Traverse Same as 724-2 Au. <5 Ag. 4.2 Pb. 1335 Zn. 1530 Cd. 13.5
729-4	Float, Highly Mineralized Py, Arsenopyrite, Galena Silicified, 9"-10" Rounded, West Side Creek Qtz. is Blue/Grey Colour Location 1+55N on Ck Traverse Au. 2730 Ag. 14.0 Pb. 1335 Zn. 1985 Cd. 21.0

REFERENCES

Allen, D. G. (1989). Geological, Geochemical and Geophysical Report on Tommy Jack Creek Property (Assessment Report).

Allen, D. B. (1988). Summary Report on the Tommy Jack Creek Property. Private Report for Intertech Minerals Corp.

Carter, N. C. (1981). Porphyry Copper and Molybdenum Deposits, West-Central British Columbia. B.C. Ministry of Mines, Energy and Petroleum Resources Bulletin 64.

Dale, A. and McArthur, R. (1985). "Geochemical Report" on the Tommy Jack Creek Property. B.C. Min. Mines, Energy and Petroleum Resources, Assessment Report 14631.

Eisbacher, G. H. (1977). Mesozoic-Tertiary Basin Models for the Canadian Cordillera and Their Geological Constraints. *Can. Jour. of Earth Sciences*, Vol. 14, pp. 2414-2421.

Kindle, E. D. (1954). Mineral Resources, Hazelton and Smithers Area, Cassiar and Coast Districts, British Columbia. Geological Survey, Memoir 223 (Revised Edition).

Myers, D. E. (1988). 1987 Tear-End Report Tommy Jack Creek Property. Noranda Exploration.

Myers, D. E. (1986). Report on Drilling, Geophysics and Geochemistry, Tommy Jack Creek Property. B.C. Min. Mines, Energy, and Petroleum Resources, Assessment Report 15515.

Myers, D. E. (1985). *Geology and Geochemistry of the Tommy Jack Creek Property*. B.C. Min. Mines, Energy and Pet. Resources, Assessment Report 13778.

Poloni, J. R. (1988). Tommy Jack Creek Property 1988 Work Program. Assessment Report.

Thompson, W. D. (1964). Geochemical Report, Key Group, Trudy Group, Sandy Group and Nonie Group. B.C.M.M.E.P.R. Assessment Report 574.

Tipper, H. W. and Richards, T. A. (1976). Jurassic Stratigraphy and History of North-Central British Columbia. Geological Survey of Canada Bulletin 270.

APPENDIX I
Analytical Results



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
 British Columbia, Canada V7J 2C1
 PHONE: 604-984-0221 FAX: 604-984-0218

To: RAVEN, A.

BOX 2937
 PRINCE GEORGE, BC
 V2N 4T7

Project :

Comments: ATTN: ALAN RAVEN

Page Number : 1-A
 Total Pages : 4
 Certificate Date: 22-AUG-95
 Invoice No. : I9524886
 P.O. Number :
 Account : LVI

CERTIFICATE OF ANALYSIS

A9524886

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
178N 22700E	201 229	30	0.8	1.69	72	90	< 0.5	< 2	0.48	< 0.5	6	10	21	4.47	< 10	1	0.06	< 10	0.29	280
178N 22720E	201 229	35	2.2	1.95	64	110	< 0.5	< 2	0.66	0.5	6	10	29	3.88	< 10	< 1	0.04	10	0.28	1005
178N 22740E	201 229	25	1.2	1.69	448	60	< 0.5	< 2	0.10	< 0.5	7	11	47	7.67	< 10	1	0.04	< 10	0.17	525
178N 22760E	201 229	< 5	0.8	2.26	84	110	< 0.5	< 2	0.56	0.5	13	14	52	5.03	< 10	< 1	0.06	10	0.45	1215
178N 22780E	201 229	20	0.2	2.11	60	100	< 0.5	< 2	0.39	< 0.5	8	12	36	4.15	< 10	< 1	0.07	10	0.46	350
178N 22800E	201 229	40	0.8	2.08	108	80	< 0.5	< 2	0.09	0.5	16	13	40	4.87	< 10	< 1	0.07	< 10	0.33	1150
178N 22820E	201 229	15	0.8	1.87	68	90	< 0.5	< 2	0.09	< 0.5	12	11	23	3.90	< 10	< 1	0.06	< 10	0.30	2110
178N 22840E	201 229	15	3.8	3.50	108	210	0.5	< 2	0.89	3.5	18	16	69	4.89	< 10	< 1	0.11	20	0.40	7160
178N 22860E	201 229	20	4.6	2.38	82	110	< 0.5	< 2	0.72	0.5	10	14	39	4.35	< 10	< 1	0.05	10	0.29	1375
178N 22920E	201 229	10	0.4	1.81	160	100	< 0.5	< 2	0.44	0.5	12	12	52	6.41	< 10	< 1	0.04	10	0.36	1320
178N 22960E	201 229	15	0.8	2.20	98	70	< 0.5	< 2	0.02	< 0.5	6	10	40	5.76	< 10	< 1	0.04	< 10	0.21	395
178N 22980E	201 229	65	0.2	2.04	166	60	< 0.5	< 2	0.03	0.5	10	12	60	6.76	< 10	< 1	0.04	< 10	0.25	625
178N 23000E	201 229	15	1.0	1.99	102	40	< 0.5	< 2	0.03	0.5	9	11	43	6.04	< 10	< 1	0.04	< 10	0.21	520
178N 23020E	201 229	105	< 0.2	1.80	342	70	< 0.5	< 2	0.07	< 0.5	9	13	48	6.13	< 10	< 1	0.04	< 10	0.19	635
178N 23040E	201 229	< 5	0.6	1.67	76	40	< 0.5	< 2	0.09	< 0.5	7	11	45	5.53	< 10	< 1	0.03	< 10	0.17	350
178N 23060E	201 229	20	< 0.2	1.88	74	40	< 0.5	< 2	0.03	< 0.5	10	13	53	6.31	< 10	< 1	0.03	< 10	0.31	490
178N 23080E	201 229	55	< 0.2	1.78	152	40	< 0.5	< 2	0.02	< 0.5	8	11	37	6.61	< 10	< 1	0.02	< 10	0.22	355
178N 23100E	201 229	25	0.2	1.05	124	30	< 0.5	< 2	0.01	< 0.5	5	5	23	4.73	< 10	< 1	0.04	< 10	0.05	205
178N 23120E	201 229	10	4.8	1.83	130	30	< 0.5	< 2	0.04	< 0.5	8	12	36	6.31	< 10	< 1	0.06	< 10	0.29	575
178N 23140E	201 229	35	0.8	1.69	190	40	< 0.5	< 2	0.03	< 0.5	8	11	35	6.05	< 10	< 1	0.05	< 10	0.22	595
178N 23160E	201 229	30	1.0	1.55	122	30	< 0.5	< 2	0.02	< 0.5	7	11	35	7.34	< 10	< 1	0.05	< 10	0.17	595
178N 23180E	201 229	< 5	0.4	1.50	128	40	< 0.5	< 2	0.02	< 0.5	6	8	29	6.20	< 10	< 1	0.05	< 10	0.15	750
178N 23200E	201 229	20	0.4	2.10	90	60	< 0.5	< 2	0.01	< 0.5	6	8	38	6.66	< 10	< 1	0.05	< 10	0.14	505
180N 22700E	201 229	< 5	0.4	2.04	84	70	< 0.5	< 2	0.08	0.5	9	12	28	4.89	< 10	< 1	0.06	< 10	0.39	470
180N 22760E	201 229	< 5	0.4	1.69	64	30	< 0.5	< 2	0.02	0.5	6	11	33	6.47	< 10	< 1	0.03	< 10	0.15	420
180N 22780E	201 229	< 5	0.8	1.64	62	40	< 0.5	< 2	0.03	< 0.5	6	11	58	4.87	< 10	< 1	0.04	< 10	0.33	320
180N 22860E	201 229	30	1.0	2.58	104	60	< 0.5	< 2	0.03	0.5	7	13	38	5.66	< 10	< 1	0.07	< 10	0.37	310
180N 22880E	201 229	25	0.8	2.46	52	80	< 0.5	< 2	0.06	< 0.5	6	13	30	4.04	< 10	< 1	0.07	10	0.42	200
180N 22900E	201 229	30	1.0	1.76	62	80	< 0.5	< 2	0.13	< 0.5	4	9	21	3.20	< 10	< 1	0.08	10	0.34	190
180N 22940E	201 229	30	0.6	1.91	40	90	< 0.5	< 2	0.08	< 0.5	6	10	21	2.82	< 10	< 1	0.05	< 10	0.34	270
180N 22960E	201 229	20	0.4	1.81	58	60	< 0.5	< 2	0.06	< 0.5	4	10	18	3.78	< 10	< 1	0.05	< 10	0.30	170
180N 23000E	201 229	50	6.2	2.61	94	120	0.5	< 2	0.51	0.5	8	13	42	4.51	< 10	< 1	0.06	10	0.35	575
180N 23020E	201 229	80	0.4	1.37	106	30	< 0.5	< 2	0.02	< 0.5	5	7	30	4.02	< 10	< 1	0.06	< 10	0.13	300
180N 23040E	201 229	< 5	7.4	1.66	158	30	< 0.5	< 2	0.02	< 0.5	6	11	31	7.17	< 10	< 1	0.05	< 10	0.19	465
180N 23060E	201 229	15	0.8	1.51	138	30	< 0.5	< 2	0.01	< 0.5	5	9	33	7.45	< 10	< 1	0.03	< 10	0.15	525
180N 23080E	201 229	20	0.2	1.76	138	30	< 0.5	< 2	0.03	< 0.5	10	12	48	6.13	< 10	< 1	0.03	< 10	0.27	865
180N 23100E	201 229	5	< 0.2	1.86	76	30	< 0.5	< 2	0.06	< 0.5	7	10	31	6.68	< 10	< 1	0.06	< 10	0.21	655
180N 23120E	201 229	< 5	0.4	1.50	68	20	< 0.5	< 2	0.02	< 0.5	8	11	33	8.01	< 10	< 1	0.04	< 10	0.12	635
180N 23140E	201 229	15	0.2	1.47	32	40	< 0.5	< 2	0.02	< 0.5	4	7	23	5.13	< 10	< 1	0.03	< 10	0.10	265
180N 23160E	201 229	30	0.8	1.88	72	60	< 0.5	< 2	0.04	< 0.5	7	8	40	5.23	< 10	< 1	0.04	< 10	0.16	380

CERTIFICATION:



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 Brooksbank Ave., North Vancouver
 British Columbia, Canada V7J 2C1
 PHONE: 604-984-0221 FAX: 604-984-0218

To: RAVEN, A.

BOX 2937
 PRINCE GEORGE, BC
 V2N 4T7

Project:
 Comments: ATTN: ALAN RAVEN

Page Number : 1-B
 Total Pages : 4
 Certificate Date: 22-AUG-95
 Invoice No. : 19524886
 P.O. Number :
 Account : LVI

CERTIFICATE OF ANALYSIS A9524886

SAMPLE	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
178N 22700E	201 229	2	0.01	5	500	24	< 2	3	37	< 0.01	< 10	< 10	65	< 10	88
178N 22720E	201 229	3	< 0.01	6	1880	78	< 2	7	45	< 0.01	< 10	< 10	47	< 10	112
178N 22740E	201 229	1	< 0.01	6	790	34	2	4	12	< 0.01	< 10	< 10	75	10	88
178N 22760E	201 229	2	0.01	13	1140	34	< 2	11	41	0.01	< 10	< 10	48	< 10	204
178N 22780E	201 229	1	0.01	10	690	26	< 2	4	34	0.01	< 10	< 10	55	10	132
178N 22800E	201 229	1	0.01	10	980	58	< 2	5	12	< 0.01	< 10	< 10	49	< 10	128
178N 22820E	201 229	< 1	0.01	6	980	32	< 2	3	14	< 0.01	< 10	< 10	54	10	98
178N 22840E	201 229	3	0.01	14	3890	100	2	21	59	0.01	< 10	< 10	49	< 10	242
178N 22860E	201 229	2	0.01	7	2030	40	< 2	8	45	0.01	< 10	< 10	48	< 10	136
178N 22920E	201 229	3	0.01	9	890	70	< 2	5	28	0.01	< 10	< 10	44	< 10	174
178N 22960E	201 229	1	< 0.01	6	760	52	2	4	6	< 0.01	< 10	< 10	64	< 10	80
178N 22980E	201 229	1	< 0.01	8	650	64	< 2	6	8	< 0.01	< 10	< 10	73	20	154
178N 23000E	201 229	1	0.01	7	540	28	2	4	7	< 0.01	< 10	< 10	72	< 10	84
178N 23020E	201 229	1	0.01	8	610	44	2	4	11	< 0.01	< 10	< 10	76	< 10	100
178N 23040E	201 229	< 1	< 0.01	6	830	32	< 2	3	10	< 0.01	< 10	< 10	65	10	74
178N 23060E	201 229	1	0.01	9	540	36	< 2	4	9	< 0.01	< 10	< 10	60	< 10	102
178N 23080E	201 229	< 1	< 0.01	7	740	56	< 2	3	4	< 0.01	< 10	< 10	60	< 10	96
178N 23100E	201 229	1	< 0.01	4	970	20	4	3	10	< 0.01	< 10	< 10	107	< 10	46
178N 23120E	201 229	< 1	0.01	7	1600	28	2	3	9	< 0.01	< 10	< 10	100	10	80
178N 23140E	201 229	1	0.01	6	1350	42	2	3	9	< 0.01	< 10	< 10	91	< 10	102
178N 23160E	201 229	1	< 0.01	5	1850	32	4	3	7	< 0.01	< 10	< 10	76	< 10	98
178N 23180E	201 229	< 1	0.01	4	1450	38	< 2	3	7	< 0.01	< 10	< 10	84	< 10	84
178N 23200E	201 229	1	0.01	4	870	32	< 2	3	8	< 0.01	< 10	< 10	97	10	82
180N 22700E	201 229	1	0.01	8	640	42	< 2	4	12	< 0.01	< 10	< 10	61	10	120
180N 22760E	201 229	1	0.01	4	720	16	< 2	4	9	< 0.01	< 10	< 10	91	< 10	48
180N 22780E	201 229	1	0.01	8	640	16	< 2	7	13	< 0.01	< 10	< 10	60	< 10	90
180N 22860E	201 229	1	0.01	8	620	40	< 2	4	11	< 0.01	< 10	< 10	66	< 10	146
180N 22880E	201 229	1	0.01	8	440	26	< 2	3	17	< 0.01	< 10	< 10	54	< 10	98
180N 22900E	201 229	< 1	0.01	7	630	38	< 2	3	14	< 0.01	< 10	< 10	44	< 10	84
180N 22940E	201 229	< 1	0.01	7	590	28	2	3	10	< 0.01	< 10	< 10	46	10	100
180N 22960E	201 229	1	0.01	6	430	32	< 2	2	9	< 0.01	< 10	< 10	54	< 10	72
180N 23000E	201 229	1	0.01	10	1820	58	2	8	26	< 0.01	< 10	< 10	50	< 10	206
180N 23020E	201 229	1	0.01	4	910	24	< 2	3	7	< 0.01	< 10	< 10	97	< 10	84
180N 23040E	201 229	1	< 0.01	6	1520	32	4	3	6	0.01	< 10	< 10	134	< 10	86
180N 23060E	201 229	1	< 0.01	4	1230	40	2	2	6	0.01	< 10	< 10	90	< 10	94
180N 23080E	201 229	1	< 0.01	8	870	74	4	4	7	< 0.01	< 10	< 10	60	20	126
180N 23100E	201 229	1	0.01	6	1510	38	< 2	3	8	< 0.01	< 10	< 10	88	< 10	78
180N 23120E	201 229	3	< 0.01	6	2120	32	< 2	3	5	0.01	< 10	< 10	104	< 10	78
180N 23140E	201 229	< 1	< 0.01	3	1030	16	< 2	3	5	< 0.01	< 10	< 10	70	< 10	44
180N 23160E	201 229	1	0.01	6	1170	26	2	4	9	< 0.01	< 10	< 10	70	10	78

CERTIFICATION: *[Signature]*



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 Brooksbank Ave., North Vancouver
 British Columbia, Canada V7J 2C1
 PHONE: 604-984-0221 FAX: 604-984-0218

to: RAVEN, A.

BOX 2937
 PRINCE GEORGE, BC
 V2N 4T7

Project:
 Comments: ATTN: ALAN RAVEN

Page Number: 2-A
 Total Pages: 14
 Certificate Date: 22-AUG-95
 Invoice No.: 19524886
 P.O. Number:
 Account: LVI

CERTIFICATE OF ANALYSIS A9524886

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
180N 23180E	201 229	< 5	0.4	0.87	16	40	< 0.5	< 2	0.16	< 0.5	8	4	14	1.64	< 10	< 1	0.06	10	0.09	785
180N 23200E	201 229	< 5	0.6	1.10	92	80	< 0.5	< 2	0.21	< 0.5	14	6	33	3.98	< 10	< 1	0.07	< 10	0.13	1715
184N 22700E	201 229	< 5	< 0.2	1.42	54	30	< 0.5	< 2	0.06	< 0.5	3	11	29	6.15	10	< 1	0.03	< 10	0.09	145
184N 22720E	201 229	25	0.8	2.12	46	40	< 0.5	< 2	0.02	< 0.5	4	11	24	6.40	10	< 1	0.03	10	0.24	400
184N 22740E	201 229	< 5	1.4	2.16	30	80	< 0.5	< 2	0.11	< 0.5	5	11	19	3.50	< 10	< 1	0.04	< 10	0.35	245
184N 22760E	201 229	< 5	0.8	1.96	106	30	< 0.5	< 2	0.02	< 0.5	4	10	24	7.77	10	< 1	0.06	< 10	0.13	310
184N 22780E	201 229	< 5	0.6	2.43	74	30	< 0.5	< 2	0.01	< 0.5	4	12	25	10.10	< 10	< 1	0.04	< 10	0.14	280
184N 22800E	201 229	< 5	0.4	2.62	48	50	< 0.5	< 2	0.05	< 0.5	7	16	40	7.20	< 10	< 1	0.03	< 10	0.41	320
184N 22820E	201 229	< 5	0.8	2.50	50	140	< 0.5	< 2	0.66	0.5	7	11	23	3.66	< 10	< 1	0.08	10	0.27	2470
184N 22840E	201 229	< 5	< 0.2	1.54	60	20	< 0.5	< 2	0.03	< 0.5	3	6	33	5.84	< 10	< 1	0.04	< 10	0.09	190
184N 22860E	201 229	< 5	0.2	1.89	224	70	< 0.5	< 2	0.19	< 0.5	4	8	15	4.40	< 10	< 1	0.04	< 10	0.19	195
184N 22880E	201 229	< 5	0.6	2.18	28	30	< 0.5	< 2	0.01	< 0.5	4	9	20	7.78	< 10	< 1	0.04	< 10	0.15	300
184N 22900E	201 229	< 5	1.2	2.93	112	30	< 0.5	< 2	0.06	< 0.5	9	15	51	7.23	< 10	< 1	0.03	< 10	0.40	485
184N 22920E	201 229	235	5.4	3.19	342	70	< 0.5	< 2	0.38	1.0	20	16	74	5.72	< 10	< 1	0.06	10	0.59	975
184N 22940E	201 229	15	0.6	2.86	84	80	< 0.5	< 2	0.21	0.5	18	16	62	5.90	< 10	< 1	0.06	< 10	0.64	840
184N 22980E	201 229	10	0.6	2.32	74	80	< 0.5	< 2	0.07	< 0.5	6	12	31	5.26	< 10	< 1	0.09	< 10	0.28	370
184N 23000E	201 229	10	1.6	2.98	112	160	< 0.5	< 2	0.82	1.0	13	12	46	5.61	< 10	< 1	0.12	10	0.43	3730
184N 23020E	201 229	65	0.2	1.72	116	130	< 0.5	< 2	0.73	< 0.5	8	10	49	6.03	< 10	< 1	0.08	< 10	0.28	470
184N 23040E	201 229	15	2.6	2.54	64	120	< 0.5	< 2	0.45	< 0.5	9	9	50	4.06	< 10	< 1	0.06	10	0.31	350
184N 23060E	201 229	5	0.8	2.23	102	60	< 0.5	< 2	0.17	< 0.5	4	10	25	6.07	< 10	< 1	0.03	10	0.20	215
184N 23080E	201 229	< 5	1.4	2.19	122	30	< 0.5	< 2	0.02	< 0.5	6	13	38	8.69	< 10	< 1	0.04	< 10	0.22	455
184N 23100E	201 229	< 5	0.2	1.82	36	130	< 0.5	< 2	0.54	< 0.5	4	7	20	4.49	< 10	< 1	0.07	10	0.21	1035
184N 23120E	201 229	< 5	0.2	1.77	140	30	< 0.5	< 2	0.02	< 0.5	4	10	40	9.51	< 10	< 1	0.04	< 10	0.07	260
184N 23140E	201 229	< 5	0.2	1.86	140	20	< 0.5	< 2	0.01	< 0.5	5	11	28	7.61	< 10	< 1	0.03	< 10	0.18	280
184N 23160E	201 229	< 5	0.4	1.80	36	60	< 0.5	< 2	0.09	< 0.5	6	9	22	4.68	10	< 1	0.04	< 10	0.19	805
184N 23180E	201 229	< 5	0.6	2.47	14	100	< 0.5	< 2	0.49	< 0.5	4	10	16	2.76	< 10	< 1	0.04	10	0.32	125
184N 23200E	201 229	25	1.8	2.34	110	30	< 0.5	< 2	0.05	< 0.5	7	14	45	8.81	< 10	< 1	0.04	< 10	0.26	540
186N 22960E	201 229	15	1.8	2.67	108	160	< 0.5	< 2	0.97	0.5	14	13	67	5.29	< 10	< 1	0.09	10	0.53	1415
186N 23020E	201 229	< 5	0.2	2.08	46	110	< 0.5	< 2	0.13	0.5	11	8	37	5.57	< 10	< 1	0.08	10	0.14	995
186N 23040E	201 229	< 5	0.6	1.89	60	40	< 0.5	< 2	0.04	< 0.5	7	13	58	8.62	< 10	< 1	0.04	< 10	0.16	415
186N 23060E	201 229	25	0.8	2.71	110	60	< 0.5	< 2	0.07	1.0	9	15	66	6.97	< 10	< 1	0.08	< 10	0.34	360
186N 23080E	201 229	15	0.6	2.15	66	60	< 0.5	< 2	0.06	< 0.5	4	8	28	4.05	< 10	< 1	0.06	< 10	0.20	325
186N 23100E	201 229	< 5	0.8	1.94	28	90	< 0.5	< 2	0.16	< 0.5	3	10	13	2.31	< 10	< 1	0.07	< 10	0.31	220
186N 23120E	201 229	< 5	6.0	2.72	38	150	< 0.5	< 2	0.81	1.0	7	13	67	3.33	< 10	< 1	0.05	10	0.35	1820
186N 23140E	201 229	20	3.0	2.44	114	90	0.5	< 2	0.44	1.5	13	15	117	5.54	< 10	< 1	0.04	10	0.58	1240
186N 23180E	201 229	15	2.2	2.37	152	30	< 0.5	< 2	0.03	< 0.5	8	13	47	8.66	< 10	< 1	0.03	< 10	0.26	560
186N 23200E	201 229	7000	12.4	1.35	656	30	< 0.5	< 2	0.02	< 0.5	5	6	34	6.19	< 10	< 1	0.04	< 10	0.08	265
18950N 21990E	201 229	75	0.6	2.78	44	40	< 0.5	< 2	0.02	0.5	5	14	41	9.24	< 10	< 1	0.03	< 10	0.21	375
19000N 21990E	201 229	< 5	0.4	2.42	64	70	< 0.5	< 2	0.04	< 0.5	5	12	30	7.08	10	< 1	0.03	< 10	0.19	435
19050N 21990E	201 229	25	0.2	2.30	56	60	< 0.5	< 2	0.07	< 0.5	7	15	32	5.51	< 10	< 1	0.06	< 10	0.32	415

CERTIFICATION: *Hart Buchler*



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: RAVEN, A.

BOX 2937
PRINCE GEORGE, BC
V2N 4T7

Project :

Comments: ATTN: ALAN RAVEN

Page: 2 of 2
Total Pages: 4
Certificate Date: 22-AUG-95
Invoice No.: I9524886
P.O. Number:
Account: LVI

CERTIFICATE OF ANALYSIS

A9524886

SAMPLE	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
180N 23180E	201 229	< 1	0.01	3	960	16	< 2	1	13	< 0.01	< 10	< 10	33	< 10	36
180N 23200E	201 229	1	0.01	5	1430	22	< 2	2	21	< 0.01	< 10	< 10	53	< 10	66
184N 22700E	201 229	1	< 0.01	3	910	14	2	2	8	0.03	< 10	< 10	178	< 10	34
184N 22720E	201 229	2	< 0.01	4	890	16	< 2	2	5	0.03	< 10	< 10	61	< 10	66
184N 22740E	201 229	1	0.01	6	730	14	< 2	3	11	< 0.01	< 10	< 10	53	< 10	68
184N 22760E	201 229	1	0.01	2	1760	14	< 2	2	8	0.01	< 10	< 10	177	< 10	40
184N 22780E	201 229	< 1	< 0.01	2	1510	18	< 2	2	7	0.01	< 10	< 10	137	10	50
184N 22800E	201 229	1	< 0.01	8	610	24	< 2	3	8	0.01	< 10	< 10	58	< 10	66
184N 22820E	201 229	1	0.01	5	1610	30	< 2	9	45	< 0.01	< 10	< 10	45	< 10	174
184N 22840E	201 229	1	< 0.01	2	630	10	< 2	2	8	0.01	< 10	< 10	112	10	46
184N 22860E	201 229	< 1	< 0.01	3	510	22	< 2	2	15	< 0.01	< 10	< 10	87	< 10	48
184N 22880E	201 229	1	< 0.01	3	1090	14	< 2	2	6	< 0.01	< 10	< 10	95	20	42
184N 22900E	201 229	1	< 0.01	8	780	38	< 2	4	7	0.01	< 10	< 10	63	< 10	118
184N 22920E	201 229	1	0.01	14	900	138	2	8	24	0.01	< 10	< 10	58	< 10	224
184N 22940E	201 229	1	< 0.01	14	850	44	< 2	7	16	0.01	< 10	< 10	62	30	186
184N 22980E	201 229	1	0.01	7	810	46	2	3	12	0.01	< 10	< 10	66	< 10	108
184N 23000E	201 229	1	0.01	11	1490	106	2	5	48	0.01	< 10	< 10	56	< 10	238
184N 23020E	201 229	1	< 0.01	7	730	26	< 2	4	39	< 0.01	< 10	< 10	80	< 10	124
184N 23040E	201 229	< 1	0.01	9	710	94	< 2	7	27	< 0.01	< 10	< 10	41	10	178
184N 23060E	201 229	1	< 0.01	5	600	34	2	3	13	0.01	< 10	< 10	59	< 10	72
184N 23080E	201 229	1	< 0.01	6	1040	40	< 2	3	7	0.01	< 10	< 10	70	10	116
184N 23100E	201 229	1	0.01	4	750	28	< 2	2	34	< 0.01	< 10	< 10	61	< 10	86
184N 23120E	201 229	1	< 0.01	3	850	28	2	3	8	0.01	< 10	< 10	114	10	84
184N 23140E	201 229	1	< 0.01	4	940	32	< 2	3	5	0.01	< 10	< 10	77	10	90
184N 23160E	201 229	1	< 0.01	4	770	22	2	2	8	0.01	< 10	< 10	92	< 10	72
184N 23180E	201 229	< 1	0.01	5	450	38	< 2	2	30	< 0.01	< 10	< 10	43	< 10	74
184N 23200E	201 229	< 1	< 0.01	7	1210	56	2	3	8	0.01	< 10	< 10	56	20	108
186N 22960E	201 229	1	0.01	12	870	62	< 2	10	60	< 0.01	< 10	< 10	57	< 10	170
186N 23020E	201 229	1	0.01	4	1020	38	< 2	4	16	< 0.01	< 10	< 10	84	10	98
186N 23040E	201 229	1	< 0.01	5	750	38	2	4	7	< 0.01	< 10	< 10	98	< 10	106
186N 23060E	201 229	2	0.01	8	540	40	< 2	4	11	0.01	< 10	< 10	66	< 10	164
186N 23080E	201 229	1	0.01	4	660	44	< 2	3	11	0.01	< 10	< 10	76	10	92
186N 23100E	201 229	< 1	0.01	5	960	22	< 2	2	15	< 0.01	< 10	< 10	42	20	72
186N 23120E	201 229	1	0.01	7	1590	30	< 2	8	52	0.01	< 10	< 10	46	< 10	144
186N 23140E	201 229	1	< 0.01	16	1210	46	< 2	14	28	0.01	< 10	< 10	55	10	308
186N 23180E	201 229	1	< 0.01	6	1240	52	< 2	4	4	< 0.01	< 10	< 10	66	< 10	130
186N 23200E	201 229	1	0.01	4	1000	2770	12	3	5	0.01	< 10	< 10	64	< 10	120
18950N 21990E	201 229	< 1	< 0.01	4	1390	46	< 2	3	7	0.01	< 10	< 10	99	10	48
19000N 21990E	201 229	2	< 0.01	4	600	16	2	3	9	0.04	< 10	< 10	110	< 10	38
19050N 21990E	201 229	1	0.01	7	1320	24	< 2	3	9	0.02	< 10	< 10	99	< 10	54

CERTIFICATION:

Alan Raven



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 Brooksbank Ave., North Vancouver
 British Columbia, Canada V7J 2C1
 PHONE: 604-984-0221 FAX: 604-984-0218

To: RAVEN, A.

BOX 2937
 PRINCE GEORGE, BC
 V2N 4T7

Project :
 Comments: ATTN: ALAN RAVEN

Page: 1 of 3-A
 Total Pages: 4
 Certificate Date: 22-AUG-95
 Invoice No.: I9524886
 P.O. Number:
 Account: LVI

CERTIFICATE OF ANALYSIS A9524886

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
19100N 21990E	201 229	< 5	0.4	2.60	96	50	< 0.5	< 2	0.08	< 0.5	6	16	35	5.75	< 10	< 1	0.05	< 10	0.36	330
19150N 21990E	201 229	< 5	< 0.2	2.25	42	40	< 0.5	< 2	0.04	< 0.5	6	16	27	7.29	< 10	< 1	0.04	< 10	0.28	310
19200N 21990E	201 229	< 5	0.2	2.37	110	60	< 0.5	< 2	0.05	< 0.5	5	11	34	5.32	10	< 1	0.09	< 10	0.19	245
19250N 21990E	201 229	< 5	0.8	2.47	78	40	< 0.5	< 2	0.04	< 0.5	5	14	38	9.61	< 10	< 1	0.04	< 10	0.17	500
19300N 21990E	201 229	< 5	0.6	3.28	250	130	< 0.5	< 2	1.01	< 0.5	16	13	66	3.96	< 10	< 1	0.07	10	0.16	1900
19350N 21900E	201 229	< 5	0.4	2.08	42	140	< 0.5	< 2	0.43	< 0.5	10	10	35	4.90	< 10	< 1	0.08	< 10	0.30	495
19350N 21920E	201 229	< 5	0.2	2.02	46	50	< 0.5	< 2	0.03	< 0.5	4	9	26	4.14	< 10	< 1	0.06	< 10	0.10	290
19350N 21940E	201 229	< 5	0.2	2.04	72	50	< 0.5	< 2	0.04	< 0.5	11	15	23	5.30	< 10	< 1	0.04	< 10	0.33	685
19350N 21960E	201 229	< 5	< 0.2	1.55	54	40	< 0.5	< 2	0.09	< 0.5	7	10	30	3.02	< 10	< 1	0.06	< 10	0.18	555
19350N 21980E	201 229	< 5	< 0.2	1.75	44	40	< 0.5	< 2	0.26	< 0.5	8	15	24	3.78	< 10	1	0.02	< 10	0.31	180
19350N 21990E	201 229	< 5	0.2	2.75	328	230	< 0.5	< 2	1.59	0.5	16	15	30	5.55	< 10	< 1	0.04	< 10	0.28	6880
19350N 22000E	201 229	< 5	< 0.2	0.84	20	20	< 0.5	< 2	0.05	< 0.5	3	7	17	2.49	< 10	< 1	0.03	10	0.07	280
19350N 22020E	201 229	< 5	0.2	1.88	598	70	< 0.5	< 2	0.23	< 0.5	24	8	40	10.85	< 10	< 1	0.03	< 10	0.14	2320
19350N 22040E	201 229	< 5	< 0.2	2.00	224	100	< 0.5	< 2	0.17	< 0.5	7	10	36	4.62	< 10	< 1	0.04	< 10	0.10	345
19350N 22060E	201 229	< 5	0.2	3.04	214	130	< 0.5	< 2	1.08	< 0.5	11	14	35	5.20	< 10	< 1	0.09	< 10	0.48	910
19350N 22080E	201 229	15	< 0.2	2.13	64	90	< 0.5	< 2	0.06	< 0.5	6	12	26	4.55	< 10	< 1	0.08	< 10	0.26	520
19350N 22100E	201 229	< 5	1.0	3.00	122	80	< 0.5	< 2	0.53	< 0.5	10	13	33	6.97	< 10	< 1	0.05	10	0.22	635
19350N 22120E	201 229	10	0.2	2.11	32	50	< 0.5	< 2	0.03	< 0.5	4	14	38	6.43	< 10	< 1	0.04	< 10	0.11	505
19350N 22140E	201 229	< 5	< 0.2	2.11	16	110	< 0.5	< 2	0.63	< 0.5	11	9	29	3.99	< 10	< 1	0.06	10	0.18	2130
19350N 22160E	201 229	< 5	< 0.2	2.68	24	120	< 0.5	< 2	0.25	< 0.5	7	12	31	5.19	< 10	< 1	0.09	10	0.46	370
19350N 22180E	201 229	< 5	0.6	1.60	18	130	< 0.5	< 2	0.88	< 0.5	8	7	32	4.42	< 10	< 1	0.07	10	0.13	715
19350N 22200E	201 229	< 5	4.0	2.17	54	100	< 0.5	< 2	0.98	< 0.5	7	10	60	4.11	< 10	< 1	0.06	10	0.25	360
19350N 22220E	201 229	50	3.8	3.06	136	130	0.5	< 2	1.58	0.5	19	15	89	5.50	< 10	< 1	0.06	10	0.48	1630
19350N 22240E	201 229	< 5	0.8	3.13	38	130	< 0.5	< 2	1.03	0.5	10	16	30	5.08	< 10	< 1	0.06	10	0.35	2730
19350N 22260E	201 229	< 5	0.4	1.02	34	40	< 0.5	< 2	0.06	< 0.5	11	2	17	6.46	< 10	< 1	0.04	< 10	0.06	1050
19350N 22280E	201 229	< 5	< 0.2	1.72	26	50	< 0.5	< 2	0.04	< 0.5	5	7	21	3.94	< 10	< 1	0.06	10	0.11	315
19350N 22300E	201 229	20	0.4	1.34	82	80	< 0.5	< 2	0.13	< 0.5	12	6	66	7.87	< 10	< 1	0.08	10	0.09	755
19400N 21990E	201 229	< 5	2.4	2.35	34	70	< 0.5	< 2	0.10	< 0.5	11	10	45	7.64	< 10	< 1	0.08	< 10	0.13	1700
19450N 21900E	201 229	< 5	2.2	3.24	46	200	0.5	< 2	1.08	0.5	16	9	135	6.76	< 10	< 1	0.11	10	0.30	2810
19450N 21920E	201 229	< 5	0.4	2.27	48	110	< 0.5	< 2	0.07	< 0.5	10	10	38	7.18	< 10	< 1	0.09	< 10	0.14	1105
19450N 21940E	201 229	20	3.0	3.24	58	180	0.5	< 2	1.96	0.5	10	16	76	5.38	< 10	< 1	0.08	10	0.45	1005
19450N 21960E	201 229	15	0.8	3.04	94	110	< 0.5	< 2	0.49	0.5	11	15	54	7.36	< 10	< 1	0.07	10	0.37	820
19450N 21980E	201 229	25	0.2	2.90	80	110	0.5	< 2	0.43	< 0.5	12	13	39	7.53	< 10	< 1	0.04	10	0.21	880
19450N 21990E	201 229	< 5	0.6	2.47	66	130	< 0.5	< 2	0.40	< 0.5	6	12	35	7.83	< 10	< 1	0.06	10	0.22	540
19450N 22000E	201 229	< 5	1.0	2.18	104	110	< 0.5	< 2	0.61	0.5	6	11	44	6.92	10	< 1	0.04	< 10	0.23	420
19450N 22020E	201 229	235	5.6	2.09	588	120	0.5	< 2	1.51	< 0.5	10	20	142	4.62	< 10	< 1	0.07	20	0.26	835
19450N 22040E	201 229	< 5	0.2	2.69	48	90	< 0.5	< 2	1.50	< 0.5	12	16	30	5.86	< 10	< 1	0.03	< 10	0.42	375
19450N 22220E	201 229	< 5	4.0	2.99	52	160	0.5	< 2	1.99	1.0	21	15	89	5.30	< 10	< 1	0.07	10	0.49	2560
19450N 22240E	201 229	< 5	2.2	3.93	22	150	< 0.5	< 2	1.86	< 0.5	8	12	44	4.48	< 10	< 1	0.06	10	0.30	1440
19450N 22260E	201 229	< 5	0.4	2.77	26	120	< 0.5	< 2	1.31	< 0.5	8	10	40	4.37	< 10	< 1	0.06	10	0.31	470

CERTIFICATION: *Alan Raven*



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 Brooksbank Ave., North Vancouver
 British Columbia, Canada V7J 2C1
 PHONE: 604-984-0221 FAX: 604-984-0218

To: RAVEN, A.

BOX 2937
 PRINCE GEORGE, BC
 V2N 4T7

Project :
 Comments: ATTN: ALAN RAVEN

Page 1 of 3-B
 Total Pages : 4
 Certificate Date: 22-AUG-95
 Invoice No. : 19524886
 P.O. Number :
 Account : LVI

CERTIFICATE OF ANALYSIS

A9524886

SAMPLE	FREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
19100N 21990E	201 229	< 1	< 0.01	7	940	36	6	2	11	0.03	< 10	< 10	85	10	50
19150N 21990E	201 229	1	< 0.01	6	950	18	< 2	2	9	0.03	< 10	< 10	108	< 10	46
19200N 21990E	201 229	1	0.01	4	1380	46	< 2	3	11	0.01	< 10	< 10	136	< 10	50
19250N 21990E	201 229	1	< 0.01	3	1580	22	< 2	3	10	0.04	< 10	< 10	104	10	48
19300N 21990E	201 229	2	0.01	8	990	26	< 2	14	52	0.01	< 10	< 10	59	< 10	254
19350N 21900E	201 229	1	0.01	9	860	22	2	5	33	< 0.01	< 10	< 10	50	< 10	130
19350N 21920E	201 229	1	< 0.01	3	990	14	< 2	1	9	0.01	< 10	< 10	80	< 10	40
19350N 21940E	201 229	1	< 0.01	8	1820	12	2	2	7	< 0.01	< 10	< 10	105	10	40
19350N 21960E	201 229	1	0.01	4	1110	10	< 2	2	10	< 0.01	< 10	< 10	62	< 10	34
19350N 21980E	201 229	1	0.01	6	810	4	< 2	3	19	< 0.01	< 10	< 10	71	< 10	80
19350N 21990E	201 229	4	0.01	8	1340	14	< 2	2	84	0.02	< 10	< 10	78	< 10	162
19350N 22000E	201 229	2	0.01	2	460	4	< 2	1	8	< 0.01	< 10	< 10	78	< 10	20
19350N 22020E	201 229	6	< 0.01	14	910	44	2	5	16	< 0.01	< 10	< 10	76	30	104
19350N 22040E	201 229	3	0.01	5	580	14	< 2	3	17	< 0.01	< 10	< 10	61	< 10	70
19350N 22060E	201 229	1	0.01	9	740	18	< 2	5	77	0.02	< 10	< 10	72	< 10	130
19350N 22080E	201 229	1	0.01	5	660	16	< 2	3	11	0.01	< 10	< 10	82	< 10	62
19350N 22100E	201 229	1	0.01	6	1130	40	< 2	3	29	0.02	< 10	< 10	65	< 10	82
19350N 22120E	201 229	1	0.01	3	1600	14	2	1	9	0.01	< 10	< 10	99	< 10	32
19350N 22140E	201 229	1	0.01	5	1540	12	< 2	5	34	< 0.01	< 10	< 10	52	20	70
19350N 22160E	201 229	1	0.01	8	620	12	< 2	4	23	< 0.01	< 10	< 10	70	< 10	88
19350N 22180E	201 229	2	< 0.01	7	770	34	< 2	2	49	0.02	< 10	< 10	53	10	86
19350N 22200E	201 229	1	< 0.01	7	1100	26	< 2	7	51	< 0.01	< 10	< 10	50	10	94
19350N 22220E	201 229	< 1	< 0.01	14	2040	74	< 2	15	78	0.01	< 10	< 10	42	< 10	158
19350N 22240E	201 229	1	< 0.01	9	1160	60	2	3	56	0.04	< 10	< 10	56	< 10	190
19350N 22260E	201 229	1	< 0.01	9	1390	6	< 2	3	6	< 0.01	< 10	< 10	32	10	62
19350N 22280E	201 229	1	0.01	4	910	28	2	2	8	< 0.01	< 10	< 10	91	10	74
19350N 22300E	201 229	2	< 0.01	12	1140	8	2	4	9	< 0.01	< 10	< 10	61	10	92
19400N 21990E	201 229	2	0.01	4	2170	20	< 2	3	12	0.01	< 10	< 10	78	< 10	60
19450N 21900E	201 229	1	0.01	10	2090	22	2	11	71	< 0.01	< 10	< 10	38	10	150
19450N 21920E	201 229	1	0.01	6	890	26	< 2	4	13	< 0.01	< 10	< 10	76	10	92
19450N 21940E	201 229	1	0.01	10	2350	44	< 2	10	106	0.02	< 10	< 10	47	< 10	234
19450N 21960E	201 229	2	0.01	9	1050	36	< 2	5	37	0.02	< 10	< 10	79	< 10	166
19450N 21980E	201 229	3	0.01	7	810	26	< 2	4	30	0.02	< 10	< 10	72	10	150
19450N 21990E	201 229	2	< 0.01	4	790	18	< 2	3	29	0.03	< 10	< 10	89	< 10	96
19450N 22000E	201 229	2	< 0.01	4	530	22	< 2	3	35	0.03	< 10	< 10	111	< 10	76
19450N 22020E	201 229	1	0.01	10	2450	196	< 2	33	80	< 0.01	< 10	< 10	36	< 10	168
19450N 22040E	201 229	1	0.01	8	1370	8	< 2	5	74	< 0.01	< 10	< 10	65	< 10	102
19450N 22220E	201 229	1	0.01	13	2420	126	< 2	12	89	< 0.01	< 10	< 10	46	< 10	144
19450N 22240E	201 229	< 1	0.01	7	1070	20	< 2	6	105	0.03	< 10	< 10	55	< 10	126
19450N 22260E	201 229	< 1	0.01	6	670	18	< 2	5	64	0.03	< 10	< 10	63	10	62

CERTIFICATION: _____



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 Brooksbank Ave., North Vancouver
 British Columbia, Canada V7J 2C1
 PHONE: 604-984-0221 FAX: 604-984-0218

To: RAVEN, A.
 BOX 2937
 PRINCE GEORGE, BC
 V2N 4T7

Page Number : 4-A
 Total Pages : 4
 Certificate Date: 22-AUG-95
 Invoice No. : 19524886
 P.O. Number :
 Account : LVI

Project :
 Comments: ATTN: ALAN RAVEN

CERTIFICATE OF ANALYSIS A9524886

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
19450N 22280E	201 229	< 5	0.6	2.62	52	50	< 0.5	< 2	0.02	< 0.5	10	13	34	13.05	< 10	< 1	0.04	< 10	0.21	855
19450N 22300E	201 229	< 5	1.8	4.78	166	100	0.5	< 2	0.70	0.5	36	14	28	7.88	< 10	< 1	0.04	< 10	0.15	2170
19500N 21990E	201 229	< 5	0.4	2.40	88	150	< 0.5	< 2	2.01	0.5	9	13	42	5.62	< 10	< 1	0.07	< 10	0.28	480
19550N 21990E	201 229	15	3.6	4.16	94	340	0.5	< 2	2.28	4.5	18	17	121	4.83	< 10	< 1	0.09	20	0.41	6980
19600N 21990E	201 229	45	2.2	3.62	82	140	0.5	< 2	1.06	1.0	18	17	77	6.12	< 10	< 1	0.08	10	0.57	1845
19650N 21990E	201 229	20	1.0	3.53	98	280	0.5	< 2	1.41	1.0	21	15	76	5.36	< 10	< 1	0.08	10	0.46	4540
19700N 21990E	201 229	25	2.8	2.90	78	240	< 0.5	< 2	1.37	0.5	16	17	114	4.25	< 10	< 1	0.09	10	0.66	1050
19750N 21990E	201 229	< 5	0.6	3.28	48	200	< 0.5	< 2	1.31	0.5	19	18	110	4.99	< 10	1	0.08	10	0.72	1060
19800N 21990E	201 229	< 5	0.2	2.01	50	230	< 0.5	< 2	1.64	< 0.5	7	11	30	4.64	< 10	< 1	0.06	< 10	0.34	330
19850N 21990E	201 229	< 5	2.2	2.72	50	230	< 0.5	< 2	3.21	0.5	14	12	62	2.94	< 10	< 1	0.08	10	0.40	1985
19900N 21990E	201 229	40	0.2	2.67	24	150	< 0.5	< 2	1.09	< 0.5	6	13	27	5.96	< 10	< 1	0.06	< 10	0.40	245
19950N 21990E	201 229	< 5	0.4	2.17	8	110	< 0.5	< 2	0.19	< 0.5	7	11	29	3.29	< 10	< 1	0.05	< 10	0.23	2440

CERTIFICATION: _____



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: RAVEN, A.

BOX 2937
PRINCE GEORGE, BC
V2N 4T7

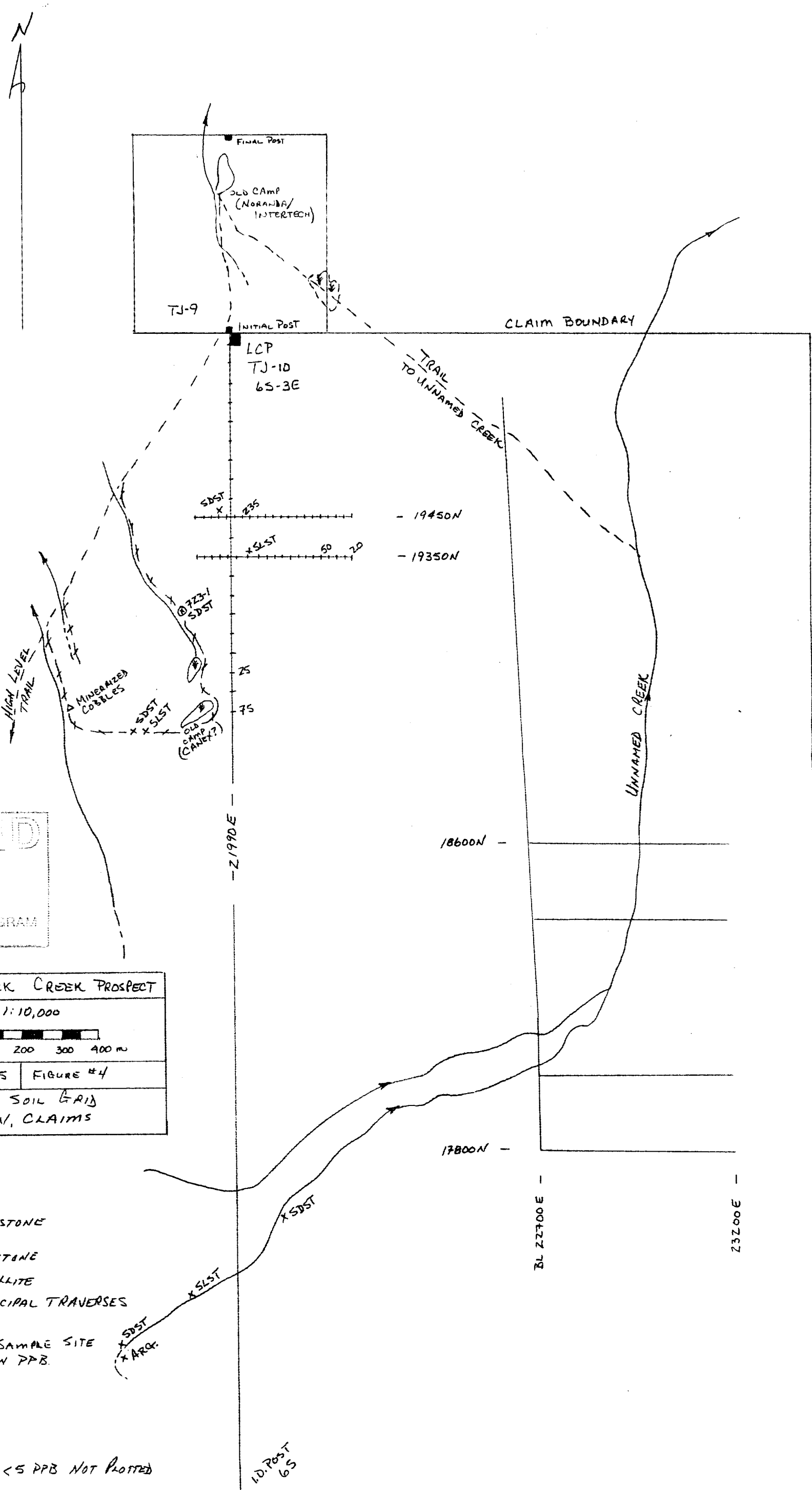
Project :
Comments: ATTN: ALAN RAVEN

Page ber : 4-B
Total Pages : 4
Certificate Date: 22-AUG-95
Invoice No. : 19524886
P.O. Number :
Account : LVI

CERTIFICATE OF ANALYSIS A9524886

SAMPLE	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
19450N 22280E	201 229	1 < 0.01		9	800	20	< 2	4	7	0.03	< 10	< 10	93	< 10	78
19450N 22300E	201 229	< 1 0.01		6	630	34	2	5	36	0.01	< 10	< 10	72	< 10	214
19500N 21990E	201 229	2 < 0.01		6	1150	20	< 2	6	93	0.02	< 10	< 10	54	< 10	150
19550N 21990E	201 229	6 0.01		13	3300	54	< 2	14	118	0.03	< 10	< 10	51	< 10	300
19600N 21990E	201 229	1 0.01		13	1680	52	< 2	10	62	0.01	< 10	< 10	62	< 10	160
19650N 21990E	201 229	2 0.01		11	2410	100	< 2	11	86	0.02	< 10	< 10	52	< 10	242
19700N 21990E	201 229	1 0.01		15	1070	34	< 2	13	78	0.03	< 10	< 10	60	< 10	116
19750N 21990E	201 229	1 0.01		14	670	20	2	9	73	0.04	< 10	< 10	70	< 10	144
19800N 21990E	201 229	< 1 < 0.01		6	460	10	< 2	4	99	0.05	< 10	< 10	76	< 10	74
19850N 21990E	201 229	1 0.01		9	1970	28	< 2	8	182	0.01	< 10	< 10	41	< 10	94
19900N 21990E	201 229	1 0.01		6	320	12	< 2	4	85	0.04	< 10	< 10	97	< 10	56
19950N 21990E	201 229	< 1 0.01		4	720	8	< 2	3	20	< 0.01	< 10	< 10	64	10	58

CERTIFICATION: Wanda Boucher



RECEIVED
 92
 JAN 30 1996
 PROSPECTORS PROGRAM
 MEMPR

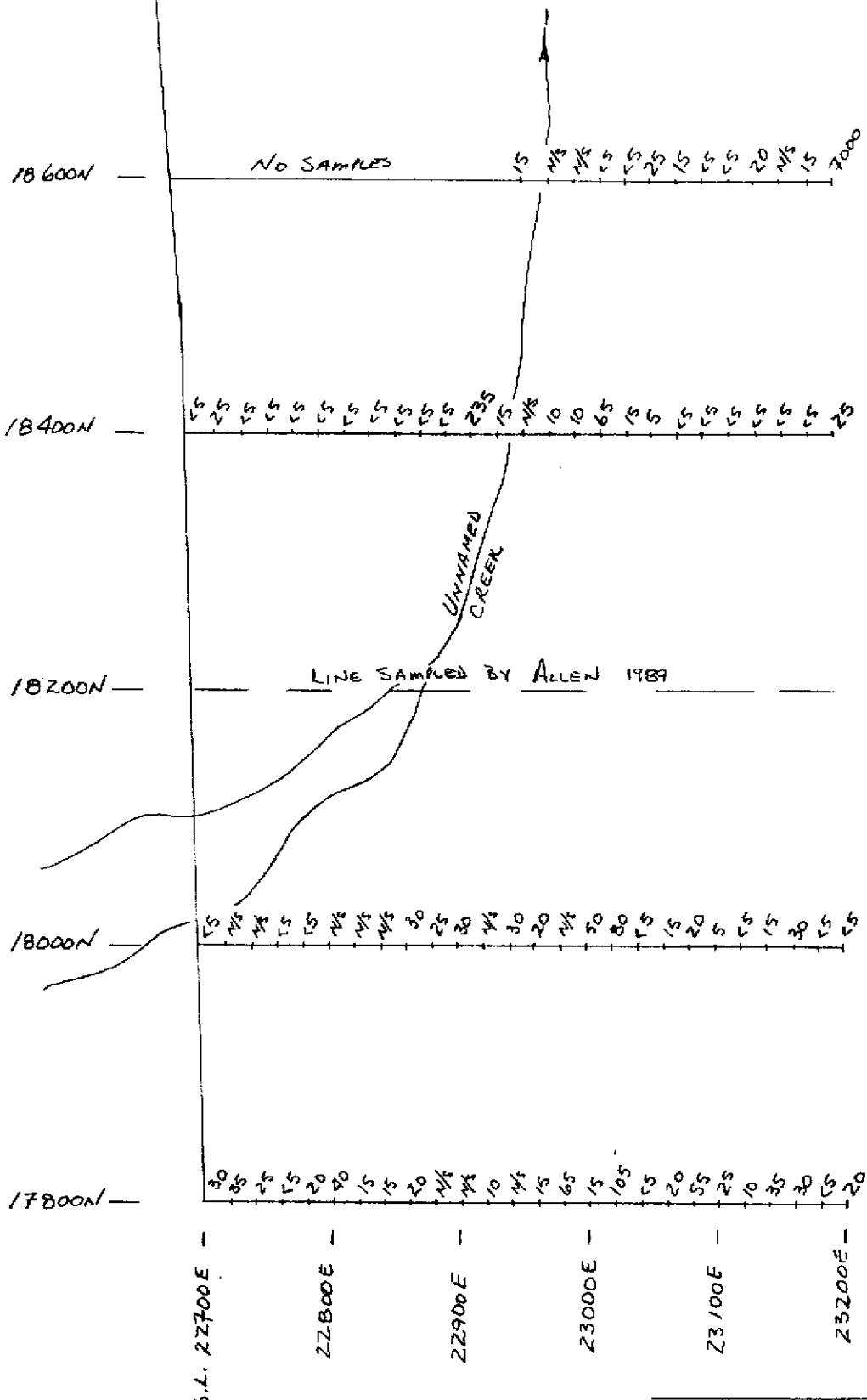
TOMMY JACK CREEK PROSPECT
 SCALE 1:10,000
 0 100 200 300 400 m
 DATE: SEPT 1995 | FIGURE #4
 TRAVERSES, SOIL GRID
 COMPILATION, CLAIMS

LEGEND

- SDST - SANDSTONE
- SLST - SILTSTONE
- ARG. - ARGILLITE
- X - PRINCIPAL TRAVERSES
- +25 - SOIL SAMPLE SITE Au IN PPB.
- +50 - SOIL SAMPLE SITE Au IN PPB.

NOTE - VALUES < 5 PPB NOT PLOTTED

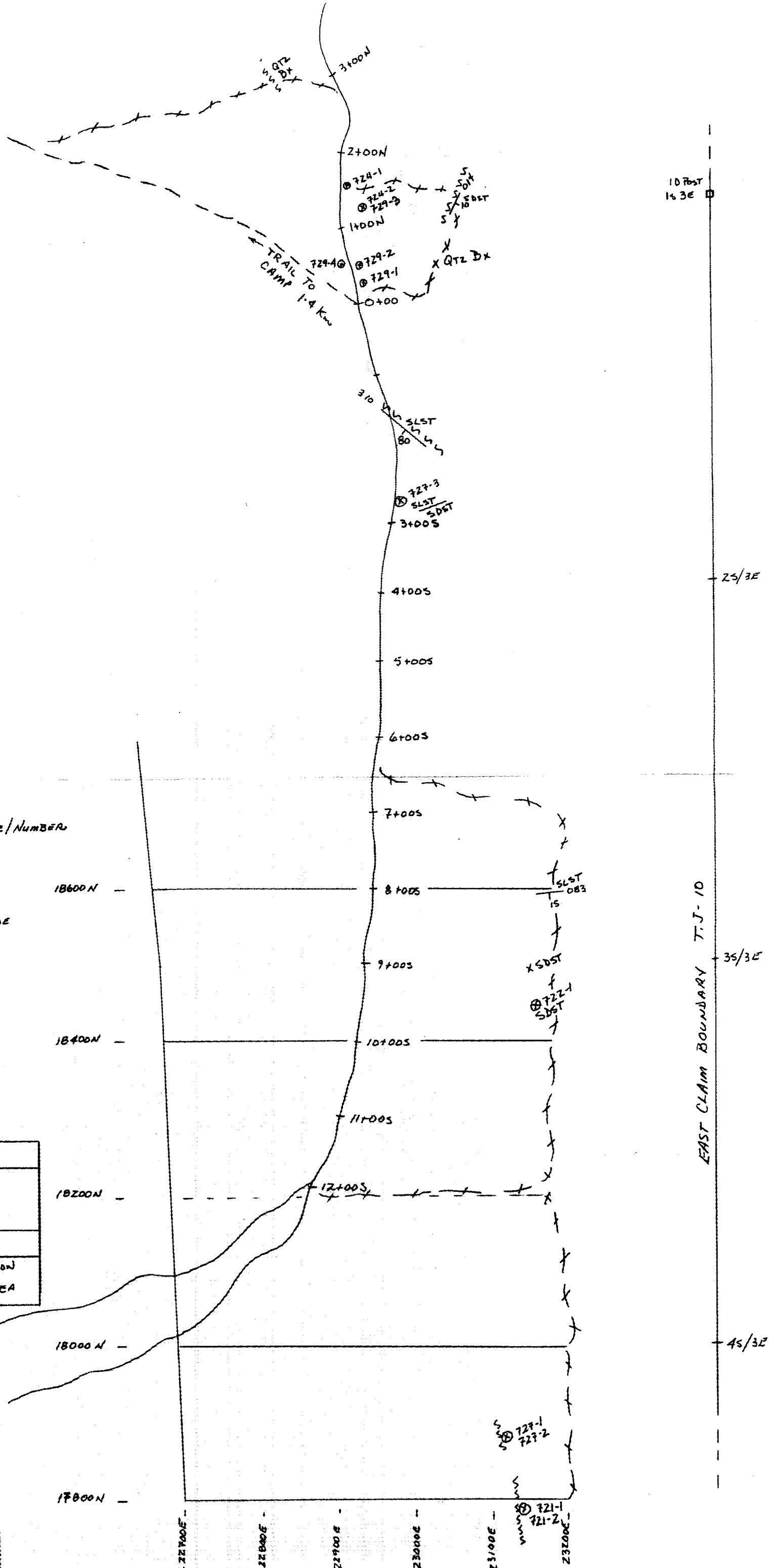
I.D. POST
 6S



N/S - NO SAMPLE

RE 92
 JAN 30 1996
 INSPECTORS PROGRAM
 BENTON COUNTY

Tommy Jack Prospect	
SCALE 1:5000	
DATE - SEPT. 1995	FIGURE # 5
SOIL SURVEY GOLD PPB	



LEGEND

- f - TRAVERSE
- ⊙⁷²⁷⁻³ - ROCK SAMPLE SITE/NUMBER
- x - OUTCROP
- 30 - BEDDING OR CONTACT ATTITUDE
- ||||| - FAULT
- Bx - BRECCIA
- Qtz - QUARTZ
- SLST - SLTSTONE
- SBST - SANDSTONE

Tommy Jack Prospect	
SCALE 1:5000	
DATE - SEPT 1995	FIGURE # 6
TRAVERSE, ROCK SAMPLE LOCATION UNNAMED CREEK AREA	

NOTE: TRAVERSES ALSO COVERED DRAINAGES, CLAIM BOUNDARIES AND GRID LINES

RECEIVED
92
JAN 30 1996
PROSPECTORS PROGRAM