

FINAL REPORT

HAT PROJECT 2001

Hat/Bob Claims, NTS 104J - 4E
Lat. 58 12' - Long. 131 34'
Sheslay Mining District
Atlin Mining Division
British Columbia

Assessment Report submitted to
Mineral Titles Division,
Geological Survey Branch,
Ministry of Energy and Mines,
Victoria, B. C.

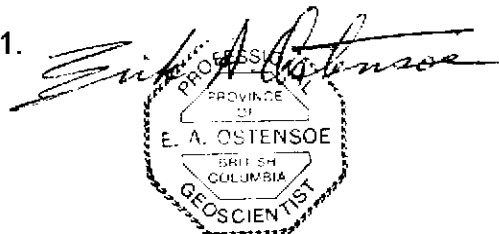
Work Permit No. SMI-01-0101459-116

Statement of Work Event No. 3171805

Prepared by: Erik A. Ostensoe, P. Geo.
and Thomas E. Lisle, P. Eng.

December 15, 2001.

GEOLOGICAL SURVEY BRANCH
ASSESSMENT DIVISION



26,737

CONTENTS

	<u>page</u>
Contents	i
Illustrations	ii
0-0. Summary	1
1.0 Introduction	2
1.1 Introduction	2
1.2 Property	2
1.3 Location and Access	3
1.4 References	3
2.0 Regional Geology of Sheslay District	4
3.0 2001 Program of Work	5
3.1 Introduction	5
3.2 Gossan Creek Area	5
3.3 Hoey/Big Creek Area	6
3.4 Geochemical Anomalies	6
4.0 Geology of Hat/Bob Claims	8
5.0 Geochemistry of Hat/Bob Claims	9
6.0 Conclusions and Recommendations	10
7.0 Certification:	11
E. Ostensoe, P. Geo	
T. E. Lisle, P. Eng.	
Appendices	
Appendix I. GPS Observations	
Appendix II. Geochemical Sample Descriptions	
Appendix II(a) Rock Sample Descriptions	
Appendix II(b) Gossan Creek Area - Geochemical Soil Samples	
Appendix II(c) Big Creek Area - Talus Fines Samples	
Appendix II(d) Miscellaneous Samples - Talus Fines, Stream Sediments	
Appendix II(e) Geochem "High" Area - Soil Samples	
Appendix III. Laboratory Certificates - Assays and Analyses	
Appendix IV Statement of Expenditures	

ILLUSTRATIONS

		<u>page</u>
Table 1.	Claims	2
Figure 1.	Property Location Map -	follows p. 2
Figure 2.	Claim Sketch	follows p. 2
Figure 3.	Sheslay Area Regional Geology	follows p. 4
Figure 4.	Exploration Model	follows p. 5
Figure 5.	Index of Prospecting Sketches	follows p. 5
Figure 6.	Gossan Creek - Geology Sketch	in pocket
Figure 7.	Gossan Creek - Geochemistry - Gold and Copper in Soils	in pocket
Figure 8.	Big Creek Area North - Recce Geology and Sampling	follows p. 11
Figure 9.	Big Creek Area South - Recce Geology and Sampling	follows p. 11
Figure 10.	Trench 1 Area - Trenches and Traverses, Scale 1:5000	follows p. 11
Figure 11.	Trench 1(a) - Geology and Sampling - Scale 1:1000	follows p. 11
Figure 12.	Trench1(a) - Geochemical Samples and Analyses	follows p. 11
Figure 13.	Trench 1(b) - Geology and Sampling	follows p. 11
Figure 14.	Trench 1(c) - Geology and Sampling	follows p. 11
Figure 15.	Trench 2 - Geology	follows p. 11
Figure 16.	Trench 4(a), 4(b) - Geology	follows p. 11
Figure 17.	Trench 15(b) - Geology	follows p. 11
Figure 18.	Trench 17(a), 17(b), 17(c) - Geology	follows p. 11
Figure 19.	Trench 17(a), 17(b), 17(c) - Rock Chip and Soil Samples	follows p. 11
Figure 20.	West Geochemical Anomaly - Geology and Sampling	follows p. 11

0.0 Summary

Erik Ostensoe, P. Geo. and T. E. Lisle, P. Eng., during summer, 2001, completed a program of geological mapping, geochemical sampling and prospecting work on their Hat/Bob claims located in the Sheslay District of Atlin Mining Division, northwestern British Columbia. The Hat and Bob claims had been explored previously by a major mining company and, more recently, with the aid of PAP grants (1996, 1997, 2001), by the present owners.

Work was directed to three principal areas within their claims that had been identified by the owners as having particular merit:

- 1) Gossan Creek area - a zone of strong alteration that may overlie an epithermal gold deposit
- 2) Hoey/Big Creek area - strongly sheared andesites with widespread iron staining and elevated gold and copper values
- 3) areas of high copper in soils identified from a re-examination of data included in assessment reports.

The existing Gossan Creek grid was expanded to the west and Big Creek canyon was mapped and sampled. Several old bulldozer trenches and several areas of anomalous soils located in the geochemically anomalous areas were re-located and mapped and sampled. A previously known gold-bearing zone located southeast of the central claim post was re-located and re-sampled. Twenty-two rock samples and 107 geochemical samples were submitted to an accredited laboratory for assaying and analysis. Gold values as high as 1913.5 ppb and copper, 9880 ppm, were obtained from rock samples. Soil samples (Gossan Creek area) returned gold values to 433 ppb and copper, 937 ppm.

This report presents details of the 2001 program along with an evaluation of the data.

1.0 INTRODUCTION

1.1 Introduction

The Hat Project is located in the Sheslay District of northwestern British Columbia. The geological setting is similar to that of the principal copper-gold and copper-molybdenum deposits in western North America and prospectors and small and large mining companies have conducted exploration in the district in recent decades. Porphyry-style copper prospects at Dick, Polar and Copper Creeks and in the Hat Project area were explored in the 1970s and 1980s by technical surveys and bulldozer trenching, and several shallow drill holes were directed to the western part of the district. A gold occurrence located south of the district was explored by surveys and drilling in 1989 and 1990. The project area is in map sheet NTS 104J that was the subject of a provincial regional geochemical survey in 2000. Results that were released July 5, 2001 included a number of samples in the Sheslay district that are clearly anomalous in gold and base metals(ref.BC RGS 55/GSC Open File 4011).

Ostensoe and Lisle have held claims at Hatchau Lake since 1993 and have completed several programs of work in search of porphyry-style and epithermal mineral deposits. They were awarded in 2001 a Prospectors Assistance Program grant in support of further work and completed their program in the period July 26 through August 22, 2001.

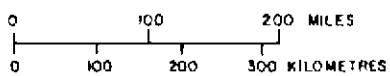
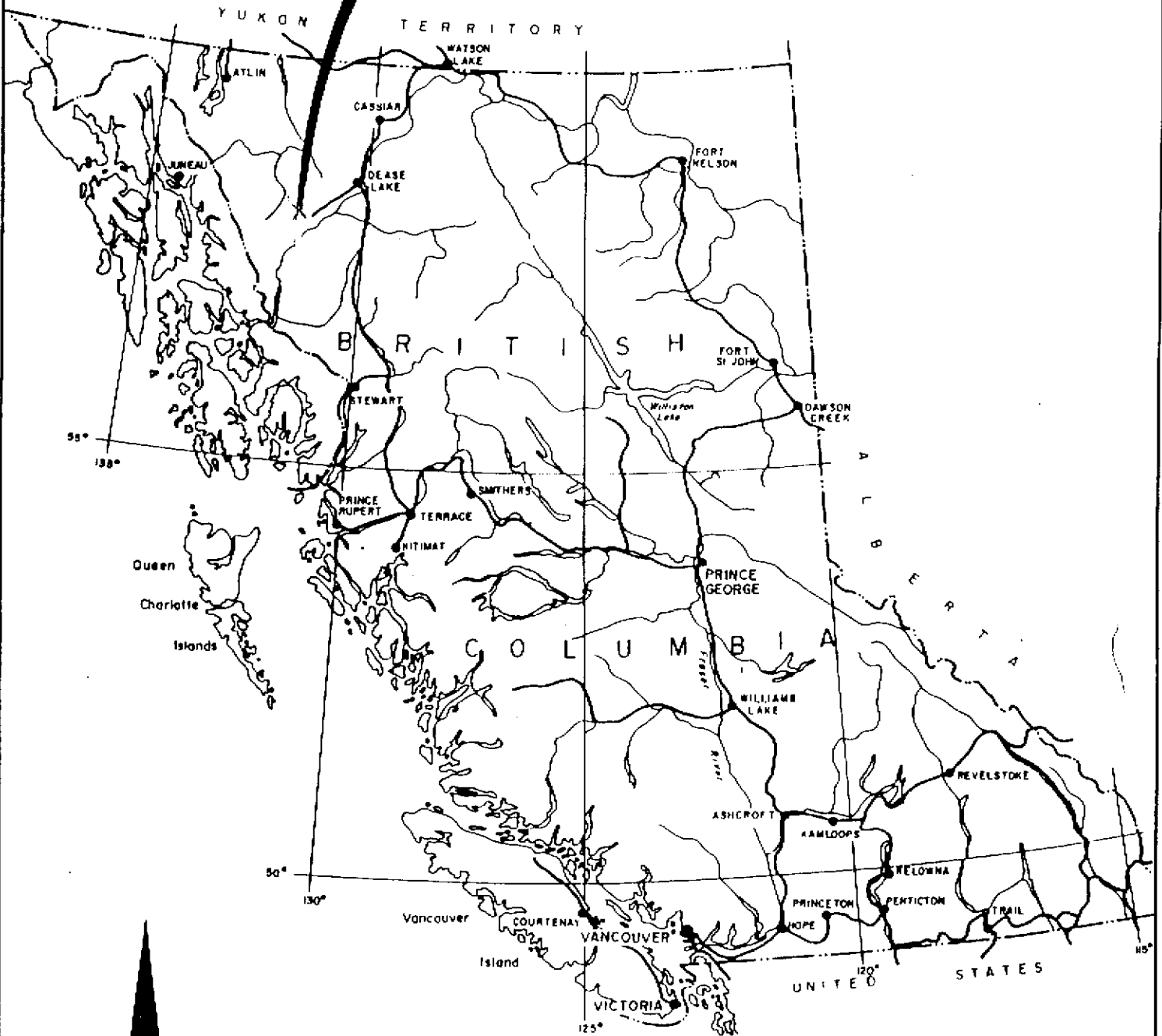
1.2 Property

Erik Ostensoe and Tom Lisle are co-owners of the Hat Project which comprises four mineral claims with fifty-two units (Figure 2 and Table 1).

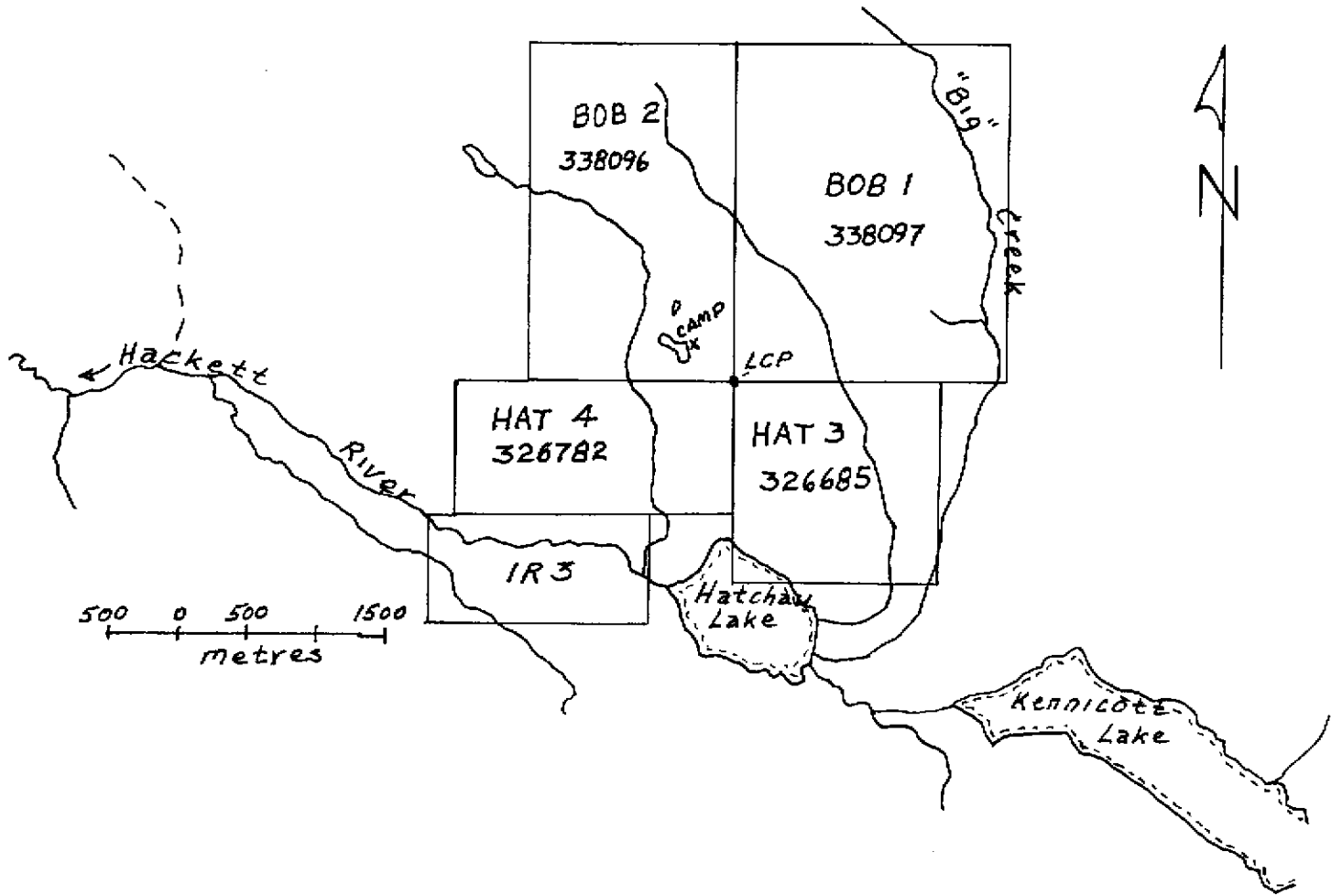
Claim Name	Record No.	Size
Hat 3	326685	9 units
Hat 4	326782	8 units
Bob 1	338097	20 units
Bob 2	338096	15 units

Table 1. Claims

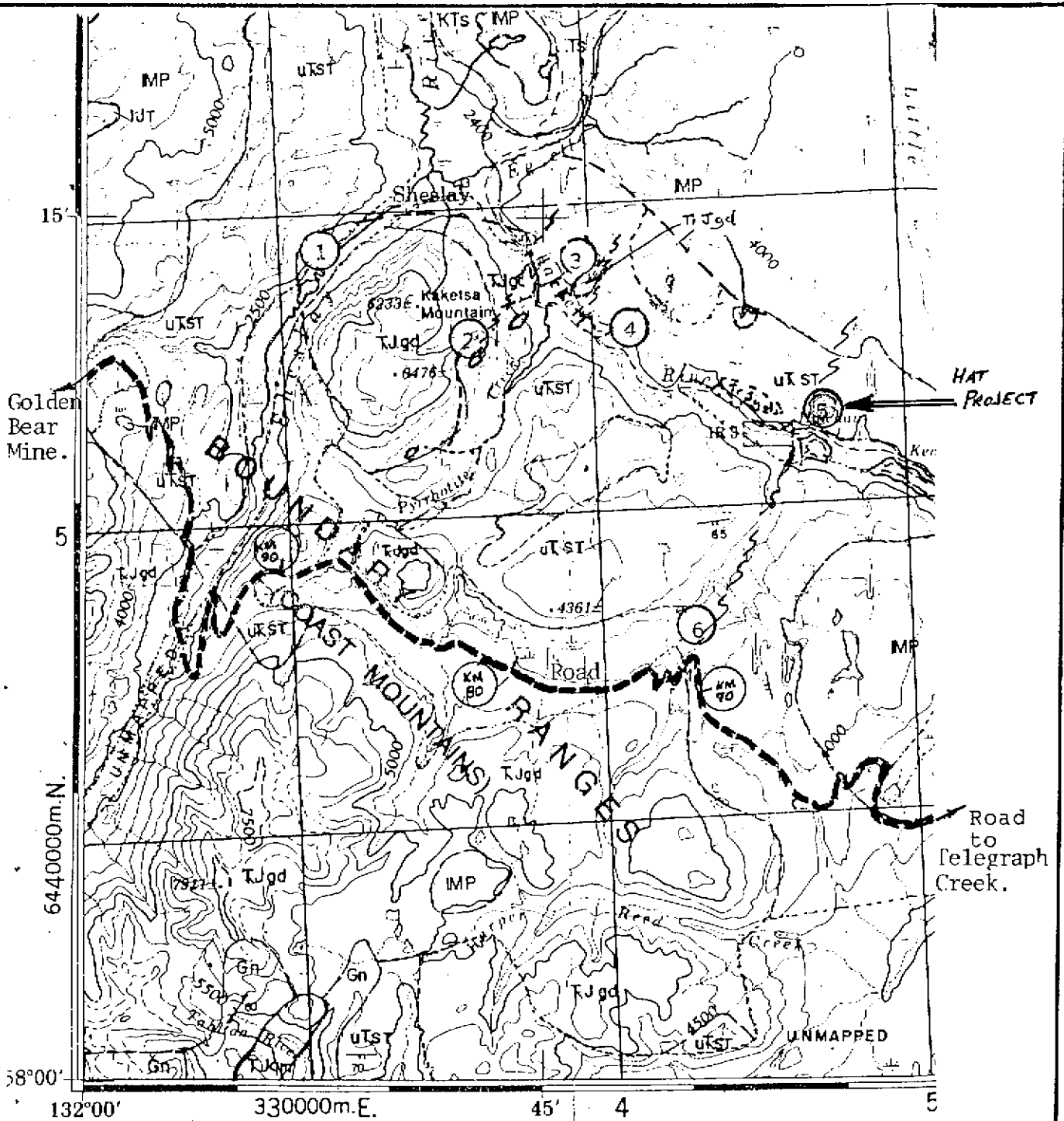
PROPERTY LOCATION



HAT PROJECT			
ATLIN M.D., B.C.			
PROPERTY LOCATION MAP			
Drawn	B.K	N.T.S. 104G/5E	Date NOV. 4
			Figure. /



HAT PROJECT-2001
CLAIM SKETCH
<i>To Accompany Report by E. Ostensoe.</i>
Scale: 1:50000.
September 2001. Figure 2.



LEGEND

- IMP Miocene-Recent. Level Mtn. and Hearts Peak volcanics.
- UTrST Upper Triassic Stuhini Gp.
- TrJgd Upper Triassic-Jurassic Granodiorite to gabbroic intrusive rocks.

SHESLAY AREA, REGIONAL GEOLOGY.

- 1 Kid-Grizzly.
- 2 Kaketsa Mtn.
- 3 Dick Creek.
- 4 Copper Creek.
- 5 Hatchau Lake.
- 6 Wolverine Creek.

After open file 707

To Accompany Assessment Report
E. Ostensoe, P. Geo. Nov. 2001 Figure 3.

1.3 Location and Access

The Hat Project is located in NTS map 104J/4E, on the north side of Hatchau Lake, in the Sheslay District of Atlin Mining Division in northwestern British Columbia. It is 95 km west of Dease Lake and 40 km north of Telegraph Creek; geographic coordinates are latitude 58 degrees 18' north and longitude 131 degrees 36' west. Elevations are from 625 to 1300 metres. GPS coordinates of the LCP of the Hat and Bob claims are 0347077E, 6453473N (Appendix I).

Terrain includes a steep southerly slope and flatter uplands to the north. Streams are incised into the south escarpment and the area is lightly wooded with deciduous and coniferous trees and large areas of brushy marshes and muskegs.

Access to the property is, for practical purposes, by air. A crude airstrip located 13 km west of the claims is overgrown with brush but could be rehabilitated for use by small wheel-equipped airplanes. Small float planes can land on Hatchau Lake. Helicopters offer versatility and convenience in positioning personnel and supplies close to work sites.

An all-weather road connects Dease Lake and Telegraph Creek; and a limited-access mine service road that branches from that road passes about ten km south of the Hat Project. This road has been maintained, until recently, by the now-closed Golden Bear mine and may be decommissioned in the near future.

1.4 References

1. Aoki, Masahiro, (2000?), Epithermal gold deposits, geothermal systems and volcanoes, Mineral Resources Dept., Geol. Surv. Japan.
2. Gabrielse, H., 1998, Geology of the Cry Lake and Dease Lake Map Areas, northcentral British Columbia, GSC Bulletin 504.
3. Jackaman, W. and Friske, PWB (2001) Regional Stream Sediment and Water Data, Dease Lake, British Columbia (NTS 104J) BC RGS 55/GSC Open File 4011.
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6. Panteleyev, A. (1973) Kaketsa Stock, Geology, Exploration and Mining in B. C., 1972, pp. 547-549.
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8. Roots, E.F. (editor), 1957, Operation Stikine, Geol. Surv. Canada
9. Schmidt, A. (1978) Linecutting and Geochemical Surveys, Ski Property, Atlin M. D., B. C., Assessment Report 6835.
10. Vyselaar, J. (1979) Combined Linecutting, Geochemical and Geophysical Report, Ski Property, Atlin M.D., B. C., Assessment Report 7482.

2.0 Regional Geology of Sheslay District

The Sheslay district lies in accreted terrain immediately north of the margin of the Coast Intrusions (Figure 3). Dominant rocks are Stuhini formation volcanoclastics of upper Triassic age, approximately equivalent to the Takla and Nicola Group arc assemblages that host many of the productive copper-gold and copper-molybdenum porphyry deposits in central and southern British Columbia. Major regional tectonic events include the early to mid-Triassic Tahltanian orogeny and the Inklinian uplift. The area is near the north side of the Stikine Arch, bounded to the north by the easterly trending Nahlin fault and the sub-parallel, possibly detachment, King Salmon fault (ref. 2, 6, 8). Abundant evidence of Tertiary and Recent volcanic activity is found in the district, not only at the prominent volcanoes, Level Mountain and Heart Peaks, immediately to the north but also in the form of numerous patches of lava found throughout the lower-lying terrain.

3.0 2001 Program of Work

3.1 Introduction

Geologists Ostensoe and Lisle trucked a camping outfit, groceries and tools to Dease Lake and thence to Km 50 on the Golden Bear road and moved by helicopter to a site on the plateau north of Hatchau Lake. Radiotelephone contact with the helicopter operator at Dease Lake was maintained. Travel and field work occupied 27 days; from July 26 through August 21, 2001.

Field work was directed to three principal areas:


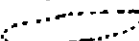
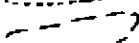


- (a) Gossan Creek, a hydrothermal system with a possible epithermal gold deposit
- (b) Hoey Prospect and Big Creek, located near the east side of the claims, where copper and gold values are present in strongly sheared andesite
- (c) several areas of anomalously high copper in soils.

3.2 Gossan Creek Area

The owners in 1995 and 1996 prepared, mapped and soil and rock chip sampled a limited grid in the steeply incised canyon of Gossan Creek (ref. 4, 5). A weathered zone of intensely faulted, fractured, silicified and strongly leached metavolcanic rocks, with elevated gold and copper values (up to 725 ppb and 3819 ppm, respectively) and alteration minerals (sericite, chlorite, vein quartz, alunite(?)) was identified. The area exhibited characteristics of a "Bonanza" style low sulphidation epithermal deposit (ref. 1, 7). The system was located in outcroppings and rubble for a distance of one kilometre and in a vertical range of 300 metres.

The 2001 program expanded the Gossan Creek geochemical sampling grid westerly (Figure 7). The new grid was geologically mapped (Figure 6) and several GPS observations were recorded (Appendix 1). One rock chip sample, one talus fines sample, one stream sediment sample and 76 soil samples, were submitted to an accredited analytical laboratory for 30 element plus gold determinations. Sample descriptions and laboratory reports are appended to this report (Appendices II and III).

The 2001 work confirmed and substantially expanded the exploration model. Elevated gold, copper, arsenic and cobalt values were returned from soil samples. The zone of brecciation and strong carbonate-silica alteration was located in discontinuous outcroppings between Gossan Creek canyon and the west side of Hat 4 claim (Figure 6).

-  IP Chargeability 30 ms N=3
-  IP Chargeability 30 ms N=1
-  IP Chargeability 20 ms N=3
-  Geochemical Anomalies + 200 ppm Cu
-  Trench

East limit of surveys

Bob 2

Bob 1

Boulder +4,000 ppm Cu
660 ppb Au

BIG CREEK

Gossan. Up to 6% Pyrite
+- chalcopyrite
Gold from panning.

Copper Geochemistry
340 to 1920 ppm Cu

HAT PROJECT-2001
ATLIN MD, B.C.
EXPLORATION MODEL
To Accompany Assessment Report. November 2001. E. Ostensoe, P. Geo
Figure 4.

1.17 ppm Au

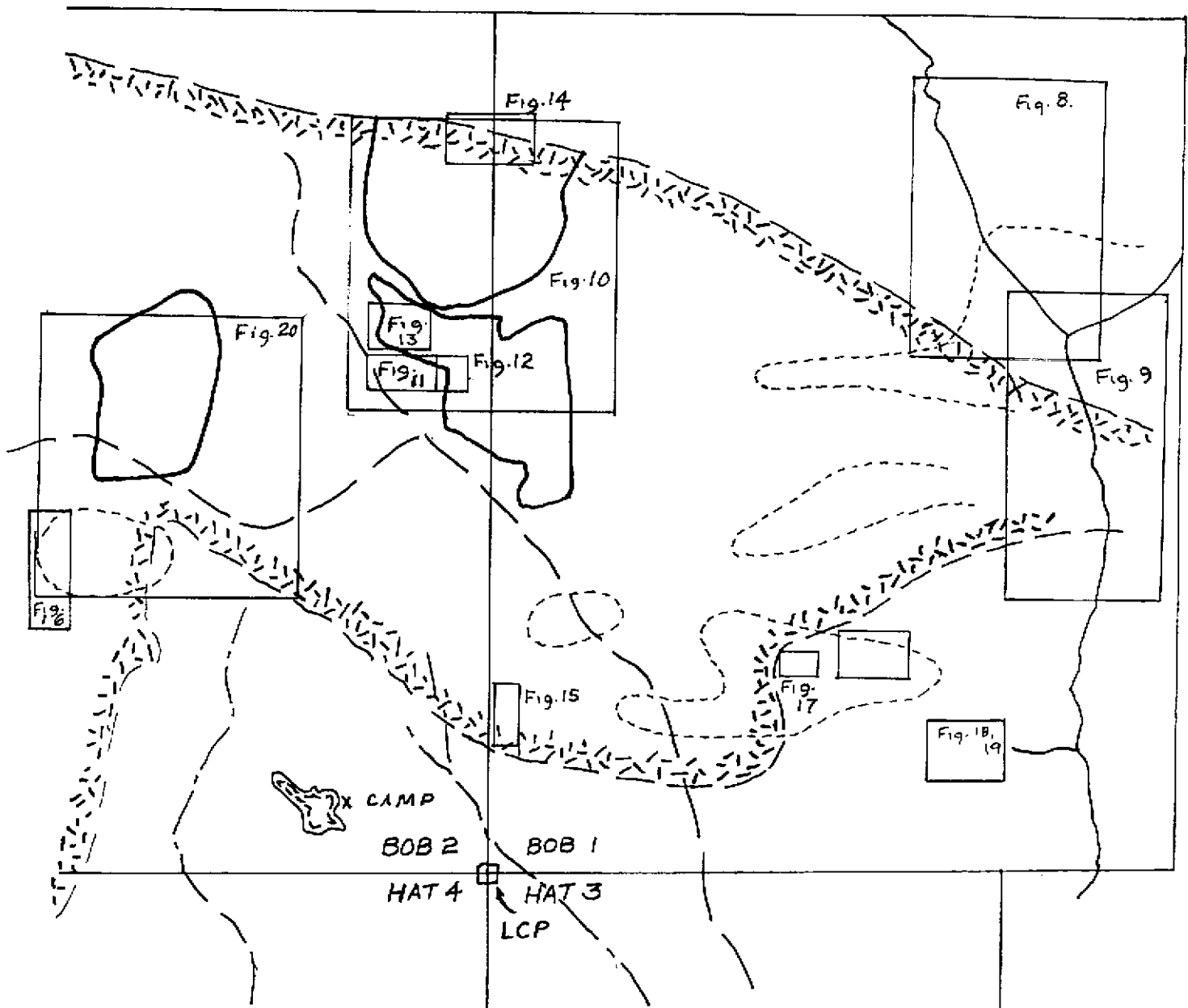
3.8 ppm Au

LCP

1.90 ppm Au

Data from Assessment Files
and other sources.

HAT PROJECT
GEOCHEMICAL-GEOPHYSICAL TARGET



HAT PROJECT - 2001	
ATLIN M.D.; B.C.	
<i>INDEX OF PROSPECTING SKETCHES</i>	
To accompany Assessment Report	
Scale	E. Ostensoe, P. Geo.
November, 2001.	Figure 5.

3.3 Hoey/Big Creek Area

The Hoey mineral zone was located in 1963 by a prospector who trenched the showings using hand tools. The site was re-located and re-sampled by the current owners in 1995 (ref. 5). Gold analyses as high as 8 grams per tonne were obtained from hematite-rich, sheared mafic volcanic rocks. Big Creek canyon, located immediately north and east of the Hoey zone, exhibits strong shearing and iron staining along with, in several locations, varying amounts of both pyrite and chalcopyrite.

The 2001 program occupied 3 days. The canyon was prospected and mapped in reconnaissance fashion (Figures 8 and 9); 7 talus fines samples, 1 stream sediment sample and 7 rock chip samples were collected and submitted to the laboratory for 30 element plus gold determinations by geochemical analysis and assay methods. Sample locations are plotted on the figures; sample descriptions and analytical data are appended to this report (Appendix II, III).

Field work confirmed similarities between Big Creek sheared mineralized zones and the Hoey prospect. The presence in the Big Creek area of several fault zones in andesitic volcanic rocks with pervasive sulphide mineralization and irregular "splashes" of malachite staining is particularly persuasive. Talus fines sample analyses revealed elevated values of gold, copper, zinc, lead, silver, arsenic, cadmium and boron, whereas rock chip samples showed normal to weakly elevated values of most metals. Additional, more detailed, work is required to complete the evaluation of the area and will benefit from the prospecting, mapping and sampling completed during 2001.

3.4 Geochemical Anomalies

Several areas of elevated copper in soil concentrations were identified by re-evaluation of geochemical data that was filed as assessment work in 1978 and 1979 (ref. 9, 10) (A/R 6835 and 7482). Most geochemically anomalous areas were overlain by, or were closely adjacent to, magnetic and/or chargeability anomalies. The 2001 program devoted 12 days to locating and evaluating the selected areas. "Dry" sites had been bulldozer trenched to reveal bedrock whereas "wet" sites were mostly underlain by muskeg bogs. Old trenches were geologically mapped (Figures 10 through 19) and, where indicated, sampled. Thirteen assay samples and seventeen soil samples were submitted to the laboratory for 30 elements plus gold determinations. Sample locations are shown on sketches and, where appropriate, descriptions of samples are appended, along with analytical data, to this report.

Field and analytical data revealed that the geochemically anomalous soils were obtained from areas underlain by granitic rocks that contained small amounts of magnetite and traces of pyrite and chalcopyrite. It was concluded that, as a generality, the overlying and nearby soils scavenged and retained metals from the granitic sources but the extensive covered areas, some of which have coincident induced polarization anomalies, cannot be wholly eliminated as being prospective for porphyry-style deposits.

A previously known mineral zone exposed in a road cut located 110 metres southeast of the Hat/Bob claims LCP was relocated and resampled. The sample (no. 125123) returned 1913.5 ppb gold, close to the value (1.9 ppm gold) obtained from the earlier sampling. The zone is of unknown width.

4. Geology of Hat/Bob Claims

The Hat/Bob claims that form the Hat Project are located in an area with extensive amounts of glacial and outflow debris that obscure the underlying bedrock. Large swamp and muskeg bogs in the central parts of the claims are devoid of rock exposures. Rocks exposed in the Gossan Creek mineral zone exhibit strong epithermal-type alteration and have been deeply weathered. Large areas of rock exposures are found in the west wall of Big Creek canyon; most are both sheared and altered; hematitic and limonitic alteration is strongly developed throughout, even where sulphides are not present. Similar material is found on the east side of the creek but is less well exposed.

Figures 6 through 20 of this report illustrate geology of the claims as recorded in the field.

The dominant rock formation is a green fragmental andesitic unit that includes fine tuffs and crystal tuffs, coarse clastic members and semi-massive flow-like units. Contacts with intrusive members are sharply defined or accompanied by pervasive hornfels development that obscures the contact.

Intrusive rocks are dominantly granodioritic to dioritic but range from granitic to gabbroic. They are variously augitic and hornblending, green and grey-green, fresh to moderately altered, and fine to medium grained. Although some locations exhibit strong silicification, primary quartz grains are rarely distinguishable.

Magnetite was found in many locations in quantities from traces of tiny widely dispersed grains to abundant disseminations and occasionally in one to two centimetre wide seams of massive magnetite. Sulphides, including pyrrhotite, pyrite and chalcopyrite, occur in many locations, usually as fine disseminations or in narrow veinlets. Secondary iron and copper minerals normally are found at surface and shallow depths in proximity to the sulphides. Trace amounts of erythrite were noted both at Gossan Creek and at the Hoey mineral zone.

Bulldozer trenches in several areas of anomalously high copper in soil values were re-examined. Typically, the anomalies can be correlated with shallow soils over weakly mineralized dioritic bedrock. Chalcopyrite, pyrite and pyrrhotite occur both intergranularly and in fractures, usually with weak propylitic alteration. Gossan Creek alteration is intense but sulphide mineralization is weak. Limonite and related iron oxide minerals, kaolinite, sericite and, possibly, alunite, are the principal alteration minerals and very finely divided pyrite is the only identifiable sulphide.

5. Geochemistry of Hat/Bob Claims

The copper geochemistry of soils in the Hat/Bob claims area was extensively investigated by a major mining company that held the ground in the period 1977 to 1983. That company collected in a two year program approximately 1986 soil samples, largely from the apparent "B" soil horizon, and recorded their geochemical data in assessment reports (ref. 9, 10). One hundred and seven soils were taken during the 2001 program of field work: Seventy-seven soils were from the expanded grid in and west of Gossan Creek; others, from swamp and muskeg areas and from sites that were close to bulldozer trenches. Locations of samples are shown on diagrams that accompany this report (Figures 6 through 20).

Soil quality in the Gossan Creek portion was poor where deep overburden was obviously present and where bedrock was at very shallow depths; elsewhere normal conditions were present and good soil profiles were found. Difficult sampling conditions prevailed in swampy areas: some sites were too wet to sample, others had such deep organic cover that it was not practical to sample the nominal "B" layer, if it were in fact present. Brief notes were recorded at each sample site, including location, depth of sample, apparent horizon selected, and any other pertinent features. Sample descriptions are included in Appendix II of this report.

Soils were collected in standard kraft paper envelopes, air dried and submitted to an accredited laboratory for further drying and screening. A 0.5 gram portion was leached with 3 ml aqua regia at 95 degrees C. for one hour, diluted to 10 ml and analysed for 30 elements by an induced coupled plasma method (ICP-ES). In addition to ICP analysis, gold in a 10 gram portion was determined by a more sensitive (detection limit 0.2 ppb) acid leach/ICP-MS method and reported on the same certificate. Geochemical Analysis Certificates are included in Appendix III of this report

6.0 Conclusions and Recommendations

The 2001 season program of prospecting and sampling at the Hat Project has identified two principal areas that warrant additional work: (a) Gossan Creek where the newly acquired data have expanded substantially the area of interest and confirmed the epithermal deposit affinities, and (b) Hoey/Big Creek area where investigation of the very large zone of sulphide mineralization is at an early stage. The geochemically anomalous areas that were re-examined, prospected and, in some cases, sampled, did not reveal strong exploration potential.

The 2001 data have not yet been fully compiled with previously acquired information; nor has the whole package been sufficiently evaluated. Further work, in the field, library and office, is required and, on the basis of results obtained from several episodes of work completed in the last thirty years, is fully justified.

The Gossan Creek epithermal zone requires more precise and comprehensive mapping. It should respond well to geophysical survey methods, in particular to resistivity surveys, and expert advice should be sought.

Field work in the Hoey/Big Creek zones has only partially investigated the rugged and geologically complex area and although it has responded well to this stage, its potential is still largely unknown. The owners intend to continue prospecting, mapping and sampling work and hope to obtain "outside" financing that will be needed to carry out geophysical surveys and drilling programs.

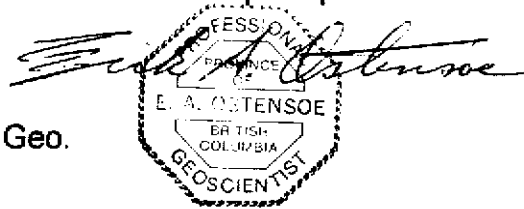
7.0 CERTIFICATION

This report was prepared by Erik A. Ostensoe, P. Geo. and T. E. Lisle, P. Eng., and is based in part on work performed by a major mining company and in part on work by the authors in 1995, 1996 and 2001.

Erik A. Ostensoe, P. Geo. certifies that

1. He is a qualified consulting geologist with residence in the city of Vancouver, British Columbia
2. He is a graduate in Honours Geology of the University of British Columbia and has studied at Queen's University, Kingston, Ontario and is a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (member no. 18727)
3. He has worked in the mineral exploration sector of the mining industry for more than thirty-five years
4. He, in cooperation with T. E. Lisle, P. Eng., completed the field work that is the basis for the accompanying report and he is the principal author of that report.

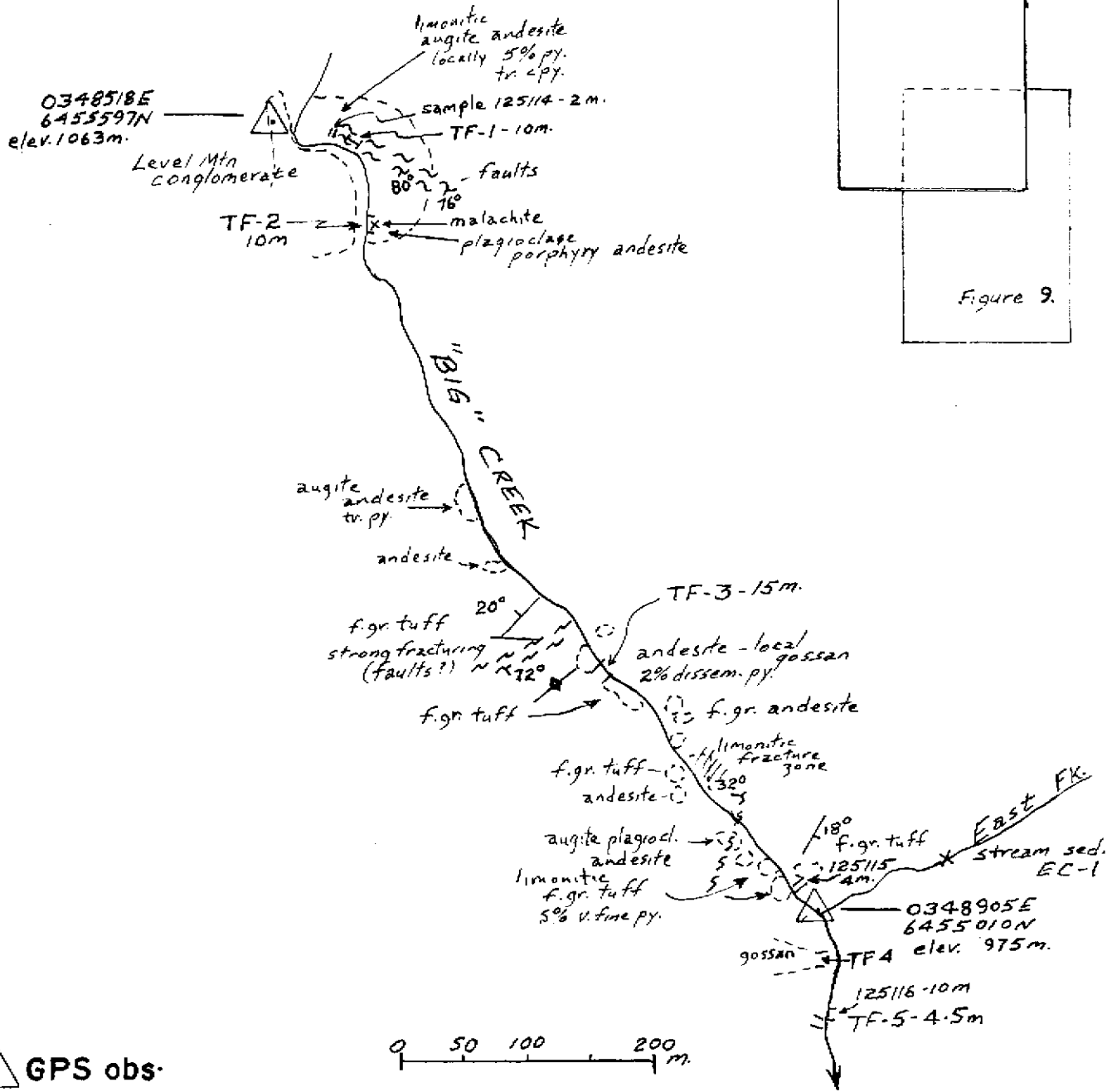
Erik A. Ostensoe, P. Geo.



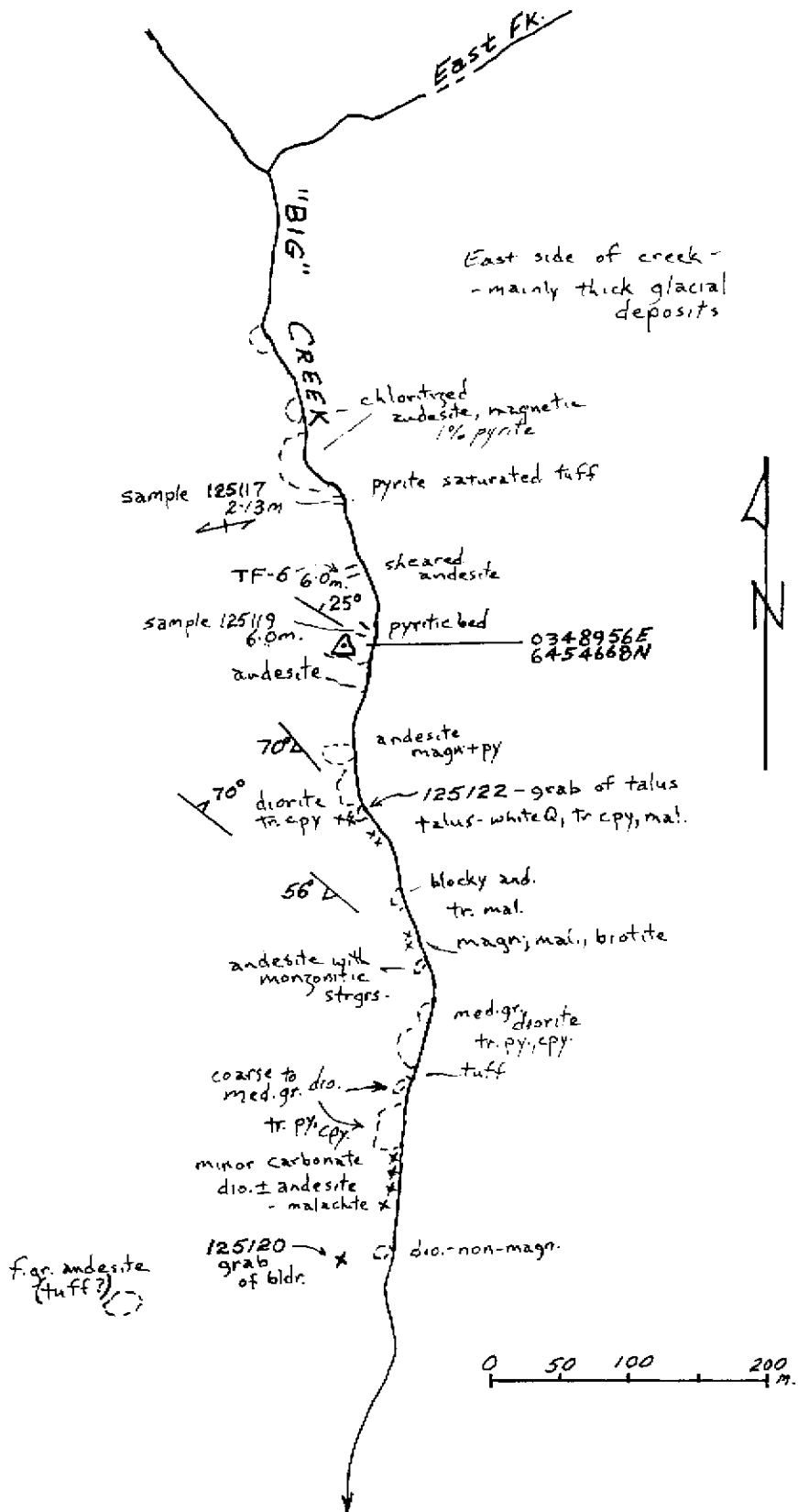
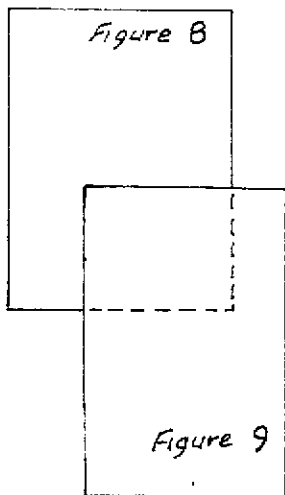
Thomas E. Lisle, P. Eng. certifies that

1. He is a qualified consulting geological engineer with residence in North Vancouver, British Columbia
2. He is a graduate in geology of the University of British Columbia and is a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (member no. 18727)
3. He has worked in the mineral exploration sector of the mining industry for more than thirty-five years in western and northern Canada, the United States and Mexico
4. He, in cooperation with Erik Ostensoe, P. Geo., completed the field work that is the basis of the accompanying report and collaborated in the preparation of that report.

Thomas E. Lisle, P. Eng.

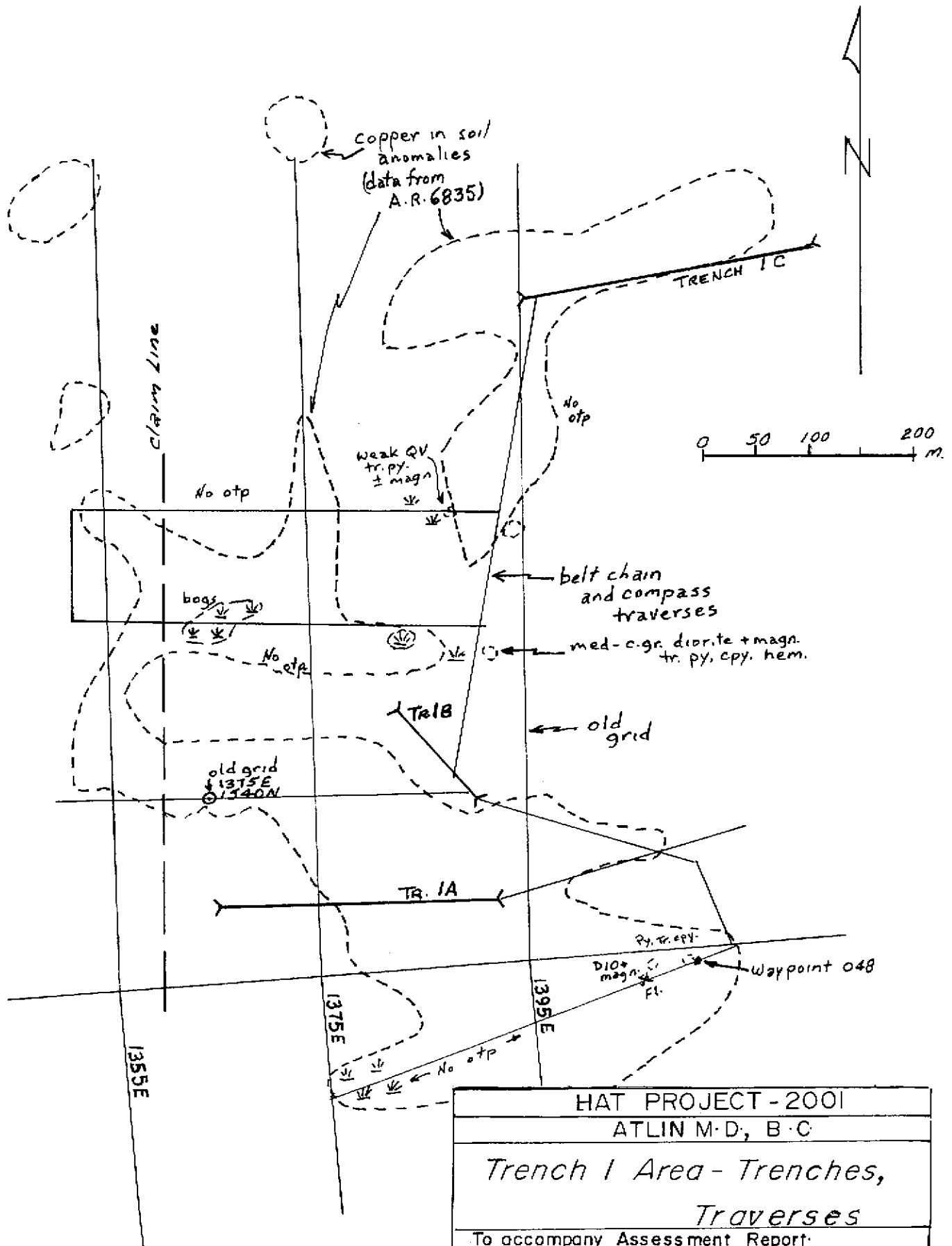


HAT PROJECT - 2001	
ATLIN, M.D., B.C.	
Big Creek Area - North	
Recce Geology and Sampling	
Scale: 1:5000	E. Ostensoe, P. Geo.
November 2001	Figure 8.

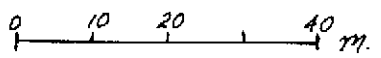
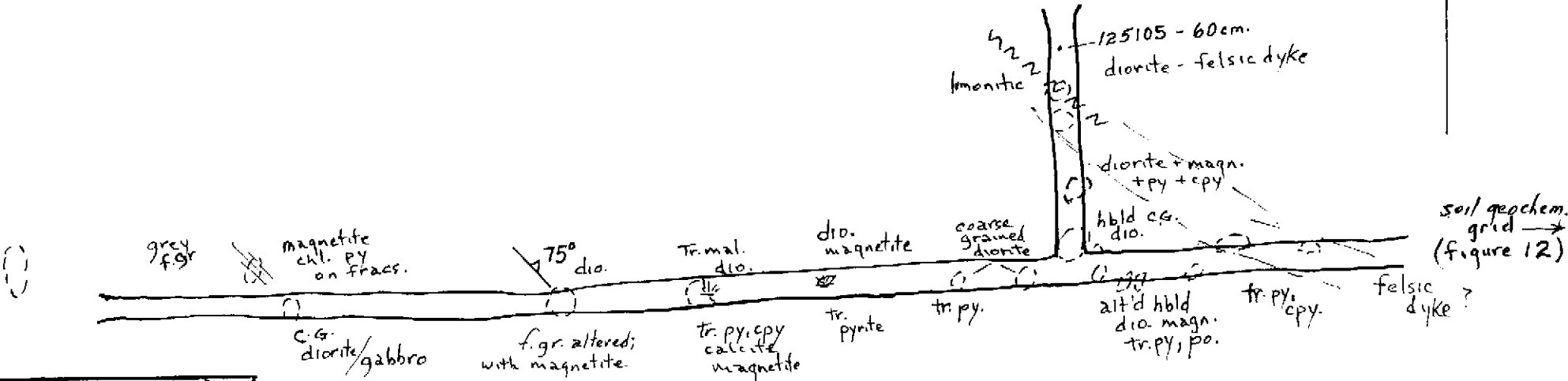
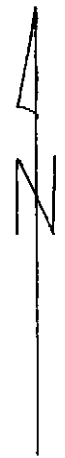


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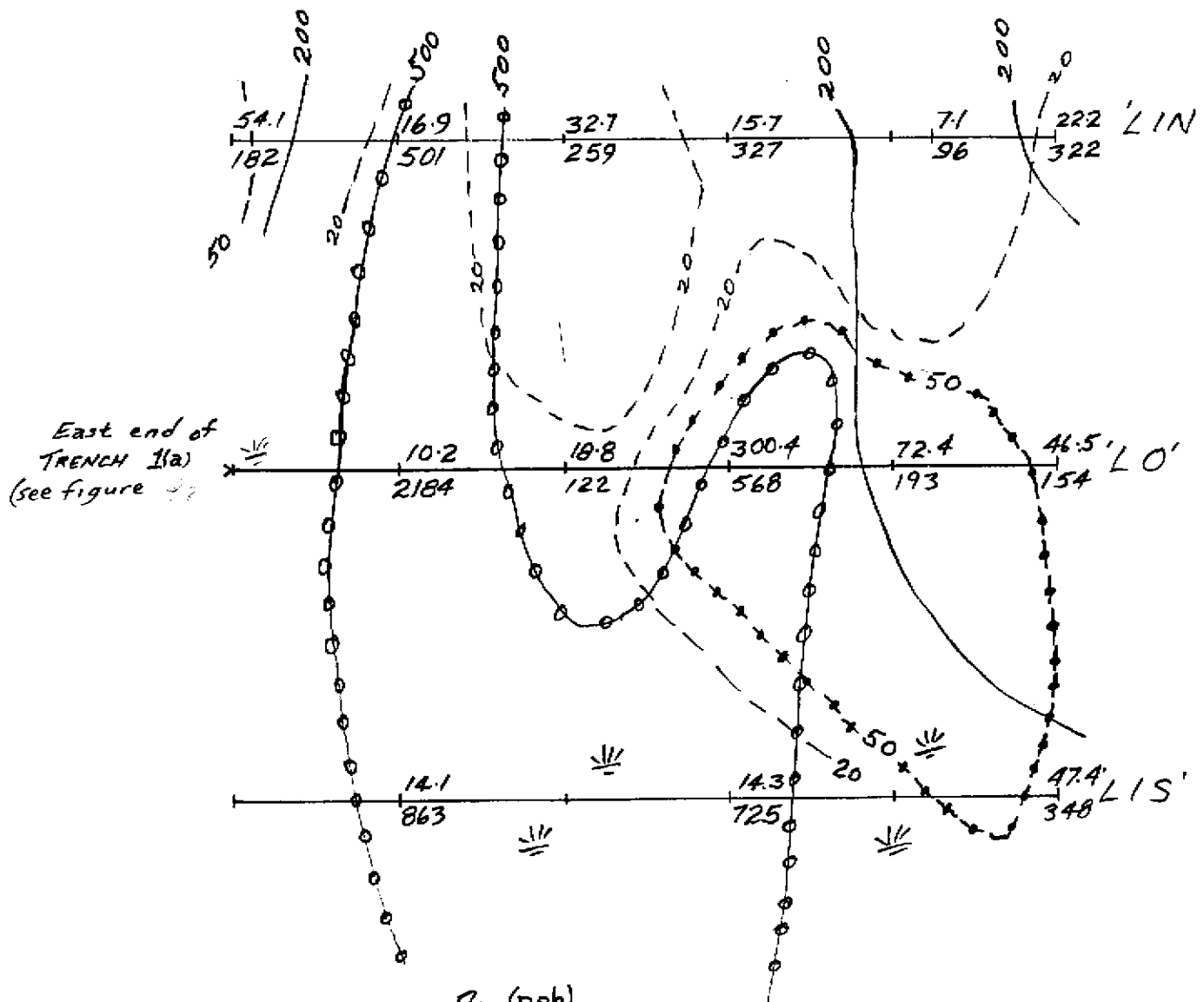
Big Creek Area - South
Recce Geology and Sampling
Scale 1:5000 E. Ostensoe, P. Geo.
November 2001. Figure 9.



HAT PROJECT - 2001	
ATLIN M.D., B.C.	
Trench I Area - Trenches, Traverses	
To accompany Assessment Report.	
Scale 1:5000.	E. Ostensoe · P. Geo.
November 2001.	Figure 10.



HAT PROJECT - 2001
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Trench 1(a)
Geology and Sampling
To Accompany Assessment Report
Scale 1:1000 E. Ostensoe, PGeo
November 2001. Figure 11.

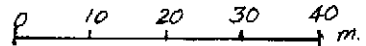
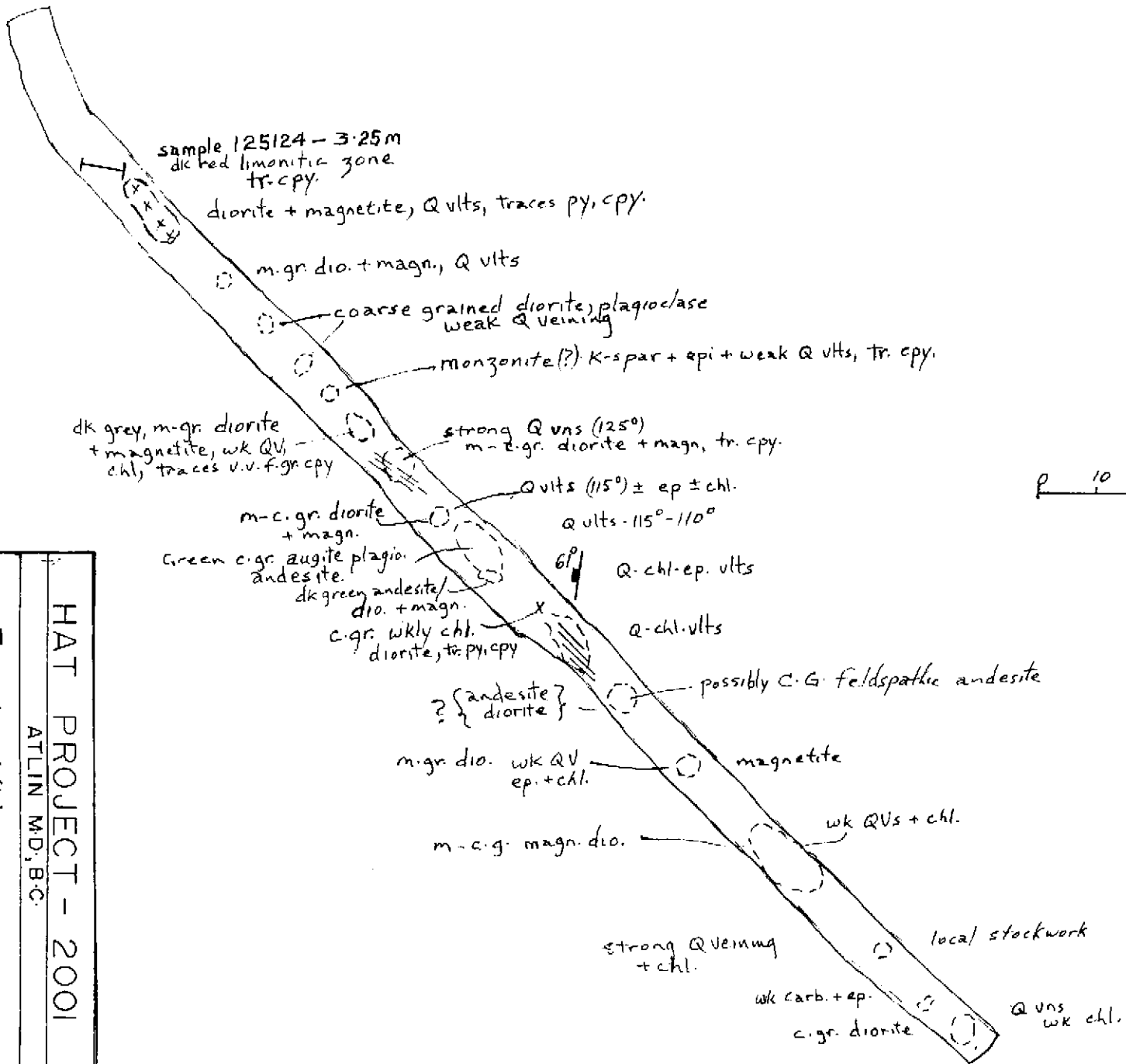


Geochem. analyses : $\frac{\text{Au (ppb)}}{\text{Cu (ppm)}}$

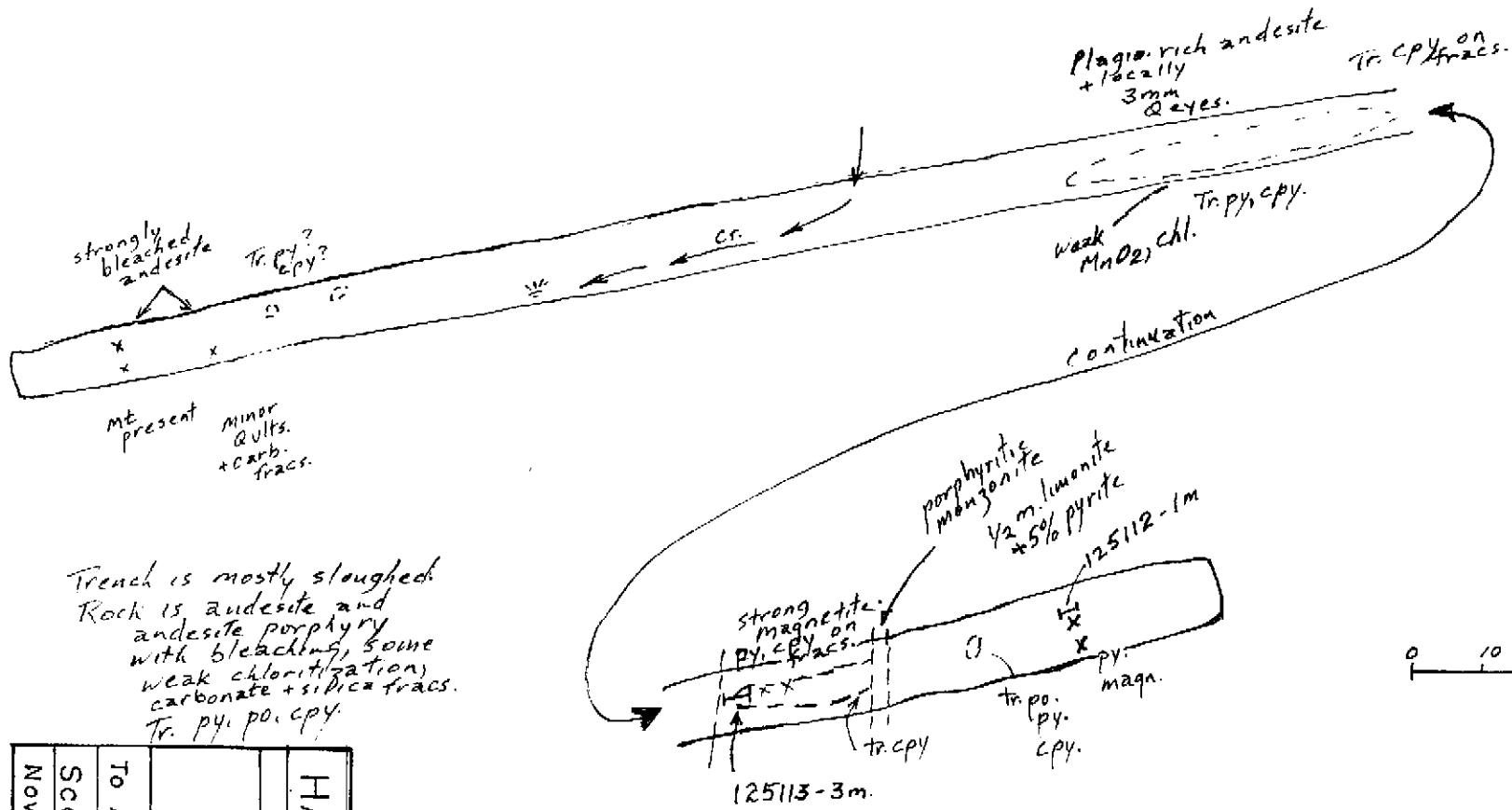
Contours Au - --- - 20 ppb
 - - - - 50 ppb

Cu - ——— 200 ppm
 - - - - 500 ppm

HAT PROJECT - 2001	
ATLIN M.D., B.C.	
Trench 1(a) - Geochemical Samples and Analyses	
To accompany Assessment Report	
Scale: 1:1000	E. Ostensoe, P. Geo.
November 2001	Figure 12

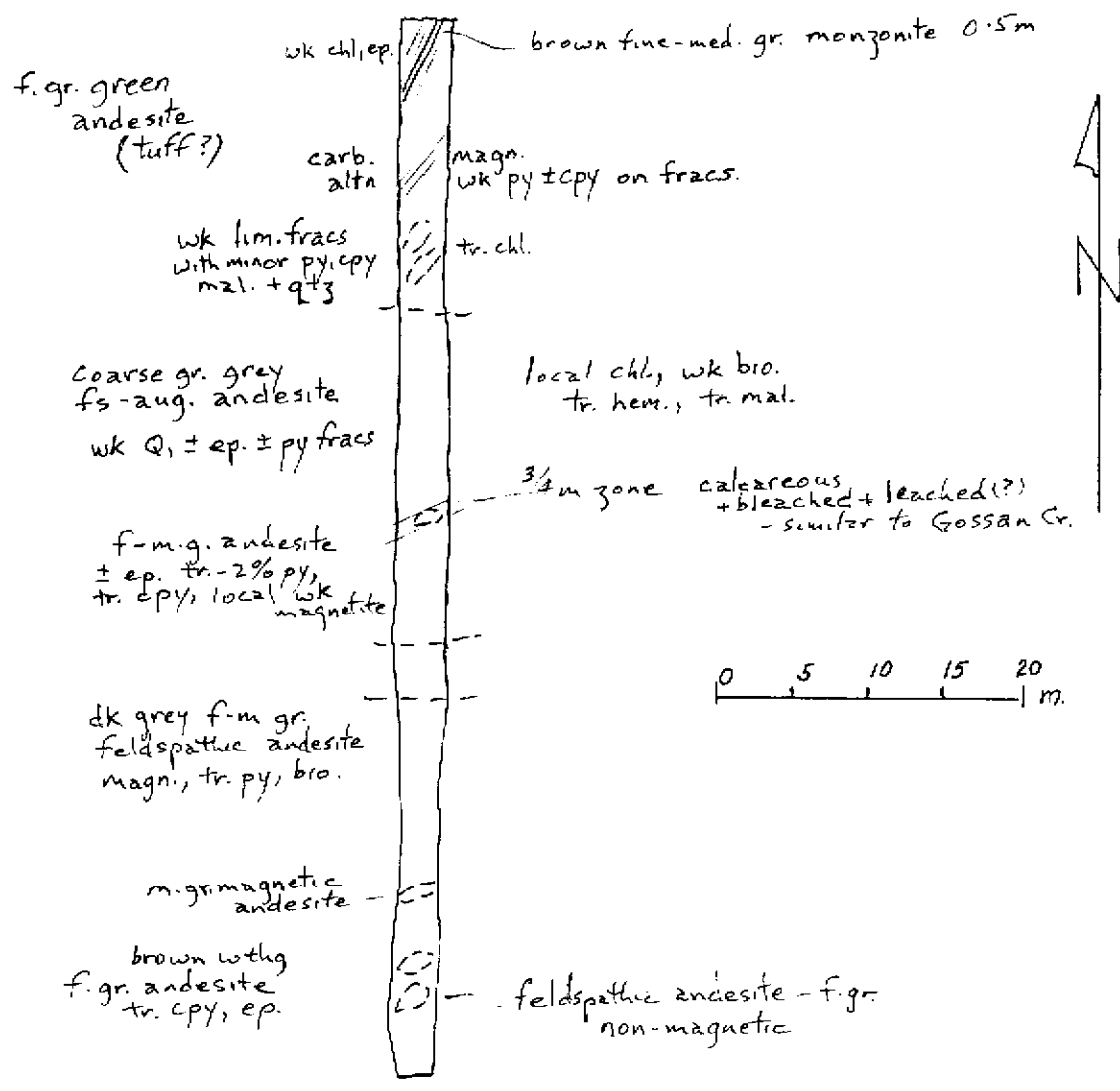


HAT PROJECT - 2001
ATLIN M.D., B.C.
Trench 1(b)
Geology and Sampling
To Accompany Assessment Report
Scale: 1:1000. E. Ostensoe, P. Geo.
November 2001. Figure 13.

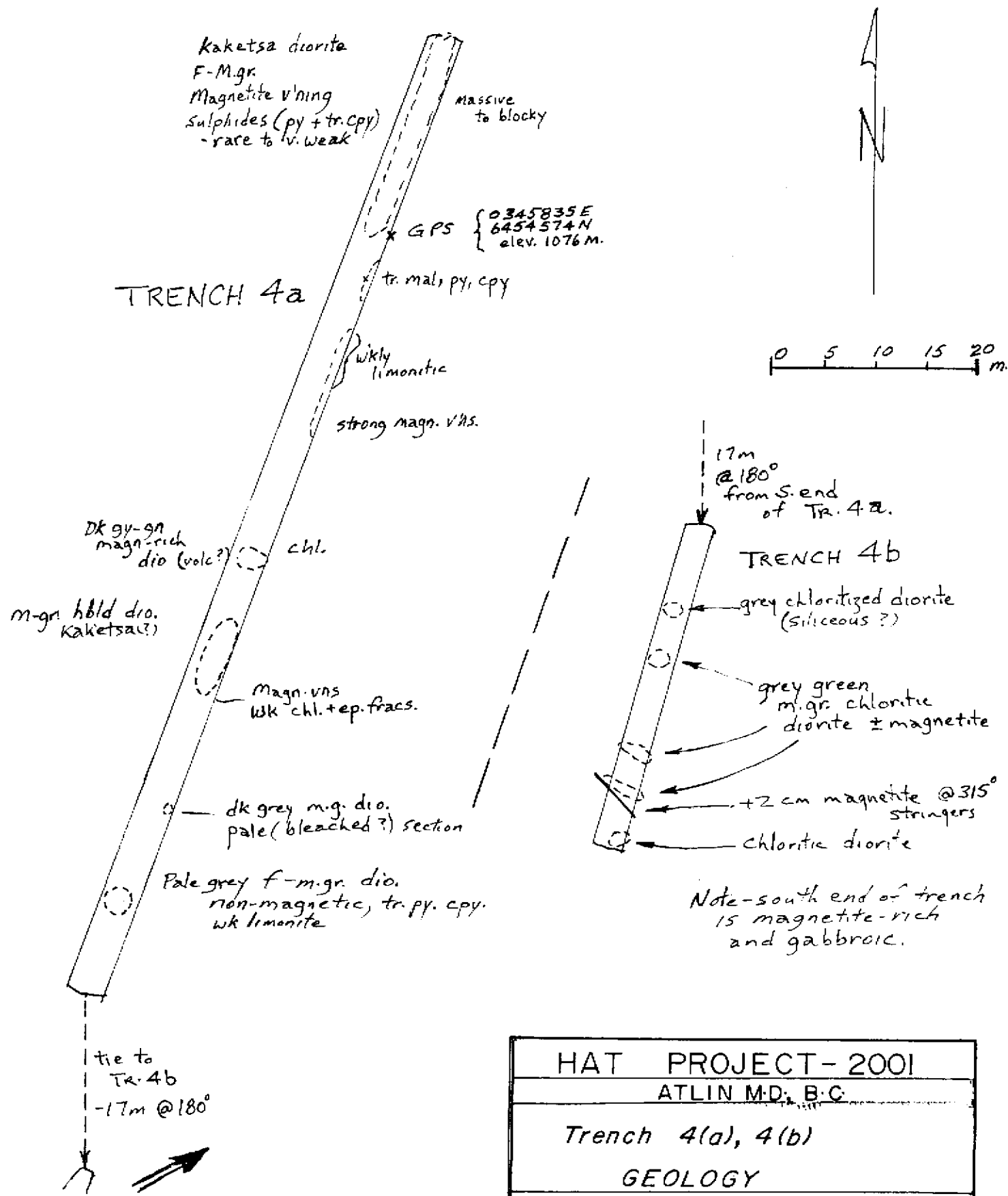


Trench is mostly sloughed.
 Rock is andesite and
 andesite porphyry
 with bleaching, some
 weak chloritization,
 carbonate + silica frags.
 Tr. py. po. cpy.

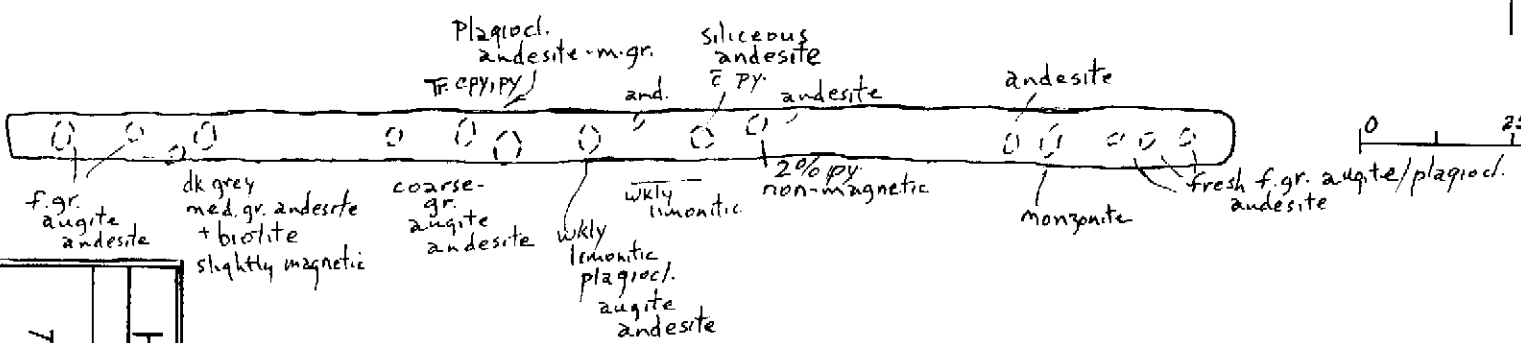
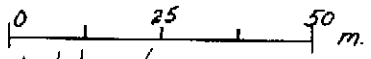
HAT PROJECT - 2001
ATLIN M.D. BC.
Trench 1(c)
Geology and Sampling
To Accompany Assessment Report.
Scale: 1:1000. E. Ostensoe, P. Geo.
November 2001. Figure 14.



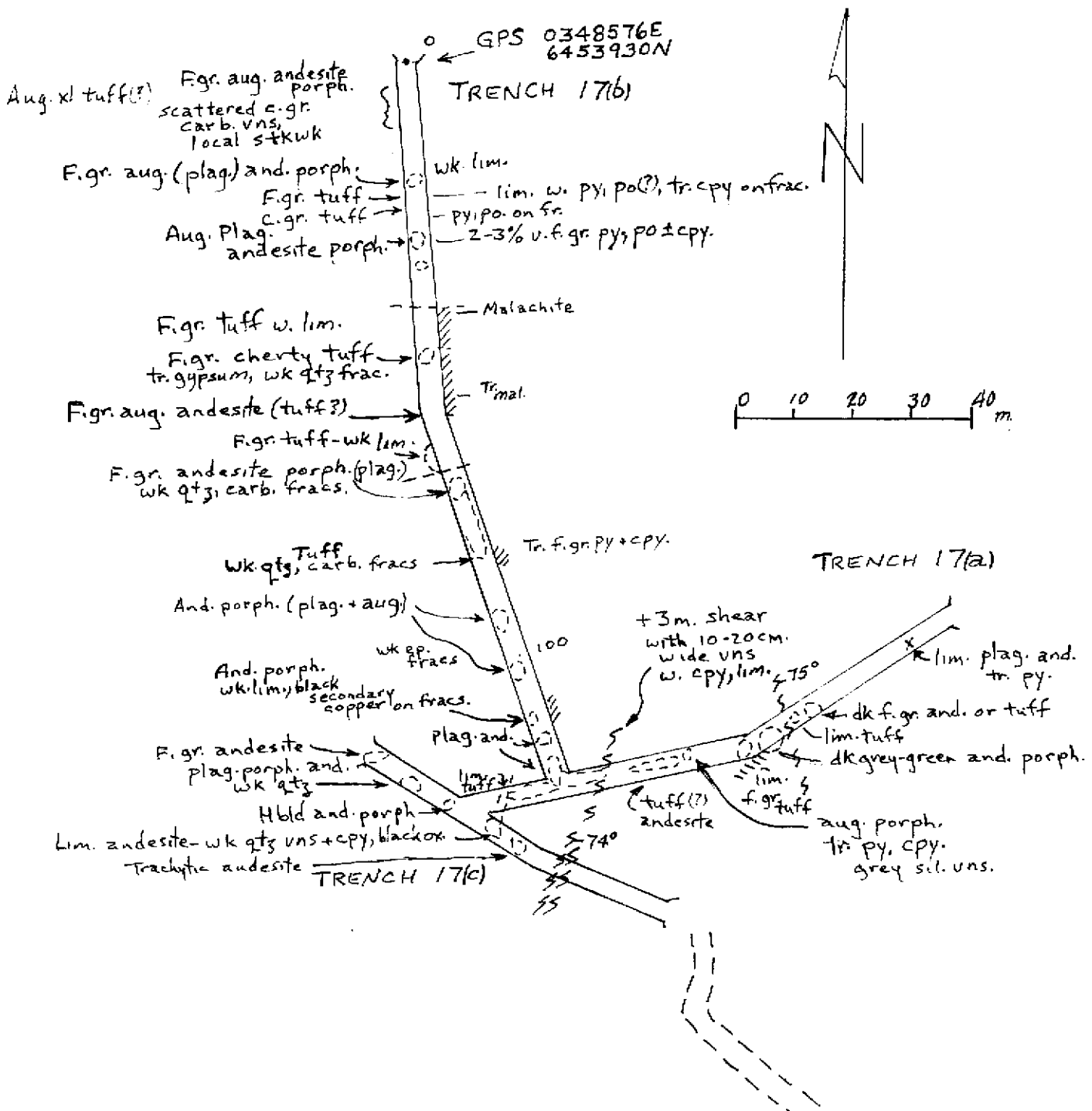
HAT PROJECT - 2001	
ATLIN M.D, B.C.	
Trench 2 - Geology	
To Accompany Assessment Report.	
Scale: 1: 500	E. Ostensoe, P. Geo.
November 2001	Figure 15.



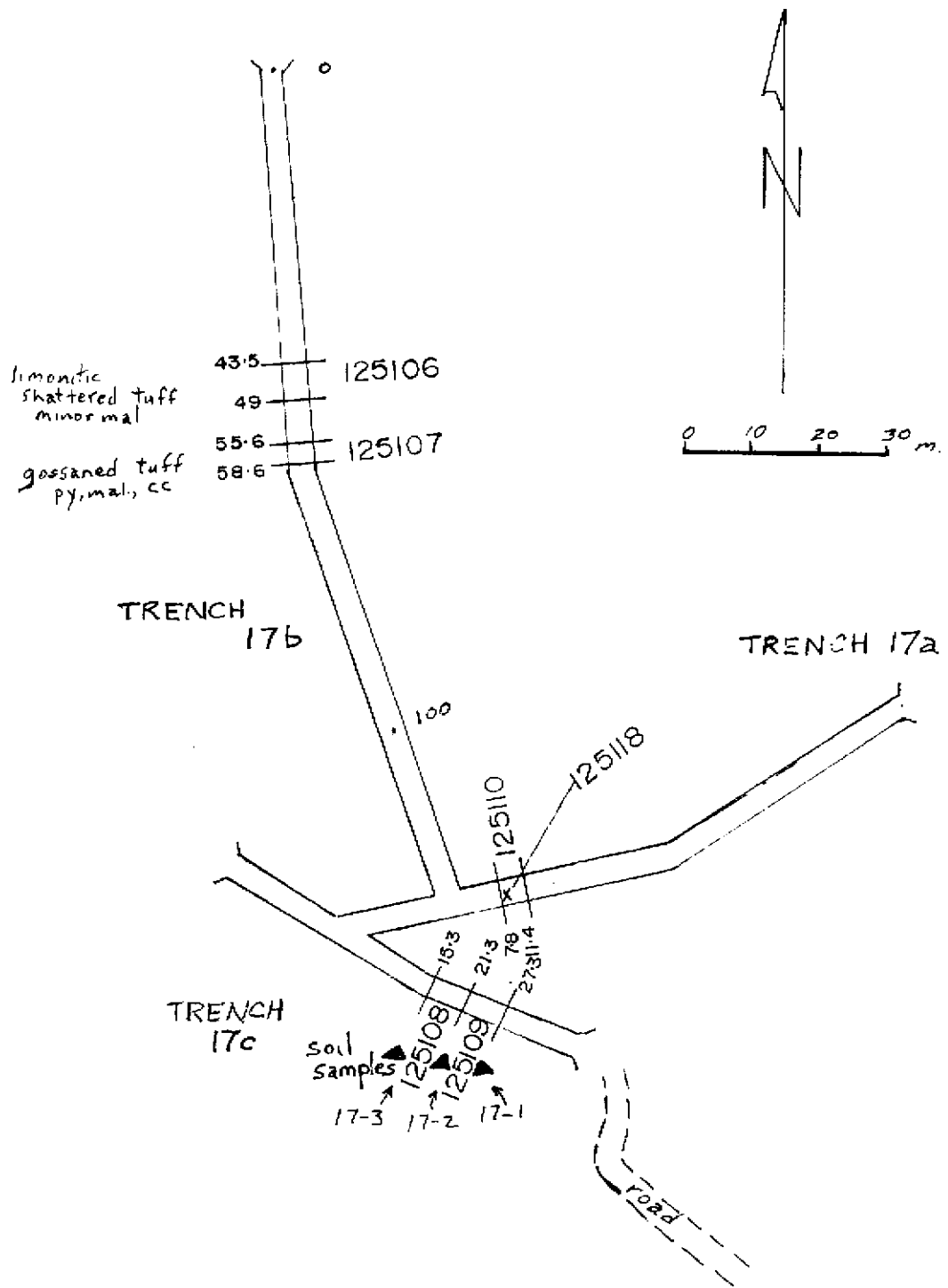
HAT PROJECT-2001	
ATLIN M.D., B.C.	
Trench 4(a), 4(b)	
GEOLOGY	
To Accompany Assessment Report.	
Scale: 1:500.	E. Ostensoe, P-Geo.
November 2001.	Figure 16.



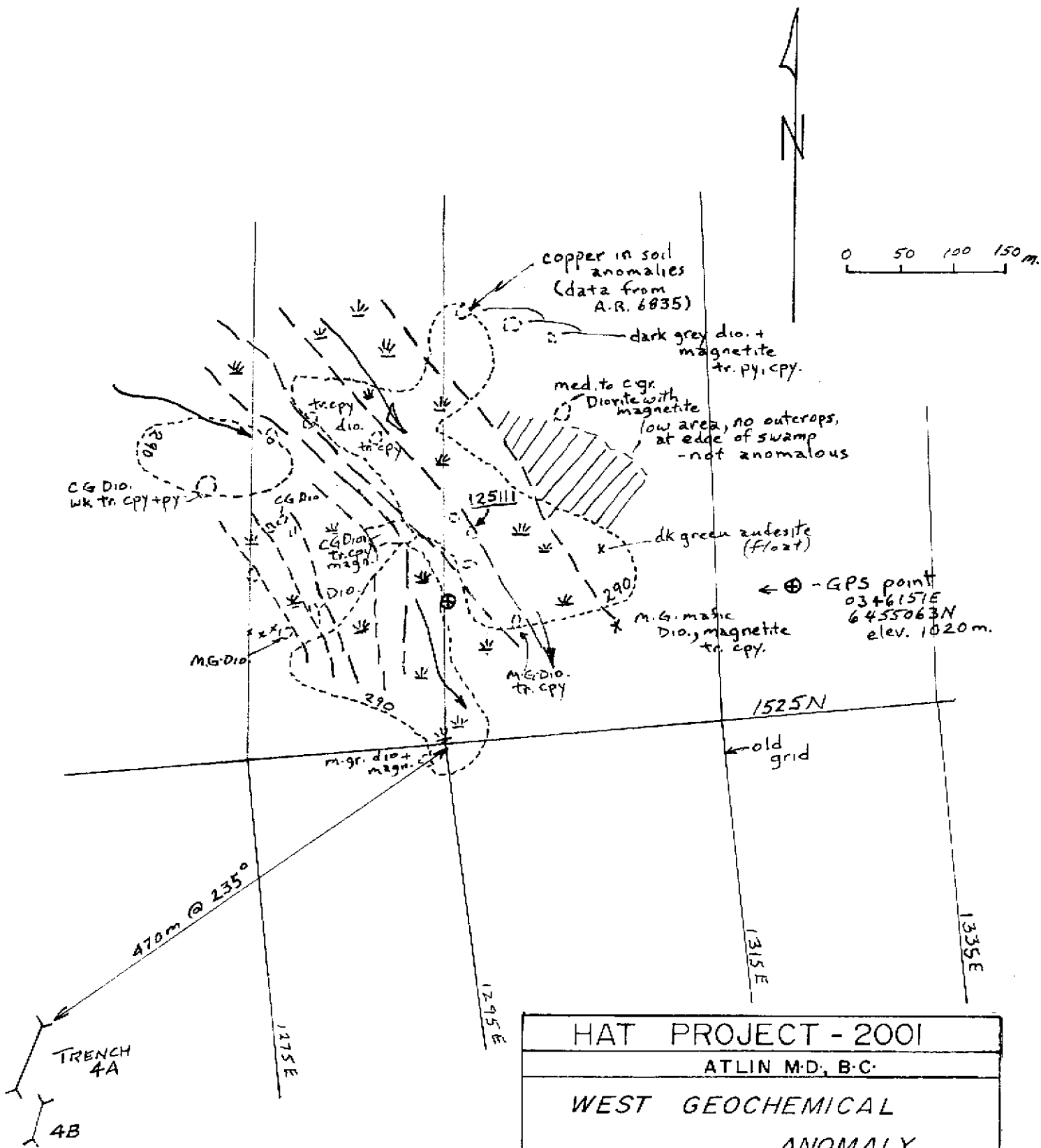
HAT PROJECT - 2001
ATLIN MD, B.C.
Trench 15(b) -
Geology
To Accompany Assessment Report.
Scale 1:1250. E. Ostensoe, P. Geo.
November 2001. Figure 17.



HAT PROJECT - 2001	
ATLIN M.D., B.C.	
Trench 17(a), 17(b), 17(c) -	
Geology	
To Accompany Assessment Report	
Scale: 1 = 1000	E. Ostensoe, P. Geo.
November 2001	Figure 18



HAT PROJECT - 2001	
ATLIN M.D., B.C.	
Trench 17(a), 17(b), 17 (c) Rock Chip and Soil Samples To accompany Assessment Report	
Scale 1:1000	E. Ostensoe, P. Geo.
November, 2001	Figure 19.



HAT PROJECT - 2001	
ATLIN M.D., B.C.	
WEST GEOCHEMICAL	
ANOMALY	
Geology and Sampling	
To Accompany Assessment Report.	
Scale: 1:5000.	E. Ostensoe, P. Geo.
November, 2001. Figure 20.	

APPENDICES

- Appendix 1. GPS Observations
- Appendix II. Geochemical Sample Descriptions
 - Appendix II(a) Rock Sample Descriptions
 - Appendix II(b) Gossan Creek Area - Geochemical Soil Samples
 - Appendix II(c) Big Creek Area - Talus Fines Samples
 - Appendix II(d) Miscellaneous Samples - Talus Fines, Stream Sediments
 - Appendix II(e) Geochem "High" Area - Soil Samples
- Appendix III. Laboratory Certificates - Assays and Analyses
- Appendix IV. Statement of Expenditures

APPENDIX 1

GPS OBSERVATIONS GOSSAN CREEK AREA

Grid line	Station	Easting	Northing	Elev. metres	Accuracy metres
1S					
2S	6+00W	346471	6453253	903	11
2S	5+00W	346573	6453287	954	9
2S	12+50W	345852	6453155		
4S	10+50W	346091	6453036	898	10
5S	11+50W	346000	6452911	858	
	10+50W	346102	6452918	860	9
6S	7+89W	346313	6452825	865	7
	10+00W	346108	6452829	852	
	11+50W	345960	6452840		12
	13+00W	345821	6452813	847	9
	14+33W	345691	6452820	854	8
	15+88W	345552	6452842	828	5
	18+60W	345310	6452877	741	10
	20+00W	345171	6452860	724	16
7S	8+38W	346327	6452747	800	9
	12+50W	345927	6452712	767	11
	16+50W	345546	6452660	759	10
	19+50W	345257	6452646	754	10
8S	8+11W	346349	6452677	767	12
	19+00W	345317	6452604	685	9
8S (bxa zone)	19+10W	345297	6452594	680	9

**GPS OBSERVATIONS
HAT - BOB CLAIMS**

Location	Easting	Northing	Elev. metres	Accuracy metres
Trench 1A (west end)	0347196	6454916	1040	6
(east end)	0347253	6454905	1052	7
+ 274 m east	0347514	6454899	1065	6
Trench 1B (SE end)	0347228	6455010	1065	7
Trench 1C (west end)	0347266	6455437	1050	
Trench 2 (center)	0347222	6453951		
Trench 4A	0345835	6454574	1076	7
Trench 5	0345939	6454002	994	
Trench 15 (west end)	0348154	6453985		
(east end)	0348360	6454001		
Trench 15B (280 degrees)	0348064	6453991		
Trench 17 (north end)	0348576	6453930	1012	
LCP Bob 1, 2 Hat 3, 4	0347077	6453473	997	9
"Geochem area" -1+00S-13+75E	0348549	6455129	1106	17
West Geochem Zone	0346151	6455063	1020	
East Geochem Zone (WP 48)	0347429	6454815	1041	7
East Geochem Zone - mini-grid 1N + 250 East + 40 m @ 352 degrees	0347481	6455056	1092	20
Hoey Zone (10 m east of main showing)	0348210	6452148	792	9
Magnetite block on road SE of LCP (WP 32)	0347262	6453431		
Big Creek - west fork upper	0348518	6455597	1063	
Big Creek - forks	0348905	6455010	975	
Big Creek - approx. 400 m. downstream from Forks	-348956	6454666	966	8

APPENDIX II. Geochemical Sample Descriptions

Appendix II(a) Rock Sample Descriptions

Appendix II(b) Gossan Creek Area - Geochemical Soil Samples

Appendix II(c) Big Creek Area - Talus Fines Samples

Appendix II(d) Miscellaneous Samples - Talus Fines, Stream Sediments

Appendix II(e) Geochem "High" Areas - Soil Samples

Appendix II(a) Rock Sample Descriptions

Sample No. 125105 - Trench 1(a) - (see Figure 11) location is 35 m. north of 167 East in trench. Sample across 60 cm of sheared zone (316 degrees) with Fe staining and malachite in coarse gabbroic diorite

Sample No. 125106 - Trench 17(a) - (see Figure 19): location 43.5 to 49.0 metres, measured from north end of trench. Limonite stained oxidized tuff, yellowish. Traces of malachite and chalcocite.

Sample No. 125107 - Trench 17(a) - (see Figure 19): location 55.6 to 58.6 metres, measured from north end of trench. Malachite and chalcocite in tuff.

Sample No. 125108 - Trench 17(c) - (see Figure 19): location is 15.3 to 21.3 metres. Malachite and oxides in sheared tuff.

Sample No. 125109 - Trench 17(c) - (see Figure 19): location is 21.3 to 27.3 metres. Alteration (Fe oxide staining) without much mineralization.

Sample No. 125110 - Trench 17(a) - (see Figure 19): location is 7.8 to 11.4 metres, measured from junction with Tr. 17b. Shearing in tuffs, with sulphides.

Sample No. 125111 - "West" geochem area: - (see Figure 20): location is 10 metres east of 1+10 north on a line established to cross the anomalous area. Sample comprises a random representative character sample of diorite in this area. Rock has trace amounts of chalcopyrite.

Sample No. 125112 - Trench 1(c) - (see Figure 14): location is northeast part of trench, 257 metres east of west end. One metre chip sample of white altered hornfelsic rock, likely a border phase of the diorite. Minor sulphides present.

Sample No. 125113 - Trench 1(c) - (see Figure 14): location is 208 to 211 metres (see description of sample no. 125112). Representative sample of diorite.

Sample No. 125114 - Big Creek area - (see Figure 8): location is 50 m. downstream from GPS point measured at sharp bend in creek valley near start of prospecting traverse down the creek. Sample is a 2 metre wide chip sample from a strongly gossaned outcrop of andesite tuff with magnetite, pyrite, chalcopyrite and malachite.

Sample No. 125115 - Big Creek area - (see Figure 8): location is 777 metres downstream from GPS point, near confluence with East Fork creek. Sample is a 4 metre chip sample from a rusty "rib" of Fe oxide stained bedded andesite tuff.

Sample No. 125116 - Big Creek area - (see Figure 9): location is east side of creek, 80 metres downstream from confluence with East Creek. Sample is a 10 metre chip sample of pyritic (2 to 5%) augite andesite tuff.

Sample no. 125117 - Big Creek area - (see Figure 9): location is west side of creek 226 metres downstream from confluence with East Fork creek. Sample is a 2.1 metre chip sample from a melange of feldspar porphyry dykes, sheared andesite tuffs and pyrite saturated zones (beds?).

Sample No. 125118 - Trench 17(c) - (see Figure 19): sample of abundant chalcopyrite and other sulphides in andesite tuff. This is a selected (i.e. high-graded) sample taken for possible comparison purposes of rock geochem versus assay values.

Sample No. 125119 - Big Creek area - (see Figure 9): location is west side of creek, 375 metres downstream from East Fork creek. Six metre chip sample across a very weathered/oxidized pyrite bed or layer in andesite.

Sample No. 125120 - Big Creek area - (see Figure 9): location is on steep slope, 35 metres at 260 degrees up west side of creek valley from point that is 825 metres downstream from confluence with East Fork creek. Grab sample from a 2 metre diameter angular boulder of fine grained grey andesite with myriad veinlets of fine grained chalcopyrite, that presumably has moved downslope from its original location. Boulder is not entirely mineralized.

Sample No. 125121 - Gossan Creek area - (see Figure 6): sample of many small (up to 20 cm. diameter) angular fragments of strongly carbonate altered, moderately silicified andesite with traces of grey sulphide minerals, including both pyrite and chalcopyrite(?) located in a dry stream bed at Line 7+00S, 12+25W.

Sample No. 125122 - Big Creek area - (see Figure 9): sample of diorite/andesite rock with white quartz stringers (veinlets) and/or fracture coatings and traces to moderate amounts of pyrite, traces chalcopyrite and malachite.

Sample No. 125123 - Central claim post area (Legal Corner Post) - (see Figure 5): sample of rubble/outcroppings exposed in south side of old road cut at GPS waypoint 32: 0347262E, 6453431N. Site is 185 metres southeast of LCP. This is a re-location and re-sampling of a site previously identified by a prospector (Assessment Report 13939) whose grab sample assayed 1.9 ppm gold. Rock is strongly oxidized grey feldspathic andesite with magnetite and traces of pyrite.

Sample No. 125124 - Trench 1(b) - (see Figure 13): sample of red to yellowish iron oxide stained rock in floor of trench. Sample is 3.25 metres wide and represents hornblende diorite with fracture controlled and intergranular sulphides. Trench is in an area of high copper in soils.

Sample No. 125125 - Trench 1(a) - (see Figure 11): sample of diorite outcrop in "East" geochem area. Location is waypoint 048. Diorite has medium to coarse-grained hornblende and fracture controlled and intergranular sulphides.

Sample No. 125126 - 274 metres east of trench 1(a) - (see Figure 11): Prospecting sample of mineralized (up to 10% pyrite) andesite "float" rock in area of strong copper in soil geochemical response. Area has thick brush, scattered spruce trees and no outcroppings.

Appendix II (b) Gossan Creek Area - Geochemical Soil Samples

- L1S** 5+00W - 20 cm. Good medium brown rocky soil.
5+50W - 20 cm. Slightly yellowish clayey till. Good sample from 10 degree slope (westerly toward Gossan Creek).
6+00W - 25 cm. On lip of steep slope (40 degrees) into Gossan Cr. Taken from broken outcrop (tuff with siliceous alteration). Very angular fragments with not a lot of true soil.
6+50W - 15 cm. Very close to Gossan Creek. Steep slope. Sandy soil with rock fragments including CO3 veining.
- L2S** 5+00W - Gravelly till. Brown. Fair to good sample.
5+50W - Sandy till. Some limonite. B horizon. Fair sample.
6+00W - 15 cm. Limonitic yellow clay. Gougy material.
6+50W - From steep slope. Alluvium? Sandy with angular fragments - talus pieces, including quartz
7+00W - 20 cm. Pale brown stoney till with clay.
7+50W - 15 cm. Till. B/C horizons. Clayey.
8+00W - 15 cm. Stoney till. Yellowish tinge. FeOx?
8+50W - 20 cm. Clay till. Stoney. Medium brown.
9+00W - 20 cm. As above.
10+00W - 15 cm. Medium brown. Gravelly clay till. Fair to good material. Terrain is poplar forest.
10+50W - 15 cm. B horizon. Gravelly clay till with pea gravel. Brown.
11+00W - 20 cm. B horizon. Gravelly clay till. Brown.
11+50W - 20 cm. B horizon? Organics and gravelly till.
12+00W - 20 cm. B horizon. Clayey till. Brown/grey colour. Good sample.
12+50W - 20 cm. Medium brown with yellowish tinge. Fair to good material.
- L3S** - 10+50W - 30 cm. Dk brown, clayey soil; some cobbles, organics. Fair quality.
11+00W - 20 cm. C horizon. Rocky. Grey-green. Fair to good material. Terrain is flat to gentle slope to south.
11+50W - 20 cm. B horizon. Clayey brown soil.
12+00W - 25 cm. Dk brown, fine to gritty texture, some rock fragments. B horizon. Good quality material.
12+50W - 15 cm. Brown soil mixed with pea gravel. Poor sample.

L4S - 10+50W - No true soil present. Sample material was scraped off broken bedrock and includes a lot of rock fragments.
11+00W - As above. Dark organic layer about 3 cm thick on top of light grey tuff.
11+50W - 20 cm. Very rocky limonitic material. On slope to drainage at 11+40W.
12+00W - 25 cm. Upper clayey layer under deep soil. Medium brown colour. Only fair quality.
12+50W - 30 cm. Moderately steep slope with medium to dark brown clayey till. Soil is fair to good quality, with rock frags.

L5S - 9+50W - Area of deep overburden. Dark brown soil, few rocks.
10+00W - 20 cm. as above. Poor sample.
10+50W - 20 cm. Medium brown clayey till.
11+00W - 25 cm. Good soil. Yellow-brown clayey till (?).
11+50W - 5 - 10 cm. Very rocky. Shallow dirt layer on limonite-stained tuff.
12+00W - 25 cm. Clayey, yellow-brown soil. Good material.
12+50W - 15 cm. Light very sandy soil. Light yellowish-grey colour.
Site is on a slope westerly to a drainage course at 12+55W.

L6S - 10+00W - 20 cm. Medium brown coloured fine soil.
10+50W - 15 cm. Pebbly soil, medium brown colour.
11+00W - 12 cm. Sandy soil with pebbles. Medium brown colour.
11+50W - 20 cm. Light brown. Very clayey soil with small rocks - till.
Open slope with small poplar trees.
12+00W - 20 cm. 4 metres west of dry drainage. Good material - fine soil, light brown colour, some sand and small rocks.
12+50W - 20 cm. Poor soils. Rocky, organic, medium to dark brown.
13+00W - 12 - 15 cm. Dark brown, rocky shallow organic soil. Poor sample.
13+50W - 12 - 15 cm. Very rocky material but fair quality sample. Medium to light brown colour.
14+00W - 10 cm. Very little soil. Much angular talus of andesite slabs. Organic material. Dark brown colour.
14+50W - 10 cm. Rocky talus close to outcrop. Medium brown colour and fine texture.
15+00W - 10 - 15 cm. Shallow rocky light brown soil. Good material. Outcrop located 2 metres north of site.
15+50W - 15 cm. Rocky material - angular talus. Fair quality sample of light brown soil.
16+00W - Very rocky area - Poor sample due to lack of soil.
16+50W - 15 cm. Dark brown clayey soil. some rocks. Fair sample.
17+00W - 15 - 20 cm. Dark brown soil. fine texture. Good soil from 15 degree slope to south.

17+50W - 20 cm. Dark brown to black soil with "soft" texture (due to low clay content?)

18+00W - 20 cm. A/B horizons. Dark brown to black soil with some rocks (andesite). Site is located immediately north of a small linear valley that parallels the grid line.

18+50W - 20 cm. Medium to light grey-brown soil contaminated with black organic material, some rocks and some clay. Fair quality sample.

19+00W - Poor sample of organic soil with minor B/C material.

19+50W - Poor sample with clay. Medium brown colour.

20+00W - Good B soil. Reddish brown soil with very little clay and few stones.

L7S - 10+00W - 20 cm. Rocky-clayey till. Fair to good sample. Light brown.

10+50W - 20 cm. Clayey rocky soil.

11+00W. 30 cm. Deep dark brown soil. Till with much clay.

11+50W - 30 cm. Light sandy, medium brown soil on steep slope beside a small drainage. Good sample.

12+00W - 25 cm. Dry slope, open hillside. Light sandy soil.

12+50W - 20 cm. Grey brown sandy soil. Fair to good sample. Open hillside.

13+00W - 15 cm. Medium to light brown soil with small rocks. Brushy slope. Fair material.

13+50W - 25 cm. Orange-yellowish rocky soil. Fragments of carbonate altered rock with fine grained trace amounts of sulphides. Less brushy than 13W.

14+00W - 15 cm. Very rocky, sandy soil. Fair sample.

14+50W - 20 cm. Pale brown rocky soil

15+00W - 10 cm. Very little soil. Rocky fragments of talus from outcrop located 10 m. upslope. Soil is largely organic material. Black, finely granular texture. Rock is CO₃ flooded tuff that is totally altered.

15+50W - 40 cm. Better soils than previous. Red-orange colour. Fragments of CO₃ altered rock with much FeOx.

16+00W - 20 cm. Fair quality rocky soil.

16+50W - 2 - 5 cm. Poor quality soil on outcrop of CO₃-altered rock with traces of malachite, chalcopyrite. May have high organic content. In part strongly siliceous.

17+00W

17+50W - 20 cm. Mostly organic soil. Bits of altered CO₃ rock.

18+00W - 20 cm. 20 cm. Mixed dark and light brown soil with angular CO₃-altered rock fragments.

18+50W - 20 cm. Difficult to obtain soil due to thick roots. Fair sample but organic rich.

19+00W - 20 cm. Good soil. Light to medium brown colour. Few rocks.

19+50W - 20 cm. Light soil. Rocky. Much CO₃-altered material in outcrops and in fragments.

Appendix II(c) - Big Creek Area - Talus Fines Samples

Big Creek work began at GPS site 0348518E, 6455597N, elev. 1063m.

BC TF-1 - talus fines - 52 to 62 m. downstream - sampled across 10 m width of steep, strongly fractured very fine grained andesite with erratic distribution of sulphides, mostly pyrite, much oxidation to secondary minerals, occasional flashes of malachite. Limey coated frags.

BC TF-2 - talus fines - 110 to 120 m downstream - sample of fines shed from a 60 metre high face of sheared and shattered andesite with erratic pattern of faults and shears, only small amounts of malachite.

BC TF-3 - talus fines - 547 metres downstream - east bank of stream. Sampled across 15 metres. Shattered andesite tuff (?) with shearing and much FeOx.

BC TF-4 - talus fines - west side of creek, 31 metres downstream from junction with East Fork. Sample of fines in slide below a bright gossan developed in tuffaceous rocks. Coarse material.

BC.TF-5 - talus fines - 84 to 88.5 metres downstream - west side of creek. Malachite in rubble below cliffs of FeOx stained andesite.

BC TF-6 - talus fines - 320 metres downstream from East Fork. Sample across 6 metres of talus material below 50 metre high bluff/outcrop. Tuffs.

BC TF-7 - talus fines - 775 to 800 metres downstream from East Fork. Fractured/weakly sheared hornblende diorite in intermittent small bluffs on west side of creek. Sample taken as an indication of copper values in this area.

Stream Sediment Sample from East Fork, Big Creek

EC - 1 - East Fork stream is fast flowing, 0.5 m wide. Sample taken at 100 metres upstream from junction with Big Creek. Area has great amounts and depths of till and growth of dense birch, willow brush and spruce trees. Grey fine silts. No outcrops anywhere nearby. Stream sed. are derived from large drainage area.

Appendix II(d) Miscellaneous Samples - Gossan Creek Area

Talus Fines - sample **G. Cr. TF-1** - talus fines sample from steep slope on west side of Gossan Creek. Rock is shattered, carbonate veined tuff.

Stream Sediment - sample **GC - L2S 6+30W** - orange sand from Gossan Creek.

Appendix II(e) - - Geochem "High" Areas - Soil Samples

Trench 1(A) samples - (reference: Figure 12) small grid of three parallel soil lines, oriented easterly located immediately east of east end of Trench 1(A) - due to patches of muskeg, not all sites could be sampled.

L0N - 0+50E - 60 cm. Marshy slope with small streams, moss, labr. tea, willow. Deep black organic soil with rounded cobbles. Questionable value as a sample.

1+00E - 30 cm. Drier area with spruce trees. Brown clayey till.

1+50E - 35 cm. Mossy ground. Deep organic layer underlain by gravelly/clayey material. Colour: medium to reddish brown.

2+00E - 25 cm. Poplar stand. Rock soil, medium to grey-brown, clay till.

2+50E - 25 cm. Willows. Sample is from gravel-sand-till mixture. Medium brown colour. Good material.

L1N - 0+00E - 25 cm. Rocky soil. Medium brown colour. Good material.

0+50E - 35 cm. Deep black organic soil with medium brown deeper layer, some rounded stones. Sample is from till-like clayey material.

1+00E - 30 cm. Cobbly ground. Good sand/gravel material. C horizon. Fragments are diorite, one piece of limonitic rock.

1+50E - 30 cm. Poplar grove. Medium brown colour. Clayey material with fragments. Fair to good sample.

2+00E - Deep moss and peat - sample taken at 2+12E - 25 cm. Clayey till. Fair quality sample. Medium brown colour.

2+50E - 50 cm. gravel and clay till. No cobble or other rocks. Medium brown soil. Fine texture. Good sample.

L1S - 0+50E - 40 cm. Grey brown clay soil with few small rocks. Deep organics.

1+00E - No sample. More than 80 cm black decaying vegetation and peat moss.

1+50E - 70 cm. Grey-brown soil (?) under moss and peat.

Reduced organics?

2+00E - No sample. +85 cm organics.

2+50E - 30 cm. Till? Poor material. Medium brown. Few rocks.

Line "0" (reference Figure 20) originates at 470 metres north 55 degrees east from NE end of Trench 4a, and has orientation due North.

L "0" - 2+00N (GPS 3346151E, 6455121N) - 20 cm. Medium brown soil. Rocky and clayey - likely till.

4+30N - 20 cm. from an open south slope. Dark brown-grey clayey and rocky soil. Nearby outcrop is diorite with trace of pyrrhotite.

Trench 17 area - (reference Figure 19) soil geochem samples -

Tr. 17-1 - 50 metres @ 220 deg. then 25 m. @ 130 deg. from Tr. 17
- 20 cm. Brown clayey till. B/C horizon.

- 20

Tr. 17-2 - 50 metres @ 220 degrees from Tr. 17.
- 20 cm. grey-brown rocky, C horizon

Tr. 17-3 - 50 metres @ 220 deg. then 25 m @ 310 deg. from Tr. 17
- 20 cm. Gravelly, brown soil with some sand. B/C horizon.

APPENDIX III.

CERTIFICATES OF ANALYSIS

Acme Analytical Laboratories Ltd.

File #A103014

File #A103015



GEOCHEMICAL ANALYSIS CERTIFICATE



Ostensoe, Erik File # A103014
4306 West 3rd Ave, Vancouver BC V6R 1M7 Submitted by: Erik Ostensoe

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
E 125105	1 835	5 18	.3	9 35	968 2.36	<2	<8	<2	2 63	.3	<3	<3	46 2.04	.028	3 5	.75	12 .08	5 2.12	.11	.01	<2	105.2									
E 125106	2 3071	4 37	<.3	23 35	480 5.49	32	<8	<2	2 47	.3	<3	3 177	1.27	.131	7 44	1.05	41 .17	<3 2.27	.08	.21	<2	492.7									
E 125107	2 347	3 31	<.3	23 15	986 4.08	4	<8	<2	2 27	.2	<3	<3 118	1.43	.145	11 33	.55	30 .10	<3 1.72	.09	.11	<2	76.1									
E 125108	2 4511	<3 93	1.3	22 155	1174 7.55	107	<8	<2	2 15	.5	6	<3 212	1.57	.134	8 39	2.07	39 .21	<3 2.79	.04	.56	<2	354.5									
E 125109	3 569	<3 30	<.3	39 49	1005 6.81	32	<8	<2	2 26	.5	9	<3 204	1.31	.087	3 121	2.06	31 .23	<3 2.90	.07	.20	<2	87.6									
E 125110	3 1681	4 74	1.6	18 26	1346 6.04	8	<8	<2	3 13	.5	5	<3 128	1.29	.170	8 53	1.47	28 .15	<3 2.58	.09	.13	<2	433.7									
E 125111	2 745	<3 7	<.3	6 11	414 4.49	11	<8	<2	2 81	.3	<3	<3 200	1.67	.144	4 5	.49	44 .09	10 2.07	.20	.08	<2	43.1									
E 125112	1 15	7 28	<.3	3 4	292 .51	<2	<8	<2	2 287	.3	<3	<3 47	1.33	.112	4 16	.48	122 .08	7 1.63	.17	.14	<2	4.0									
RE E 125112	1 14	8 30	<.3	7 4	304 .52	<2	<8	<2	2 298	<.2	<3	<3 44	1.36	.113	4 18	.49	124 .08	7 1.67	.18	.15	<2	3.1									
E 125113	1 50	4 14	<.3	7 10	342 1.83	2	<8	<2	2 93	<.2	<3	<3 112	1.72	.124	4 10	.54	52 .08	11 2.00	.19	.07	<2	3.6									
E 125114	4 645	<3 2	<.3	64 60	394 8.91	2	<8	<2	3 197	.6	<3	<3 460	2.14	.181	5 43	1.62	231 .17	<3 3.32	.26	.16	<2	14.4									
E 125115	7 87	3 80	<.3	5 8	1091 7.12	17	<8	<2	2 20	<.2	3	6 155	.44	.089	3 27	1.97	33 .10	<3 2.94	.06	.07	<2	3.4									
E 125116	3 184	5 14	<.3	26 21	560 4.34	15	<8	<2	2 40	<.2	<3	<3 141	1.70	.181	5 47	1.37	44 .18	<3 2.26	.15	.15	<2	3.4									
E 125117	4 27	5 50	<.3	11 14	554 6.40	9	<8	<2	2 51	.2	4	<3 134	1.29	.111	2 44	.82	62 .16	3 1.62	.12	.09	<2	4.1									
E 125118	4 9880	<3 194	12.8	18 36	1669 10.70	69	<8	<2	3 7	.3	5	12 139	.56	.233	15 20	1.36	38 .10	<3 2.85	.02	.10	<2	733.1									
E 125119	4 478	<3 90	1.2	13 31	1288 10.67	30	<8	<2	3 9	<.2	<3	<3 237	.38	.087	4 85	1.93	29 .14	<3 3.08	.04	.05	<2	17.7									
E 125120	4 4798	10 424	3.3	59 21	991 4.53	4	<8	<2	2 29	1.7	3	<3 100	1.98	.115	9 24	1.33	31 .17	<3 2.39	.13	.22	<2	325.5									
E 125121	1 92	<3 21	<.3	52 9	1637 6.80	27	<8	<2	2 51	.4	<3	<3 66	15.77	.016	4 41	6.30	6 <.01	<3 .22	.01	.02	<2	4.2									
E 125122	2 315	7 55	<.3	21 67	1135 4.39	2	<8	<2	2 20	<.2	<3	3 142	1.57	.100	3 68	1.19	31 .15	4 2.03	.13	.12	<2	16.5									
E 125123	10 3227	<3 47	6.9	24 37	333 42.58	12	<8	<2	4 7	<.2	<3	<3 214	.27	.031	1 29	.33	21 .07	<3 1.05	.03	.11	13	1913.5									
E 125124	3 618	5 110	<.3	17 53	1176 6.75	11	<8	<2	2 109	.6	3	<3 301	2.03	.032	4 25	1.85	49 .15	<3 3.37	.16	.06	<2	134.8									
E 125125	1 878	<3 13	<.3	5 51	555 4.23	<2	<8	<2	2 102	.8	<3	<3 97	2.06	.074	3 7	.88	28 .13	9 2.65	.14	.09	<2	51.0									
E 125126	2 7336	<3 38	2.4	10 69	321 6.50	<2	<8	<2	2 15	.3	6	<3 158	.86	.088	2 22	.60	16 .13	<3 1.52	.07	.13	<2	885.1									
STANDARD DS3	10 128	36 154	<.3	39 13	856 3.23	34	11	<2	5 28	5.8	5	5 80	.54	.099	18 185	.61	161 .08	<3 1.76	.03	.17	5	22.2									

GROUP 10 - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C AU* BY ACID LEACHED, ANALYZE BY ICP-MS. (10 gm)
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 5 2001 DATE REPORT MAILED: *Sept 17/01* SIGNED BY: *C.L.* TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



GEOCHEMICAL ANALYSIS CERTIFICATE



Ostensoe, Erik File # A103015 Page 1
4306 West 3rd Ave, Vancouver BC V6R 1M7 Submitted by: Erik Ostensoe

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppb	
BC TF-1	11	682	19	46	<.3	43	156	1616	8.70	14	<8	<2	<2	258	.8	<3	<3	150	3.29	.079	7	25	1.42	329	.08	10	4.27	.04	.14	<2	21.4
BC TF-2	5	968	19	48	.3	55	217	1917	9.29	10	<8	<2	<2	102	.6	<3	<3	161	2.16	.092	10	33	1.22	89	.06	10	3.21	.02	.10	<2	75.9
BC TF-3	50	431	48	178	1.7	46	90	3327	14.55	439	<8	<2	<2	110	<.5	4	<3	181	.73	.150	6	33	1.02	130	.11	4	3.30	.02	.08	<2	150.6
BC TF-4	4	709	32	600	1.1	69	93	3615	9.41	83	<8	<2	2	60	2.5	<3	<3	184	2.24	.419	11	39	1.83	68	.05	5	3.36	.01	.06	<2	33.8
BC TF-5	7	974	31	686	1.5	56	140	3789	11.02	81	<8	<2	<2	86	1.1	<3	<3	155	1.47	.264	5	64	1.61	99	.08	11	3.81	.02	.05	<2	62.5
BC TF-6	5	399	42	324	1.0	141	104	4553	9.48	68	<8	<2	<2	94	1.6	<3	<3	151	3.31	.091	6	95	2.21	255	.07	7	3.76	.02	.06	<2	19.6
BC TF-7	4	1120	128	997	1.4	143	96	3987	7.48	11	<8	<2	<2	65	4.8	<3	<3	141	2.97	.114	4	198	2.94	65	.10	<3	3.35	.02	.10	<2	138.0
G.CR TF-1	1	166	4	57	<.3	103	70	1412	6.06	18	<8	<2	<2	100	<.5	<3	<3	119	4.58	.143	6	198	2.39	80	.12	5	2.52	.01	.16	<2	15.4
TR1(A) 1+00N 0+00E	2	182	6	78	.3	59	37	690	6.25	17	<8	<2	<2	44	<.5	<3	<3	148	.99	.033	6	86	1.39	75	.20	<3	3.30	.01	.09	<2	54.1
TR1(A) 1+00N 0+50E	1	501	8	120	.6	55	32	588	5.57	11	<8	<2	<2	54	.6	<3	<3	125	1.46	.051	13	63	1.11	119	.21	<3	2.63	.02	.05	<2	16.9
TR1(A) 1+00N 1+00E	2	259	17	184	.4	54	79	1367	8.37	19	<8	<2	2	45	.5	<3	<3	234	.98	.124	9	68	1.62	119	.28	8	3.36	.01	.13	<2	32.7
TR1(A) 1+00N 1+50E	1	327	8	121	.4	64	54	1087	6.55	13	<8	<2	<2	53	<.5	<3	<3	162	1.06	.069	12	106	1.55	124	.21	4	3.16	.01	.09	<2	15.7
TR1(A) 1+00N 2+12E	1	96	18	92	.4	36	19	586	4.54	7	<8	<2	<2	63	.5	<3	<3	108	1.77	.050	7	52	1.11	114	.19	5	2.38	.03	.04	<2	7.1
TR1(A) 1+00N 2+50E	1	322	11	71	<.3	70	41	1062	6.69	12	<8	<2	<2	58	<.5	<3	<3	154	.92	.062	10	103	1.86	112	.20	9	3.39	.01	.12	<2	22.2
TR1(A) 1+00S 0+50E	1	863	4	59	<.3	49	24	572	4.15	7	<8	<2	<2	77	<.5	<3	<3	99	2.54	.068	8	58	1.19	84	.17	5	1.99	.02	.05	<2	14.1
TR1(A) 1+00S 1+50E	1	725	4	61	.4	63	30	783	4.07	6	<8	<2	<2	71	<.5	<3	<3	99	2.24	.066	9	57	1.09	114	.16	7	2.08	.02	.06	<2	14.3
TR1(A) 1+00S 2+50E	1	348	6	64	<.3	58	64	936	6.09	11	<8	<2	<2	46	<.5	<3	<3	136	1.11	.019	6	103	1.69	72	.18	10	3.11	.02	.11	<2	47.4
TR1(A) 0+50E	1	2184	3	52	.6	30	21	566	2.59	4	<8	<2	<2	106	<.5	<3	<3	55	3.94	.094	11	31	.61	94	.12	4	1.38	.03	.03	<2	10.2
TR1(A) 1+00E	1	122	4	86	<.3	40	26	613	4.96	7	<8	<2	<2	74	<.5	<3	<3	117	1.76	.062	6	58	1.37	126	.16	6	2.53	.02	.07	<2	18.8
TR1(A) 1+50E	1	568	7	96	.3	63	38	556	5.79	14	<8	<2	<2	81	<.5	<3	<3	124	1.84	.080	12	91	1.45	103	.17	<3	2.31	.03	.09	<2	300.4
TR1(A) 2+00E	3	193	5	91	.4	77	60	946	7.50	21	<8	<2	<2	57	<.5	<3	<3	157	.95	.054	9	105	1.57	144	.20	6	3.49	.01	.11	<2	72.4
TR1(A) 2+50E	2	154	10	100	<.3	50	43	773	6.23	14	<8	<2	<2	51	<.5	<3	<3	161	1.12	.038	5	82	1.61	98	.21	4	3.20	.02	.10	<2	46.5
RE TR1(A) 2+50E	2	150	9	97	<.3	49	43	792	6.18	14	<8	<2	<2	48	<.5	<3	<3	150	1.08	.041	4	76	1.59	99	.21	6	3.29	.02	.10	<2	38.5
TR17 1	1	57	5	75	<.3	61	29	907	5.21	12	<8	<2	2	56	<.5	<3	<3	147	.95	.089	9	97	1.48	136	.21	3	3.26	.01	.15	<2	2.4
TR17 2	1	64	5	139	.3	53	43	1187	5.38	23	<8	<2	<2	37	<.5	<3	<3	137	.84	.071	7	68	1.23	125	.22	<3	3.47	.01	.14	<2	9.0
TR17 3	1	130	5	92	.3	64	41	1221	5.65	23	<8	<2	<2	63	<.5	<3	<3	151	1.27	.150	10	86	1.38	162	.16	5	3.45	.01	.13	<2	14.8
TR 4(L) LO+00 4+30N	2	250	5	63	<.3	57	60	758	6.29	10	<8	<2	<2	53	<.5	<3	<3	153	1.03	.045	6	89	1.35	81	.18	5	3.04	.01	.09	<2	74.0
LINE 0 2+00N	1	226	5	66	<.3	50	39	953	5.64	10	<8	<2	2	58	<.5	<3	<3	156	.80	.061	8	96	1.37	128	.19	6	3.42	.01	.06	<2	22.3
L1S 6+50W	1	153	<.3	37	<.3	133	53	1425	6.06	10	<8	<2	2	42	<.5	<3	<3	85	2.67	.099	7	167	1.47	45	.03	7	1.43	.01	.13	<2	13.6
L1S 6+00W	1	239	8	33	.4	173	79	1879	7.41	39	<8	<2	<2	111	<.5	<3	<3	115	3.56	.090	9	183	1.56	62	.07	10	2.94	.01	.19	<2	85.1
G.CK 1+00S 5+50W	1	103	3	49	<.3	81	47	1059	6.46	34	<8	<2	<2	34	<.5	<3	<3	142	1.04	.061	10	134	1.40	60	.11	8	2.60	.01	.28	<2	10.4
G.CK 1+00S 5+00W	1	99	4	61	.4	88	39	916	6.03	24	<8	<2	<2	27	<.5	<3	<3	144	.86	.113	7	148	1.35	67	.13	9	2.92	.01	.24	<2	7.6
GC L2+00S 12+50W	1	104	9	75	<.3	79	32	909	5.35	19	<8	<2	<2	32	<.5	<3	<3	146	.90	.100	7	135	1.45	78	.12	4	2.77	.01	.18	<2	7.2
STANDARD DS3	9	122	35	154	.3	36	12	768	3.19	29	<8	<2	4	26	5.6	6	6	80	.52	.093	16	180	.58	147	.09	6	1.68	.02	.16	5	19.3

GROUP 10 - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
AU* BY ACID LEACHED, ANALYSIS BY ICP-MS. (10 gm)
- SAMPLE TYPE: SOIL S\$80 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 5 2001 DATE REPORT MAILED: *Sept 18/01* SIGNED BY: *[Signature]* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppb
G.CK 2+00S 12+50W	1 349	8	66	<.3	105	24	733	4.45	11	<8	<2	<2	40	<.5	<3	<3	114	1.39	.103	9	93	1.39	95	.13	10	2.11	.02	.12	<2	6.4	
G.CK 2+00S 11+50W	2 145	5	50	<.3	130	36	1151	5.21	13	<8	<2	<2	27	<.5	<3	<3	114	1.03	.040	6	144	1.66	62	.12	10	2.53	.01	.19	<2	4.2	
G.CK 2+00S 11+00W	7 246	9	50	.6	145	46	725	6.91	57	<8	<2	<2	58	<.5	<3	<3	161	.99	.049	8	168	2.13	92	.13	3	2.97	.04	.21	<2	14.7	
G.CK 2+00S 10+50W	2 275	8	66	.5	110	61	965	6.72	55	<8	<2	2	27	<.5	<3	<3	141	.96	.061	7	140	1.45	61	.13	5	2.82	.01	.24	<2	25.4	
GC 2+00S 10+00W	1 117	13	97	<.3	90	36	1047	5.45	19	<8	<2	2	37	<.5	<3	<3	140	.86	.111	11	126	1.43	110	.16	6	3.01	.01	.18	<2	23.9	
GC 2+00S 9+50W	1 124	7	98	<.3	82	34	1241	5.85	17	<8	<2	<2	30	<.5	<3	<3	152	.78	.126	8	124	1.19	154	.15	4	2.69	.01	.24	<2	5.7	
GC 2+00S 9+00W	2 176	8	84	<.3	85	33	1108	5.51	17	<8	<2	2	25	<.5	<3	<3	136	.86	.070	10	112	1.18	77	.16	6	2.49	.01	.20	<2	7.2	
G.CK 2+00S 8+50W	1 207	6	86	<.3	181	73	831	6.96	27	<8	<2	<2	23	<.5	<3	<3	151	1.15	.109	9	316	5.62	17	.18	9	3.51	.02	.11	<2	6.9	
GC 2+00S 8+00W	1 134	7	74	.4	75	32	1006	5.98	17	<8	<2	2	26	<.5	<3	<3	140	.99	.060	8	113	1.14	80	.15	10	2.67	.01	.27	<2	11.7	
GC L2S 7+50W	1 115	4	65	.3	86	33	970	5.68	18	<8	<2	2	32	<.5	<3	<3	143	.99	.148	10	123	1.37	85	.12	6	2.64	.01	.25	<2	6.6	
GC L2S 7+00W	2 112	4	64	.3	73	36	986	5.57	17	<8	<2	<2	36	<.5	<3	<3	129	1.58	.089	10	110	1.08	92	.14	11	2.39	.02	.27	<2	8.0	
GC L2S 6+50W	1 288	<3	33	.3	72	64	1254	5.95	10	<8	<2	<2	57	<.5	<3	<3	122	4.28	.108	6	105	2.15	38	.06	5	2.50	.01	.10	<2	20.0	
G.CK 2+00S 6+00W	2 213	<3	40	<.3	122	43	1537	5.73	15	<8	<2	<2	43	<.5	<3	<3	94	3.63	.116	8	171	1.55	38	.02	4	.96	.01	.12	<2	9.3	
GC L2S 5+50W	1 105	3	96	.4	104	42	1144	6.62	23	<8	<2	<2	30	<.5	<3	<3	154	1.25	.179	8	229	1.40	73	.12	6	2.93	.01	.27	<2	15.9	
GC L2S 5+00W	<1 158	<3	60	<.3	270	46	988	6.01	26	<8	<2	<2	20	<.5	<3	<3	126	.99	.135	5	362	2.18	56	.12	<3	2.64	.02	.20	<2	5.0	
GC 3+00S 12+50W	1 116	8	111	.3	109	40	1235	5.13	13	<8	<2	<2	31	<.5	<3	<3	127	1.11	.120	8	148	1.32	155	.13	10	2.63	.01	.43	<2	3.4	
GC 3+00S 12+00W	2 172	7	119	.3	86	36	1487	5.35	7	<8	<2	2	27	<.5	<3	<3	119	1.00	.062	16	91	1.11	137	.23	13	2.69	.02	.36	<2	5.2	
GC 3+00S 11+50W	1 176	9	74	<.3	82	36	1012	5.53	20	<8	<2	<2	29	<.5	<3	<3	149	.86	.107	8	127	1.36	73	.13	<3	2.83	.01	.28	<2	10.1	
GC 3+00S 11+00W	1 223	4	38	<.3	166	40	711	3.98	10	<8	<2	<2	23	<.5	<3	<3	88	1.66	.060	4	219	3.24	45	.14	7	2.64	.01	.07	<2	4.9	
GC 3+00S 10+50W	1 94	13	112	.3	79	34	1488	4.78	15	<8	<2	<2	30	<.5	<3	<3	115	1.06	.126	9	112	1.11	166	.12	4	2.33	.01	.33	<2	2.9	
RE L5S 12+50W	1 217	3	42	<.3	62	28	730	3.94	12	<8	<2	<2	83	<.5	<3	<3	110	7.65	.105	8	68	1.22	80	.10	<3	1.48	.02	.12	<2	19.9	
L4S 12+50W	1 130	10	100	<.3	84	33	1016	5.40	20	<8	<2	2	31	<.5	<3	<3	137	.99	.139	12	116	1.34	115	.13	6	2.55	.01	.34	<2	5.8	
L4S 12+00W	2 227	9	64	<.3	82	35	963	5.29	16	<8	<2	2	29	<.5	<3	<3	140	1.02	.053	13	113	1.41	76	.15	<3	2.66	.01	.26	<2	5.6	
L4S 11+50W	3 488	7	63	.5	88	66	1261	7.47	68	<8	<2	<2	31	<.5	3	<3	132	1.71	.162	16	110	1.06	39	.10	8	2.19	.01	.26	<2	38.4	
L4S 11+00W	2 104	14	100	.3	89	35	1187	5.43	17	<8	<2	<2	33	<.5	<3	<3	129	.99	.113	9	133	1.20	126	.14	9	2.56	.01	.30	<2	18.3	
L4S 10+50W	2 138	4	94	<.3	40	39	1602	6.12	16	<8	<2	<2	48	<.5	<3	<3	146	1.26	.189	8	63	1.15	107	.07	<3	3.28	.01	.46	<2	6.1	
L5S 12+50W	1 216	4	41	<.3	61	27	717	3.89	12	<8	<2	<2	81	<.5	<3	<3	106	7.89	.111	8	65	1.22	77	.09	3	1.47	.02	.11	<2	139.2	
L5S 12+00W	1 145	6	62	<.3	51	24	750	4.68	17	<8	<2	2	30	<.5	<3	<3	130	.69	.117	11	83	.94	88	.12	6	2.39	.01	.21	<2	4.3	
L5S 11+50W	3 427	5	77	.3	52	51	1615	7.08	16	<8	<2	2	41	<.5	<3	<3	105	1.45	.143	16	50	.73	90	.07	5	2.64	.01	.15	<2	8.5	
L5S 11+00W	1 190	10	77	<.3	105	33	986	5.70	25	<8	<2	2	36	<.5	<3	<3	148	.96	.139	12	146	1.51	89	.12	5	2.82	.01	.26	<2	6.8	
L5S 10+50W	1 128	11	82	.3	122	36	1040	5.75	23	<8	<2	2	33	<.5	<3	<3	145	.93	.105	11	152	1.42	99	.12	9	2.58	.01	.28	<2	4.2	
L5S 10+00W	1 48	10	193	.5	54	30	1270	4.50	8	<8	<2	<2	27	<.5	<3	<3	102	.67	.153	8	83	.85	154	.14	7	2.06	.01	.32	<2	2.4	
G.CK 5+00S 9+50W	2 50	11	159	.3	75	30	1090	5.21	9	<8	<2	2	35	<.5	<3	<3	105	.69	.217	10	107	.93	132	.14	5	2.18	.01	.35	<2	10.4	
STANDARD DS3	9 128	35	160	.3	36	12	815	3.18	30	<8	<2	4	27	5.7	6	6	80	.52	.099	17	182	.59	163	.09	4	1.72	.03	.17	5	21.7	

Sample type: SDIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
L6S 20+00W	2	117	6	133	.3	75	32	1139	5.80	16	<8	<2	3	27	<.5	<3	<3	121	.56	.075	18	81	.87	147	.35	11	2.36	.02	.33	<2	5.5
L6S 19+50W	2	231	4	62	<.3	91	43	996	5.76	44	<8	<2	2	31	<.5	<3	<3	125	1.10	.126	11	130	1.18	112	.10	9	2.25	.01	.42	<2	13.1
L6S 19+00W	2	140	6	156	.4	83	45	1435	5.52	23	<8	<2	2	27	<.5	<3	<3	116	.81	.140	11	119	1.04	203	.16	11	2.40	.01	.45	<2	5.5
L6S 18+50W	2	232	5	111	.3	94	55	1245	6.32	39	<8	<2	2	27	<.5	<3	<3	130	.83	.136	11	140	1.14	154	.12	10	2.51	.01	.48	<2	10.2
L6S 18+00W	2	176	9	143	.4	90	47	1138	5.76	37	<8	<2	2	28	<.5	<3	<3	128	.90	.108	11	123	1.07	144	.15	8	2.45	.01	.52	<2	5.5
L6S 17+50W	1	216	8	97	<.3	101	43	1113	5.29	27	<8	<2	2	34	<.5	<3	<3	122	1.06	.080	11	121	1.16	145	.09	7	2.29	.01	.65	<2	6.1
L6S 17+00W	3	927	9	98	.9	109	152	1078	6.55	148	<8	<2	<2	26	<.5	<3	<3	114	.83	.046	8	162	1.21	100	.12	11	2.32	.01	.78	<2	61.0
L6S 16+50W	3	850	3	61	.4	168	115	851	7.37	97	<8	<2	<2	22	<.5	<3	<3	115	.96	.067	14	225	2.17	99	.11	5	2.81	.02	.63	<2	35.6
L6S 16+00W	1	291	<3	50	<.3	149	44	698	4.84	48	<8	<2	<2	105	<.5	<3	<3	72	2.72	.106	8	177	.96	76	.05	6	3.69	.01	.34	<2	8.4
L6S 15+50W	3	848	4	102	.5	165	130	960	8.90	241	<8	<2	<2	44	<.5	<3	<3	118	.96	.152	30	169	1.43	181	.14	9	2.61	.02	.91	<2	182.3
L6S 15+00W	1	649	<3	40	<.3	354	78	989	5.88	30	<8	<2	<2	47	<.5	<3	<3	87	1.67	.096	8	214	1.68	57	.05	9	2.39	.02	.28	<2	19.0
RE L6S 15+00W	1	645	<3	40	<.3	359	79	1041	6.18	31	<8	<2	<2	49	<.5	<3	<3	96	1.84	.098	9	231	1.76	61	.06	9	2.44	.02	.30	<2	21.0
L6S 14+50W	4	211	3	91	<.3	123	53	1445	7.16	23	<8	<2	<2	49	<.5	<3	<3	144	1.46	.138	11	174	1.45	151	.10	16	2.88	.02	.87	<2	4.6
L6S 14+00W	1	197	3	94	<.3	117	77	1371	6.84	17	<8	<2	<2	81	<.5	<3	<3	114	1.76	.166	8	156	1.20	125	.07	10	3.13	.01	.58	<2	5.3
L6S 13+50W	<1	113	<3	37	<.3	202	44	624	5.71	38	<8	<2	<2	27	<.5	<3	<3	126	1.42	.088	9	426	2.81	75	.11	4	2.88	.02	.65	<2	6.6
L6S 13+00W	1	207	3	99	<.3	150	57	1547	6.66	41	<8	<2	<2	32	<.5	<3	<3	129	1.42	.113	11	218	1.62	207	.10	7	2.70	.01	.78	<2	1.6
L6S 12+50W	1	172	5	146	<.3	113	47	1495	5.44	14	<8	<2	<2	30	<.5	<3	<3	123	.94	.180	12	172	1.39	259	.10	5	3.03	.01	.64	<2	2.6
L6S 12+00W	1	109	8	64	<.3	59	26	853	4.24	13	<8	<2	<2	31	<.5	<3	<3	106	1.02	.100	9	83	.85	100	.08	5	1.81	.01	.44	<2	10.2
L6S 11+50W	1	138	6	90	<.3	79	31	1105	5.47	19	<8	<2	2	32	<.5	<3	<3	129	.90	.127	11	112	1.18	135	.10	4	2.33	.01	.28	<2	5.5
L6S 11+00W	1	204	9	64	<.3	90	25	736	4.72	22	<8	<2	<2	37	<.5	<3	<3	119	1.18	.063	8	96	1.23	74	.10	8	2.06	.01	.25	<2	5.7
L6S 10+50W	1	87	7	101	<.3	68	29	990	4.98	15	<8	<2	2	30	<.5	<3	<3	126	.96	.113	9	108	1.11	146	.13	5	2.55	.01	.39	<2	25.2
L6S 10+00W	1	102	9	108	<.3	81	30	953	5.19	17	<8	<2	2	32	<.5	<3	<3	125	.87	.150	10	125	1.16	142	.12	4	2.56	.01	.27	<2	4.8
L7S 19+50W	1	149	3	46	<.3	55	27	934	3.60	60	<8	<2	<2	57	<.5	<3	<3	86	5.75	.127	8	51	1.10	65	.06	3	1.02	.01	.09	<2	13.3
L7S 19+00W	1	93	6	97	<.3	48	25	1048	4.86	15	<8	<2	2	37	<.5	<3	<3	121	.92	.070	14	72	.99	183	.17	<3	2.44	.02	.49	<2	6.0
L7S 18+50W	1	132	5	196	<.3	74	40	1875	6.78	62	<8	<2	2	31	<.5	<3	<3	130	1.38	.339	11	101	.81	533	.09	4	2.17	.01	.55	<2	5.7
L7S 18+00W	2	398	4	91	.3	48	40	1208	6.53	110	<8	<2	<2	29	<.5	<3	<3	144	.80	.141	10	67	.68	262	.10	4	2.02	.01	.25	<2	193.4
L7S 17+50W	1	207	5	137	<.3	59	54	1823	6.19	108	<8	<2	2	27	<.5	<3	<3	124	1.00	.119	12	83	.69	296	.10	<3	2.46	.01	.39	<2	11.0
L7S 17+00W	1	321	4	81	<.3	74	42	1541	7.08	113	<8	<2	<2	32	<.5	<3	<3	145	1.24	.082	11	112	.92	127	.06	4	1.80	.01	.21	<2	23.0
L7S 16+50W	2	937	8	98	.7	70	1036	2132	6.98	1255	<8	<2	<2	37	<.5	3	<3	122	1.89	.174	9	56	.95	226	.04	4	1.26	.01	.15	<2	433.0
L7S 16+00W	1	163	4	57	<.3	47	51	923	5.48	68	<8	<2	<2	36	<.5	<3	<3	129	.78	.080	10	81	.78	95	.10	6	2.10	.01	.25	<2	80.5
L7S 15+50W	1	150	6	96	<.3	73	39	1476	7.20	45	<8	<2	<2	27	<.5	<3	<3	176	.93	.114	11	158	.65	155	.07	<3	1.80	.01	.33	<2	6.6
L7S 15+00W	2	317	3	99	<.3	72	54	2566	7.26	66	<8	<2	<2	35	<.5	<3	<3	165	2.18	.213	10	68	.83	138	.02	4	1.36	.01	.18	<2	19.3
L7S 14+50W	1	222	3	69	<.3	183	60	942	6.01	15	<8	<2	<2	50	<.5	<3	<3	124	1.40	.067	9	258	1.98	94	.12	<3	2.86	.02	.63	<2	12.5
STANDARD DS3	9	123	34	156	.3	34	12	790	2.96	30	<8	<2	4	26	6.0	6	5	74	.50	.094	17	186	.58	164	.08	4	1.64	.02	.16	5	20.4

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppb
L7S 14+00W	<1	262	<3	58	<.3	175	55	1218	4.85	7	<8	<2	<2	55	<.5	<3	<3	115	2.25	.141	10	217	2.51	118	.08	10	2.65	.03	.38	<2	14.8
L7S 13+50W	6	292	4	56	<.3	55	46	969	6.26	64	<8	<2	<2	25	<.5	<3	<3	136	.85	.135	12	43	.58	48	.03	8	1.25	.01	.21	<2	15.8
L7S 13+00W	1	135	4	45	<.3	59	29	811	5.24	31	<8	<2	<2	25	<.5	<3	<3	136	.81	.078	11	76	.86	63	.06	3	1.80	.01	.23	<2	7.7
G.CK 7+00S 12+50W	3	213	4	45	<.3	57	33	820	5.45	29	<8	<2	<2	45	<.5	<3	<3	100	1.12	.090	19	58	.80	60	.03	8	1.81	.02	.29	<2	7.7
L7S 12+00W	1	178	7	70	<.3	73	34	982	4.75	27	<8	<2	<2	46	<.5	<3	<3	123	.97	.091	11	94	1.13	121	.10	<3	2.18	.02	.15	<2	9.2
RE L7S 12+00W	1	187	7	73	<.3	74	35	1016	5.09	29	<8	<2	2	47	<.5	<3	<3	125	1.05	.093	11	93	1.13	125	.11	6	2.30	.02	.15	<2	7.3
L7S 11+50W	1	158	8	54	<.3	94	16	911	4.90	10	<8	<2	<2	50	<.5	<3	<3	144	1.15	.199	8	191	.83	164	.14	<3	1.18	<.01	.24	<2	4.8
L7S 11+00W	1	134	6	109	<.3	76	33	1313	5.16	16	<8	<2	2	34	<.5	<3	<3	133	.82	.171	11	108	1.11	230	.12	5	2.59	.01	.36	<2	5.4
L7S 10+50W	1	109	9	121	<.3	78	32	1155	5.03	21	<8	<2	2	31	<.5	<3	<3	133	.85	.142	11	113	1.24	170	.13	5	2.48	.01	.33	<2	4.7
L7S 10+00W	1	137	14	109	<.3	100	43	1202	5.36	29	<8	<2	<2	41	<.5	<3	<3	121	1.05	.222	11	121	1.05	170	.08	5	2.10	.01	.33	<2	9.0
GC L2S 6+30W Stream Sed	1	212	8	42	<.3	83	48	1751	4.93	17	<8	<2	<2	76	<.5	<3	<3	89	3.87	.111	8	86	1.21	44	.02	<3	1.00	.01	.09	<2	12.7
E.C.1 Stream Sed	1	73	4	64	<.3	44	23	717	3.39	6	<8	<2	<2	76	<.5	<3	<3	106	1.34	.094	9	44	1.26	139	.17	4	1.73	.03	.07	<2	5.1
STANDARD DS3	9	122	34	153	.3	36	12	794	3.06	30	<8	<2	4	27	5.5	5	6	77	.55	.094	17	181	.60	156	.09	<3	1.72	.03	.16	4	22.1

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Appendix IV - Statement of Expenditures

The following costs were incurred in completion of the program of work described in the accompanying report "Final Report - Hat Project - 2001":

1. Labour - T.E. Lisle, P. Eng. and E. Ostensoe, P. Geo. - 27 days at \$250/day/person -	\$13,500.00
2. Food and Accommodation - 26 days @ \$60/day/person -	3,120.00
3. Helicopter Service - 2.8 hours @ \$760/hour plus fuel and taxes per Pacific Helicopters Flight Ticket 21466	2,586.25
4. Analytical Services per Acme Analytical invoice #A103014	1,735.73
5. Truck rental - Ford Bronco FWD - 26 days @ \$30/day	780.00
6. Mileage - 3624 km @ \$0.38/km	1,377.12
7. Radiophone rental - SBX 11 - one mon. @ \$200/mon.	200.00
8. Allowance for report preparation, photocopies and covers	800.00
 Total amount expended - Hat Project - 2001	 \$24,099.10

Erik Ostensoe, P. Geo.



ACME ANALYTICAL LABORATORIES LTD.

852 East Hastings, Vancouver, B.C., CANADA V6A 1R6

Phone: (604) 253-3158 Fax: (604) 253-1716

Our GST # 100035377 RT



OSTENSOE, ERIK
4306 West 3rd Ave
Vancouver, BC
V6R 1M7

Inv.#: **A103014**
Date: Sep 18 2001

QTY	ASSAY	PRICE	AMOUNT
129	GEO1 @	10.80	1393.20
22	R150 - ROCK @	4.28	94.16
107	SS80 - SOIL @	1.26	134.82
		GST Taxable	1622.18
		7.00% GST	113.55
		CAD \$	1735.73

Samples submitted by Erik Ostensoe
FILE # A103014 & A103015 - UNIT PRICE REFLECTS 10% DISCOUNT

Paid by visa

*Cheque # 762
Sept 20/01.
E.A.O.*

COPIES 1

Please pay last amount shown. Return one copy of this invoice with payment.
TERMS: Net two weeks. 1.5 % per month charged on overdue accounts.

[COPY 2]



PACIFIC WESTERN HELICOPTERS LTD.

4214 Cowart Road, Prince George, B.C. V2N 6H9
 Phone: (250) 562-7911 • Fax: (250) 562-1690

CHARTERER		DATE			
ADDRESS		A.C.			
		TYPE			
		BASE			
		P.O.#			
REMARKS		USE CODE	UP TIME	DOWN TIME	HOURS
TOTAL TIME					
RATE PER HOUR: \$		TOTAL DOLLARS			
G.S.T. #R127399459		FUEL SUPPLIED BY: CUST. <input type="checkbox"/> PWH <input type="checkbox"/>			
LITRES FROM	AT	PER LITRE			
LITRES FROM	AT	PER LITRE			
LITRES FROM	AT	PER LITRE			
PASS:		CARGO:		FUEL TOTAL	
I hereby approve time and charges, at net 30 days, and guarantee payment according to the terms and conditions stated herein. Interest at 2% per month (24% per annum) charged on overdue accounts.		MISC. CHARGES			
		OTHER			
		SUB TOTAL			
		G.S.T.			
		TOTAL			
AUTHORIZED BY: (Please Print)		FLIGHT TICKET 21466			
SIGNATURE:					
PILOT'S NAME: (Please Print)					
SIGNATURE:					

4214 - 562-7911 FAX 562-1690

PACIFIC WESTERN HELICOPTERS
 DEASE LAKE AIRPORT
 DEASE LAKE BC

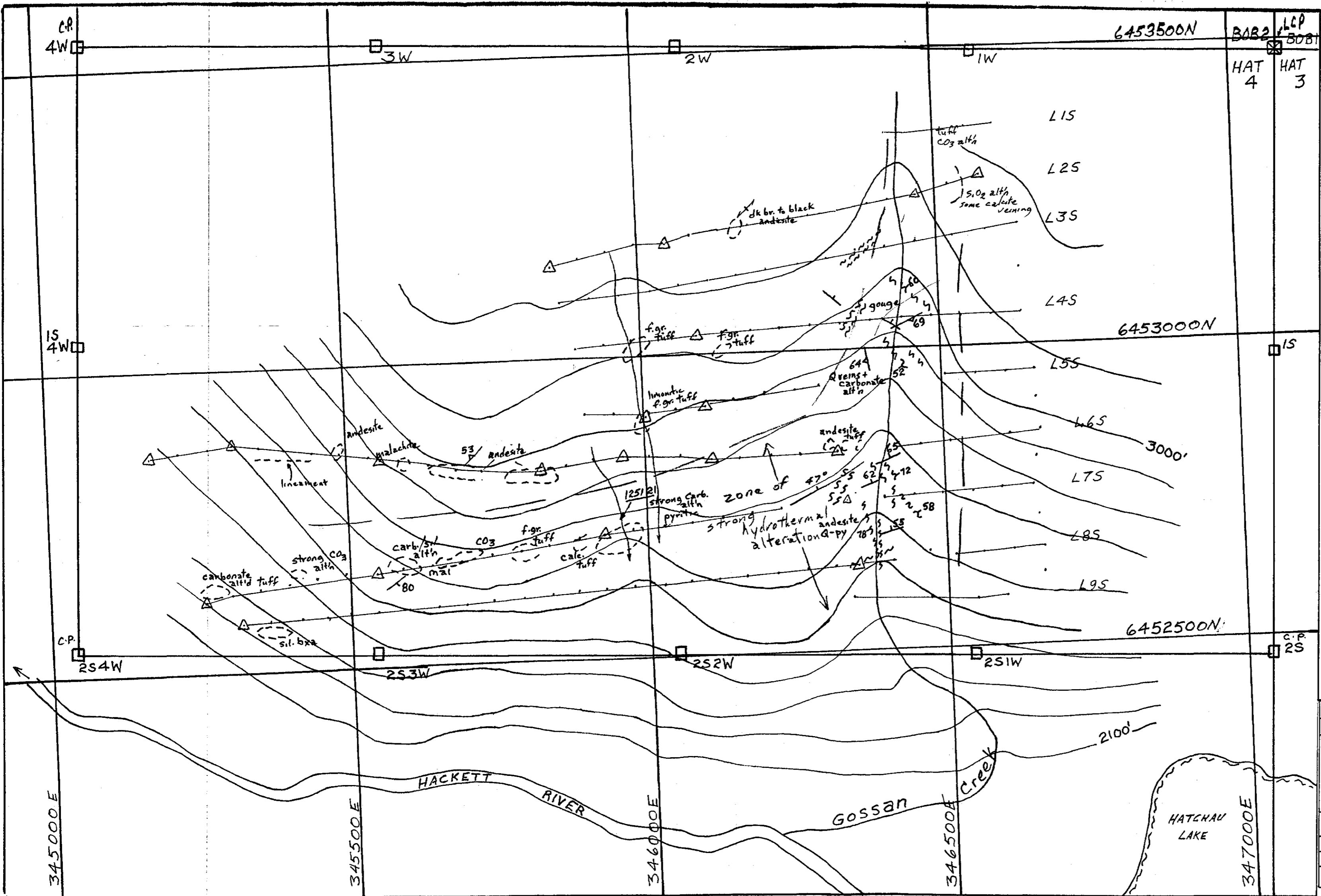
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 EXPIRY DATE 0603
 CARD TYPE VISA 5611
 DATE/TIME 2001/08/18 12:50:01
 RECEIPT NUMBER 580564123-041-009
 PURCHASE
 TOTAL AMOUNT \$2,589.25

01 APPROVED 027 AUTH. # 096257
 THANK YOU

CARDHOLDER WILL PAY TOTAL AMOUNT SHOWN TO CARD ISSUER ACCORDING TO CARDHOLDER AGREEMENT.

 CARDHOLDER SIGNATURE

26,737



Note - Contours in feet.
 Adapted from
 topographic map
 104J-4E
 (1:50,000)

Includes data
 collected in Gossan Cr.
 in 1995, 1996.

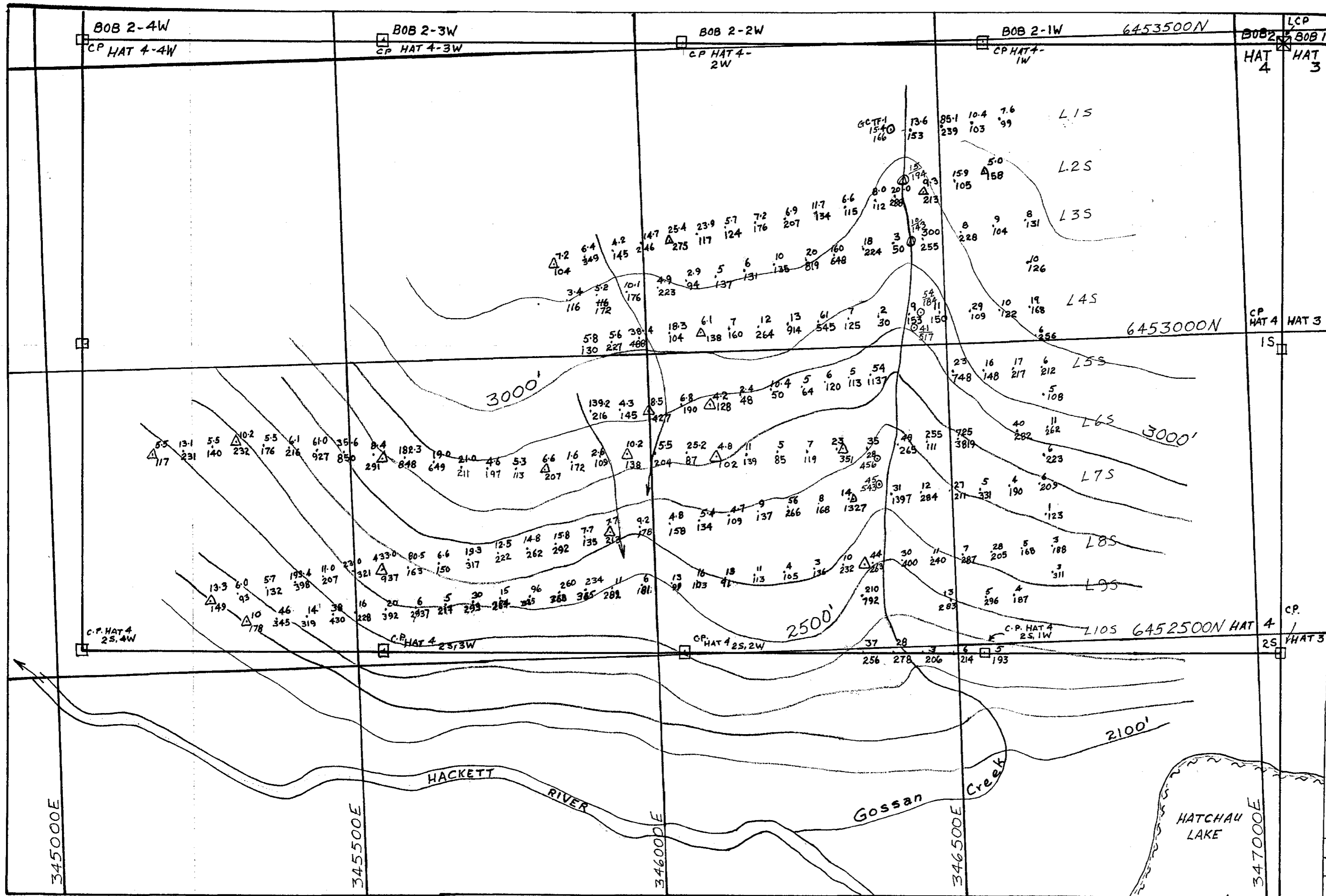
- claim post
- ⊠ claim post (position verified)
- △ GPS observation

100 0 50 100 metres

HAT PROJECT - 2001
 ATLIN M-D, B.C.

GOSSAN CREEK ZONE
 Geology SKETCH ①

To Accompany Assessment Report
 Scale 1:5000 E. Ostensoe, P. Geo.
 November, 2001. Figure 6.



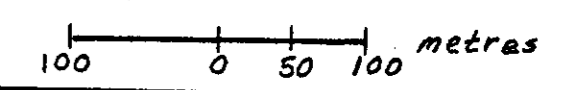
GEOLOGICAL SURVEY BRANCH

26,737

Note: Contours in feet.
Adapted from
topographic map
104J-4E (1:50,000)

- soil sample
- ⊙ stream sediment sample
- ⊙ talus fines sample

- claim post
- ⊠ claim post (position verified)
- △ GPS observation



HAT PROJECT - 2001	
ATLIN M-D, B-C	
GOSSAN CREEK ZONE	
GOLD (ppb)	in Soils ②
COPPER (ppm)	
To Accompany Assessment Report	
Scale: 1:5000	E. Ostensoe, P. Geo.
November, 2001	Figure 7