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Whitehorse, Yukon
Y1A 4J7

GEOLOGICAL and GEOPHYSICAL REPORT

on the

LUMSDEN PROPERTY

Atlin Mining Division

Lat. 59° 28'N Long. 134° 20'W 13'

Northing 6593448 Easting 543119
Zone 8

NTS 104M/8E ✓

Owner

Kieth Lumsden

by

Douglas J. Brownlee, P.Geol.(Alb)

December 27th, 1993

Whitehorse, Yukon

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SUMMARY

The Lumsden property comprises 17 reverted crown grants owned by Kieth Lumsden. The property is located 140 kilometres south of Whitehorse, Yukon, 80 kilometres southeast of Carcross, Yukon and 32 kilometres west southwest of Atlin, B.C. The property is situated on the eastern shore of Taku Arm of Tagish lake.

The property surrounds the Engineer Mine property, presently being operated on a lease basis by Ampex Mining of Whitehorse, Yukon. The Engineer Mine operated during 1910 to 1918, 1922 to 1928 and during the summer of 1929 and 1930. Estimated production from 1913 to 1952 is 15,564 tonnes grading 36 grams gold per tonne and 17.9 grams silver per tonne ($\approx$ 18,000 troy ounces of gold).

The gold mineralization is associated with narrow (generally $<$ 2 metres) epithermal quartz calcite veins. The native gold generally occurs as fine disseminations, blebs and in dendritic forms. Grades range from trace to greater than 50 grams gold per tonne.

The Lumsden property is entirely underlain by argillites and wackes of the lower Jurassic Laberge Group. These sediments are cut by a hornblende quartz diorite and a greenish sugary texture rhyolitic dykes in the Gleaner area of the property. The Llewellyn fault structure occurs immediately to the west of the property and shears A and B (two north northwesterly trending shear zones) are believed to be related to this structure.

During August and September of 1993, approximately 3.5 line kilometres of grid was established in the Gleaner area of the property. A preliminary VLF-EM survey, prospecting, rock sampling and geological investigation was completed. The Gleaner and South Gleaner adits were opened, washed and geologically mapped and sampled. An area above the South Gleaner adit portal was trenched, mapped and sampled.

A cursory examination of historical data was conducted and potential extensions of gold bearing veins onto the Lumsden property were examined.

A road building and trenching program was conducted in the Jersey Lily area of the property as well, however the results of that program are not discussed in this report.

CONCLUSION

The preliminary VLF-EM survey was effective in mapping the structures in the Gleaner area. The underground mapping of the vein bearing structures, correlate well with the VLF-EM survey data.

The magnetometer survey data appears to map some of the lithology, however, the loss of the time and base station data during transfer has complicated the interpretation of the data.

The initial results from the rock sampling indicates that the epithermal veins in the Gleaner area contain elevated values of gold.

RECOMMENDATIONS

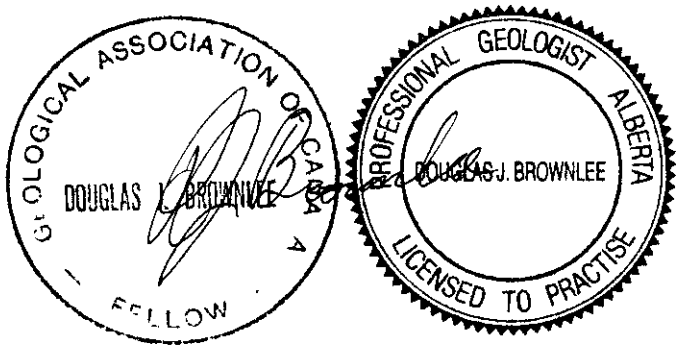
A two phase program is proposed to fully evaluate the mineral potential of the Lumsden property.

Phase I:

- Two grids, grid one covering reverted crown grant lots: 968, 967, 1264, 4658 and 970; grid two covering reverted crown grant lots: 21, 972 and 1262.
- That a VLF-EM and magnetometer survey be conducted over the two grids.
- These two grids be geologically mapped at a scale of 1:500.
- A grid covering the extension of the Mickey vein toward the Happy Sullivan be located and soil sampled (samples to be analyzed for gold).

Phase II:

- The VLF-EM anomalies be trenched, utilizing a backhoe.
- Any structures with associated epithermal veins, have detailed grids established and soil sampled (samples to be analyzed for gold).
- Any gold anomalies to be trenched.



INTRODUCTION

The Lumsden property consists of 17 reverted crown grants owned by Keith Lumsden. The property is located in northwestern British Columbia, within the Atlin Mining Division. The property was optioned based on its surrounding the Engineer Mine. The Engineer Mine is presently being operated on a lease basis by Ampex Mining of Whitehorse, Yukon. The Engineer Mine produced approximately 18,000 troy ounces of gold between 1913 and 1952.

This report summarizes the results of a preliminary VLF-EM and magnetometer survey, geological mapping of the Gleaner and South Gleaner adits and preliminary geological investigations and rock sampling, carried out during August and September, 1993.

LOCATION, ACCESS, PHYSIOGRAPHY

The Lumsden property is located 140 kilometres south of Whitehorse, Yukon, 80 kilometres southeast of Carcross, Yukon and 32 kilometres west southwest of Atlin, B.C. The property is situated on the eastern shore of Taku Arm of Tagish lake (figure 1).

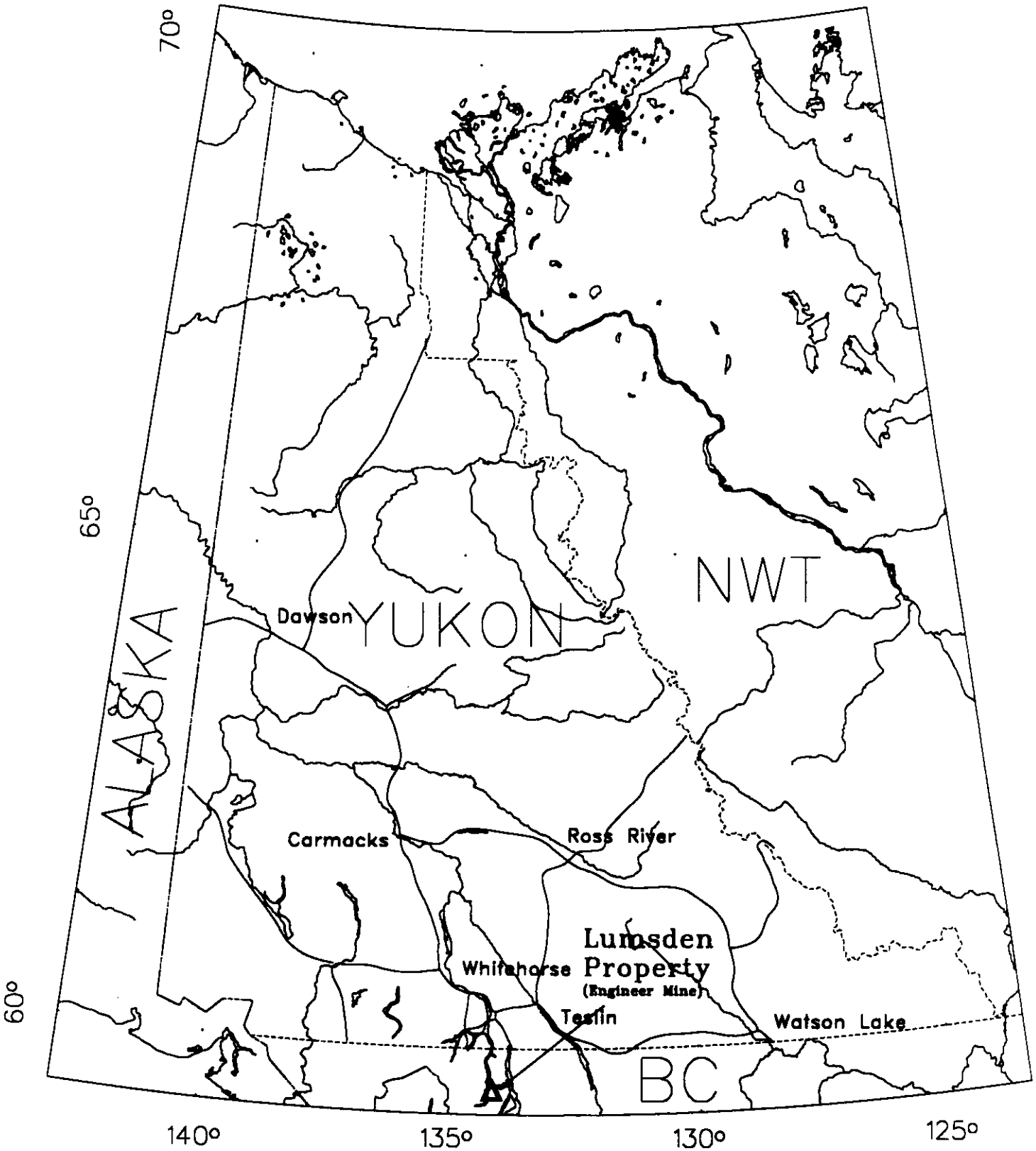
The property is covered by NTS sheet 104M/8E, at latitude 59° 28', longitude 134° 14' or UTM zone 8, northing 6593448, easting 543119.

Access to the property is via boat from Carcross, Yukon or via helicopter or float plane from Atlin, B.C. or Whitehorse, Yukon.

The property lies on the western edge of the Teslin plateau, near the eastern margin of the Boundary Ranges. The property rises moderately steeply in benches from Tagish lake to Engineer Mountain of the eastern boundry of the property (from 150 to 325 metres above the lake). The area was glaciated, and extensive overburden cover exists on portions of the property.

Vegetation consists mainly of pine, spruce and extensive alder in flat lying swampy areas.

The climate varies from moderately warm during the summer months to very cold during the winter. Precipitation is mild, with only moderate snow accumulation during the winter months.



Yukon Location Map

Figure 1

D. Brumlee

CLAIM DATA

The Lumsden property consists of 17 reverted crown grants (figure 2). The claims are located in the Atlin Mining Division and are recorded at the Gold Commissioner's Office. Claim data is as follows:

CLAIM NAME	TENURE#	LOT NO. OWNER	EXPIRY DATE	RECORDED
The Jersey Lily	203954	21	Feb 14 1994	Keith Lumsden
Nest Egg	203955	3292	Feb 14 1994	Keith Lumsden
Betsay	203956	1262	Feb 14 1994	Keith Lumsden
Bonanza	203957	915	Feb 14 1994	Keith Lumsden
Rubberneck	203958	916	Feb 14 1994	Keith Lumsden
The Mickey	203959	967	Feb 14 1994	Keith Lumsden
Lakeview	203960	241	Feb 14 1994	Keith Lumsden
Taku Chief	203961	240	Feb 14 1994	Keith Lumsden
Myosotis	203962	239	Feb 14 1994	Keith Lumsden
North.Partnership#5	203963	972	Feb 14 1994	Keith Lumsden
Hill Fraction	201718	1264	Mar 29 1994	Keith Lumsden
Smith Fraction	201718	4658	Mar 29 1994	Keith Lumsden
Golden Hope	201719	1263	Mar 29 1994	Keith Lumsden
Daisy	201720	970	Mar 29 1994	Keith Lumsden
The Speculation	201721	969	Mar 29 1994	Keith Lumsden
Sweepstake #1	201722	3283	Apr 4 1994	Keith Lumsden
Plato	202291	968	Jun 6 1994	Keith Lumsden

HISTORY

- 1898, free gold discovered by White Pass and Yukon Railway surveyors and engineers.
- Thirteen claims staked and Engineer Mining Company formed.
- Between 1900 and 1903, an adit was driven, stamp mill built.
- About 1906, property restaked and sold in 1907 to the Northern Partnership Syndicate, headed by James Alexander.
- Extensive surface prospecting and trenching, by 1910 stamp mill was operating and put through 140 tons, with average grade of 2.76 ounces gold per ton.
- James Alexander bought the property in 1912, who operated the property until his death in 1918. Production during this period was 1200 lbs of highgrade worth $10,000 in 1912, 700 to 800 tons of

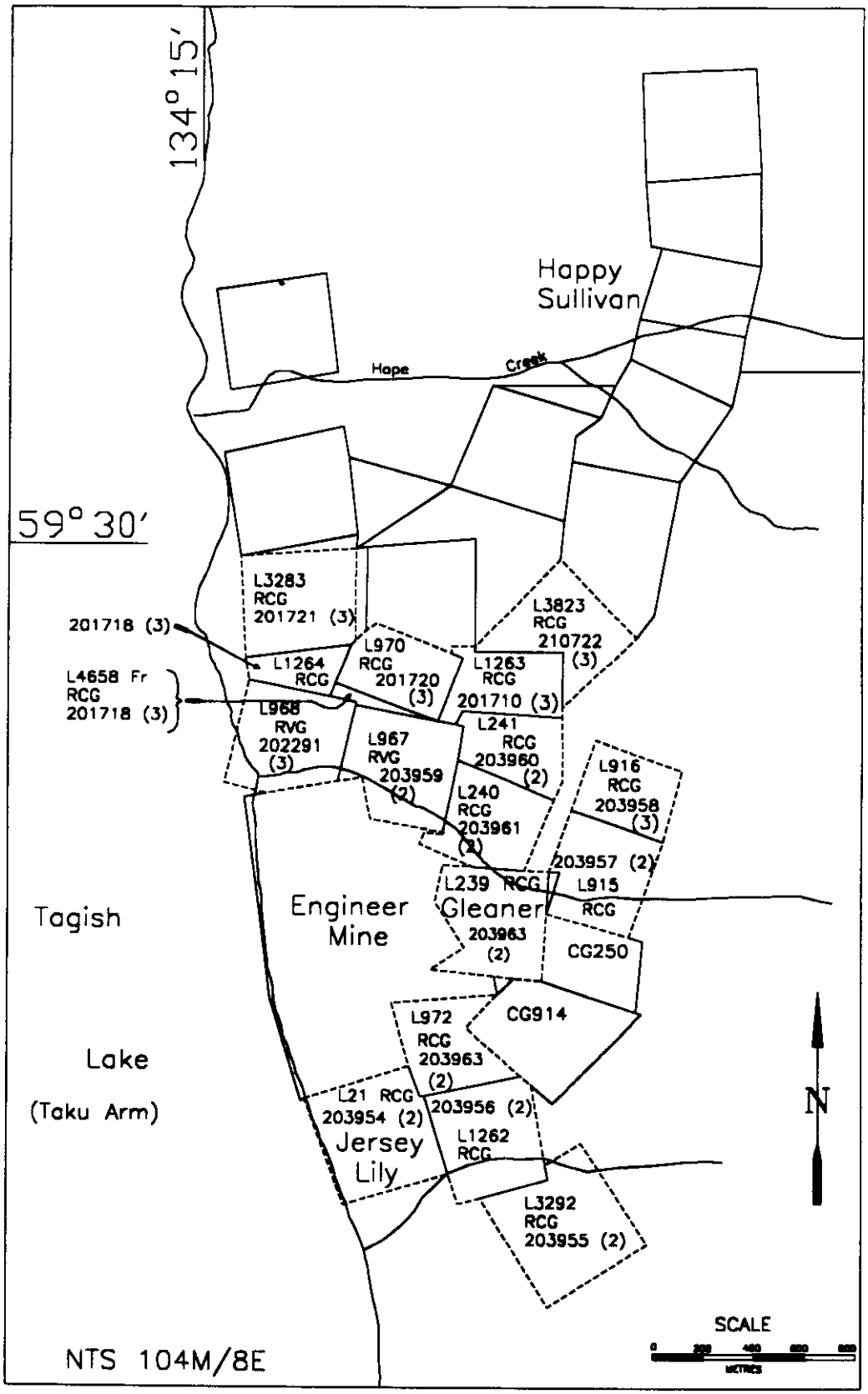


Figure 2

CLAIM MAP

"high grade" and 300 tons of "low grade" (which averaged 4.2 ounces gold per ton), in 1913.

- The Engineer vein had been developed to 210 feet with 4 levels by 1918.
- The property was purchased by Engineer Gold Mines of New York in 1924 and a power plant and transmission line were built along with a 50 ton per day concentrator.
- This company worked the property until 1931, with extensive underground development to the eight level.
- 1932 to 33, lessees highgraded the veins on surface.
- Mining Corporation of Canada bought the property at a Sheriff's sale.
- Several people operated the mine on a small scale during the 1940's and 1952.
- Tagish Gold Mines Ltd. bought the property in 1962 or 63 and Nu-Energy Resources Ltd. amalgamated with Tagish in 1975.
- 1975, Nu-Energy conducted a program of surface and underground mapping and attempted to dewater the underground workings.
- Around this time, Keith Lumsden started to acquire the reverted crown grants surrounding the property.
- Nu-Lady acquired the property in 1979.
- Nu-Lady carried out a 15 hole diamond drill program on the Engineer during 1980. Geochemical surveys were conducted during 1981 and a further 11 diamond drill holes were drilled.
- Windarra Minerals Ltd. optioned the Lumsden property.
- 1987, Total Erickson Resources carried out a airborne VLF and magnetometer survey of the Engineer, along with geological, geochemical and ground geophysical surveys. Eight diamond drill holes were drilled.
- Ampex Mining of Whitehorse, leased the Engineer during 1992 and 1993 and carried out underground work.
- 11027 Yukon Ltd. optioned the Lumsden property in 1993.

REGIONAL GEOLOGY

The Lumsden property lies within the Whitehorse Trough and is underlain by the lower Jurassic Laberge Group (figure 3). The Laberge Group is comprised of coalescing subaqueous turbidite fans comprised of brown to black argillites of variable thickness generally occurring as sets within greywackes. The greywackes are comprised of variably feldspathic, lithic or quartz rich varieties. The greywackes occurs in massive to well bedded units, generally with grading evident.

The Laberge Group is intruded by a zoned 2 kilometre long late Cretaceous diorite on the southwestern flank of Engineer Mountain. This intrusive is likely related to the middle to upper Cretaceous Tagish volcanics (Engineer Suite), which outcrop on the top of Engineer Mountain. The volcanics are comprised of a light green heterolithic lapilli tuff and a black monolithologic feldspar porphyry breccias and tuffs.

The area is bounded to the west by the Llewellyn fault, a long lived, dextral, west side up transcurrent structure, most likely the western boundry of the Whitehorse Trough. Movement on this structure, possibly started as early as the Triassic. This fault is thought to have been instrumental in the development of the shear zones and tensional breaks noted at the Engineer and Lumsden properties.

PROPERTY GEOLOGY

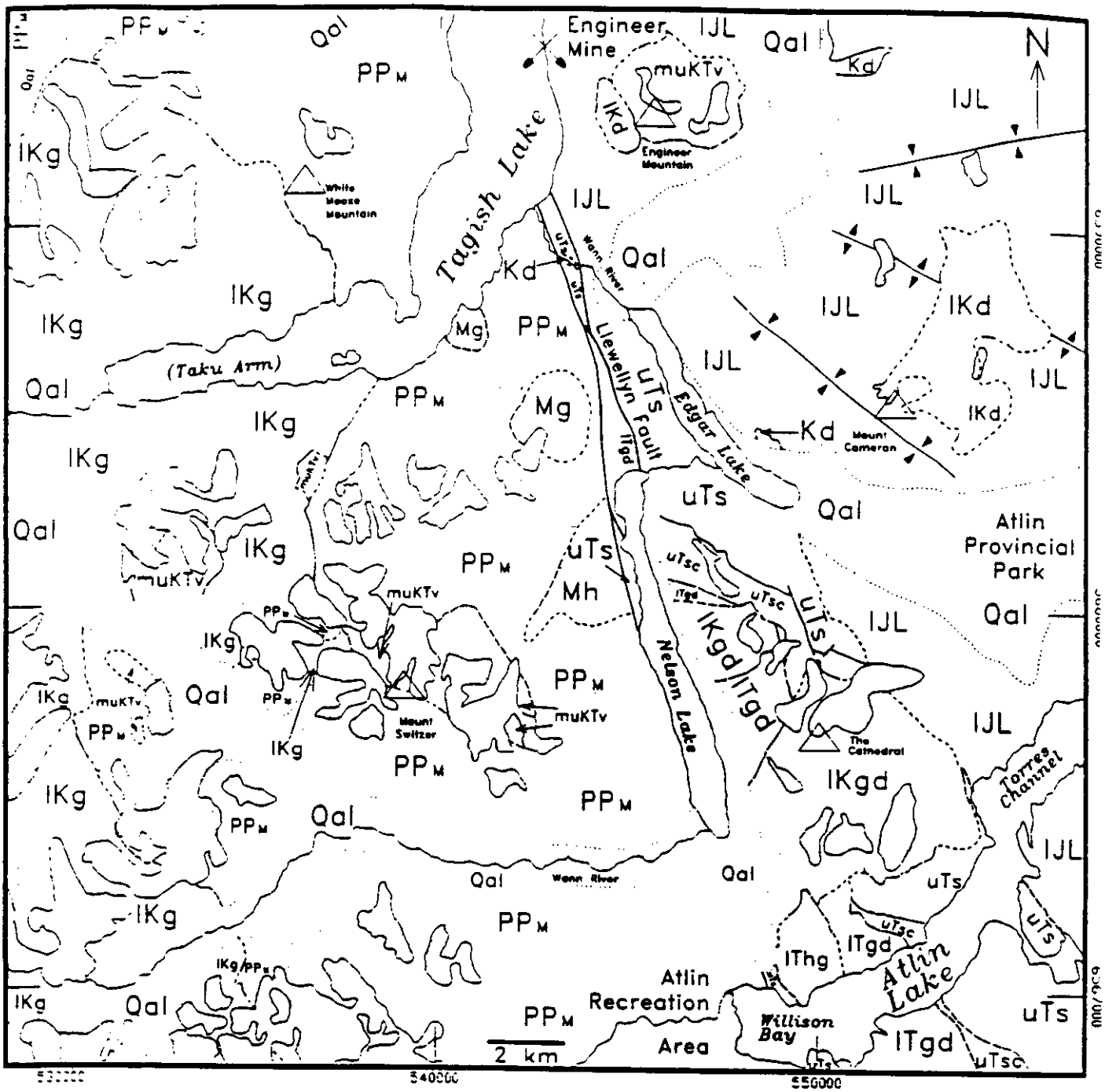
The property is underlain entirely by the lower Jurassic Laberge Group and is comprised mainly of dark brown to black, in part thinly bedded argillites. Interbedded with the argillite is massive to thickly bedded light to medium grey greywackes.

The eastern portion of the property is intruded by a late Cretaceous diorite and associated hornblende quartz diorite dykes.

The property is cut by two major shear zones (shear A & B, figure 9), thought to be related to the Llewellyn fault. Associated with these two shears are sets of tensional structures, which have been infilled by epithermal quartz/calcite veins. These veins are possibly related to the Engineer Mountain intrusive.

MINERALIZATION

Mineralization at the Engineer Mine and on the Lumsden property is associated with quartz calcite veins exhibiting good comb structures, banding and vugs characteristic of epithermal vein systems. Mineralization consists mainly of native gold occurring as disseminations, blebs and dendritic forms, with associated minor mariposite, pyrite, arsenopyrite and several antimony minerals (allemontite, berthierite; not identified by the author). At the Engineer Mine, native gold often is



PPM	Proterozoic(?) to Paleozoic Boundary Ranges Metamorphic suite
uTs	Upper Triassic Stuhini Group–undivided
uTsc	Upper Triassic Stuhini Group–basal conglomerate
MGum	Mesozoic Graham Creek ultramafics
MGg	Mesozoic Granam Creek gabbros
MPv,s	Mesozoic Penninsula Mountain volcanic–sedimentary suite
MPv	Mesozoic Penninsula Mountain volcanic suite
MPs	Mesozoic Penninsula Mountain sedimantary suite
IJL	Lower Jurassic Laberge Group
muKTv	Middle to Upper Cretaceous Tagish volcanics
lThg	Late Triassic hornblende gabbro

lTgd	Late Triassic granodiorite
Kd	Cretaceous diorites
lKd	Late Cretaceous diorites
lKgd	Late Cretaceous granodiorites
lKg	Late Cretaceous granite
Mh	Mesozoic hornblendite
Mg	Mesozoic granite
Qal	Quaternary alluvium

Regional Geology Map

after Mihalynuk 1990

Figure 3

Synform, Antiform

Contacts, approximated, assumed

Limit of Quaternary Alluvium

Faults

associated with the mineral roscoelite. The gold grade ranges from trace to greater than 50 grams gold per tonne.

Only minor argillic alteration was noted, associated with the veins and this only within the Gleaner adit (figure 6a&b).

1993 WORK PROGRAM

The 1993 work program was conducted during August 12, 13, 24 to September 1 and September 20 to 23, 1993 by D.J. Brownlee, geologist, one assistant and K. Lumsden, equipment operator.

The entire grid was prospected and geological sketches were completed of four areas covered by the grid (figures 4 and 5). One area above the Gleaner adit portal was trenched and geologically sketched. A total of 21 rock samples were collected.

The portals to the Gleaner and South Gleaner adits were opened up and gates constructed. The two adits were also washed and mapped (figures 6a, 6b and 7).

A total of 3.5 line kilometres of grid was established by compass and topofil. A total of 2.1 line kilometres of grid was surveyed by VLF-electromagnetic and magnetometer instruments (figure 8).

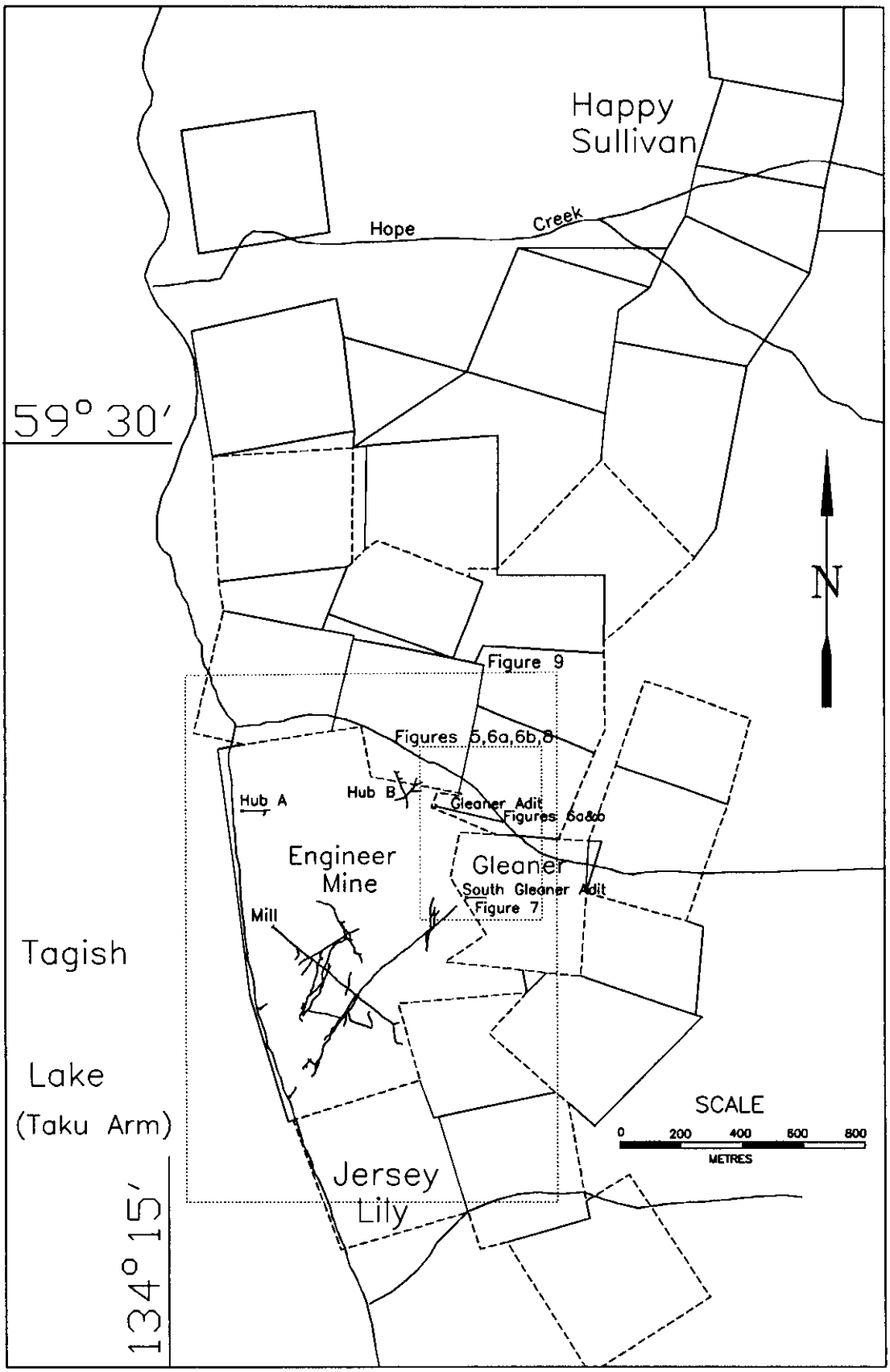
PROSPECTING AND GEOLOGICAL SKETCHES

The grid was prospected and selected rocks samples collected from quartz veins exposed in old trenches (figure 5) (see appendix I for descriptions). These quartz veins and caved trenches correspond very well to the VLF-EM anomalies recorded (see geophysics section).

A series of trenches immediately east of the baseline and north of the South Gleaner adit, expose a quartz vein which ranges from 5 to 10 centimetres in width and appears to pinch out by L 12+00N. This structure is illustrated by sketches 1 through 3.

A trench was excavated approximately 20 metres north of the portal to the Gleaner adit. This trench was to expose the cause of a large VLF-EM anomaly. The trenching showed that the anomaly was due to a combination of a structure containing several quartz veins and a associated graphitic horizon and a crosscutting shear zone (sketch 4).

Sketch 5 is of an outcrop in a small creek canyon at L12+50N, S10+87.5E and shows a 22 centimetre wide vuggy and in part banded quartz calcite vein with minor mariposite and trace pyrite.



NOTE: Underground workings from Smith (1990), accuracy of plan and locations not verified by author

Figure 4

Reference Map

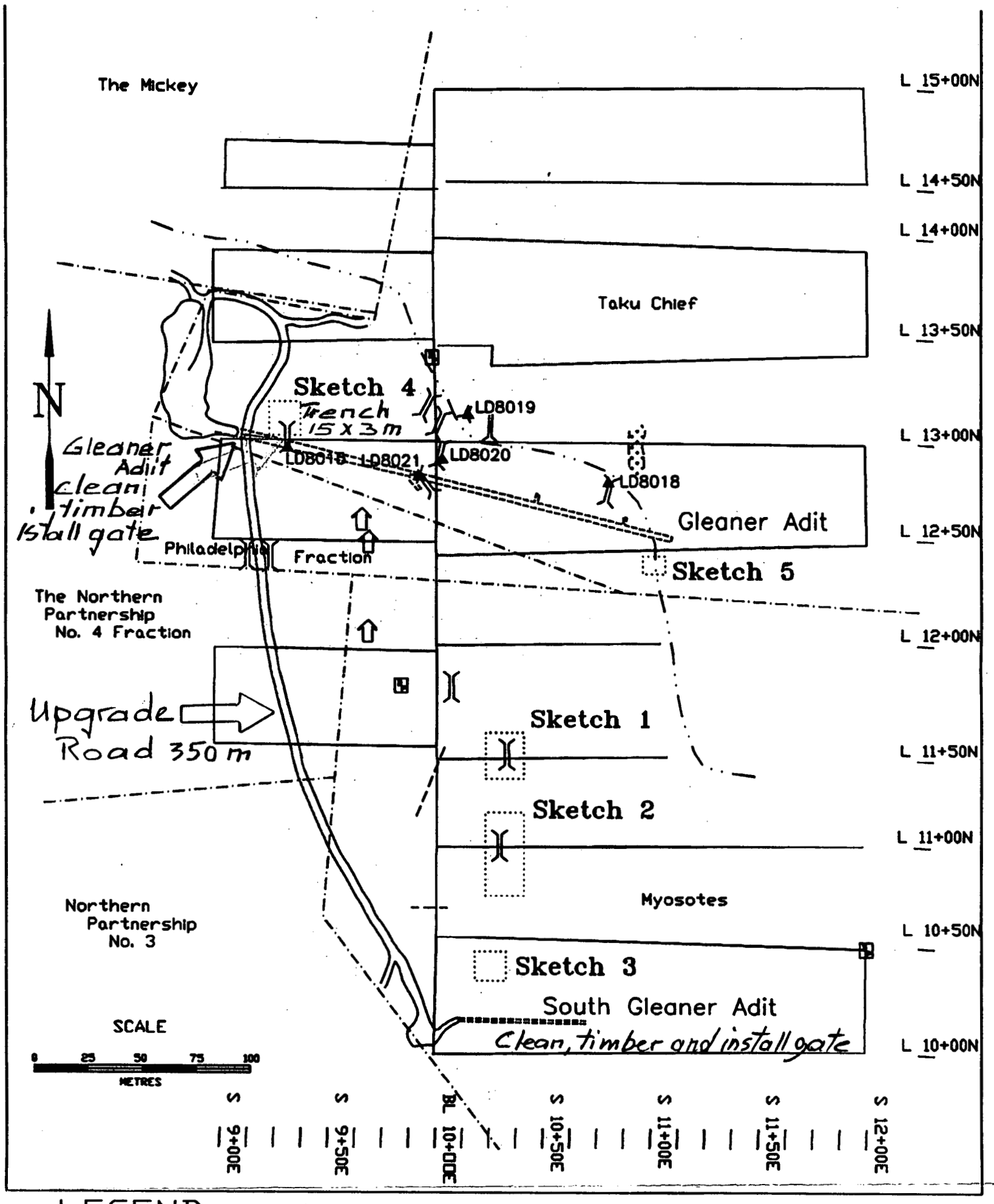


Figure 5

Gleaner Area Map
& Sketch Location Map

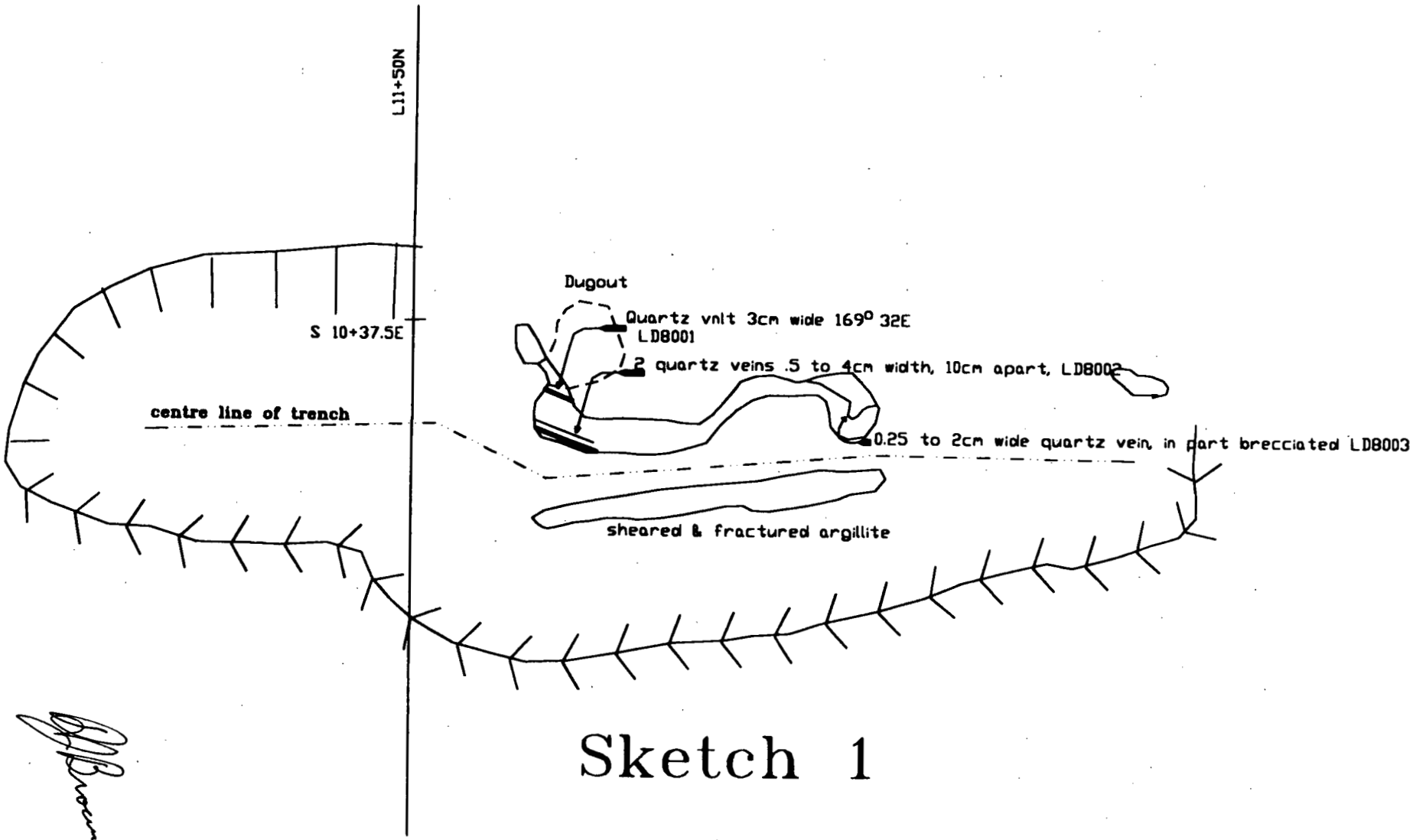
LEGEND

- Trenches, Cut
- Cut Line
- Claim Boundry
- Drill Pad
- Old Building
- Stream
- Creek
- Road

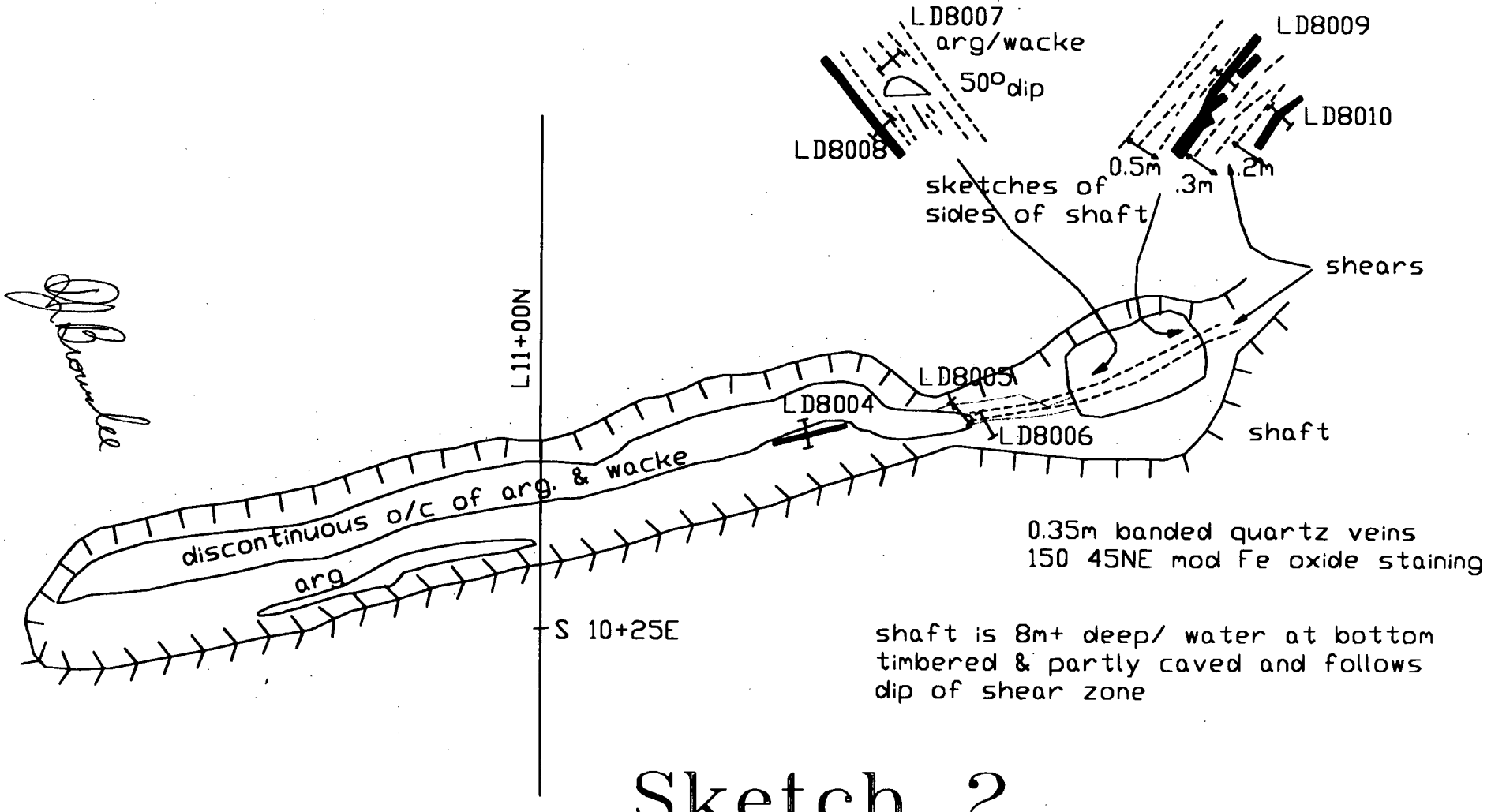
▲LD8018 Rock Sample

Hornblende Quartz Diorite

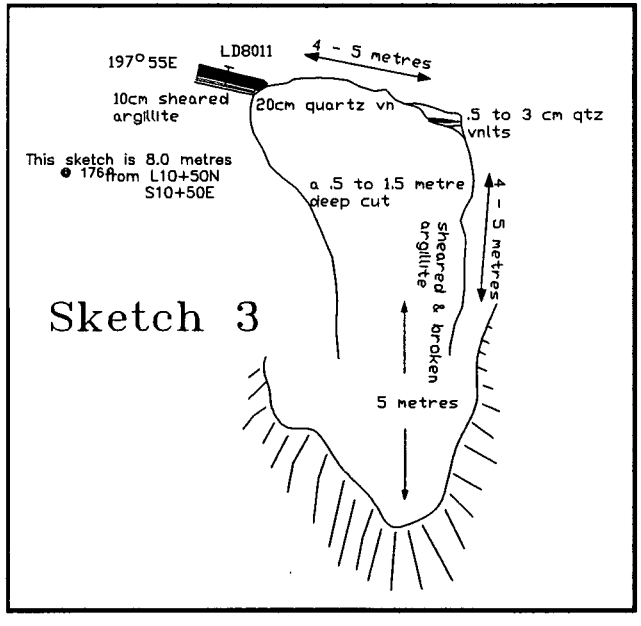
A fine to medium grained intrusive dyke showing some argillic alteration along contacts and shears in adit.


L11+50N
S 10+37.5E
centre line of trench
Dugout
Quartz vnlt 3cm wide 169° 32E
LD8001
2 quartz veins .5 to 4cm width, 10cm apart, LD8002
0.25 to 2cm wide quartz vein, in part brecciated LD8003
sheared & fractured argillite

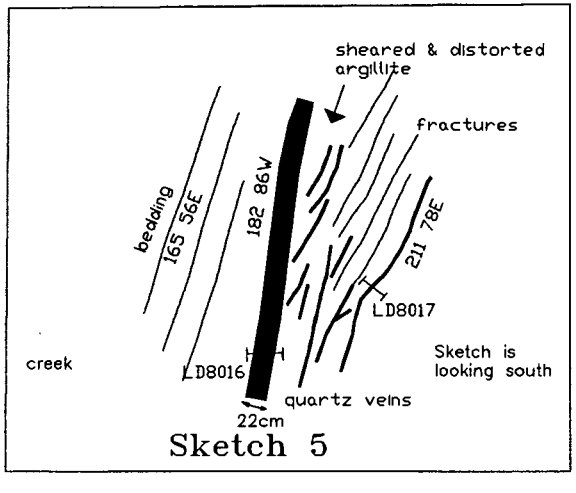
Sketch 1


LD8007
arg/wacke
50° dip
LD8009
LD8010
LD8008
0.5m
.3m
.2m
sketches of
sides of shaft
shears
L11+00N
LD8005
LD8004
LD8006
shaft
discontinuous o/c of arg. & wacke
arg
S 10+25E
0.35m banded quartz veins
150 45NE mod Fe oxide staining
shaft is 8m+ deep/ water at bottom
timbered & partly caved and follows
dip of shear zone

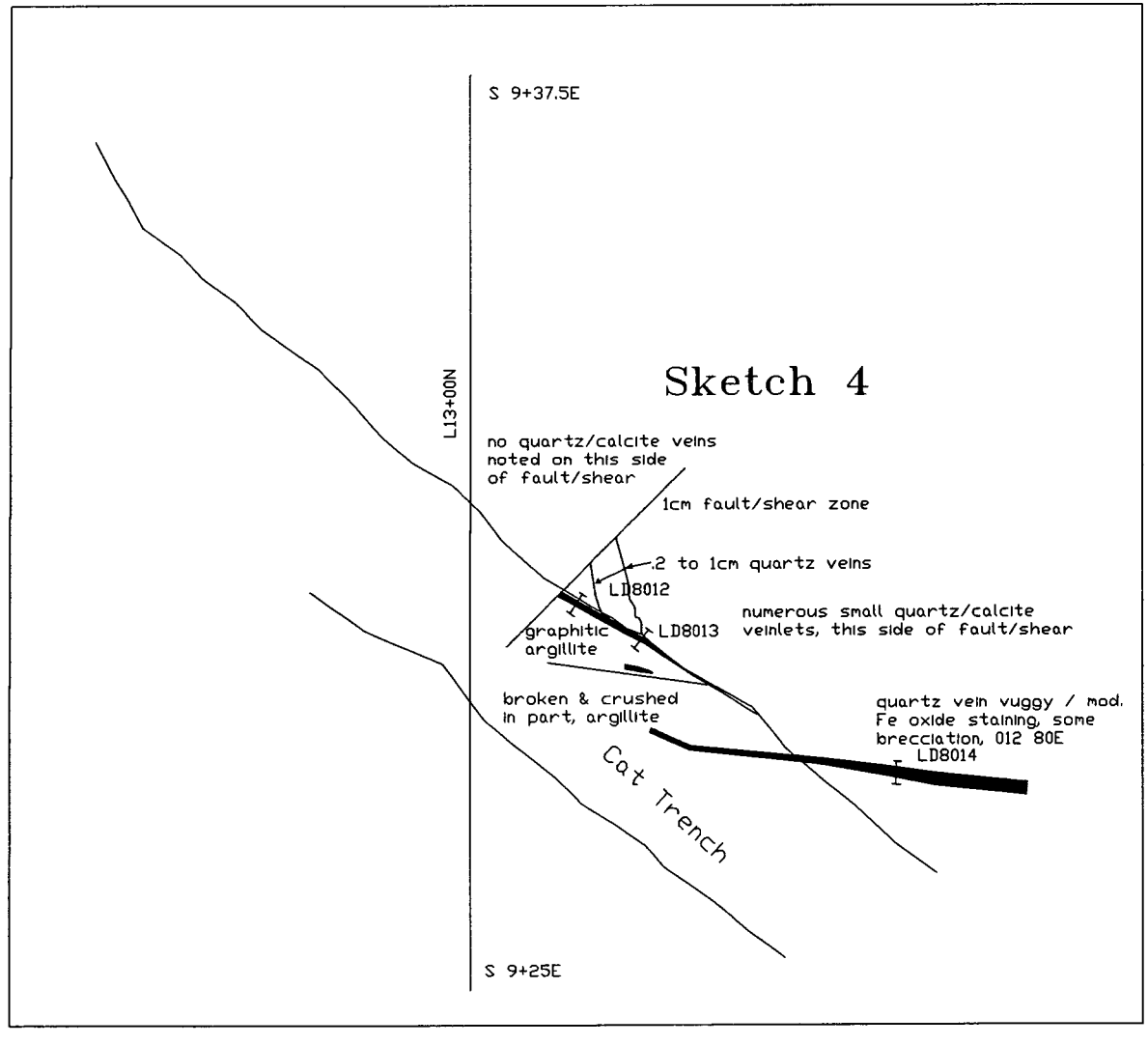
Sketch 2



Sketch 3



Sketch 5



Sketch 4

this trench. The quartz/calcite material in this muck pile showed up to 5% disseminated metallic silver mineral with a acicular habit (unidentified). A further three rock samples (LD8019, 20 and 21) were collected from old trenches and cuts, north along the creek from this area (figure 5).

GEOLOGICAL MAPPING OF THE ADITS

The portals to the Gleaner and South Gleaner adits were cleaned out and lockable gates were emplaced.

The adits were washed down and geologically mapped (figures 5, 6a, 6b and 7). A total of 13 rock samples were collected (for descriptions see appendix I). Six of the samples were submitted to Northern Analytical Labs for analysis for gold. One of the samples (sample # 980813005) returned 259 ppb gold and was collected from a narrow ancillary vein beside a 1 metre wide quartz vein named the "Gleaner Vein" (analytical results are in appendix II). This results shows that the vein systems on the Lumsden property do carry anomalous values of gold.

GEOPHYSICAL RESULTS

A combined magnetometer and VLF-EM survey was conducted over a portion of the property, utilizing a Scintrex MP-4 combined magnetometer and VLF-EM receiver and base magnetometer.

Magnetometer Survey

A combined VLF-EM and magnetometer survey was conducted on the grid, however, the base station data and the date and time of the readings were lost during data transfer. The original readings for both VLF-EM and magnetics were physically recorded in the field and are presented in appendix III.

VLF-EM Survey

A total of 2.1 line kilometres of VLF-electromagnetic survey was completed on the property (figure 8 and appendix III).

The VLF-electromagnetic method utilizes an electromagnetic field transmitted from radio stations in the 12 to 24 kilohertz range. The signals are propagated with the magnetic component of the electromagnetic field being horizontal in undisturbed areas.

Conductivity contrasts in the earths crust (like faults), produce a local vertical component to the electromagnetic field and changes in field strength or amplitude. These conductive areas may be located and to a degree, evaluated by measuring

GLEANER ADIT

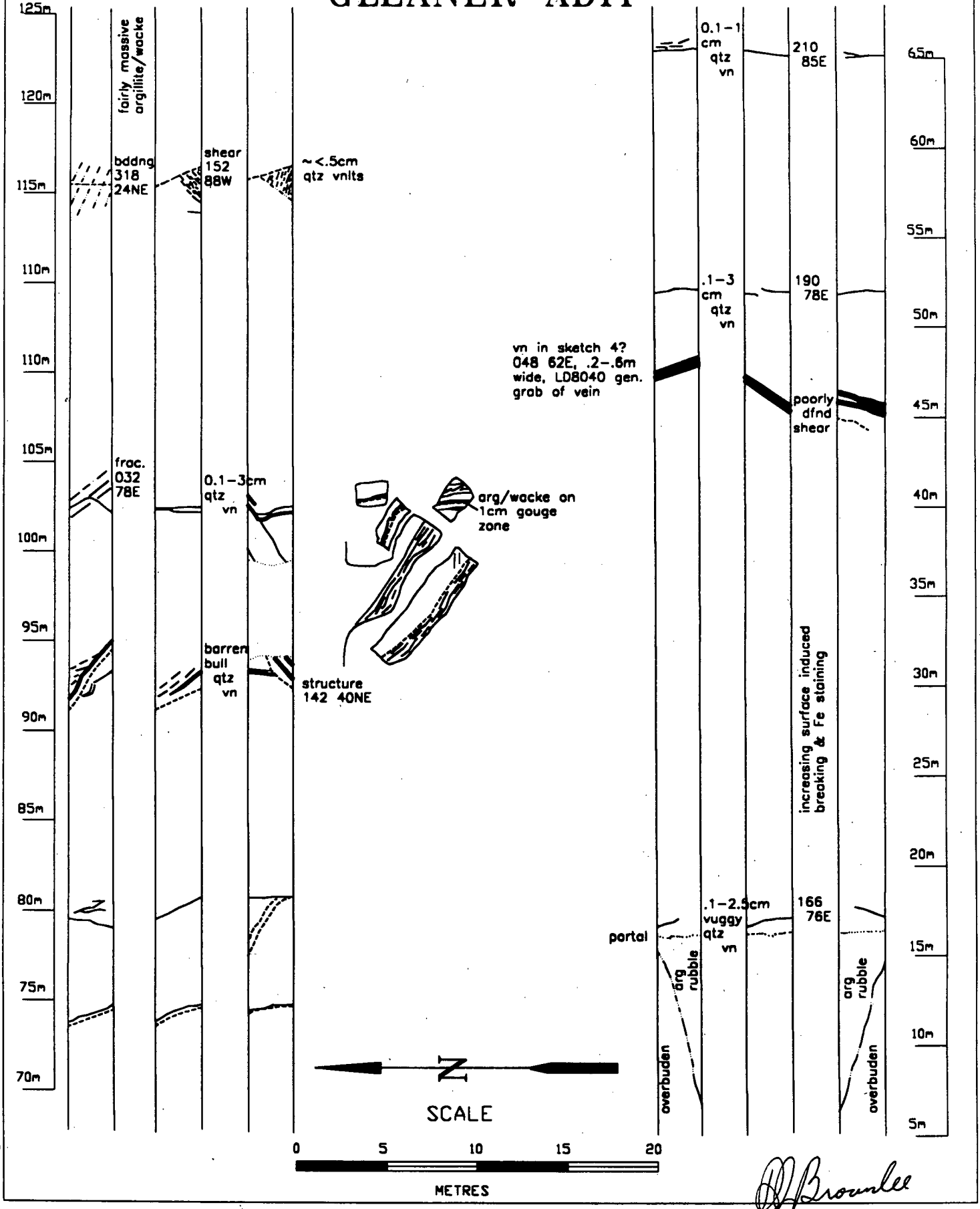


Figure 6a

GLEANER ADIT

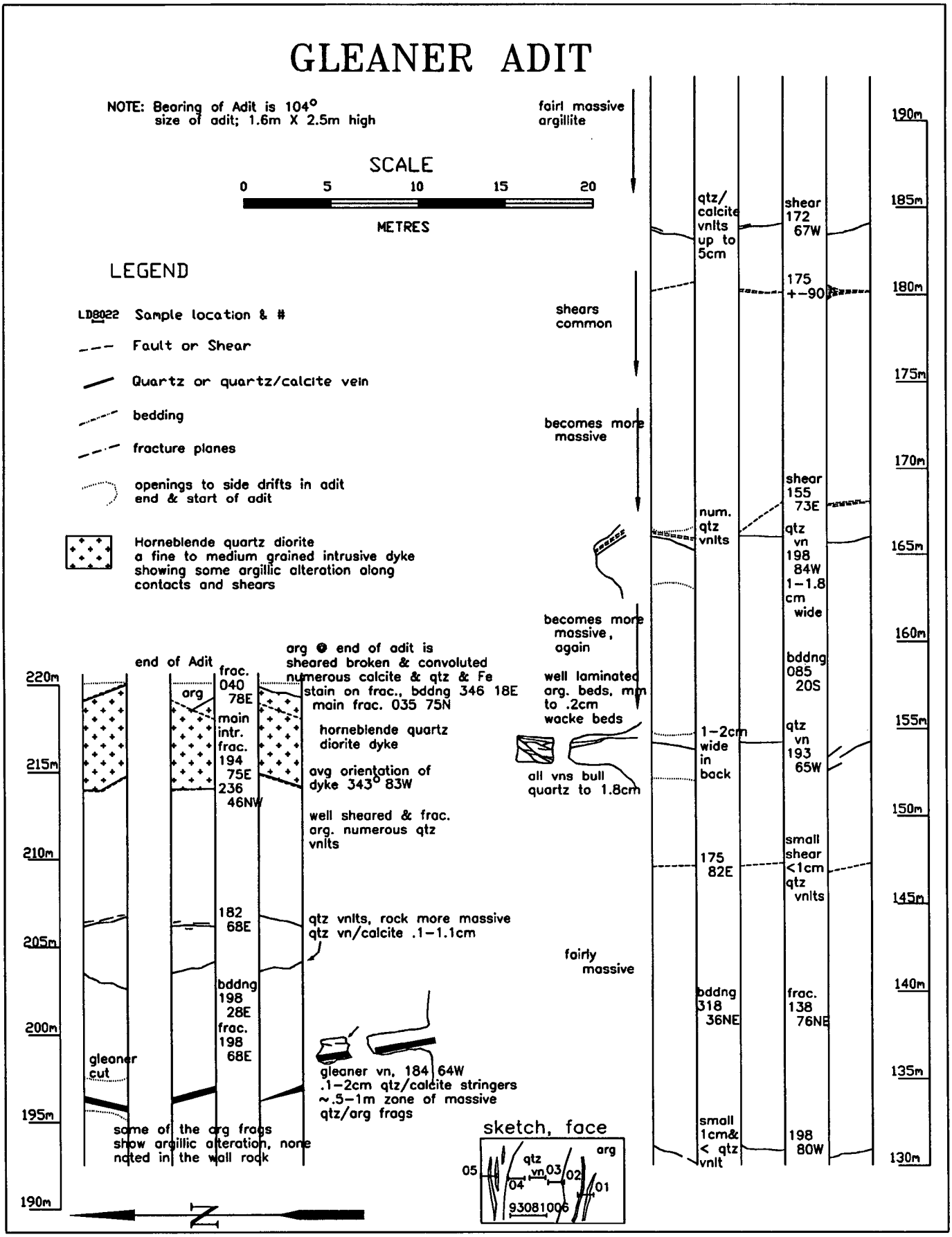


Figure 6b

SOUTH GLEANER ADIT

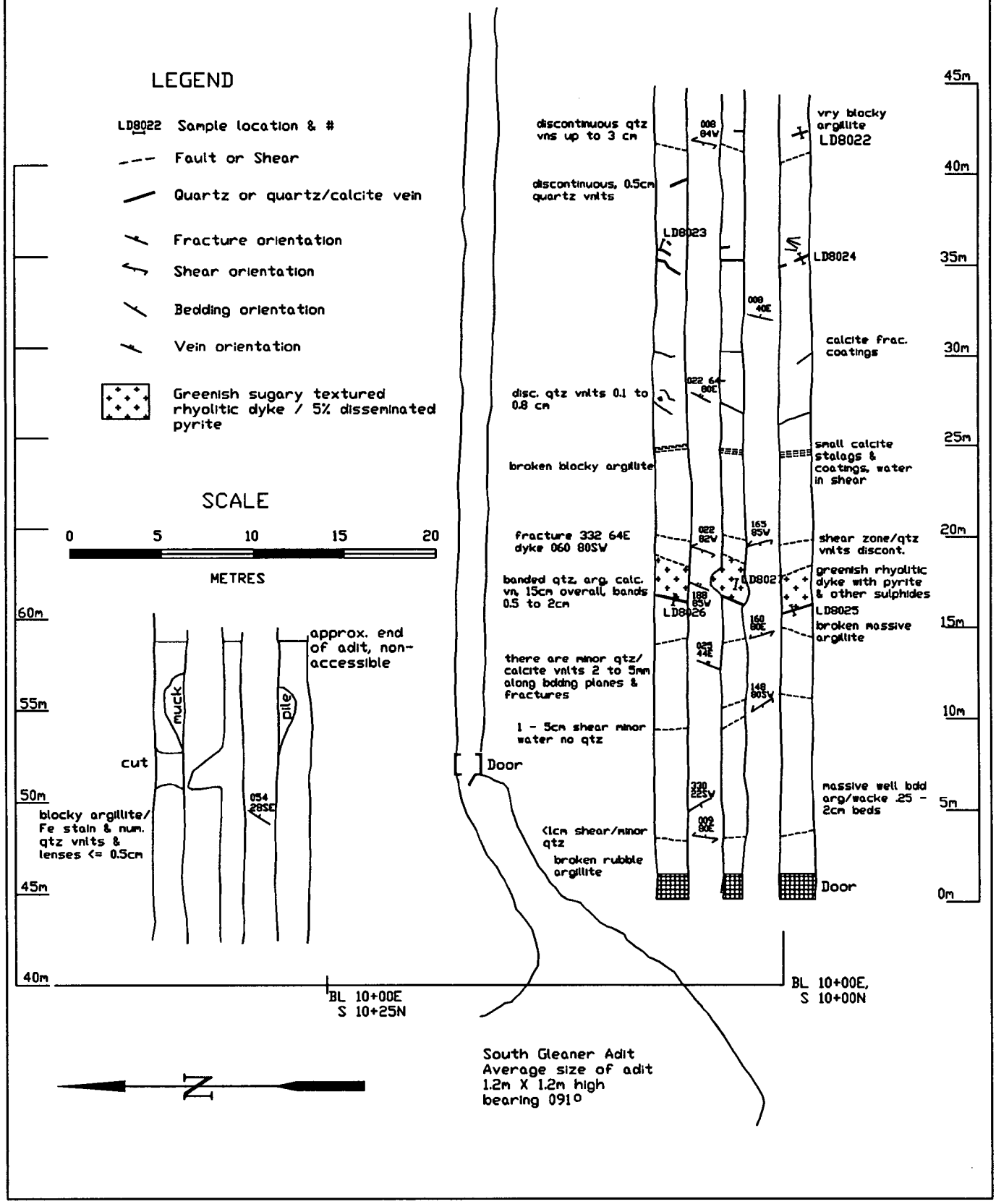
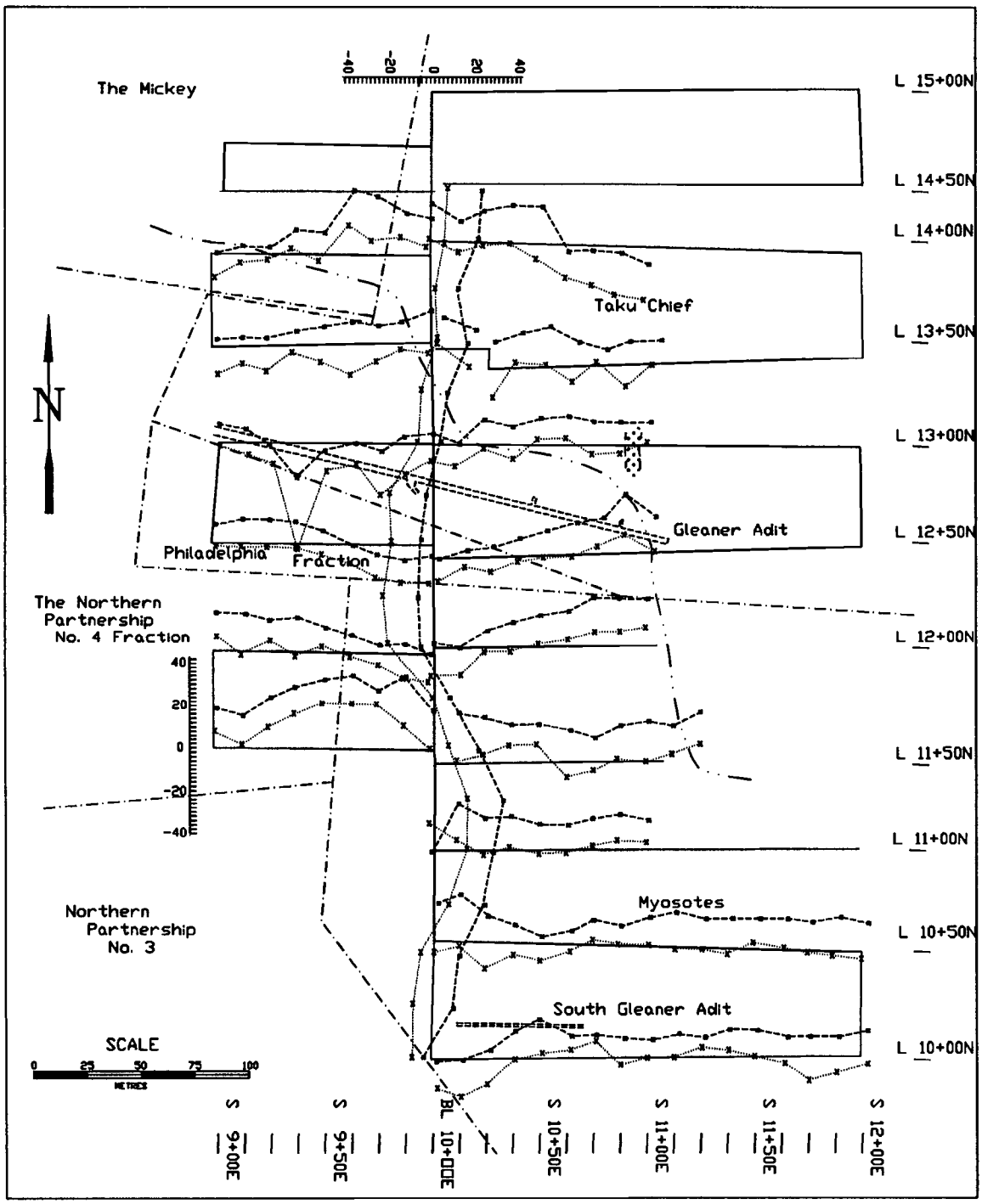


Figure 7



LEGEND

Figure 8

Claim Boundry

Stream

Adit

Road

VLF 1

VLF 2

VLF Profile Map

Hornblende Quartz Diorite

A fine to medium grained intrusive dyke showing some argillic alteration along contacts and shears in adit.

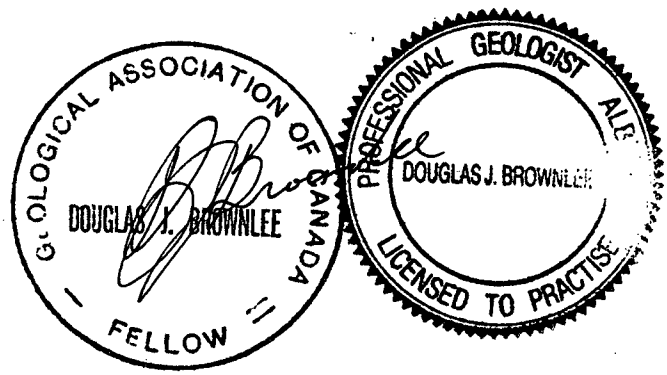
the various parameters of this electromagnetic field. A Scintrex combined magnetometer and VLF-EM receiver was used to measure the dip angle of the resultant field (in degrees) and the normalized horizontal component of the field strength. The two stations used for this survey were Annapolis Md. (VLF1, 21.4 kHz) and Cutler Maine (VLF2, 24 kHz).

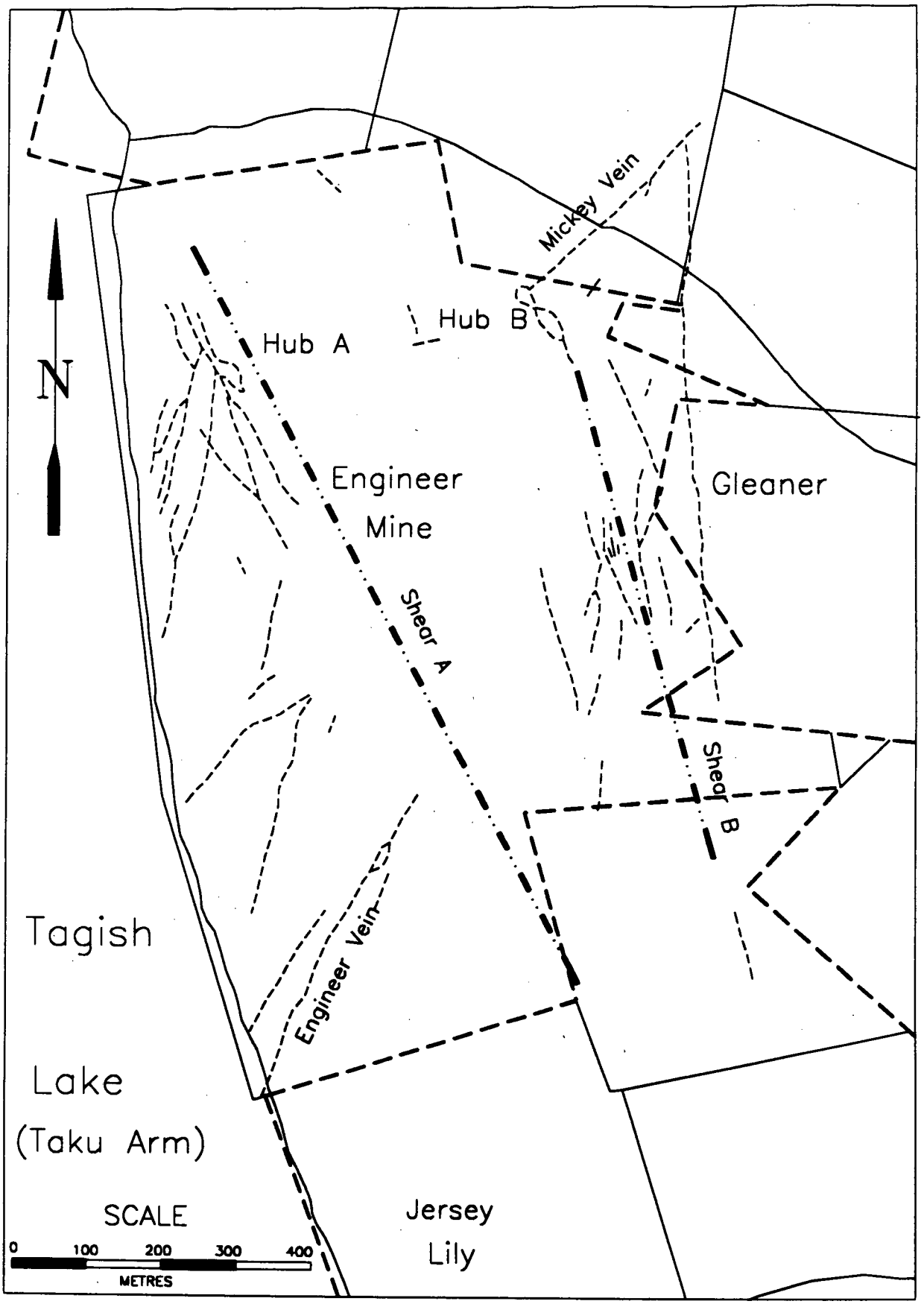
The results of the survey show dip anomalies corresponding to known structures and veins. Additionally, the results show that these structures and veins are discontinuous. This is most likely caused by pinching and swell of the veins and truncation by faulting.

DISCUSSION OF RESULTS

The VLF-EM survey was successful in delineating known structures and vein systems (figure 5 and 8).

The VLF-EM method would be useful in delineating the potential extension of known gold bearing veins indicated by the historical vein location map (figure 9). Additional structures with possible gold bearing veins could be delineated during these surveys.





NOTE: Vein locations are from "Veindikes of the Engineer Mine, near Atlin B.C." by W.H. Wead, 1925
Location of veins are only a best estimate of location.

Figure 9

Vein Location Map

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Weed, W.H., (1925); Veindikes of the Engineer Mine, near Atlin, B.C., Engineering and Mining Journal Press, June 27, 1925

CERTIFICATE

I, Douglas J. Brownlee, do hereby certify that:

1. I am a geologist residing at 47 12th Ave, Whitehorse, Yukon.

2. I am a graduate in Geology Specialization from the University of Alberta (1980).

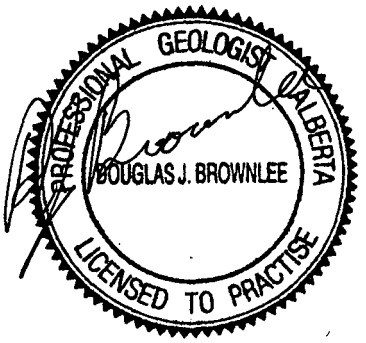
3. I have practised my profession in British Columbia and Yukon since January, 1980.

4. I am a Professional Geologist, registered with the Association of Professional Engineers, Geologist and Geophysicists of Alberta.

5. I am a fellow of the Geological Association of Canada.

6. This report is based on fieldwork personally conducted from August 12 to September 23, 1993.

7. I hold no interest, nor do I expect to receive any, in the Lumsden property.



APPENDIX I

Rock Sample Descriptions

Rock Sample Descriptions

Gleaner Vein (inside adit, figure 6b)

93081001	two veins, 5cm & 4cm wide, total width 11cm. East side of main vein, minor iron oxide and "mariposite" (a light pale green stain). orientation of veins ≈ 014° 72W, minor vugs; **39 ppb gold**
93081002	15 cm channel sample of footwall section of main vein; **25 ppb gold**
93081003	20 cm channel sample of the centre section of the main vein; **22 ppb gold**
93081004	10 cm channel sample of the hanging wall section of the main vein; **33 ppb gold**
93081005	3 cm veinlet within hanging wall, Fe oxide and minor "mariposite"; **259 ppb gold**
93081006	grab sample across the main vein, immediately above the floor of the drift; **47 ppb gold**

Sketch 1

LD8001	grab sample of white quartz vein / Fe oxide stain, 3cm wide, 169 32E, entrance to a "dug out", vein exhibits crystals and vugs.
LD8002	grab sample of 2 quartz veins 0.5 to 4cm wide, 10cm apart, 272 34E, sugary textured quartz with no visible sulphides.
LD8003	grab sample of quartz vein 0.2 to 2cm in width, in part brecciated / argillite fragments.

Sketch 2

LD8004	0.35 metre channel sample of white banded quartz vein and argillite, moderate Fe oxide staining, iron carbonate & calcite, vuggy with trace pyrite.

LD8005	grab sample of 7cm footwall quartz vein of a shear zone 6cm wide.
LD8006	grab sample of 12cm hanging wall quartz vein of a shear zone 6cm wide.
LD8007	grab sample of 0.8 metre sheared and broken Fe oxide stained argillite with minor quartz veinlets.
LD8008	grab sample of 5 - 8cm wide quartz vein with Fe oxide staining, in part crystalline and banded, with Fe carbonate, calcite and some manganese staining.
LD8009	grab sample of 5 -15cm wide quartz vein, same as LD8008.
LD8010	grab sample of 5cm wide quartz vein, same as LD8008.

Sketch 3

LD8011	grab sample of 0.2 metre quartz vein, in part crystalline, minor Fe oxide staining.

Sketch 4

LD8012	a semi panel sample 0.2 X 0.2 metres of a vuggy in part crystalline quartz vein with minor Fe oxide staining.
LD8013	a 0.25 metre channel sample of quartz vein and argillite.
LD8014	a 0.3 metre channel sample of quartz vein and argillite.

Sketch 5

LD8016	a 22cm channel sample of a vuggy, in part banded quartz vein with minor mariposite and trace pyrite.
LD8017	grab sample from a 4 to 10cm vuggy quartz vein with trace pyrite and Fe oxide stain.

Figure 5

LD8015	grab sample of 0.2 metre wide quartz vein, 10 metres south of trench in Sketch 4.

LD8018	grab of quartz vein material from a caved trench, bull quartz in part vuggy with 5% disseminated metallic grey mineral with a acicular habit.
LD8019	grab sample from a 6cm quartz vein.
LD8020	grab from muck pile beside caved in trench of bull quartz.
LD8021	grab from muck pile beside caved in trench of bull quartz.

Figure 6a

LD8040	grab from 0.2 to 0.6 metre bull quartz vein with Fe oxide staining.

Figure 7

LD8022	grab sample from discontinuous quartz veins up to 3cm in width.
LD8023	as for LD8022
LD8024	as for LD8022
LD8025	grab sample from a banded quartz vein with calcite and argillite fragments, bands 0.5 to 2cm wide, 15cm overall.
LD8026	as for LD8025
LD8027	grab sample from greenish rhyolitic dyke with pyrite, sugary textured and massive.

APPENDIX II

Analytical Results

Northern Analytical Laboratories ltd.

5-Aug-93date | Assay Certificate | Page1

D.J.B. Services | WO 00271

Sample	Au ppb
980813-001	39
-002	25
-003	22
-004	33
-005	259
-006	47

Certified by

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

APPENDIX III

VLF-EM

and

Magnetometer

Data

VLF-EM Data

VLF1: Annapolis MD. 21.4 kHz
VLF2: Cutler Maine 24.0 kHz

			VLF1		VLF2	
Line	Station	Mag (gammas)	Dip	Quad	Dip	Quad
BL 10+00E	S10+00N	57114	-4	4.53	-2	1.1
BL 10+00E	S10+25N	57263	-4	4.62	5	1.79
BL 10+00E	S10+50N	57233	-3	4.24	6	1.7
BL 10+00E	S10+75N	56924	4	4.4	11	1.47
BL 10+00E	S11+00N	56913	8	4.03	14	2.01
BL 10+00E	S11+25N	57082	8	4.28	16	2.15
BL 10+00E	S11+50N	57111	4	3.91	7	2.24
BL 10+00E	S11+75N	56961	0	4.31	5	2.75
BL 10+00E	S12+00N	57067	-10	4.26	-3	2.54
BL 10+00E	S12+25N	57000	-11	4.6	-2	2.56
BL 10+00E	S12+50N	57202	-9	4.61	-2	2.83
BL 10+00E	S12+75N	56961	-9	4.66	-1	2.73
BL 10+00E	S13+00N	56846	-2	4.34	2	2.09
BL 10+00E	S13+25N	56981	-2	3.96	4	2.22
BL 10+00E	S13+50N	57184	2	3.82	8	1.93
BL 10+00E	S13+75N	57351	1	3.95	6	1.57
BL 10+00E	S14+00N	57224	3	4.12	10	1.81
BL 10+00E	S14+25N	57185	4	4.26	12	2.18
L 10+00N	S10+00.0E	57387	-7	3.93	0	3.87
L 10+00N	S10+12.5E	57169	-9	3.73	0	3.87
L 10+00N	S10+25.0E	57193	-6	3.94	2	3.76
L 10+00N	S10+37.5E	57211	0	3.75	6	3.75
L 10+00N	S10+50.0E	57223	1	3.78	9	3.55
L 10+00N	S10+62.5E	57150	2	3.88	5	3.55
L 10+00N	S10+75.0E	57122	4	3.6	5	3.42
L 10+00N	S10+87.5E	57128	-1	3.53	4	3.14
L 10+00N	S11+00.0E	57330	0	3.65	4	3.24

L 10+00N	S11+12.5E	57281	0	3.6	5	3.24
L 10+00N	S11+25.0E	57244	2	3.44	4	3.15
L 10+00N	S11+37.5E	56948	1	3.51	6	3.3
L 10+00N	S11+50.0E	57000	0	3.61	6	3.31
L 10+00N	S11+62.5E	56835	1	3.48	4	3.25
L 10+00N	S11+75.0E	57026	-6	2.92	4	2.74
L 10+00N	S11+87.5E	56860	-4	3	4	2.69
L 10+00N	S12+00.0E	56977	-2	3.16	5	2.81
L 10+50N	S10+00.0E	57154	-1	2.15	10	2.53
L 10+50N	S10+12.5E	57202	0	2.25	12	2.3
L 10+50N	S10+25.0E	57303	-5	2.05	7	2.42
L 10+50N	S10+37.5E	58470	-2	2.52	5	2.45
L 10+50N	S10+50.0E	57339	-3	2.27	2	2.45
L 10+50N	S10+62.5E	56973	-1	2.45	3	2.4
L 10+50N	S10+75.0E	56851	2	2.77	6	2.56
L 10+50N	S10+87.5E	56849	1	2.77	5	2.57
L 10+50N	S11+00.0E	57047	1	2.87	7	2.66
L 10+50N	S11+12.5E	56823	0	2.95	8	2.77
L 10+50N	S11+25.0E	56917	0	2.61	7	2.81
L 10+50N	S11+37.5E	57041	-1	2.26	7	2.64
L 10+50N	S11+50.0E	56872	2	3.25	7	2.81
L 10+50N	S11+62.5E	57032	1	3.13	7	2.69
L 10+50N	S11+75.0E	56984	0	3.2	7	2.74
L 10+50N	S11+87.5E	56604	-1	3.13	6	2.8
L 10+50N	S12+00.0E	56742	-2	3.03	7	2.92
L 11+00N	S10+00.0E	57032	8	2.68	0	2.87
L 11+00N	S10+12.5E	57271	3	2.71	12	2.75
L 11+00N	S10+25.0E	57220	0	2.75	9	2.79
L 11+00N	S10+37.5E	57212	1	2.9	9	2.84
L 11+00N	S10+50.0E	58300	0	2.8	6	2.8
L 11+00N	S10+62.5E	56659	0	2.94	6	2.92
L 11+00N	S10+75.0E	56923	1	4.45	7	2.58

L 11+00N	S10+87.5E	56741	2	4.47	9	2.86
L 11+00N	S11+00.0E	56932	2	3.05	7	2.71
L 11+50N	S90+00.0E	56613	4	3.73	9	3.58
L 11+50N	S91+12.5E	56514	1	3.75	8	3.69
L 11+50N	S92+25.0E	56756	4	3.85	12	3.66
L 11+50N	S93+37.5E	56840	9	4.3	15	0.95
L 11+50N	S95+50.0E	57086	12	4.38	17	0.95
L 11+50N	S96+62.5E	57226	12	4.46	18	0.88
L 11+50N	S97+75.0E	57275	12	4.58	15	0.85
L 11+50N	S98+87.5E	56889	7	4.72	18	0.95
L 11+50N	S10+00.0E	57161	2	4.64	10	0.94
L 11+50N	S10+12.5E	57217	2	4.49	12	0.92
L 11+50N	S10+25.0E	57091	3	4.52	11	0.89
L 11+50N	S10+37.5E	57760	5	4.3	9	0.7
L 11+50N	S10+50.0E	57041	5	4.08	9	0.77
L 11+50N	S10+62.5E	56743	-2	3.78	7	1.11
L 11+50N	S10+75.0E	56995	-1	3.58	5	1.25
L 11+50N	S10+87.5E	56809	1	3.05	8	1.44
L 11+50N	S11+00.0E	56584	1	3.39	9	1.59
L 11+50N	S11+12.5E	56735	2	3.2	8	1.71
L 11+50N	S11+25.0E	56909	4	3.02	11	1.97
L 12+00N	S90+00.0E	56404	4	3.75	9	3.89
L 12+00N	S91+12.5E	56369	0	3.78	9	3.85
L 12+00N	S92+25.0E	56356	3	3.78	8	3.6
L 12+00N	S93+37.5E	56298	0	3.77	9	3.78
L 12+00N	S95+50.0E	56648	2	3.81	6	3.62
L 12+00N	S96+62.5E	56901	0	3.81	4	3.6
L 12+00N	S97+75.0E	56830	-2	3.79	2	3.78
L 12+00N	S98+87.5E	56800	-5	3.74	2	3.74
L 12+00N	S10+00.0E	56684	-5	3.56	0	3.7

L 12+00N	S10+00.0E	56657	-5	3.52	0	3.61
L 12+00N	S10+12.5E	56575	-5	3.44	1	3.5
L 12+00N	S10+25.0E	56541	0	3.43	4	3.54
L 12+00N	S10+37.5E	56435	0	3.48	6	3.47
L 12+00N	S10+50.0E	56457	1	3.46	8	3.51
L 12+00N	S10+62.5E	56851	2	3.51	9	3.52
L 12+00N	S10+75.0E	56534	4	3.52	12	3.38
L 12+00N	S10+87.5E	56310	4	3.54	12	3.43
L 12+00N	S11+00.0E	56762	5	3.49	11	3.38
L 12+50N	S90+00.0E	56742	0	3.51	4	3.62
L 12+50N	S91+12.5E	56674	0	3.48	6	3.54
L 12+50N	S92+25.0E	56609	0	3.46	6	3.62
L 12+50N	S93+37.5E	56816	0	3.64	6	3.53
L 12+50N	S95+50.0E	56836	-2	3.66	4	3.69
L 12+50N	S96+62.5E	57036	-4	3.69	0	3.68
L 12+50N	S97+75.0E	56919	-7	3.63	-2	3.5
L 12+50N	S98+87.5E	56797	-8	3.57	-3	3.47
L 12+50N	S10+00.0E	56793	-8	3.47	-2	3.46
L 12+50N	S10+00.0E	56716	-5	3.55	0	3.49
L 12+50N	S10+12.5E	56748	-2	3.41	1	3.44
L 12+50N	S10+25.0E	56461	-3	3.31	2	3.35
L 12+50N	S10+37.5E	56323	-1	3.35	4	3.38
L 12+50N	S10+50.0E	56358	0	3.33	5	3.37
L 12+50N	S10+62.5E	56142	0	3.25	7	3.37
L 12+50N	S10+75.0E	56313	2	3.26	8	3.37
L 12+50N	S10+87.5E	56316	4	3.2	14	3.17
L 12+50N	S11+00.0E	56640	0	3.04	8	3.18
L 13+00N	S90+00.0E	56615	0	3.17	4	3.46
L 13+00N	S91+12.5E	56720	-2	3.2	3	3.44
L 13+00N	S92+25.0E	56779	-4	2.85	0	3.37
L 13+00N	S93+37.5E	56775	-25	2.05	-9	3.14

L 13+00N	S95+50.0E	56725	-6	2.32	-1	3.24
L 13+00N	S96+62.5E	56860	-4	2.42	0	3.22
L 13+00N	S97+75.0E	56712	-12	2.47	-2	3.2
L 13+00N	S98+87.5E	56880	-7	2.58	1	3.29
L 13+00N	S10+00.0E	56735	-3	2.72	2	3.32
L 13+00N	S10+12.5E	56908	-4	2.08	0	2.84
L 13+00N	S10+25.0E	57017	0	2.1	6	2.55
L 13+00N	S10+37.5E	56850	-2	0.88	4	2.91
L 13+00N	S10+50.0E	56581	2	2.14	6	3.28
L 13+00N	S10+62.5E	56425	2	2.41	7	3.15
L 13+00N	S10+75.0E	56586	-1	2.28	6	3.2
L 13+00N	S10+87.5E	56803	-1	2.69	6	3.08
L 13+00N	S11+00.0E	56735	1	3.04	6	3.23
L 13+50N	S90+00.0E	57064	-6	2.22	2	2.82
L 13+50N	S91+12.5E	59960	-3	2.29	2	2.87
L 13+50N	S92+25.0E	57028	-5	1.99	2	2.93
L 13+50N	S93+37.5E	56989	0	2.12	4	2.95
L 13+50N	S95+50.0E	57027	-3	2.04	5	2.87
L 13+50N	S96+62.5E	57036	-6	1.94	6	2.92
L 13+50N	S97+75.0E	57718	-3	1.91	5	2.85
L 13+50N	S98+87.5E	57354	0	1.85	6	2.81
L 13+50N	S10+00.0E	57353	-1	2.2	8	2.85
L 13+50N	S10+00.0E	57440	2	2.39	7	2.82
L 13+50N	S10+12.5E	57285	-4	2.17	4	3.04
L 13+50N	S10+25.0E	56827	-7	1.97	6	3.33
L 13+50N	S10+37.5E	56738	2	2.35	7	3.22
L 13+50N	S10+50.0E	56618	1	2.69	9	3.14
L 13+50N	S10+62.5E	56611	-3	2.5	5	3.24
L 13+50N	S10+75.0E	56816	1	2.84	3	3.38
L 13+50N	S10+87.5E	57236	-5	2.69	5	3.31
L 13+50N	S11+00.0E	57370	0	2.71	5	3.37

L 14+00N	S90+00.0E	57140	-5	2.19	1	3.04
L 14+00N	S91+12.5E	57072	-1	2.24	2	3.08
L 14+00N	S92+25.0E	57109	-2	1.95	2	2.8
L 14+00N	S93+37.5E	57166	2	2.13	6	2.7
L 14+00N	S95+50.0E	57168	0	2.02	6	2.55
L 14+00N	S96+62.5E	57144	8	2.3	16	2.59
L 14+00N	S97+75.0E	57409	5	2.29	15	2.96
L 14+00N	S98+87.5E	57474	5	2.13	10	2.82
L 14+00N	S10+00.0E	57455	4	2.26	9	2.74
L 14+00N	S10+00.0E	57218	2	2.23	10	2.72
L 14+00N	S10+12.5E	57491	-1	2.16	6	2.95
L 14+00N	S10+25.0E	57227	0	2.25	8	2.93
L 14+00N	S10+37.5E	57280	1	2.64	9	2.85
L 14+00N	S10+50.0E	57420	-2	2.59	9	2.59
L 14+00N	S10+62.5E	57166	-7	2.35	-1	2.68
L 14+00N	S10+75.0E	56986	-9	2.64	-1	2.61
L 14+00N	S10+87.5E	56838	-12	2.3	-2	2.75
L 14+00N	S11+00.0E	56956	-13	2.25	-4	2.26

APPENDIX IV

Cost Statement

Cost Statement

Personnel:

Douglas J. Brownlee, P.Geol.(Alb), F.G.A.C., Consultant	
13 days @ $250.00 per day	$ 3,250.00
1/2 days August 12 & 13, Sept. 20 & 23	
full days August 24 to 31 & Sept. 1, 21 & 22.	
Report writing and drafting; 7 days @ $250.00 per day	1,750.00
October 6 to 12	
Kieth Lumsdem field assistant	
21 days @ $150 per day	3,150.00
August 12 & 13, 23 to 31, Sept 1 to 3 & 19 to 25	

Logistics:

Plane flight Whitehorse, Yukon to Lumsden Property	
August 24	380.00
Plane flight Lumsden Property to Whitehorse	440.00
Sept 1	
Boat transportation, from Tagish Bridge Yukon to Lumsden Property	
2 round trips including fuel	300.00
Trailer Rental @ Lumsden Property	
21 days @ $50 per day	1,050.00
August 12 & 13, 23 to 31, Sept 1 to 3 & 19 to 25	
Fuel	100.00
Food	840.00
Geochemistry, six rock preps and gold AA analysis	81.85
Scintrex MP-4 receiver and base station rental	1,044.50
Shipping of Scintrex MP-4 from Vancouver to camp	160.00

Grand Total $12,546.35

GEOLOGICAL ASSOCIATION OF CANADA
DOUGLAS J. BROWNLEE
FELLOW

PROFESSIONAL GEOLOGIST ALBERTA
DOUGLAS J. BROWNLEE
LICENSED TO PRACTISE

Cost Statement

Physical Work

Personnel:

Kieth Lumsdem equipment operator	
37 days @ $150 per day	5,550.00
July 2,3,16-21; Aug 7-9,14; Sept 7-18; Oct 5, 15-22	
Murray Hampton equipment operator	
8 days @ $150 per day	1,200.00
Sept. 18 - 25	
Don Lachnit, mechanic & assistant	
140 hours @ $15 per hour	2,100.00
July 2-3, 20 hours	
Oct 8-12, 45 hours	
Oct 14-23, 75 hours	

Logistics:

Trailer Rental @ Lumsden Property	
87 days @ $50 per day	4,350.00
July 8 to October 23 (less 21 days charged to Geology)	
Fuel	300.00
Food	1,480.00
John Deere 450C; 171 hours @ $65 per hour	11,115.00
July 2-3, 20 hours	
July 16 to 21, 13 hours	
August 7-9 & 14, 24 hours	
Sept 7-18, 66 hours	
Oct 5, 15-22, 48 hours	

Barge (transport of equipement & supplies, incl trailer & John Deere) 5,950.00

May 31 - $980	June 27 - $1305
July 1 - $455	July 8 - $1045
Aug 2 - $520	Aug 22 - $682.50
Oct 4 - $682.50	Oct 14 - $780

Grand Total **$32,045.00**