

MAP NO.: ASSESSMENT REPORT X
115 N 2 PROSPECTUS
CONFIDENTIAL X
OPEN FILE

DOCUMENT NO: 092543
MINING DISTRICT: WHITEHORSE
TYPE OF WORK: GEOLOGICAL

REPORT FILED UNDER: G.S. Hartley and Associates

DATE PERFORMED: June 23, 1988

DATE FILED: October 17, 1988

LOCATION: LAT.: 63°10'N

AREA: Swamp Creek

LONG.: 104°50'W

VALUE \$: 16,500.00

CLAIM NAME & NO.: 1. RED 1-8 (YA95130-137); RAN 1-4 (YB06123-125); RAG 1-8 (YA95122-129);
GET 1,2,5,6 (YA77840-841, YA77844-45); WON 1-7 (YB12678-684);
WELL 1-6 (YB12664-669); WINE 1-8 (YB12670-677)

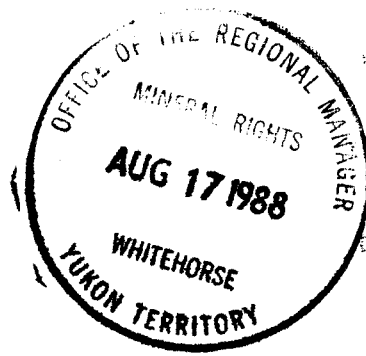
WORK DONE BY: G.S. Hartley and G.A. Alberg

WORK DONE FOR: G.S. Hartley and Associates

DATE TO GOOD STANDING:

REMARKS: #79 LODE

Grab samples of quartz vein material taken in 1988 assayed up to 168.3 g/t Au. The gold-bearing veins appear to be associated with dykes of hornblend-plageoclase porphyry. Samples taken from porphyry dyke margins contained up to 369 ppb Au.



GEOLOGICAL INVESTIGATION

OF THE

**RED, RAN, GET, RAG, WELL, WON,
AND WINE CLAIMS
NTS 115N2**

092543

63° 10' NORTH
140° 50' WEST

By

G.S. Hartley P.Geol.

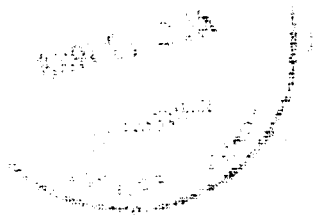
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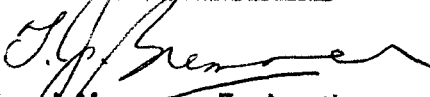
G.A. Almberg P.Geol.

August 1988

Hartley and Associates

This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount
of \$ 16,590.00.



for 
Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

1981

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I. SUMMARY

Placer gold was first discovered in the area by M. Kenyon in 1975. Initial production occurred in 1976 and the area has produced continuously since that time.

Creeks that were recognized to contain gold included Kenyon, Swamp, Soya, and Great Bear, no test pitting of other creeks of the area was done.

The geology of the region is not mapped in detail. Limits or controls to lode mineralization have never been established, thus the extent of placer deposits of the region is unknown.

II. LOCATION AND ACCESS

Swamp Creek is located in the Ladue River area NTS 115N2. Situated immediately east of the Alaska Yukon border the area is bounded by latitudes $63^{\circ}00'N$ to $63^{\circ}15'N$ and longitudes $140^{\circ}40'$ west to $141^{\circ}00'$ west.

Access to the area is provided by fixed wing aircraft from Whitehorse, a distance of 405 km. Winter access is by 65km tote trail from the Alaska Highway, west of Beaver Creek.

An excellent system of local roads connect past and current mining sites to the airstrip.

III. PHYSIOGRAPHY

The region has not suffered continental glaciation. Outcrops are restricted to heights of land where boulders and felsenmeer predominate. Erosion and weathering have resulted in the development of residual soil on the intermediate slopes.

Placer deposits are covered by a variable thickness of "black muck" or fine grained organic deposits.

The area is designated as a continuous permafrost zone.

IV. REGIONAL GEOLOGY

The Geology of the area, although poorly exposed, is known to consist of metasedimentary rocks intruded by granodioritic phases of the Klotassin Batholith (Templeman-Kluit 1974).

A. METASEDIMENTARY ROCKS

The metasedimentary rocks of the area outcrop to the west along the top of the Moosehorn range and consist of biotite quartz feldspar schists.

To the north along Great Bear and Claymore Creeks, coarsely grained amphibolites occur.

B. INTRUSIVE ROLES

The Klotassin Batholith is a northwest tending mass of granitic rocks extending over 300 km as described by Templeman-Kluit (1974).

In the region this batholith consists of three phases.

1. Early foliated hornblend granodiorite

2. Massive equigranular to porphoritic bodies of biotite hornblend granodiorite to quartz monzonite.
3. Late granodorite to quartz diorite porphyry dykes, and plugs.

V. LOCAL GEOLOGY

Excellent bedrock exposures afforded by 12 years of mining operations in the Swamp Creek area provide a variety of hitherto unrecognized rock type and geological relationships.

Observed lithologies remained basically those of the Koltissin batholith and related dykes and are here described.

1. Foliated Granodiorite

This unit occurs along Kenyon Creek and the ridge between Kenyon and Swamp Creeks. Extensively foliated with amphibole and Biotite along foliation planes within coarsely grained plagioclase and quartz, this rock weathers grayish cream, with partings parallel to foliation.

2. Massive Granodiorite

This unit occurs in the upper portion of Kenyon Creek and on top of the Moosehorn range west of Brandt Peak.

This unit is similar in composition to the foliated unit (in hand specimen). The most obvious difference being the lack of foliation, contacts are gradational over excellent exposure.

Observed metasedimentary inclusions within the foliated and non foliated granodiorite, seem to suggest that the relative abundance of mafic minerals within the assimilated metasedimentary cover rocks may have been responsible for the foliated and non foliated nature of the granodiorite.

Brandt Intrusive Complex

This name is suggested for a group of related intrusives. outcropping near Brandt Peak, near the south eastern end of the Moosehorn Range.

The complex is comprised of a central feldspar porphyry stock (Brandt intrusive) and a marginal amphibole porphyry unit, also included in the complex is a fine grained mafic intrusive possibly a phase of the amphibole porphyry.

3. Brandt Intrusive

This unit consists of coarse white feldspar phenocrysts set in a medium to fine grained matrix of feldspar biotite and quartz. The matrix becomes progressively fine grained and dark toward the contact with Unit 4.

4. Amphibole Porphyry

This unit is gradational to the Brandt intrusive and consists of white plagioclase and hornblend phenocrysts set in a aphanitic gray to black ground mass. This unit weathers rusty gray producing a "Foliated Rubble" in the near surface.

This unit exhibits little chill zone with the granodiorite although the matrix appears more mafic and aphanitic at the contact.

5. Fine Grained Mafic Intrusive

This unit occurs as dykes of finegrained equigranular mafics and plagioclase, mafic component may be up to 75%. This unit is extremely recessive although it outcrops in close proximity to unit 4 in the Swamp Creek pit, near line 500 south.

6. Green Calcareous Dykes

This unit is comprised of light green fine grained calcareous dyke rocks. Pyrite up to 30% recessive weathering to hematitic, limonitic stained soft porous rock. Dykes to 2 meters in width were observed. Opaline silicification was noted in one location.

7. Quartz Veins

Milky white quartz veins of variable thickness occur mainly along NW trending structural features dips range from 20° to 40°.

Arsenopyrite and galena are the dominant sulphides, goethite occurs along vein margins, free gold is common along fractures, as flakes and blebs.

8. Diorite Dykes

This unit consists of brown to black fine grained dykes of dioritic composition. This unit is extremely resistant breaking with conchoidal fracture, only after repeated hammer blows.

9. Brown Volcanics and Cherts

This unit is poorly exposed and its fine grained nature does not lend itself to easy hand specimen identification.

Consisting of pale brown to gray fractured rocks it may be of volcanic origin. It was observed to occur in proximity to unit 4 throughout the area and along faults east of Brandt Peak.

VI **ASSAY RESULTS**

A number of sample were, run for gold, from various locations on the property. Map 2 shows the locations of the samples.

A. Vein Mineralization

The highest values of gold were attained from quartz vein and vein float FFSC #2 and FFSC #3 assayed 4.91 and 4.95 OZ/TON AU respectively. Sample FFSC #7 AND FFSC #8 assayed .25 and 1.78 opt AU respectively and sample LP4 at 8100 ppB AU.

B. Amphibole Porphyry

Relatively high values of gold occur in some samples of amphibole porphyry sample FFSC #5 returning 369 ppB and FFSC #13 returned 134 ppB. Background values of gold in the amphibole porphyry unit appear to be in the 20-30 ppb range.

It is interesting to note that high values of gold in the amphibole porphyry unit occur proximal to gold bearing quartz veins.

VII. CONCLUSIONS.

Gold bearing quartz veins occur in the locale of upper Swamp Creek, and in Tig Creek, assay values range from .25 to 5 opt over true widths of 1 foot.

The amphibole porphyry unit appears to be a marginal phase of the Brandt Intrusive.

The amphibole porphyry carries increased gold values proximal to gold bearing quartz veins.

Quartz veins of the region occur in association with structural deformation.

It is possible that late stage fluids produced by the crystalizing of the amphibole porphyry unit, emplaced quartz sulphides and gold along dilatent zones associated with major structural features.

VIII. STATEMENT OF EXPLORATION EXPENSE

Truck Travel in Yukon (1000 km)	200.00
Air Charter	2900.00
Food & Camp Supplies	738.00
Assay Costs	1016.00
Equipment Rental	
Honda @ 50/day/14 days	700.00
Bachoe @ \$300/day/14 days	4200.00
P. Geol. Fees \$500/day x 14 days x 2 men	14,000.00
	<u>\$23,754.00</u>

————— *Hartley and Associates*

IX. QUARTZ CLAIMS COVERED BY THIS REPORT

Claims	Grant Numbers
1. Red 1 to 8	YA95130-YA95137
RAN 1 to 4	YB06123-YB06125
RA6 1 to 8	YA95122-YA95129
GET 1,2,5,6	YA77840-41, YA77844-45
WON 1-7	YB12678-YB12684
WELL 1-6	YB12664-YB12669
WINE 1-8	YB12670-12677

QUARTZ CLAIMS TO WHICH ASSESSMENT CREDIT IS TO BE APPLIED.

RA6 1-8	YA95122-YA95129
GET 1,2,5,6	YA77840-41, YA77844-45
WON 1-7	YB12678-YB12684
WELL 1-6	YB12664-YB12669
WINE 1-8	YB12670-YB12677

REFERENCES

Morin, J.A. 1976 "Geology, Lode and Placer Gold Mineralization of the Moosehorn Range" D.I.A.N.D. Mineral Industry Report.

Templeman-Kluit D.J. 1974; "Reconnaissance Geology of Aishihik Lake, Snag and Part of Stewart River Map West-Central Yukon." GSC paper 73-41.

CERTIFICATE

I, Glenn S. Hartley of 7302-118A Street hereby state that:

1. I am a graduate of the University of Alberta, Department of Geology (B.Sc. Specialization 1977).
2. I am a registered professional geologist in the province of Alberta.
3. I am a member of the CIMM and EGS.
4. Since 1970 I have been employed by various exploration firms and have conducted field programs in Alberta, British Columbia, Saskatchewan, Northwest Territories and the Yukon.
5. I have a direct interest in lode and placer claims in the region of this report.

Respectfully submitted


Glenn S. Hartley, P. Geol.

————— *Hartley and Associates*

CERTIFICATE

I, Glen A. Almborg of 3516 - 87 Street hereby state that:

1. I am a registered professional geologist in the province of Alberta.
2. I am a member of CSPG and EGS.
3. Since 1961 I have been active in geological exploration through teaching and employment with resource companies.
4. I have a direct interest in lode claims in the region of this report.

Respectfully submitted,

Glen Almborg, P. Geol.



————— ***Hartley and Associates***

APPENDIX I

————— *Hartley and Associates*

BARRINGER MAGENTA
Laboratories (Alberta) Ltd.

4200B - 10 STREET N.E., CALGARY, ALBERTA, CANADA T2E 6K3
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AUTHORITY: G. ALMBERG

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 PHONE: (403) 920-4500

08-JUL-88

PAGE: 1 OF 4

COPY: 1 OF 3

WORK ORDER: 5179D-88

*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: ROCK

FIRE ASSAY

SAMPLE NUMBER	AU	
		PPB
::	0 -N	24.0
::	10 -S	36.0
::	20 -S	18.0
::	30 -S	17.0
::	40 -S	21.0
::	50 -S	18.0
::	60 -S	57.0
::	70 -S	10.0
::	80 -S	11.0
::	90 -S	8.0
::	100 -S	15.0
::	110 -S	12.0
::	113 -S	11.0
HT::	1	7.0
HT::	2	6.0
HT::	3	8.0
HT::	4	10.0
HT::	5	9.0
HT::	6	10.0
HT::	7	9.0
HT::	8	6.0
HT::	10	7.0
HT::	11	6.0
HT::	12	8.0
HTS::	1	5.0
HTS::	2	7.0
HTS::	3	8.0
HTS::	4	13.0
FFSC:	1	9.0
FFSC:	2	138600.0

002543

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*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: ROCK

FIRE ASSAY

AU

PPB

SAMPLE NUMBER

FFSC:	3	140200.0
FFSC:	4	654.0
FFSC:	5	369.0
FFSC:	6	6620.0
FFSC:	7	10400.0
FFSC:	8	46800.0
FFSC:	9	1830.0
FFSC:	11	168.0
FFSC:	12	37.0
FFSC:	13	134.0
FFSC:	14	22.0
FFSC:	15	18.0
FFSC:	16	9.0
FFSC:	17	13.0
FFSC:	18	8.0
ER:	1	21.0
ER:	2	11.0
ER:	3	10.0
TS-88:	1	27.0
TS-88:	2	12.0
TS-88:	3	15.0
TS-88:	4	31.0
TS-88:	5	65.0
TS-88:	6	12.0
TS-88:	7	26.0
TS-88:	8	75.0
PP:	1	9.0
PP:	2	8.0
PP:	3	5.0
PP:	4	9.0

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PAGE: 3 OF 4
COPY: 1 OF 3

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*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: ROCK

FIRE ASSAY

SAMPLE NUMBER	AU FPB
PP: 5	4.0
LP: 2	33.0
LP: 3	8.0
LP: 4	8100.0
LP: 5	14.0
LP: 6	9.0
LP: 7	639.0
LP: 8	30.0
LP: 9	15.0
LP: 10	7.0
LP: 11	359.0
LP: 12	497.0
LP: 13	11.0
LP: 14	189.0
LP: 15	102.0
LP: 16	26.0
LP: 17	13.0
LP: 18	15.0
LP: 19	9.0
LP: 20	11.0

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COPY: 1 OF 3

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MR. GLEN ALMBERG
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WORK ORDER: 5179D-88

*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: ROCK

SAMPLE NUMBER	ASSAY	
	FIRE ASSAY	
	AU	
	OZ/TON	
FFSC: -2-	4.91	
FFSC: -3-	4.95	
FFSC: -7	0.25	
FFSC: -8	1.78	

SIGNED: _____

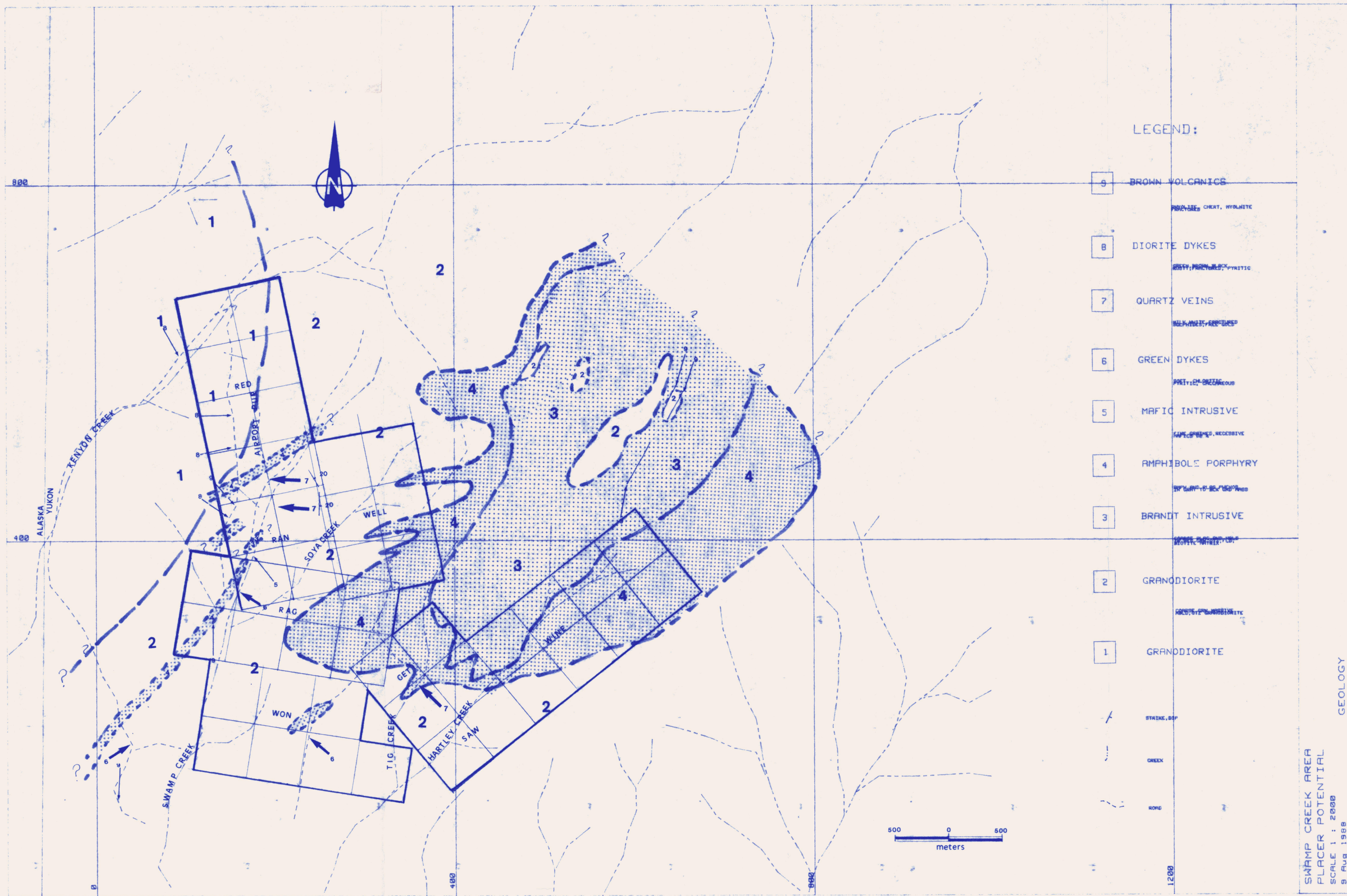
C. Douglas Read
C. Douglas Read,
LABORATORY MANAGER

CC'S TO:
GLENN HARTLEY
EDMONTON, ALBERTA
G. HARTLEY

092543

FOOTNOTES:

P=QUESTIONABLE PRECISION; * = INTERFERENCE; TR=TRACE; ND=NOT DETECTED;
IS=INSUFFICIENT SAMPLE; NA=NOT ANALYZED; MS=MISSING SAMPLE



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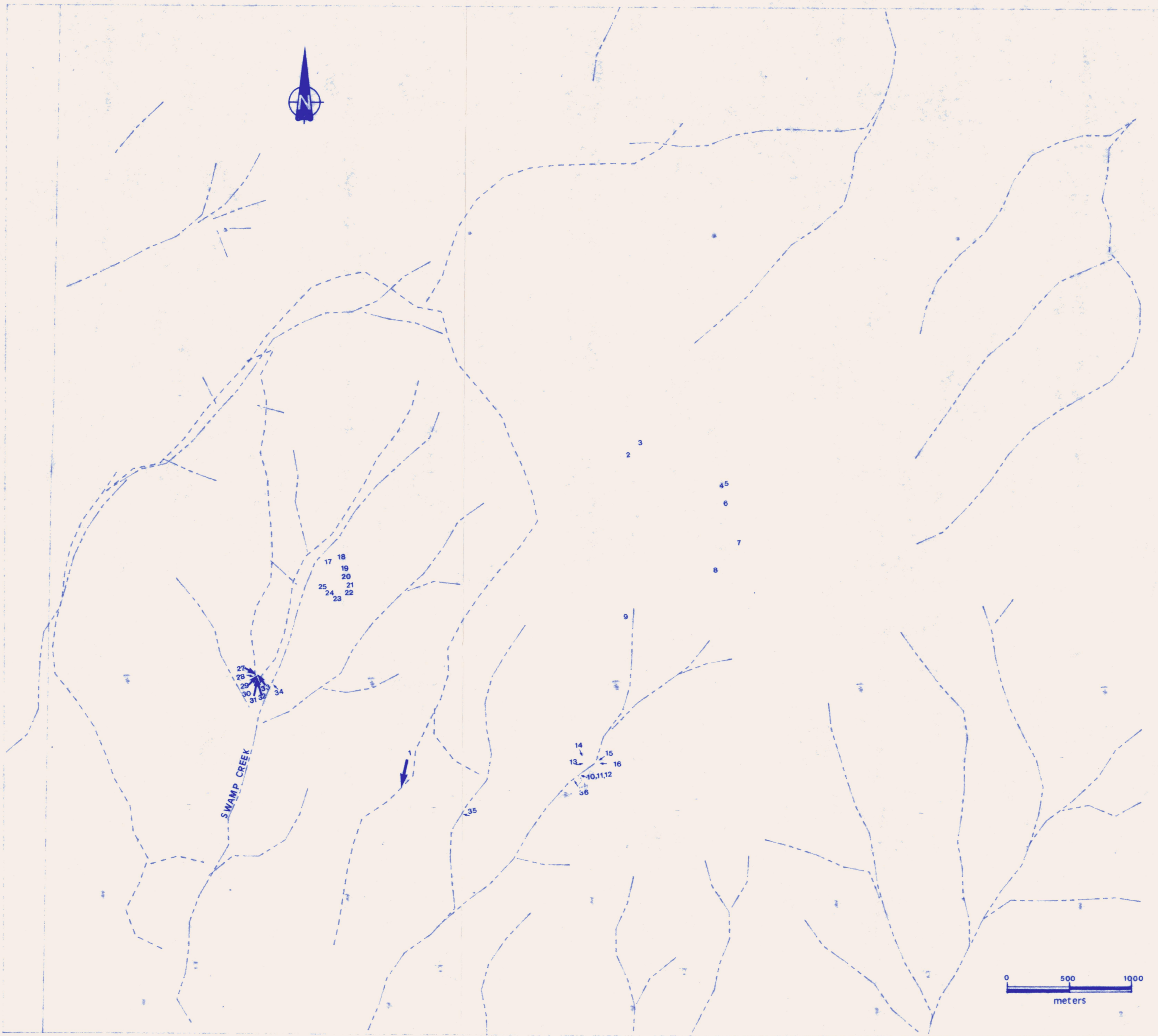
- 9 BROWN VOLCANICS
BROWN, CHERT, RHYOLITE
- 8 DIORITE DYKES
DIO, PORPHYRY, PYRITIC
- 7 QUARTZ VEINS
BULKY, VEIN, REEF
- 6 GREEN DYKES
PARTICULAR GREEN
- 5 MAFIC INTRUSIVE
SAPPHIRE, RESSIVE
- 4 AMPHIBOLE PORPHYRY
BULKY, VEIN, REEF
- 3 BRANIT INTRUSIVE
BULKY, VEIN, REEF
- 2 GRANDIORITE
BULKY, VEIN, REEF
- 1 GRANDIORITE
- STRIKE, DIP
- CREEK
- ROAD

SWAMP CREEK AREA
PLACER POTENTIAL
SCALE 1 : 2000
9 Aug 1988

GEOLOGY



516



GEOCHEMICAL RESULTS

LOCATION	SAMPLE	PPM BU
1	0M	24
	10 S	26
	20 S	16
	30 S	17
	40 S	21
	50 S	18
	60 S	57
	70 S	10
	80 S	11
	90 S	8
	100 S	15
	110 S	10
	113 S	11
2	NT 1	7
	2	8
	3	8
	4	10
	5	8
	6	10
	7	8
	8	8
3	10	7
	11	0
	12	8
	13	5
	14	7
	15	8
	16	13
	17	8
NTS	1	5
	2	7
FFBC	3	8
	4	13
	5	8
	6	13000
	7	14000
	8	854
	9	309
	10	800
	11	10400
	12	4800
ER	13	1800
	14	100
	15	37
	16	154
	17	20
	18	18
	19	8
	20	10
	21	8
	22	11
23	18	

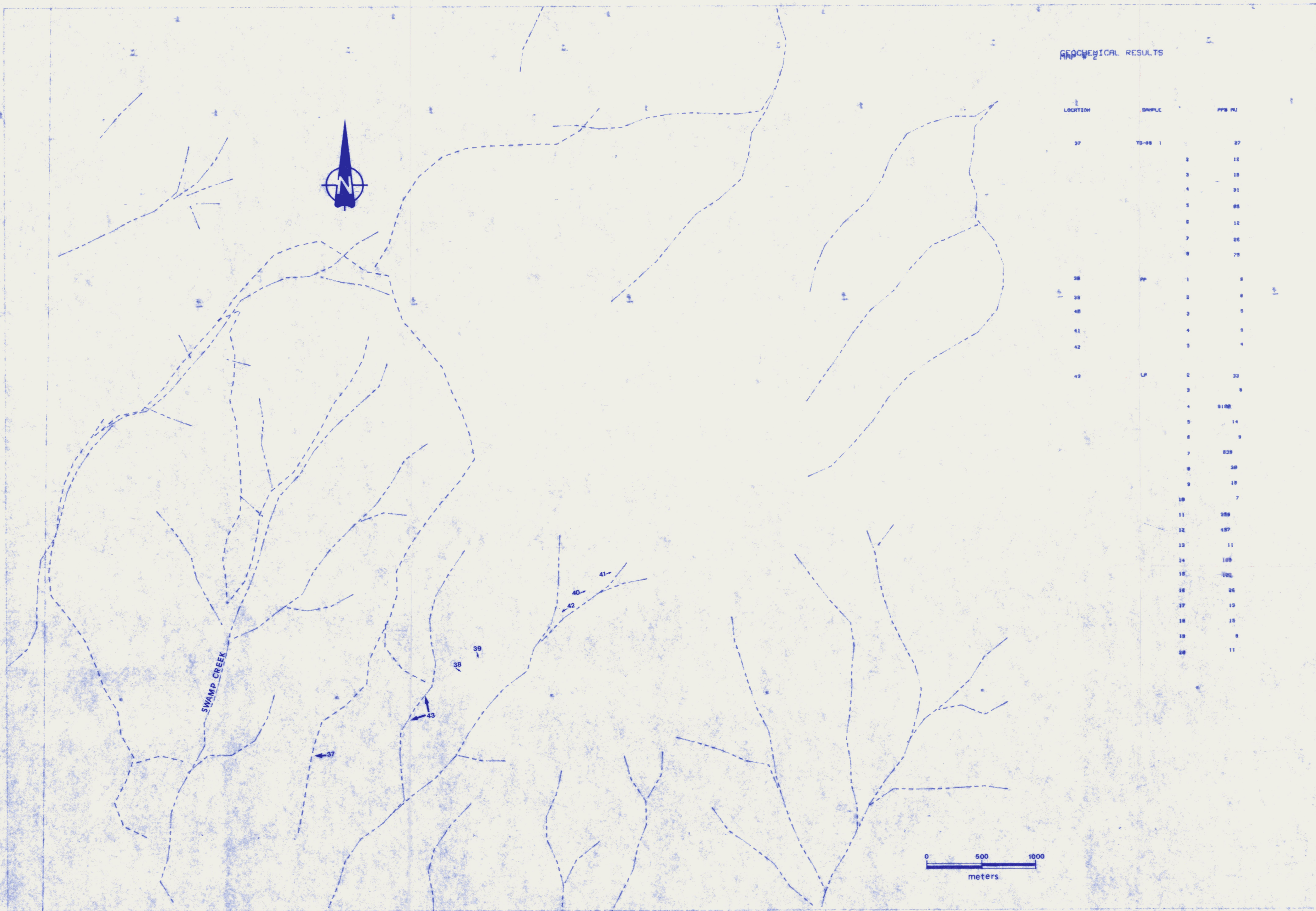
SWAMP CREEK AREA
 PLACER POTENTIAL
 SCALE 1 : 2000
 11 Aug 1988

SAMPLE LOCATIONS

092543

517





GEOCHEMICAL RESULTS
MAP # 2

LOCATION	SAMPLE	PPB AU
37	TS-88 1	27
		28
		29
		30
		31
		32
		33
		34
38	PP	35
		36
		37
		38
		39
40	LP	40
		41
		42
		43
		44
		45
		46
		47
		48
		49
		50

SWAMP CREEK AREA
PLACER POTENTIAL
SCALE 1 : 2000
12 Aug 1988

SAMPLE LOCATIONS MAP # 2

002543

518

