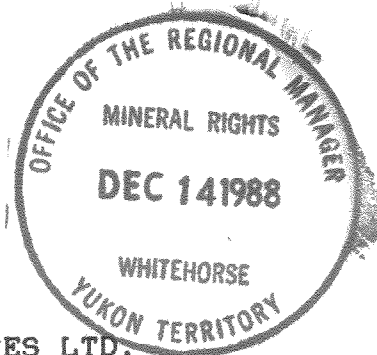


1988 ASSESSMENT WORK
on the
SAID-THE CLAIMS

Whitehorse Mining District

- Location: 1. Wheaton River Area
2. NTS 105 D/6
3. Latitude 60°16'N
Longitude 135°26'W



FOR:
PACIFIC TRANS-OCEAN RESOURCES LTD.
#1500 10250-101 Street
Edmonton, Alberta
T5J 3P4

By:
LORI WALTON; M.Sc.
AURUM GEOLOGICAL CONSULTANTS INC.
604-675 West Hastings Street,
Vancouver, B.C., V6B 4W3

December 12, 1988



AURUM GEOLOGICAL CONSULTANTS INC.



AURUM GEOLOGICAL CONSULTANTS INC.

Head Office: 604 - 675 West Hastings Street, Vancouver, B.C., Canada V6B 1N2
Yukon Office: P.O. Box 5179, Whitehorse, Yukon, Canada Y1A 4S3

Telephone (604) 683-9656
Telephone (403) 667-4168

December 12, 1988
Whitehorse, Yukon

Mr. M. Fish
Mining Recorder
Whitehorse Mining District
Room 201, Federal Building
Whitehorse, Yukon
Y1A 2B5

Dear Sir:

Re: 1988 assessment work on the SAID-THE Claim Group

Please find enclosed maps, drill sections, drill logs, statement of costs and assay results from work carried out on the SAID-THE claim group. Eight diamond drill holes totalling 813.24 m were drilled between July 7 to August 28, 1988. The above work was done on the SAID 9 and the THE 17 mineral claims staked under the Quartz Mining Act.

I trust the enclosed information will meet the 1988 assessment requirements as filed by Aurum Geological Consultants on behalf of Pacific Trans-Ocean Resources Ltd.

Sincerely,
Aurum Geological Consultants Inc.

Joni Walton

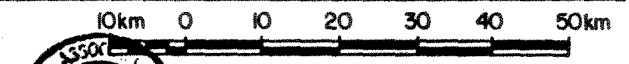
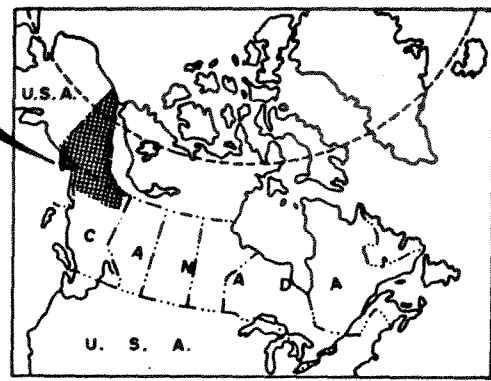
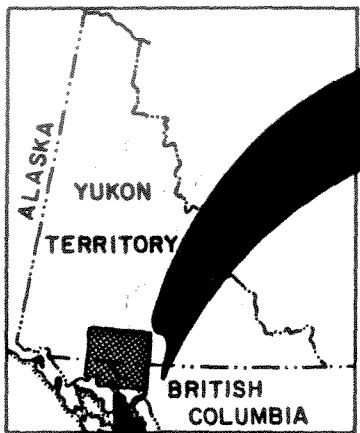
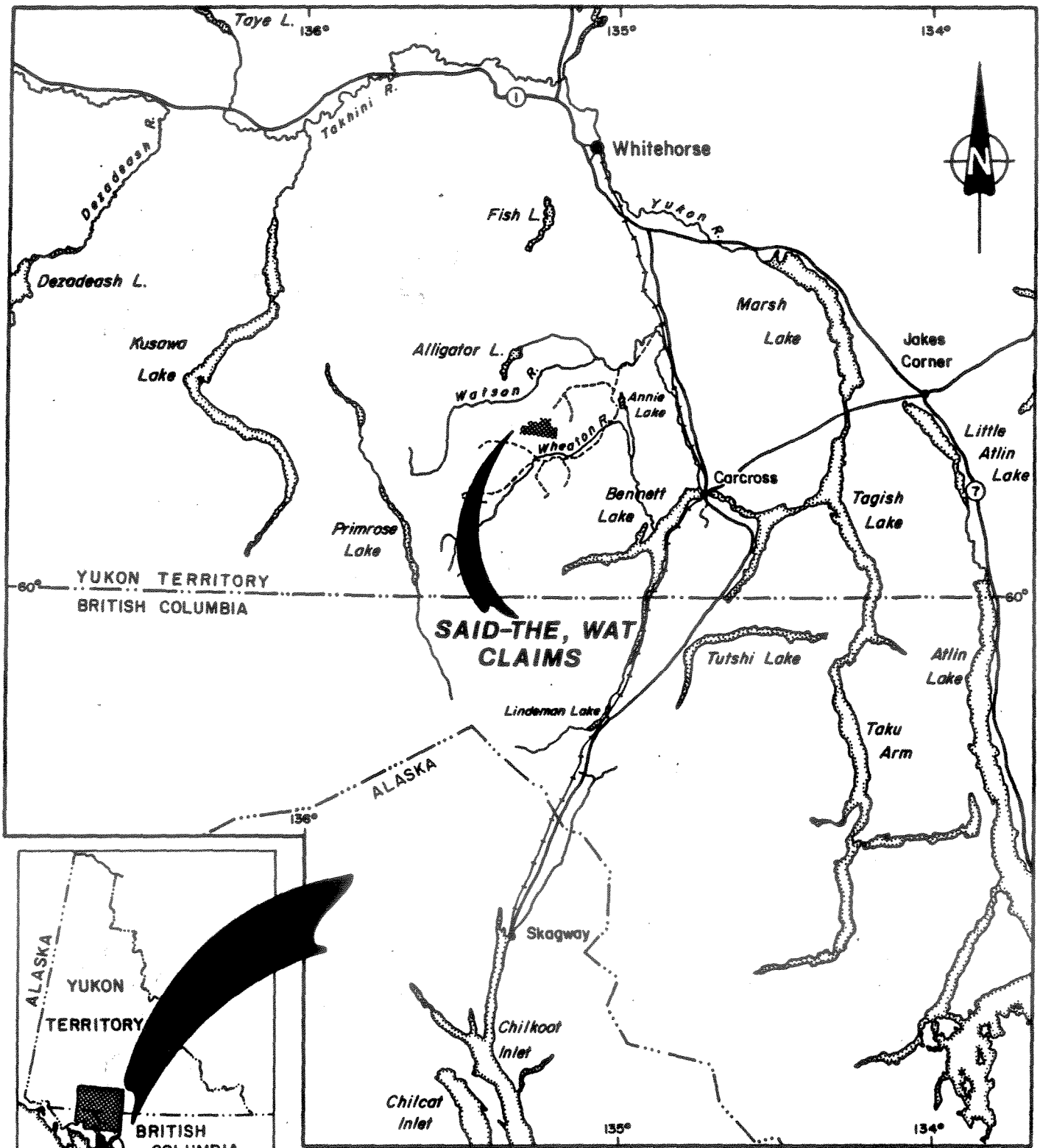
Table of Contents

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Claim Map	1:31,680
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Far SW Zone: Geology and Rock Geochemistry	1:1,000
NE Zone: Geology and Geochemistry	1:200
Far SW Zone: Cross section 0+55S 292°	1:500
Far SW Zone: Cross section 0+55S 332°	1:500
Far SW Zone: Cross section 1+77S 325°	1:500
Far SW Zone: Cross section 1+77S 358°	1:500
NE Zone: Cross section 29+32N 325°	1:500

Drill Logs

APPENDICES

- Appendix A: Analytical Methods and Results
- Appendix B: Statement of Qualifications
- Appendix C: Statement of Costs

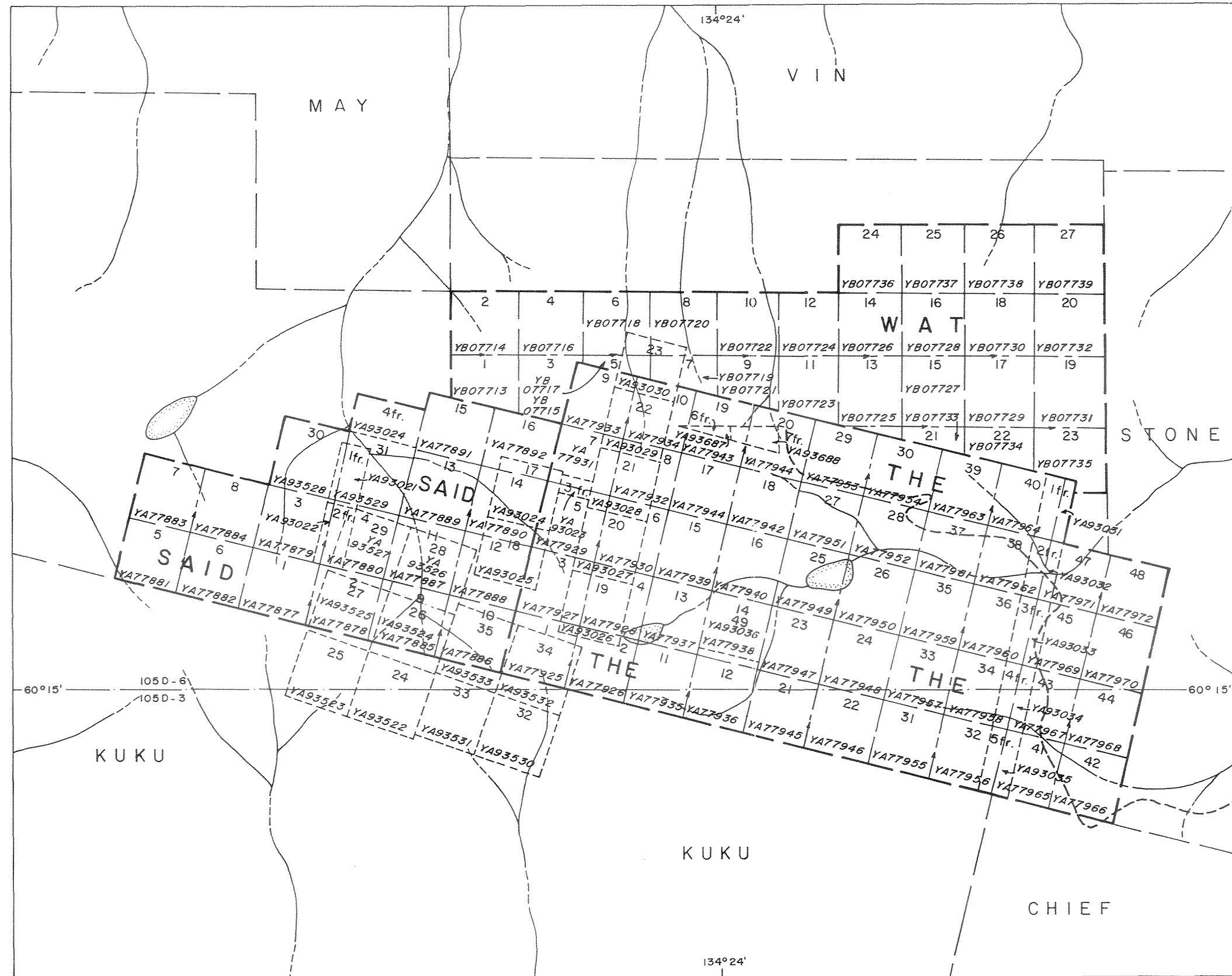


TRANS-OCEAN RESOURCES LTD.
SAID-THE, WAT CLAIMS

LOCATION

Aurum Geological Consultants Inc.

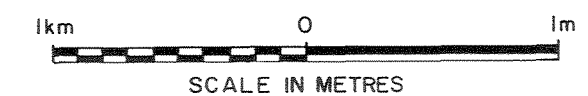
Drawn by NH Scale 1:1,000,000 FIGURE: 1



LEGEND

- ← claim boundary
- claim number
- tag number
- 4WD trail
- creek, lake

Note: adapted from D.I.A.N.D. map sheets 105 D-3 & 6



PACIFIC TRANS-OCEAN RESOURCES LTD.	
SAID - THE , WAT CLAIMS	
CLAIM MAP	
Aurum Geological Consultants Inc.	NOVEMBER, 1988
NTS 105D/386	DRAWN BY NH SCALE 1:31,680 FIGURE: 2a

NW

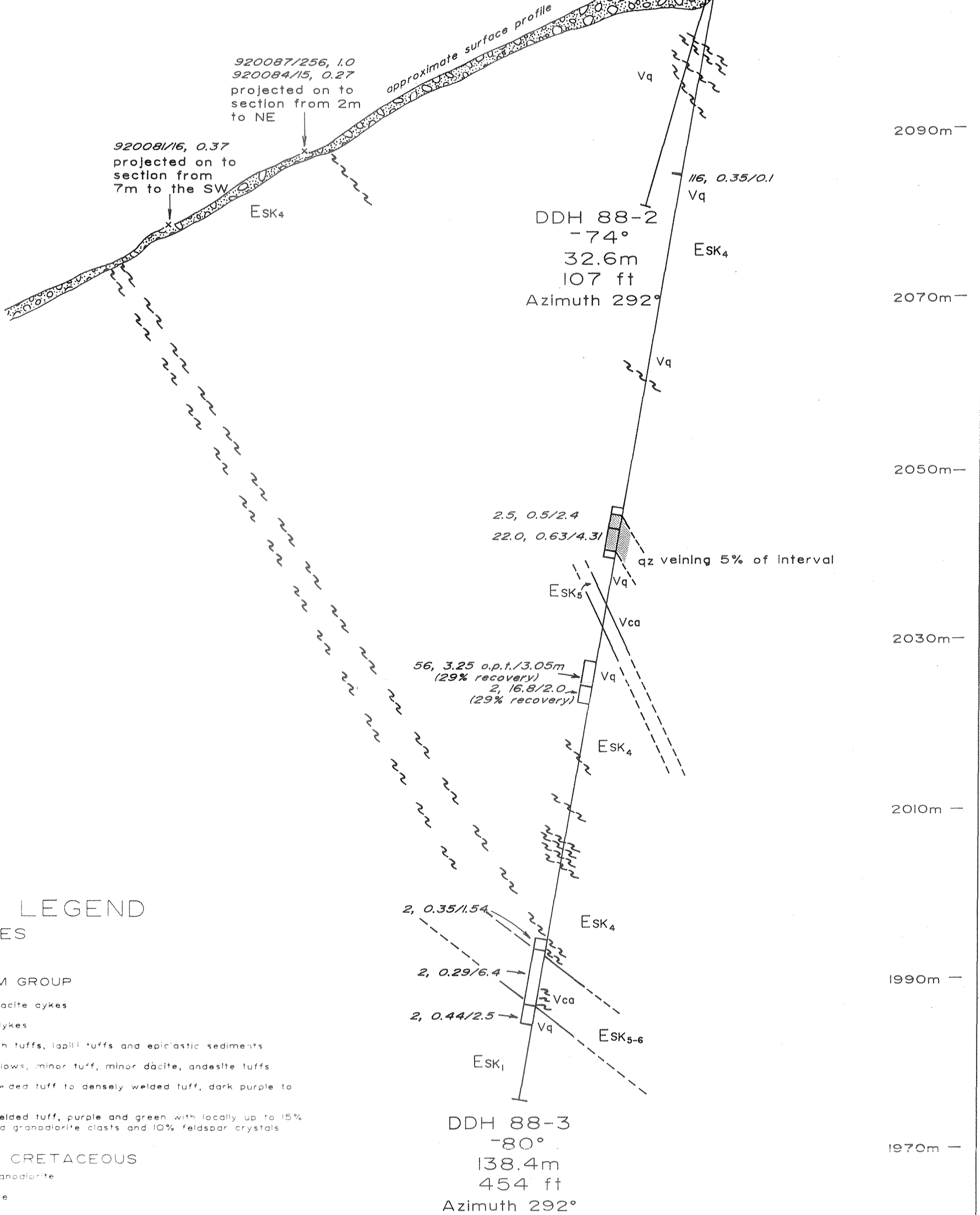
SE

Baseline
0 + 55S

DDH 88-2, 88-3

D.P. No. 2

2110m —
A.S.L.



LEGEND

LITHOLOGIES TERTIARY EOCENE SKUKUM GROUP

- ESK₆ rhyolite, dacite dykes
- ESK₅ andesite dykes
- ESK₄ bedded ash tuffs, lapilli tuffs and epiclastic sediments
- ESK₃ andesite flows, minor tuff, minor dacite, andesite tuffs
- ESK₂ rhyolite welded tuff to densely welded tuff, dark purple to pink
- ESK₁ rhyolite welded tuff, purple and green with locally up to 15% subrounded granodiorite clasts and 10% feldspar crystals

JURASSIC to CRETACEOUS

- Kgd₁ altered granodiorite
- Kgd granodiorite

SYMBOLS

- geological boundary
- approximate
- inferred
- fault, shear
- inferred
- overburden, talus
- veining, Vq-minor quartz veining, Vca-minor calcite veining
- silicification
- argillization
- D.P. drill pad
- diamond drill hole collar
- hole number
- vein and/or shear intersection
- significant mineralization/veining
- geochemical analyses Au ppb, Ag ppm/metres core width
- end of hole, hole number, dip, length, azimuth



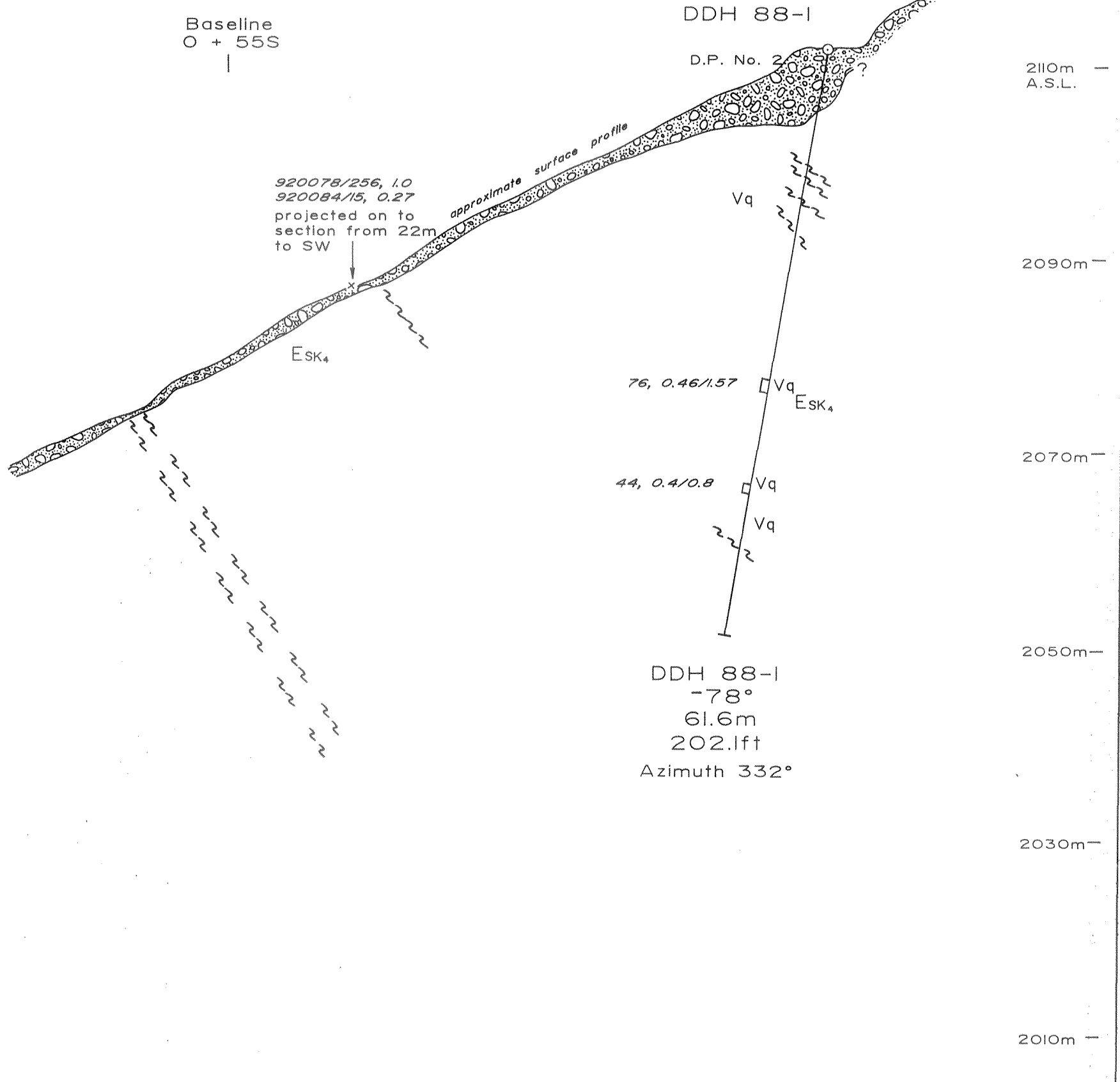
PACIFIC TRANS - OCEAN RESOURCES LTD.
SAID - THE CLAIMS
WHITEHORSE MINING DISTRICT

FAR SW ZONE
CROSS SECTION 0 + 55S - 292°
LOOKING NORTHEAST

x 920081/ rock (float) sample,
16, 0.37 sample number/
Au ppb, Ag ppm

NW

SE



LEGEND

LITHOLOGIES

TERTIARY
EOCENE
SKUKUM GROUP

- ESK₆ rhyolite, dacite dykes
- ESK₅ andesite dykes
- ESK₄ beaded ash tuffs, lapilli tuffs and epiclastic seamounts
- ESK₃ andesite flows, minor tuff, minor dacite, andesite tuffs
- ESK₂ rhyolite welded tuff to densely welded tuff, dark purple to pink
- ESK₁ rhyolite welded tuff, purple and green with locally up to 15% subrounded granodiorite clasts and 10% feldspar crystals

JURASSIC to CRETACEOUS

- Kgd₁ altered granodiorite
- Kgd granodiorite

SYMBOLS

- geological boundary approximate inferred
- fault, shear inferred
- overburden, talus
- veining, Vq-minor quartz veining, Vca-minor calcite veining
- silicification
- argillization
- D.P. drill pad
- diamond drill hole collar hole number
- vein and/or shear intersection
- significant mineralization/veining
- geochemical analyses Au ppb, Ag ppm/metres core width
- end of hole, hole number, dip, length



PACIFIC TRANS - OCEAN RESOURCES LTD.	
SAID - THE CLAIMS WHITEHORSE MINING DISTRICT	
FAR SW ZONE CROSS SECTION 0 + 55S - 332° LOOKING NORTHEAST	
Aurum Geological Consultants Inc.	SEPTEMBER, 1988
NTS 105 D/3	DRAWN BY P.J.M.
SCALE 1:500	FIGURE: 13b

x 920078/256, 1.0 rock (float) sample, sample number / Au ppb, Ag ppm

NW

SE

Baseline
I + 77S

Claim Boundary

TRENCH 87-1

projection from
18m SW of plane
of section

DDH 88-4 & 88-6

D.P. No. 3

2110m
A.S.L.

DDH 88-6
-90°
6.1m
20ft

2090m

ESK₄

920077/800, 0.285 o.p.t.
920078/57, 0.425 o.p.t.

2070m

920040/432, 3.33
920041/2200, 4.32

stockwork
veining

veining at
least 30% of
interval

ESK₄

2050m

2030m

2010m

LEGEND

LITHOLOGIES
TERTIARY
EOCENE
SKUKUM GROUP

- ESK₆** rhyolite, dacite dykes
- ESK₅** andesite dykes
- ESK₄** bedded ash tuffs, lapilli tuffs and epiclastic sediments
- ESK₃** andesite flows, minor tuff, minor dacite, andesite tuffs
- ESK₂** rhyolite welded tuff to densely welded tuff, dark purple to pink
- ESK₁** rhyolite welded tuff, purple and green with locally up to 15% subrounded granodiorite clasts and 10% feldspar crystals

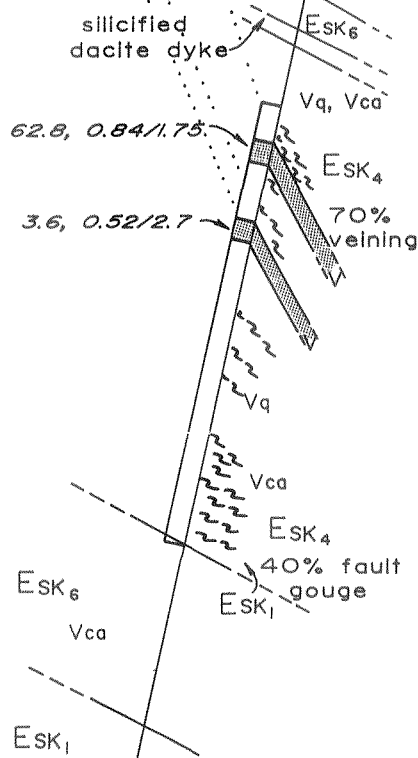
JURASSIC to CRETACEOUS

- Kgd** altered granodiorite
- Kgd** granodiorite

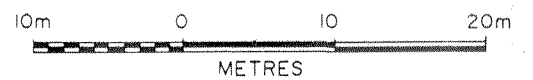
SYMBOLS

- geological boundary
- approximate
- inferred
- fault, shear 3.6, 0.52/2.7
- inferred
- overburden, talus
- veining, Vq-minor quartz veining, Vca-minor calcite veining
- silicification
- argillization
- D.P. drill pad
- diamond drill hole collar
- hole number
- vein and/or shear intersection
- significant mineralization/veining
- geochemical analyses Au ppb, Ag ppm/metres core width
- end of hole, hole number, dip, length, azimuth

DDH 88-7
-82°
136.8m
449ft
Azimuth 325°



DDH 88-4
-78°
158.8m
521ft
Azimuth 325°



PACIFIC TRANS - OCEAN RESOURCES LTD.	
SAID - THE CLAIMS WHITEHORSE MINING DISTRICT	
FAR SW ZONE CROSS SECTION I + 77S - 325° LOOKING NORTHEAST	
Aurum Geological Consultants Inc.	SEPTEMBER, 1988
NTS 105 D/3	DRAWN BY PJM
SCALE 1:500	FIGURE: 14d

x 920040/432, 3.33
sample number/
Au ppb, Ag ppm

NW

SE

Claim Boundary
I

DDH 88-5, 6 & 7

2110m -
A.S.L.

D.P. No. 3

DDH 88-6
-90°
6.1m
20ft

2090m -

ESK₄

920080/620, 11

2070m -

DDH 88-5
-84°
39.6m
130ft
Azimuth 353°

ESK₄

2050m -

2030m -

2010m -

ESK₄

LEGEND

LITHOLOGIES TERTIARY EOCENE

SKUKUM GROUP

- ESK₆ rhyolite, dacite dykes
- ESK₅ andesite dykes
- ESK₄ bedded ash tuffs, lapilli tuffs and epiclastic sediments
- ESK₃ andesite flows, minor tuff, minor dacite, andesite tuffs
- ESK₂ rhyolite welded tuff to densely welded tuff, dark purple to pink
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- veining, Vq-minor quartz veining, Vca-minor calcite veining
- silicification
- argillization
- D.P. drill pad
- diamond drill hole collar
- hole number
- vein and/or shear intersection
- significant mineralization/veining
- geochemical analyses Au ppb, Ag ppm, metres core width
- end of hole, hole number, dip, length, azimuth

DDH 88-7
-82°
136.8m
449ft
Azimuth 358°

56, 0.45/0.5
2.6, 1.1/3.6
5, 0.6/0.55
Vca
Vca
Vq
az veining to 15%
ESK₁
az

DDH 88-7
-82°
136.8m
449ft
Azimuth 358°

10m 0 10 20m
METRES

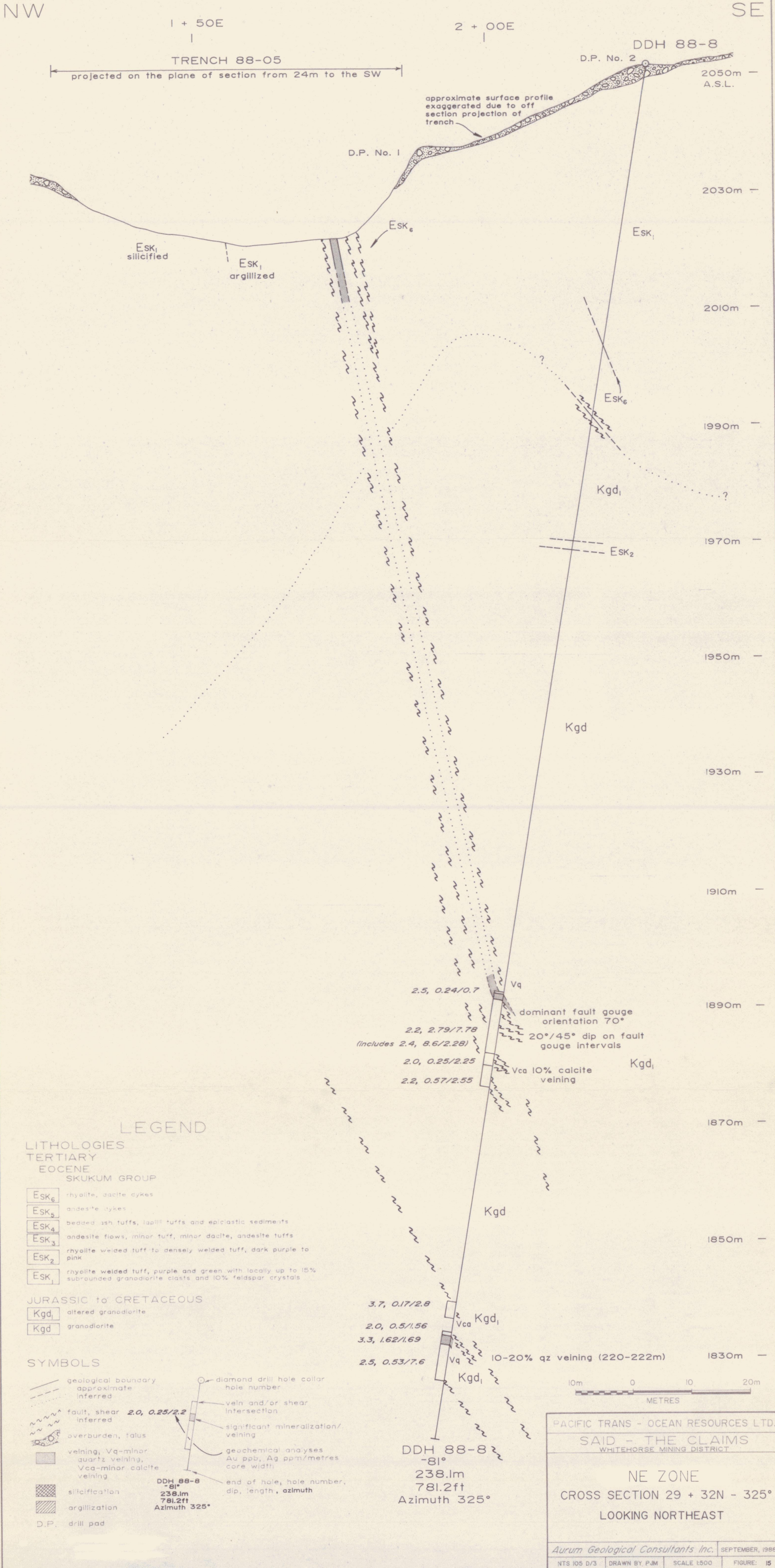
PACIFIC TRANS - OCEAN RESOURCES LTD.

SAID - THE CLAIMS
WHITEHORSE MINING DISTRICT

FAR SW ZONE
CROSS SECTION I + 77S - 358°
LOOKING NORTHEAST

Aurum Geological Consultants Inc. SEPTEMBER, 1988
NTS 105 D/3 DRAWN BY PJM SCALE 1:500 FIGURE: 14b

x 920080/620, 11
rock (float) sample, sample number, Au ppb, Ag ppm



- LEGEND**
- LITHOLOGIES**
- TERTIARY**
- EOCENE**
- SKUKUM GROUP**
- Esk₆** rhyolite, dacite dykes
 - Esk₅** andesite dykes
 - Esk₄** bedded ash tuffs, lapilli tuffs and epiclastic sediments
 - Esk₃** andesite flows, minor tuff, minor dacite, andesite tuffs
 - Esk₂** rhyolite welded tuff to densely welded tuff, dark purple to pink
 - Esk₁** rhyolite welded tuff, purple and green with locally up to 15% subrounded granodiorite clasts and 10% feldspar crystals
- JURASSIC to CRETACEOUS**
- Kgd₁** altered granodiorite
 - Kgd** granodiorite

- SYMBOLS**
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 - D.P. drill pad
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 - end of hole, hole number, dip, length, azimuth

PACIFIC TRANS - OCEAN RESOURCES LTD.
 SAID - THE CLAIMS
 WHITEHORSE MINING DISTRICT

NE ZONE
 CROSS SECTION 29 + 32N - 325°
 LOOKING NORTHEAST

Aurum Geological Consultants Inc. SEPTEMBER, 1988
 NTS 105 D/3 DRAWN BY: P.J.M. SCALE 1:500 FIGURE: 15

AURUM GEOLOGICAL CONSULTANTS INC.

DIAMOND DRILL LOG

HOLE No 88-01

Page 1 of 4

Property	SAID-THE-WAT	NTS 105 D/6	Claim SAID?	Elevation 212.1 m	Azimuth 332°	Length 61.57 m	Dip -73°
Coordinates	UTM 755903 0.25 0104E	Dip Tests	N/A	Advance 12.8 m	Depth 60.2 m	Date Collared JULY 07, 1988	Date Completed JULY 15, 1988
Purposes	SAMPLE MAIN FAR SW ZONE STRUCTURE / ABANDONED HOLE			Drilled by CAROL	Assays by Enrique Magaña	Logged by PJM	

Interval	From	To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	SAMPLE COMMENTS	Au ppb	Ag ppm
							From	To				
0.0	9.05	0	-	-	CASING							
PG1 3.05	10.70	93	0		RHYOLITE/ASH TUFF - grey to varicolored, rhyolite bx with lenses (beds) of dk. br. gr. ash tuff and xtal/lithic tuff - xtal/lithic tuff - pervasive minor argillic alteration, notes to chlorite - rhy. ash tuff - 16 green v. fine grained - oriented 45 to 90° to C.A. - bx - frags to 1.5 cm (actually lapilli) - ash tuff - xtal tuff - flow banded rhyolite - patchy alteration (argillic) - sericite - v. lt. green replacement most conspicuous in ash layers STRUCTURES - core highly fractured and broken - Fe oxide along fractures - most prominent orientations 0-45° to C.A. - beds oriented 45 to 90° to C.A.							
PG1 9.50	9.90				- gouge / highly broken core - UC - NA LC - 90° to C.A. - fragments are xtal lithic/ash tuff from PG1 - up to 20-25% lt. green clay? sericite - up to 30-40% clay? within 5cm of LC.	128251	9.50	9.90	.40m	G	2.0	0.6
PG1 9.90	10.36				- interval description as above: additional notes: core not as broken in this interval, up to 50% of rock is ash tuff. - LC - NA - 75% clay in last 5-10 cm of interval. xtal tuff	128252	9.90	10.36	.46m	G	3.0	0.4
PG1 10.70	11.89	100	24		- dacite / rhy? dark - dk. green - feldspar porphyroites - looks for all the world like an andesite dyke - very siliceous - possibly qz. / rounded but doubtful - consists NA. - greenish andesite / rhy - minor clay at the of feldspar planes. - H. part v. fine grained (clay - like) mineral filling fractures - chert nodules?							

Interval		Recy %	RQD	DESCRIPTION	Interval		Core Width	Sample No.	Au gpb	Ag ppm	
From	To				From	To					
22.35	30.45	100	.27	<p>RHYOLITE LAPILLI TUFF - frags - f.b. - ash tuff - plug - nodules</p> <p>- avg size 2mm up to 1cm in size</p> <p>- UC & LC gradational to dacite tuff / lapilli tuff (see above PG 1)</p>							
					28.7	29.7	1.0m	12860	- white clay cement to 15% throughout sample interval.	2.0	0.32
30.05	30.60	100	.69	<p>RHY. LAPILLI / TUFF see interval 20-T3 to 22.35</p> <p>- upper contact gradational</p> <p>- lower contact obscured NA.</p>							
30.60	46.25	91.7	*.07	<p>RHY. LITHIC LAPILLI & WELDED TUFF - bleached - rusty to buff</p> <p>- highly brecciated, much clay alteration, particularly at 30.70 & 30.76</p> <p>- clay in fracture</p> <p>STRUCTURES - bedding @ 55° to C.A. improved by flattened ash tuff fragments</p> <p>- fractures - many & pervasive - typically hairline, delineated by MnO₂, FeO or clay - rarely qtz veins / veinlets / orifices to C.A.</p> <p>- veins - direction prominent 0° to C.A. & 45° to C.A., few orientations at angles between 0 & 45° to C.A.</p> <p>- qtz, sericite?, white clay, negligible carbonate, qtz to 2</p> <p>- avg. size < 1mm - 1cm with thinning either side to 3cm of.</p> <p>38.75m</p>							
31.0	31.39			LOST	38.70	39.32	.62m	128271	- at 2 veins to 5-10% of interval, 1-2cm width		
					31.75	31.90	1.15m	128261	- broken & clay, 0.4 lost.	2.0	0.37
32.10	32.49			Gouge	32.10	32.40	.30m	128262	- clay gouge	2.0	0.40
32.40	32.75			Gouge - more coarse, gouge to 30% of interval. LC - 50°C.A. at 25° to C.A.	32.40	32.75	.35m	128263	- clay gouge	2.0	0.22
32.75	33.40				32.75	33.40	.65m	128264	- minor clay gouge.	42.0	0.40

Interval		Rec'y %	RQD	DESCRIPTION		Interval		Core Width	Sample No.		Au ppb	Ag ppm
From	To					From	To					
33.90	34.10			- Gauge / QVN	G	33.90	34.10	.20m	128265	- clay spec 90% - 1/2 to 1/4" of vein veining < 1cm ~10% of interval	2.0	0.15
35.97	36.37			- Gauge / QVN - white to buff clay & carbonate of vein (lim to 1%) L.C. 40° to C.A.	G	34.44	35.97	.53m	128266		76.0	0.46
35.97	36.37			LOST /		35.97	37.10	1.43m	128267	.9 m lost → .53m sample	2.0	0.36
						37.40	37.95	.45m	128268		3.0	0.58
38.85	39.20			- lower margin of adjoining gang - rock highly altered - v. fine white to lt. pink am. matrix (lim to 1%) (chlorite?)		37.95	39.20	.35m	128269		2.0	0.52
39.20	39.32			- broken & clay altered rock		39.20	39.70	.50m	128270		2.0	0.72
					QVN	39.70	39.32	.62m	128271	- gte - vein (see 690.1. p. 3) 10% of interval	5.0	0.50
				- Gauge, broken core / L.C. 50° to C.A.	G	39.32	39.80	.48m	128272		2.0	0.40
				- Gauge, broken core & clay to 30% of interval - rock highly alt. to 10% of interval	G	40.75	41.20	.45m	128273		2.0	0.50
						42.25	43.75	.90m	128274		2.0	0.40
46.25	50.05			- highly broken / clay gang to 30% QVN @ 0° to C.A. RHY LITHIC LAPILLI / XTAL TUFF ± veined - dk. porphyry (30.05 to 30.60 interval)	G	45.45	46.25	.80m	128275	g. 2 v. < 5%	44.0	0.40
50.05	61.57			RHY LITHIC LAPILLI / XTAL TUFF / veined - see interval 30.6 to 46.25m		51.65	52.00	.35	128276		2.0	0.18
	E.O.H.					52.00	52.65	.65	128277		2.0	0.14

AURUM GEOLOGICAL CONSULTANTS INC.

DIAMOND DRILL LOG

HOLE No. 88-02 ABANDONED Page 1 of 2

Property SAND-THE NTS 105 D/6 Claim SAND 35 Elevation 212.1m Azimuth 292° Length 32.6m Dip -74°

Coordinates DP No. 2 01265/0+64 E 755 207 Dip Tests Advance 9.0m Depth 31.3m Date Collared July 16 '83 Date Completed July 20 '83

Purposes SAMPLE MAIN FAN SW ZONE STRUCTURE / try wedge July 20, hole abandoned. Drilled by CARON Assays by Gunnep-Mogata Logged by PJM

Interval	From	To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width
							From	To	
	0	7.44	0		- CASING				
P/S-I	7.44	10.10	100	—	- RHYOLITE XTAL/ASH TUFF: lt. to med. grey fine to extremely fine grained tuff. - lens (beds) of extremely fine grained ash tuff - grade into fine grained xtal tuff - angles to core axis 40 to 45° - intervals of intensely broken core - highly fractured - prominent orientations 0° and 70 to 90° to core axis. - minor clay gouges at 80- to 90° to core axis - 5-10cm in width				
P/S-I	10.10	12.80	100	.07	- RHYO-DACITE? - ^{epiclastic} xtal/ash tuff: dominantly fine grained ash tuff over the interval - med lt light to dk. grey - ash tuff beds dip 80° to 90° to core axis - many 'soft sediment' features present - slump - local casts - faults - white to pink clay-like material coating and filling fractures to 2-5mm widths (11.45m)				
P/S-I	12.80	23.48	100	.09	^{traced} RHYOLITE XTAL/LAPILLI TUFF / BRECCIA - ubiquitous lapilli tuff (lt green to dk grey / purple) - essentially occupies remainder of hole length. - over this interval rock is med to dk grey - blended - significant intermittent clay alteration: alteration of ash tuff frags (?) to green clay (dacite? dacite) - ash tuff intervals common up to 10-20cm width - 60° to C.A. - nodules ubiquitous on fractures				
	12.80	13.00			- highly broken core.				
	14.63	14.80			- highly broken core.				
					STRUCTURE - bedded - common orient. 60° to C.A. - irregular or beds of clay - soft sediment features				

Interval		Rec'y %	RQD	DESCRIPTION	Interval		Core Width	Sample No.			
From	To				From	To					
13.10	14.45			- STRUCTURES cont.: veinlets - between ~60° to C.A. to 4mm width - regular constant orientation 60° to C.A. (i.e. parallel bedding in tuff) - quartz sil mineral - white to dark grey - variable. - pervasive clay alteration of tuff of vent. - clay going to 30% - ash tuff in vicinity of vein is 1/2 grey in colour - and pervasively altered to clay. - fractures oriented 45° to C.A. but ~85° from ash tuff / lapilli tuff bedding. - bedding is lapilli defined by welding of ash tuff fragments to form oriented ~ 80-90° to veining (see entry above)	13.10	13.72	.62m	128278	2.0 10.0	0.16	
13.10	13.20				13.72	14.45	.73m	128279	5.0	0.26	typical "low temp" stalks; 4.5 vnlts/metre
14.45											
14.63	14.80			- rubble core. - fractures as oriented throughout interval - with addition of bleached (tuff) selvages to 2mm either side.							
15.40	16.00			RHT. ASH TUFF							
16.90	18.10			- minor clay alteration & gouge (10%) and veining (to 2mm) 40° to C.A.; 4.5 vnlts per m.	16.90	17.50	.60m	128280	4.0	0.13	features as above - low temp.
13.10	17.00			- altered lapilli tuff between intervals of 92 veins; 5% clay gouge - otherwise pervasively alteration to clay 20%	17.50	18.10	.60m	128281	6.0	0.11	fine tuff
17.00	19.15			- gouge / highly broken core.	18.10	19.00	.90m	128282	2.0	0.32	8.0 0.48
19.00	23.40			- RHT. ASH TUFF: core highly broken & fractured; bedding 55° to 65° to C.A. inclination 30° to 80° to C.A. - ~70° to bedding. - clay coating fractures 2mm in width. - L.C. 45° to C.A.	19.00	19.15	.15m	128283	5.0	0.10	
23.40	32.60	100	0.30	- U.C. 45° to C.A. RHT. xml/LAPILLI/ASH TUFF & welded. Flaking at ash lags 55° to C.A. magnetic. 27.75 to 32.60	24.70	25.05	.35m	128284	8.0	0.41	QVN - clay gouge 30% 1/2 to 1/4 inch
28.00	30.60			- as above but bleached, altered, ash lags to 20% clay - patches to limonite	26.98	27.02	.28m	128285	2.0	0.13	clay to 1/2; highly broken core
					29.00	30.60	.70m	128286	6.0	0.06	2.0 0.55

AURUM GEOLOGICAL CONSULTANTS INC.

DIAMOND DRILL LOG

HOLE No. 88-03

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Property SAID-THE NTS 105 D/6 Claim SAID 9 Elevation 2112.1m Azimuth 292° Length 139.4 Dip -80°
 Coordinates UTM TSS803 0265 8764E Dip Tests N/A Advance 24.03m Depth 136.3m Date Collared JULY 21, 1988 Date Completed JULY 29, 88
 Purposes SAMPLE MAIN FASH ZONE STRUCTURES / unaltered to slightly altered / Drilled by CAROL DIAMOND Drilling Assays by BALDING & MCKENZIE Logged by DJM

Interval		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width
From	To					From	To	
0	7.0	0	0	- CASINGS				
7.0	18.62	85	.04	<p>(2.0m) - RHYOLITE LAPILLI TUFF / INTERBEDDED IN INTERVALS OF ASH RHYOLITE ASH TUFF - lt grey to mid grey-green - LAPILLI TUFF: locally extensively altered - entire interval highly broken (altered) core - alteration is a mild pervasiv. - bleaching (argillization?) - much white clay along fracture - minor Fe staining - ash is conspicuous by lt grey colour and extremely fine grained texture; ash layers very irregular</p> <p>STRUCTURES - bedding - gradal in xtal tuff intervals; orientation 85° to C.A. (DIP 45°) ash tuff bedding: same as xtal tuff - unbedded - veinlike streaks at 40-50° to C.A. to 5cm in width - dominantly sericite (green) + clay mixture.</p>				
18.62	30.70	100	0.26	<p>RHYOLITE XTAL LAPILLI WEATHERED TUFF (DARKITE?) - dk green - "classic" xtal tuff to ~21.0m - welded tuff defined by flattened ash frags/ash in matrix @ ~85° to C.A. alteration: hardly none: rock is fairly fresh - minor chloritization of matrix: - xtal + lapilli tuff contain characteristic jasper-like fragments to 1.5cm that are magnetic - these rock fragments are diagnostic of rhyo-dacite xtal/welded tuff - matrix of tuff slightly to moderately magnetic - ilmenite? if so little alteration to leucosome - mild carbonatization of matrix - plagioclase replaced by calcite. - this carbonatization is indicative of the more mafic rocks - possibly more dacitic than rhyolitic / patchy silicification e.g. 22.0-23.5m</p>				

p51

p51



Interval		Rec'y %	RQD	DESCRIPTION	Interval		Core Width	Sample No.	Au ppm	Ag ppm	
From	To				From	To					
				<p>STRUCTURES - minor fracturing & slickens - with abundant alteration fronts - rarely exceed 10cm of sulfidation/argillization - carbonate filling fractures to 1-2mm.</p> <p>ORIGIN - 10° and 45° TO CORE AXIS</p> <p>- L.C. gradational to 26.7 + 30.70m</p>							
50 26.70	30.70			<p>ALTERED RHYOLITE XTAL/LAPILLI TUFF - WEDED</p> <p>- same rock as intervals above and below</p> <p>- moderate to intense pervasive argillic alteration</p> <p>- U.C. noted by qz veins & pink clay-like material.</p> <p>- qz is typical cockade milky to clear with euhedral terminations + additional vug-filling mineral - pale yellow to buff sub to euhedral rhombic shapes? → possible K-spar??</p>	26.50	26.90	1.4m	128371	- altered HW to skew + qz veins	2.0	0.59
					26.90	27.00	.10m	128372	- qz veins to 2cm ± sp? ksp? vug to 10% of interval	116.0	0.35
					27.00	27.15	.15m	128373	- altered FW to skew above.	2.0	0.8
				<p>STRUCTURES - rock is greatly sheared - much clay & sericite? in part. It green colour. - skew orientations parallel U.C. zoning. 40° TO CORE AXIS & 60° dip of structure</p> <p>- qz veins to 2cm in width adjacent to sheared sericitized lapilli tuff</p> <p>- total width of skew ~ 10cm</p>							
30.70	37.49	100	.10	<p>RHYOLITE XTAL/LAPILLI TUFF - locally extensively altered adjacent to mm shears e.g. 33.53m</p> <p>- rock as interval 18.62m to 26.80m.</p>							
				<p>STRUCTURE - min slens e.g. 33.53</p> <p>- fracture orientations - low (0-10°) & moderate (45°) to C.A.</p>							

Interval		Rec'y %	RQD	DESCRIPTION	Interval		Core Width	Sample No.	Au ppm	Ag ppm
From	To				From	To				
37.49	40.95	100	.35	<p>RYHOLITE LAPILLI WELDED TUFF - similar to interval 18.62m to 26.90m - welding more prominent in this interval - strongly welded - ash tuff frags to 3cm along long axis - pervasively altered to sericite/clay mixture</p> <p>other alteration: matrics to chlorite/hematite (minor); plag. particularly in groundmass → carbonate</p> <p>STRUCTURES - bedding defined by flattened ash tuff fragments orientation 85° to C.A. = dip 25°/15°</p> <p>fractures: fairly devoid of any mineralization, minor clay + iron oxides; orient. 10°-15° and 50° to 70° to core axis.</p>						
40.95	47.70			<p>RYHOLITE XTAL/LAPILLI TUFF - varicoloured to red-grey-green frags: flow banded rhyolite, jasper (magmatic), ash tuff, plagioclase matrics - avg size 2-3mm, irregular</p> <p>ALTERATION - mild chloritization/hematization of matrics; mild carbonate of plag.; esp. in groundmass</p> <p>STRUCTURES: faint bedding oriented 65°-70° TO CORE AXIS.</p> <p>STERS: not true sters - extensively altered along fractures - orient. 35° to C.A.</p>						
44.40	47.70			<p>- not as above but variably altered (sericitized/argillized)</p> <p>most prominent evidence of alteration is bleaching to lt. green - buff - and significant decrease in hardness</p>						
47.70	54.40	100	0.0	<p>→ WELDED</p> <p>ALTERED RYHOLITE XTAL/LAPILLI TUFF: - extensive, pervasive sericitization argillization ± carbonate</p> <p>- core is very broken and rubble</p> <p>- alteration to 40% clay/sericite imparts light green colour to ash tuff fragments which constitute ~ 50%</p> <p>- pink clay-like mineral coating fractures</p> <p>- milky g2 veinlets ~ 1mm < 1% of interval.</p>	47.70	47.90	.20m	128287	5.0	0.54
					47.90	48.40	.50m	128285	4.0	0.54
					48.40	49.07	.67m	128289	3.0	0.40
					49.07	49.60	.53m	128290	2.0	0.39
					49.60	50.20	.60m	128291	3.0	0.40
					50.20	51.00	.80m	128292	2.0	0.45
					51.00	51.45	.45m	128293	82.0	0.46
					51.45	52.20	.75m	128294	3.0	0.44
					52.20	52.65	.45m	128295	3.0	0.56

Interval		Recy %	ROD	DESCRIPTION	Interval		Core Width	Sample No.	Au ppb	Ag ppm
From	To				From	To				
					52.65	53.40	.75m	128296	2.0	0.6
					53.40	54.40	1.0m	128297	2.0	0.4
54.40	66.95	100	OSL	~ ALTERED RHYOLITE XTAL/LAPILLI WELDED TUFF: (see interval 44.40 to 44.70m - identical rock.) ALTERATION: in form of bleaching - sericite/clay alteration of ash tuff fragments - occasionally Fe oxide staining and coating fractures, notably in vicinity of alteration fronting. - no carbonatization - minor open space ^{texture} g2 vein to .5cm - fluted texture characteristic.						
55.55	56.00			- silicified welded tuff - little other alteration to speak of - results in a dark green-purple rock - extremely hard. - minor carbonatization of foldover implication → silicification + carbonatization (to some extent) STRUCTURES: fracture sets: 10° to C.A.; 70° to 80° to C.A. - same orientations for v. minor veins of g2 < 2mm in width. - more prominent veins @ 58.0m - with attendant selvages - MnO, clay/sericite, g2 → symmetrically from selvage inwards - bedding: 80° to 85° to core axis. - veining makes angle of 85° with bedding / 45° to core axis.						
60.20	61.40			intervals of highly sericite rich - altered ash tuff fragments - upto 70% of interval is flattened ash tuff fragments - bedding orient. Same as rest of interval.						
65.60	66.95			- extensively silicified rhy welded tuff ^{color grey colour} ; otherwise rock is as above - epidote on fractures.	65.60	66.20	.60m	128374	2.0	0.12
					66.20	66.95	.75m	12875	2.0	2.0
66.95	67.95		?	ALTERED RHYOLITE XTAL/LAPILLI + WELDED TUFF ALTERATION: up to 30% of rock altered to clay/sericite mixture giving light green to buff colour - core is highly fractured, broken, rusty for interval.						
67.40	73.21				67.40	68.40	1.0m	128293	2.0	0.47
					68.40	68.65	.25m	128295	2.0	0.25
					68.65	68.95	.30m	128300	3.0	0.50

Interval		Recy %	RQD	DESCRIPTION	Interval		Core Width	Sample No.	Au ppm	Ag ppm	
From	To				From	To					
78.61	80.50	100	?	ALTERED (SNEAKED) ANDESITE (DIAKITE?) DYKE: (weakly porphyritic) - rock is a H to med green fine grained andesite - pervasively altered to variable degrees ALTERATION: sericitization / chloritization / argillization mineral carbonatization of phy. ptros. - - carbonate veinlets @ low to moderate angles to C.A. are characteristic.	78.61	78.80	.25m	128313	3.0	0.20	
					79.36	79.45	.09m	128314	3.0	0.11	
					79.45	80.05	.60m	128315	8.0	0.16	
					80.05	80.50	.45m	128316	2.0	0.71	
79.45	80.05			- rock is greatly stained, orient: ex. 79.90m 35° to C.A. (dip = 65°) Stair is defined by a combination of chlorite lenses and carbonate veinlets along steep planes. - close association between calcite along fractures and pink clay-like mineral (rhodanite); up to 3% calcite as veinlets, 1% rhodanite							
80.50	82.70	52	?	RYHOLITE ASH TUFF (BRECCIA): light grey-green extremely fine grained with weak to moderate brecciation defined by jasper-filled fractures and thin (1-3mm) veinlets of red grey to clear quartz. ALTERATION: sericitization (argillization) - imparts green color to rock	80.50	81.50	1.0m	128317	- alteration.	2.0	0.40
					81.50	83.82	.32m	128318	- 1.9m LOST	2.0	0.30
					83.82	85.65	1.83	128319	- 1.47m LOST	3.0	0.35
					85.65	87.17	1.52	128320	- 0.95m LOST	8.0	4.7025 opt
					87.17	88.70	1.52	128321	- 1.22m LOST	28.0	1.805 opt
				STRUCTURES: see note on brecciation above.							
83.0	83.90			LOST							
84.0	85.47			LOST							
86.0	86.95			LOST							
87.8	88.18			LOST							
88.18	89.03			LOST							

Interval		Rec'y %	RQD	DESCRIPTION	Interval		Core Width	Sample No.	Au ppm	Ag ppm	
From	To				From	To					
88.70	98.45	25/65	?	ALTERATION RENIFORM XTAL / ASM TUFF: interbedded and left horizon with clay fill; rock is light to md. gray highly brown for most of the interval with several small gouges	88.70	90.70	1.0m	128322	1.42 m LOST	2.0	16.80
					90.70	91.44	.74m	128323		2.0	2.20
					95.50	96.49	.90m	128324	gouge	2.0	0.66
					96.40	97.0	.60m	128325	.20 m LOST	2.0	2.05
					97.0	98.0	1.0m	128326	.25 m LOST	3.0	0.47
					98.0	98.45	.45m	128327	gouge	4.0	0.04
				ALTERATION: - extensive sericitization, visible in feldspars - to 20% - microcrackling of feldspars (most calcite is present as fracture fillings to 1%) - clay alteration of groundmass 10-20% - microcrackling of matrix 10%.							
				STRUCTURES							
92.70	91.44			gouge - 35% of interval is clay/sericite + calcite							
93.40	93.50			gouge - 30% clay/sericite mixture.							
95.50	96.40			orientation 30-45° to core axis. (70° - 55° dip.)							
				gouge - 30% sericite, 40% clay, 5% calcite, 25% altered rock frags.							
98.0	98.45			gouge. bedding in tuffs: 45° to C.A. (dip 55°)							
89.00	89.92			LOST							
90.0	90.50			LOST							
92.39	92.96			LOST							
93.0	93.40			LOST							
94.0	94.44			LOST							
96.0	96.33			LOST							
97.0	97.25			LOST							

Interval		Rec'y %	RQD	DESCRIPTION	Interval		Core Width	Sample No.	SAMPLE COMMENTS	Au ppb	Ag ppm
From	To				From	To					
98.45	102.72	96.5	—	<p> RHYOLITE (SILICEOUS) TUFF (intermediate ash tuff) - not green to red in an vertical - high grade ore with drill gauge intervals. - alteration: argillic + sericite + small frags - minor oxidation. - mild brecciation. - fragments to 5cm: ash tuff and fine flaked chert ALTERATION: sericitization - most obvious in fine ground ash lenses imparting a light grey colour. e.g. 102.52 - 107.72 m argillic - pervasive, mild to moderate - exhibited as varying degrees of hardness in plug, planes, ash tuff frags and groundmass. Sericitization - brecciation (see below); some weak replacement of plag. calcite < 1% replacement; 1% or veinlets. </p>	98.45	99.50	1.05	128323		4.0	0.58
					99.50	100.19	.60m	128329		4.0	0.20
					100.19	101.19	1.09m	128330		2.0	0.50
								128331	→ NO SAMPLE; TAG DESTROYED		
101.0	101.15	—	→	LOST							
				<p> STRUCTURES: brecciation - e.g. 99.50-100.10m - brecciation defined by calcite veinlets < 1mm; dominant orientation @ low angles to core axis → 10-15° </p>							
101.19	101.9			<p> gauge: v. spaced 100% clay/sericite (green); trace carbonates, FeOxides rocks fragments to 2cm → 60% - argillic/sericite alteration. no orientations. </p>	101.19	101.90	.71m	128332	- clay: imp. to 90% - sericite 22-c		0.20
					101.90	102.72	.82m	128333		2.0	0.28
102.72	107.60	95	—	<p> ALTERED (OXIDIZED) RHYOLITE LAMINAR TUFF - unresidual grey-green to light green/red brown mud; highly brecciated, matrix of weak brecciation - several clay fault (shear) gauge intervals </p>	102.72	103.28	.56m	128334		2.0	0.25
107.0	107.12			<p> LOST ALTERATION: rock is coarse (will: tail) in places oxidized in places - brecciated ash tuff and fine flaked chert frags - pervasive + intense argillic alteration esp. proximal to gouges/veins (see structure note below) - in some places rock is relatively fresh </p>							
107.29	107.47			LOST							

Interval		Rec'y %	RQD	DESCRIPTION	Interval		Core Width	Sample No.	Au ppm	Ag ppm	
From	To				From	To					
120.20	126.60	100	0.0	ALTAIR/INDICATOR (ANALYSE?) DIKE: - per. white crystalline 2 m. thick orientation at 123.10-6 web. green dyke rock - weakly crystalline - plan. Rhyolite. - upper and lower on hole's occurred by steering	120.20	121.0	.80m	128357	2.0	0.22	
					121.0	121.90	.90m	128358	2.0	0.90	
					121.90	122.30	.40m	128359	2.0	0.28	
					122.30	123.0	.70m	128360	2.0	0.22	
				INTERSTITIAL	123.0	123.30	.30m	128361	<2.0	0.11	
				crystalline - pervasive alteration - 123.00m blue + granular - massive iron oxide breccia, rubble - iron gangue @ 124.00 → 126.60m	123.30	124.10	.80m	128362	<2.0	0.26	
					124.10	124.30	.20m	128363	2.0	0.11	
					124.30	125.60	.30m	128364	2.0	0.2	
					125.60	126.0	.40m	128365	<2.0	0.16	
					126.0	126.60	.60m	128366	2.0	0.20	
				STRUCTURES - calcite veins characteristic - veining 3% of interval - 4mm to 1cm - avg. 3mm, white fine grained calcite - preferred orientations moderate angles to CA. (50-65° dip)							
126.60	128.02			ANALYSE CAPILLARY TUFF - observed 3' interval on hole's surface this interval is largely broken up to 60cm gangue - mixed with tuff rock base and calcite (moderate veining)	126.60	126.90	.30m	128367	- gangue crystalline alteration	42.0	0.82
126.92	127.42			ALTERATION mainly a per. white crystalline alteration, moderate veining (moderate angles to CA.)	126.90	127.42	1.12	128368	- similar to vein - gangue.	42.0	0.27
126.90	126.90			alteration appears as strongly quartz lined referred to carbonate veins @ 126.92m							
				STRUCTURES - carbonate veins - no orientations measurable - veins to 2cm thick - moderately coarse, spaced carbonate with the rest in vein - Fe carbonate & calcite? - smaller - smaller lined to very fine grained black material - thin							

Interval		Rec'y %	RQD	DESCRIPTION		Interval		Core Width	Sample No.	Au ppm	Ag ppm
From	To					From	To				
123.02	129.10	100	N/A	<p>RYHOLITE LAPILLI TUFF / QUARTZ VEINING</p> <p>- varicolored - light to med. green to green brown - altered, slightly broken and veined tuff</p> <p>- # veining to 30% at the interval - balance of interval is altered (predominantly silicified) rhyolite tuff.</p> <p>ALTERATION</p> <p>- in intervals not veined rock is pervasively quartz flooded, eg. 126.80 to 126.90m</p> <p>STRUCTURES:</p> <p>quartz veins - 50/50 ratio of v. fine grained "sugary" textured light grey quartz, and fine grained predominantly milky white quartz exhibiting low temperature open space-filling textures i.e. calcite to drusy to peaky bled.</p> <p>- relationship between grey quartz and milky quartz; partially associated in contact and partially gradational - in some instances the milky quartz is texturally and/or</p> <p>- vein attitudes N/A generally - in some places irregular orientations.</p> <p>- minor Fe oxide crusts on quartz</p>	VNQ	123.02	123.75	.73m	123563	42.0	0.69
						123.75	129.10	.35m	128370	2.0	0.17
129.10	138.65	100	.88	<p>RYHOLITE LAPILLI TUFF / QUARTZ VEINING</p> <p>quartz veins - 50/50 ratio of v. fine grained "sugary" textured light grey quartz, and fine grained predominantly milky white quartz exhibiting low temperature open space-filling textures i.e. calcite to drusy to peaky bled.</p> <p>- relationship between grey quartz and milky quartz; partially associated in contact and partially gradational - in some instances the milky quartz is texturally and/or</p> <p>- vein attitudes N/A generally - in some places irregular orientations.</p> <p>- minor Fe oxide crusts on quartz</p>							
	E.O.H.			<p>STRUCTURES - bedding defined by welds (flame & flattened ash rock fragments) orientation 65° to core axis (dip 35° to 40°)</p> <p>- microcrystals - green & red fill. very fine (< 5um) vesicles probably quartz (curry?)</p> <p>- flame - 1 - 35° to 85° to core axis (45° to 15° dip)</p>							

AURUM GEOLOGICAL CONSULTANTS INC.

DIAMOND DRILL LOG

HOLE No. 88-04

Page 1 of 3

Property SANDY HILL NTS 105D16 Claim SAND? Elevation 2103.4m Azimuth 325° Length 153.2m Dip 78°
 Coordinates L11985 0476 E Dip Tests -77° Advance 33.0m Depth / SS 3' Date Collared JULY 30, 1980 Date Completed 11/5/07, 1983
 Purposes TEST MAIN FANZON ZONE STRUCTURE Drilled by CRITON Assays by BARRINGER-MAGENTA Logged by PJM

Interval From	To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width
						From	To	
				CHALK				
1.44	102.75	100	5.65	RHYOLITE LAMIN ARG/CLASTIC - BEDDED SURF - It gray to red near top - fine to med. interbedded interval of sp. illite clay / sand / silt / argillite / silt.				
				STRUCTURES - - middle = carbonates throughout interval - quartzites at high angle to C.P. 80-90° (dip - 32°-30° / s)				
2.05	19.20			LOST				
21.44	21.54			LOST				
39.42	39.52			LOST				

Interval		Rec'y %	RQD	DESCRIPTION			Interval		Core Width	Sample No.		Au ppb	Ag ppm	
From	To						From	To						
				structures - veins to 5-10% of interval - red. gray to blue and milky quartz veins - milky material in places is later than gray gte - in other places relationship is ambiguous - veins to moderate thickness - dominant orientation not discernable - widths to several cms as well as patches										
P 114.25	115.0	100	.4	VEIN QUARTZ-CALCITE ± GONGE - veining to 70% of interval - weakly associated - 8cm gonge 114.30-114.32 quartz 50000% - gray to blue quartz clasts intergrown - extend beyond mantling, extensive altered rock fragments (up to 30% of interval) CALCITE - late opt. zone L. Mn. near white calcite - intimately associated with dark brown to black amorphous material - most probably MnO (graphite a possibility?) - MnO? matrix, large accumulations of crystals and is intimately intermixed as spots and patches. Gonge - light green gonge material - mixture clay/sandstone - 40° to core axis (72° dip)	VNGC	114.25	114.60	.35m	106.0 T-16 128381	gz. red veins - early gte - followed by milky, drusy gte & cc.	106.0	1.06		
					VNGC	114.60	115.0	.40m	81.0 Oct 8 128382	- as sample above - 8cm zone? 114.20 - 114.28m	82.0	0.48		
P 115.0	122.90	100	0	INTENSELY ALTERED ANDYALITE LAPILLI TUFF ± QUARTZ VEINING - lapilli half as in interval - bedded but bedding not discernable in this interval Alteration: silicification - in association with clergite strombolite (see structure) - results in compact sections of core to a maximum of 10cm. - silicification after sericitization and after argillization (small associated alteration) 40-70% quartz ARGILLIZATION + SERICITIZATION - most prominent in ash tuff fragments - intensity of alteration extreme to very extreme, associated with the coloration of ash lens and fragments - it occurs characteristically red to		115.0	116.0	1.0m	128383	4000 gte	40.0	0.90		
						116.0	117.0	"	128384	2.0 gte	2.0	0.59		
						117.0	118.0	"	128385	2.0 gte	2.0	0.80		
						118.0	118.50	.50m	128386	2.0 gte	2.0	0.55		
						118.50	119.18	.68m	128387	clay gonge to 75% of interval	5.0	0.45		
						119.18	119.30	1.12m	128388	50% gte veins - 50% clay gonge	2.0	0.28		
						119.30	120.30	1.0m	128389	veining to 5% - gonge 10%	3.0	0.52		
						120.30	121.20	.90m	128390	silicification + gonge	3.0	0.56		
						121.20	121.85	.65m	128391	strongly argillized clay/sandstone	2.0	0.44		
						121.85	122.80	.95m	128392	as above.	2.0	0.72		
						122.80	122.90	.10m	128393	previous argillization	2.0	0.71		

Interval		Recy %	RQD	DESCRIPTION	Interval		Core Width	Sample No.	Au PPD	Ag ppm	
From	To				From	To					
				strong quartz/clay replacement; white (Mn spots) silty material appears to be silty replacement - 30 to 100% mixture - dickite? wavy green clay-like material in fractures. <1% - mica to 10% in some places and coatings, also patches and spots of Mn (siliceous?) STRUCTURES							
113.50	117.18			CLAY GAUGE - 75% clay in gauge interval. - rock fragments silicified and cemented by clay from to cracks quartz to .5cm - veins 5% of interval - lower contact with veins above						See sample notes on previous page.	
117.18	119.30			- 50% QUARTZ VEINING: light green to milky quartz - interbedded between low temperature chlorite texture and better developed heavy to coarse quartz.							
121.20	122.30			- gauge: strongly argillitic and gypsiferous; highly broken ALTERATION (cont.) - pale vein rock (clay-like) material to 10% locally (e.g. 122.2m) - same material is logged in previous hole - Mn bearing??						see sample notes on previous page	
122.90	127.71	100	-	ALTERED ANHYDRITE LAMIN TUFF - interval as previous principal interval with less veining and less intense argillitic alteration and gauge stems.	122.90	123.90	1.0m	128374	- pervasive silicification and argillification	3.0	0.44
					123.90	124.90	1.0m	128375	- as above + minor quartz veining - siliceous	2.0	0.27
					124.90	125.90	"	128376	- silicification	2.0	0.53
					125.90	126.90	"	128377	- 2cm quartz vein @ 126.40m, otherwise as above.	1.0	0.77
					126.90	127.71	.81m	128378	- as above - no veining.	3.0	0.7
127.71	132.4	73	.06	ALTERED ANHYDRITE ASU TUFF - light green-grey extremely fine grained - core highly broken (cf. RQD); evidence of several small streams clay & rubble core - weak brecciation (locally close to main veinlets at 129.20/ptite LOST	127.71	128.71	1.0m	128379		2.0	0.32
					128.71	129.71	"	128400	- .2m lost	4.0	0.36
					129.71	130.75	1.04m	128401	- .3m lost	3.0	0.57
129.51	129.71			LOST							
130.45	130.75			LOST							
				From about 135 to base boundary of interval in nodular rock - siliceous and argillitic tuff.							

Interval		Rec'y %	RQD	DESCRIPTION	Interval		Core Width	Sample No.	Au ppm	Ag ppm	
From	To				From	To					
				ALTERATION	130.75	131.75	1.0m	128402	Au, Ag, Mn grades; 22 g/ton mlets	42.0	0.31
				- combined sericitization / argillization	131.75	132.75	"	128403	- as above Au, Ag, Mn	2.0	0.37
				- clay along fractures to 100%	132.75	133.25	.50m	128404	- as above Mn, Mn, Mn	2.0	0.16
				- sericitic clay matrix alteration of ash tuff is pervasive to ~20% of rock volume.	133.25	134.0	.75m	128405	- as above .4m lost	2.0	0.42
				↳ much more fracture associated with part clay-like material within fracture to 3%							
				STRUCTURES							
				- fracture (min shear) - 0° to 30° to core axis							
				- minor brecciation defined by grey to clear quartz veins with silicification of matrix - like material to be seen on fracture.							
				- in vicinity of these veins rock is intensely bleached to white - bit bleached envelopes to 1cm total width - veins to 1mm width - no distinct orientation for veins							
133.25	133.32			gouge - intense clay / sericitic / red fays							
				inclination - 50° to core axis (62° dip) - probably ^{to foot} attached for the strong, most dip of the structure in this hole							
133.32	133.72			LOST							
136.96	137.46			LOST							
137.52	137.92			LOST	138.53	139.40	.87m	128406	0.4m LOST - gouge, intense ^{arg. ill. & sericitic} alteration 2 g/ton - milky to grey	42.0	0.47
138.25	138.45			LOST							
138.53	139.40			Gouge/SHEAR - highly broken and stained core - up to 20-40% clay gouge + sericitic - is the characteristic grey staining slightly waxy as ubiquitous material (possibly indurated clay in host - dike)							
				- large rock fragments of ash tuff to lapilli tuff							
				ALTERATION: sericitic clay / sericitic - ductile - light green alteration							
				on sites replacement of ash and partial groundmass - 40-50%							
				3% light green when clay-like mineral (see next page for mineralogical notes)							
				STRUCTURES - upper contact not discernable - lower contact steep							
				60° to core axis (dip = 32°)							
				- plates + fossils very thin parallel to lower shear attached							

Interval		Rec'y %	RQD	DESCRIPTION	Interval		Core Width	Sample No.	Au p.p.m.	Ag p.p.m.	
From	To				From	To					
141.70	153.70	100	0.40	<p>DACITE DYKE - fairly non-descript rock - some fine granular clasts - 1.5m; location uncalculated and calc'd varied</p> <p>ALTERNATION - pervasive with alteration of granitic rock - - white to light tan to 2% of interval - in center of 2.5m</p> <p>STRUCTURES - fracture at 15° 45° 60° to core axis - numerous faulting faces. - calcite veins - all trends are close to frequency 6 per meter range from 10m to 21mm width - or parallel orientation fracture but distinct mineralogy - white to sandy gray 45° calcite - MnO in fracture on the fracture surface between 149.</p>							
					143.56	144.16	.54m	123403	- Interval of ^{2.5m} 1.5m calcite veining in dacite dyke	2.0	0.03
153.70	153.80	100	0.35	<p>AMPHIBOLE LAPILLI WITH SANDY TUFF - dark gray - purple oxidized buff - brown with - rim - tan to gray lapilli - and glassy matrix.</p> <p>ALTERNATION - 153.96 - 156.0 - intense mineralization in argillaceous matrix - some - small pieces of veins to several mm within stream - scale - not fringed completely exposed.</p>							
153.90	156.0			<p>highly broken and altered - alteration not in time between 154.90 and 155.55</p> <p>STRUCTURES: fracture irregular but predominantly at high angles to C.A. → 75-90° also 45° to C.A. (55° dip → 35° dip) - numerous faulting fractures in alteration zone - irregular carbonate cement appear to be the result of 37% of iron calc. - within 25-35° to C.A. (155.97-97)</p>	154.85	155.95	1.1m	128409	- altered amphibole lapilli within tuff	14.0	0.15

Interval		Recy %	RQD	DESCRIPTION	Interval		Core Width	Sample No.	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Ag ppb	Au ppm	
From	To				From	To										
107.35	107.22	100	0.55	<p>ANDESITE (DACSITE?) DYKE - light to med. green fine grained andesite (no am. crystals) dyke. - weakly hydrothermal</p> <p>ALTERATION: weak carbonates + calcite + pyroxene and calcite replaced, also in groundmass</p> <p>- alteration front at contact characterized by quartz (silica appearance) and minor carbonates + calcite veins + quartz groundmass + pyroxene + pyroxene</p> <p>STRUCTURES: characteristic calcite veins to 3mm oriented at 40° and 0-60° to core axis (63° and 22°N & 70°N dips)</p> <p>- upper contact 80° → 95° to core axis - over a 30cm interval alteration front defined at either end i.e. 107.65 to 107.25 - alteration lower contact strongly defined @ 45° to C.A. - marked solely by 3mm calcite veins</p>												
109.22	111.40	100	0.92	<p>RYHOVITE CRYSTAL TUFF? - siliceous? light to medium green - granular moderately porphyritic tuff? - tough call - possibly a flow stone</p> <p>- not entirely sure it's a tuffite - plug & everything else completely replaced by silica</p> <p>- quite a small dimension rounded with surface (HSP) 21%?</p> <p>STRUCTURES - upper contact - see note from above interval lower contact with dyke and along but very irregular - fracture zone especially? veins at 45° to C.A. (63° dip)</p>	109.22	110.32	1.1m	128431	9, 8, 99, 41, 41						2.0	0.15
					110.32	111.40	1.08m	128432	substituted; 21%? "					2.0	0.14	
								7, 10, 107, 41, 41								

Interval		Recy %	RQD	DESCRIPTION	Interval		Core Width	Sample No.
From	To				From	To		
p 111.40	111.86	100	0.65	<p>ANDESITE DYKE - red. green, fine grained with perthite. that tuff.</p> <p>ALTERATIONS: - minor carbonate replacement presumably of plagioclase in groundmass. - agglutates? and residual plagioclase in matrix.</p> <p>STRUCTURES - flow banding? & bedding? oriented @ 60° to C.A. - L.C. sharp and steeply oriented @ ~65° to C.A. - minor calcite veinlets low angle to C.A. @ ~10°</p>				
p 111.86	117.40	100	0.68	<p>(LEASILLI) RHYOLITE CRISTAL BEDDED TUFF - red. grey-green silicified tuff - good outcrop in the bedded tuff? - to 1cm - 10-15% ALTERATIONS: permineralization silicification - not clear where hydrolysis overprints and siliceous flocules; lignite - very hard rock. - very fine calcite replacement of residual mineral grains & plagioclase.</p> <p>STRUCTURES - slate result from 2 mm width; several at low angle to C.A. @ 20° (dip 60°-80°) - fractures at 30° and 45° to C.A. L.C. - sharp but somewhat irregular - angle 35° to C.A. (25° dip) defined by thin black (ash?) layers, fossiliferous layers, and?? > weakly glassy perthite. U.C. - all sets well above unit</p>				

Interval		Recy %	RQD	DESCRIPTION	Interval		Core Width	Sample No.	Au ppm	Ag ppm	
From	To				From	To					
117.40	121.20	100	0.72	<p>AMPHIBOLITE CRYSTAL/LAPILLI DENSELY WELDED Tuff: dark grey to green - black very dense, hard fault.</p> <p>- pyroclasts avg. 1cm - max 4cm to 3.5cm</p> <p>- characteristic slab (pathe?) of paper to 390.</p> <p>Alteration: either extremely silica rich or quartz bleached.</p> <p>STRUCTURE:</p> <p>- bedding defined by welded ash fragments (less) orientation 75° to C.A. = 33° dip.</p> <p>- minor discontinuities stress-sensitive.</p> <p>fracture - 10° to 30° to core axis</p>							
121.20	124.65	100	0.81	<p>ALTERED AMPHIBOLITE CRYSTAL/LAPILLI DENSELY WELDED Tuff</p> <p>- light green - weakly to moderately brecciated</p> <p>- intervals above but altered.</p> <p>Alteration: pervasive intense silicification - to 80% typ. brecciated by recrystallization of ash fragments in situ - light grey green color. 10-20% matrix before quartz flooding; local areas of intense quartz/silicification.</p> <p>STRUCTURE: weak succession defined by v. minor shear/schists of ortho? matrix / one only green grey quartz</p> <p>- fracture: 80-90° to C.A. & 30° to 45° to Core</p> <p>- nod prominent veins: between 123.20 to 123.75m - grey ss matrix to 3mm @ 25° to C.A.; 123.65 - 1cm - green & white laminae with some matrix</p>	121.20	121.62	.40m	128410	- silicification	4.0	0.72
					121.62	122.62	1.0m	128411	"	3.0	0.02
					122.62	123.40	.78m	128412	"	3.0	0.02
					123.40	123.90	0.50m	128413	- 5-10% green matrix ^{quartz veins} silicification	56.0	0.45
					123.90	124.65	.75m	128414	- no above 390 visible	3.0	0.39

Interval		Recy %	RQD	DESCRIPTION		Interval		Core Width	Sample No.		Au ppts	Ag ppm
From	To					From	To					
124.61	125.27	100	0	<p>CHY Gouge - up to 70% strong clay gouge. 20% strongly altered rock fragments → hydrolytic kaolinite / compact tuff (welded?)</p> <p>- light green to grey to brown locally - clay / mineral mixture</p> <p>- 60% minute clay mixture - 10% pure clay - kaolinite family</p> <p>virtually hydrolytic - light clay color</p> <p>rock fragments: 30% - at top / light tuff - porous micaceous alteration - brown red spots & patches - porous - about the size of sand grains - material from gneiss slightly welded tuff</p> <p>STRUCTURE - upper contact - steep 75° to core of = 33° dip</p> <p>L.S. - distinct but not measurable</p> <p>- light to medium green to violet to brown tuff ~ 2% of interval - no ves observable in altered rock fragments - granulation not measurable</p> <p>- 1-2% calcite as patches and veins??</p>	G	124.65	125.27	.62m	128415	inter clay gouge alteration	2.0	0.3
125.27	125.30	100	0	<p>CALCITE VEIN / (PACIFIC) / Gouge</p> <p>- 60% of interval is calcite vein material - with 20% rock fragments at 20% minor clay / mineral gouge material</p> <p>- vein: white to buff / fine to coarse staining porous calcite</p> <p>- occasional green calcite 3-6%.</p> <p>- mineral / clay - light green intermixed with carbonate vein material</p> <p>STRUCTURE: upper contact steep but not measurable (see note in interval above)</p> <p>- lower contact gradational to strongly altered hydrolytic welded tuff + gouge.</p>	C/VN G	125.27	125.30	.53m	128416	60% calcite vein + clay gouge	4.0	0.12

Interval		Rec'y %	RQD	DESCRIPTION		Interval		Core Width	Sample No.	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Au ppb	Ag ppm	
From	To					From	To										
125.80	132.20	100	0	<p>ALTERED (Gouge/veined) GRANITE CRYSTAL LAPILLI TUFF</p> <ul style="list-style-type: none"> - light to red grey and green intensely altered and broken tuff. - locally Fe rich strata: usually associated with clay gouge; 11%. - ALTERATIONS consist of rock fragments as mentioned followed by silicification. - silicification is highly irregular and alternate with zones of intense fault gouge and clay alteration. - no core on interval of quartz veins. - some bleaching, especially of at full part. - mud clay / Mn-clay. bleached out of pockets to 2cm widths. <p>GANGUE STRUCTURES:</p> <ul style="list-style-type: none"> - brecciation: typical by minor fracture filled variably with white clay, gouge, pink clay, bits, cement. - interlocking and gouge are for most of the interval. - for specific structure intervals see notes below. 		125.80	126.60		128417	- altered spherule welded tuff, ± minor gouge	3.0	0.12					
126.60	127.25			CLAY Gouge: 55% clay gouge as in interval 125.27 to 126.80m	G	126.60	127.25	.65m	128418	- clay gouge to 55%				2.0	0.38		
						127.25	127.90	.70m	128419	- altered spherule welded tuff	3.0	0.62					
127.90	128.40			<p>QUARTZ VEININGS TO 15%</p> <p>15% quartz veins, altered spherule welded tuff</p> <p>VEININGS - grey to milky, calcareous, drusy veins to 2cm in width. Fe rich star clay drusy bands - orientation at low angle to C.A. 0-20° (80° dip to north at 88° dip → N.B. not consistent indicator of vein structure)</p> <p>local pinkish to reddish inclusions of pink clay like material in veins?</p>	QVN	127.90	128.40	.50m	128420	8, 20, 36, 6, 41 - 15% quartz veins.	4.0	1.20					
						128.40	129.40	1.0m	128421	- altered spherule welded tuff	42.0	1.25					
						129.40	130.40	"	128422	25 above, 5, 5, 12% pink clay.	3.0	0.88					
						130.40	131.50	1.1m	128423	as above. 9, 16, 65, 4, 41	2.0	1.00					
131.50	131.75			<p>CLAY Gouge - 70% clay brecciated gouge - mud carbonate - calcareous vein material is white to buff (local out here) to 15%</p> <p>30% altered rock fragments</p> <p>loc. 50° to core axis (58° dip → probably due to main structure actual dip) - loc. 40° to C.A. (dip = 68° - mud clay alteration structure as at 20. brecciated).</p>	G	131.50	131.75	.25m	128424	- 4, 25, 50, 4, 41.0	3.0	0.41					

AURUM GEOLOGICAL CONSULTANTS INC.

DIAMOND DRILL LOG

HOLE No. 88-08

Page 1 of 6

Property SAID-THE NTS 105 D/6 Claim THE 17 Elevation 2051.5m Azimuth 325° Length 233.05m Dip -81°
 Coordinates UTM GRID Dip Tests -78° at E.O.H. Advance 37.24m Depth 235.12m Date Collared AUGUST 21, 1933 Date Completed AUG 28/33
 Purposes TEST AT DEPTH MAIN NE ZONE STRUCTURE Drilled by CAROL D.D. Assays by BANKINGER MARGANTA Logged by PJM

Interval		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width
From	To					From	To	
0.0	1.80	0	-	CASING				
1.80	45.82	100	0.51	<p>massive ground - silicified - dark grey-purple siliceous & <u>accessorily siliceous</u> welded tuff - characteristic <u>iron band</u> (in place <u>quartziferous</u> flow) <u>finely</u> <u>irregular</u> <u>tuff</u> - <u>fine</u> <u>crystallization</u> of <u>slag</u> <u>decreased</u>. - <u>trace</u> <u>quartz</u> ?? - <u>very</u> <u>locally</u> <u>occurring</u> <u>with</u> <u>a</u> <u>two</u> <u>dimensional</u> <u>lambert</u> <u>appearance</u>.</p> <p>STRUCTURES: domin + fracture orientation: <u>45° to 60°</u>, <u>30°</u> to <u>core</u> <u>axis</u> - <u>veinlets</u> of <u>quartz</u> and <u>calcite</u>: <u>frequency</u> <u>1</u> <u>per</u> <u>meter</u>: <u>width</u> <u>average</u> <u>1-3mm</u> - <u>calcite</u> <u>in</u> <u>buff</u> <u>to</u> <u>iron</u> <u>stained</u> - <u>acute</u> - <u>sub</u> - <u>quartz</u> <u>is</u> <u>not</u> <u>very</u> <u>to</u> <u>clear</u>. - <u>rather</u> <u>local</u> <u>iron</u> <u>veinlets</u>. - <u>siliceous</u> <u>is</u> <u>not</u> <u>prominent</u> <u>but</u> <u>this</u> <u>is</u> <u>definitely</u> <u>the</u> <u>classic</u> <u>purple</u> <u>bedded</u> <u>volcanic</u> <u>tuff</u></p>				
45.82	61.15	100	0.46	<p>ALTERED ANHILITE CRYSTAL/LAPILLI WELDED TUFF - locally weakly brecciated - <u>not</u> <u>very</u> <u>to</u> <u>buff</u> - <u>no</u> <u>well</u> <u>and</u> <u>patchy</u> <u>extremely</u> <u>well</u> <u>bedded</u> <u>tuff</u> - - <u>quartz</u> <u>is</u> <u>not</u> <u>very</u> <u>to</u> <u>clear</u> - <u>rather</u> <u>local</u> <u>iron</u> <u>veinlets</u> - <u>siliceous</u> <u>is</u> <u>not</u> <u>prominent</u> <u>but</u> <u>this</u> <u>is</u> <u>definitely</u> <u>the</u> <u>classic</u> <u>purple</u> <u>bedded</u> <u>volcanic</u> <u>tuff</u></p> <p>NOTES: - <u>quartz</u> <u>is</u> <u>not</u> <u>very</u> <u>to</u> <u>clear</u> - <u>rather</u> <u>local</u> <u>iron</u> <u>veinlets</u> - <u>siliceous</u> <u>is</u> <u>not</u> <u>prominent</u> <u>but</u> <u>this</u> <u>is</u> <u>definitely</u> <u>the</u> <u>classic</u> <u>purple</u> <u>bedded</u> <u>volcanic</u> <u>tuff</u></p>				

Interval		Recy %	ROD	DESCRIPTION	Interval		Core Width	Sample No.
From	To				From	To		
				gy flooding - local thin shaly beds (which could be something?) now "rotted" with destruction of brown FeO previous alteration. STRUCTURES: - down + strike - bedding defined in welded at base @ 45° to core axis (dip = 64°)				
52.65	54.80			- alteration band - sericite - chlorite zone to 70% of rock followed by gy flooding - weak to locally prominent brecciation - defined by numerous small (up to 10) cm fractures outlined by a mixture of sericite / chlorite in fracture. - in other places brecciation appears as up to centimeter sub-parallel ash tuff fragments in a matrix of FeO especially fine grained grey - light green sericite - quartz brecciated ash tuff. - down + fracture orientations: (note not the microfractures noted above) 45° , 30° to core axis (dip = $63^\circ \rightarrow 64^\circ$)				
				- isolated str. for sericite / chlorite / illite / kaolinite seams to ≤ 10 cm. eg. 51.7 m to 51.82 m - clay to 60% sericite 20% ? - somewhat in rock fragments G - clay is highly hygroscopic buff white to pistachio green - suggest ductile (leads to green, not brown)				
52.70	54.00			- bedding one prominent defined in ash lenses @ 52.70 - 54.00 m 30° to C.A. dip 75° - brecciate interbedded				
	50.3			- 10 cm interval of strongly lithified tuff: rock fragments 8 mm of red soil. horizontal granular. 3 cm band of strongly chloritized & sericitized tuff - alteration front. LC - same as alteration see following interval notes.				

Interval		Recy %	RQD	DESCRIPTION	Interval		Core Width	Sample No.	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Au ppb	Ag ppm	
From	To				From	To										
61.15	133.71	100	9.75	<p>GRANODIORITE (detrital) - ^{microcrystalline} grey to grey-green medium grained, gneissic. slightly to moderately altered granite - gneissoid.</p> <p>- quartz 40%</p> <p>- feldspar 30-35%</p> <p>- calcic - as it is - hornblende - biotite ? - 15%</p> <p>ALTERATION:</p> <p>- silicification - pervasively to 20-30% - of podal veins - silicates based on flooding of plg. and qtz. - chlorite over a thin layer</p> <p>- percolation - to 5-10% - interstitial associated with rapeseed also as patches to small veins and veinlet up to several mm in width</p> <p>- chloritization - calcification</p> <p>- pervasive alteration of rapeseed</p> <p>- on upper contact 10m of quartz bleaching - rapeseed to hematite alteration</p> <p>quartz vein (con. veins) that are quartz filled throughout interval of STRUCTURES</p> <p>upper contact: 60° to core axis (dip = 45°) - tilted by 3cm altered</p> <p>also - flow parallel pervasively - to 90% - gradation with quartz alteration, bleaching - to 61.30m</p> <p>- veins = equidistant filling; irregularly walled fractures @ 65° to core axis - veins are 2.3 mm in width - 6-10 per metre</p>												
61.95	71.15			<p>- pervasive epidote alteration - related to a shear 1</p> <p>- dip 90° to C.A</p>												
83.05	83.40			<p>ANDERSON D.M. - micropul with altered margin in hot gneissoid.</p> <p>- upper contact sil. but slight - brecciated - 20-30% small</p> <p>fractures in silicification</p>												
161.70	162.05			<p>QUARTZ VEINS - red grey quartz quantity to 50% of interval</p>	161.70	162.05	35m	128433						2.0	0.21	
162.70	163.15			<p>- percolation of fluid - brecciated - grey to green 45% CA</p>	162.70	163.05	35m	128434	18, 8, 105, 21, 41					3.0	0.26	

Interval		Recy %	RQD	DESCRIPTION	Interval		Core Width	Sample No.	Au ppm	Ag ppm		
From	To				From	To						
				fracture = 45-55° to core axis; 90-95° to core axis								
163.1	175.6	100	1.2	ALTERED / UNCONFORMED GNEISS / GRANODIORITE: - quartz to quartzite with some garnet - small iron ore (Fe ₂ O ₃) with altered zones - garnet to 10% with a pyritic alteration ALLOCATION: - silicates pyritic alteration: STRUCTURES: - garnet orientation of zone at 80-90° & 45° to C.A. (20° & 65° dip) - small vein network as noted above								
164.27	164.55			zone: porous zone; 11% siliceous vein material 15% and fragments in matrix in the quartz zone - white to light grey in color 45-50° to C.A.; no grain - small alteration to several - quartz ± garnet - garnet orientation of zone at 80-90° & 45° to C.A. (20° & 65° dip) - small vein network as noted above	G	164.27	164.55	1.28m	128435	4, 5, 70, 2, 41 zone ± matrix on surface - 5, 8, 9, 11, 40, 41 alteration - quartz	2.0	10.20
						164.55	165.55	1.0m	128436	"	3.0	6.60
						165.55	166.55	1.0m	128437	" 7, 11, 84, 12, 41	5.0	0.20
						166.55	167.55	"	128438	" 3, 10, 76, 16, 41	42.0	0.46
						167.55	168.55	"	128439	" 9, 9, 61, 41, 41	42.0	0.32
						168.55	169.55	"	128440	" 3, 6, 58, 10, 41	2.0	0.35
171.05	171.62			quartzite to 30% of interval - red, grey massive irregular red-tan at low angle to C.A.		169.55	170.50	.95m	128441	" 12, 8, 73, 81, 41 alteration - quartz zone ± matrix	2.0	0.10
						170.50	171.05	.55m	128442	alteration - quartz zone ± matrix	42.0	0.27
						171.05	171.62	.57m	128443	zone ± matrix - garnet orientation of zone at 80-90° & 45° to C.A. (20° & 65° dip) - small vein network as noted above	42.0	0.23
						171.62	172.20	.58m	128444	alteration - quartz zone ± matrix	2.0	0.27
172.20	172.30			Group 5B: zone ± matrix - garnet orientation of zone at 80-90° & 45° to C.A. (20° & 65° dip) - small vein network as noted above		172.20	173.20	1.1m	128445	alteration - quartz zone ± matrix	42.0	0.22
						173.20	173.95	.75m	128446	alteration - quartz zone ± matrix	3.0	0.20
						173.95	174.10	.15m	128447	alteration - quartz zone ± matrix	2.0	0.11
174.10	174.12			- quartz zone - thin interval to 10% also fractures - thin interval zone at 40° C.A. (dip: 70°)		174.10	175.10	1.0m	128448	alteration - quartz zone ± matrix	2.0	0.13
						175.10	175.60	.50m	128449	alteration - quartz zone ± matrix	2.0	0.12

Interval		Rec'y %	RQD	DESCRIPTION	Interval		Core Width	Sample No.	Cu ppm	Pb ppm	Zn ppm	Pb ppm	Sb ppm	Au ppb	Ag ppm	
From	To				From	To										
177.55	177.20			FAULT ZONE - 30m brittle zone - buff sandstone low contact schistosity - pitch 90° to plane of fault i.e. one side angle 45-50° (dip - 40-50°)	177.55	177.20	25m	128450	- fault zone 15, 33, 116, 28, 41					8.0	4.46	
215.20	220.00	100	0.75	GRAINY GRANITE - on some interval of groundmass - fracture 45-50° to C.A. - minor veins - 41 ppb Au - some oxidation products of quartz, concentrated in veins												
215.20	220.00			- altered granitic: carbonatization of feldspar to 10% - small 2mm to 5mm calcite veins, oriented 40° to C.A. - patchy or breccia replacement of feldspar - quartz to some extent alteration towards quartz with quartz fracture zone @ 220.0m - quartz veins and floodings to 20-25% - quartz - granitic appearance to rock - alteration/mineral alteration of mafic & siliceous feldspar?	215.20	216.00	80m	128451	6, 6, 90, 2, 41 - carbonatization: quartz feldspar 13, 4, 60, 111, 107, 32 veins						3.0	0.1
					216.00	217.00	1.0m	128452						4.0	0.2	
					217.00	218.00	1.0m	128453	" 5, 6, 100, 6, 41					4.0	0.2	
220.00	228.85	92	0.4	ALTERED (CAMEO) VEINIFIED GRANODIORITE	220.00	220.56	.56m	128454	- altered 10, 8, 67, 14, 41					2.0	0.5	
220.56	221.00			1m zone to vertical interval; 10% quartz with interstitial quartz veins	220.56	221.00	.44m	128455	- zone to 30% quartz 8, 10, 10, 10, 41					4.0	0.41	
221.00	222.25			LOST.	221.00	222.25	1.25m	128456	- quartz veins to 15-20% - 35% quartz 2, 11, 11, 4, 41					3.0	2.04	
221.7	222.00				221.7	222.00	.75m	128457	- altered: quartz feldspar 5, 10, 34, 1, 41					3.0	1.15	
222.00	222.25			vertical groundmass	222.00	223.70	.70m	128458	- on above 4, 8, 36, 4, 41					2.0	1.58	
				- L.C. pure clay zone: buff to west; orientation - 80° to C.A. (dip = 70°)	223.70	224.55	.85m	128459	- on above 9, 36, 2, 41					2.0	0.47	
					224.55	225.55	1.0m	128460	- on above 12, 5, 33, 1, 41					2.0	0.29	
					225.55	226.30	.75m	128461	- on above 3, 8, 2, 41					2.0	0.18	

Appendix A: Analytical Methods and Results

ANALYSIS OF ARSENIC:

A 0.500 gram aliquot of sample is leached in 6M HCl and the final volume adjusted. The arsine gas is passed through a lead acetate scrubber and complexed with silver DDC in chloroform, which is then measured on a Spectronic 88 Colorimeter with freshly prepared standards.

The detection limit is 1ppm.

For rock samples, the sample is decomposed with pyrosulphate fusion prior to leaching in HCl.

ANALYSIS OF MERCURY:

A 0.200 gram sample is digested in nitric and sulphuric acids for 3½ hours. After cooling and adjusting the final volume, an aliquot is removed and added to stannous chloride. The mercury vapor evolved is measured on a Varian Techtron atomic absorption spectrometer.

The detection limit is 5 ppb.

ANALYSIS OF ANTIMONY

A 0.500 gram aliquot of sample is leached in 8M HCl and the final volume adjusted. A portion of solution is removed and the antimony is extracted with methyl iso-butyl ketone. The antimony is measured by atomic absorption with freshly prepared standards.

The detection limit is 5 ppm.

For rock samples, the sample is decomposed with a pyrosulfate fusion prior to leaching with HCl.

GEOCHEMICAL ANALYSIS OF GOLD AND SILVER BY FIRE ASSAY AND ATOMIC ABSORPTION

(The detection limit for gold is 2 ppb)

A one assay-ton (29.16 grams) sample is mixed with the standard charge and an aliquot of known concentration of palladium. The palladium acts as an inquart to enhance the collection of small amounts of gold. Following cupellation, the dore bead is completely dissolved in aqua regia. The gold is extracted into methyl isobutyl ketone (MIBK) and subsequently analysed by atomic absorption spectrophotometry (A.A.S.)

Silver may be determined by direct aspiration of the solution by A.A.S. prior to the extraction stage.

The detection limit for silver is 10 ppb.

CONVENTIONAL GRAVIMETRIC ASSAY OF GOLD AND SILVER

(The detection limit for gold is 0.003 ounces per ton)

1. Flux by adding 77 grams of general flux to 30 gram crucible.
2. Roll sample with rolling cloth 20 times.
3. Weigh 1 A.T. (29.166 grams)
4. Mix charge.
5. Add 1ml AgNO_3 solution to charge.
(1 ml AgNO_3 solution contains 2 mg of Ag)
6. Cover mixed charge with borax or flux.
7. Fuse charge for 35-40 minutes in gas furnace at 900°C .
8. Pour charge into mould and cool.
9. Remove all slag from lead button with hammer (pound lead square).
10. Preheat cupel (bone ash cupel) in electric furnace for about 15 to 20 minutes. Then put lead square into cupel. The cupellation temperature should be 850°C .
11. After cupellation is complete, remove from furnace and transfer dore (the gold and silver bead) to a porcelain parting cup (size 00 Coors porcelain crucible.)
12. Flatten and clean core by using hammer.
13. Weigh dore on gold balance.
14. Subtract dore weight of blank from sample dore weight.
15. Fill porcelain cup containing dore with 10 ml parting acid (1 part HNO_3 :5 parts distilled water) and heat over low temperature hot plate until parting action has ceased (about 15 minutes at 85°C).
16. Decant off parting acid and wash gold with distilled water three times.
17. Dry the crucible and gold on hot plate.
18. The crucible is then heated to a bright red in an open flame

to anneal the gold. When complete, the gold will be gold coloured.

19. Weigh the gold on a gold balance.
20. The difference in weight is the silver assay and the final weight is the gold assay.

ANALYSIS OF LEAD

A 0.250 gram sample is digested in nitric and perchloric acids for 4 hours. After diluting to a final volume, the solution is analysed for lead by atomic absorption spectrometry. The detection limit is 1 ppm.

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ATTN: T. GARAGAN

*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

SAMPLE NUMBER	ZN PPM	AS PPM	SB PPM
128450	116.0	28.0	<1.0
128451	90.0	2.0	<1.0
128452	69.0	4.0	<1.0
128453	100.0	6.0	<1.0
128454	67.0	14.0	<1.0
128455	62.0	5.0	<1.0
128456	44.0	4.0	<1.0
128457	34.0	1.0	<1.0
128458	32.0	4.0	<1.0
128459	36.0	2.0	<1.0
128460	39.0	1.0	<1.0
128461	40.0	2.0	<1.0
128462	43.0	4.0	<1.0
128463	50.0	4.0	<1.0
128464	42.0	4.0	<1.0
128465	35.0	2.0	<1.0

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*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

SAMPLE NUMBER	FIRE ASSAY		FIRE ASSAY	
	AU PPB	AG PPM	CU PPM	PB PPM
128450	8.0	4.46	15.0	33.0
128451	3.0	0.1	6.0	6.0
128452	4.0	0.2	13.0	4.0
128453	4.0	0.2	5.0	6.0
128454	2.0	0.5	10.0	8.0
128455	4.0	0.41	4.0	6.0
128456	3.0	2.04	7.0	11.0
128457	3.0	1.15	5.0	10.0
128458	2.0	1.58	4.0	8.0
128459	2.0	0.47	5.0	9.0
128460	2.0	0.29	12.0	5.0
128461	2.0	0.18	13.0	7.0
128462	3.0	0.34	6.0	8.0
128463	4.0	0.18	8.0	7.0
128464	3.0	0.53	9.0	6.0
128465	2.0	0.38	13.0	14.0

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IN: T. GARAGAN

*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

SAMPLE NUMBER	FIRE ASSAY		FIRE ASSAY	
	AU PPB	AG PPM	CU PPM	PB PPM
128420	4.0	1.2	8.0	20.0
128421	<2.0	1.25	5.0	15.0
128422	3.0	0.88	6.0	9.0
128423	2.0	1.0	9.0	16.0
128424	3.0	0.41	4.0	25.0
128425	2.0	0.53	5.0	11.0
128426	2.0	0.45	7.0	21.0
128427	13.0	1.04	12.0	19.0
128428	4.0	0.08	5.0	14.0
128429	3.0	0.1	5.0	6.0
128430	2.0	0.7	4.0	5.0
128431	2.0	0.15	9.0	8.0
128432	2.0	0.14	7.0	10.0
128433	2.0	0.21	18.0	8.0
128434	3.0	0.26	7.0	9.0
128435	2.0	10.2	4.0	5.0
128436	3.0	6.6	5.0	8.0
128437	5.0	0.2	7.0	11.0
128438	<2.0	0.66	3.0	10.0
128439	<2.0	0.32	4.0	9.0
128440	2.0	0.35	3.0	6.0
128441	2.0	0.4	12.0	8.0
128442	<2.0	0.27	8.0	7.0
128443	<2.0	0.23	7.0	4.0
128444	2.0	0.27	4.0	5.0
128445	<2.0	0.22	5.0	9.0
128446	3.0	0.2	6.0	10.0
128447	2.0	0.11	4.0	4.0
128448	2.0	0.13	3.0	6.0
128449	2.0	0.12	5.0	7.0



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PROJECT: 1102

WORK ORDER: 53020-88

****PRELIMINARY REPORT****

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

SAMPLE NUMBER	FIRE ASSAY	
	AU PPB	AG PPM
128450	8.0	4.46
128451	3.0	0.1
128452	4.0	0.2
128453	4.0	0.2
128454	2.0	0.5
128455	4.0	0.41
128456	3.0	2.04
128457	3.0	1.15
128458	2.0	1.58
128459	2.0	0.47
128460	2.0	0.29
128461	2.0	0.18
128462	3.0	0.34
128463	4.0	0.18
128464	3.0	0.53
128465	2.0	0.38

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*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

SAMPLE NUMBER	ZN PPM	AS PPM	SB PPM
128420	36.0	6.0	<1.0
128421	51.0	2.0	<1.0
128422	53.0	5.0	<1.0
128423	65.0	4.0	<1.0
128424	50.0	4.0	<1.0
128425	62.0	2.0	<1.0
128426	66.0	2.0	<1.0
128427	27.0	4.0	<1.0
128428	102.0	1.0	<1.0
128429	72.0	<1.0	<1.0
128430	76.0	<1.0	<1.0
128431	99.0	<1.0	<1.0
128432	107.0	<1.0	<1.0
128433	105.0	<1.0	<1.0
128434	96.0	<1.0	<1.0
128435	70.0	2.0	<1.0
128436	87.0	4.0	<1.0
128437	84.0	12.0	<1.0
128438	76.0	16.0	<1.0
128439	61.0	<1.0	<1.0
128440	58.0	10.0	<1.0
128441	73.0	8.0	<1.0
128442	126.0	4.0	<1.0
128443	108.0	6.0	<1.0
128444	87.0	4.0	<1.0
128445	84.0	6.0	<1.0
128446	86.0	8.0	<1.0
128447	72.0	5.0	<1.0
128448	65.0	4.0	<1.0
128449	79.0	2.0	<1.0

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GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

S A M P L E N U M B E R	FIRE ASSAY	FIRE ASSAY
	AU PPB	AG PPM
128420	4.0	1.2
128421	<2.0	1.25
128422	3.0	0.88
128423	2.0	1.0
128424	3.0	0.41
128425	2.0	0.53
128426	2.0	0.45
128427	13.0	1.04
128428	4.0	0.08
128429	3.0	0.1
128430	2.0	0.7
128431	2.0	0.15
128432	2.0	0.14
128433	2.0	0.21
128434	3.0	0.26
128435	2.0	10.2
128436	3.0	6.6
128437	5.0	0.2
128438	<2.0	0.66
128439	<2.0	0.32
128440	2.0	0.35
128441	2.0	0.4
128442	<2.0	0.27
128443	<2.0	0.23
128444	2.0	0.27
128445	<2.0	0.22
128446	3.0	0.2
128447	2.0	0.11
128448	2.0	0.13
128449	2.0	0.12

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GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

SAMPLE NUMBER	FIRE ASSAY	FIRE ASSAY
	AU PPB	AG PPM
128278	10.0	0.16
128279	5.0	0.26
128280	4.0	0.13
128281	6.0	0.11
128282	2.0	0.32
128283	5.0	0.1
128284	8.0	0.41
128285	2.0	0.13
128286	6.0	0.06

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SAMPLE TYPE: DRILL CORE

S A M P L E N U M B E R	FIRE ASSAY	FIRE ASSAY
	AU PPB	AG PPM
128287	5.0	0.54
128288	4.0	0.54
128289	3.0	0.4
128290	2.0	0.39
128291	3.0	0.4
128292	2.0	0.45
128293	82.0	0.46
128294	3.0	0.44
128295	3.0	0.56
128296	2.0	0.61
128297	2.0	0.4
128298	2.0	0.47
128299	2.0	0.25
128300	3.0	0.5
128301	3.0	0.53
128302	34.0	1.4
128303	51.0	0.58

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*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

FIRE ASSAY FIRE ASSAY

S A M P L E N U M B E R	FIRE ASSAY	
	AU PPB	AG PPM
128304	31.0	0.8
128305	2.0	1.0
128306	2.0	0.4
128307	37.0	1.18
128308	3.0	0.31
128309	2.0	0.48
128310	3.0	0.37
128311	3.0	0.15
128312	3.0	0.28
128313	3.0	0.2
128314	3.0	0.11
128315	8.0	0.16
128316	2.0	0.71
128317	2.0	0.4
128318	2.0	0.3
128319	3.0	0.35
128320	84.0	>20.0
128321	28.0	>20.0
128322	2.0	16.8
128323	2.0	2.2
128324	2.0	0.66
128325	2.0	2.05
128326	3.0	0.47
128327	4.0	0.64
128328	4.0	0.58
128329	4.0	0.2
128330	2.0	0.5
128332	<2.0	0.2
128333	<2.0	0.28
128334	2.0	0.25

DDH
28-03

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GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

S A M P L E N U M B E R	FIRE ASSAY	FIRE ASSAY
	AU PPB	AG PPM
128335	2.0	0.3
128336	2.0	0.3
128337	<2.0	0.21
128338	<2.0	0.6
128339	<2.0	0.35
128340	2.0	0.27
128341	<2.0	0.36
128342	<2.0	0.14
128343	3.0	0.7
128344	<2.0	0.29
128345	<2.0	0.48
128346	<2.0	0.92
128347	2.0	0.6
128348	2.0	0.18
128349	2.0	0.4
128350	<2.0	0.2
128351	<2.0	0.22
128352	<2.0	0.22
128353	<2.0	0.3
128354	<2.0	0.32
128355	2.0	0.32
128356	2.0	0.47
128357	2.0	0.22
128358	2.0	0.9
128359	2.0	0.28
128360	2.0	0.22
128361	<2.0	0.11
128362	<2.0	0.26
128363	2.0	0.11
128364	2.0	0.2

DATA 88-03

09-AUG-88
 PAGE: 3 OF 4
 COPY: 3 OF 4
 C O P Y
 PROJECT: 1102

AUTHORITY: P. MAHEUX

AURUM GEOLOGICAL CONSULT
 P.O. BOX 5179
 WHITEHORSE, YUKON

WORK ORDER: 5233D-88

ATTN: P. MAHEUX

*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

SAMPLE NUMBER	FIRE ASSAY	FIRE ASSAY
	AU PPB	AG PPM
128365	<2.0	0.16
128366	2.0	0.2
128367	<2.0	0.82
128368	<2.0	0.27
128369	<2.0	0.69
128370	2.0	0.17
128371	2.0	0.59
128372	116.0	0.35
128373	2.0	0.8
128374	2.0	0.12
128375	2.0	2.0

DDA
 24-83
 ↓

PHONE: (403) 920-4500
09-AUG-88
PAGE: 4 OF 4
COPY: 3 OF 4
C O P Y
PROJECT: 1102

AUTHORITY: P. MAHEUX

AURUM GEOLOGICAL CONSULT
P.O. BOX 5179
WHITEHORSE, YUKON

WORK ORDER: 5233D-88

ATTN: P. MAHEUX

*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

ASSAY
FIRE ASSAY

SAMPLE NUMBER AG
 OZ/TON

128320	4.7025
128321	1.805

SIGNED: _____

C. Douglas Read
C. Douglas Read,
LABORATORY MANAGER

ORIGINAL TO:
AURUM GEOLOGICAL CONSULTANTS
VANCOUVER, B.C. V6B 1N2
T. GARAGAN

FOOTNOTES:

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

ADVANCED TECHNIQUES AND INSTRUMENTATION FOR THE EARTH SCIENCES

BARRINGER MAGENTA
Laboratories (Alberta) Ltd.

4200B - 10 STREET N.E., CALGARY, ALBERTA, CANADA T2E 6K3
PHONE: (403) 250-1901

BARRINGER
Laboratories (NWT) Ltd.

P.O. BOX 864, YELLOWKNIFE, NWT, CANADA X1A 2N6
PHONE: (403) 920-4500

04-AUG-88

PAGE: 1 OF 9

COPY: 2 OF 4

AUTHORITY: P. MAHEUX

PROJECT: 1102

AURUM GEOLOGICAL CONSULTANTS
604, 675 WEST HASTINGS STREET
VANCOUVER, B.C. V6B 1N2

WORK ORDER: 5218D-88

ATTN: T. GARAGAN

*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

SAMPLE NUMBER	FIRE ASSAY	FIRE ASSAY
	AU PPB	AG PPM
128251	2.0	0.6
128252	3.0	0.4
128253	10.0	0.18
128254	15.0	0.1
128255	2.0	0.17
128256	3.0	0.14
128257	5.0	0.1
128258	2.0	0.14
128259	3.0	0.2
128260	2.0	0.32
128261	2.0	0.37
128262	2.0	0.4
128263	2.0	0.22
128264	<2.0	0.4
128265	<2.0	0.45
128266	76.0	0.46
128267	2.0	0.36
128268	3.0	0.58
128269	2.0	0.52
128270	2.0	0.72
128271	5.0	0.5
128272	2.0	0.4
128273	2.0	0.5
128274	2.0	0.4
128275	44.0	0.4
128276	2.0	0.18
128277	<2.0	0.14

224-88-01

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PHONE: (403) 250-1901

AUTHORITY: P. MAHEUX

AURUM GEOLOGICAL CONSULT
P.O. BOX 5179
WHITEHORSE, YUKON

ATTN: P. MAHEUX

BARRINGER
Laboratories (NWT) Ltd.

P.O. BOX 864, YELLOWKNIFE, NWT, CANADA X1A 2N6
PHONE: (403) 920-4500

09-AUG-88

PAGE: 1 OF 4

COPY: 3 OF 4

C O P Y

PROJECT: 1102

WORK ORDER: 5233D-88

*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

S A M P L E N U M B E R	FIRE ASSAY FIRE ASSAY	
	AU PPB	AG PPM
128304	31.0	0.8
128305	2.0	1.0
128306	2.0	0.4
128307	37.0	1.18
128308	3.0	0.31
128309	2.0	0.48
128310	3.0	0.37
128311	3.0	0.15
128312	3.0	0.28
128313	3.0	0.2
128314	3.0	0.11
128315	8.0	0.16
128316	2.0	0.71
128317	2.0	0.4
128318	2.0	0.3
128319	3.0	0.35
128320	84.0	>20.0
128321	28.0	>20.0
128322	2.0	16.8
128323	2.0	2.2
128324	2.0	0.66
128325	2.0	2.05
128326	3.0	0.47
128327	4.0	0.64
128328	4.0	0.58
128329	4.0	0.2
128330	2.0	0.5
128332	<2.0	0.2
128333	<2.0	0.28
128334	2.0	0.25

Dart 8802

BARRINGER MAGENTA
Laboratories (Alberta) Ltd.

4200B - 10 STREET N.E., CALGARY, ALBERTA, CANADA T2E 6K3
PHONE: (403) 250-1901

AUTHORITY: P. MAHEUX

AURUM GEOLOGICAL CONSULT
P.O. BOX 5179
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ATTN: P. MAHEUX

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Laboratories (NWT) Ltd.

P.O. BOX 864, YELLOWKNIFE, NWT, CANADA X1A 2N6
PHONE: (403) 920-4500

09-AUG-88

PAGE: 2 OF 4

COPY: 3 OF 4

COPY

PROJECT: 1102

WORK ORDER: 5233D-88

*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

SAMPLE NUMBER	FIRE ASSAY	FIRE ASSAY
	AU PPB	AS PPM
128335	2.0	0.3
128336	2.0	0.3
128337	<2.0	0.21
128338	<2.0	0.6
128339	<2.0	0.35
128340	2.0	0.27
128341	<2.0	0.36
128342	<2.0	0.14
128343	3.0	0.7
128344	<2.0	0.29
128345	<2.0	0.48
128346	<2.0	0.92
128347	2.0	0.6
128348	2.0	0.18
128349	2.0	0.4
128350	<2.0	0.2
128351	<2.0	0.22
128352	<2.0	0.22
128353	<2.0	0.3
128354	<2.0	0.32
128355	2.0	0.32
128356	2.0	0.47
128357	2.0	0.22
128358	2.0	0.9
128359	2.0	0.28
128360	2.0	0.22
128361	<2.0	0.11
128362	<2.0	0.26
128363	2.0	0.11
128364	2.0	0.2

2114 8803



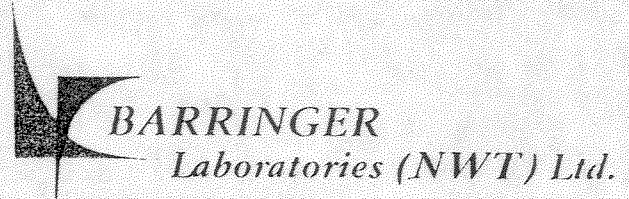
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Laboratories (Alberta) Ltd.

4200B - 10 STREET N.E., CALGARY, ALBERTA, CANADA T2E 6K3
PHONE: (403) 250-1901

AUTHORITY: P. NAHEUX

AURUM GEOLOGICAL CONSULT
P.O. BOX 5179
WHITENORSE, YUKON

ATTN: P. NAHEUX



BARRINGER
Laboratories (NWT) Ltd.

P.O. BOX 864, YELLOWKNIFE, NWT, CANADA X1A 2N6
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PAGE: 3 OF 4
COPY: 3 OF 4
C O P Y
PROJECT: 1102

WORK ORDER: 5233D-88

*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

SAMPLE NUMBER	FIRE ASSAY	FIRE ASSAY
	AU PPB	AG PPM
128365	<2.0	0.16
128366	2.0	0.2
128367	<2.0	0.82
128368	<2.0	0.27
128369	<2.0	0.69
128370	2.0	0.17
128371	2.0	0.59
128372	116.0	0.35
128373	2.0	0.8
128374	2.0	0.12
128375	2.0	2.0

DDH 88-23

DDH 88-13

BARRINGER MAGENTA
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PHONE: (403) 250-1901

AUTHORITY: P. MAHEUX

AURUM GEOLOGICAL CONSULT
P.O. BOX 5179
WHITEHORSE, YUKON

ATTN: P. MAHEUX

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

ASSAY
FIRE ASSAY
AG

SAMPLE NUMBER	OZ/TON
128320	4.7025
128321	1.805

SIGNED: _____

C. Douglas Read
C. Douglas Read,
LABORATORY MANAGER

ORIGINAL TO:
AURUM GEOLOGICAL CONSULTANTS
VANCOUVER, B.C. V6R 1N2
T. GARAGAN

BARRINGER
Laboratories (NWT) Ltd.

P.O. BOX 864, YELLOWKNIFE, NWT, CANADA X1A 2N6
PHONE: (403) 920-4500

09-AUG-88

PAGE: 4 OF 4

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C O F Y

PROJECT: 1102

WORK ORDER: 5233D-88

*** FINAL REPORT ***

FOOTNOTES:

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

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Laboratories (Alberta) Ltd.

4200B - 10 STREET N.E., CALGARY, ALBERTA, CANADA T2E 6K3
PHONE: (403) 250-1901

AUTHORITY: P. MAHEUX

AURUM CONSULTANTS
BOX 5179
WHITEHORSE, YUKON

ATTN: P. MAHEUX

BARRINGER
Laboratories (NWT) Ltd.

P.O. BOX 864, YELLOWKNIFE, NWT, CANADA X1A 2N6
PHONE: (403) 920-4500

23-AUG-88
PAGE: 1 OF 7
COPY: 3 OF 4
C O P Y
PROJECT: 1102

WORK ORDER: 5258D-88

*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: ROCK

S A M P L E N U M B E R	FIRE ASSAY	FIRE ASSAY
	AU PPB	AG PPM
128376	<2.0	0.59
128377	3.0	0.15
128378	2.0	1.72
128379	2.0	1.43
128380	5.0	2.0
128381	106.0	1.06
128382	81.0	0.48
128383	40.0	0.9
128384	2.0	0.59
128385	2.0	0.8
128386	2.0	0.55
128387	5.0	0.45
128388	2.0	0.28
128389	3.0	0.52
128390	3.0	0.56
128391	<2.0	0.44
128392	2.0	0.72
128393	2.0	0.71
128394	3.0	0.44
128395	2.0	0.27
128396	2.0	0.53
128397	2.0	0.47
128398	3.0	0.4
8266005	2.0	0.25
8266006	3.0	0.23
8266007	3.0	0.29
8266008	3.0	0.57
8216031	11.0	5.2
8216032	3.0	2.6
8216033	3.0	3.06

DDH 82-04

Appendix B: Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, Lori A. Walton with business address:

Aurum Geological Consultants Inc.
604 675 West Hastings Street
Vancouver, B.C.

do hereby certify that:

1. I am a practicing geologist.
2. I hold a Bachelor of Science (Specialization) Degree (1982) from the University of Alberta.
3. I hold a Master of Science Degree (1987) from the University of Alberta.
4. I am a member of the Yukon Professional Geoscientists Society.
5. I have been working in the field of mineral exploration since May of 1980.
6. I have no interest in the claims nor do I expect to obtain any.
7. I consent to the use of this report in a company report or statement, provided that no portion is used out of context in such a manner as to convey a meaning differing materially from that set out in the whole.

DATED at Whitehorse, Yukon, this 13th day of December 1988.

Lori Walton

Lori A. Walton, M.Sc.

Appendix C: Statement of Costs

Statement of Costs

Contract Services

Caron Diamond Drilling:

Diamond Drill Holes 88-1 to 88-7
(SAID 9 Claim) \$216,875.55

Diamond Drill Hole 88-8
(THE 17 Claim) \$ 27,272.40

M.J. Moreau Enterprises Ltd.:
Blasting \$ 16,171.97

Total Value of 1988 Assessment Work \$260,319.92

8

403 428 8862 P.T.X.

09/16/88 10:35 002

08/06/1988 18:23 E Caron Diamond Drilling

1 403 6694520 P.05



E. CARON DIAMOND DRILLING LTD.

7 Roundel Road Whitenorse, Yukon Y1A 3H3

Phone (403) 668-2424 Telex 038-8-337

July 31, 1988
 Invoice #-2451
 Tractor: D-7E

IN ACCOUNT WITH:

Pacific Trans-Ocean Resources Ltd.
 *1500, 10250 - 101 Street,
 Edmonton, Alberta
 T5J 3P4

Tractor Charges July 16 to 31, 1988: (Wheaton River)

Tractor D-7

4 machine hrs. @ \$130.00 per hr. = \$ 520.00

Tractor D-6

138 machine hrs. @ \$100.00 per hr. = \$13,800.00 \$14,320.00

Trans North Air

Invoice # 80846 = \$ 546.30

* 82862 = \$ 470.40

\$ 1,016.70

Mud Shipped to Job

July 25/88

120 bags Quik Gel @ \$15.00 each = \$ 1,800.00

60 bags Quik Trol @ \$15.00 each = \$ 900.00

July 29/88

50 bags Quik Gel @ \$15.00 each = \$ 750.00

30 bags Quik Trol @ \$15.00 each = \$ 750.00

6 bags Calcium @ \$56.00 each = \$ 336.00 \$ 4,536.00

Propane for Waterline —

5 refills @ \$51.00 each =

\$ 255.00

*No
 5-20
 section
 1% Fuel
 oil control*

Truck Trips

July 29/88

1 Ton with mud @ \$300.00 per trip = \$ 300.00

July 30/88

1 ton with propane @ \$300.00 per trip = \$ 300.00

June 28/88

1 Ton with lumber @ \$300.00 per trip = \$ 300.00

June 29/88

1 Ton with lumber @ \$300.00 per trip = \$ 300.00 \$ 1,200.00





E. CARON DIAMOND DRILLING LTD.

7 Roundel Road Whitehorse, Yukon Y1A 3H3

Phone (403) 668-2424 Telex 031

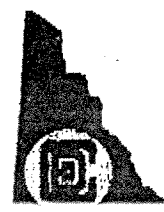
Lumber for Camp

1 14x16 Tent frame (kitchen)		- \$1,575.00	
1 10x12 tent frame		- \$1,100.00	
12 - 16 ft. 2x8	@ \$12.10 each	- \$ 145.20	
12 - 16 ft. 2x4	@ \$5.70 each	- \$ 68.40	\$ 2,888.60
Total Invoice			<u>\$24,216.30</u>

Meal charges for over two people will be charged on next invoice.

Caron Invoices

#	Date	amount	Notes
2941	15-Aug	95,300	
2499	15-Aug	23,400	- Fuel 1/2, Med + prof = 1/2
2443	15-Jul	29,380	
2444	15-Jul	34,390	
2451	31-Jul	24,220	
2450	31-Jul	50,050	
2521	31-Aug	4,124	- meal charges
2500	31-Aug	37,460	
Total		248,310	- ① + demob cost not received as yet.





E. CARON DIAMOND DRILLING LTD.

7 Roundel Road Whitehorse, Yukon Y1A 3H3

Phone (403) 668-2424 Telex 038-8-337

Reaming Cave

129 man hrs.	@ \$32.00 per hr.	= \$4,128.00	
64.5 machine hrs.	@ \$21.00 per hr.	= \$1,354.50	\$ 5,482.50

Condition Hole (mud)

38 man hrs.	@ \$32.00 per hr.	= \$1,216.00	
19 machine hrs.	@ \$21.00 per hr.	= \$ 399.00	\$ 1,615.00

Coring

13 - 268 = 255 ft.	@ \$32.00 per ft.	= \$8,160.00	
268 - 454 = 186 ft.	@ \$30.00 per ft.	= \$5,580.00	\$13,740.00
			\$23,191.50

Hole: #88-04/-78/HWLMoving

36 man hrs.	@ \$32.00 per hr.	*	\$ 1,152.00
-------------	-------------------	---	-------------

Casing

11 man hrs.	@ \$32.00 per hr.	= \$ 352.00	
5.5 machine hrs.	@ \$21.00 per hr.	= \$ 115.50	\$ 467.50

Waterline

4 man hrs.	@ \$32.00 per hr.	-	\$ 128.00
------------	-------------------	---	-----------

Condition Hole (mud)

11 man hrs.	@ \$32.00 per hr.	= \$ 352.00	
5.5 machine hrs.	@ \$21.00 per hr.	= \$ 115.50	\$ 467.50

Casing

0 - 15 = 15 ft.	@ \$32.00 per ft.	*	\$ 480.00
-----------------	-------------------	---	-----------

Coring

15 - 109 = 94 ft.	@ \$32.00 per ft.	*	\$ 3,008.00
			\$ 5,703.00

Items Consumed & ChargeableHole: 88-02

4 - 10 ft. HWL rods	@ \$216.00 each	= \$ 864.00	
4 - 10 ft. NQ rods	@ \$160.40 each	= \$ 641.60	
1 NQ shell	@ \$380.65 each	= \$ 380.65	
1 NQ bit	@ \$603.60 each	= \$ 603.60	
1 NQ outer tube	@ \$144.80 each	= \$ 144.80	
1 Wedge	@ \$472.00 each	= \$ 472.00	
1 HWL Core Barrel complete with Inner tube	@ \$1,950.00 each	= \$1,950.00	\$5,056.65

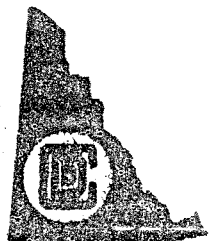
Hole: #88-03

5 - 10 ft. HWL rods	@ \$216.00 each	= \$1,080.00	
24 - 10 ft NQ rods	@ \$160.40 each	= \$3,849.60	
2 NW casing shoes	@ \$398.40 each	= \$ 796.80	
8 - 2 ft. HW casing	@ \$80.50 each	= \$ 644.00	
1 HW casing shoe	@ \$440.40 each	= \$ 440.40	
1 NQ bit	@ \$603.60 each	= \$ 603.60	\$7,414.40

Hole: #88-04

1 - 10 ft. HWL rod	@ \$216.00 each	=	\$ 216.00
			\$12,687.05

Total Invoice

\$50,054.05



E. CARON DIAMOND DRILLING LTD.

7 Roundel Road Whitehorse, Yukon Y1A 3H3

Phone (403) 668-2424 Telex 036-8-337

August 15, 1988

Invoice #-2491

Drill #-4

IN ACCOUNT WITH:

Pacific Trans-Ocean Resources Ltd
1500, 10250 - 101 Street,
Edmonton, Alberta
T5J3P4

Drilling Charges August 1 to 15, 1988:

(Wheaton River)

Hole # 88-04 / -78 / HQ + NOMoving

2 man hrs. @ \$32.00 per hr. = \$ 64.00

Drilling (Reduce)

12 man hrs. @ \$32.00 per hr. = \$ 384.00

6 machine hrs. @ \$21.00 per hr. = \$ 126.00 \$ 510.00

Casing

20 man hrs. @ \$32.00 per hr. = \$ 640.00

10 machine hrs. @ \$21.00 per hr. = \$ 210.50 \$ 850.00

Conditioning Hole (mud)

47 man hrs. @ \$32.00 per hr. = \$1,504.00

23.5 machine hrs. @ \$21.00 per hr. = \$ 493.50 1,997.50

Testing

2 man hrs. @ \$32.00 per hr. = \$ 64.00

1 machine hrs. @ \$21.00 per hr. = \$ 21.00 \$ 85.00

Coring

109 - 206 = 97 ft. @ \$32.00 per ft. = \$3,104.00

206 - 521 = 315 @ \$30.00 per ft. = \$9,450.00 \$12,554.00 \$ 16,060.50

Hole: #88-05/-84/HWL-NOMoving

44 man hrs. @ \$32.00 per hr. = \$ 1,408.00

Drilling (Reduce)

2 man hrs. @ \$32.00 per hr. = \$ 64.00

1 machine hrs. @ \$21.00 per hr. = \$ 21.00 \$ 85.00

Reaming Casing

35 man hrs. @ \$32.00 per hr. = \$1,120.00

17.5 machine hrs. @ \$21.00 per hr. = \$ 367.50 \$ 1,487.50

Condition Hole (mud)

15 man hrs. @ \$32.00 per hr. = \$ 480.00

7.5 machine hrs. @ \$21.00 per hr. = \$ 157.50 \$ 637.50

Tap & Drill Bit

23 man hrs. @ \$32.00 per hr. = \$ 736.00

11.5 machine hrs. @ \$21.00 per hr. = \$ 241.50 \$ 977.50





E. CARON DIAMOND DRILLING LTD.

7 Roundel Road Whitehorse, Yukon Y1A 3H3

Phone (403) 668-2424 Telex 036-8-337

Casing
 0 - 6 = 6 ft. @ \$32.00 per ft. = \$ 192.00
Coring
 6 - 40 = 34 ft. @ \$32.00 per ft. = \$1,088.00
 40 - 130 = 90 ft. @ \$30.00 per ft. = \$2,700.00 \$ 3,788.00 \$ 8,575.50

Hole: #88-06/-90/HWL

Moving
 3 man hrs. @ \$32.00 per hr. = \$ 96.00
Casing
 0 - 4 = 4 ft. @ \$32.00 per ft. = \$ 128.00
Coring
 4 - 20 = 16 ft. @ \$32.00 per ft. = \$ 512.00 \$ 736.00

Hole: #88-07/82/HWL + NQ

Moving
 13 man hrs. @ \$32.00 per hr. = \$ 416.00
Reaming Cave
 22 man hrs. @ \$32.00 per hr. = \$ 704.00
 11 machine hrs. @ \$21.00 per hr. = \$ 231.00 \$ 935.00
Conditioning Hole (mud)
 25 man hrs. @ \$32.00 per hr. = \$ 800.00
 12.5 machine Hrs. @ \$21.00 per hr. = \$ 262.50 \$ 1,062.50
Casing
 0 - 6 = 6 ft. @ \$32.00 per ft. = \$ 192.00
Coring
 6 - 138 = 132 ft. @ \$32.00 per ft. = \$ 4,224.00
 138 - 429 = 291 ft. @ \$30.00 per ft. = \$ 8,730.00 \$12,954.00 \$15,559.50

Items Consumed & Chargeable

Hole 88-05

2 NQ bits @ \$603.60 each = \$ 1,207.20
 1 NQ Reaming Shell @ \$380.65 each = \$ 380.65
 2 NQ bits @ \$603.50 each = \$ 1,207.00
 1 NQ rod @ \$160.40 each = \$ 160.40
 1 NQ shell @ \$380.65 each = \$ 380.65
 1-5 ft. Core Bar @ \$426.00 each = \$ 426.00

Hole: #88-07

1 NQ bit @ \$603.60 each = \$ 603.60 \$ 4,365.50

Total Invoice \$ 45,297.00

Mud, Meals, Truck Trips
 To follow on next invoice





August 29, 1988
Invoice #-2500
Drill #-4

IN ACCOUNT WITH

Pacific Trans-Ocean Resources Ltd
#1500, 10250 - 101 Street,
Edmonton, Alberta
T5J3P4

Drilling Charges August 16 to 29, 1988: (Wheaton River)

Hole # 88-7 / -82 / NQ

Moving

90 man hrs. @ \$32.00 per hr. = \$2,880.00

Drilling (Reduce)

13 man hrs @ \$32.00 per hr. = \$ 416.00

5 machine hrs @ \$21.00 per hr. = \$ 105.00 \$ 521.00

Reaming Casing

20 man hrs @ \$32.00 per hr. = \$ 640.00

10 machine hrs @ \$21.00 per hr. = \$ 210.50 \$ 850.00

Reaming Cave

70 man hrs @ \$32.00 per hr. = \$2,240.00

35 machine hrs @ \$21.00 per hr. = \$ 735.00 \$2,975.00

Conditioning Hole (mud)

6 man hrs @ \$32.00 per hr. = \$ 192.00

3 machine hrs @ \$21.00 per hr. = \$ 63.00 \$ 255.00

Washing Hole

26 man hrs @ \$32.00 per hr. = \$ 832.00

13 machine hrs @ \$21.00 per hr. = \$ 273.00 \$1,105.00

Coring

429 - 438 = 9 ft @ \$30.00 per ft. = \$ 270.00

438 - 453 = 15 @ \$28.00 per ft. = \$ 420.00 \$ 690.00 \$ 9,276.00

Hole #88-08/-81/HWL-NQ

Moving

37 man hrs @ \$32.00 per hr. = \$1,184.00

Drilling (Reduce)

6 man hrs @ \$32.00 per hr. = \$ 192.00

3 machine hrs @ \$21.00 per hr. = \$ 63.00 \$ 255.00

Reaming Casing

2 man hrs @ \$32.00 per hr. = \$ 64.00

1 machine hr @ \$21.00 per hr. = \$ 21.00 \$ 85.00

Reaming Cave

2 man hrs @ \$32.00 per hr. = \$ 64.00

1 machine hrs @ \$21.00 per hr. = \$ 21.00 \$ 85.00





E. CARON DIAMOND DRILLING LTD.

7 Roundel Road Whitehorse, Yukon Y1A 3H3

Phone (403) 668-2424 Telex 036-8-337

Waterline

41 man hrs. @ \$32.00 per hr. = \$1,312.00

Testing

2 man hrs. @ \$32.00 per hr. = \$ 64.00

1 machine hrs @ \$21.00 per hr. = \$ 21.00 \$ 85.00

Travelling Time

3 man hrs @ \$32.00 per hr. = \$ 96.00

Casing

0 - 5 = 5 ft. @ \$32.00 per ft. = \$ 160.00

Coring

5 - 150 = 145 ft. @ \$32.00 per ft. = \$4,640.00

150 - 781 = 631 ft. @ \$30.00 per ft. = \$18,930.00 \$23,570.00 \$26,832.00

Items Consumed & Chargeable

Hole 88-07

1 BQ bit (1y-1-53092) @ \$474.00 each = \$ 474.00

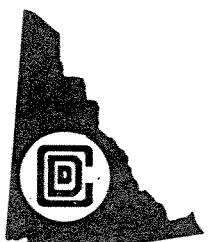
1 BQ Shell (1T7640) @ \$274.80 each = \$ 274.80

1 NQ rod @ \$160.40 each = \$ 160.40

Hole #88-08

1 HW shoe (Sh-411) @ \$440.40 each = \$ 440.40 \$ 1,349.60

Total Invoice \$37,457.60





August 15, 1988
Invoice #-2499
Tractor, D-7E & Misc

IN ACCOUNT WITH:

Pacific Trans-Ocean Resources Ltd.
#1500, 10250 - 101 Street,
Edmonton, Alberta
T5J3P4

Tractor & Misc. Charges August 1 to 15, 1988: (Wheaton River)

Tractor D-6--August 12

11 machine hrs @ \$100.00 per hr = \$1,100.00

Mud Shipped to Job

Aug/9/88

136 bags Quik Gel @ \$15.00 each = \$ 2,040.00

100 bags Quik Trol @ \$15.00 each = \$ 1,500.00

Aug/11/88

64 bags Quik Gel @ \$15.00 each = \$ 960.00

Aug/16/88

80 bags Quik Trol @ \$15.00 each = \$ 1,200.00

Aug/21/88

64 bags Quik gel @ \$15.00 each = \$ 960.00

40 bags Quik Trol @ \$15.00 each = \$ 600.00 \$7,260.00

Propane for Waterline

July 3 2 refills

July 8 7 refills

July 20 5 refills

July 29 4 refills

Aug 11 8 refills

Aug 14 4 refills

Aug 9 6 refills

36 refills @ \$51.00 each = \$1,836.00

Truck Trips

July 25/88

Mack with mud @ \$1,000.00 per trip = \$1,000.00

Aug 9 /88

1 Ton with mud @ \$300.00 per trip = \$ 300.00

Aug 21/88

1 Ton with mud @ \$300.00 per trip = \$ 300.00 \$1,600.00





E. CARON DIAMOND DRILLING LTD.

7 Roundel Road Whitehorse, Yukon Y1A 3H3

Phone (403) 668-2424 Telex 036-8-337

Meals

July 1 to August 3/88

171 days @ \$50.00 per day = \$8,550.00

August 4 to 15/88

61 days @ \$50.00 per day = \$3,050.00 \$11,600.00

Total Invoice \$23,396.00





July 15, 1988
Invoice #-2444
Drill #-4

IN ACCOUNT WITH:

Pacific Trans-Ocean Resources Ltd
#1500, 10250 - 101 Street,
Edmonton, Alberta
T5J3P4

Drilling Charges June 28 to July 15, 1988: (Wheaton River)

Hole # B-88-2 / -50 / HWL / NQ-BQ

Moving & Camp

92 man hrs. @ \$32.00 per hr. = \$2,944.00

Triconing

6 man hrs. @ \$32.00 per hr. = \$ 192.00

3 machine hrs. @ \$21.00 per hr. = \$ 63.00 \$ 255.00

Reaming Casing

60 man hrs. @ \$32.00 per hr. = \$1,920.00

30 machine hrs. @ \$21.00 per hr. = \$ 630.00 \$2,550.00

Reaming Cave

28 man hrs. @ \$32.00 per hr. = \$ 896.00

14 machine hrs. @ \$21.00 per hr. = \$ 294.00 \$1,190.00

Waterline

16 man hrs. @ \$32.00 per hr. = \$ 512.00

Conditioning Hole

16 man hrs. @ \$32.00 per hr. = \$ 512.00

8 machine hrs. @ \$21.00 per hr. = \$ 168.00 \$ 680.00

Stuck Rods

20 man hrs. @ \$32.00 per hr. = \$ 640.00

10 machine hrs. @ \$21.00 per hr. = \$ 210.00 \$ 850.00

Casing

0 - 4 = 4 ft. @ \$32.00 per ft. = \$ 128.00

4 - 8 = 4 ft. @ \$30.00 per ft. = \$ 120.00 \$ 248.00

Coring

8 - 202 = 194 ft. @ \$30.00 per ft. = \$5,820.00 \$15,049.00

Working on Camp

86 man hrs. @ \$32.00 per hr. = \$2,752.00

July 2/88 - Truck Trip

10 truck hrs. @ \$95.00 per hr. = \$ 950.00

10 man hrs. @ \$32.00 per hr. = \$ 320.00

July 3/88 - Truck Trip

14 hrs. @ \$95.00 per hr. = \$1,330.00

14 man hrs. @ \$32.00 per hr. = \$ 448.00 \$ 5,800.00





Truck Trips

June 21/88

5-Ton 13 hrs.	@ \$30.00 per hr.	= \$ 390.00	
13 man hrs.	@ \$32.00 per hr.	= \$ 416.00	
1-Ton 13 hrs.	@ \$20.00 per hr.	= \$ 260.00	
13 man hrs.	@ \$32.00 per hr.	= \$ 416.00	

June 22/88

1-Ton 11 hrs.	@ \$20.00 per hr.	= \$ 220.00	
19 man hrs.	@ \$32.00 per hr.	= \$ 608.00	

June 23/88

1-Ton 4 hrs.	@ \$20.00 per hr.	= \$ 80.00	
11 man hrs.	@ \$32.00 per hr.	= \$ 352.00	

July 2/88

1 Mack Trip with fuel	@ \$1,000.00 per trip	= \$1,000.00	
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July 3/88

1-Ton Trip	@ \$300.00 per trip	= \$ 300.00	
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July 11/88

1-Ton 6 hrs.	@ \$20.00 per hr.	= \$ 120.00	
6 man hrs.	@ \$32.00 per hr.	= \$ 192.00	

July 12/88

1-Ton 7 hrs.	@ \$20.00 per hr.	= \$ 140.00	
7 man hrs.	@ \$32.00 per hr.	= \$ 224.00	

July 14/88

1-Ton Trip with gas	@ \$300.00 per hr.	= \$ 300.00	
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July 15/88

1-Ton 15 hrs.	@ \$32.00 per hr.	= \$ 480.00	\$ 5,498.00
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Mud Shipped to Job

64 bags Calcium	@ \$56.00 each	= \$3,584.00	
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July 2/88

60 bags Mud	@ \$15.00 each	= \$ 900.00	
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6 pails DD-2200	@ \$130.00 each	= \$ 780.00	
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60 bags Quik Trol	@ \$15.00 each	= \$ 900.00	
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3 bags Baro Seal	@ \$40.00 each	= \$ 120.00	
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July 3/88

2 pails rod grease	@ \$66.50 each	= \$ 133.00	
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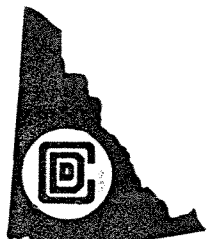
July 9/88

20 bags Calcium	@ \$56.00 each	= \$1,120.00	
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6 bags Baro Seal	@ \$40.00 each	= \$ 240.00	
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4 pails rod grease	@ \$66.50 each	= \$ 266.00	\$ 8,043.00
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Total Invoice \$34,390.00





E. CARON DIAMOND DRILLING LTD.

7 Roundel Road Whitehorse, Yukon Y1A 3H3

Phone (403) 668-2424 Telex 036-8-337

July 15, 1988
Invoice #-2443
Tractor: D-7E

IN ACCOUNT WITH:

Pacific Trans-Ocean Resources Ltd.
*1500, 10250 - 101 Street,
Edmonton, Alberta
T5J 3P4

Tractor Charges June 18 to July 15, 1988: (Wheaton River))

June 18-30/88

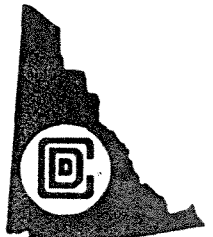
<u>Tractor D-7</u>				
41.5 machine hrs.	@ \$130.00 per hr.	=	\$5,395.00	
<u>Tractor D-6</u>				
69 machine hrs.	@ \$100.00 per hr.	=	\$6,900.00	
<u>Travelling Time</u>				
1.5 man hrs.	@ \$32.00 per hr.	=	\$ 48.00	
<u>Working on Camp</u>				
6 man hrs.	@ \$32.00 per hr.	=	\$ 192.00	\$12,535.00

July 1-15/88

<u>Tractor D-7</u>				
129 machine hrs.	@ \$130.00 per hr.	=	\$16,770.00	
<u>Working on Camp</u>				
1 man hr.	@ \$32.00 per hr.	=	\$ 32.00	\$16,802.00

Total Invoice \$29,337.00

~~Charges to follow~~
~~for stuck cost.~~





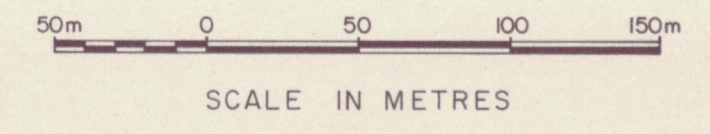
TRENCH VOLUME CALCULATIONS
 TRENCH 88-6 35m x 4m x 1m = 140m³
 TRENCH 88-7 35m x 4m x 1m = 140m³

LEGEND

- LITHOLOGIES
- TERTIARY: MOUNT SKUKUM GROUP
- 13 rhyolite, dacite dykes
 - 12 andesite dykes
 - 11 andesite flows, minor tuff, minor dacite, 11a; andesite tuffs
 - 10 dacite tuff, light green well bedded ash and lapilli tuffs, some interlayered epiclastics
 - 9 dacite lithic lapilli tuff - clast dominated ash flows
 - 8 rhyolite, maroon and grey; tan, flow banded, brecciated
 - 7 rhyolite ash tuff, platy, light brown
 - 6 rhyolite welded tuff to densely welded tuff similar to unit 4, dark purple to pink
 - 5 rhyolite ash flows tuffs - lithic lapilli tuffs with up to 5% granodiorite clasts
 - 4 rhyolite welded tuff to densely welded tuff with up to 5% granodiorite clasts, dark purple
- JURASSIC to CRETACEOUS
- 3 granodiorite
 - 2 diorite
- PROTEROZOIC
- 1 YUKON GROUP - amphibolite

092643

- SYMBOLS
- geological contact (defined, assumed)
 - fault
 - bedding, inclined
 - jointing, inclined
 - outcrop & subcrop area
 - bleached & clay rich soil
 - malachite stained boulders
 - 1987 quartz, quartz-calcite, quartz-fluorite vein float
 - 1988 quartz, quartz-calcite, quartz-fluorite vein float
 - 1986 trench
 - 1988 trench boundary, with number
 - 1986 drill collar location
 - claim post location, with claim number and grant number
 - 4WD road
 - picketed & slope corrected grid (wing lines every 25m)
 - snow & ice, semi-permanent



PACIFIC TRANS - OCEAN RESOURCES LTD.
 SAID - THE CLAIMS
 WHITEHORSE MINING DISTRICT

L 5 N to L 23 N
 GEOLOGY

537

Aurum Geological Consultants Inc. SEPTEMBER, 1988
 NTS 105D/386 DRAWN BY TAG/PJM SCALE 1:2,500 FIGURE 5

LEGEND

LITHOLOGIES

TERTIARY: MOUNT SKUKUM GROUP

- 13 rhyolite, dacite dykes
- 12 andesite dykes
- 11 andesite flows, minor tuff, minor dacite, 11a; andesite tuffs
- 10 dacite tuff, light green well bedded ash and lapilli tuffs, some interlayered epiclastics
- 9 dacite lithic lapilli tuff: clast dominated ash flows
- 8 rhyolite, maroon and grey, tan, flow banded, brecciated
- 7 rhyolite ash tuff, platy, light brown
- 6 rhyolite welded tuff to densely welded tuff similar to unit 4, dark purple to pink
- 5 rhyolite ash flows tuffs - lithic lapilli tuffs with up to 5% granodiorite clasts
- 4 rhyolite welded tuff to densely welded tuff with up to 5% granodiorite clasts, dark purple

JURASSIC to CRETACEOUS

- 3 granodiorite
- 2 diorite

PROTEROZOIC

- 1 YUKON GROUP: amphibolite

SYMBOLS

- geological contact (defined, assumed)
- fault
- bedding, inclined
- jointing, inclined
- outcrop & subcrop area
- bleached & clay rich soil
- quartz, quartz-calcite, quartz-fluorite vein float
- trench (1986)
- 1988 trench boundary, with trench number
- 1986 drill collar location
- 1988 diamond drill hole vein and/or shear intersection significant mineralization/vein geochemical analyses/Au ppb, Ag ppm
- drill pad with number
- picketed & slope corrected grid (wing lines every 25m)
- cat road
- snow & ice, semi-permanent

092643

50m 0 50 100 150m
METRES

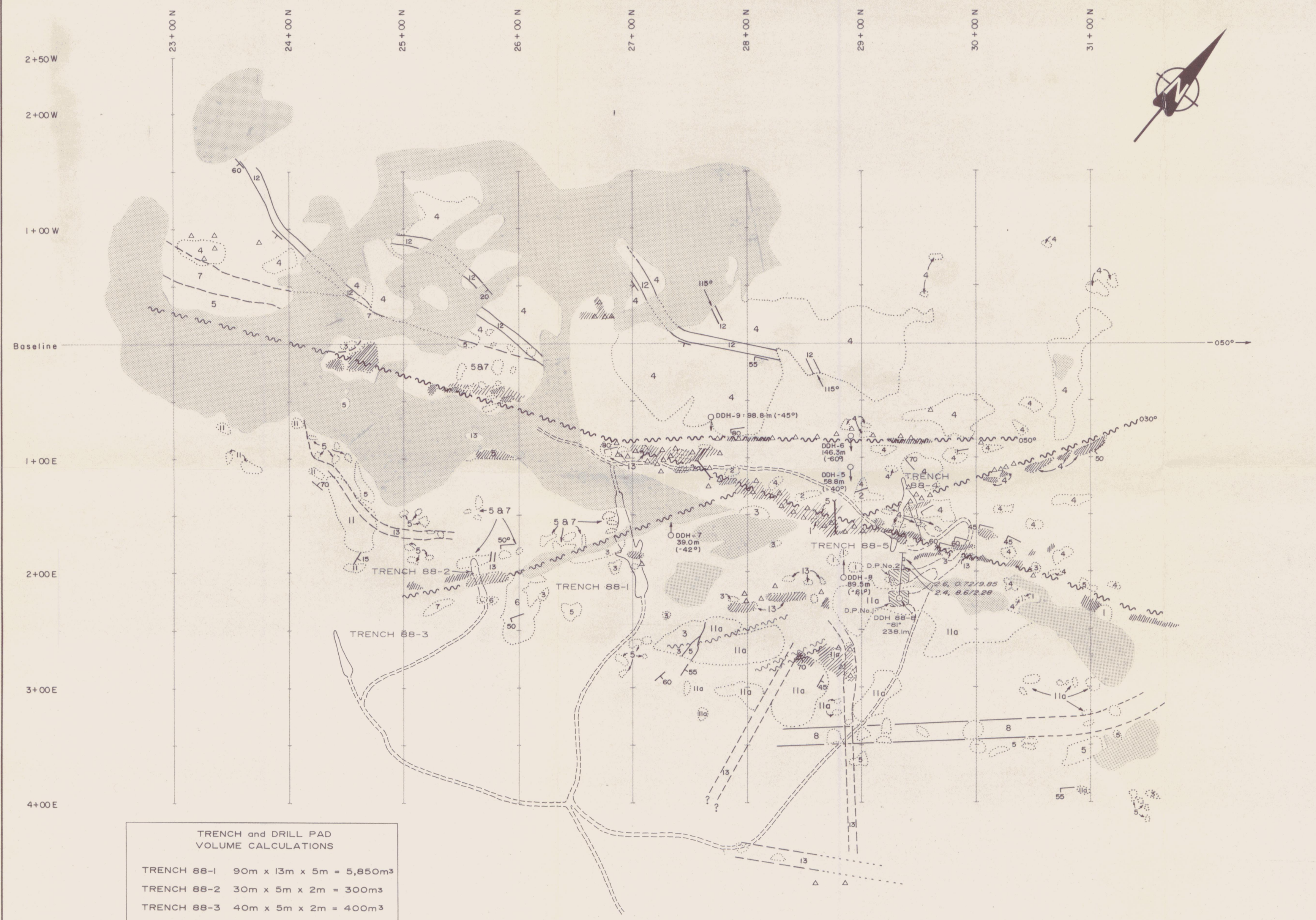
PACIFIC TRANS - OCEAN RESOURCES LTD.

SAID - THE CLAIMS
WHITEHORSE MINING DISTRICT

NE ZONE
L23N to L31N
GEOLOGY

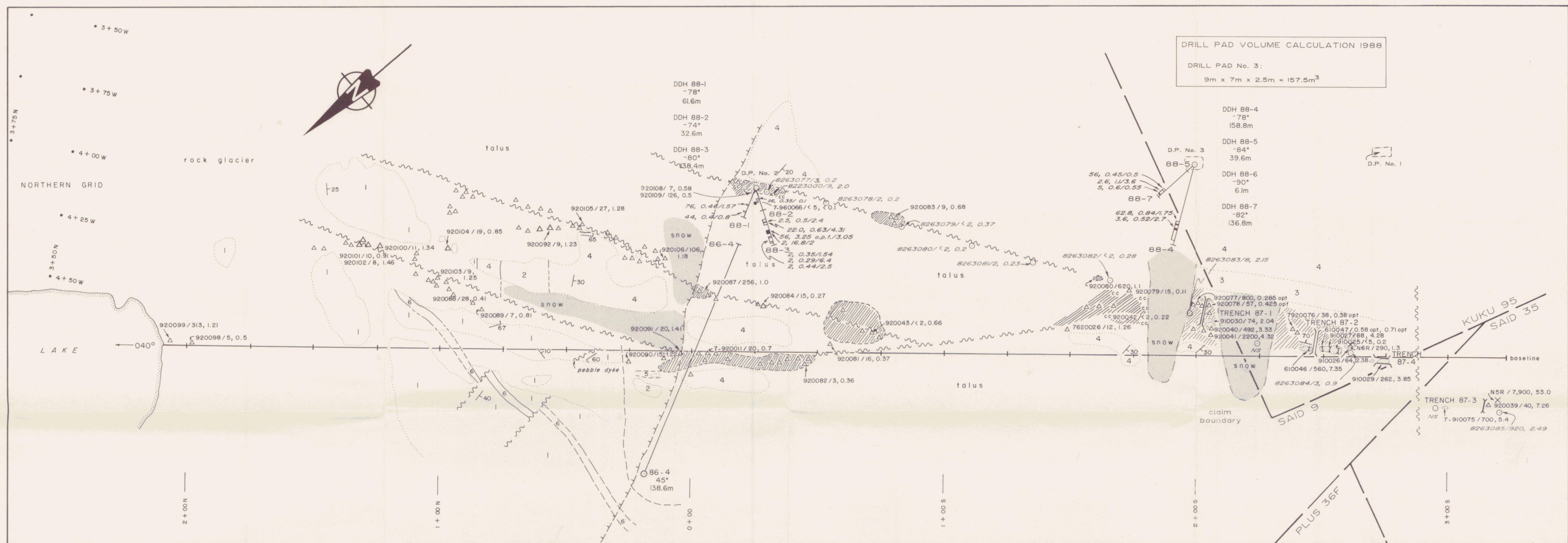
536

Aurum Geological Consultants Inc. SEPTEMBER, 1988
NTS 105 D/386 DRAWN BY TAG/PJM SCALE 1:2,500 FIGURE : 6



TRENCH and DRILL PAD VOLUME CALCULATIONS

TRENCH 88-1	90m x 13m x 5m = 5,850m ³
TRENCH 88-2	30m x 5m x 2m = 300m ³
TRENCH 88-3	40m x 5m x 2m = 400m ³
TRENCH 88-4	45m x 5m x 3m = 675m ³
TRENCH 88-5	60m x 5m x 3m = 900m ³
DRILL PAD No. 1	16m x 14m x 2m = 448m ³
DRILL PAD No. 2	16m x 14m x 2m = 448m ³



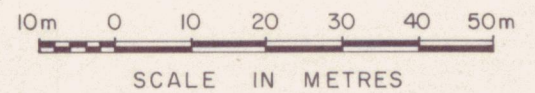
DRILL PAD VOLUME CALCULATION 1988
 DRILL PAD No. 3:
 9m x 7m x 2.5m = 157.5m³

LEGEND

- LITHOLOGIES**
- TERTIARY**
- 6 feldspar porphyritic dacite dyke
 - 5 andesite dyke, dark green
 - 4 bedded ash tuffs, lapilli tuffs and epiclastic sediments
 - 3 andesite flows, feldspar porphyritic
 - 2 rhyolite breccia with abundant angular flow banded rhyolite clasts
 - 1 welded tuff, purple and green with locally up to 15% subrounded granodiorite clasts and 10% feldspar crystals

- SYMBOLS**
- geological contact (defined, assumed)
 - fault
 - bedding, inclined (also attitude of vein)
 - jointing, inclined
 - zone of clays in soil and outcrop
 - vein outcrop
 - narrow veins
 - quartz vein float
 - calcite vein float
 - outcrop
 - 1986 BQ diamond drill hole, number, dip, length
 - blasted drill pad
 - grid baseline
 - ridge
 - rock chip sample: sample no./ Au (ppb), Ag (ppm) unless otherwise indicated
 - rock grab sample (float): sample no./ Au (ppb), Ag (ppm) unless otherwise indicated
 - 1987 soil sample/Au(ppb), Ag(ppm)
 - 1986 sample / Au(ppb), Ag(ppm)
 - 1987 trench locations

- 1988 diamond drill hole, number, dip, length
- vein and/or shear intersection
- significant mineralization (veining)
- end of diamond drill hole and number
- geochemical analyses Au ppb, Ag ppm/ metres
- claim boundary (Underhill & Underhill, 1988 Survey)
- 1988 soil sample location, sample number/ Au ppb, Ag ppm
- 1988 rock (grab) sample, sample number/ Au ppb, Ag ppm
- no sample taken



PACIFIC TRANS-OCEAN RESOURCES LTD.
 SAID - THE CLAIMS

FAR SW ZONE
 GEOLOGY & ROCK GEOCHEMISTRY

Aurum Geological Consultants Inc. SEPTEMBER, 1988
 NTS 105 D/3 DRAWN BY TAG/NH SCALE 1:1,000 FIGURE: 8

ROCK GEOCHEMISTRY
TRENCH 88-5

SAMPLE No.	INTERVAL	Au (ppb)	Ag (ppm)
8216015	1m	3	0.29
8216016	1m	4	0.33
8216017	1m	2	0.13
8216018	1m	2	0.24
8216019	1m	2	0.34
8216020	1m	3	0.19
8216021	1m	2	1.25
8216022	1m	2	1.6
8216023	1m	2	0.53
8216024	1m	4	1.6
8216025	1m	3	3.25
8216026	1m	3	3.05
8216027	1.15m	3	1.97
8216028	0.73m	3	1.84
8216029	0.62m	6	3.25
8216030	0.70m	9	3.4
8216009	1.15m	2	5.66
8216010	1.15m	2	0.9
8216038	1m	2	2.32
8216039	1m	5	1.86
8216040	1m	5	5.2
8216041	1m	3	1.6
8216042	1m	4	1.6
8216043	1m	2	1.03
8216044	1m	2	1.6
8216045	1m	2	2.42
8216046	1m	5	3.6
8216047	1m	5	2.7
8216048	1m	2	0.81
8216049	1m	2	1.14
8216050	1m composite	2	1.32
8216051	1m composite	3	0.73
8216052	1m composite	2	0.13
8216053	1m composite	2	0.12
8216054	1m composite	2	0.3
8216055	1m composite	3	0.48
8216056	1m composite	2	0.3
8216057	1m	3	0.4
8216058	1m	5	1.1
8216059	1m	3	0.17
8216060	1m	2	0.39
8216061	1m	3	0.24
8216062	1m	3	0.56
8216063	1m	2	0.4
8216064	1m	2	0.96
8216065	1m composite	2	0.53
8216066	1m composite	2	0.75
8216067	1m	2	0.6
8216068	1m	80	0.86
8216069	1m composite	3	0.43
8216070	1m composite	5	0.15
8216071	1m composite	2	0.63
8216072	1m	3	0.64
8216073	1m	4	0.19
8216006	grab	44	3.6
8216007	grab	42	6.2
8216008	grab	61	4.45
8216009	grab	83	4.35

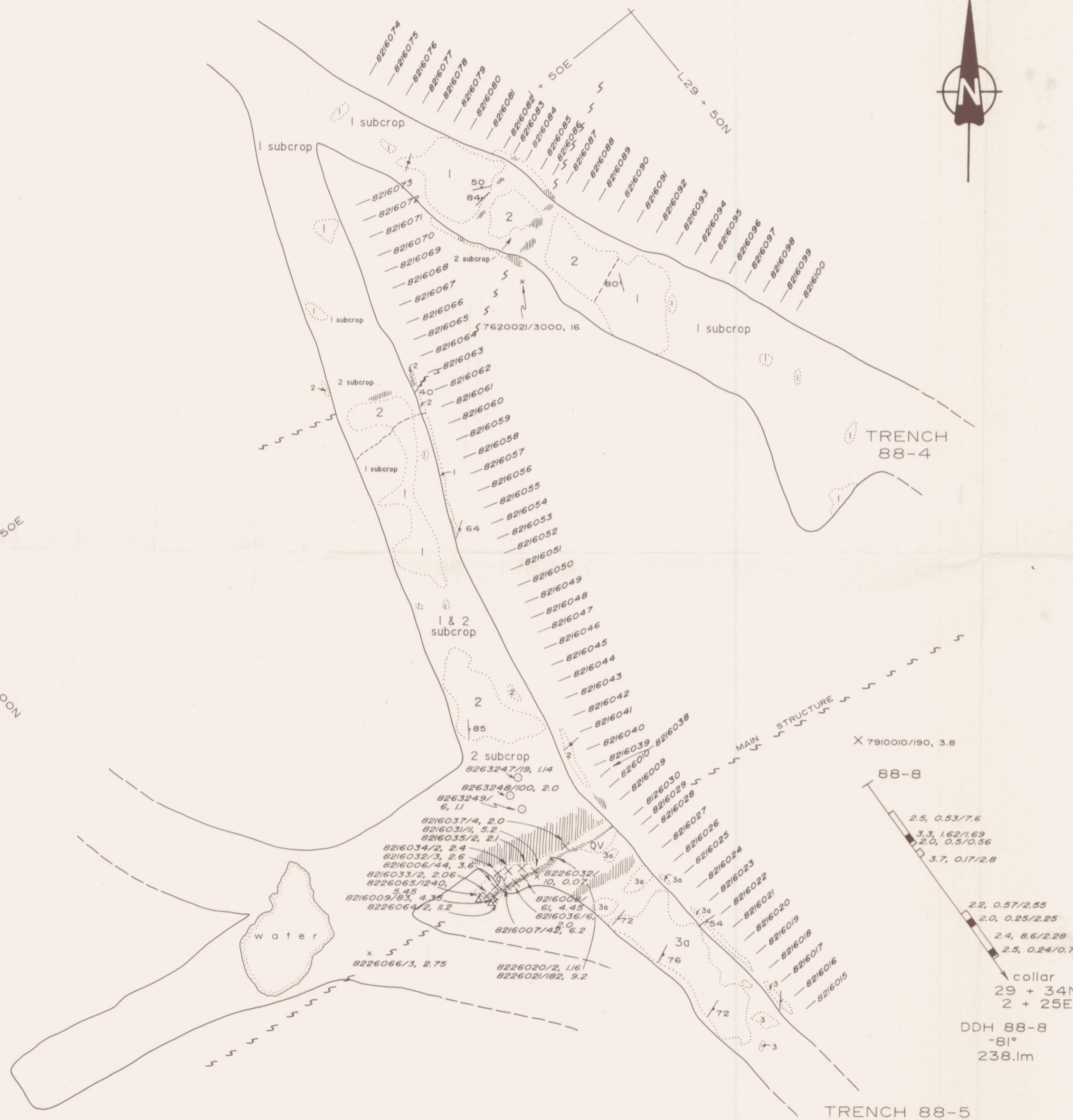
TRENCH 88-4

SAMPLE No.	INTERVAL	Au (ppb)	Ag (ppm)
8216074	1m	2	0.11
8216075	1m composite	2	0.1
8216076	1m composite	8	0.33
8216077	1m	3	0.27
8216078	1m	2	0.72
8216079	1m	5	0.67
8216080	1m	4	0.78
8216081	1m	5	1.06
8216082	1m	2	0.61
8216083	0.3m	2	0.8
8216084	1.2m	2	0.59
8216085	0.7m	2	0.27
8216086	0.8m	2	0.85
8216087	1m	2	1.82
8216088	1m	2	0.43
8216089	1m	2	0.4
8216090	1m	2	1.34
8216091	1m	2	0.12
8216092	1m	13	0.81
8216093	1m	2	0.99
8216094	1m	3	0.38
8216095	1m	2	0.24
8216096	1m	2	0.69
8216097	1m composite	2	1.24
8216098	1m composite	2	0.58
8216099	1m	2	0.87
8216100	1m composite	2	1.08

TRENCH VOLUME CALCULATIONS

Trench 88-4 : 45m x 5m x 3m = 675m³

Trench 88-5 : 60m x 5m x 3m = 900m³



LEGEND

LITHOLOGIES

TERTIARY
EOCENE

- 3 clay altered rhyolite/dacite, 3a silicified
- 2 silicified rhyolite welded tuff ± minor quartz, mn veinlets and clay alteration
- 1 rhyolite welded tuff ± up to 1% granodiorite clasts, dark purple

SYMBOLS

- area of outcrop
- - - geological contact (approximate)
- 50 / jointing (inclined, vertical)
- ~ ~ ~ inferred approximate fault structure
- QV quartz veining (15-30%)
- rust-brown to red alteration in quartz vein
- clay gouge with up to 30% broken rock (unit 2 or 3a)
- △ quartz, quartz-fluorite vein float
- 8216057 chip sample location (location approximately middle of trench)
- X 8216034 / 2, 2.4 1988 rock sample location, sample number/Au ppb, Ag ppm
- x 8226064 / 2, 11.2 1988 float sample location, sample number/Au ppb, Ag ppm
- 8263248 / 100, 2.0 1988 soil sample location, sample number/Au ppb, Ag ppm
- X 7910010 / 190, 3.8 1987 rock sample location, sample number/Au ppb, Ag ppm
- x 7620021 / 3000, 16 1987 float sample location, sample number/Au ppb, Ag ppm
- 88-8 plan projection of termination of diamond drill hole 88-8
- vein and/or shear intersection
- significant mineralization/veining
- geochemical analyses, Au ppb, Ag ppm/metres



PACIFIC TRANS - OCEAN RESOURCES LTD.

THE CLAIMS
WHITEHORSE MINING DISTRICT

NE ZONE
GEOLOGY & GEOCHEMISTRY

538

Aurum Geological Consultants Inc. SEPTEMBER, 1988

NTS I05 D/3 DRAWN BY DP SCALE 1:200 FIGURE: 9