

APRIL
861067

Sample	SINGLE SAMPLE		DUPLICATE SAMPLE	
	Chemex 1981	Chemex 1982	Placer 1982	Placer 1982
J762	192		50	< 20
778	19	< 20	20	
779	1160	< 10	< 20	< 20
780	22		< 20	< 20
789	314	< 10	< 20	< 20
791	5	< 20	< 20	
809	1195		< 20	< 20
812	718	10	< 20	20
820	452	< 10	< 20; < 20	< 20
1099	10	< 10	< 20	
1100	8	< 10	20	
1101	6	< 10	< 20	
1177	206	< 10		
1181	1	< 10		
1182	54	< 10		
1184	29	< 10		
1229	91	< 10		
AM39 45	43		40	
427	18		20	
428	199	40	< 20	
429	82		< 20	
430	48		50	
431	27		70	
433	193	530	< 20	
434	39		< 20	
435	60		340; 70	
436	3		< 20	
437	44		20	
AM438	22		20	
429	33		30	
440	14		< 20	
441	5		< 20	
442	13		< 20	
466	345	60	250	
740	490	30	50	
741	10	< 10	< 20	
758	29	< 10		
759	25	< 10		
760	44	< 10	< 20	
761	11	< 10		
762	124	< 10	< 20	
781	13	< 10	< 20	
782	114	< 10	< 20	
800	33	20	< 20	
801	42	< 10	< 20	
802	79	< 10	< 20	
807	309	60	30	
908	172	< 10	90	
925	1590	< 10		

SINGLE SAMPLE

<u>SAMPLE</u>	<u>CHEMEX 1981</u>	<u>CHEMEX 1982</u>	<u>PLACER 1982</u>
Z 422	63	20	20
429	81	40	50; 45
443	187	130	220
445	57	20	20

CHECK ASSAYS V-168 APRIL

<u>Sample No.</u>	<u>Hole</u>	<u>Meterage</u>	<u>Geochemical Assays</u>			<u>Fire Assays</u>			
			<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
69841	7	99-102	1.43	1.47			0.75	1.76	2.39
842		-105	2.72	2.98			2.40	1.09	1.71
843		-108	2.86			2.81	2.95	2.63	1.16
844		-111	3.89			4.52	4.59	8.14	9.22
845		-114	0.27				0.82	0.23(0.23)	0.41
846		-117	0.97	1.17			0.89	3.49	1.78
847		117-120	1.14				1.30	0.96	1.37
69893	8	108-111	1.79	4.06	3.0	2.87	3.63	2.00	1.57
896		117-120	0.76	0.73	1.00	0.34	2.81		
898		123-126	0.55	2.92		3.49	1.30	3.23	3.79
901		132-135	5+		5+		4.32	3.08	3.08
902		135-138						1.05	0.96
906		147-150	1.02		1.09		0.62	0.94	1.50
907		150-153	5+		2.84	0.75	1.30	0.90	1.02
68707	11	72-75	1.00	0.93				0.68 (0.75)	1.06
708		75-78	1.84	1.66				1.13	2.06
68714		93-96	0.87	0.98				0.64	1.44
715		96-99	1.34	1.00				0.98	1.64
68793	13	3-6	1.70	1.89				1.91	2.60

CHECK ASSAYS V-168 APRIL

<u>Sample No.</u>	<u>Hole</u>	<u>Meterage</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
68854	14	30-33	8+				9.7 ✕	1.20	2.81
855		33-36	1.40	1.24 ✕				0.86	1.57
860		48-51	1.00	0.97 ✕				0.88 (0.98)	2.54
867		69-72	1.11	1.11 ✕				0.86	1.57
868		-75	6+	5+			4.5	3.26(4.43)	7.70
869		-78	7+	4+			7.5 ✕	6.90	8.23
68870		78-81	6+	4+			5.2	4.91	6.72
70621	17	126-129					20.28 ✕	9.15	9.46
622		129-132					2.12	2.89	3.50
70627	18	4.35-6.00	1.24					1.24	1.99
646		60-63	4.00					2.81	3.77

- Key
1. Placer - original geochem analysis
 2. Placer - Rerun geochem analysis
 3. Placer - rerun geochem analysis after rerolling original pulp
 4. Chemex - fire assay analysis
 5. General Testing - fire assay analysis
 6. Placer - fire assay after re-crushing and taking new split from rejects.
 7. General testing - fire assay after re-crushing and taking new split from reject

SPLIT "A"

SPLIT "B"

SAMPLE	PALMER → CHEMEX		GENERAL → PALMER		
69841	1.76	2.12	2.39	1.85	
842	1.09	1.71	1.71	1.23	
843	2.63	3.35	1.16	2.10	
844	8.14	7.81 7.87	9.22	8.90	8.45
845	0.23	0.34	0.41	0.13	
846	3.49	1.43	1.78	1.65	2.33
847	0.96	0.68	1.37	0.89	
69893	2.00	1.37	1.57	1.83	
898	3.23	2.12	3.79	3.00	3.00
901	3.08	3.08	3.08	3.00	3.00
902	1.05	1.16	0.96	1.13	
906	0.94	0.41	1.50	0.81	
907	0.90	0.68	1.02	0.81	
70621	9.15	9.59 9.45	9.46	8.53	9.60
622	2.89	2.67	3.50	2.48	
627	1.24	1.84	1.99	1.05	
646	2.81	3.22	3.77	2.58	
68707	0.68 (0.75)	0.82	1.06	0.59	
708	1.13	1.91	2.06	1.96	
714	0.64	1.02	1.44	0.55	
715	0.98	1.50	1.64	0.93	
793	1.91	1.78	2.60	1.98	
854	1.20	1.57	2.81	1.35	
855	0.86	1.43	1.57	0.93	
860	0.88 (0.98)	1.37	2.54	0.64	
867	0.86	1.84	1.57	0.74	
868	3.26 (4.43)	4.79 4.52	7.70	4.31	4.09
869	6.90	6.98 6.64	8.23	7.00	6.31
870	4.01	1.20 1.00	1.77	5.13	5.44

CHECK ASSAYING - Au
 APRIL PROPERTY V-168

March 25th, 1981

ppm (gms/t)

HOLE	FOOTAGE	SAMPLE	CHEMEX	PLACER
1	130-140	1613	3.48	3.84
	174-180.5	1618	.97	1.50
	200-210	1621	.36	.72
	210-220	1622	4.83	4.70
	220-230	1623	9.36	10.0
	230-240	1624	1.40	1.56
	240-250	1625	.79	.63
2	100-110	1646	2.81	2.60
	164-175	1653	.24	.53
	175-185	1654	2.20	2.61
	185-195	1655	.36	.22
3	75-85	1660	.79	.59
	85-95	1670	.91	.55
	158-165	1678	1.10	1.01
	190-200	1682	2.08	1.24
5	8-16	1757	.09	< .02
	26	58	.09	< .02
	36	59	.09	.07
	46	60	.09	< .02
	56	61	.09	< .02
	66	62	.09	.03
	66-76	63	.09	.02
	76-81	64	.09	.04
	91	65	.09	.03
	101	66	.09	.05
	111	67	.09	.03
	111-121	68	.09	.03
	121-132.6	69	.09	.02
	132.6-141	70	.09	< .02
	151	71	.09	.03
	161	1772	.09	.03
	161-171	1773	.09	.02
5	171-181	1774	.15	.06
	181-190.5	75	.09	< .02
	190.5-201	76	.09	< .02
	211	77	.09	.02
	221	78	.15	.06
	231	79	.09	.02
	241	1780	.09	.06
	251	81	.61	1.50
	261	82	.73	.68
	271	83	1.10	2.37
	281	84	21.18	20.2
	291	85	12.97	15.4

<u>HOLE</u>	<u>FOOTAGE</u>	<u>SAMPLE</u>	<u>CHEMEX</u>	<u>PLACER</u>
5	301	86	.67	.98
	311	87	.73	.47
	321	88	.55	1.17
	331	89	.55	.93
	311	1790	.09	.37
	341-350	91	.09	.14
	350-358.6	92	.09	.08
	358.6-371	93	.09	.07
	381	94	.09	.06
	391	95	.09	.07
	391-401	1796	.09	.04

NOTE: Placer assays in excess of 1 GM are actually fire assays done by General Testing.

Chemex uses a fire assay method.

W.S. Pentland

SAMPLE SHIPMENT MEMO

PLACER DEVELOPMENT LIMITED -RESEARCH CENTRE
323 ALEXANDER STREET VANCOUVER, B.C. V6A 1C4

Project / Venture : V-168 APRIL
NTS/UTM : 103 B-121
Date : APR 27 1971

Submitted by : _____
Shipped by / from : _____
Distribute results to : DCR ST VP

To R. Mower B. Wilson
Package No : _____ of _____

Assay Geochem Mer Test samples for the following : _____

COMPLETION DATE REQUESTED : _____

PLEASE LIST SAMPLES BELOW

- 01 - SOIL
- 02 - SILT
- 03 - WATER
- 04 - ROCK
- 05 - DRILL CORE

CODE	SAMPLE No.	CODE	SAMPLE No.	CODE	SAMPLE No.	CODE	SAMPLE No.	CODE	SAMPLE No.
04	70680-70689								
<p><i>B.H. - These are selected samples from the drill core & 2 grab samples from the shale area</i></p>									
	✓ 70680		DDH 8		133-64		133-90		
	✓ 70681		DDH 8		133-90		134-25		
	✓ 70682		DDH 8		133-05		133-64		
	✓ 70683		DDH 8		132-00		133-05		
	✓ 70684		DDH 8		134-25		135-00		
	✓ 70685		DDH 7		109-50		111-00		
	✓ 70686		DDH 7		103-68		103-93		
	✓ 70687		DDH 7		108-00		109-50		
	70688		Line 8		0190 S		6ft from shear		
	70689		Line 8		0190 S		6ft from N of shear		

No. Resampled Sections

Date

Page

① 108.00 109.50 Au = Geo (3.89) Fire (4.52)

Selected piece of partially altered RNEF - competent core with altered matrix

② 109.50 111.00 Au = Geo () Fire ()

Selected piece of well altered non-competent core - gangy with 20% clay in section.

③ 117.00 117.25 re-assay

117.00 120.00 Au = Geo (1.13) Fire ()

- short gangy section with .5 cm seams of graphite at 117.00 meters. Rest of section appears to be a Fine siliceous sediment with the section above being a fine sediment (siliceous) with indistinct fragments

④ 103.68 103.93 re-assay

102.00 105.00 Au = Geo (2.72) Fire ()

Gangy section in RNEF. - not particularly quartz flooded

Entire section is competent but has an altered matrix about the Rhyolitic fragments

No. Comments

Date

Page

#A

of note is that another section (102-105) has a gold assay of 2.72 ppm (geo) and also has a gangy section in it from 103.68 to 103.93

No. Possibly resample 132.00 → 135.00

Date D.D.H.B. Page
132-135 Au= 80 (5+) Fine (2.88)

No

Date Page

Sample 132.00 133.05

very gougy section of RWFF
some heavy py towards 132.00

Sample 133.05 133.64

very fine Seel(?) - dk grey
some py (Qtz/carb)

Sample 133.64 133.90

gougy lapilli to fragmental
chrysolite

Sample 133.90 134.25

dark grey very fine Seel(?)
- assoc py & Qtz/carb str

Sample 134.25 135.00

Brecciated RWFF - altered but
not gougy.

V-168 April

Assay Results for Selected Samples

<u>Sample</u>	<u>Hole</u>	<u>Meterage</u>	<u>Au</u>	<u>Ag</u>	<u>As</u>	<u>Remarks</u>
69842	7	102-105	2.98	2.26	48	Lapilli to Frag. rhyolite - brecciated
70686	7	103.68-103.93	0.15	0.4	30	Gougy section in RNFF.
69844	7	108-111	4.52	1.30	104	Lapilli to Frag. rhyolite - Brecciated
70687	7	108-109.5	2.20	0.20	31	Partially alt. RNFF
70685	7	109.5-111	35.56	4.90	32	Altered, gougy W. 20% clay
69901	8	132-135	4.32	7.00	100	
70683	8	132-133.05	8.77	2.30	25	V. gougy RNFF w. some heavy Py.
70682	8	133.05-133.64	0.09	0.20	23	V.F.G. Sed? Some Py.
70680	8	133.64-133.90	0.32	0.20	29	Gougy lapilli to frag. rhyolite.
70681	8	133.90-134.25	0.64	1.7	30	Dk. Gy. V.F.G. Sed? Py. (Qtz./carb. str.)
70684	8	134.25-135	1.12	0.4	30	Brecciated RNFF. Alt. - not gougy.
C1784	5	82.54-85.58	21.18		265	RNFF breccia
70710	5	" - "	16.1	7.0	98	RNFF breccia
C1785	5	85.58-88.63	12.97		50	RNFF breccia & andesite dike
70711	5	85.58-85.85 } 87.78-88.63 }	5.00	3.5	5	RNFF breccia
70712	5	85.85-87.78	0.02	0.20	4	Andesite dike.


W.S. Pentland

LIST OF GEOCHEMICAL DATA FROM VENTURE 168 W. PENTLAND

NTS	SAMPLE	PROJECT	AG	AU	AS	
	70680	1174	<0.2	0.32	29	
	70681	1174	1.7	0.64	30	
	70682	1174	<0.2	0.09	23	
	70683	1174	2.3	8.77	25	
	70683*	1174	5.0		25	
	70684	1174	0.4	1.12	30	
	70685	1174	4.9	35.56	32	
	70686	1174	0.4	0.15	30	
	70687	1174	<0.2	2.20	31	
	70688-	1174	0.2	0.10	27	- SHEAR
	70689-	1174	0.3	0.08	32	- N. OF SHEAR
	70689*	1174	<0.2		32	
test	STD ASX	1174			17	

END OF LISTING - 13 RECORDS PRINTED

GCLIST RUN AT: 09:46:28

CPU USED:

.66 SECCNDS.

DDH 7.

		Au (#m)	Ag (ppm)	As (ppm)	
69842	102 m to 105 m	2.98	2.26	48.	Brecciated Rhyolite - fragmental.
70686	103.68 m to 103.93 m.	0.15	0.4	30.	Gouge section in the above.
69844	108 m to 111 meters.	4.52	1.30	104	Brecciated Rhyolite - fragmental.
70687	108 m to 109.5 m.	2.20	0.20	31	Partially altered \Rightarrow ie minor clay
70685	109.5 m to 111 m	35.56	4.90	32	Well altered \Rightarrow 20% clay in well defined sections.

Note: - both of the old sections were resampled with a view to determining if there were appreciable differences in gold values with respect to the amount of alteration. Frankly, sample # 70685 shook the hell out of me, especially when you consider the Au value for # ~~70686~~ 70686. Both of these samples are essentially identical and are within a few meters of each other. The only difference between the two is ^{as a possibility} that # 70685 contains margins to the gouge zones. I would suggest that the gold is with the gouge zone margins and that some sampling be done to check this out. However, this could well be a fine example of "the pepper corn in a bag of rice".

Again, remaining core was resplit and rubble & gouge was spooned out.

DDH 8 This shows much the same as the above re-assays. It appears that the gold is with the altered gougy sections of rhyolite fragmental. I wouldn't want to stake my life on this on the basis of two resamplings. It might be something for the Metallurgy boys to work on.

Again, remaining core from the first round of sampling was resplit and rubble & gouge was spooned out.

DD# 5.

				Au (gm/tonne)	Ag (gm/tonne)	As. (ppm)
original.	C1784	82.54 meters	to 85.58 meters	21.18	—	265
resample.	70710	82.54 "	" 85.58 "	16.1	7.0	98

Note - This section was re sampled to check the previous high gold assay.
- remaining core was resplit (rubble was spooned out).

(*) C1785.	85.58 meters	to 88.63 meters	12.97	—	50.
70711	85.58	85.85	5.00	3.5	5.
and	87.78	88.63			
70712.	85.85	87.78.	0.02	0.20	4.

Note - this section (*) was resampled into 2 samples (Andesite dyke & Rhyolite breccia).
- remaining core was resplit - rubble was spooned out.

The section gave a high gold kick and I resampled the dyke independent of the enclosing Rhyolite breccia. As other dykes, as well as this one, show low gold values, I think it can be safely assumed that the gold mineralization does not have any affinity for the andesite dyke(?) material. This is not very surprising, but there were a number of occurrences of high Au values in the core which were close to these dykes.



PLACER DEVELOPMENT LIMITED
RESEARCH CENTRE

MEMO TO: W. Pentland
FROM: R.A. Mower
SUBJECT: Au Checks V-168

DATE: July 21, 1981

We have reanalyzed and sent out for assay any samples that ran greater than 1 ppm Au. Enclosed is a table of results for those analyses.

Column

1. Placer's original geochem analysis
2. Placer's rerun geochem analysis
3. Chemex's fire assay analysis
4. General Testing's fire assay analysis
5. Placer's second rerun geochem analysis after rerolling original pulp
6. Final answer reported

You will note that corrections have been made to seven samples to reflect the further analyses (69792, 69847, 69896, 69898, 69901, 69907, 69994). A copy of the corrected printouts is enclosed. Please destroy the originals.


R.A. Mower

RAM:ojt



PLACER DEVELOPMENT LIMITED
RESEARCH CENTRE

MEMO TO: Sue Campbell

DATE: November 12, 1981

FROM: Brad Marchant

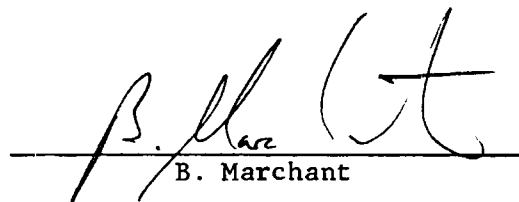
SUBJECT: April Property - Polished Mounts

I am forwarding to you nine polished mounts (of five samples) prepared at Vancouver Petrographics as requested by W.S. Pentland (Memorandum October 21, 1981). The following data should accompany these samples:

<u>Label</u>	<u>Sample Description</u>	<u>Origin</u>	<u>g/t Au</u>	<u>g/t Ag</u>
AV-1	Flotation Concentrate	80C 1785	200	135
AV-2	Flotation Tailing	80C 1785	0.68	1.5
AV-3	Superpanner Concentrate	80C 1785	-	-
AV-4	Superpanner Tailing	80C 1785	-	-
AV-5	Leached Flotation Concentrate	80C 1784	7.15	23

The flotation concentrate represents 6.5% weight recovery and 95.3% gold recovery. The superpanner concentrate represents 1.2% of the feed weight, unfortunately insufficient for both assay and mounting. The leached flotation concentrate is from previous testwork and is of interest in the overall property study.

Please forward a copy of your results to the Research Centre for our file.


B. Marchant

PBM:ojt

cc: B. Wilson
W.S. Pentland ✓

PLS RETURN TO B. Pentland



PLACER DEVELOPMENT LIMITED
RESEARCH CENTRE

MEMO TO: B. Wilson
FROM: B. Marchant
SUBJECT: April Venture 168

DATE: July 14, 1981

Introduction:

Two samples, approximately 3 Kg each, were received at the Research Centre designated:

April Venture 168 - 80C 1784
80C 1785

Sample 80C 1784 was used to show gold recovery and loss by direct cyanidation and by cyanidation of the flotation concentrate. Sample 80C 1785 was saved pending further testwork as required.

Approximately 1000 grams of 80C 1784 was ground in a laboratory rod mill to 80% passing 150µm. The ground product was diluted to 30% solids with fresh water. The pulp was bottle roll leached for 24 hours in the presence of 1000 g/t NaCN and 2000 g/t CaO. The resultant pregnant leach solution was assayed for gold and silver concentration. The leach residue was washed and assayed for gold, silver, copper, iron, sulfur, lead, arsenic, and antimony.

PBM:ojt

.... /2

NOTE - Au IN RESIDUE IS IMPORTANT. MAY REPRESENT A FRACTION WHICH WILL NOT BE RECOVERED UNDER ANY CIRCUMSTANCES. IN A LOW GRADE FEED COULD BE SERIOUS. SHOULD RUN TESTS ON LOWER GRADE FEED.

An additional 1000 gram sample of 80C 1784 was ground to 80% passing 150µm in the presence of 100 g/t CuSO₄ and 50 g/t Aerofloat 242. The ground product was diluted to 25% solids with fresh water. The pulp was conditioned with 50 g/t Potassium Amyl Xanthate for 1 minute. Dowfroth 250C achieved a stable froth and rougher flotation was carried out for 5 minutes. A second addition of 50 g/t P.A.X. was followed by 5 minutes flotation.

The flotation concentrate was transferred to a nalgene container and bottle roll leached for 24 hours. The leached concentrate residue was washed and assayed for the same elements as the cyanide residue discussed above. The pregnant leach solution was assayed for gold and silver.

The rougher flotation tailing was assayed for the same elements as both leach residues.

Results:

Figure 1 shows a summary of the two test procedures. Detailed leach data is attached. It is apparent that similar gold extraction occurred with each flowsheet. Flotation recovery could be improved through cleaning/scavenging stages and gold dissolution by cyanidation could be increased with extended leach durations.

Detailed elemental analysis of the test products showed the following:

TABLE 1 - Detailed Product Analysis

Product	Au (ppm)	Ag (ppm)	Cu %	Fe %	S %	Pb %	As %	Sb %
Leached Conc. Residue	7.15	23.0	0.02	9.53	8.90	<0.01	0.12	<0.01
R. Flot. Tlg.	1.46	2.5	0.01	1.86	0.39	<0.01	0.01	<0.01
Direct Cyanide Residue	2.73	7.0	0.01	3.44	2.30	<0.01	0.038	<0.01

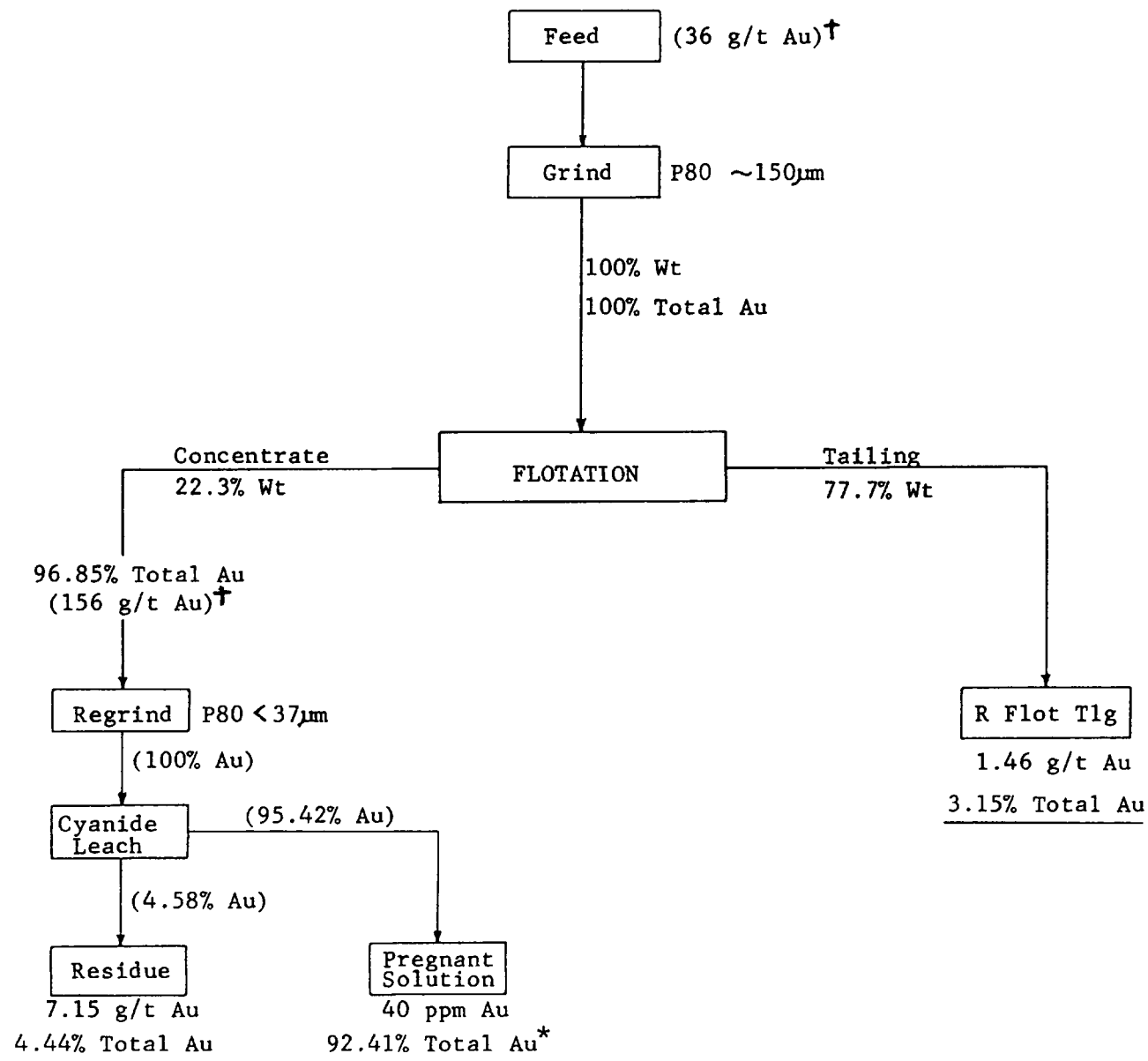

B. Marchant

PBM:ojt

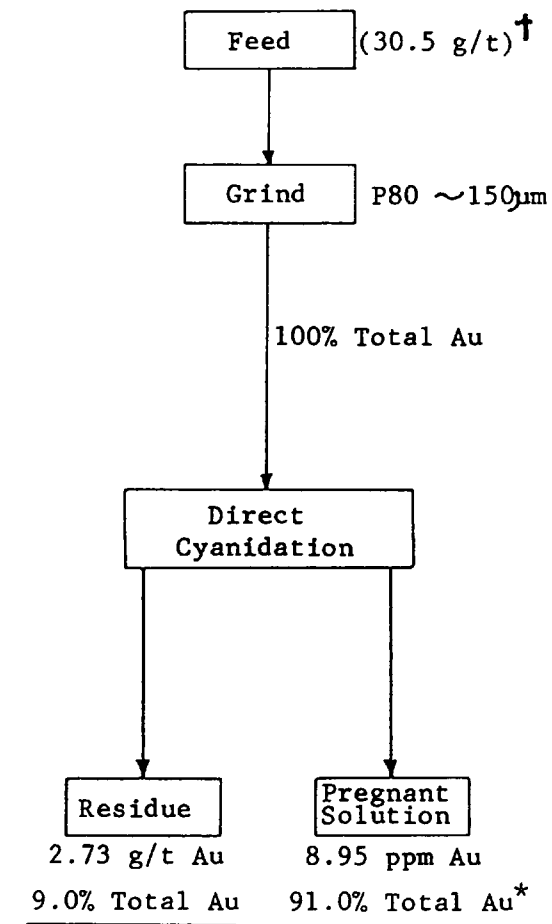
cc: D.A. Knight
W.S. Pentland ✓

FIGURE 1 - Gold Recovery

Cyanidation of the Flotation Concentrate



Direct Cyanidation



[†] Calculated assay

* Assuming complete gold recovery from solution

Overall Gold Loss to Tailing = 2.73 g/t

PLACER RESEARCH CENTRE
CYANIDE LEACH DATA

DATE:

SAMPLE DESCRIPTION: APRIL VENTURE 168

REMARKS: Direct Cyanidation(A) and Cyanidation of the Flotation Concentrate(R)

Sample Label	A	B	[3]	[4]	[5]	[6]	[7]	[8]
LEACH DATA:								
80% Passing (um)	150	37						
Time (h)	24	24						
Natural pH								
pH after CaO	11.4	11.1						
Final pH	11.3	10.9						
NaCN Addition (g)	.9	.5						
CaO Addition (g)	2	1						
LEACH RESULTS:								
Solution Volume (mL)	3000	805.6						
Residue Weight (g)	968.2	216.3						
Titration NaCN								
Titration CaO								
Reducing Power								
NaCN Consumption (g/t)	--	--						
CaO Consumption (g/t)	--	--						
Sol'n Assay	ppm	8.95	40					
Carbon Assay	ug	0	0					
Residue Assay	ppm	2.73	7.15					
Calc.Head Assay		30.46	156.13					
% Recovery		91.04	95.42					
