ADANAC DRILL LOGS

1979

Drill Holes PDL 200 to 238 inclusive

PLACER DEVELOPMENT LIMITED

GRID: ____ | HOLE No. PDL-200 | SHEET No. 2 of 6

LOCATION: 35-W	BEARING:	LATITUDE: 6 620 288.7	PROPERTY: Adanac		
DATE COLLARED: 23rd June	LENGTH: 402	DEPARTURE: 589 873.7	CORE SIZE: N Q.	LOGGED BY: R. H. Pinsent	
DATE COMPLETED: 26 June '79	DIP: Vertical, -90°	ELEVATION: 1474.0	SCALE OF LOG:	DATE:	

NO. 7727

PART 3 of 3

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Overburden:				0 - 22'										
Leucocratic Coarse Quartz Monzonite: (Lc.C.Q.M) typical sub porphyritic texture: deformed feldspars 2-4 cm q.s. (Kspar):	Kspar = fresh: Plag = ± altered to clay & limonite stained. Fractures in Kspar = limonite stained rim on fractures:	Lc C Q M	30° 28'	22' - 30'	MoS2 = trace. Fracts = mostly qtz free and barren: hairline fract. 35° at 29' = 45° C.A.	Lc.C.QM contact with crowded Q.M. porphyry = gradation ±30 C.A.		80%		63001		.004		
Mixed Unit: Crowded and sparse Q.M. Porphyry cuts Lc. C. QM. No sugary matrix to porphyry - local segregation or dyke (?)	Mostly = fresh: Locally as above: limonite on fracts. in Kspar, in plag: and on joints: 34'-35' = much fractured	Q M Porph		30' - 40'	MoS2 = trace Pyrite in biotite rich patches in QM. porphyry: ± 1%	+ 5 barren 1mm qtz veins 35° C.A. crumbly section		95%		63002		.021		
lower contact = sharp: ± ∥ c.a. return to Lc.C.Q.M typical: much fractured. V. feldspathic at 43', V. altered at 43', +50'	same limonite stain in deformed feldspar and on fracture surfaces: small interstitial plag: → clay (Kaolinite?) stained	Lc C		40' - 50'	MoS2 in veins in shattered Kspar (44', 47') No qtz. irregular; also in rare qtz. veins 90° C.A. (be...)	MoS2 specks in rare 1-2mm veins qtz. ∥ C.A. Note 1cm (42') Fg Q.M. vein		95%		63003		.194		
Lc. C. Q.M. - as above. 0.5 - 3.0 cm q.s. Kspar; sub porphyritic variety, V. deformed, high angle (10° C.A) fractures:	as above: limonite in fractures. Local greenish clay alteration of plag: V. altered at 54'-56'	Q M		50' - 60'	Coarse MoS2 in qtz-free veinlets ∥ C.A. and 0.5-1.0 cm qtz veins 90° C.A.	traces of pyrite with biotite - possibly some MoS2 remobilized into late fractures		95%		63004		.133		
Sharp contact with fine grained Quartz Monzonite at 61' (Fg QM.) mafic near contact, locally porphyry (sparse) mainly leucocratic, fine grained, sugary, altered. Fg Q.M	(unfractured), pervasive alteration of feldspar: sandy, clays + fractures stained by limonite	Lc Fg Q M		60' - 70'	Qtz veinlets 1-2mm at odd angles, locally + MoS2. Rich veinlet (No Qtz, at 61'	alteration greater than in coarse grained rock deformed...		95%		63005		.025		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Fine grained Quartz Monzonite (Fg. QM) - sugary and altered as above. 1mm g.s. rare qtz phenocrysts (3mm) Few mafics (biotite)	Feldspars altered to sericite/kaolinite - slight limonite stain to fractures (irregular - many low angle to CA) Biotite - rare and fresh (?)	Fg QM		70'-80'	3mm Qtz. free MoS2 vein 80° CA at 74' - V. rich - also MoS2 traces in rare qtz veinlets (1-5mm) 40°-60° CA	crumbly rock V. altered 76'-80' + limonite ? structural break ?		85%		63006		.103		
as above → coarse (1cm gs) rock at 82' - also altered and broken: cut by contact with Fg. QM at 87' (40° c.a) - V. fine, aphanitic + fresh.	as above; feldspars altered rock ± crumbly and weakly limonite stained.	Cg QM / Fg		80'-90'	rare qtz. veinlets cut rock at 40°-60° c.a. (1-2mm) ± traces MoS2	possibly gradation Fg → CgQM. via porphyry		80%		63007		.017		
Fg. QM. passes into sparse QM porphyry at ±92', Note euhedral qtz + feld. phenocrysts (0.5-1.0cm) in fresh, sugary matrix. Note Biotite rich	Limonite traces around feldspars and on fractures. V. reduced. LIMONITE ENDS AT ± 94'			90'-100'	V. minor MoS2 in rare qtz veinlets	chilled contact? fresh mafic QM ⇒ coarse via porphyry(?)		95%		63008		.019		
Mafic Q.M. porphyry fresh. typical texture: "Qtz. biotite" type [= p.i. entrance] - Qtz and Feldspar phenocrysts 0.5-1cm g.s. in fine monzonite matrix	alteration V. slight: feldspar = ± chalky. - phenocrysts have ragged edges light green alteration to			100'-110'	MoS2 = rare in blebs (2-3mm) sparse in 2-4cm Qtz vein 90° CA. 103', 1 qtz free fract 90° CA	oldest rock type according to S-Brown (doubt full)		95%		63009		.030		
as above to 116' then contact with Cg. Q.M. dyke 1' wide. Igneous contacts: - fresh mafic Qtz-Feld porphyry: Biotite rich.	zoned plag: V. little alteration. fresh. Minor clay - Carb. gouge on joints	Cg QM		110'-120'	rare blebs in rare qtz veins. // and 90° to c.a. V. poor MoS2	Cg. Lc. c. QM dyke cuts Mafic QM. porphyry.		95%		63010		.124		
Sharp contact igneous (45° c.a) with mixed sparse and crowded leucocratic QM porphyry fresh, Fg to aphanitic matrix + euhedral Qtz, Feld. phenocrysts:	- V. minor green clay alteration of feldspar and in joints - with carbonate (?) 122' crumbly (structure?)	Lc QM Porph / Fg QM		120'-130'	V. poor MoS2 few specks: Note Pyrite on a few hairline fractures	Fresh, undeformed. Note variable % Qtz, Feld. Bio. phenos: in chilled matrix		95%		63011		.048		
Crowded Lc. Q.M. porphyry, as above - euhedral Qtz and Feld. (3-6mm) in aphanitic sugary matrix. Bio = euhedral pheno (0.5-1.0mm)	crumbly or chalky at 130', + MoS2, generally fresh with minor green alteration (chlorite - sericite ?) of feld on gouge.			130'-140'	large MoS2 blebs in Qtz at 137', minor MoS2 in dry fracts and 1-2mm Qtz. veins 40° to Ca. and // Ca	Note: cut by minor (1') aplite vein at 130' Not V. deformed.		95%		63012		.104		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. DDH 460 SHEET No. 3 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	ASSAY RESULTS: Cu	ASSAY RESULTS: Mo	ASSAY RESULTS:	EST. GRADE
Crowded Q.M. porphyry: proportions variable! Qtz, Feld/Bio phenocrysts in aphanitic matrix of Fg. Q.M.	Fresh: slightly crumbly → altered at 142' Rock V. competent, undeformed		Crowded Q.M. Porphyry			140'-152'	MoS_2 → Pyrite Qtz veins. Mostly at 70°-90° CA (some ± all grade increase) *	MoS_2 = coarse blebs - isolated Not continuous unfracture or vein. veins = hairline → 1cm		98%		63013		.179		
as above: Crowded Q.M. porphyry: possibly coarser phenos: - 4mm - 1cm. feld, Qtz less matrix (?) Variable Biotite phenos: 1-4mm.	Fresh - some alteration of plagioclase Xtals. rock = undeformed, - rare fractures Joints: good recovery		Crowded Q.M. Porphyry			152'-160'	significant MoS_2 Interval at 155' MoS_2 rich: rest weak ± barren Qtz veinlets	Coarse MoS_2 in wide qtz veins: major fracture - few. early		98%		63014		.222		
Crowded Q.M. Porphyry: with rare zones Sparse Q.M. porphyry: - Fresh Bio, Qtz, Feld. phenos. in aphanitic matrix:	V. minor alteration of (?) stoved, euhedral feldspar. greenish cores: joints = few.		Crowded Q.M. Porphyry			160'-170'	coarse MoS_2 blebs on Qtz free fracture 80° CA at 168' - else where = sparse on hairlines	Note steep (C.A) 1-2 mm Qtz veins cut shallow. sparse fracture		98%		63015		.084		
as above: Note V. crowded, minor matrix, slightly less coarse, feldspar zone: undeformed:	V. Slight: alteration of feldspars: Note biotite clusters in cores of some feld. phenocrysts Minor alteration 179'					170'-180'	as above MoS_2 blebs in quartz free and bearing fractures, ± isolated blebs	Note MoS_2 = between qtz and rock ∴ early, pre quartz		98%		63016		.077		
as above: Variable grain phenos Kspar, Bio, Qtz Feld. 0.6-1.5 cm Variable proportion matrix v phenos. Crowded Q.M. Porphyry.	V. slight. little deformation or alteration: typical low → high angle (C.A) fractures and veins.					180'-190'	typical 1-2 mm and hairline fractures + local blebs MoS_2	Locally V. little matrix - looks equigranular.		95%		63017		.024		
similar: appears to be more feldspathic and more altered crumbly at 194', 196', 198', matrix locally V. reduced. ⇒ Med. grained equigranular	slight alteration of feldspar: - light green clay - Carbonate - also on joints:		Crowded Q.M. Porphyry			190'-200'	MoS_2 appears to replace qtz in porphyry at 196' alteration in veinlets as blebs as usual	MoS_2 may concentrate in joint zones and replace Qtz (?)		90%		63018		.090		
Porphyritic Q.M. - Variable - Sparse to crowded: - cut by 2 1cm veinlets "aplite", phenocrysts euhedral: - 0.5-1.0 gs. ± biotite	Crumbly and altered at 200' → 202' joints with clay-Carbonate gouge and feldspars ± slightly altered. Rock = weakly deformed.		Crowded Q.M. Porphyry			200'-210'	MoS_2 along qtz free hairline fractures ∥ CA or steep angle. Not common	MoS_2 veins often in crumbly pods ∴ possibly minor MoS_2 loss		95%		63019		.085		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Crowded Q.M. Porphyry: variable matrix: locally rock ± equigranular; Rock cut by 10cm mafic aplite dyke at 211', weakly porphyritic	fairly fresh. feldspar rims locally chalky. local green (apple) alteration of feldspar, deformation at 215'	Tg QM		210'-220'	on fracture faces and in qtz veins concentrated in crushed rock at 215', (‖ ca)	2 mineralization directions 90° to c.a. and ±‖.		95%		63020		.134		
Crowded Q.M. Porphyry cut by dyke of Tg (mafic) aplite 220'-222' - dyke = aphanitic with blotches of Feld. and Bio. dark colours.	typical alteration at 223' → extreme alteration from 226'-229' - rock = crumbly mass of Qtz + clay. "gouge"			220'-230'	rare blebs in Qtz veins Pyrite + minor MoS₂ in gouge zone at 228'	fault ? strong, probably superficial, alteration Note smokey Qtz		95%		63021		.041		
Crowded Q.M. porphyry. coarse phenocrysts: mostly with minor matrix; euhedral feldspar, to 2cm, Qtz, to 1.0cm and Biotite to 1.0cm in aphanitic matrix.	Fresh. V. minor feldspar alteration few gouge zones, minor:	Porphyry		230'-240'	coarse blebs in qtz vein at 45° c.a. at 236' + rare blebs in barren x coarse fractures	typical QM porphyry - too few fractures for MoS₂ values.		95%		63022		.079		
typical Crowded Q.M. Porphyry - variable g.s. + matrix content. cut by rare qtz veinlets and dry fractures.	slight - some chalky alteration around feldspar margins. - greenish tint to some feldspars.	Crowded Quartz Monzonite		240'-250'	specks along 2 Xcutting qtz veinlet sets. both 45° ca.	MoS₂ + Pyrite borders Qtz veins. spotty distribution Note biotite in veins		95%		63023		.069		
typical Crowded Q.M. Porphyry Variable G.S. and matrix content + Kspar alteration (?) secondary Biotite (?)	2 Xcutting Qtz veins (45° ca) have Kspar borders, MoS₂ + Pyrite in veins. - also minor feldspar alteration - light green "clay" Biotite in some fractures			250'-260'	in Qtz veins, 2 Xcutting sets (~2mm) ± more consistent in vein than before + local coarse blebs	possibly hydrothermal alteration		95%		63024		.265		
typical Crowded Q.M porphyry. - Variable g.s. → proportions of matrix and phenos: - euhedral phenos: aphanitic matrix:	fresh with minor feldspar alteration to apple green, soft, clay. undeformed rock			260'-270'	hairline to 2mm qtz fractures with v. fine dissem. MoS₂. Most ± 40° c.a.	Less obvious alteration still with rare MoS₂ qtz. veinlets		95%		63025		.036		
Coarse equigranular facies of crowded porphyry - 270'-273' thereafter - typical. cut by 6" Fg. Q.M dyke - aphanitic, at 274'	some feldspar alteration. otherwise possible biotite enrichment - undeformed.			270'-280'	fine and locally coarse MoS₂ blebs in narrow 1-4mm qtz veins at 45° ca. and 20°	feldspars show some chloritic alteration		95%		63026		.026		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	ASSAY RESULTS: Cu	ASSAY RESULTS: Mo	ASSAY RESULTS	EST. GRADE
Crowded Qtz. Monz.: Porphyry:- little matrix becoming granitic textured locally:- porphyritic.	Biotite (?) + chlorite alteration of feldspar:- possibly local Kspar alteration along Qtz vein and separate fract:		Crowded Quartz Monzonite Porphyry			280-290'	Steep qtz vein at 289' + MoS2 on both sides - also in fine fracts locally. Bio + Pyrite in fractures	rotten area at 285' shear? possibly Zone Biotite (?)		90%		63027		.080		
Crowded Q.M. Porphyry uniform, undeformed. crowded phenocrysts in a small amount of matrix	Note biotite replaces feldspar locally.- Zoning- Alunite clay alteration; normal.					290'-300'	rare, in fractures and in 2-4mm qtz veins, with pyrite	typical altered porphyry low MoS2		95%		63028		.038		
V. altered sparse to crowded Q.M. Porphyry: Variable proportions shattered.	possible K-spar flooding and alteration along fractures - rock unstable 302-310' = crumbles.					300-310'	fine dissem along hairline fracts; coarse blebs (+pyrite) along Qtz veins.	better grade both blebs and dissem ST on fracts:		90%		63029		.186		
Crowded Porphyry with strong alteration. - texture diffuse	feldspar altered (in part) to clay: abundant biotite/chlorite possible K-spar alteration in matrix of porphyry.					310-320	small MoS2 blebs in qtz veins (5mm) 40°-70° C.a. with pyrite	Porphyry - altered - chloritic, K spar in matrix		95%		63030		.084		
as above altered crowded Porphyry diffuse texture	abundant biotite! chlorite, possibly K-spar along fractures quartz veins diffuse					320-330'	fine dissem MoS2 along fractures → qtz veins. + rare blebs.	similar alteration + grade increase (Not much Mo lost-)		95%		63031		.126		
Crowded Porphyry (Q.M.): variable proportions matrix to phenocryst. locally V. little matrix! some sections V. rich in K-spar.	Note biotite in some veinlets + chloritic alteration of some feldspar phenocrysts.					330-340	Qtz veinlets (1-2mm) 40°-60° c.a. + specks MoS2: 3-6mm Qtz veins 80°-90° C.A. = pyrite or + rare blebs.	Altered Porphyry. Note Bio + chlor. in feldspars + veins.		95%		63032		.066		
As above: Crowded Porphyry - locally aphanitic matrix - locally = coarser grained with K-spar matrix: Zoning?	Chlorite + Biotite. Note Bio + Pyrite in veins cutting Qtz-MoS2					340-350	hairline fracts + qtz, MoS2 + Bio; Note on hairline MoS2 = continuous (blebs in Qtz. Veins)	similar altered porphyry: relatively undeformed		95%		63033		.076		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 6 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Coarse-grained Quartz Monzonite Porphyry: - variable g.s. and proportions phenocrysts to matrix; altered - bio + chlor rich.	Plag. = light green-blue clay or green chlorite - locally feldspars → biotite clusters; Fault or shear 354-356'			350-360	MoS2 specks in 1/2 cm qtz veinlets 20-30° c.a. Not rich.	probably late joint or fault = shallow angle to core axis		92%		63034		.017		
as above only more deformed and altered: Note zones of "aplite", some v. rich in biotite cut core; also sparse porphyry	deformation in alteration - fresh biotite feldspars + matrix. v. altered:	sp. porph.	cg.	360-370	Qtz veins - rare, MoS2 on sparse fracture faces sheared.	Note rare MoS2 blebs replacing biotite		95%		63035		.034		
V. altered sparse Q.M. porphyry: - sheared and rotten rock: late faulting (?)	rare qtz veins + MoS2 predate clay, chlorite alteration of feldspar + matrix.	sp. porph.		370-380	specks some with poorly qtz veins most along fractures.	remobilized MoS2(?) late stage shearing(!)		90%		63036		.080		
Sparse QM porphyry to 378', then mafic porphyry zone, to 392 - fine grained bio rich aplite matrix. biotite rich	porphyry = far fresher than above. Still some clay-chlorite alteration. Note open vugs, xstalline qtz. on shears ∥ c.a. (386')	mafic porph.		380-390	2 cm qtz veins + hair line fracts: + MoS2 rosette, - in leucocratic and mafic porphyry	less altered Note open fractures:		95%		63037		.033		
deformed mafic porphyry contact (45° c.a.) with ± fresh sparse porphyry: similar vein 394-396'	altered feldspars in porphyry: - open fract. continues no MoS2 in it. xstalline quartz:	m.p.	E.O.H.	390-402	MoS2 in blebs and disseminated fract. faces in both rock units	Note mafic rock = fine grained equigranular [illegible]		95%		63038		.069		

PLACER DEVELOPMENT LIMITED

GRID: ______

HOLE No. PDL 201
SHEET No. 1 of 6

LOCATION: 2E 1N
BEARING:
LATITUDE: 6 620 251·1
PROPERTY: Adanac.
DATE COLLARED: 26th June 79
LENGTH: 382'
DEPARTURE: 589 860·4
CORE SIZE: NQ.
LOGGED BY: P.H. Vincent.
DATE COMPLETED: 29 June 79
DIP: Vertical.
ELEVATION: 1474·9
SCALE OF LOG:
DATE: 28th June 79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Overburden: 0'-25'				20										
Coarse grained, porphyritic phase of qtz. Monzonite. Transition from "Crowded Porphyry" to coarse grained Q.M	Limonite stain on fracture in rock and in Kspar phenocrysts (1-3cm) euhedral phases in granitic matrix:			30	None found. Note 2-4mm barren qtz veins at high and low angles to core axis	Crumbly: Probably a transition from Crowded Porph: → Cg. QM		75%		63039		·003		
Various phases of coarse Q.M. - some with phenos and fine matrix: some equigranular medium grained: some typical coarse QM - strong shear 36'	Limonite stain on fract. surfaces, and staining clay alteration of the feldspar - note local chlorite alteration of the feldspar and fluorite	Porphy.	Fr.	40	rare traces MoS2: Most qtz veins - barren.	V. rich in Kspar phenos: and local veins: fracts: - vuggy. Note purple (rose) Flourite.		80%		63040		·002		
As above: phases of Crowded Porphyry: - locally coarse grained Q.M. (porphyritic) - cut by 5cm sparse porphyry vein: Note V. feldspathic large 1-4cm phenos!!	Local limonite stain near fractures in feldspar and in rock: otherwise light grey chlorite alteration of plagioclase phenos!!	Crowded		50	MoS2 in 4mm qtz vein at 49' - ca. 70°. otherwise rare MoS2 as blebs	V. coarse orthoclase phenos: euhedral, abundant.		90%		63041		·018		
as above: Various phases of "Crowded Porphyry": some coarse feldspar variety: grades into sparse porphyry and f.g. equigranular at 55' - V. odd rock.	Minor limonite stain to feldspars and fractures. silicified, possibly some alteration to fine matrix feldspar:	Sparse		60	Fine grained zone is rich in MoS2 and Pyrite. MoS2 in coarse blebs in qtz veins. Pyrite in Biotite	V. mafic zone sandy, dark green; biotite rich, Biotite + Pyrite rich good sp.		95%		63042		·084		
as above: sparse porphyry: odd texture: dark colours, local feldspar rich porphyry zones. Mostly qtz phenos + resorbed feldspars: sandy matrix. [illegible]	slight limonite stain on fractures; rock - fresh: Note V. biotite + (?) chlorite rich [illegible]	Sparse		70	good MoS2 and Pyrite as blebs and granules in qtz. veins.	unusual f.g. faces - Probably a sparse porphyry zone: Pyrite (?)		95%		63043		·060		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
as above Sparse porphyry with local crowded (feldspar rich) zones. sandy matrix. V. biotite rich, possibly chlorite: variable. f.g.	plag. chlor: alteration some feldspars → chlorite - replaced. some limonite stain along fractures ∥ C.A.	Sp Porph		80	mod sp. MoS_2 blebs in qtz. veins and pyrite replacing biotite	with mineralized rock unit. odd texture grades to crowded porphyry		95%		63044		.187		
Crowded Porphyry typical texture: - reduced matrix with euhedral Kspar, plag, Qtz, Bio phenocrysts: g.s. Kspar < 1 cm.	K.feldspar flooding at 80 - also K.feld along qtz. vein: dies out 82'. * End of LIMONITE STAIN. 2ndary biotite + chlorite (?)			90	MoS_2 reduced. few blebs in qtz. veins 70° CA traces of biotite in veins:	return to "fresh" crowded porphyry locally V. little matrix: note bio + chlor rich [illegible]		95%		63045		.030		
Crowded Porphyry: typical. V. little matrix: euhedral Kspar, Qtz, Bio, plag: in f.g. (aplitic) matrix. max: g.s. = 1 cm.	Porphyry - fresh possibly Bio-Chlor alteration of some feldspar cores: undeformed rock	Crowded Porph		100	V. coarse blebs (20) in qtz vein at 97' g.s. MoS_2 = 1 cm vein cuts c.a. at 45° vein +	fresh rock with good MoS_2 where fractures and veins [illegible]		98%		63046		.153		
as above: but porphyry matrix - coarser, grades to equigranular QM in parts med. grained	abundant biotite. chlorite - often in feldspar. may be 2ndary otherwise fresh. typical bass. rocks	Crowded		110	fine Kspar envelope MoS_2 in veinlets (1-2 mm) in fractures	typical porphyry rock subequigranular parts.		98%		63047		.050		
as above to 116' then 2' wide sparse porphyry (qtz phenos in f.g. QM) dyke. then passes to c.g. QM. at 119'	as above: little alteration - possibly + biotite and chlorite slight alteration of feldspar margins	Sp Porph		120	MoS_2 in weak vein system isolated blebs. + traces pyrite and chalcopyrite large MoS_2 blebs in vein in sparse porph!	sparse porph = f.g. (aplitic) not as bio rich as at 60' + vein contacts = sharp		95%		63048		.139		
c.g. QM very sheared and altered from 125'-130': texture lost possibly mylonitized. - zone = currently. - possibly f.g. QM	sericite - chlorite alteration of feldspar near and in shear zone feldspars = chalky V. sugary rock:	cg QM / fg		130	MoS_2 in selvedges of Qtz veins in [illegible]	possibly major fault or joint! note mixed fine and coarse QM		85%		63049		.090		
as above: f.g. QM type rock. locally porphyritic. V. altered to sandy sericite chlorite rock. sheared. becomes mafic QM texture.	feldspars → sericite + chlorite original texture lost probably fine grained equigranular	QM	F	140	MoS_2 locally in qtz veins and late fractures (possibly remobilized)	V. altered zone. fault with mafic QM?		85%		63050		.095		

GRID: ____ **PLACER DEVELOPMENT LIMITED** HOLE No. UC-201 SHEET No. 3 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Q.M. - adit entrance type - mafic bio rich, sericite feldspar porphyry - altered possibly fault contact at around 134'	feldspars chalky - sericite - kaolinite alteration ; dolomite orthoclase phenocrysts = salmon pink and altered.		M.f.Q.		F.	150	local MoS2 in quartz veinlets 2-5 mm 90° c.a.	broken rock, probably a faulted contact		90%		63051		.077		
As above, mafic Q.M. porphyry. fresh, phenocrysts ≈ 0.5 cm, matrix medium-grained. plenty of biotite corroded phenocrysts.	slight. possibly ~~some~~ enrichment of Kspar locally and feldspar alteration		Q.M. Porph.			160	MoS2 in sparse qtz veins, note veins at 30° c.a. [illegible] at 70° c.a.	return to fresh looking rock.		95%		63052		.039		
Mafic Q.M. slightly porphyritic: diffuse transition to c.g. Q.M. at 165' - Mafic Q.M. contains sporadic feldspar phenocrysts: c.g. Q.M. locally porphyritic - 0.5 → 1-2 cm Kspar.	Virtually none. V. fresh looking - both rock types some green (chlorite) alteration of plagioclase xstals		[illegible]			170	coarse MoS2 flecks in qtz veins in both rock types. Not abundant. Local only.	Contacts [illegible] mafic QM intruded c.g. Q.M.		78%		63053		.486		
Contact. Q.M. and type of crowded porphyry - c.g. Q.M. has 6" chill zone then sharp contact with porphyry: Porphyry = feldspathic [illegible] near contact [illegible] sparse by 175'	Slight chloritic alteration of feldspar: rock generally fresh and undeformed. some slickensides [illegible] joint face		Cr. P. Q.M. [illegible]			180	trace MoS2 in rare qtz. veins - coarse blebs where found.	f.g. Q.M. → Q.M. porphyry intrudes c.g. Q.M. [illegible] coarse [illegible] (?) frags. of c.g. in por.		98%		63054		.039		
Sparse Q.M. porphyry grades to f.g. Q.M. - mafic grades to felsic at 183' - intense alteration - feldspars altered [illegible] 185' [illegible] to (?) [illegible] c.g. Q.M. pegmatitic - [illegible] V. rich dissem. blebs MoS2.	similar to f.g. Q.M. - sericite - kaolinite [illegible] feldspar [illegible] 1" pegmatite [illegible] c.g. Q.M. all [illegible] possibly silicified. Note [illegible]		[illegible]			190	V. coarse MoS2 [illegible] in pegmatitic [illegible] V. rich	Note abundance of [illegible] c.g. Q.M. → f.g. Q.M. "aplite" + rich ore.		75%		63055		.744		
[illegible] contact zone + contact (igneous) with sparse porphyry at 190' cut by [illegible] veins [illegible] grades into V. feldspathic Q.M. [illegible] matrix.	V. slight. f.g. Q.M. some feldspar alteration [illegible] undeformed.		[illegible]		✱	200	[illegible] MoS2 [illegible] (possibly [illegible] MoS2 [illegible])	Many [illegible] of [illegible] V. [illegible]		95%		63056		.145		
Sparse porphyry grades to c(coarse) at 201' - note V. feldspathic: coarse [illegible] Kspar (2-3cm) in fine matrix - locally little matrix - locally ± all feldspar (70%)	slight. some feldspar alteration - [illegible] rock undeformed.					210	[illegible] rare qtz veins (possibly [illegible] MoS2 [illegible])	V. coarse - feldspathic crowded porphyry		95%		63057		.118		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Crowded porphyry [illegible]	[illegible]			[illegible]	[illegible]	[illegible]		[illegible]		63058		.094		
Crowded porphyry [illegible]	[illegible]		[illegible]		[illegible]	[illegible]		95%		63059		.041		
[illegible]	[illegible] alteration [illegible]			[illegible]	[illegible]	[illegible] contact with [illegible]		95%		63060		.147		
Transition to variable [illegible]	[illegible]		[illegible]		[illegible] MoS2 [illegible]	[illegible]		90%		63061		.120		
Crowded porphyry: Altered crowded [illegible] Fractured [illegible]	as above — alteration of [illegible]			[illegible]	traces of MoS2 [illegible]	More altered crowded porphyry [illegible]		70%		63062		.075		
Altered Crowded Porphyry grades into mafic porphyry at 2267'. Similar alteration [illegible]	Sericite - chlorite alteration of feldspar [illegible] jointed		T?	[illegible]	MoS2 [illegible]	contact [illegible] obscure		95%		63063		.047		
As above: altered mafic porphyry [illegible] jointed [illegible]	Sericite [illegible] alteration [illegible] gouge on fractures [illegible] rock		T?		MoS2 [illegible]	fractured & jointed [illegible]		95%		63064		.073		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. PDL 201 SHEET No. 6 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Mafic porphyry gradational with crowded porphyry at 274' (slump-sorting) [illegible] altered crowded/[illegible] porphyry	[illegible] plagioclase [illegible] joint sericite [illegible]			270	[illegible]	[illegible]		95%		63065		.115		
As above: fractured altered crowded porphyry [illegible] [illegible] shattered [illegible] c.a.	as above, [illegible] [illegible] altered		T!		[illegible]	still [illegible] crowded porphyry		97%		63066		.057		
Crowded porphyry continuous - locally ± sparse - decreasing [illegible] content.	[illegible] [illegible] to 301, [illegible] fractures, [illegible] V. altered, [illegible] to fractures				rare MoS₂ on [illegible] veins [illegible] fractures not crossing.	less altered [illegible] fractures, more competent - less broken		97%		63067		.085		
Crowded porphyry - becoming sparse - not V. altered small (0.5 cm) [illegible] phenos. [illegible] f.g. [illegible] porphyry	slight alteration of [illegible] [illegible] [illegible] possibly [illegible]		T		[illegible] fractures [illegible]	[illegible] from crowded [illegible] [illegible] still fairly crowded		98%		63068		.088		
Sparse porphyry [illegible] [illegible] qtz. phenos in a f.g. [illegible] matrix: [illegible] fractures.	chlorite - sericite alteration after plagioclase [illegible] - fairly fresh	Porphyry			[illegible] fractures poor mineralization	rock still [illegible] altered.		92%		63069		.042		
As above - Sparse porphyry with Qtz and feldspar phenos in f.g. [illegible] matrix; [illegible] - [illegible] transition type from crowded.	relatively fresh [illegible] not V. altered - [illegible] sericite [illegible] alteration of plag.	Sparse			trace MoS₂ [illegible] fractures [illegible] veins	Note sparse porphyry [illegible] (= PDL 200 - 378)		95%		63070		.038		
As above: Sparse porphyry - [illegible] 0.5-1.0 [illegible] phenos: -	fresh, V. little alteration, [illegible] (plag.) alteration to sericite			290	[illegible] veins: + traces MoS₂ [illegible] veins 60-70° C.A.	[illegible] [illegible]		[illegible]		63071		.063		

GRID: ___ PLACER DEVELOPMENT LIMITED HOLE No. ___ SHEET No. [illegible] of [illegible]

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Sparse porphyry [illegible]	[illegible]		[illegible]			1%	[illegible]	[illegible]		[illegible]		63072		.039		
Sparse porphyry [illegible] 365'-368'	[illegible]				[illegible]	1%	[illegible]	[illegible]		72%		63073		.208		
Sparse porphyry - less altered and different [illegible] type of texture, homogeneous	some chlorite-sericite alteration of plag: matrix is fresh.		[illegible]				Qtz veins (some [illegible]) [illegible]	[illegible] Sparse porphyry [illegible]		75%		63074		.066		
	382'				[illegible]											

PLACER DEVELOPMENT LIMITED

GRID: ____ HOLE No. 80-2 SHEET No. 1 of 5

LOCATION: 3E 1N BEARING: LATITUDE: 6 620 264.6 PROPERTY: Adanac

DATE COLLARED: 29th June 79 LENGTH: 338' DEPARTURE: 589 888.6 CORE SIZE: N.Q. LOGGED BY: R.H. Bosca

DATE COMPLETED: 2nd July 79 DIP: Vertical ELEVATION: 1471.0 SCALE OF LOG: DATE: 1-2nd July 79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
0'-16' Overburden + boulders:				10										
13-14' = odd mafic porphyry: resembles sparse porphyry but more mafic and greyish colour: large Kspar phenos: — 11'-16' = coarse grained Q.M. typical, large fractured Kspar interstitial qtz. — 16-20 = sparse porphyry:	Fairly fresh: limonite stains plag. crystals and fracts: in Kspar in Q.M. (?).	Sp. Porph.		20	None noted:	mafic porphyry and Sp. Porph. could be boulders: — altern. [illegible] near outcrop:		60%		63075		.026		
transition to more crowded form of porphyry: — more plag.-biot matrix: transition = gradational: 23-[illegible] = fine grained dyke of mafic [illegible] — non porphyritic note rich in biotite patches.	fairly fresh. limonite stain on fractures: some alteration of feldspar.	Sp. Porph. / Mafic / Tg / Q.M.		30	MoS_2 blebs in qtz. veins & [illegible] fracts ll [illegible] core; [illegible] 60° c.a. fairly good, possibly	Possibly dyke — F.g. variety of typical mafic Q.M. — odd texture, + mafic clots:		95%		63076		.084		
sparse porphyry with crowded sections: — gradation badly fractured 34'-36'	Kspar envelope to Qtz. vein at 38' [illegible] little alteration: limonite stain on fractures possibly [illegible] Note biotite in fractures			40	coarse (rosettes) blebs in brown fractures & some qtz veins. possibly Mo. loss	Zone of deformed porphyry: note sparse & crowded = v. similar:		92%		63077		.057		
Mixed sparse & crowded porphyry to 48' then = crowded porphyry: — badly fractured 42-48' relations obscure:	limonite coats fractures and stains small plag. phenocrysts: some chlorite alteration of plag: in more [illegible] sections.			50	rare only small MoS_2 blebs in dry fractures:	fresh crowded porphyry [illegible]		95%		63078		.026		
Crowded porphyry: typical to 56' — then marked increase in alteration and loss of clear texture — same [illegible] partially continues	chlorite alteration of [illegible] to 56' then marked increase in sericite alteration of feldspar phenos: & matrix — sandy [illegible]. Still minor limonite			60	traces of MoS_2 in qtz veins. not abundant. qtz. veins may predate alteration.	approaching fault or joint significant alteration...		90%		63079		.032		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
crowded porphyry — V. altered, [illegible] unfractured [illegible] core = sludge from 61-66' [illegible] 68'-69' —	progressive alteration of feldspar and [illegible] to clay — sericite, montmorillonite ± chlorite [illegible] —				[illegible]	70	[illegible] rare [illegible] veins, not [illegible] probably not [illegible]	possibly = [illegible] fault [illegible] late [illegible]		70%		63080		.070		
crowded porphyry — less altered but similar to above — grades to sparse porphyry zone 76-78'	typical alteration of feldspars — [illegible] limonite stain of plag. alteration sericite & chlorite:		sp		5	80	traces, rare coarse blebs MoS2 in qtz veinlet [illegible] some [illegible]	deformed and broken [illegible] "sparse" crowded [illegible]		90%		63081		.032		
crowded porphyry with gradational zones of sparse porphyry: —	fairly fresh: plag. ⇒ chlorite ± limonite stain. Kspar - fresh to white [illegible] note trace of pyrite [illegible] bio					90	typical rare MoS2 blebs in infrequent qtz veins [illegible]	less deformed [illegible] but core broken		90%		63082		.033		
crowded porphyry — little matrix, locally equigranular "granitic" — cutting dyke? e.g. [illegible] 93'-95' - Dyke = [illegible] top of hole, locally sparse porphyry	[illegible] fresh. minor alteration of [illegible] chlorite [illegible] plag: — trace of limonite on fractures hard — competent rock				[illegible]	[illegible] 100	MoS2 - traces, [illegible] rare qtz veins, fractures not common:	note crowded porphyry locally grade to sparse.		95%		63083		.022		
crowded porphyry: local sparse sections [illegible] "granitic" sections. Kspar [illegible] < 10cm, + qtz, plag: [illegible]	V. little alteration some plag ⇒ chlorite possibly some ecolite [illegible]					✱ 110	good MoS2 [illegible] qtz veins: [illegible] Ca. + blebs: [illegible] vein ‖ [illegible] blebs:	vein ‖ CA + pyrite + Flourite vein = vuggy: xstalline qtz (moly) veins 2-6mm		95%		63084		.160		
crowded porphyry: — as above, with local sparse and "granitic" sections.	appears more altered. plag ⇒ chlorite [illegible] appears altered [illegible]					✱ 120	[illegible] 0.5mm qtz veins [illegible] MoS2 blebs: [illegible] sporadic:	note small fracture [illegible] ‖ C.A.		95%		63085		.082		
crowded porphyry — with granitic texture: — possibly some bio - chlor alteration minor matrix. ± med. grained	greenish colour to rock — possibly chloritic feldspars, [illegible] green ± fresh [illegible]					130	rare specks MoS2 [illegible] fractures: — Not common	unfractured and undeformed crowded porphyry green colour [illegible] chlorite		95%		63086		.014		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. 202 SHEET No. 2 of 5

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	ASSAY RESULTS: Cu	ASSAY RESULTS: Mo	ASSAY RESULTS	EST. GRADE
Chloritic crowded porphyry – as above. Note v. silicified zone near contact with f.g. QM dyke at 137' (45° c.a.) ⇒ 142' contact 45° c.a.	chloritic alteration of crowded porphyry: – note dyke of f.g. QM – v. altered, – sericite kaolinite				45°	140	Dissem specks in f.g. QM and coarse blebs in qtz veins // c.a.	Chalky "felsitic" Q.M. – probable silica body: may post date 1st stage of qtz veining:		95%		63087		.108		
V. microcrystic FgQM has chill or reaction margin against qtz & crowded porphyry – post-dates Qtz? .. Note crowded porphyry ⇒ sparse variety	country rock porphyry – v. green – ? chloritic alteration ± fresh dyke – fine qtz. in sericite ?kaolinite dust after plag. xtals.				45°	150	Note MoS2 replacing biotite in fg QM dyke	? has altered to dyke – may be fresher than apparent.		90%		63088		.075		
Bio & chlor rich crowded porphyry: – note Kspar rich zone // fractures and qtz veins matrix of porphyry appears to get feldspathic	green, chloritic bio rich crowded porphyry: – possibly with K.spar addition near fractures:		crowded			160	Note pyrite with biotite. – MoS2 in qtz fractures which are not common, // c.a.	Kspar takes over matrix! to porphyry – ? metasomatism? or just alteration		95%		63089		.046		
patchy transition to sparse porphyry mixed with crowded. Note altered look to fine matrix.	green, chloritic look to rock: – plagioclase xtals etched (chlorite)		sparse			170	traces of MoS2 in qtz. veins cutting axis 70° c.a.	crumbly, altered rock		90%		63090		.042		
V. green, chloritic crowded porphyry – strong shear at 174' crumbly rock. – reduced recovery.	chloritic matrix & alteration – of the plagioclase.				⊢	180	traces of MoS2 in sporadic qtz veins.	altered section ± fault?		60%		63091		.015		
crowded porphyry: – diffuse texture: matrix appears altered. – rock = green, chloritic:	Note K.spar along sides of Qtz veins. chlorite + biotite rich plag: – v. altered.					190	rare MoS2 in 1-4 mm qtz. veins.	still altered and chloritic		80%		63092		.028		
crowded porphyry – altered, as above. – light green coloration	chlorite and bio: rich – matrix looks altered:					200	rare MoS2 in qtz veins	locally grades to sparse porphyry		80%		63093		.020		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. ____ SHEET No. 4 of 5

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
altered crowded porphyry similar to above ... – poor recovery from 202' – 210'	chloritic ± sericitization of matrix. [illegible]				⊤	210	coarse blebs in fracture planes: – not abundant. Pyrite on fracts:	near fault or shear zone. Fract ‖ c.a. ± late, dry		60%		63094		.041		
as above: distinct fault or shear at 216' crowded porphyry ± deformed.	chlorite ± sericite alteration of matrix: MoS_2 smeared on joint surface				15°	220	smeared on joint 216' – otherwise sparse.	alteration near shear zone or joint fracts ‖ c.a.		75%		63095		.131		
altered crowded porphyry. fractured 0-30° c.a. – plagioclase ± chloritic. matrix ± altered. as above	chlorite replacing plagioclase – matrix ± sericitic – also fracture planes powdery					230	MoS_2 = sparse. few blebs in rare qtz veins & fracts.	altered, as above; SF in rare hairline fracts.		80%		63096		.038		
as above; crowded porphyry with zones of sparse.	similar chlorite sericite matrix. green colours				✳	240	[illegible] Molly. MoS_2 on hairline fracts. at shallow angles c.a. little qtz.	qtz veining ± rare fractured porphyry.		90%		63097		.058		
crowded porphyry – with local granitic textured sections: – rock = granular and fractured + altered. locally feldspathic	plag altered to v. dark green chlorite. rock locally sericite rich: possible brown coloration along fracts: & in matrix.				J / J	250	V. little MoS_2 – few qtz veinlets fractures – late	[illegible] to matrix: possibly metasomatic		95%		63098		.026		
V. similar to above: porphyry matrix = pinkish and feldspars are diffuse:	similar chloritic alteration of plag: possibly less altered than above:					260	qtz veins [illegible] 45° c.a. ± specks MoS_2 – not common	return to less green, "normal" crowded porphyry		75%		63099		.032		
crowded porphyry with major shear zone from 264' to 267'	strong development of dark chlorite, pyrite & MoS_2 on slip planes rare				J.	270	minor MoS_2 on shears and in quartz veins	Note rich in Pyrite		15%		63100		.074		

GRID: ____ **PLACER DEVELOPMENT LIMITED** HOLE No. ____ SHEET No. 5 of 5

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
typical crowded porphyry – note brown colour – not green, relatively undeformed and fresh	minor chlorite alteration of plag: note some Kspar veins with biotite [illegible]			280	qtz veins, minor Moly, Moly in fractures [illegible]	shallow angle fractures – 1st, affect by [illegible]	[illegible]	95%		63101		·037		
as above: typical, fairly fresh, crowded porphyry – possible shear (sandy) at 284' Note mafic frag. (Millstone?) Q.H. at 289' separates crowded from sparse Q.P.	reduced: fairly fresh – some alteration of plag. to chlorite			290	v. rare qtz veins (80° ca) + Moly, also rare fracts: // c.a.	± undeformed but for joint variable composition sparse & crowded		95%		63102		·090		
typical sparse porphyry: fewer, smaller, Kspar phenos: more qtz. – appears fairly fresh	fairly fresh – minor plag. alteration: note 4 cm aplite (Fig. 4M) vein (30° c.a.) at 293' –			300	Qtz. veins (2–5 mm) + barren, Moly in "dry" fractures mostly at shallow angle c.a.	Significant rock change, slight increase in Moly		95%		63103		·055		
Sparse porphyry – as above: euhedral Kspar, Qtz, Plag, Bio in aphanitic brown matrix. random orientation	Minor alteration feldspar → Chlorite → Sericite texture remains:			310	coarse Moly flakes in some qtz. veins and in "dry" fractures:	fresh but much fractured sparse porphyry		85%		63104		·080		
as above: v. crumbly → broken sparse porphyry: –	chloritic alteration 1st. fairly fresh fracturing 70–80° ca. → 30–40° ca. normal jointing			320	Minor Moly and common traces only	Much shattered porphyry		85%		63105		·027		
as above: Very crumbly and fractured sparse porphyry: typical texture, aphanitic matrix:	minor alteration to 328' – then more sericitic alteration – joint			330	Minor traces Moly in qtz veinlets and fractures: sparse.	as above.		90%		63106		·050		
as above; still crumbly and shattered	fairly fresh; altered near joints: –		338' EOH		Moly on some fractures and in a few qtz veins	as above.		90%		63107		·068		

ADC 208

PLACER DEVELOPMENT LIMITED

GRID: ______

HOLE No. ______
SHEET No. 2 of 6

LOCATION: 3E 5N. BEARING: ______ LATITUDE: 6 620 318·7 PROPERTY: Adanac
DATE COLLARED: 2nd July 79 LENGTH: 400' DEPARTURE: 589 856·8 CORE SIZE: NQ LOGGED BY: R. H. Rusent
DATE COMPLETED: 5th July 79 DIP: Vertical ELEVATION: 1476·1 SCALE OF LOG: ______ DATE: 4th July.

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
overburden to ?25'. Mixture of igneous rock fragments: includes C.g. QM, Fg. QM and 4th July Diorite!	mixture of clays in plag. xstals in Cg QM. – stain on fractures: (none in diorite fragments)			20	None observed.	probably overburden; contact obscured;								
at 25' – coarse grained QM typical: – fractured, Kspar, 0.5–1.0 cm with interstitial qtz: appears to intrude and also intruded by Fg QM	alteration = slight deformation of Kspar ± ll cd. + limonite stain on fractures	Cg QM		30	None observed.	intrusive relationship obscure – Cg. could be intruding Fg. QM.		90%		63108		·004		
Fg. QM appears chilled at contact but is veined by c.g. streaks [illegible] Fg QM – [illegible] [illegible] not local [illegible]	Slight: – some limonite staining + possible 2ndary biotite.	Fg / Cg QM	[illegible]	40	Cg QM and Fg Qtz vein 45° c.a + blebs MoS2 also [illegible] – possibly Mo: [illegible] few coarse veins 2-4mm	transition through minor crowded porphyry into Cg QM again at 33'		95%		63109		·048		
return to Fg. QM at 34' [illegible] shallow angle c.a. – Fg. QM locally porphyritic – mainly aphanitic – speckled Fg QM grades to sparse porphyry at 50'	Fg QM contains orthoclase veins with biotite 45° c.a, 90° c.a. diffuse contacts; alteration unrelated to Qtz veins	[illegible]		50	MoS2 specks in [illegible] stockwork of qtz veins – all angles. Most veins 1–3mm	Fg. intruding Cg. Fg QM = slightly fractured and veined by smoky Qtz.	*	95%		63110		·040		
return to Fg QM at 51' Fg QM passes to sparse porphyry at 56' age relationship obscure – intrusive contact? Note matrix of porphyry = finer than Fg QM	V. slight, some limonite staining of plag. x fractures. [illegible] limit to Fg QM. –	Fg QM / SP	51' J	60	Fine traces of MoS2 in hairline to large (0.5cm) qtz veins, steep and shallow angle	Porphyry possibly younger and finer grained.		95%		63111		·034		
joint contact to variable crowded porphyry; note patches = "coarse grained granitic" – others = sparse [illegible] = crowded porphyry.	Stain + some feldspar [illegible] near shears at 60'–64'. Fresh otherwise.		J.	70	Coarse and fine MoS2 on dry fractures and in Qtz veins.	complex zone. mainly porphyry.		90%		63112		·094		

PLACER DEVELOPMENT LIMITED

GRID: ______ HOLE No. [illegible]
SHEET No. 2 of 6

LOCATION: ______ BEARING: ______ LATITUDE: ______ PROPERTY: ______
DATE COLLARED: ______ LENGTH: ______ DEPARTURE: ______ CORE SIZE: ______ LOGGED BY: ______
DATE COMPLETED: ______ DIP: ______ ELEVATION: ______ SCALE OF LOG: ______ DATE: ______

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
V. sharp transition to mafic phase — V. [illegible] with mafic Q.M. porphyry (cadet type) contact obscure, [illegible] porphyry [illegible] [illegible]	V. little alteration or deformation. No limonite					80	Trough veins or fractures ∴ little MoS_2	[illegible] [illegible] by 7" vein of [illegible] fg QM. [illegible] relations porphyry – mafic – obscure.		95%		63113		·018		
mafic porphyry with feldspathic zone at 81' – (Kspar-Bio) otherwise typical grey rock, diffuse [illegible] bio rich, corroded planes:	deformed at 81'-85' = [illegible] but only minor alteration					90	as above trace moly. from Qtz. [illegible] fractures.	typical cadet type porphyry.		92%		63114		·068		
as above: cut by 2 [illegible] 2cm qtz. veins 90° c.a. at 91' (and 100') otherwise undeformed and unaltered. note diffuse [illegible] planes <1·0cm.	none V. fresh looking.					* 100	major vein at 90' 70° c.a note MoS_2 [illegible] sealed by Qtz to 0·5cm thin	typical mafic porphyry: cut by Qtz veins.		95%		63115		·352		
gradation to Fg. phase of coarse g. Q.M – [illegible], mottled granitic texture relations obscure appears to intrude cg QM at 105' then typical cg QM	possible Kspar halo around qtz fract. 30° c.a. at 102' some chlorite alteration of plag. in Cg QM.				[illegible]	110	[illegible] blebs (rare) in Qtz veins in Cg Q.M.	odd transition unit – possibly chilled [illegible] cg QM.		95%		63116		·068		
typical cg. Q.M cut by younger fg QM dyke – aplitic (5cm 45° ca) at 114'	large [illegible] Xtals = ± fresh. smaller plag. zoned, cores → [illegible] – fairly fresh.					120	rare, coarse MoS_2 blebs in qtz. veins + segregations (?) in Cg QM	Fg. QM vein = sugary – non mineralized [illegible] colour		95%		63117		·072		
typical cg. Q.M cut by 2 2-4cm aplite (FgQM) veins 60° ca. sharp contacts. cg. Q.M fresh, undeformed.	rare chlorite alteration after plagioclase in Cg. Q.M.					130	small specks in hairline < 0·1mm qtz veins. rare.	Sugary, "aplite" veins. cut Cg QM *		95%		63118		·052		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
CG OM cut by 20cm dyke of crowded porphyry at 132' not 'aplite' (Fg[illegible]) - [illegible] chill [illegible] graded [illegible] !! V chilled [illegible] contact 136' = start of crowded porphyry	minor chloritic alteration - [illegible] feldspar	CG [illegible]	45° 90°	½ 140	1 V [illegible] qtz [illegible] [illegible] [illegible] [illegible] Moly [illegible] [illegible] [illegible]	glassy chill zone → sparse porphyry → crowded porphyry.		95%		63119		·200		
sparse porphyry + slightly less crowded from 140-150' - typical crowded porphyry - [illegible] planes; qtz feldspar (50:50) + Biotite - aphanitic matrix	V. minor alteration: affects feld. some chlorite [illegible] sericite.			150	[illegible] [illegible] ([illegible]) [illegible] qtz veins [illegible] [illegible] [illegible] [illegible] little loss	typical crowded porphyry - little deformed		95%		63120		·064		
crowded porphyry with marked increase in alteration	green chlorite replaces [illegible] and sericite - kaolinite [illegible] [illegible] little deformation			160	Moly in fractures x qtz veins at 30° x 60° - fairly common.	as above: typical [illegible] rock type		95%		63121		·108		
as above. porphyry badly jointed at 165' and 169'. alteration [illegible] in [illegible] near shear/joints fracturing [illegible] [illegible]	chlorite - sericite alteration of feldspar.		J	170	Moly blebs in 2-4mm qtz veins and dry fractures: - not common.	entire vertical joint zone fractured		95%		63122		·060		
as above fractured crowded porphyry - late joint zone ∴ deformed.	as above, chlorite x sericite alteration of feldspars		J	180	with pyrite on shear planes and in rare fractures: not common	as above. V. fractured but not V. altered.		90%		63123		·036		
as above fractured and crumbly crowded porphyry ± [illegible].	increase in chlorite sericite alteration.			190	as above mainly [illegible] Moly in 2mm [illegible] qtz veinlets.	as above		90%		63124		·084		
typical crowded porphyry [illegible] [illegible] (1cm) + qtz [illegible] in aphanitic matrix [illegible] vary: [illegible] [illegible] [illegible] [illegible] [illegible]	relatively fresh, unfractured - some chlorite & sericite alteration			200	rare qtz veins [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] 40° x 90° [illegible]	less deformed, typical, crowded porphyry		9[illegible]%		63125		·030		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
as above: typical crowded porphyry: — light brownish colors. >45% phenocrysts: undeformed: [illegible]:	Minor sericite & chlorite alteration of feldspar phenocrysts: Kspar envelope to some qtz veins, 70° c.a.			210	Note pyrite on [illegible] joints: coarse clots of pyrite, sparse, in [illegible] qtz veins	some less biotite. note phenocrysts [illegible] 9.5		95%		63126		.048		
crowded porphyry grading into sparse porphyry (TFQM) at 218'-220' — [illegible] of sparsely porphyritic TFQM. Note Kspar envelope to [illegible]	as above: — moderate chlorite alteration of some feldspars: possibly some [illegible]: Kspar envelope to qtz.	Crowded	90° [illegible]	Y 220	MoS2 note [illegible] in qtz veins 90° to c.a. [illegible] biotite + Kspar [illegible] minor MoS2	Kspar alteration may be [illegible] fluid. also [illegible]		75%		63127		.090		
as above: — note increase in qtz veining & possibly in Kspar content of matrix: note also core [illegible]. Crowded Porphyry	possibly [illegible] Kspar & biotite + later chlorite-sericite alteration: —			230	MoS2 in qtz veins, increased numbers — many directions. small blebs in [illegible] qtz veins	increase in original alteration feldspar + pyrite in veins		95%		63128		.046		
Crowded porphyry — turbid and patchy altered: locally v. increased in biotite, [illegible]. possible Kspar increase in matrix.	possibly as above — early biot Kspar, late chlor-sericite	Crowded		240	MoS2 [illegible] in qtz veins. hairline [illegible] MoS2: variety of [illegible]:	Note 4cm vein of Tg Q.M. at 237' ([illegible])		95%		63129		.038		
Crowded porphyry: further increase in alteration. Locally v. turbid matrix to typical crowded porphyry. Chilled TgQM vein (5cm) at 244'	fairly typical. Biot flakes may be mostly [illegible]. Plag — chlor (green) Kspar — sericite/kaolinite (white clay)			250	as above. qtz veins: [illegible] MoS2 [illegible]. Note: traces of pyrite	Much fractured for no obvious reason:		85%		63130		.028		
as above: crowded porphyry — with local Kspar veining: — fractured and broken ground.	Kspar envelopes to veins of qtz (some) otherwise chlorite-sericite alteration [illegible] in ore shear	Crowded		+ 260	V. coarse MoS2 on fractures ‖ c.a. at 253'-258' — possible [illegible] loss. Pyrite with MoS2	Broken rock otherwise [illegible] typical, coarse MoS2. Loss likely.		80%		63131		.068		
Crowded Porphyry — V. altered and deformed. rubbly.	strong sericite-chlorite alteration of some [illegible]: possibly near fault ~ at 267' [illegible]		[illegible]	270	MoS2 + pyrite — on 'dry' fractures — few qtz veins	fractures ‖ c.a. [illegible] vertical possibly late (Note specific [illegible] 200-37)		80%		63132		.054		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 6 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
as above: V. deformed crowded porphyry – V. chloritic	note possible alteration of Kspar before chlorite to sericite/kaolinite and chlorite		T	280	small amount of core qtz veins + dry fractures. Pyrite also. No Mo to be lost(!)	further deformation in core. Mo in the matrix [illegible]		8%		63133	-	·081		
as above; V. altered crowded porphyry – note V. low recovery sections ± stable, rest sheared and [illegible]	sericite – kaolinite and chlorite alteration. rock breaks easily		T T	290	slickensided moly on shears, coarse blebs [illegible] possibly shears	increase in deformation and core alteration		50%		63134		·201		
as above: major shear zone from 292'–298'. fragments in fault gouge. Cemented by black [illegible] rounded quartz, pyrite and moly blebs.	V. altered, locally clay – chlorite alteration. possible epidote in fault zone (apple green)	Porphyry	F F	300	coarse moly blebs in qtz veins in fault; moly [illegible] remobilized.	what are black qtz? looks conglomerate (?) fault zone = possible Mo at core		60%		63135		·510		
less deformed chloritic crowded porphyry – note green colour and chlorite pinlets 45° CA. green alteration [illegible] 303' fairly fresh crowded porphyry 304–305'	moderate chlorite alteration related to fault – fresh looking from 305' – alteration of feldspars (Plag)			310	coarse blebs in core qtz veins: not [illegible]	sharp transition to fresh looking crowded porphyry		10%		63136		·037		
Return to altered and deformed crowded porphyry – cutting major fault from 314' to 319' – Fault 20° CA – note normal qtz [illegible] considerably black [illegible]	as above: chlorite and sericite–kaolinite alteration of feldspars – locally [illegible]		F F F	320	fault – moly rich coarse blebs in normal qtz along [illegible] porphyry contact	Black qtz may be chilled basalt!! (check)		1%		63137		·735		
altered but ± undeformed crowded porphyry – note green chlorite alteration of feldspar (Plag) and turbid sericitic matrix. Possibly same early Kspar envelopes.	Kspar envelopes to qtz veins 40° CA + possible original Kspar alteration in matrix. Subsequent sericite + chlorite alteration		K	330	minor moly in qtz veinlets (1–1mm) sparse. 1 large qtz vein (1cm) at 80° CA at 328'	texture of porphyry – altered: appears more granitic		92%		63138		·056		
Crowded porphyry – with narrow veins (2–5cm) of [illegible]. sharp contacts; porphyry ± altered.	Possible Kspar envelopes and granite in matrix and Biotite rich zones. Alteration moderate chlorite – sericite alteration		K	K 340	V. rich in moly coarse blebs [illegible] in wide (0.2–1.5cm) qtz veins (little [illegible])	V.c.g. moly in wide vein at 80–60° CA. rock – fresher but still fractured and [illegible]		75%		63139		·235		

GRID: ___ PLACER DEVELOPMENT LIMITED HOLE No. 20- SHEET No. _ of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Crowded Porphyry - typical less deformed, mineralized, and altered than above - euhedral phenos (± chlorite) v. fine matrix (phenos crowd)	Plag - carbonate, Kspar - sericite, typical in flow; - increase at base of section - commonly Anhydrite			[illegible]	moly in small amounts in fine fractures, fracture ..., quartz veins.	possibly faults and more characteristic than above ... 348'		9?%		63140		.018		
as above altered, broken Crowded Porphyry - no crosscuts; fault with shears + gouge at 45-70° c.a. - alteration to clay in feldspars	atypical feldspar alteration - moderate - relatively fresh. Local Kspar envelopes to qtz veins.		K	[illegible]	No qtz veins with specks of MoS2, few, not common	Note 10cm mafic ... vein at 356'		80%		63141		.028		
increase in biotite and chlorite = Crowded Porphyry: texture diffuse as rock altered, - change to more mafic rock at 363' still porphyry but lighter colour.	Locally deep green anhydrite + chlorite, dark green colors to section up to 363'. The biotite replaced and only chlorite + clay - light green	Crowded		[illegible]	Fractures & c.a. = chlorite and ... MoS2 in fine X-veins at 80-... c.a. in qtz.	MoS2 = coarse, ... light chlorite = Mg rich(?)		90%		63142		.083		
returns to darker, more mafic variety at 370' - still ± typical crowded porphyry; relatively undeformed.	Local Kspar envelopes to fracturing and qtz veins; otherwise typical chlorite sericite alteration			[illegible]	MoS2, ... in qtz veins & pyrite. ... not rich	zones of fresh and altered crowded porphyry		95%		63143		.058		
Sharp contact at Crowded Porphyry ⇒ Sparse Porphyry at 384', 2-4cm chill zone with no phenos than typical sparse porphyry	Variable alteration. Some sections ± fresh, Kspar - feldspar alteration - locally sheared (40° c.a.) and strongly altered			370	V. minor MoS2 in qtz veins and fractures: rare.	Younger? lithology - v. similar but less altered and more ...		95%		63144		.018		
As above - Sparse Porphyry - fairly crowded in places but mostly sparse.	Variable alteration. Some fresh sections, others = chlorite and (?) sericitic. Note Biotite + Pyrite in qtz veins	Sparse		[illegible]	Less qtz veins ... fractures + MoS2 not common	... similar ...		9?%		63145		.057		

PLACER DEVELOPMENT LIMITED

HOLE No. PDL 204
SHEET No. 1 of 6

GRID: ______

LOCATION: 3E 4N	BEARING:	LATITUDE: 6 620 347.4	PROPERTY: Adanac
DATE COLLARED: 5th July 79	LENGTH: 394'	DEPARTURE: 589 843.2	CORE SIZE: N.Q.
DATE COMPLETED: 8th July 79	DIP: Vertical	ELEVATION: 1477.0	SCALE OF LOG:
LOGGED BY: R.A. Pinsent	DATE: 8th July '79		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
C.g.Q.M as boulders ... outcrop; passes to sparse porphyry at ?'	rocks - rusty, limonite staining feldspars altered		10				ATMO.	fresh with surface weathering								
Variable porphyry - either pheno rich sparse or poor crowded - probably sparse - average % pheno = 30%. Av gr. phenos = 6mm	feldspars undeformed, slight brown stain and limonite on fl... coatings; also on fractures // c.a. (hairline)	Sparse	20				2-6mm qtz v. ... c.a. ... controls; MoS2 ... probably etched cut by hairline ...	Note local large Kspar phenos > 1.0cm. weathered rock	Mo loss 100%	85%		63146		.007		
Sparse porphyry grades into crowded: with local sparse patches; similar to above but more phenos > 45% and ... mafic: sugary matrix.	patchy limonite stain in rocks near fractures - basically fresh rock: 1 Kspar envelope on fracture	Crowded	30				Qtz veins as above with dissem MoS2; veins 90° ca. ...	Some qtz veins = etched, some Mo loss	40	85		63147		.069		
Crowded porphyry cut by FgQM vein, a creamy sugary dike. porphyry = grey speckled. at 39' grades back to sparse porphyry - 25% pheno.	Local Kspar envelopes to fractures with sparse MoS2 and Qtz - 80-90° c.a. limonite on fractures. not in rock.	Fg	40		40°, 20°	*	rare specks dissem MoS2 in FgQM; coarse blebs fractures x-cut normal.	trace of pyrite in fractures and locally disseminated	30	85		63148		.036		
Sparse porphyry to 47' then passes to smashed up CgQM, with FgQM - relations unknown. Note porphyry has odd coarse pheno zone 44-45'	V. slight, fragments in smashed zone appear fresh. V minor limonite stain.	Sparse, Cg	50		[illegible]		MoS2 blebs with pyrite in qtz veins & dry fractures. 2 sets, steep 0-20° & shallow ~80° c.a.	Mixed zone probably multiple intrusion	30	90		63149		.097		
Mainly broken Cg QM to 57', obscure passage to FgQM with local pegmatitic segregations (Qtz/Fsp) ± straight transition to crowded porph. at 58'	Fresh, rare Kspar (?) envelopes to fractures 90° c.a. (bleached) - traces of limonite on fractures, essentially fresh.	Cg	60				MoS2 blebs in qtz veins, not rock.	Crowded porphyry matrix = coarse x-grey = FgQM	40	90		63150		.046		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. ___ SHEET No. _ of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
as above: Crowded porphyry → sharp contact TgQM (non-porph) chilled contact 64' Salt & pepper variety i.e. sugary, feldspathic & less coarse - ?? ~c.a. 70°	Fresh, but for slight limonite stain on fractures and joints; note increase in qtz veins ?? - some Kspar (?) some qtz, some ??		70°	70	fine dusting and sparse blebs ?? in fractures qtz veins. mostly 2-4mm veins.	2 main sets: 90° & 70° c.a. ?? ?? sharp increase in veins in TgQM	Mo 64' <10	95%		63151		·046		
sparse phenos <10% ... TgQM. (sparse qtz and Kspar phenos). some slight changes in gs. from normal sugary - salt & pepper texture.	V. slight. some limonite stain only on fracture surfaces, not signif.		✱	1 / 80	V. coarse rich MoS2 mass in qtz vein at 70° ?? ?? in qtz vein system, as above	+ pyrite on fractures: Note narrow fract. set // c.a. 72-76.	90', 66' ?? <5%	95%		63152		·281		
As above TgQM. with sparse porphyry zones - mostly <10% pheno (qtz/Kspar) sugary - salt & pepper texture Fairly mafic comp:	V. slight: local Kspar envelopes to some qtz veins. No limonite Note pyrite ?? in some veins			90	milky qtz veins, 2-4mm - all angles, fairly common vein at 86' 70° ca. V. rich MoS2 (+pyrite)	TgQM may contain ?? ?? of coarser porphyry - local sharp contacts	<5%	98%		63153		·130		
Major fault 94' → 103' rock type destroyed - (probably TgQM) Shear angle = 25-40° c.a.	intense alteration - chlorite, clay, - carbonate - pyrite		F F	100	MoS2 → black paste on shear surfaces:	Strong fault.	?	95%		63154		·084		
103' - V. leucocratic type of TgQM - few bio biotite - almost felsic. contains patches (fragments?) of CgQM - pegmatitic (≡ 202, 138')	± fresh. possibly some sericite. kaolinite alteration of feldspar in leucocratic TgQM	CgQM	F	110	MoS2 blebs sporadic, in qtz veins ? ?? ?? veins ?? sets	possibly TgQM intruding CgQM. note 6mm qtz vein near the contact TgQM + chill zone	<5%	95%		63155		·117		
odd ball CgQM zone passes to mottled variety - fine grained - possibly chilled form - (see 203-102) extends to 112' then vague contact to Mafic QM	± fresh - some sericite alteration of feldspar in CgQM and Mafic QM. Kspar vein at 114'			120	sparse blebs ? qtz vein ? pegmatite few qtz veins little MoS2	contacts obscure CgQM may intrude mafic variety	<5%	95%		63156		·030		
typical porphyritic, mafic QM - V. rich in interstitial biotite i.e. mottled. feldspar phenos - irregular - gs = 5mm	appears ± fresh, white feldspars, speckled rock			130	rare qtz vein + blebs MoS2	typical mafic porphyry.	<5%	95%		63157		·070		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	ASSAY RESULTS: Cu	ASSAY RESULTS: Mo	ASSAY RESULTS	EST. GRADE
Mafic QFP porphyry typical, [illegible]	V. little – note clay – [illegible] (?) in fractures – [illegible] – locally Kspar in qtz veins					1??	[illegible] spotty, [illegible] in qtz [illegible] (1-2 mm)	[illegible] – [illegible] rich [illegible] [illegible] veins	<5%	75%		63158		.083		
Chilled contact, mafic QFP ⇒ sparse porphyry ⇒ crowded porphyry by 145' typical [illegible] 45% [illegible] variable [illegible] 6-8 mm	Slight alteration of feldspars in crowded porphyry – clay-chlorite alteration [illegible] fresh.				90°	150	[illegible] (fracture [illegible] (1 mm) of qtz. + [illegible] blebs & pyrite – [illegible]	change to normal crowded porphyry + apparent [illegible] [illegible] alteration	<5%	90%		63159		.064		
Crowded porphyry: as above much fractured [illegible] with apparent increase in alteration – increase in chlorite + sericite [illegible] gs. euhedral	Chlorite replaces plagioclase – dark fissures – note pyrite in biotite (local)					160	Moly in qtz. veins – (?) [illegible] note rosettes on fracture [illegible]	further alteration increase probably [illegible] [illegible] green [illegible]	20%	95%		63160		.193		
Crowded porphyry – chlorite green colouration decreases at 162 ⇒ typical brown colour. Note increase in Kspar phenocryst size and % – still euhedral variable 0.5-1.0 cm	Chlorite replacement of plag: decreases: less intense alteration: Kspar unaltered. Note Kspar envelope [illegible] vein qtz. 70°c				↑	170	Pyrite to [illegible] [illegible] [illegible] [illegible] [illegible] veins [illegible] veins 70° ca.	Note some qtz veins vuggy & open: – good Xstals MoS2 & qtz	15%	90%		63161		.093		
Crowded porphyry: – typical – grey coloured – euhedral plag. >45% crowded into aplitic matrix: phenos range 2m – 10mm	Fairly fresh. – some chalky clay (sericite/kaolinite) alteration of feldspar – minor chlorite				✳	180	MoS2 in qtz veins ca. [illegible] – also smeared [illegible] on fracture [illegible] qtz. V. ll ca.	MoS2 rich on fract surfaces ll [illegible] ca more than in qtz. veins	15%	95%		63162		.236		
Crowded porphyry. V. similar to above: relatively fresh. veined and fractured. Kspar rich zone 184' diffuse	Minor pyrite / [illegible] on fract: + clay / carbonate gouge – otherwise relatively unaltered crowded porphyry. –				✳	190	Note Xstals pyrite [illegible] crowded porph: – crystal MoS2 on fract ll 30° ca – rich (190')	Note pyrite – possibly part of halo?	10%	95%		63163		.084		
Crowded porphyry: as above: [illegible] up from 195' – [illegible] [illegible] vein at 200' (5 cm) probably shallow angle ca	Variable alteration, not extreme – note Kspar [illegible] qtz [illegible] zone of 197' chalky alteration of some [illegible] : not [illegible]					200	[illegible] MoS2 qtz veins, [illegible] calcite veins across + pyrite in gouge.	[illegible] blebs in qtz veins [illegible] + shallow angles. [illegible]	10%	95%		63164		.075		

GRID: ____ **PLACER DEVELOPMENT LIMITED** HOLE No. [illegible] SHEET No. 4 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
typical Crowded Porphyry - relatively fresh - variable 2mm - 10mm - [illegible] Kspar, qtz, + Biot, Plag - aplitic matrix. grey colours	slight chlorite alteration of plag: + clay after Kspar - [illegible] pyrite [illegible] // c.a.			210	MoS2 on [illegible], mostly in 4mm qtz veins. 90°c.a.	on fracture fractures at 60-30° c.a.	<10'	90%		63165		.073		
as above; locally slightly [illegible] & fewer phen; all [illegible] - some qtz/feld. phenos in aplitic matrix. grey-brown colors	minor clay alteration of feldspar. little chlorite. note Kspar rich zone (5cm) at 218' + Qtz + MoS2 + Biot. 90°c.a.		K	[illegible] 220	MoS2 in qtz veins and on fract. faces. Local, not continuous veinlets = 4-8mm mainly 90-60°c.a.	qtz veins 60° ca = earlier than 90°c.a.	<5'	95%		63166		.121		
as above. typical [illegible] variable porphyry - note Kspar zone at 221', fractured 223 - 228'.	as above; fairly fresh - Minor Feldspar alteration: - 2cm Kspar vein (+ qtz + MoS2) + Biot 70° c.a.		K.	[illegible] 230	3mm vein, 50°, MoS2/Qtz. cuts hairline fract: + pyrite + MoS2 + qtz	Note thick MoS2 coat on some fracture faces	15'	85%		63167		.171		
Crowded Porphyry: - Note possible increase - biotite size & content. typical texture [illegible].	possibly 2ndary biotite - note retrograde more chloritic plagioclase - clay / carbonate gouge on fractures.			240	Note pyrite shears 40°c.a. - normally //. MoS2 coat on hairline fract: // c.a. (not all)	decrease in qtz veins: decrease in MoS2 (none 90°c.a.)	<5'	95'		63168		.038		
as above - Crowded Porphyry with minor sparse sections at 244 and 246' - grey coloration - biotite rich variety of porphyry: -	Fresh looking, V. little sign of alteration Pyrite common on fracture faces.			250	MoS2 faces on hairline fractures 80°c.a. not all in MoS2	grey ⇒ Brown ⇒ Green ⇒ degrees of alteration?	<5'	95%		63169		.020		
as above; Crowded Porphyry - + Kspar rich zone at 251 (+ Bio, Qtz, MoS2). Note Bio rich rock type (2ndary?) - grey colours minor feldspar alteration	± fresh looking but crumbly at 258' and 259'. Note yellow staining (Mo?) of clay / carbonate gouge.			260	Qtz veins V. limited, few. hairline veins & fracts: + MoS2	typical - Mo loss in crushed zones V. uncertain.	<5'	80%		63170		.053		
as above, Crowded Porphyry - brown colours - (pink Kspar)	Note 2ndary Kspar, biotite + fluorite in shear zone at 162' may be 2ndary biotite in Kspar planes;		K	270	rare qtz veins & hairline fracts. + MoS2 not common.	Local fracts + gouge 35°ca.	<5'	95%		63171		.075		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 2 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
typical (brown) crowded porphyry = sparse [illegible] contact not seen. [illegible] increase in fracture [illegible] 271-276 - returns to typical porph. [illegible]	chlorite - clay alteration of feldspar increase. [illegible] [illegible] of fine grains on fractures [illegible]		sp.		? 10°	280	sparse MoS2 in hairline fracts [illegible] qtz veinlets [illegible]	dyke of sparse porph: note bluish clay in fractures.	Most Loss <5%	95%		63172		·051		
crowded porphyry - with slight reduction of [illegible] - approaching sparse, - grey-brown, fresh, [illegible] (·2-1·0 cm)	slight: some chlorite alteration of feldspar not [illegible] with some [illegible] of plag.				*	290	MoS2 in narrow qtz veins [illegible] no specks [illegible] veins // [illegible] 90° ca.	Main blebs at intersections of qtz veins.	<5%	91%		63173		·052		
fairly sparse crowded porphyry: ±35-40% pheno. [illegible] euhedral. Kspar, Bio, small plag. + fairly abundant [illegible]	Outside Kspar envelope qtz vein 299 [illegible] generally ± fresh, v. minor alt. of feldspar; note v. few fractures: hard, competent		?		K	300	few blebs in qtz veins (not [illegible]) [illegible] hairline fracts; trends 80° ca. hairline 30-40°	Little silicification of fractures, qtz, few qtz veins. Little MoS2.	<5%	98%		63174		·027		
V. crowded section of crowded porphyry, cut by diffuse "granite" (Kspar?) zone [illegible] at 301' increase to >50% pheno: still euhedral	V. slight clay alteration of plag: little chlorite - Kspar envelope to qtz-[illegible]-MoS2 vein at 301.		[illegible]		K	310	Sparse blebs in qtz veins, as above. Some [illegible] fractures 35° ca.	[illegible] (90°) veins = younger than shallow (30-40°) veins. Brownish porphyry	<5%	98%		63175		·041		
crowded porphyry - with variable phenocryst content, also variable matrix gs. - locally fairly coarse ∴ granitic texture after 318'; gradation	Note pyrite traces in biotite clusters: V. fresh, possibly some Bio + 2ndary feldspar ± unaltered					320	as above, late qtz veins + MoS2. note blebs commonly at intersection of 2 fractures.	Brownish porphyry with fine salt & pepper matrix ⇒ granite	<5%	95%		63176		·053		
V. granitic textured crowded porphyry to 324' - than typical texture - local variation composition [illegible]	± fresh brownish colours, no significant Kspar alteration - no chlorite or minor.		[illegible]			330	sparse MoS2 blebs in qtz veins 1 mm ⇒ 8 mm wide, + dry hairline fractures not abundant	[illegible] variation - crowded porphyry ⇒ granite textured phase	<5%	98%		63177		·038		
crowded porphyry: - mostly phenocryst density >45% - ± euhedral xtals in fine salt & pepper matrix: brownish colour.	V. slight alteration. - mainly plag ⇒ greenish clay & chlorite					340	as above. sparse qtz veins & dry fracts: + MoS2 not abundant	Variable porphyry continues.	<5%	98%		63178		·045		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Crowded porphyry with qtz-feld. pegmatite vein at [illegible]. Typical [illegible] porphyry. – Y 1 Kspar envelope to qtz. vein	slight alteration of feldspar margins. – note diffuse biotite clusters – possibly replacing feldspar.		K	355	traces in qtz veins (80° ca) and dry fractures – dry fracture + pyrite	typical porphyry [illegible] – not much MoS2	<5'	95%		63179		.065		
variable crowded porphyry continues: – note sheared from 355 – 360 – open qtz [illegible] shears 30° c.a.	increase in clay (chalky) content of feldspar & deposition of carbonate. – note sheared edges and [illegible] bars, not crumbly.			360	V. minor MoS2 in qtz. vein [illegible].	unusual shear zone – dry [illegible],	<5'	92%		63180		.017		
Crowded porphyry continues to 366'. Short cut by V. fine grained diorite or granodiorite vein (1') may be chilled mafic [illegible] then return to typical crowded porphyry.	increase in chloritic alteration in porphyry near vein.		1'[illegible]	(?) 370	rare MoS2 in narrow qtz. veins + hairline. Note pyrite in hairlines 20° c.a.	Note mafic dyke could be hornfelsed mafic [illegible] – V. fine grained)	<5'	92%		63181		.035		
altered Crowded Porphyry becomes fresher around 372' passes to grey variety with V. little alteration	clay and sericite/chlorite alteration of plag. and some Kspar.			380	Trace of MoS2 only – in hairline qtz. veins.	fresh crowded porphyry	<5'	95%		63182		.009		
as above: – grey [illegible] crowded porphyry – homogeneous, <1.0% [illegible] – euhedral ± 5% plag. [illegible]	slight alteration of plag.: rock generally fresh:			390	rare qtz veins with sporadic MoS2 [illegible]. Pyrite in dry fract. 30° c.a.	as above: uniform [illegible]	<5'	90%		63183		.024		
as above: –	Kspar envelope to fract. + MoS2 at 392		K ECH 394	400	As above, rare 2-4mm qtz. veins	Continues: – is sparse porphyry at depth?	5'	98%		63184		.059		

PLACER DEVELOPMENT LIMITED

GRID: ____

HOLE No. [illegible]
SHEET No. 1 of 6

LOCATION: 2E 3N. BEARING: ____ LATITUDE: 6 620 304.9 PROPERTY: Adanac
DATE COLLARED: 8th July '79 LENGTH: 401' DEPARTURE: 589 831.6 CORE SIZE: NQ LOGGED BY: [illegible]
DATE COMPLETED: 11th July '79 DIP: Vertical ELEVATION: 1479.0 SCALE OF LOG: ____ DATE: 11 July '79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	ASSAY RESULTS: Cu	ASSAY RESULTS: Mo		EST. GRADE
0-22' - overburden blocks of CgQM, sparse porphyry + 4th July Diorite	20					20	—									
Sparse porphyry 22-26' - rare, large, euhedral plag. [illegible] Kspar in fine [illegible] matrix - note no [illegible] planes - in matrix: <1% planes <0.8cm.	Limonite stain on fractures and in rich Kspar fractures [illegible] otherwise ± fresh		Sp. Sp			30	Cut by Qtz. vein (0.5-1.0 cm) 90° ca. some with coarse MoS2 - MoS2 loss in box.	V. broken, MoS2 loss. note planes across down hole	20%	75%		63185		.017		
From 26 to 40' - V. complex transition zone Sparse → CgQM includes [illegible] of planar to 2 cm (locally) and matrix to 1 mm [illegible] cut by Kspar [illegible] 37-39 (+ Biotite)	Fairly fresh some limonite alteration feldspars stained with [illegible] - note Kspar/Bio rich zones + thick Qtz veins		X Cg Sp Cg		✳	40	contacts good MoS2 [illegible] [illegible] (large <9cm) Qtz veins [illegible] MoS2 in [illegible]	Possibly assimilation zone or complex contact zone between two	10%	80%		63186		.019		
Transition to CgQM across 1cm [illegible] zone (90° ca) [illegible] feldspars max 2cm in a ± continuous qtz matrix.	Lop limonite - restricted to fractured zones: Major clay alteration of feldspars.		Cg		90°	50	V. little [illegible] - few [illegible] veins in [illegible] rare [illegible] qtz.	CgQM cut by 1cm aplite veinlets ≡ matrix of sparse porphyry (o'side)	5%	80%		63187		.017		
typical CgQM cut by large Qtz vein at 58' and [illegible] [illegible] CgQM - no [illegible] [illegible] sharp contact. QM. -	CgQM - crumbly & fractures limonite stained [illegible] fairly fresh: plagioclase ± altering to sericite / chlorite (light blue green)		Cg		CgQM 15°	60	Little MoS2 in 1mm vein lets ‖ ca [illegible] Kspar in qtz veins 90° ca (not rich)	Crumbly. Loss of MoS2 mostly in CgQM 53'-56'	30%	80%		63188		.047		
CgQM cut by 10cm [illegible] 'dykes' at 65 & 66' (70° ca) still crumbly.	- essentially end of limonite staining some feldspars [illegible] [illegible] CgQM					70	1 prominent 2mm MoS2 Qtz fracture ‖ ca.	Crumbly CgQM. Presumably invaded by [illegible] from Sparse	10%	85%		63189		.120		

GRID: ___ PLACER DEVELOPMENT LIMITED HOLE No. -C6- SHEET No. 2 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
CgQM that in fracture zone ∥ c.a. at 72'; gravel and sand to 85' local shearing or fragments. Fault probably.	increased + biotite stain - note plag → most altered clay.	Cg QM	F F F	80	MoS2 on slickensided shear, also flakes in gravel ∴ loss.	Strong shear or fault. ∴ lost core (73-80)	Mo loss (?) 5%	5%		63190		.188		
transition in shear to medium mafic rich type - probably CgQM porphyry transition again - mottled, + large phenol. + pegmatitic segregations ∴ hybrid	V. poor recovery until 85' then becomes fresher, some chlorite sericite alteration in hybrid.		F	90	MoS2 + pyrite in coarse qtz veins in hybrid and fine, banded matey in shear zone	appreciable loss of Moly inferred.	5%	75%		* 63191		.168		
CgQM with 10cm sparse porph. vein at 92' → hybrid zone 94-96'. Hybrid = mafic porphyritic similar to mafic QM but texture different	fairly fresh, some alteration of feldspar (particularly plag) to clay ± chlorite	Cg QM / Cg QM	hybrid	100	MoS2 in hairline to 1cm qtz veins ∥ c.a. Note qtz veins → vuggy	still complex igneous zone + multiple intrusion and/or assimilation	10%	90%		63192		.124		
CgQM - to 102' then hybrid to 107' - CgQM to 110' then FgQM. CgQM = fractured ∥ c.a. ∴ altered at 102'.	hybrid zone becomes more Fg. and spongy and less porphyritic - pegmatitic. Some ... * pyrite alteration	Fg QM / Cg QM	hybrid	* 110	/ coarse MoS2 in qtz veins 90° c.a. * in shears at 45° c.a. (1 ... rich)	hybrid probably mixture of coarse and fine rich types	10%	90%		63193		.400		
FgQM + rare phenocrysts - generally salt & pepper texture, uniform, ..., cut by numerous qtz veinlets & mineralized shears.	Minor Bio: specks: not common. - degree of feldspar alteration = uncertain. chlorite in some shears.		X	* 120	Mineralized fracts. + qtz veinlets (numerous) 1mm, crisscross - no preferred direction	fairly well mineralized V. good vein at 116' MSV. MoS2	10%	95%		63194		.555		
FgQM - as above - rare phenos: salt-pepper type. Across. cut by Kspar vein (45° ca) at 125' and shear (chlorite) at 126'.	chalky look to some feldspar - may be altered. note local increase in Biotite zone (?) Pyrite ± chlorite on some fracts	F g QM	K	130	good Sr on fract. faces and in numerous qtz. veins.	q.s. Molly ≡ qtz vein ... erratically in places, probably Mo. loss.	10%	85%		63195		.155		
FgQM grades into sparse porphyry at 137' → medium transition zone at 139' gradation to mafic porphyry.	Minor alteration of feldspars.			140	coarse MoS2 on some shears (45° ca) in FgQM	appears to grade into mafic porphyry.	20%	85%		63196		.231		

GRID: ______ **PLACER DEVELOPMENT LIMITED** HOLE No. 405 SHEET No. 3 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
V. deformed and altered mafic porphyry (few phenos) cut by a major shear at 150'. V. crumbly rock type in core	Mainly clay alteration of feldspar, some chlorite. V. crumbly.	M / QM; 150			MoS2 blebs in dry fractures (few qtz veins) in mafic QM, not abundant	transition from mafic to fine QM - interesting	15%	85%		63197		.048		
Faulted to CgQM with veins or segregations of sparse/crowded porphyry, irregular 10cm ± 3mm. CgQM - typical.	Chlorite ± sericite. Kaolinite alteration of feldspars. Crumbly.	C G; 160	45°		V little MoS2 obvious - small amounts in fractures - slickensided	poor recovery 157-162 (CgQM) no mineralization visible	10%	85		63198		.064		
CgQM cut by a dyke of sparse porphyry (Tg61) at 168'. Biotite rich "breccia" 2-4cm wide at 169' - (K-spar envelope)	alteration appears to decrease away from fault zone - less crumbly - but chlorite alteration after hbl. blue-green clay	Q M; 170			V. rare MoS2, rare qtz veins, some thick (1cm)	note still ± incipient fractures // c.a. (or at 0-30°)	5%	85%		63199		.044		
CgQM typical, ± fresh, ± undeformed, cut by sparse porphyry vein (45° c.a.) at 179' → biotite rich zones.	alteration as above, mostly fresh, minor feldspar alteration. Note: biotite rich, coarse flakes.	180			Minor MoS2 mostly on fractures and shears, not much in rare qtz veins	CgQM locally has FgQM matrix ± porphyry habit - rare	5%	95%		63200		.066		
at 183' CgQM cut by slightly porphyritic FgQM - note locally biotite rich variety. - odd ball zone (184'-185') extends to silicified shear at 189'	Minor clay alteration in FgQM - coarse grained - as above (typical) note large (rare) phenos - mostly qtz, in FgQM	Fg Q M; 190			MoS2 along fine (hairline) qtz veins ± // c.a.	mafic Fg. QM - rather than leuco - qtz + [illegible] texture	5%	95%		63201		.045		
shear passes to "fine" CgQM coarse (2mm) matrix to rock similar to CgQM - comp. - not crowded porphyry - increases phenos to form variety like crowded porphyry	fairly fresh, minor clay/chlorite alteration - zones of biotite rich [illegible] (?)	Cg QM / M f-c; 200	45°		MoS2 blebs - qtz veins and dry fractures. Not v rich ± more in mafic porphyry	± 203-103', ± 204-116', chilled variety of CgQM passes to typical mafic porphyry	<5%	98%		63202		.049		
Mafic porphyry, biotite rich + mostly aggregates of feldspar - some ± euhedral (0.6-0.8 cm) cut by sparse porphyry vein at 209'	clay alteration of some feldspar - note, fairly fresh appearance	210	15°		good MoS2 on locally silicified fracts: 90° c.a. hairline at 20°	[illegible] typical mafic porphyry + [illegible]	<5%	95%		63203		.194		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 4 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Sparse porphyry → mafic at 221'. Mafic porphyry - typical texture, diffuse phenos + [illegible] rich matrix:	etching [illegible] of small plag. xstals → light green - sericite/kaolinite alteration, slight.	H P	25°	* 220	MoS2 blebs in qtz veins (2-6mm) - coarse gr. good recovery.	4 good MoS2 veins 90° ca. [illegible] good hairlines 0-20° ca.	5'	98%		63204		.090		
as above. Mafic porphyry perhaps more altered. greenish tint to rock. Note chlorite + pyrite with MoS2 in veins.	Note chlorite increase generally → specifically in some fractures. - possibly local Kspar - [illegible] veins	C K		* 230	5 good veins: coarse [illegible] on [illegible] sets: best at intersection of [illegible].	Pyrite postdates MoS2 in stockwork fracts. - [illegible] MoS2 [illegible] Pyrite	5'	95%		63205		.240		
as above, mafic porphyry typical texture: cut by 5cm TgQM dyke at 234'. fairly undeformed some jointing // axis:	sericite + kaolinite alteration - slight. fairly fresh. note build-up of gouge in [illegible] fracts. // c.a.			240	7 signif. veins. // ca + 1 good qtz [illegible] fract: 90° ca. Not v. quartz rich.	significant sulphide in same fracture sets.	5'	98%		63206		.094		
mafic porphyry cut by dyke of crowded porphyry at 243-244' - mafic continues to 248' chilled contact, sparse → crowded porphyry.	Some clay alteration of feldspars - etched note green tint to clay. (Note [illegible] + Kspar in Qtz MoS2 vein)	K	45°	250	only narrow 1-2mm qtz veins ∴ little MoS2 1 ± good vein 20° ca.	apparent chilling of porphyry against mafic QM.	5'	95%		63207		.192		
Crowded porphyry cut by narrow 2-5cm chilled matrix zones (TgQM) variable phenos: 0.5-1.0cm. 25-50% aplanitic matrix.	etching of feldspars. - clay alteration - note some fracts: gouge → yellow - white			260	No major qtz veins but MoS2 in fracts: hairline → 2mm both directions.	weak but consistent mineralization in fine veins & fracts.	5'	95%		63208		.041		
as above: crowded porphyry: - typical texture with local relatively sparse sections: gradational.	as above. Minor etching of feldspar: mainly ± fresh, undeformed [illegible] Brecciated zones at 268'	J Crowded Porphyry		270	1 minor [illegible] in fracts in narrow qtz veins 20° c.a. - narrow qtz veins at 90° ca [illegible] barren	decrease in MoS2 level. inferred few fracts + qtz veins.	<5'	92%		63209		.032		
Crowded porphyry grades into TgQM at 272' (matrix) mainly moderately sparse (35%) coarse phenos. in aplanitic matrix (phenos 0.5-1.0 cm)	Plag → white clay. Kspar = less altered minor chlorite			280	1 fract // ca. 2 signif. fracts 90°-ca (+qtz) note barren qtz veins (.5cm) 45° ca - [illegible]	Note absence of MoS2 in main qtz. veins.	<5'	95%		63210		.076		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 2 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Crowded Porphyry:- fresh - typical texture 35-45% phenos + aphanitic matrix. [illegible] colours.	fairly fresh - some etching and clay alteration. Note gouge on some joints 10° CA					290	2 sets qtz veins + MoS2 both ± 20° CA cut [illegible]. qtz veins 90° CA not V. rich	as above: note MoS2 best at intersection of 2 stockwork qtz veins	<5%	95%		63211		.094		
Crowded porphyry cut by Bio-Kspar vein (10cm) at 293' - shows increase in deformation & alteration from 296'-298'	increase in clay & chlorite alteration of feldspar:- etching: green tint to matrix along gouge on joints.				K	300	barren qtz vein (1cm) at 290-90° CA: MoS2 traces in hairline & vein of qtz (1-2mm) 20-40° CA	Not V. abundant MoS2 - not seen in qtz veins	<5%	98%		63212		.075		
Crowded porphyry increase in phenos % to >50% : decrease in matrix: Kspar envelopes to qtz + MoS2 veins (2mm) at 308'	Note pink Kspar. - some alteration to clay & chlorite. fairly fresh	Crowded Porphyry			K	310	blebs in complex vein system x2 fract. sets 30° CA. Slight increase MoS2	Possible increase in Kspar	<5%	95%		63213		.041		
Crowded porphyry - cut by Biotite rich zone at 318'-319'. Porphyry = variable texture some ± granitic	fairly fresh, local feldspar alteration ± undeformed rock					320	MoS2 blebs in 1cm qtz vein 90° CA. L Biotite rich zone Both + Minor MoS2 in hairline fracts.	unusual Biotite rich zone gradation	<5%	85%		63214		.094		
V. similar to above: note Biotite. Kspar rich zone at 326'	Note Biotite with clusters in porphyry - after inclusions? Minor fresh clay alteration	Porphyry				330	1 main (1cm) 90° Vein = barren - MoS2 - 1(mm) vein at 90° + a similar vein at 15° CA.	typical porphyry weak mineralization	<5%	98%		63215		.030		
Crowded porphyry with sparse patches: typical, possibly lower average plano content. fractures increase 45° CA	some light green clay alteration of small (plag?) phenos: Note increased deformation	Crowded			K	340	Minor MoS2 in qtz. veins ± 45° CA - two sets (2-3mm) Kspar envelope	marked increase in deformation & alteration	<5%	92%		63216		.060		
Crowded porphyry - as above texture locally grades to granitic deformed by fracts: 45° CA	increase in clay - chlorite alteration - gouge in fractures.				J.		Minor MoS2 in hairline fracts & qtz veins.	near sheared contact?	5%	80%		63217		.065		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Sheared and altered Crowded Porphyry to 354' - contact with Sparse porphyry. - Sparse porphyry = altered, chloritic.	Chlorite alteration after plag. + biotite (locally) - green tint to brownish rock		J	360	coarse blebs in quartz veins at 45' c.a. - Moly on slickensides 351'	leucocratic aplitic phase? to Sparse porphyry - slightly altered. *	25%	85%		63218		.144		
Sparse porphyry (approaches crowded) cut by Kspar-bio. zone (1cm) at 367' & altered crush zone at 368' and 363'	fairly fresh minor sericite & chlorite alteration -		J J	370	Minor Biotite replaced by pyrite - rare blebs Moly in qtz. veins 60' & 30' c.a.	as above: low in mineralization trace of fluorite infill.	26%	95%		63219		.037		
as above: Sparse porphyry - locally close to crowded, + fresh. Cut by sheared and altered 377'-379' (45' ca) note yellow green gouge.	Chalky alteration in shear - sericite + chlorite + biotite - Not yellow gouge		J	380	Minor Moly only on hairline fractures. few good qtz veins.	as above - fractured & latterly altered. (E201-327)	5%	95%		63220		.036		
Sparse porphyry with chloritic alteration increasing with depth.	chlorite alteration of feldspar, some biotite - not green tint to rock. (still leucocratic)			390	rare sulphide as coating on fracture plane	increase in alteration	15%	95%		63221		.018		
Intense alteration of sparse/crowded porphyry.	feldspars replaced by dark green chlorite, chlorite in veinlets 45' ca.			400	qtz veins = v. weakly mineralized pyrite + Moly - mostly 90' c.a.	V. strong chloritic alteration E202-136 E203-300	5%	95		63222		.026		
	401' EOH.													

PLACER DEVELOPMENT LIMITED

GRID: ____

HOLE No. 206
SHEET No. 1 of 4

LOCATION: 12 2N | BEARING: | LATITUDE: 6 620 260·8 | PROPERTY: Adanac
DATE COLLARED: 11th July | LENGTH: 281' | DEPARTURE: 589 821·1 | CORE SIZE: NQ | LOGGED BY:
DATE COMPLETED: 13th July | DIP: Vertical | ELEVATION: 1482·2 | SCALE OF LOG: | DATE: 15th July

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
0-30 Boulders of CgQM, f.g. mafic QM and 11th July [illegible]	—	30			—	—	MoS2 Loss			63223		·002		
Coarse grained QM passes to section of crumbly sparse porphyry (few fractures) before grading into CgQM / Crowded porphyry transition.	Limonite stain on facets: + in CgQM. also some clay alteration of feldspar.	CgQM; Sp Porph; Crowded Cg; 40		✱	V. good MoS2 in qtz. veins in CgQM (10°+45° ca) [illegible] [illegible] vein (2cm) = V. sparse to barren (45° ca)	Possibly bounded to 38' (?) smoky fine qtz xstals in qtz vein at 40'	40'	70%		63224		·044		
V. complex zone: - mixture of CgQM and sp. aplite porphyry. CgQM locally + matrix .. grades towards crowded porphyry. Cut by dykes of sparse aplite porphyry	relatively minor. Some limonite staining adjacent to fractures. not pervasive.	Cg; Apl; Cr; Sp; Apl; Porph; 50	(?) [illegible]		Sporadic MoS2 [illegible] qtz. veins. [illegible]	Sparse aplite porphyry grades into coarse crowded aplite porphy [illegible] + mafic	10'	90%		63225		·028		
Mixture of CgQM, sparse aplite textured porphyry, altered sparse porphyry and coarse, crowded, aplite textured porphyry transition, note sharp and diffuse	Minor, limonite stain on fractures:- some sericite / chlorite alteration contacts.	CgQM; Sp Apl; Cg QM; 60	[illegible]		Coarse blebs in fractures + qtz veins. 2 good [illegible] veins at 56-57' with MoS2 loss	Multiple injection + assimilation of CgQM into finer facies:- V complex zone	30'	85%		63226		·149		
Sparse porphyry - locally v. fine - V. variable, cut by qtz. feldspar veins. Mixed unit continues	Limonite stain of clay altered feldspars	Sp Porph; 70	[illegible]		occ coarse blebs - qtz. veins.	Still highly complex. "Sparse porphyry" simplification	10'	85%		63227		·102		
Sparse porphyry ⇒ grades into aplitic porphyry - with more mafic (aplitic) matrix: cut by random (4cm) veins of CgQM	Note large K spar phenos and zones of K spar outlining core.	Sp; Apl; Porph; 80	K		Sparse blebs in 4mm qtz vein 11 ca.	Still V. complex intrusive relationships - odd phases, "hybrid" zone	15'	60%		63228		·023		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. [illegible] of [illegible]

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Crowded aplite porphyry – mixed with sparse aplite and other varieties: complex zone continues.	10cm wide zones of V. Kspar rich porphyry + Kspar veins: possibly V. Kspar addition to rocks? – Minor limonite	QP / aPL / aPL		90	Minor MoS2 in qtz. veins.	Note oddball porphyry greater mafic fraction at 88' – still V variable.	10'	85%		63229		.066		
Crowded porphyry grades to CGQM at 94 + back to crowded porphyry (aplitic) at 100	+ moving zone Kspar. Note Kspar along qtz. vein at 95'. Qtz. vein ∥ c.a. at 95'	cg / QM	K	102	MoS2 blebs in high grade qtz vein ∥ c.a. + cross 90° c.a.	V. altered and hybridized section with good MoS2	15'	85%		63230		.408		
Mixed sparse and crowded porphyries to 104' then 1" wide feldspar/basalt zone of the crowded with CGQM with contains minor interstitial magnetite related to crowded porphyry	Kspar possibly late alteration zone little subsequent alteration	SP / CP / cg / QM	K	110	hairline MoS2 veinlets ∥ c.a. c.a.? Kspar zone – small coarse blebs in 6mm qtz vein 80° c.a.	Transition zone (?) only with Kspar alteration than typical CGQM	15'	80%		63231		.053		
C.G.Q.M – typical fresh looking, slight sericite – clay alteration	fractured feldspars + minor limonite stain at 118'	cg / QM	19 [illegible]	120	V. little MoS2 or wt.	deformed CGQM	10'	80%		63232		.020		
altered hybrid zone again to 139'. Four or more phases – V. altered appearance related to porphyry.	Note extreme chloritization possibly early chlorite to hydrothermal biotite of rock w/ Kspar zone (5cm) at 127'	M / ...	K	130	MoS2 on some "dry" (qtz free) fracture 45° c.a. Pyrite on fractures – dirty	Strongly altered mixed unit. V. hard to identify.	20'	80%		63233		.098		
as above – probably sparse porphyry but V. altered: feldspars chloritized and matrix altered.	original matrix – sugary – now altered x-etched. Note open qtz. veins also Kspar vein at 131 and local fluorite	SP / PQ		140	MoS2 in qtz vein, 138' – not common.	still strongly altered. "hybrid" possibly ex: sparse	20'	75%		63234		.096		
Constant CGQM cut by vein of sparse porphyry ∥ c.a.	Chloritic alteration of feldspars –	cg / QM			MoS2 blebs in fractures and major (4mm) qtz vein ∥ c.a.	MoS2 as coating fracture coating 45° c.a. shear at 149'	20'	75%		63235		.066		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG Rock Type Alteration	GRAPHIC LOG Footage	GRAPHIC LOG Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
crumbly sections: CgQM passes to Fg. variety at 154. - V. poor recovery. Note Fg. type - [illegible], [illegible] [illegible] altered, sericite/chlorite.	chlorite/sericite alteration of [illegible] CgQM - sandy texture: .. qtz grains in clay matrix.		Cg QM / Fg CQM			160	Mainly shear & fractures. few qtz veins with [illegible]	V. altered CgQM - [illegible] [illegible] (?) note [illegible]	25'	50%		63236		.052		
CgQM as above - becoming [illegible] at 168' .. more porphyritic at 170' - note major shear (45° ca) + strong Moly at 163, good recovery)	sericite - clay - chlorite alteration matrix [illegible]. possible silicification at 168' (V. hard).		Fg QM		[illegible]	= 170	Moly on shear [illegible] with [illegible] clay fractures: V. [illegible] in qtz veins.	Major Moly shear. - [illegible] [illegible] [illegible]	20' [illegible]	50%		63237		.107		
Sparse porphyry variety of above - sand (1mm) salt and pepper matrix + alteration but + qtz/feld. phenos. (10% - 20%) mixed with Fg QM.	Less intense clay - sericite alteration [illegible] - less crumbly. Kspar vein at 178'		Sp / Fg / Sp / Fg		K	180	Scattered Moly on 80° qtz vein + [illegible] [illegible] fractures. Not V. rich	Note [illegible] silicified veins (Ama) 35°-40° ca. - barren	10'	90%		63238		.092		
Strong shear/fault at 181' 45° ca and probably 186' - note contact with CgQM at 186' - Major Moly vein 187' - 188'	[illegible] [illegible] + chlorite in shear zone at 181' - CgQM - veined by qtz [illegible] gouge - V. chloritic, [illegible]		QM / Cg QM		[illegible]	190	[illegible] vein - [illegible] Moly 15° ca. .. V. good Moly, good recovery. Note pyrite clusters in vein.	V. good Moly - note qtz veins [illegible] & Moly (45° ca) + [illegible] ca.	10'	85%		63239		.760		
CgQM continues: V. altered and chloritic: crumbly, poor recovery	Chalky looking feldspar. chloritic plag:					200	V. little Moly in blebs in qtz veins. (30° ca)	V. poor recovery: note no sign of Moly in gravel	10'	50%		63240		.045		
CgQM - as above V. altered, chloritic, crumbly .. Poor recovery	as above: chalky clay - sericite alteration + chlorite replacing plagioclase:		Cg QM			210	Little Moly visible. - no quartz veins	Little Moly in gravel - probably little lost.	10'	50%		63241		.054		
as above: V. altered, Cg. QM. - sheared and cut by Fg. sandy vein at 218'	chlorite in shear & replacing plagioclase:		Fg QM			220	Some in main shear zone at 218'	Still altered, better recovery.	15'	75%		63242		.115		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. 4-06 SHEET No. 2 of 2

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
C.Q.M. – crumbly, altered, poor recovery.	plag → chlorite + kspar → clay – sericite rock = chalky.	CQM		220	qtz veins few little MoS2 – no [illegible] MoS2 [illegible]	MoS2 loss uncertain – probably not much to lose	?	50%		63243		.054		
Coarse grained quartz monzonite → Mafic @ [illegible] 234' – Mafic [illegible], medium grained, porphyritic, Ksp phenos: [illegible]	fine diffuse [illegible] – some chlorite alteration. V. diffuse texture to rock	M		240	MoS2 in qtz veins & fractures – small amounts	Core fractures: ‖ c.a. mostly veins 80-70° c.a.	(10%	90%		63244		.311		
Mafic zone extends to 245' [illegible] quartz porphyry dyke (+ [illegible]) [illegible] increase – quartz porphyry – [illegible]	some chloritic alteration of plag: generally less altered.	M / QP / Maf.		250	MoS2 – [illegible] fractures: in quartz porphyry [illegible] rock	probably less alteration: – mafic zone	<10%	90%		63245		.078		
			12-04 251' Bit seized.											

GRID: (IE 3N.)

PLACER DEVELOPMENT LIMITED

HOLE No. 4?? SHEET No. 1 of 6

LOCATION: IE 2N BEARING: LATITUDE: 6 620 289.4 PROPERTY: Adanac:

DATE COLLARED: 14th July LENGTH: DEPARTURE: 589 805.3 CORE SIZE: NQ LOGGED BY: R.H. Pinsent

DATE COMPLETED: DIP: Vertical ELEVATION: 1485.2 SCALE OF LOG: DATE:

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
0 – 29' – overburden: boulders of CgQM, sparse [illegible] [illegible]	—		30				—	—	Most loss			63246		.002		
Coarse grained qtz. Monz: with transition zone from 33-36'. Transition = mixture of CgQM and FgQM + some sub-porphyritic facies:-	Slight alteration some limonite stain & etching of plagioclase also stain in fractures & joints:	CgQM / Cg	40		4 [illegible]		No visible MoS2. – qtz veins (1mm) 60° c.a.	Fairly fresh CgQM + hybrid zone – these contaminated by FgQM	–	90%		63247		.004		
CgQM – cut by a dyke of sparse porphyry 45-48' contact of dyke = sharp 40° ca. Porphyry + frags of CgQM	deformed CgQM limonite on fractures in feldspar & in rock. Minor clay alteration	QM / SP / Cg	50				Minor MoS2 blebs in qtz veins ([illegible]mm) 60 and 90° c.a. little sulphide	fairly typical CgQM with obvious veining by sparse porphyry	<10%	90%		63248		.007		
CgQM passes through hybrid into dyke of FgQM (70° ca) with few planes (not sparse) [illegible] Mixed unit. Returns to CgQM.	minor alteration and stain: – fairly fresh Kspar and biotite	QM / CgQM / Cg	60		K 20°		coarse MoS2 blebs in 1 qtz vein (Kspar) 45' – vein = 45° c.a.	as above. hybridization of CgQM by FgQM.	<10%	90%		63249		.025		
CgQM cut by narrow FgQM dyke at 67 – note [illegible] q.s. to FgQM but definitely [illegible] (1m), contact 70° ca – becomes qtz rich sparse porphyry [illegible]	contact with CgQM [illegible] at 67'. deformation of Kspar planes – CgQM [illegible] little alteration + limonite staining	QM / FgQM / Cg	70		70°		MoS2 blebs in qtz veins (5-10mm) 80-90° c.a. – (50) Minor MoS2 in hairline fracts. [illegible] ca.	Similar: CgQM + hybrid zones note CgQM has Kspar up to 2cm	<10%	95%		63250		.178		
CgQM is cut by a narrow FgQM dyke at 76'. note [illegible] FgQM fairly coarse but essentially same unit (1-1.5m) + few planes contact [illegible]° ca.	fairly fresh: note some clay alteration and etching of plag. in CgQM, little limonite.	QM	80		60 K		small blebs of MoS2 in qtz veins (4) 2-4mm mostly at 90° c.a. some + Kspar envelope	Similar Kspar rich CgQM typical texture	<10%	95%		63251		.049		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
CgQM, as above, cut by 2' leucocratic FgQM top contact V. feldspathic [illegible], bottom = sharp, 60° c.a. Note FgQM + fragments of coarse ✻	Possible Kspar addition along dyke contact. Fairly fresh. Minor clay alteration	Fg; Cg QM	✻✻	90	Leuco. FgQM cut by two good qtz veins 60° c.a. — coarse MoS2 blebs; also at 86' → 87'	sharp contacts, excellent MoS2	15'	98%		63252		.191		
Mafic FgQM - passes to porphyritic variety with large euhedral phenocrysts of feldspar - variety of sparse porphyry. Porp: rich, large (1cm) phenos.	minor alteration some limonite stain in broken zone at 94'	Fg; Sp. porph.		100	Few qtz. veins (0.2-1cm) at 80°-90° c.a. + coarse blebs MoS2 - not common	(= 201, 43) coarse porphyry phases - minor, Bio alt: [illegible]	<10'	96%		63253		.046		
Mixed zone again - fine grained = porphyry phases mixed with coarse grained QM. - large Kspar phenos (euhedral) 1cm, - in [illegible] fg. matrix	Minor sericite/clay-chlorite alteration - mainly of plag.: fairly fresh, some Kspar = chalky	QM; Sp. porph.; Cg porph.	K; Cg QM	110	some qtz. veins + small blebs MoS2, most veins ~90° c.a. (1-2-) [illegible] hairline [illegible] c.a.	some K envelope to qtz. veins. V. mixed unit, essentially multiple intrusion	<10'	95%		63254		.239		
Contact between CgQM → mafic, sparse porphyry with rare phenos: + xenocrysts and blocks of CgQM at 112', note FgQM = [illegible] resembles sparse porphyry	V. minor alteration of feldspars, possibly Kspar addition near qtz. veins	Cg QM; Fg QM; Sp. porph.	K	120	MoS2 in hairline fracts. & V. narrow qtz veins, not abundant.	Why coarser grain size than main body of sparse porphyry.	<10'	90%		63255		.074		
Igneous breccia - obvious fragments of Cg.QM caught up in FgQM - ∴ sub porphyritic texture locally - CgQM note = broken and cemented by FgQM	Minor alteration. some light blue-green clay-sericite alteration after feldspar. no limonite	Cg QM		130	MoS2 in hairline fracts: ~40° c.a. No [illegible] qtz. Coarse MoS2 in a 6cm Kspar. Qtz. zone	intrusive relations visible + inclusions	10'	90%		63256		.184		
as above: clearly igneous breccia with fragments of CgQM mixed with FgQM - locally porphyritic (xenocrysts?) Mixed zone to 144'	Fresh, sharp contacts, undeformed [illegible]. Note 1-2mm gr. of "FgQM" matrix, [illegible], grey, + biotite	Fg QM		140	as above. Local MoS2 coated on hairline fractures	Igneous breccia - fresh, pre-ore.	<10'	94%		63257		.076		
as above: mixed igneous zone, CgQM fragments in FgQM -	Some feldspar alteration in CgQM sections	Cg QM		150	traces MoS2 in hairline fractures: not V. rich.	as above.	<5'	90%		63258		.077		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. [illegible] of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Fg QM ⇒ sparse porphyry ⇒ coarsened [illegible]. Mainly sparse – grades to typical Cg QM at 159'	Crumbly, altered, salt & pepper texture; note K-spar alteration envelope [illegible] MoS₂ in fracture [illegible]	Sp Pyy; 160	K		MoS₂ on [illegible] in narrow qtz veins.	V. variable texture to younger [illegible]	90%	70%		63259		.082		
Fg QM (salt & pepper) appears to grade into biotite-rich Mafic QM porphyry at 166' gradual [illegible] in [illegible] + plagios:	± unaltered, possibly some clay alteration. Mafic porphyry at [illegible] dyke of chilled sparse porphyry at 167	Cg; Fg QM; M Pc; 170			Minor MoS₂ on fracture planes.	Note apparent textural gradation Fg ⇒ mafic	10%	90%		63260		.068		
typical mafic QM porphyry: – large euhedral plagios & biotite in matrix	some K-spar [illegible] near Qtz veins	Maf; 180	K		MoS₂ mainly on fractures – no qtz,	uniform mafic porphyry	15%	90%		63261		.094		
Mafic porphyry cut by chilled Fg QM (later) dyke 182-183. Similarly coarse aplite [illegible] of sparse porphyry appears to	[illegible] mafic porphyry at 185' – minor alteration chlorite, sericite, clay.	Fg; Maf; 190	Fg QM		V. minor MoS₂ on fractures [illegible] in mafic porphyry	some feldspar phenos post date Qtz veins.	<5%	95%		63262		.028		
C.g QM [illegible] V. coarse at 193 & V. altered (chalky). It is intruded by veinlets of Fg QM at 197' and passes to Fg QM at 198' (fairly [illegible])	chalky alteration of CgQM + minor chlorite.	Crs [illegible]; Q M; 200			V minor visible MoS₂	as above. Note variability of Fg QM – some = [illegible] possibly related to mafic porph[illegible]	<5%	98%		63263		.025		
Shear at 200' – the Fg QM passes to odd sparse porphyry, V. variable pheno content mottled – which appears to be cut by a medium grained CgQM – fine than normal (similar to) –	Not V. altered. Minor chlorite alteration & chlorite in shears; Note porphyry is more [illegible] than CgQM	QM; SP Pyy; Cg QM; SP; 210	45°		V. minor MoS₂ visible – traces in narrow qtz veins & fracture [illegible]. ± 90° ca	is "CgQM" really younger than odd porphyry?	5%	95%		63264		.043		
odd [illegible] porphyry (typical texture) deformed, altered, possibly silicified. Sheared [illegible] c.a. – grades [illegible] porphyry – variety of CgQM	Irreg. phenos in salt pepper matrix: – [illegible] strong shearing, chlorite + K-spar alteration "Hybrid Porphyry"	Crd. Pyy; 220	[illegible]		Fine MoS₂ smeared out on shear [illegible] c.a. (+ pyrite) [illegible] distinguish[illegible]	V. distinctive type of [illegible] porphyry – grades to sparse & CgQM	5%	95%		63265		.108		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Hybrid porphyry - v. [illegible] g.s. [illegible] (lam) matrix: - gradation from [illegible] to sparse [illegible] [illegible] porphyry - [illegible] into [illegible] [illegible] resemble CGQM	[illegible] alteration of feldspars and [illegible] shears // c.a. - possibly [illegible] of matrix (?) [illegible] [illegible] of pyrite on shears:			[illegible]	Most Moly on [illegible] fracts: at 35°-40° and 10 c.a. - also [illegible] qtz veins.	Some odd [illegible] - note possible [illegible] silicification [illegible] 43, [illegible] - [illegible]	10'	98%		63266		.035		
Hybrid porphyry - again irregular xtals [illegible] [illegible] [illegible] matrix - some [illegible] diffuse - [illegible] [illegible] clots of biotite, [illegible] fairly dispersed.	Kspar phenos up to 7.5 cm - fairly fresh, possibly some chlorite, [illegible] [illegible] of [illegible] feldspar: - [illegible] (?)			[illegible]	Minor Moly [illegible] qtz veins (4 [illegible]) and [illegible] fracts (+ chlor, pyrite)	Continues as above: oddball hybrid porphyry	10'	98%		63267		.063		
Hybrid [illegible] porphyry: - large 1-2 cm feldspars = [illegible] g.s. matrix: typical "hybrid" - note biotite mostly in matrix. - some clusters replace feldspar.	fairly fresh hybrid porphyry: - suggestion of [illegible] [illegible] in old feldspars.		541	250	Moly in hairline fractures [illegible] few [illegible] [illegible] [illegible] [illegible] mostly 30-60° c.a.	some oddball porphyry:	10'	75%		63268		.062		
Mixed CGQM + Hybrid porphyry zone [illegible] [illegible] [illegible] at 255' - [illegible] mafic porphyry - v. fresh looking biotite in mafic porphyry.	V. [illegible] sheared [illegible] - broken and recemented. Mafic porphyry cut by chloritic shears.	HP; [illegible]	[illegible] 30° ca	260	[illegible] in hairline fracts, + shears - v. little in main [illegible] zone	[illegible] some of the fresh biotite [illegible]?	<5'	98%		63269		.094		
mafic porphyry cut by typical - fresh [illegible], sparse porphyry dyke 45° c.a. then mafic p. continues: -	typical - some slight alteration of plag in mafic porphyry - note chlorite in fractures // c.a. → 30° c.a.	[illegible]	45°	270	trace Moly in hairline fracts. (on [illegible]) ± 70° c.a. some also // c.a.	Note sparse porphyry = dike, distinct from hybrid porphyries than mafic porphyry	<5'	98%		63270		.039		
Mafic porphyry zone, typical, although [illegible] [illegible] altered. - reduced recovery.	clay alteration → etching of Kspar + plag. phenos: - note v. fresh biotite.			280	V. minor traces Moly in chloritic shears. No qtz veins	typical mafic porphyry: recovery [illegible] at [illegible]	<5'	8%		63271		.062		
Mafic porphyry - increase in deformation → alteration - late shears.	Clay alteration of feldspars. Chalky, kaolinite - sericite alteration, + chlorite [illegible] shears			[illegible]	Minor Moly. spotted with [illegible] zones ± chlorite, no qtz. veins.	[illegible] restricted to shears at + 45° c.a. unstable but [illegible] recovery	? Rec. Ca.	95%		63272		.112		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	ASSAY RESULTS: Cu	ASSAY RESULTS: Mo	ASSAY RESULTS:	EST. GRADE
V. crumbly mafic porphyry (good recovery) - V. sheared and altered, typical texture. No qtz. veins.	chloritic sheared; plag. alteration of feldspar; crumbly - biotite and pyrite; strong shears 90° c.a. + 45° c.a.					300	[illegible] MoS2 in shears [illegible] with mod. pyrite.	V. altered and good recovery. weak mineralization	10'	98%		63273		.194		
typical, altered, mafic porphyry: - cut by shears, - [illegible]. Note plag feldspar. Shear at 30°? and minor (45°) shears ∥ c.a.	as above. plag. obliteration of feldspar and [illegible] of biotite. Note [illegible]				40°	310	traces in shears and assoc. [illegible] [illegible] - [illegible]	fairly strong brecciation of mafic porphyry (ignoring mechanical)	10'	98%		63274		.054		
typical mafic porphyry - less altered; less crumbly, biotite rich (mainly?) diffuse Kspar phenos (0.5 cm).	minor alteration of feldspars. - note biotite and chlorite. local hairline fractures qtz veins (45° c.a.) [illegible]					320	spotted [illegible] of MoS2 in qtz. veins [illegible] hairline fractures	Much less altered mafic porphyry; qtz. veins	5'	98%		63275		.109		
as above, mafic porphyry, reasonably fresh except for section from 325-326 (sheared, altered)	strong chloritization in shear 70° c.a., otherwise fairly fresh - some feldspar alteration. Note KSpar + bio envelope to qtz veins 70° c.a.				K	330	MoS2 in two narrow (2 mm) qtz veins 45° c.a. and [illegible] [illegible] qtz vein 70° c.a.	typical part. with V. local alteration adjacent to shear; late	5'	98%		63276		.100		
Igneous contact, above goes to sparse porphyry - sharp transition; porphyry - fresh, note pink Kspar near contact.	qtz/MoS2/Kspar veins 90° c.a. at porphyry x V. pink phenocrysts in [illegible] porphyry; mainly fresh, little feldspar alteration		51		K	340	Specks MoS2 (1 mm) in qtz. veins (6) 90°, 40°, ∥ c.a. Mixed veins	abundant phenocrysts. biotite - [illegible] crumbly zone at 337	10'	90%		63277		.078		
sparse porphyry - typical [illegible] qtz + feldspar phenos (+ good biotite phenos) in aphanitic matrix. quick distinction of fo[illegible]	V. slight plag. chloritic alteration of plag. feldspar; Note [illegible] in No. of qtz veins					350	+15 MoS2 common in qtz veins. Mostly [illegible] 45° c.a. some thicker (4 mm) 90° c.a.	Significant increase in MoS2 with fracture (vein) increase from mafic zone	10'	98%		63278		.205		
sparse porphyry as above but [illegible] - largely unaltered and undeformed - early fractures qtz-filled. typical porphyry;	chloritic alteration (dark green) of plag. near recent shear at 35°					360	small specks [illegible] blebs in qtz. veins, spotty, [illegible] of odd [illegible], many ± 80° c.a. [illegible]	45° c.a. still increased MoS2 level x qtz vein content. veins + 10-70%	10'	98%		63279		.113		

GRID: ______ **PLACER DEVELOPMENT LIMITED** HOLE No. ______ SHEET No. 6 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	ASSAY RESULTS: Cu	ASSAY RESULTS: Mo	ASSAY RESULTS	EST. GRADE
Sparse porphyry, typical, as above, strongly chloritized (green) near a shear at 762' - chlorite [illegible]	Plag. [illegible] chlorite [illegible], biotite probably chloritized, locally [illegible] fresh					[illegible]	[illegible] qtz. veins [illegible] [illegible] good [illegible] [illegible] [illegible]	[illegible] sparse porphyry [illegible] [illegible] insignificant moly. Pyrite [illegible]	10%	90%		63280		·112		
Sparse porphyry, as above, prominent [illegible] phenocryst [illegible] fresh (brown) + minor chloritization.	Plag. [illegible] chlorite. [illegible] feldspar etched.					[illegible]	[illegible] [illegible] [illegible] (1-) mostly [illegible] 10-70° c.a. [illegible] 70° c.a. [illegible] 45° c.a.	[illegible] [illegible] [illegible] to drop slightly - still [illegible] than [illegible]	5%	98%		63281		·094		
Sparse porphyry, as above, prominent [illegible] becomes chloritic near shear at 385' [illegible] fresh [illegible] - relatively few qtz. veins.	Chlorite replaces plag. [illegible] porphyry at 385', also [illegible] [illegible] [illegible] minor feldspar alteration				[illegible]	370	[illegible] qtz. veins, [illegible] 385-370' - mostly 70° - 60° c.a. [illegible] 70° - [illegible] of moly [illegible]	V. fresh sparse porphyry - [illegible] [illegible] [illegible] veining.	5%	98%		63282		·048		
as above: - sparse porphyry [illegible] rare [illegible] fresh biotite, feldspar phenos in aphanitic, brown, matrix: -	Slight chlorite alteration - [illegible] of near end of hole (1180')				[illegible]	[illegible]	To qtz. veins [illegible] [illegible] variable [illegible] [illegible] [illegible] 70° c.a.	Locally v. few [illegible] grades to [illegible] Major qtz. vein at 402' [illegible]	5%	98%		63283		·094		
	Chloritic [illegible] + qtz. vein 45° c.a.				[illegible]	[illegible]										

PLACER DEVELOPMENT LIMITED

GRID: ____

HOLE No. 208
SHEET No. 1 of 6

LOCATION: 3C 6N | BEARING: ____ | LATITUDE: 6 620 404.7 | PROPERTY: Adanac

DATE COLLARED: 14th July | LENGTH: 401' | DEPARTURE: 589 811.3 | CORE SIZE: N.Q. | LOGGED BY: R.H. Russell

DATE COMPLETED: 18th July | DIP: Vertical | ELEVATION: 1491.5 | SCALE OF LOG: ____ | DATE: 18th July '79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Overburden to 14' = blocks of CgQM, sparse porphyry-schist, 14th July diorite.				10			Much loss							
14' - CgQM - with 2cm Kspar. phenos: - matrix crushed and feldspars are fractured.	CgQM cut by local qtz-Kspar envelopes. veins: (1cm) 50° c.a. Wk limonite stain on hairline fracts in Kspar and on joint faces.	cg QM	70° 5h	20	None visible —	generally deformed & crushed to major joints. few fracts: 70° c.a. + 90° c.a.	100%	75%		63284		.004		
CgQM - as above: - fractured & deformed internally cut by 30 cm sparse porphyry dyke - chilled contact at 21', 90° ca. grades into hybrid porphyry at 28' (faulty)	limonite stain on fracts + joints: in feldspar + rock: - some plag alteration → (patchy fined)	cg QM Hyb	70°	30	None - Visible dry fr veins + fracts at 70°, 45°, 70° c.a.	similar - matrix of sparse porphyry at 28' "hybrid" - MoS2 etched out	100%	60%		63285		.002		
"Hybrid porphyry" = CgQM with matrix of sparse porphyry - predominantly CgQM texture.	Poor recovery! V. crumbly limonite stained throughout.	cg QM Sp		40	No visible MoS2. qtz veins at 50° ca = broken:	similar, CgQM contaminated with CgQM magma	100	60%		63286		.001		
V. poor recovery of hybrid CgQM fragments. as above probably with minor contamination - Hybrid magma addition	Highly fractured and deformed, - stained joints and feldspar fractures: fract: ll c.a. = dry.	cg QM	K	50	few qtz veins recognisable No visible MoS2	V. poor recovery - No evidence of fresh MoS2 in rock	100	50%		63287		.001		
as above: V poor recovery CgQM fragments with minor hybrid, addition of matrix magma	Kspar zone at 45'. Strong limonite stain most fracts: = ll ca or low angle.			60	Traces of disseminated pyrite - No MoS2 visible.	MoS2 etched. Still V. weathered. poor recovery	100	65%		63288		.001		

GRID: ____ **PLACER DEVELOPMENT LIMITED** HOLE No. ____ SHEET No. 2 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
as above. V. poor recovery. — mainly CgQM - some matrix addition — hybrid, crumbly rock	V. limonite stained, possibly some kaolinite alteration of biotite and plag. alteration to clay.	Cg QM; 70			Major qtz. veins (1-4cm) 90°c.a. at 64', 67'. No MoS_2: some veinlets	MoS_2 still etched out. CgQM locally sheared 90°c.a.	10'	60%		63289		·004		
Passes to less altered, less deformed, FgQM with 'hybrid' and sparse porphyry sections & less bleached. MoS_2 bearing; better recovery	some Kspar/sericite (?) envelopes to minor qtz. veins ll c.a. + chlorite alteration. limonite in faults.	Sp; 80	K		MoS_2 — fresh coat on shear 90°c.a., & with pyrite & chlorite hairline fracts ll c.a.	odd small MoS_2 type: hybrid variety of FgQM	5'	80%		63290		·054		
Sparse porphyry zone grades into hybrid porphyry with abundant Kspar addition — as veins & possibly to matrix.	Kspar veins — diffuse 'stalked' in. predate qtz veins with MoS_2 broken rock, directions & vague	Hy; Pyp; 90	K		qtz veins (1-3cm) 30°c.a., 90°c.a. faintly banded — blebs in qtz. veins.	still altered & limonite stained, poor coring.	30'	65%		63291		·058		
Mixture of CgQM + 'hybrid' porphyry rock types: locally sugary matrix to large 'CgQM' xtals. (Qtz. veins increase)	Minor limonite stain, some alteration and etching of plag: feldspar: K Feldspar abundant, flo[illegible]	Qtz. Ve; ?; 100	Fault 60°; K	1	Disst pyrite in 1-2mm qtz. veins ll c.a. and coarse blebs in qtz. veins (?) 4-6mm 80-90°c.a.	increase in [illegible] (still poor recovery) — transition rock types.	30'	85%		63292		·117		
typical CgQM with chilled contact against FgQM (leucocratic) — FgQM younger — leucocratic, sugary + rare plagioclase [illegible] at 105	Little alteration, salt and pepper texture typical of "core" FgQM. faint Kspar veins (few) cut FgQM.	Cg QM; Fg QM; 110	K		Pyrite on fracts. 30°c.a. — young MoS_2 — qtz. veins (spotty) ± 2-4mm 60°, 20°c.a.	variety of qtz. veins. — also Xcutting. Poor recovery (Not MoS_2 in [illegible])	40'	60%		63293		·034		
as above — identical FgQM, V. broken, sugary textured, leucocratic, cut by smoky qtz. veins + MoS_2	V. little alteration possibly minor Kspar. faint [illegible] + later alteration. Fracts ~30°c.a. ±	120	K		MoS_2 in variety of Qtz. veins, variable size and [illegible].	orientation — large veins with MoS_2 peripheral to qtz.	40'	60%		63294		·048		
as above. FgQM degenerates into sand at 130' — V. rubbly — MoS_2 — narrow qtz veins in fragments	Kspar envelopes to qtz veins, with or without pyrite, fluorite & MoS_2.	130	K		probably narrow V. rich coatings qtz. veins cut frags. Fractured lots	V. poor recovery. FgQM — MoS_2 lost.	60'	40%		63295		·088		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
T°g QM rubble ⇒ Mafic Q.M. porphyry rubble terrible recovery: –	– little apparent alteration unless Kspar – (minor) (QM) ⇒ sericite magnesia (for loss uncertain)	Maf		144	MoS₂ in qtz. free frags: in Mafic porphyry. ∴ MoS₂ loss!	V. poor recovery: No obvious cause	?–	15%		63296		·021		
Mafic porphyry – with minor Kspar along hairlines: – chloritic alteration of plag: –	typical texture of mafic porphyry – has large phenos. – in matrix including fine biotite. Note Qtz vein at 146'	c porph		150	MoS₂ + pyrite in qtz. free frags: 35° c.a.	V. crumbly, fragmental, chloritic & green stained:	30%	65%		63297		·034		
Mafic porphyry extends to 154' – V. crumbly and altered: chloritic, [illegible] altered CgQM, 30° sheared contact. Fault (?)	general rotting of feldspars ⇒ clay, sericite, carbonate clay white CgQM shearing fract. // to c.a.	A	0°	160	rare qtz veins. Little sign of MoS₂ until 159', 3 qtz veins = MoS₂ rich (90° c.a.)	alteration increases near (?) shearing contact.	30%	85%		63298		·112		
typical CgQM – (Not hybrid. variety) with possible qtz-feldspar segregation / coarse zone (pegmatitic)	not V. great. light green sericite / clay by chlorite alteration of plagioclase. Fracts: 50° c.a.	Cg QM		170	Trace dissem. pyrite. 2 cm qtz veins (?) at 0° c.a. 169' ± V. large MoS₂	qtz segregation + V. clean euhedral MoS₂ – some lost. V. good vein at 161'	30%	85%		63299		·433		
igneous contact. CgQM and Mafic porphyry at 172', broken: relations obscured, – typical Mafic porphyry – note Kspar envelopes to qtz veins.	slight green, chlorite, look to rock which is ± competent & fresh for better recovery!			180	Most MoS₂ in qtz veins (1–2 mm) (4) 80–90° c.a. – not common in large	change in rock type + reduction in qtz content & veins ∴ reduction in MoS₂	<5%	95%		63300		·021		
typical Mafic porphyry continues, homogeneous, ± unaltered, only a few qtz veins, 90° to 70° = barren, 1 30° c.a. qtz vein of V. rich MoS₂	rare Kspar envelopes. qtz veins. 70° c.a. – V. slight late alteration + few 50° late fracts:			190	some large qtz veins = barren, but 20° qtz free fract: + MoS₂, broken + pyrite, hairline	distribution of MoS₂ variable 1 vein – rich & many – barren – reason obscure	<5%	95%		63301		·134		
typical mafic porphyry – continues: – Qtz-feld veins (2 mm) 90° ca + Qtz with Kspar. Clay at 45° and // c.a.	alteration of feldspar increases towards 200' – joints 45° ca + 30° c.a.				Drop off in MoS₂ although veins present	qtz vein // ca. younger than vein 80° c.a.	<5%	95%		63302		·075		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 4 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo	EST. GRADE
Mafic QM porphyry: typical texture - sporadic ... feldspar phenos: in a matrix ... biotite (not ... type)	Slight: possibly some alteration of feldspar to clay. - ... note clay gouge in local fractures, mainly 0-10° c.a.			220	qtz veins + MoS2 (5) mostly at 60°-90° ca ... 2mm ... + pyrite + ... chlorite ‖ ca ... 2'	Mafic porphyry - typical Not v. mineralized, few veins ...	5'	95%		63303		.100	
Mafic QM porphyry, as above: - uniform except ... ... at 217' - QFeld. vein 90° c.a. with Kspar ... into mafic porphyry. (No MoS2)	Kspar addition locally. - possible alteration of Biotite → chlorite in places - gouge in occasional fractures 90° c.a.		K J.	225	2 qtz veins (1cm) + sparse porphyry cut ca. 90° Pyrite - No MoS2 Minor MoS2 ...	qtz. veins - similar to above - ... pyrite + ... qtz	5'	90%		63304		.054	
Mafic QM porphyry, as above: - typical texture, uniform, cut by Kspar veins & qtz veins, + rare Kspar fringed "dykes" (1cm) of FgQM!	Kspar vein + MoS2 traces at 222' 90° c.a. + rare Qtz-Feld-MoS2 "pegmatite" zone at 219' (above) - largely undeformed, few fracts: 50° ca and 75° ca		K	230	MoS2 in ... fracture ... and in ... qtz veins 90° ca. not v. abundant.	Note concentration of MoS2 at fracture - ... join.	5'	95%		63305		.072	
Mafic QM, - as above: ... at 235 and from 237-240' - gravel.. Similar to above in appearance and ... probable ... in alteration	note 1cm veinlet of aplitic FgQM - feldspar → sericite/clay ± carbonate not abundant ... gouge			240	MoS2 traces in fracture fracts and 2 1mm qtz veins. - ... MoS2 little loss	fracts. mainly 30° ca. - uncertain in crumpled zone	5'	90%		63306		.022	
V. deformed and altered Mafic QM. - rotten, soft, & friable: - Most close-spaced fracts. 25° to 50° c.a. abundant gouge	Mainly clay - carbonate alteration of feldspars. probably some chlorite		... 25-40°	250	MoS2 traces only - no evidence for loss during deformation	fracture zone little sign of major movement	5'	90%		63307		.040	
Mafic porphyry - typical, as above, - with strong shears at 252', 253', 25?' (50° & 30° ca) slickensiding + gouge in shears - MoS2 in gouge	alteration of feldspars near shears - probably carbonate - clay / sericite alteration. possible early Kspar flooding.		sh	260	traces only in fracture fracts; and rare narrow qtz veins;	MoS2 in gouge - generally low; little lost during alteration	5'	90%		63308		.086	
1' vein (...) of FgQM + bands qtz-feld pegmatite zone. No MoS2 - otherwise as above.	1 Kspar vein at 265, otherwise ... alteration related to shear + fracture	FgQM		270	MoS2 blebs in qtz vein 3mm (90° ca) and in feldspar - ... fracture.	Spotty MoS2 but coarse (8mm) blebs where found	10'	85%		63309		.044	

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 2 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Qtz. Monzonite porphyry – typical with increasing alteration and deformation: strong shear zone from 276' – 281	intense alteration of clay-carbonate type also chlorite! some MoS2 in wide (0.5 - 2cm) qtz. veins.		Sh: 40°	280	MoS2 + pyrite + chlorite in qtz. veins; 60-90° c.a. – some slickensided MoS2 on shear planes	+ Fluorite – shear – fair opening of sheared rock	10'	85%		63310		.140		
return to non-sheared Mafic QM porphyry at 282' (V. altered) infaulted again from 286' – 287' – change to sparse porphyry – also altered.	intense shearing: with loss of texture – clay generated in mafic porphyry – sparse porphyry siliceous	Mafic	70° / 80° c.a.	290	MoS2 on slips in shear plane at 287' – little else	Faulted contact mafic & sparse porphyry:	10'	90%		63311		.031		
Sparse porphyry – gradational to crowded locally: – typical texture euhedral phenos in aphanitic brown matrix – deformed and altered	– chlorite alteration of plag (dark green) + minor clay-carb alteration of wall margins fracts: ± 5-30 c.a.	Spar		300	MoS2 on shear slip at 300' (25° c.a.) some in 1 qtz. vein (80° c.a.)	sparse or crowded porphyry (?) Note green tint to the rock – chlorite	10'	80%		63312		.053		
altered (green tinted) crowded porphyry – locally fairly sparse. degree of deformation drops off.	note alteration of plag cores to chlorite & margins to sericite-kaolinite. Fluorite in late shears 70° c.a.	Crowded		310	V. little MoS2, some on shears – slickensided – traces + py + chalco in hairline fracts.	slightly sheared crowded porphyry – note fragments (?)	10'	80%		63313		.014		
V. crumbly crowded and/or sparse porphyry: core loss. cut by FQM dyke 2' at 312'	typical clay-carbonate alteration of feldspar ± chlorite. Note fresh (possibly 2ndary) biotite crumbly from 310-320'	FQ		320	MoS2 – traced :. loss, probably some V. minor MoS2 on hairline fracts and shears	most fractures 70° c.a. few qtz veins	15'	75%		63314		.064		
deformed and altered crowded porphyry – becomes fresher after 324' – locally sparse, largely crowded	decreases away from shear zone. returns to green tint. – note chlorite cores of plag: phenos.	Crd		330	trace of MoS2 only on hairline qtz veins (?) c.a.	Note 2X fracts at 40° and 20° c.a. –	5'	80%		63315		.030		
largely Crowded – locally sparse porphyry: – at boy zones of deformation. large euhedral xstals in aphanitic matrix.	feldspar alteration increases near shear zones, fairly fresh, note fresh biotite	Crowd		340	MoS2 + fluorite locally on sheared fractures: – Minor MoS2 few qtz veins 70° c.a.	apart from minor deformation a fairly fresh porphyry	10%	80%		63316		.011		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Mixed Sparse/Crowded Porphyry gradational - post-[illegible] [illegible] zones(?) - areas of fg. matrix + large phenos: - shears mostly 30°-50° Xcutting:	feldspars variably fresh - altered off qtz. fracts 10° ca. at 250' some [illegible].					350	[illegible] MoS2 [illegible] fractures and qtz [illegible]	Probably local from [illegible] change in Crowded porphyry	10'	95%		63317		.040		
Crowded porphyry with a typical texture: - Slight deformation and [illegible]. Shear at 356' ± 10° ca. Gradation to Sparse locally.	Feldspars cloudy or [illegible]: - some green chlorite - plag: cores Qtz veins [illegible], mainly 70-90° ca	Crowded				360	Minor MoS2 in qtz veins [illegible] fracts: [illegible] [illegible] fracts. System + 352'	Sporadic [illegible] in altered Crowded porphyry with [illegible] [illegible]	35'	85%		63318		.033		
Crowded Porphyry - [illegible] with crumbly shear zone 364-366' Qtz.-Kspar vein at 367'	similar alteration to above, [illegible] green plag: - green [illegible] to pink [illegible] Kspar. V. fresh Biotite					370	[illegible] MoS2 [illegible] [illegible] fractures [illegible], 50°, 30°, 10° Xcutting	Slightly altered porphyry - note V. fresh Biotites, [illegible])	5'	90%		63319		.014		
relatively fresh Crowded Porphyry - euhedral phenos in aphanitic matrix: ±45% phenos: - some large fresh biotites ([illegible])	slight alteration of plag. cores:	Crowded				380	qtz veins 10°-20° c.a. mostly [illegible]; 1 5mm vein + MoS2 90° c.a. [illegible]	[illegible] MoS2 - [illegible], no obvious fracture:	5'	90%		63320		.079		
Crowded porphyry - fairly sheared. 383-385 [illegible] 387' but fresh, shears 10°-20° c.a. cut by 4cm [illegible] vein at 389'	Minor alteration of Kspar → Plag: Note V. fresh looking Biotite Qtz-Kspar veins				K	390	qtz veins at 90° ca (4-6mm) and 45° c.a. (4mm) [illegible] MoS2 and Kspar [illegible]	Crowded [illegible] of porphyry - Little MoS2	5'	90%		63321		.078		
Mixed, gradational Sparse and Crowded porphyry - mostly crowded: - Note cut by Qtz-Kspar-[illegible]-Fluorite pegmatite zone.	Kspar veining + MoS2 70° ca. Weak alteration of Kspar - plag:				K	400	Qtz veins (8-10mm) 10° ca - [illegible] MoS2 in [illegible] fracts: 10° c.a. + Kspar-MoS2 veinlets	Note MoS2 [illegible] fracture crowded ⇒ Sparse porphyry?	10'	95		63322		.038		
						E.H.										

PLACER DEVELOPMENT LIMITED

GRID: ____

HOLE No. 8-C9 (?)
SHEET No. 1 of 6

LOCATION: 12 4 N
DATE COLLARED: 16th July 79
DATE COMPLETED: 19th July
BEARING:
LENGTH: 480'
DIP: Vertical
LATITUDE: 6 620 315·7
DEPARTURE: 589 790·3
ELEVATION: 1488·2
PROPERTY: Adanac
CORE SIZE: NQ
SCALE OF LOG:
LOGGED BY: R.H. Pinsent (?)
DATE: 19 July 79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
boulders and overburden to 19'			20						Most loss							
Cg. QM sheared at 25' passes to sparse porphyry at 26' – porphyry V. [illegible], blocky, leucocratic, + aplitic texture, mainly qtz. planes; qs. matrix [illegible] at 30'	rock = V broken, poor recovery; – probably V. altered (feldspars = clay + carbonate + sericite (?) limonite staining on fractures)	Cg QM	30		30° 15		No MoS2 visible – weathered out: few qtz veins [illegible] in sparse porphyry	typical CgQM – sparse porph. = leucocratic ± no [illegible] (enriched ?)	100%	45%		63323		·001		
Sparse porphyry – as above + small pieces of CgQM – (frags?) variable q.s. matrix: fair at 36' → sandy aplite version of CgQM (1–2mm) qs. (related to 207–72')	V blocky and altered; some feldspar [illegible] but generally fairly fresh [illegible] a few Kspar – qtz. veins		40		K		fine qtz-veins (?) cut aplitic rock 30°, 70° ca. No MoS2 – weathered out	Limonite stain near fractures – Not aplite, not porphyritic	100%	45%		63324		·001		
Cg. Q.M to 46' then passes to more typical PgQM. Sandy, soft and [illegible], [illegible] planes, [illegible] qs.	clay – chlorite alteration of Kspar in CgQM – possibly also matrix feldspar in PgQM	Cg QM / Pg QM	50				Qtz. veins but no visible MoS2 – leached out.	V. poor recovery, broken ground, no set. fracture pattern	100%	40%		63325		·001		
CgQM – deformed, oxidized and broken. fairly typical CgQM cut by qtz-veins (2 cm) from 0–90° ca. – feldspars shattered	Possible Kspar addition near some qtz-veins & flooding of matrix, minor 2nd alteration + limonite		60		K 45° ca		None visible – probably all dissolved out of qtz veins.	Loss, broken & better recovery: – deformed CgQM / typical	100	80%		63326		·006		
Cg QM as above: – typical texture: – but less broken, cut by shears and qtz veins 90°ca: and Bio-Kspar zone 60–68'	Cg. Bio-Kspar zone and qtz-envelope(s) [illegible] Kspar: abundant disseminated Xstals pyrite + [illegible] MoS2 in veins.		70		K		Kspar zone = typical MoS2 in qtz veinlets in CgQM – veinlets + veins (?) 90°ca.	Significant MoS2 – fresher rocks: also major Kspar addition	30%	92%		63327		·041		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
typical CgQM - cut by slight shear at 72' (90°ca) → vein of sparse / FgQM at 76-78 V. pegmatitic Kspar at 80'.	∂ fairly fresh, pale light green alteration of some feldspar - CgQM - probably plagi - sporadic limonite associated with fractures - ∂ [illegible]	Cg QM		80	rid [illegible] dissem. pyrite crystals. also Moly in qtz veins (0°ca + [illegible]).	1 significant broken Moly clustered fracture: Mo less MoS₂ mainly in qtz veins.	30'	90%		63328		·157		
CgQM with fine biotite clustered zones (possibly inclusions) at 81', 85' → 87' ≈90' - pale porphyritic appearance of V. CgQM locally - going to hybrid porphyry	Minor, possibly some Kspar addition - minor feldspar alteration → limonite stain	C g QM		90	MoS₂ in qtz-feldspar veins, 70°ca. and hairline fracts. ‖ ca ∂ [illegible]	possible contamination with mafic material. some hybridization	30'	80%		63329		·093		
Hybrid contact CgQM → FgQM - (locally qtz phenos) - near contact: CgQM veined by FgQM to 97' then a[illegible] of Cg = Fg to 97' then hybrid Cg + Fg	darkish salt and pepper FgQM + Biot. Max [illegible] qs - V. slight alteration inferred. No limonite	Fg QM / Cg		100	MoS₂ Moly in qtz veins, 90°ca - on fractures (coated on) and hairline fracts ‖ ca fairly [illegible]	clearly FgQM intrudes CgQM, both fresh	30'	90%		63330		·322		
CgQM (probably a block) extends to 103' then diffuse contact with FgQM, possibly Kspar added at contact: FgQM - grey-tinted →	rare large qtz. phenos in FgQM: Kspar + Bio zone at 104' + MoS₂ frees: sparsely [illegible] qtz veins, 90, 50, 25°ca.	Cg / Fg QM		110	Coarse MoS₂ blebs in some qtz. veins (random distribution) - sparse trace dissem. pyrite	Not V. large (1-2cm) Kspar phenos, locally. Variable FgQM	10'	90%		63331		·093		
Hybrid porphyry - variety of sparse porphyry - large phenos Kspar [illegible] to [illegible] matrix - related to sparse porphyry -	light green tint, possible chlorite alteration + sericite - note still stained by limonite on fractures	Hy / Porph. / 20°		120	Pyrite on fracts: - / limonite - Moly = coarse blebs in qtz vein 90°ca + 45°ca - also hairline 10°ca	Not V. MoS₂ rich but well crystal MoS₂ on ‖ ca. hairline-typed.	20'	80%		63332		·113		
Hybrid porphyry extends to 127' - V. rich in Kspar - possibly flooded by str. local Kspar + Bio fractures: cut by chalky sugary, FgQM typical	Feldspathization + Chloritization. Not strong pyrite developed in qtz veins (+ chlorite) 10°ca.	60° / 22° / 22°		130	MoS₂ in qtz free and low veins, and [illegible] variable particularly in FgQM	FgQM = V. chalky, altered sericitized. - grade across - dispersed veins in FgQM	20'	95%		63333		·086		
Leucocratic FgQM - sugary + sporadic biotite specks - few phenos < 10%. Mostly qtz - matrix gs - 1mm	Matrix feldspar → chalky, sericite + kaolinite (± carbonate) ∴ Note = crumbly. Chlorite locally on shears		✱	140	dissem. pyrite on fracts. + shears: MoS₂ = qtz veins with [illegible] of Xα[illegible] [illegible]	MoS₂ mainly as sporadic blebs. Note minor fold. Set. 10°ca. - core = [illegible]	20'	90%		63334		·075		

GRID: ___ PLACER DEVELOPMENT LIMITED HOLE No. ... SHEET No. 3 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Leucocratic FgQM grades to complex zone including CgQM → mafic porphyry at 148' - Igneous Breccia ?	V. chalky feldspar in matrix of FgQM - sericite/kaolinite alteration	Fg QM Fg		150	qtz veins + blebs Moly cut FgQM and CgQM (?) inclusions.	FgQM = coarser ... sparse ... fine phases: characteristic chalky feldspar	10'	90%		63335		.073		
CgQM fragments in FgQM and Hybrid porphyry (?) complex zone (1) clear frags of Cg in Fg. hybrid zone ... Cg grades into hybrid.	Patchy, large alteration of white feldspar, coarse biotite in hybrid zone	Hy Fg Cg		* 160	good Moly on ... (?) dry fractures, qtz veins 90°ca. 2 = V. ... Loss	V. complex igneous breccia zone possibly near ...	30'	95%		63336		.224		
FgQM + local sparse porphyry - inclusions of CgQM to 162' then subordinate phases: qtz feldspar in sparry matrix. Typical sparse + Fg. variety.	Kspar veining common along fracts: + qtz veins - predates qtz veins + some late alteration	Fg Sp	K	170	fair Moly in narrow qtz veins, variety of Xcutting angles	Leucocratic sparse porphyry - no biotite, colour is green (probably altered)	20'	95%		63337		.115		
Sparse porphyry cut by Fg: dike 10cm at 170' then sparse porphyry to 173' Transitional contact => mafic sparse porphyry = mafic aplite porphyry	some alteration of Kspar + rare Kspar veins 90°ca. large qtz + fine qtz, plag. hybrid? Mafic - Sparse!	Sp M. S. A. P.	≡ c07 -116 K	180	fairly abundant Xcutting qtz veins (narrow) + frag MoS2 also dry ... // ca	odd rock type - extrusive, recrystallized mafic - sparse aplitic porphyry	4'	98%		63338		.068		
as above, mafic, sparse, aplite porphyry - more altered, matrix breccias more diffuse, ... biotite with porphyry	Kspar veins + envelopes, to qtz + MoS2 veins, 70°ca + fairly clay alteration of feldspars - little recent deformation		K - *	190	good Sp in early, narrow qtz Sp. veinlets (1mm) Xcutting 30°ca 90°ca + coarse MoS2	dry fractures, wide, late, qtz veins (non-shaly) = barren K+Kspar. unit as above	10'	95%		63339		.216		
as above, extends to 198' where mixed zone including medium grained QM (non-porph) and FgQM, and V. good MoS2 fracture 5°ca.	chlorite alteration of plag cores (dark green). Kspar vein 90°ca. cuts qtz-Bio, MoS2 bearing // ca !!	Cg Fg	** K K	200	2mm thick MoS2 crust on shear 5°ca extends 198-201' some loss on shear	Not dykes of FgQM. cut MJAP exceptional MoS2	10' or more	95%		63340		.366		
Hybrid porphyry - sheared at 201-202' - large phenocrysts of Kspar post date qtz. veins (50) predates major vein // core axis from 204-205' + MoS2	Matrix feldspars appear to be altered. - phenocrysts = fairly fresh. - some plag = green, chloritic.	173'	K - *	210	with pyrite MoS2 mainly in bordering qtz vein, cd blebs at X-points.	MoS2 grade increasing by fine veins - as above	5%	95%		63341		.198		

GRID: ......   PLACER DEVELOPMENT LIMITED   HOLE No. 209   SHEET No. 4 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
"Hybrid porphyry" with areas of sparse porphyry type:- possibly also [illegible] zones, contacts gradational. Basalt? in fact at 220'??	some K-spar envelopes to qtz veins. - [illegible] qtz-feld. pegmatite veins. light green, chalky appearance to rock matrix		H ?		K	K 220	Minor MoS2 on fracture fracts: ∥ c.a. and qtz veins (1mm) at 30° c.a. - core blocks	altered porphyry hybrid. MoS2 distrib. in qtz controlled by fracture angle!	10'? 10',	90%		63342		.514		
V. deformed, sheared, variety S) [illegible] as probably mafic, sparse, aphyric porphyry. Shears @ 15° and 50° c.a.	rotten and crumbly. V. chalky alteration sericite - kaolinite ± carbonate minor chlorite		∧			230	Some MoS2 on shear at 222' & on frags: in rubble ∴ MoS2 probably lost.	V. sheared and altered zone directed uncertain	30'	60%		63343		.175		
V. deformed and sheared assemblage of C.g. ΦM and sparse porphyry - either mafic or aphyric variety	Fractured ∥ c.a. (close) crumbly, altered. - clay - sericite alteration of feldspar. Minor chlorite on [illegible]	\	SP, Pof, Cg, ΦM, SP, Cg			240	Minor MoS2 in qtz veins and fracts; rich too broken for orientation	some Mo loss: note deforming nature of Structure	10'	95%		63344		.103		
C.g. ΦM passes to Mafic porphyry at 242'. contact [illegible] obscure; sharp change: typical, altered, mafic porphyry -	strong shear 242' = 35° c.a. Very altered feldspars - altered to sericite - kaolinite + carbonate abundant [illegible] fracts mainly 45° c.a.				[illegible] 35	250	Minor SFz: narrow qtz veins and fractures. V. crumbly, not much loss (+ pyrite)	V. altered mafic porphyry.	<10'	95%		63345		.214		
Mafic Porphyry typical - V. unstable, crumbly.	Feldspars ⇒ clay-sericite, as above rare qtz. veins, rare MoS2					260	V. minor SFz probably little lost.	why such intense alteration? no obvious shear	<10'	95%		63346		.045		
As above. V. altered, crumbly Mafic porphyry cut by shear at 268' - 45° c.a. - (chloritic)	V. intense alteration V. crumbly unstable rock				TC	270	few qtz. veins, little MoS2 ∴ little loss.	strong shear = [illegible] late fault?	<10'	95%		63347		.028		
As above, still V. altered, crumbly - texture & comp originally typical Mafic Porphyry.	V. intense clay alteration as above, MoS2 fracts = 50° c.a. to 35° c.a.					[illegible]	as above, few veins little loss.	as above	<10'	95%		63348		.079		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Mafic porphyry — altered and crumbly over most of section — gets	feldspars → sericite, clay, carbonate.	290			hairline 10°ca + MoS2 → 1 qtz vein 90°ca + blebs MoS2 — not rich.	slightly fresher mafic porphyry	5'	80%		63349		.101		
Similar mafic porphyry — cut by small veinlets of granitic material — also Kspar zones which predate qtz + MoS2 veins	Possible Kspar veining, generally fairly fresh to 308' — then sheared to contact at 316' — poor recovery: fracts mainly 35°-50°	300	K		hairline fracts + MoS2 mostly — few qtz veins.	Note chloritic zone at 300' — Not V rich in MoS2	5'	85%		63350		.065		
Mafic porphyry — as above — small veinlets of granitic material	typical clay alteration with some early(?) Kspar addition [illegible] biotite (?)	310			hairline fracts + MoS2 95°ca 105°?	typical crumbly mafic porphyry	5'	90%		63351		.384		
Mafic porphyry to 316 then sharp contact → chilled zone → crowded porphyry — V poor recovery 309-325 Fault?	Fairly fresh, some feldspar alteration in porphyry — note V. siliceous contact zone	Mo / fcr / cr. 320	??		MoS2 in qtz veins + fracts 90°ca and dry fracture 5°ca. along [illegible]	Contact probably cogenetic with younger porphyry [illegible]	?	80%		63352		.047		
gouge cemented breccia (resembles porphyry!!) from 320' - 327' + minor MoS2 - fragments mostly crowded porphyry (?)	Chloritic gouge main shear 35°c.a.	330			Fragments of MoS2 in gouge	V. major Fault.	?	85%		63353		.047		
Typical, fresh, brown, sparse porphyry — fairly crowded but ± 356 [illegible]	Kspar-qtz vein 45°ca and qtz veins — little feldspar alteration; — some [illegible] sericite.	Sp / cr. / Se 340	K		Minor MoS2 in qtz veins — & fracts — significant MoS2 content	Much reduced alteration to above: qtz veins Xcutting 40,30,5%	5'	95%		63354		.046		
as above, sparse porphyry (fairly crowded locally) with (10cm) mafic porphyry inclusion or dike (broken) at 347'	1 Kspar qtz vein at 345 25°ca, cut by qtz vein 30°ca. — note fresh speckly biotite in porphyry —	350	K		specks & blebs MoS2 in qtz veins — varied orientations.	Note late fractures + light yellow gouge? MoS2 tied to qtz	5'	95%		63355		.117		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 6 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	ASSAY RESULTS: Cu	ASSAY RESULTS: Mo		EST. GRADE
Sparse porphyry - as above cut by rare Kspar veins (+ biotite) and qtz veins, hairline to 4cm + specks MoS2. - Numerous qtz veins from 20-90°	Fairly fresh - chlorite zone at 357' - Note strong biotite (2ndary?) V. fresh				K	360	in veinlets and fractures. Significant content. - weak stockwork	typical qtz veined sparse porphyry V. few late fractures	5'6	98%		63356		.225		
Sparse porphyry - verging on crowded; - typical, euhedral phenos - aplitic matrix: cut by Kspar/qtz veins	Fairly fresh: note V. intense biotites cross cutting qtz veinlets					370	Sp. in qtz veinlets typical - 2 major MoS2 veins 70° ca + several hairline veinlets	as above, typical, ore grade weak stockwork	5'6	98%		63357		.071		
as above, Sparse porphyry verging on crowded; - 25% phenos + strong biotites,	Note Bio + Kspar + Qtz in veins: some Bio 2ndary - Note spotty Kspar - qtz veins				K	380	3 major qtz veins + Sp (25° 45° + 80° c.a.) - several hairline mainly 10-20° c.a.	ore grade + weak qtz stockwork to biotite 2ndary	K 5'6	98%		63358		.125		
as above, - Sparse porphyry. becomes fractured and altered around 385' and between 382' and 396'	Fracturing // c.a. + Minor gouge - some feldspar alteration - biotite still V. fresh		Sparse		Tr	ls 390	only weak Sp. of large (5mm) qtz veins. Some MoS2 in hairline	lower grade probably. Late fracts: // c.a. not influence on MoS2	5'6	95%		63359		.045		
as above: Sparse porphyry (> crowded) cut by fractures & gouge // c.a. at 391-394' - crumbly locally	V. probably 2ndary biotite (overprinting feldspar) - Local qtz. Kspar veins (+ Bio and yellow mineral?)					400	Mainly in hairline fracts: + the qtz veins low grade	Qtz + Fluorite inside Kspar vein !!	5%	95%		63360		.033		
						EOH 401'										

PLACER DEVELOPMENT LIMITED

GRID: ______

HOLE No. 210
SHEET No. 1 of 6

LOCATION: 6N 1E | BEARING: | LATITUDE: 6 620 371·3 | PROPERTY: Adanac
DATE COLLARED: 18th July '79 | LENGTH: 600' | DEPARTURE: 589 760·3 | CORE SIZE: NQ | LOGGED BY: R.H. [illegible]
DATE COMPLETED: 22 July '79 | DIP: Vertical | ELEVATION: 1499·8 | SCALE OF LOG: | DATE: 23 July '79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
0-13' – Overburden boulders, sparse porphyry, CgQM – 4th July Creek Batholith.	—					10	—	—				63361		·002		
Typical deformed and altered CgQM from 13'-19' then a short dyke of FgQM (30° c.a.) sharp igneous contact; but CgQM sheared @ contact.	Limonite stain on fractures in rock and in Kspar, – emphasise hairline cracks in Kspar. – plag Xtals = etched & stained by limonite		Cg QM		FgQM	20	No MoS2 visible, possibly etched. Other veins have [illegible]:	V. characteristic unit for top of hole, etched & stained CgQM	100%	90%		63362		·002		
CgQM - typical: homogeneous – equigranular but non-porphyritic, Kspars up to 2-3cm, biotite in interstitial patches. Locally replaced plag? – also in qtz veins.	Kspar appears to fresh – plag Xtals (small) altered and etched & stained by limonite ± [illegible] – fractures					30	Qtz veins (5-6mm) 90° c.a. – [illegible] etching. MoS2 lost. [illegible] on hairlines remain	as above etched CgQM – MoS2 lost [illegible].	98%	60%		63363		·003		
CgQM - very crumbly; poor recovery, close fractures 30° c.a. ∴ sand & gravel.	alteration as above etch and stain of plag. Limonite in fractures in Kspar & Mn stain on some fractures		CgQM			40	[illegible] qtz veins no visible MoS2	[illegible] of etched & MoS2 free CgQM.	100%	60%		63364		·001		
CgQM – typical, grades [illegible] at 47' and continues to 50', cut by 2cm FgQM dyke at 40' (40° ca.)	Staining with limonite on fractures and joints, plag = [illegible]/clay ± etched, Kspar ± fresh					50	None visible hairlines and [illegible] qtz veins possibly etched	texture tends towards hybrid around 50' – large phenos: Kspar + [illegible] Xtals [illegible] matrix	100%	65%		63365		·020		
CgQM with sections starting to change to hybrid porphyry – i.e. [illegible] sandy matrix interstitial to large phenos ? in CgQM.	Local patches of Kspar (pegmatitic) + fresh biotite. alteration and staining as above;				10	60	Visible MoS2 in qtz-Kspar vein 10° ca (? remarkably not etched).	Similar to above – Biotite = [illegible] (?)	90%	75%		63366		·020		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. [illegible] of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
CgQM. - poor recovery with possible Qtz-Kspar veining around 65°, ‖ c.a. + ⊥ c.a. V. feldspathic and broken	Possible Kspar addition - certainly rock Kspar. - other alteration - ? again as above. strong shear zone at 69'		17	70	1 qtz vein (55° ca) (5mm) + specks Sts. MoS2 - rest broken ditto.	Note Shear = silicified + not altered to gouge.	15%	60%		63367		.021		
CgQM. - silicified shears continue onto 71'. Cut by Qtz-Kspar zone at 75' (90° ca) + MoS2 + chlorite as gloss-similar only ... 76' - CgQM grades silicified at 78'	CgQM = ± fresh except for individual feldspars → sericite-clay (light green, soft) etched + limonite to on joints + fractures (90° ca)	Cg		80	rich Qtz-Kspar - MoS2 vein 80° c.a. at 76'. possibly 40% lost near fracture	Note late fract: ‖ c.a (?) Much improved recovery.	40%	90%		63368		.116		
CgQM - fairly typical but deformed and altered. - possible Kspar enrichment of matrix locally	Plag = etched and limonite stained. Kspar appears to be fresh - V. crumbly rock 87'-90'	QM	K / K	90	V. little MoS2 visible, some in hairline fract: MoS2 in gravel:	Note section ends in V. altered FgQM + Kspar Bio. alteration zone, crumbled poor recovery	40% ?	60%		63369		.057		
FgQM has Kspar-Bio. contact zone with CgQM (90°) → silicified contact with CgQM at 92' - CgQM appears fresh to 97' then silicified to 103'	Feldspar alteration in CgQM = typical (no limonite) Note fresh biotite & Kspar. chlorite veins in silicified zone	Cg	60	101	MoS2 traces - fractures. V. little visible - probably a lot lost.	Zone of coarse solid pyrite FgQM = silicified zone (?)	80% ?	60%		63370		.025		
silicified zone passes abruptly into CgQM (80° ca) and CgQM extends to 110' with [illegible] silicified zones: -	Kspar - Qtz - MoS2 vein on silicified zone at 70'±. feldspars in CgQM = deformed, noted alteration, No limonite	Cg QM	K	110	Possibly disseminated MoS2 in FgQM (?) - coarse blebs in qtz vein cutting silicified zone	V crumbly in Mo core (mainly CgQM) ∴ low recovery: high MoS2 loss	70% ?	65%		63371		.216		
CgQM passes to silicified zone at 111' rare feldspars in matrix, mostly fine grained, grey sugary textured [illegible] zone cut by veins Kspar, Qtz and diff.	appears to be a silicified alteration zone original rock texture [illegible] zone: Note fresh biotite of FgQM (altered)			120	MoS2 specks in 1-2mm qtz veinlets in silicified zone 60-80° c.a: Not V. rich in pyrite	Too extensive for a dike(?) - see 211, 201 silicified shear? fault?	10%	90%		63372		.082		
Silicification to 124' then sharp contact (80°) CgQM - fresh looking extends to 131'. CgQM cut by 10cm silicified shear at 126' and 129'	relatively fresh looking CgQM cut by silicified shear zones: Plag = clay/sericite altered	Cg QM		130	Note Biotite & hairlines in CgQM + pyrite [illegible] MoS2 in fractures [illegible] qtz veins in [illegible]	CgQM - not much in silicified zone - Note pyrite rich	5%	90%		63373		.047		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Sharp contact at 131' grades to weakly porphyritic FgQM - (not sparse?) - some phenos in salt & pepper matrix; phenos decrease from 136'. Note 5cm qtz-Kspar pegmatite near contact.	Matrix becomes lighter in colour and more bleached with depth - coarser. - cut by abundant qtz veins (+ feldspar)	140	70°		0.5-1.0cm veins 70-90° c.a. ± locally remobilized. Veins 10-40° c.a. - similarly readily mineralized - (good) qtz.	relatively abundant qtz but not exceptional. Most mineralized in qtz veins + [illegible]	5'	95%		63374		.034		
FgQM - salt & pepper, granular texture c rare qtz phenos cut by feldspathic zone 142 and 149' - also by abundant qtz veins (smokey brown qtz?)	Kspar alteration along fractures and in veins: + biotite - matrix fairly fresh (?) some sericite - clay alteration	150	K		qtz veins abundant, Moly relatively rare, again, low with regard to qtz veins.	abundant qtz 70°-90° c.a. (20?) hairlines 10-20° c + pyrite, chlor Moly.	5'	95%		63375		.032		
FgQM, as above, rare phenos: salt and pepper texture cut by feldspar veins, Qtz + fd veins and qtz veins	Kspar alteration envelopes qtz veins and Kspar occurs in some veins. Large barren veins may be late (?) cut hairlines ∥ c.a.	160	K		good Moly blebs in 1 qtz vein 90° c.a. (1cm) and in several hairlines ±25° c.a. and 80° c.a.	No obvious distinction mineralized & barren veins. Note Pyrite + Bist. [illegible] veins	5'	95%		63376		.078		
FgQM, as above, becomes more porphyritic around 161 and grades into hybrid porphyry locally - some salt and pepper matrix.	Note some "planar" Kspar, appear to cut qtz veins! ∴ late Kspar. Minor sericite - clay alteration	170	K		as above, many qtz veins, one with minor Moly inside vein (not on border)	crumbly, some loss, probably skipped	10'	95%		63377		.123		
gradation to mafic, sparse, Aplite porphyry = FgQM + scattered phenos qtz + feldspar and local [illegible] matrix. - Variety of same rock unit See PDC 209.	turbid feldspar in matrix of MSAP but appears fairly fresh: Note fresh biotite. abundant qtz veins	180	*	*	Good Moly in a variety of qtz veins, 1 ~ 90° c.a., and ± 40° to c.a. but one at vein crossing!	Pyrite + Chlor in hairlines 30° c.a. Significant Moly in both main qtz vein sets: not restricted	<10'	95%		63378		.286		
10cm vein FgQM cuts MSAP at 180' - then continues to 190' MSAP cut by Feldspar-Fluorite vein at 186' and scattered qtz veins.	addition of Kspar in veins and general alteration of feldspar locally, most appears fairly fresh. some sericite - clay.	190		*	1 qtz vein (4mm) + blebs Moly extends up axis for 4', + some Moly in cross-cutting veins.	Note MSAP cut by FgQM: slightly earlier but related phase.	5'	95%		63379		.071		
CgQM fragments in a mixed matrix - largely varieties of FgQM - V. complex zone - hybrid.	typical alteration, not v. sparse, Note strong occurrence of fresh biotite	200			major qtz vein + Moly at 191, large MoS₂ blebs - 70° c.a. Not smokey Qtz!	MoS₂ in minor hairline fractures ± 30° c.a. - contaminated zone	10'	95%		63380		.367		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
[illegible] TgQM with inclusions of CgQM in graphic intergrowth [illegible] hybrid ?[illegible] passes to Mafic porphyry at 204' and back at 206 (inclusions?) diffuse TgQM → 208'	inclusions [illegible] "hybrid" rocktype :– alteration fairly slight. some sericite-clay alteration from biotite	Tg QM / Tg	[illegible] Mafic	X ... 2"	Large Moly [illegible] qtz vein (1.5cm) 45°ca, + other smaller veins 10°c.a. & 80° [illegible] rare pyrite	Igneous Breccia – crumpled some [illegible] rock. not great (?)	<10%	95%		63381		·142		
passes to typical hybrid porphyry – large phenos feldspar in a fg QM matrix. (+ biotite in matrix) CgQM inclusions in Hybrid Porphyry	cut by Qtz-Kspar vein (70°c.a.) and crumpled and broken for 210'–212' → 217–218' Pyrite + chlor + Mo[illegible] – some qtz veins	[illegible]	*	* 220	good Moly in vein (||) c.a. in crumpled zone, in 2 qtz veins 90°ca and micro fractures	Sericite-clay alteration increases – [illegible] zone probable loss	20% ?	85%		63382		·364		
TgQM with twisted, graphic intergrowth-type matrix, and small inclusions of CgQM granophyric (?) (inclusions 2-3cm)	TgQM cut by 2 || open fractures with [illegible] qtz veinlets || c.a. some sericite-clay alteration	Tg QM / Tg		230	Chlorite [illegible] at 227' 10°ca Moly in [illegible] qtz, pyrite, Moly veins || c.a.	suggestion of pulses of intrusion in TgQM, slight texture & grain size changes.	5%	95%		63383		·128		
sections [illegible] (pyrite & chlorite alteration ?) TgQM extends to 232 → altered Mafic Porphyry – cut by TgQM dyke at 234. Mafic P. – v. crumpled from 234 → 242	Normal sericite-clay + carbonate alteration of feldspar: – some chloritization: fractured || c.a. + gouge No Moly.	[illegible]		240	V. little visible SF. qtz veins rare in Mafic zone, [illegible] some Moly in crumpled zone	Note Mafic + inclusions (2) of CgQM relations obscure.	?	90%		63384		·062		
Mafic Porphyry: – typical texture and composition – not large euhedral feldspar phenos in biotite speckled matrix:	cut by qtz, Kspar, [illegible] vein [illegible] 90°ca – this cut by Moly, Pyrite qtz vein || c.a. Moderate sericite-clay alteration	[illegible]	K	250	Moly in qtz vein || c.a. (as [illegible]) and in 2 veins (qtz, Kspar) 90°c.a.	1 vein broken ∴ Moly Lost. Typical Mafic Porphyry	20%	95%		63385		·100		
Typical Mafic Porphyry: euhedral and [illegible] phenos: fracts: + gouge 20°c.a. not core	V. fresh biotite locally overprints feldspar – chlorite – fairly fresh [illegible]			260	qtz vein (1cm) + Moly [illegible] 90°ca. x in qtz vein 90°ca. – (x5) veins:	measurable Moly in a few minor qtz veins.	<5%	98%		63386		·152		
Typical Mafic Porphyry with increased alteration and deformation ∴ broken up fracts || and at 5-10 c.a + gouge –	Sericite – clay ± carbonate alteration of feldspar + gouge in fractures: Minor chlorite			270	Minor Moly V. few qtz veins, probably [illegible] loss,	Possible late alteration – [illegible] || fracture [illegible] in this unit ?	<5%	95%		6387		·049		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 2 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Typical Mafic Porphyry – fractured at 271' (+ gouge) otherwise ± fresh [illegible] :– characteristic texture [illegible]: Bio + Kspar + qtz vein at 277' – 70° ca	Minor, note [illegible] gouge on fract: (40°) between fresh rock. – [illegible] qtz veins 70° + [illegible]					280	trace of MoS2 sporadically distributed in qtz veins [illegible]	typical, fresh [illegible] Mafic Porphyry	<5%	95%		63388		·106		
Mafic Porphyry – as above cut by TgQM type dyke at 286' (10cm, 70°ca) – Note V. fresh looking, particularly [illegible] rather coarse for TgQM but not quite sparse porphyry	V. slight alteration minor gouge on fract. – chalky looking – feldspars in mafic porphyry – hard,					290	minor qtz veins (40-70° ca) + specks of MoS2 – V. minor MoS2	dyke = [illegible] of sparse porphyry [illegible] TgQM/Porph.	<5%	95%		63389		·025		
Minor shear zone at 290' – slickensides + minor MoS2, altered Mafic Porphyry → fresh at 294' Typical, euhedral feldspars (large, [illegible]) in mafic matrix.	qtz veins + Kspar envelopes locally. Qtz. veins not common mostly 50-70° ca. Note [illegible] qtz MoS2 vein					300	poor broken MoS2 vein at 300', loss, otherwise – few qtz veins ([illegible]) + MoS2	erratic MoS2 distribution – a few fresh veins + coarse blebs. – not common, ∴ low grade	1%?	98%		63390		·129		
Fresh Mafic Porphyry cut by graphic pegmatite (brown, Qtz-Feld) vein at 310' 50° ca. – rare qtz veins, Minor MoS2	– V. slight alteration – fresh, note [illegible] in feldspar phenocrysts					310	some MoS2 coated on broken fractures – breaks commonly on MoS2 veins!	some loss due locally on MoS2 fractures	10%	98%		63391		·161		
Mafic Porphyry cut by major quartz vein at 315'–317' – possibly + [illegible] veining. 45° ca No MoS2	alteration of fresh Mafic Porphyry from 314–318' – otherwise fairly fresh fracture 70° c.a.				Qtz vein	[illegible] 320	V. little MoS2 in disrupted qtz vein [illegible] traces of MoS2 [illegible] not nil	typical mafic porphyry. – poor mineralization	5%	95%		63392		·065		
Mafic Porphyry – typical texture, much as above cut by a few qtz veins ± 40° ca. –	diffuse [illegible]: – some sericit-chlorite alteration but fairly fresh, – particularly [illegible]					330	Minor qtz veins 5°–350° [illegible] + specks. [illegible] – Note [illegible] qtz-MoS2	typical mafic porphyry + poor mineralization – disappointing (may add up!!)	6%	95%		63393		·066		
typical mafic porphyry – + significant [illegible] – increase in number and MoS2 content of qtz veins. – mostly 60-80° ca. [illegible]	Bio + Kspar in [illegible] ‖ ca. – [illegible] MoS2 → [illegible] MoS2 to ‖ vein but – MoS2 [illegible]: at intersection of 2 [illegible]				*	·2 340	Major MoS2 fractures 30° ca at 339' – [illegible] + loss [illegible]	Significant [illegible] MoS2 veins	10%	98%		63394		·221		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. 10 SHEET No. 6 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porphyry - typical texture - white feldspar phenos in biotite rich matrix - increase in sericite - chlorite alteration 342-346 + ‖ increase qtz veins	Possible Kspar flooding of matrix in alteration zone + contact addition of minor TgQM magma: + MoS2. Good MoS2 in qtz veins				[illegible]	350	X cutting qtz veins + good thick MoS2 - late Kspar, qtz, Bio in zone + late hydrothermal alteration	Mixed zone of faulting, igneous intrusion, qtz hypo? [illegible] + MoS2 addition. - No loss	<5%	98%		63395		.129		
Typical Mafic Porphyry cut by narrow (2-5 cm) TgQM dykes (50°) which appear closely associated with Qtz Feldspar veins carrying good MoS2	Feldspars altered near TgQM and qtz zones - otherwise fairly fresh in qtz veins 50° c.a. and 15° c.a.					360	Qtz veins + MoS2 cut TgQM and (hybrid porphyry) dykes - some MoS2 blebs	Significant amounts of MoS2 in 1 qtz vein ‖ c.a.	<5%	98%		63396		.063		
Typical Mafic Porphyry - V. fresh looking: cut by Kspar rich zone at 369'.	Possibly slight green tint to rocks near qtz veins = sericite - chlorite alteration					370	x 7.5 cm qtz veins 50-80° c.a. - ± [illegible]. MoS2 in hairline fracts 5° c.a. + 90° c.a.	MoS2 on 1 sheared fracture: loss ± 10% (? cut only.	2% ?	98%		63397		.093		
Typical Mafic Porphyry - Biotite rich zone appears v. fresh and stable. cut by 2-4 cm dyke of TgQM (50° c.a.)	rare fracts 10° c.a. + gouge basically v. fresh rock. chlorite + pyrite in veins, ± ‖ (slightly X cutting) qtz vein					380	V. little MoS2 in isolated traces in qtz vein complex at 375	Note Kspar phenos; grow into qtz veins (?)	<5%	95%		63398		.027		
Typical Mafic Porphyry - cut by dyke of TgQM 390-392. Qtz veining + biotite addition (?)	slight alteration of feldspars (light green tint to rock) ‖ fracture + gouge 15° c.a. at 381					? 390	Large qtz veins: (2 cm) 90° c.a. + 10° c.a. + coarse MoS2 blebs on X fractures: v. dispersed.	Typical, note sporadic nature of good MoS2 related to X fracts	5%	95%		63399		.122		
Note TgQM - chilled at top, not bottom, ± mafic at bottom! at 80° c.a. - Mafic Porphyry - typical - relatively fresh, - cut by 3 sparse porphyry dykelets (50° c.a.)	qtz veins + MoS2 and coated MoS2 on fracts: (some loss) - Minor alteration: chlorite + pyrite in hairline fracts ‖ c.a.				15° [illegible]	400	V large MoS2 in qtz vein 90° c.a. blebs shape related to X fracturing (?)	V. coarse MoS2 widely dispersed ∴ Assay qtz veins not necessarily better	10%	95%		63400		.121		
					E.O.H. 400'											

PLACER DEVELOPMENT LIMITED

GRID: ..

HOLE No. 11
SHEET No. 6 of 6

LOCATION: 1E 5N
BEARING:
LATITUDE: 6 620 344.9
PROPERTY: Adanac.

DATE COLLARED: 19 July 79
LENGTH: 480'
DEPARTURE: 589 774.9
CORE SIZE: NQ
LOGGED BY: R.H. Russell

DATE COMPLETED: 21 July 79
DIP: Vertical
ELEVATION: 1492.1
SCALE OF LOG:
DATE: 21st July

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Overburden to 13' - cuttings MSA P and CGQM, ± Minor 4th July, diorite → CGQM - typical, Kspar rich, qtz veined, fractured, broken	V minor sericite - clay alteration of feldspar. - mainly limonite staining of fractures in mafics and in feldspar. Xtals				20		Mn stain on fractures - No MoS2 visible but several etched qtz. veins.	MoS2 probably lost: - early qtz veins 70°ca cut by late qtz veins 20°ca ∴ off set.	10' to 13' 100%	75%		63401		·003		
Crumbly and broken CGQM cut by small (10cm) vein of FGQM. CGQM = typical, V. deformed, strongly qtz veined, broken ∴ poor recovery	Note Mn and limonite stains on fractures. feldspars appear fairly fresh - possibly sericite in fractures (?)					30	None visible possibly etched out: -	typical start of hole. - note qtz = grey not smokey - brown	100%	50%		63402		·002		
Similar to above. CGQM cut by veinlets of FGQM, qtz veins → shears - all 90°ca - also V. deformed. CGQM	Little apparent feldspar alteration but strong limonite stain related to fractures. - plag locally stained by					40	black gouge of fracts. may be MoS2 - slightly oxidized as well as Mn; Thick coat,	qtz veins = 0.3-1.0cm etched slightly no MoS2 visible Mafics ⇒ Chlorite	100% ?	60%		63403		·003		
Similar CGQM cut by 2 1cm FGQM veins. (45°ca) and qtz veins. CGQM = strongly deformed, feldspars = shattered. Passes to hybrid porphyry at 49'	slightly fresher biotite - some light green (sericite (?)) alteration of plag: mot. strong limonite stain					50	obvious MoS2 in etch holes - qtz + local relicts MoS2 at 48' - MoS2 - qtz veins 90°ca cut + 20°ca.	Pyrite in biotite fracts. // ca - typical. CGQM.	70% ?	75%		63404		·006		
Hybrid extends to 51' - FGQM matrix to large xtals of Kspar feldspar - not sparse or crowded porphyry - too gritty matrix: - FGQM dyke cuts CGQM at 54-55'	FGQM = leucocratic, mafic free and altered feldspars - CGQM = altered less? deformed and broken ∴ plag ⇒ sericite + chlorite	Hy	Cg Fg	Cg	Cg / Fg	K 60	None visible, possibly etched out. (recovery in places)	4cm Kspar vein or pegmatite at 52' cuts CGQM	100 ?	80%		63405		·003		
CGQM cut by dyke of fairly course and mafic FGQM - possibly related to MSA P. (mafic sparse, aplite, porphyry) otherwise CGQM - typical	Plag. in FGQM and CGQM etched ∴ stained. Kspars appear less altered. Strong limonite stain V. crumbly rock	M Fg GM				70	None visible probably etched out - qtz. veins cut FGQM ±50°ca	CGQM = V. deformed, note biotite in FGQM	100% ?	90%		63406		·007		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
CgQM to FQ' — passes into a V. altered, green, silicified alteration zone, probably after FgQM, — sandy qtz texture with diffuse leuco-chlor mafic clots;	Not dark green colour (chlorite) No limonite stain. Mainly 1-2mm equigranular V. qtz. rich, possible silicification + abundant sericite flakes on fracts.	MZ	20°	80	qtz veins ∥ c.a. + Py, Po(?) Chalco + MoS2 - V. varied. Str assemblage MoS2 focus = qtz veins ∥ c.a. + 40° c.a.	V. strong alteration — pervasive chlor; sericite qtz	<10%	95%		63407		.044		
as above. V. silicified and altered, non-porphyritic zone, green + chlorite and probably 2dary biotite, 1mm qtz, diffuse mafics;	extreme alteration; pervasive, qtz addition; sugary texture & possibly altered FgQM - 2dary bio: fragging chlorite clusters.			90	1 V. coarse MoS2 blebs in qtz vein 90° c.a. — not + disseminated + fract: Pyrite + Po, Chalco. (Py rich)	Inferred protolith FgQM — V. uncertain. appreciable Mo lost from pyrite	25%	95%		63408		.099		
CgQM cut by leucocratic FgQM dyke at 93-94' — strong recrystallization of qtz in CgQM → sandy texture + large phenos: - retains	to mafic, silicified. FgQM — pervasive silicification, fresh 2dary biotite		Cg / Fg	100	MoS2 blebs in leuco: FgQM and in Qtz-Kspar veinlets + hairlines ∥ c.a. ∴ fairly rich	not mafic free, altered FgQM — mafic rich zone, strong alteration	5%	95%		63409		.066		
Mafic alteration passes to more felsic (leucocratic) zone at 102' largely aplitic, mottled + bio specks, becomes more distinctly leuco: FgQM at 108'	extreme alteration — matrix feldspar → sericite - kaolinite or mafics removed. Kspar rich zones + envelopes to qtz veins.			110	fine 1mm crosscutting qtz veins + MoS2 blebs. Note Kspar Xtals in qtz veins.	extreme alteration of FgQM. Pyrite in early hairlines ∥ c.a.	5%	95%		63410		.114		
V. altered FgQM (leuco) becomes a V. altered inferred porphyry at 118'. Note cut by veins qtz (Xcutting) with Kspar/Qtz.	extreme feldspar alteration — cloudy plag. → clay, sericite matrix. Note fluorite in matrix not just veins			* 120	Note Pyrite in fracts ∥ c.a., with Xstalline MoS2 in qtz veins (1-2mm) all angles	Still relatively mafic free alteration zone. Note Pyrite rich	5%	95%		63411		.067		
V. altered Inferred Porphyry: V. cloudy euhedral phenos Kspar in qtz in a sandy, salt & pepper matrix. Mafics = rare traces in matrix;	Qtz veins enveloped by Kspar + Milky Kspar zones cut core: - sericite - kaolinite alteration of feldspars. Late fracts ∥ 70-20° to c.a.			* 130	MoS2 in qtz veins 90° c.a. = good sized blebs. —	not Pyrite on fracture surface - fairly rich. slightly chloritic	10%	95%		63412		2.150		
FgQM chills against above at 130' - chill zone grades to coarser grained variety + phenos: qtz → feldspar - Not MSAP but similar. Still has sandy texture of FgQM	Moderate alteration possibly some 2dary biotite — sericite + clay alteration. - Pyrite on fractures.	Fg / QM	*	* 140	V. large MoS2 mass at 134' — qtz vein 90° c.a. massive ore. Minor MoS2 in other veins	Locally specks MoS2 replace biotite. Most qtz veins 1-2 mm Xcutting, main vein + 2cm	15% ? (major included)	95%		63413		.118		

GRID: ___ PLACER DEVELOPMENT LIMITED HOLE No. 11 SHEET No. 2 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
F.g. QM - V. slightly porphyritic - 4mm phenos ± max 1mm g.s. matrix - slight bio in matrix. no phenos: - not aplitic or porph. enough for MBAP but probably related	Salt and pepper matrix feldspar probably => clay + sericite, homogeneous - cut by 1 Kspar flo zone (142') and MoS2 + qtz. veinlets veins 1-5 mm 90° ca + 10-30		150				MoS2 in qtz. veinlets - fairly abundant. no apparent system to cutting relations or angles	Note significant pyrite throughout alteration zone - try IP (?)	5%	95%		63414		.123		
F.g. QM - as above, slightly porphyritic. Not leucocratic variety - some mafic (chlo + bio) in matrix. 1mm g.s. - sandy, salt and pepper matrix - green-grey colours	V. similar to above - some sericite - clay alteration: abundant 1mm to hairline qtz. veins mostly 60-40° c.a. Xcutting	C	160				1cm qtz vein + MoS2 blebs (coarse) 80° c.a. cut by 4mm qtz vein with Py and chalco	increase in chlorite over last 30' interval. blebs. Pyrite in qtz veins	5%	95%		63415		.053		
Continues to 162'. bleached F.g. QM cut by chlorite shear to 164' - becomes equigranular medium grained QM ± fine C.g. QM - probably coarser version of F.g. QM	cloudy, altered feldspars, locally with dark green chloritic cords. spotty fresh biotite		170				MoS2 + qtz in chlorite - veins in all directions, minor stockwork at 165'	equigranular phase appears to be transitional to hybrid porphyry	5%	95%		63416		.047		
Grades into fine version of hybrid porphyry - cut by shear zone at 178' (30° c.a.) and 180' (5° c.a.) - qtz vein c.a. + MoS2 along length of core	Note large Kspar "phenocrysts" postdate qtz veins! - possibly addition of 2ndary biotite typical sericite alteration		180		Sh	K	MoS2 blebs in qtz veins (0.5-1cm) shallow angle c.a. V crumbly vein at 180' - loss	typical, altered hybrid porphyry - Note V late Kspars	10%	90%		63417		.299		
Hybrid porphyry with V. mafic matrix passes to F.g. QM with mafic matrix - salt and pepper type, sandy F.g. QM, at 185' → medium grained equigranular.	feldspars altered and etched; - sericite clay alteration probably less than above	Mod. - g QM	190		F.g. QM		MoS2 in 1cm qtz vein 20° c.a. crumbly rock ∴ MoS2 lost. Note pyrite in fract.:	Fresh biotite 2ndary (?) chlorite cores to some Plag: Xstals	10%	95%		63418		.186		
passes to CgQM - typical above = chill zone (?) - V. deformed CgQM, sheared at 193' fractured throughout. (45° ca) + some (10° ca)	altered and crumbly, chalky feldspars and local rimmed phenos: cores = dark green chlorite, margins = white sericite/clay. Biotite + chlorite + pyrite along qtz. veinlets.		200		K		MoS2 blebs in qtz veins ± 10° c.a. (4mm) - locally veins + MoS2 = sheared	Kspar + bio: zone at 198', note biotite in some qtz veins ! (+ pyrite)	<10%	95%		63419		.143		
Strong shear 45° ca at 200'. Highly deformed and altered CgQM - fracture common, some + gouge mostly 10'-50° ca.	clay-sericite alteration of feldspars prominent. Local chloritic Xstals, as above		210		Sh		MoS2 and pyrite in minor fractures and qtz veins mostly at shallow angle to c.a. Note abundance of pyrite	CgQM - deformed and altered: Qtz veins + significant MoS2	<10%	95%		63420		.120		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
CgQM cut by Hybrid porphyry zone at 214', CgQM = as above, altered, deformed veined by qtz. Locally crumbly.	typical, sericite-clay alteration - strong - locally white-green coloured feldspars - not v. common diffuse patches of biotite + chlorite	Cg QM / Cg QM	Hybrid	220	veinlets 10° ca contain qtz, bio, pyrite + MoS2 (2mm) - scattered MoS2 in pyrite crushed veins.	CgQM less deformed than above, cut by qtz veins with Py + MoS2, significant grade	<10'	95%		63421		.104		
CgQM passes to Mafic porphyry at 223', sharp contact, Mafic appears younger (contains frags: Kspar). Mafic porph. cut by 2cm qtz-Kspar vein at 225 - Pg alteration at 228	typical alteration of CgQM - as above - similar alteration of feldspars in Mafic porphyry			230	rare qtz veins in Mafic + traces of MoS2 - reduction from above. veins = 90° ca	MoS2 in 10° ca. fractures in CgQM section - sharp change in rock type	5'	95%		63422		.103		
Mafic porphyry continues as above: cut by biotite-Kspar vein at 230'. Fracts. 15° ca. = common typical rock type	fresh looking biotite, altered feldspars gouge (sericite) in fractures			240	qtz veins 90° ca. - barren, veins 40° ca + coarse MoS2 blebs (0.5 cm wide!) also MoS2	on a fracture - sheared on, 45° ca. reasonable MoS2 content on two structures	<5'	95%		63423		.056		
Mafic porphyry continues as above: - note Kspar - qtz veins locally (249') = white clay gouge at 45° c.a. fracture set.	feldspars rotten in fractured areas / KCL in gouge.			250	MoS2 in 2 qtz veins. - both 3-4mm at 70° c.a. - reduction in grade	V. typical, unsheared but fractured mafic porphyry	5'	95%		63424		.088		
as above - becomes V. fractured and altered from 253 - 262. Note V large qtz vein (25cm) at 30° c.a. at 255'. Fracts commonly ‖ c.a. crumbly rock	V. altered Mafic porphyry: - feldspars ⇒ clay/sericite ± carbonate ± biotite in quartz veins			260	MoS2 - fairly uncommon: specks in 2mm qtz vein, 15° c.a. small amount in complex veins	as above: much fractured mafic porphyry - low MoS2 content	5'	95%		63425		.061		
as above, Mafic porphyry - generally less fractured and less crumbly. - relatively few qtz veins (0.4-0.8cm) wide with rare blebs of MoS2	some Kspar - Plag: alteration & formation of gouge in local fractures ‖ c.a.			270	MoS2 in rare qtz veins and smeared on local fractures - all 80-90° ca	Most obvious qtz veins not relevant - MoS2 - often relatively minor one: - V. variable	5'	95%		63426		.132		
Mafic porphyry - as above - typical for section grey, fresh biotite, diffuse feldspars as phenocrysts 0.5 - 1 cm	Locally fractured and crumpled - mainly 0-10° c.a. + gouge			280	Qtz - Kspar veins 90° ca carry blebs MoS2 - Not V. abundant - few veins	- typical, small MoS2 specks on 'dry' hairline fractures - little qtz	<5'	95%		63427		.078		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porphyry, as above: typical texture and composition. Note fresh biotites & Kspar phenos: - generally fresh except where fractured.	alteration increases in fractured zones, fractures ∥ c.a. + gouge; as above;			290	few qtz veins, rare Mos, specks in qtz Kspar vein at 287'	Mineralized zone crumbled; [illegible] [illegible] value still low.	<10%	95%		63428		.056		
As above, Mafic Porphyry - typical appearance. - feldspathic and altered around 296'. fractures ∥ c.a. -	alteration of feldspar greatest near fractures; locally appears fairly fresh. Narrow 2 mm qtz veins			300'	Note small specks of Mos dispersed in qtz veins, not [illegible] [illegible] veins 90 + ∥ c.a	as above: crumbled; [illegible] Mos qtz veins - variable	<10%	95%		63429		.166		
as above, Mafic Porphyry - V. sericite texture, veined by qtz [illegible], ∥ c.a., 90° c.a. vein [illegible] from 305' - 309' (2 mm)	Chalky feldspars & sericite - clay gouge filled [illegible] fractures (mostly 25° c.a)			310	Note dispersed Mos specks + qtz vein, not qtz veins + [illegible] [illegible]	typical, fair Mos content - dispersed.	<10%	95		63430		.109		
Mafic Porphyry - as above alteration increases from 316' - [illegible] crumbly until 322' No [illegible] fault (?)	alteration increases down hole: - abundant sericite - clay gouge in fractures			320	good, coarse, Mos blebs in qtz feldspar vein - 313' Nothing else seen	V. few qtz veins, little Mos	<5%	90%		63431		.066		
Mafic Porphyry, as above: - Locally fairly fresh looking. - Note Qtz, Kspar, [illegible], chlorite vein 90° c.a. (+ 1 cm [illegible] vein)	feldspars & white and chalky. fractures + white sericite gouge.			330'	1 qtz vein ∥ c.a barren, traces of Mos in veins & hairlines ∥ c.a & 90° [illegible]	typical, little Mos. except for 2 qtz veins.	<5%	95%		63432		.155		
Mafic Porphyry - as above Cut by veins of sparse porphyry (typical) vein intrudes ∥ c.a from 334' to 336' and 338' - 339' Sharp contact.	Mafic Porphyry much as above, fresh biotite, + altered feldspar: -			340	Mos in 1-2 mm qtz veins 15° c.a (2) and 1 in wide qtz veins 90° c.a (2), reasonable [illegible] dispersed	Start of intrusion of sparse porphyry - near contact	5%	95%		63433		.341		
Mafic porphyry cut by a dyke of Sparse Porphyry: sharp contact, 25° c.a. No chill zone straight to Sparse texture	Fresh, brown, sparse porphyry dyke, minor feldspar alteration V. fresh biotite		SP / [illegible]	350	rare Mos specks in 1 cm qtz vein 90° c.a. & blebs in 1 cm qtz vein 45° c.a.	as above, approaching contact. Note fresh state of Sparse Porphyry	<5%	95		63434		.080		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porphyry: typical texture - cut by Qtz/Tourm. veins (80°ca), ~ qtz. veins not common.	relatively fresh, - some bright green sericite-chlorite pseudomorphs after Kspar. + Plag.			360	traces of MoS₂ in hairline fractures 10-20° ca. - Not common, not qtz. veins.	Characteristic Mafic Porphyry few qtz. veins	<5%	95%+		63435		.063		
Mafic Porphyry cut by dyke of sparse porphyry 361'-362' contact sharp, 90°ca sparse + slightly chilled, small [illegible] flanges in glomeroporphyritic X	Plag. ⇒ sericite/clay. abundant gouge in fractures. [illegible] filling associated with minor qtz veins		sp 90°	370	MoS₂ traces in narrow qtz. vein (1.7cm) at 80° and 70° ca. - little sulphide	as above: not porphyry dyke with pyrite in fractures 90°ca	<5%	95%+		63436		.035		
Mafic Porphyry cut by Sparse porphyry dyke at 375'-376', sharp contacts, 90° both rock types characteristic.	fractures ∥ c.a + gouge (clay + sericite ± carbonate) - few green plag: cores in Mafic porphyry		sp 90°	380	T. (.8-1.5cm) qtz veins with sparse specks of MoS₂, [illegible] with Kspar and pyrite	typical Mafic porphyry.	<5%	95%+		63437		.035		
Mafic Porphyry cut by sparse porphyry vein at 380' (15cm - 90°ca) and 389'. Typical Mafic rock [illegible] - alteration near shears at 386-387'	Mafic Porphyry becomes V crumbly + altered near faults. Chloritic shears + slickensides. also late fracts ∥ ca + gouge		25° sp	390	Minor MoS₂ smeared onto shears + slickensided. significant amount!	Probably little MoS₂ lost. - good recovery note sparse porphyry along fract. ∥ c.a	5%	90%		63438		.146		
sparse porphyry appears to be cut by Pg/M zone - [illegible] then returns to Mafic porphyry. extends to 398'. hole ends in Sparse Porphyry	V. fractured and crumbly Mafic Porphyry (390-395') ± ∥ c.a altered, similarly sparse porphyry at end of hole		sp	400	Fracts: in narrow qtz veins, no [illegible] + significant STZ	ends in sparse porphyry - clearly sparse porphyry [illegible] the Mafic	1%	95%		63439		.210		
		458	(c. 451)											

PLACER DEVELOPMENT LIMITED

GRID: ____

HOLE No. 212
SHEET No. 1 of 6

LOCATION: 0-5N
DATE COLLARED: 21st July '79
DATE COMPLETED: 23rd July '79
BEARING: ____
LENGTH: 400'
DIP: Vertical
LATITUDE: 6 620 332.8
DEPARTURE: 589 752.1
ELEVATION: 1495.1
PROPERTY: Adanac
CORE SIZE: NQ
SCALE OF LOG: ____
LOGGED BY: Rol Pinsent
DATE: 24. July. 79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
0-7' - overburden - boulders and gravel largely CgQM, FgQM 7' - FgQM - equigranular sold as (?)	limonite stains, fresh(?)	Fg		10	stained qtz-Kspar veins c FgQM but no visible MoS2 (etched)	MoS2 presumably etched out:	100%	—						
FgQM passes to CgQM - sharp broken contact, CgQM = V. deformed (fractured feldspars) - cut by FgQM dyke at 14' - Kspar-qtz graphic intergrowth along margin	Fresh Kspar - other, along dyke contact: preferential alteration of plag: + limonite stain - fractures (closed) + // ca	QM	K Fg 90°	20	None visible - probably etched out. ± good recovery.	Note intense deformation in CgQM - not in FgQM	100%	90%		63440		.003		
CgQM - note shears (silicified) at 20, 21' (90° ca) and some (?) (porphyry) - "phenocrysts" in chilled matrix i.e. CgQM not chilled. -	V. slight Kspar alteration - plag. ⇒ clay + sericite and stained by limonite Mn stains on fractures	C P		30	No visible MoS2. 3 minor qtz veins only - note late close fractures // ca.	fresh biotite(?) - typical CgQM - limonite stained large Kspar flood	100%	90%		63441		.004		
CgQM, as above, cut by 10cm dyke of FgQM (relatively Cg variety - 1-2cm) 50° ca - tight fracts // ca may not penetrate dyke. - do get major qtz vein + MoS2 blebs (90° ca) at 37'	light green sericite - clay alteration of plag + stain near fractures - clay = fresh'	C W		40	V. altered veins complex at 37' + MoS2, pyrite, + Coarse + 190' vein + 1 20 vein + stringers	Note sericite on fractures: some fresh MoS2 Much probably etched	50% ?	90%		63442		.052		
V. crumbly CgQM - poor recovery: typical deformed texture + silicified shears at 47' - V. Kspar rich, locally	alteration as above: - limonite staining sericitic fractures: fractures commonly 50° ca or // ca.			50	qtz. veins // ca. + 75° ca. + etched holes - MoS2 probably lost.	V. broken section poor recovery.	100%	70%		63443		.003		
V. deformed CgQM - crumbly, broken, gravel. Local silicified shears; fractures commonly 50° ca. (// major shear?)	V. sericitic locally. poor recovery. limonite staining.			60	None visible —	Shear zone? V. broken core from 54-59'	100%	60%		63444		.001		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. 212 SHEET No. 2 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
CgQM cut by 4-8cm dykes of FgQM-(?) at ±80°ca. CgQM V. rot - Kspar - Local V coarse qtz-Kspar zones (segregations) - No MoS2	typical light green sericite - clay alteration of plagioclase. Kspar = fresh - limonite stain in fractures (common) by 50°ca			70	Minor MoS2 in qtz vein 40°ca - xtals entangled in qtz. Also MoS2 probably with [illegible]	typical deformed QM -	7.0' ?	85%		63445		.058		
CgQM cut by 2/a streaked in grey FgQM and 73' - unstable, poor recovery from 73-80'. distinct shear 55° at 79' (chloritic)	extreme alteration of plag: → Kspar - V. crumbly, limonite stained gravel - suggestion of qtz + MoS2 veining at 77'	Co, 6		80	gravel contains minor MoS2 ∴ loss inferred, may be high	poor recovery from gravelly CgQM much altered, note indeterminate MoS2 loss.	6.0'	50%		63446		.058		
as above. CgQM - deformed and altered to gravel over much of length - recovers coherence at ±87'	feldspars → sericite + clay ± carbonate, with limonite stain. Also = chlorite + pyrite			90	V good MoS2 in qtz vein at 89' (1cm) 90°ca - mixed MoS2 qtz. - MoS2 in gravel ∴ some loss.	despite loss = good MoS2 V. altered and unstable	4.0' ?	50%		63447		.247		
CgQM still V. deformed and altered appears to become silicified towards 97' - at 97' = discrete silicified - biotite zone. V. unstable zone	V. crumbly, for most part chlorite, sericite, kaolinite alteration - no limonite. Late fracts. ‖ c.a.	V		100	good MoS2 in large qtz veins 90°ca & 90°ca (infilled) - in altered CgQM	MoS2 on shear surface at 94' (60°ca) + in gravel	9.0' ?	60%		63448		.091		
silicified zone - sugary qtz in clay-sericite cement. contains patches of interstitial biotite (fresh) + pyrite. CgQM = V. altered → sericite/clay/[illegible] : ‖ c.a. gouge	V. chalky feldspars in CgQM zone, + gouge in fracts. sericite-chlorite clay alteration	Cg QM, Fg, Cg QM	45°	110	MoS2 - qtz veins and on fracture surfaces - some lost: - veins 60°ca & 90°ca	V. complex, alteration zone	2.0'	85%		63449		.058		
FgQM with 45° contact CgQM passes to silicified zone at 113' and that passes to CgQM at 115' - note siliceous zone with bio-chlor partitions near contact - mafic concentrations	strong silicification - possibly related to FgQM - note chlorite + Bio rich selvages. Note fresh biotite in FgQM.	Fg, Sil, Co		120	Good MoS2 in 6 qtz veins 90° c.a (3-6mm) - some loss chlorite in some qtz veins	complex silicified zone continues.	1.6'	85%		63450		.424		
CgQM cut by narrow (10cm) dykes of FgQM - sharp contacts: - irregular contacts - probably stoping of large blocks into FgQM below:	strong Kspar zone 90°ca. at 123'. - otherwise typical deformed CgQM - sericite, clay & chlorite alteration	6		130	Good MoS2 in 5 good (3-6mm) qtz veins 90°ca - some loss	Fairly fresh CgQM - [illegible] of plag: xtals	10%	90%		63451		.074		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. 21-__ SHEET No. 3 of [illegible]

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
CgQM ⇒ FgQM at 131. FgQM - [illegible], slight salt and pepper texture: - few phenos, Qtz and feld: - matrix feldspar & twinned	Sericite - clay alteration of feldspar - matrix [illegible] to chalky - ± no Kspar (Kspar veins 50° ca)		* / ∧	* 140	good qtz veins + MoS₂ on fract. surfaces: mostly broken in core; commonly 90°, 50° or 10° ca	phenocrysts coarser (in No.) → [illegible] down hole. late fracts ∥ ca ± rare traces of [illegible]	10'	85'		63452		.266		
As above. FgQM - locally up to 8-10% qtz + feldspar phenos: twinned altered salt and pepper matrix; - qtz Xtals set in clay	V. slight traces of (?) 2ndary - otherwise fresh, biotite in matrix. rare Kspar veins 90° c.a.		∧	150	good qtz veins + MoS₂ → MoS₂ crushed on fractures mostly 70-90°	Biotite (2ndary) moderately altered and broken up: - Pyrite on fracts	10'	95'		63453		.060		
As above - FgQM twinned feldspar with <10% phenos: in clay + fine qtz matrix: Note rounded fragments aphanitic dyke suggestion of coarser matrix down hole	no Kspar + Qtz veins. local Kspar enrichment as envelopes to qtz veins or in qtz veins: Biotite in some qtz veins 90° ca.			* 160	Pyrite + chlorite c.o. ± in fracts: ∥ ca good MoS₂ in broken veins 157'-161' mostly 70°-90° ca	Late biotite! some 2ndary: -	15'	95'		63454		.289		
FgQM - locally >10% feldspar phenos: in [illegible] sparse porphyry - alternative twinned matrix: FgQM matrix: Hybrid porphyry - grades into MSAP	V. feldspathic, Kspar zones at 164' and 169' - Kspar + Pyrite + Chlorite + sericite: - 2ndary biotite:	MSAP	∧	170	Coarse MoS₂ blebs in qtz veins & broken fractures - mostly 70-90° c.a.	Note Kspar "phenos" cut into qtz veins! 15 mineralized veins ± 2-4mm	10'	95'		63455		.073		
M.S.A.P. with a sheared (fine grained) 1" → 2cm FgQM dyklet (45° ca) at 174' note twinned matrix + phenos and fresh looking biotite	Kspar envelopes and in qtz veins. also 2ndary biotite: late - sericite with late fractures ∥ c.o.			180	reduction in MoS₂ content, fewer, less rich qtz veins. Some MoS₂ on broken fracture faces.	V. altered rock (?) or primary (?) Note 2ndary Bio + Kspar!	15'	95'		63456		.026		
M.S.A.P. - becoming V. altered and Kspar enriched: - note Kspar cutting qtz veins & high Kspar content, also biotite overprinting feldspar	probably stocked in Kspar → overprinted with 2ndary biotite			190	late qtz veins + MoS₂ - on fracture faces: not abundant - some loss.	M.S.A.P. cut by dyke of [illegible] FgQM - strong alteration:	15'	95'		63457		.100		
Passes to CgQM via a zone of recrystallized (?) equigranular med. grained QM. - sharp contact; 90° - passes to typical CgQM (fresh)	CgQM fairly fresh, slight sericite / clay alteration of some plag. Xtals (light green colour). little Kspar alteration			200	in qtz veins and fracts. X1 = 90° ca and X1 = 45° c.a. also qtz vein complex ± ∥ c.a.	Coarse to Med. grained variety? chilled zone (?) - reaction zone (?)	5'	95'		63458		.063		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. [illegible] of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
relatively fresh, undeformed CgQM grades to mixed zone at 209' – complex intrusive relations CgQM fractured ∥ c.a. fractures + sericite gouge	Micro plag: feldspar chlorite alteration – Kspar a fresh looking not pyrite + chlorite on fractures –	Cg		210	large Mo – 2.0mm qtz vein 90° c.a. + MoS2 – as coarse blebs – – rare qtz veins MoS2	CgQM typical, deformed, but no stain – Note pyrite ± chlorite on fractures.	<10'	95%		63459		.250		
Hybrid zone where CgQM infected and digested by FgQM: intrusive relations and hybridization, inter crystal spaces in Cg soaked by magma:	Silicified zone at 214' passes to altered, leucocratic, hybrid porphyry. Plag → sericite clay + chlorite	Cg / Fg	silic (?)	220	chlorite + pyrite in hairlines 10-20° c.a. qtz. MoS2 veins few (?) mainly 90° c.a. hairline ∥ c.a.	intrusive activity pre-qtz + MoS2. Locally traces of MoS2 in CgQM	5%	98%		63460		.122		
CgQM with a faint trace of fine intratelluric magma and sub porphyritic texture – 20mm feldspars: – FgQM forms apparent veinlets – aplitic	Note slickensided shears 90° c.a. & late fractures (+ gouge) at 35° c.a. Minor chlorite, sericite clay alteration of feldspars			230	Pyrite traces disseminated – Biot: Not rich, traces in fractures & with veins.	similar to above CgQM hybridized with FgQM locally v. broken	5%	95%		63461		.062		
as above, CgQM extends to 239' diffuse contact with Mafic porphyry (90° c.a.) Equigranular med. grained QM zone at contact, mafics increase by diffusion	Plag = altered, as above → light green, soft clay. – Kspar = fairly fresh, plag locally overprinted by Biotite ? Flecks 10° c.a.			240	Pyrite traces in Biotite ± Chlorite. MoS2 not common, specks & small blebs in hairline veins & fractures 30° c.a.	CgQM deformed and partially reactivated CgQM.	5%	95%		63462		.068		
Typical Mafic Porphyry – slightly chloritic and altered at contact, at 241' and 247' Sheet qtz veins, otherwise fresh looking, leuco. FgQM dyke 35° c.a. at 249'	cut by narrow qtz-feld. veinlets: and qtz veins (2-20mm) at 60-90° c.a. – Chloritic shear at 247' sandy leucocratic dyke		K; S. 40°	250	cross cutting. traces of MoS2 – narrow veinlets large (1-4cm) qtz veins 60-80 c.a. apparently late	typical Mafic Porphyry predates FgQM, but sorted about	5%	98%		63463		.117		
Typical Mafic Porphyry – White euhedral phenos. of feldspar in mottled, dark, Biotite rich, matrix	Cut by qtz-Kspar and qtz veinlets. mostly ± barren, 1 good vein ± 10° c.a. 2mm wide. Little alteration of feldspar.		FgQM	260	MoS2 in a few minor veinlets: not common – little less	CgQM Note biotite rich nature of rock: fresh looking unaltered.	5%	98%		63464		.116		
Mafic Porphyry typical texture, composition and alteration: – i. sericite/clay gouge in late fractures:	V. strong biotite development. locally in qtz veins. – feldspars appear fresh although sericite gouge in fracts 20° c.a.			270	Thick qtz veins (90° c.a.) ± biotite better ST in 1/2mm veinlets	typical Mafic rich porphyry	5%	98%		63465		.121		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. ____ SHEET No. 2 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porphyry cut by a dyke of FQPM (coarse, sandy) + chilled contacts, at ± 10° c.a. Mafic Porphyry - typical composition + texture	slightly chloritic and altered looking in places, but fresh Biotite throughout.		280				qtz veins 30° c.a. + MoS2 and locally 90° X fractures: increase from above	significant MoS2 loss as 2 qtz veins + MoS2 are badly broken	25'	95'		63466		.198		
Mafic Porphyry - typical texture but generally more altered. Note fractures + gouge 50° c.a. x 70° c.a. - qtz veins with good MoS2 at 281, 287, 287'	Kspar vein 80° c.a. (3mm) Plag and Kspar → sericite, clay, chlorite + Pyrite. Biotite in some qtz veins		290				good blebs + MoS2 in 5 qtz veins (4-7mm) 50-80° c.a. - slight loss MoS2	fairly typical section of Mafic Porphyry - less late fractures than usual	10'	95%		63467		.269		
Mafic Porphyry - as above, becoming more altered and deformed with depth. Blocky recovery from 295-300' Late fractures mainly ‖ c.a.	feldspar alteration to sericite, clay, carbonate + chlorite - [illegible] fresh biotite. gouge on fractures		300				MoS2 in 4 qtz veins (4-8mm), 60-90° c.a., and 1 at 20° c.a. ± 1mm hairline loss (?)	increase in alteration and deformation in mafic Porphyry.	10'	90'		63468		.302		
V. crumbly from 300-310' with distinct shear at 302' (= 30° c.a.) - chloritic. Mafic P. - fractures ‖ shear and ‖ c.a. + gouge in fractures.	feldspars altered to sericite / clay and etched. Biotite appears ± fresh		310		30		MoS2 in fractures 20° c.a. and 90° c.a. qtz veins [illegible] of fractures	typical altered mafic porphyry	10'	75'		63469		.160		
as above, V. deformed and altered Mafic porphyry - sheared at 315-317'	typical alteration and gouge generation in fractures 10-30° c.a.		320				MoS2 blebs remain - in gouge, relation obscure	probably not much MoS2 Lost.	10'	85%		63470		.073		
as above, V. deformed and altered mafic porphyry rotten adjacent to a fault 325-326 (Fault = chlorite gouge) 20° c.a.	alteration as above - generation of gouge in fractures.		330		20		qtz veins may be unstable and absorbed into clay during alteration. No veins, only	qtz-free MoS2 fractures & blebs = odd?	10'	85'		63471		.086		
Similar to above but less extreme alteration - [illegible] + fractured and altered,	fractures 50° c.a. + gouge - normal sericite - clay alteration of rock - fresh Biotite		340				few qtz veins, MoS2 on fractures and hairlines. Mainly,	typical altered mafic Porphyry	<10'	80%		63472		.114		

GRID: ______ **PLACER DEVELOPMENT LIMITED** HOLE No. 412 SHEET No. 6 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porphyry - as above - altered and deformed - cut by ? qtz veins + MoS2 mostly wide veins (2mm-20mm) at 90°, 45°, 30° c.a. -	as above, chalky sericite - clay alteration - creates gouge for fractures ∥ c.a.			350	blebs in qtz veins. locally controlled by X fractures [illegible] qtz vein	as above, typical alteration of Mafic Porphyry	<10%	75%		63473		.256		
Mafic Porphyry - as above - deformed and altered, cut by qtz-feldspar and qtz veins, and shears.	Note biotite in qtz veins. + fresh in rock overprints feldspar. - gouge as above		K	360	MoS2 in specks in [illegible] qtz veinlets ∥ c.a., 90° c.a., and 45° c.a. [illegible]	as above - note possible Kspar flooding locally.	<10%	85%		63474		.126		
Altered Mafic Porphyry - as above, - cut by altered TgQM dyke 366-369' - contact = 45°.	sericite - clay - chlorite ± carbonate alteration of feldspars. extreme alteration at 369-370'			370	trace of MoS2 in cross cutting qtz veinlets (1mm) in TgQM	extreme alteration again.	<10%	85%		63475		.117		
Altered Mafic Porphyry - as above: - extends to 379', broken contact with Sparse Porphyry.	Highly altered from 379'-376' - strong fracture ∥ c.a. + gouge - typical, also deformed from 378-379'			380	Minor MoS2 - trace in gravel section ∴ possible loss.	alteration seems to increase near contact with Sparse Porphyry	10%	85%		63476		.061		
complex 'hybrid' zone with large phenos: and frags: of Mafic Porphyry passes to Sparse Porphyry (typical) at 386'	Sparse Porphyry cut by Kspar zones, Qtz-Kspar veins and Qtz veins. appears ± fresh Kspar flooding overprint qtz veins.			390	Minor MoS2 in qtz veinlets at 80° angles 2-3mm. Not rich	Note porphyry clearly younger than Mafic -	5%	95%		63477		.112		
V. fresh looking Sparse Porphyry - contrast with mafic above: euhedral phenos in aphanitic grey-brown matrix	assorted qtz, qtz-Kspar ± MoS2 and bio. veinlets Kspar postdates 1 qtz vein 20° c.a. - predates [illegible]			400	Little MoS2 specks in qtz veins: not v. rich	Note freshness of Sparse porphyry.	<5%	95%		63478		.065		
			E.O.H. 400'											

PLACER DEVELOPMENT LIMITED

GRID: ____

HOLE No. 213
SHEET No. 1 of 6

LOCATION: 3E - 5N	BEARING:	LATITUDE: 6 620 376·8	PROPERTY: Adanac		
DATE COLLARED:	LENGTH: 394'	DEPARTURE: 589 828·7	CORE SIZE: NQ	LOGGED BY: R.H. Russell	
DATE COMPLETED: 25 July 79	DIP: Vertical	ELEVATION: 1483·4	SCALE OF LOG:	DATE: 26 July 79	

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
0 - 16' Overburden. Mainly CgQM (cg x sparse) 1+ 45' July, drillers. Subcrop - CgQM	V. broken and rusty. - subcrop contact V. poorly defined.					20			Most loss							
CgQM with a few patches starting to resemble Lynx(?) porphyry - eg. Kspar phenos in aplitic matrix - cut by FgQM dyke at 25'	V. poor recovery - particularly of FgQM (S...? of ...) - CgQM = V. deformed x feldspars = V. fractured. Mo + limonite on fractures					30	No visible Moly but contained in qtz veins in CgQM (45°) ...	Typical CgQM complex - cut by dykes and V. variable texture.	100%	40%		63479		·003		
CgQM and FgQM. V. broken - sections = rounded - all sand lost. Terrible recovery to 36' - uniform: FgQM dyke at 32' - 35'; locally ⇒ Hybrid(?) type texture	as above: possibly Kspar flooding (+ Biot.) eg: 35' & 38'. Note shears 90° c.a. (narrow) x qtz veinlets. Limonite stain near fracts					40	qtz veins, thick (.4 - 1.0 cm) ± 50 - 80° c.a. - some + fresh moly - not all lost. Pyrite in qtz veins	as above: typical - some tending to form matrix in CgQM	80% ?	70%		63480		·012		
Sheared and stained CgQM - (coarse grained qtz. monzonite) cut by qtz veins - roughly // and 90° c.a. - + pyrite	- Minor alteration and etching of feldspar and staining of xstals - plag altered: fresh looking biotite					50	None visible - possibly etched. traces of pyrite	note small shears 90° c.a. = early deformation event	100%	65%		63481		·029		
CgQM - as above, typical texture - few qtz veins, mostly 4-8 mm x 90° c.a. small + coarse large Moly - not V. rich section	Plagioclase ⇒ light green sericite + clay alteration (soft) - most fractures stained with limonite. Biotite - fresh				K	60	Kspar flood & and qtz + flakes in fractures 90° c.a. - some lost on fracts.	poor recovery. Note V. fresh biotite in rock	60% ?	50%		63482		·054		
Terrible recovery: CgQM ⇒ FgQM at 66' CgQM as above, note fairly fresh, typical FgQM, ...	Note biotite in altered feldspars. (2 ...?) - V. little limonite stain. reason for poor recovery = uncertain					70	trace visible, fragments in box = rounded, no regular ... sand, potential for Moly loss = V. high	contact relations lost - possibly a sharp contact. Terrible recovery !!	95% ?	30%		63483		·018		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
FgQM - grey-brown, salt and pepper texture - homogeneous - few qtz + feldspar phenos - typical - contains specks of biotite -	appears fairly fresh - not v. feldspar, not v. chalky or sericitic. - broken, rubbly, qtz veins variable angles.			80	1-2 mm qtz veins locally + dusting MoS2 - not rich. Note pyrite - fractures (± chl ?)	typical FgQM - appears fairly fresh - reason for recovery loss uncertain.	50' ?	50%		63484		.023		
FgQM - as above, possibly slightly coarser grained. - note Kspar zone at 82'-84'. Fairly fresh looking feldspar: reason for loss - ?	[Kspar + fluorite + biotite ± qtz, 70° c.a. - Kspar enveloped qtz vein at 50° c.a. fairly abundant fluorite	c.	K	90	abundant qtz veins (narrow, 1-2 mm) X-cutting, 10° c.a., 45° c.a. 90° c.a.: variable little MoS2	rare biotite in qtz veins(?)? Fluorite - rich. Not pyrite [illegible].	40' ?	70%		63485		.009		
FgQM - locally slightly porphyritic, cut by Kspar enveloped qtz veins at 90', 92' and 98' = 90° c.a. - late fracs: coated with pyrite	Kspar veining but otherwise ± fresh, not v. sericitic but broken v.p. ∴ poor recovery	(6)	K	100	coarse MoS2 in disrupted qtz vein in gravel - large potential loss	Still losing recovery of blocky FgQM - why loss as not v. altered?	50'	45%		63486		.046		
as above, FgQM with < 10% qtz + feld. phenocrysts - cut by Kspar zone at 105' and 106'	Possibly slight increase in alteration - (sericite-clay) - not v. altered FgQM - note biotite specks in matrix.		K	110	Pyrite coated fractures ± 20°-30° c.a. + recent gouge, MoS2 flakes in Kspar zone	Little MoS2 visible: - loss hard to determine small qtz veins + gouge	40' ?	55%		63487		.030		
FgQM - as above: Note increase in small feldspar phenocrysts from 117'. Qtz-Kspar + MoS2 vein at 116' - distinct fresh biotite in matrix.	relatively fresh FgQM with Qtz-Kspar veining: - (90° c.a.) + (40° c.a.)			120	coarse MoS2 in fractures in Kspar veins - other minor (1-2 mm) qtz veins ± gouge	MoS2 associated with Kspar - qtz veins, gouge veins [illegible]	40' ?	60%		63488		.084		
MSAP qtz vein 120-121 FgQM - resembling sparse porphyry contains inclusion of CgQM (slight chill on margin) ⇒ variety of hybrid - biotite rich (mafic) rather than Mafic Sparse Aplite Porphyry	biotite enrichment near contact? - obviously complex hybrid [illegible] varieties. Note fairly unaltered fresh rock'	Qtz / CgQM / M.SAP	Qtz; CgQ / ; M.SAP	130	MoS2 in feldspar enveloped vein 45° c.a. - note vein pinches & swells - locally Kspar replaced qtz.	contact. chilled FgQM inclusion CgQM = ∥ c.a. predates qtz + MoS2 veinlets.	10'	90%		63489		.024		
Complex zone, CgQM puts MSAP at 125' - sequence = Cg, chill (3 cm) fine MSAP > coarse all 90° contacts, at 136 - Kspar - ex flows contact.	slight alteration - plag: ⇒ sericite/clay. biotite + fresh probably increase in Kspar alteration with depth	Cg / MSAP / Cg		140	MoS2 in a few qtz veins cutting CgQM - mostly 90: 60 - not v. rich	Mixed zone - igneous breccia - note med grained "CgQM" variety close to contacts.	25'	70%		63490		.036		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. ____ SHEET No. 2 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
CgQM cut by sheared shear zones (old, no gouge) at 90°c.a. — fairly common [illegible], many [illegible] — also small veinlets of FgQM.	[illegible] altered alteration — chalky Kspar and green plag. alteration gouge [illegible] in young fractures (10°ca)			150	MoS2 Clots + [illegible] fractures in qtz veins in CgQM — 1.3mm vein rich [illegible] MoS2 loss-free	Significant increase in alteration still not V. rich in MoS2	40'/?	70%		63491		.200		
At 157' — CgQM ⇒ Hybrid Porphyry (FgQM + large Kspar/Qtz [illegible] xenocrysts) — also frags of CgQM — chilled matrix texture at 155' goes to typical FgQM	Fragmental Qtz-Kspar-Biotite-MoS2 vein at 156' — generally fairly fresh rock types	Hybr. FgQM	?.P	160	Coarse Clots in fractures in Kspar vein — Not rich	Note chilled [illegible] probably FgQM Tensile [illegible] 150-154'	40'/?	50%		63492		.044		
Hybrid Porphyry at 161' gradational porphyry: ~10cm [illegible] Kspar-Bio-Qtz zone at 169'. Kspar [illegible] locally oriented qtz.	Major Kspar-Plag alteration to sericite + clay, fresh Biotite — matrix = [illegible], in qtz veins 10°c.a. & 45°ca.		K	170	Not V. rich MoS2 in isolated Kspar zone in stockwork 10°ca. — as specks in qtz + pyrite	Large Kspar, qtz, X-tals in aplitic matrix. — Note Biotite in qtz veins.	5'	95%		63493		.080		
Hybrid Porphyry cut by small (2-5cm) FgQM veinlets. V. broken [illegible] shears (90°) [illegible], ± Hybrid (ag. more to CgQM)	chalky appearance to Plag./Kspars — not V. extreme alteration. — More sericite — increases near fractures.			180	MoS2 in [illegible] of qtz. vein lets. — also [illegible] 2-10mm wide	[illegible] broken up? — fairly rich MoS2 in gravel [illegible] loss	20'	70%		63494		.099		
Deformed [illegible] qtz veined Hybrid Porphyry ⇒ Mafic Porphyry (broken contact) at 183'-16[illegible] [illegible] cut by sparse porphyry dyke at 188' (10cm)	Possibly increased clay-sericite alteration in both rock units. (?) Not fresh Biotite.			190	MoS2 specks in qtz veins [illegible] (?) Not rich in MoS2	Typical Mafic Porphyry — gouge [illegible]	10'	75%		63495		.072		
Mafic Porphyry cut by major shear 193'-195'; strong alteration both sides of fault (90°ca?) — fractures ∥ c.a.	chlorite in sheared zone, otherwise soft — sericite — clay alteration + pyrite		⊤	200	Crumpled MoS2 in gravel — not abundant, probably not much lost	Note alteration increases near fault — still fresh Biotite	10'	80%		63496		.177		
Mafic Porphyry — cut by qtz-Kspar-MoS2 vein (90°ca) at [illegible] Kspar, qtz, Fluorite, pyrite, [illegible] MoS2 chlorite vein 10°ca at 202' —	slight alteration, note local Kspar veining [illegible] alteration — gouge on fractures 30°c.a.			210	Specks MoS2 [illegible] in qtz veinlets 10°ca, 90°ca. — 45°ca. — hairline [illegible]	Strong Fluorite-chlorite development in 1 vein. Typical Mafic P.	5'	90%		63497		.089		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. 7[illegible] SHEET No. 4 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porphyry cut by sections of (?) hybrid porphyry – (2-6m) diffuse contacts. qtz veins 40°–90° c.a. – abundant (3cm – 0.2) Not well mineralized.	Note [illegible] fresh biotite – Kspar rich zones – [illegible] plag. alteration to sericite – (Kaolinite) clay. V. [illegible]		(?)	220	[illegible] in large qtz veins & [illegible] joint fractures. No [illegible] 218'	relatively [illegible] and [illegible], – fairly abundant qtz veins – few with good [illegible]	<5%	95%		63498		.077		
Mafic Porphyry – as above. typical [illegible] unit; – cutting qtz-bio-Kspar zones (and [illegible] veins).	addition of Qtz-Kspar – [illegible] alteration of Mafic Porphyry – [illegible] with mild sericite – clay alteration. at 1[illegible]		K	230	Moly blebs in [illegible] qtz veins (.2[illegible]) not in large [illegible] abundant [illegible] veins 45° c.a. – 80° c.a.	probably [illegible] biotite in small qtz-veins & fractures	<5%	95%		63499		.063		
Mafic Porphyry – cut by Kspar veins & qtz veins with Kspar envelopes. – matrix of porphyry [illegible] and feldspathic – 4cm qtz vein 90° c.a. at 23[illegible]'	Kspar addition – also fresh biotite (2[illegible]?) moderate later sericite – clay alteration.		K	240	Moly blebs in [illegible] [illegible] qtz veins 45° c.a. – [illegible] V. [illegible]	Fairly typical Mafic Porphyry + thick qtz. veins	<5%	95%		63500		.043		
Crowded Porphyry with 6' chill zone – [illegible] sparse – planes in chilled matrix. V. chilled dyke at 247', glassy, 90° c.a. – 5cm wide	Kspar-Bio-Qtz veining with a major Kspar flooding zone at 250' Note flexibility [illegible] [illegible] fracture surface.	SP	K	250	abundant qtz veins with variety of angles. Best sulphide zones in Kspar zone – ‖ to 90° c.a.	chilled zone – rocks resemble [illegible] [illegible] in places.	<10%	90%		63501		.048		
Crowded Porphyry – with strong Kspar zone at 254' (‖ c.a.) Typical texture. Feldspar + qtz phenos (embayed) in aphanitic matrix.	strong Kspar-qtz-biotite zone at 254' chloritic alteration of small plag. phenos in matrix; bright green [illegible] to [illegible]	Core [illegible]	K	260	Qtz veins ‖ c.a. and at 90° c.a. but V. little Moly – visible traces in veins	Slightly altered Crowded Porphyry	<5%	90%		63502		.159		
Crowded Porphyry – ± 40° planes – similar to above but [illegible] [illegible] alteration. Kspar planes overprint qtz veinlets	Plag ⇒ [illegible] dark green "chlorite" (?) – & Kspar ⇒ sericite – clay – [illegible] appears to increase near [illegible] ‖ c.a. (+ [illegible])			270	Moly blebs, flat in hairline cracks & qtz veins, 90° c.a., ‖ c.a. Not. V. [illegible]	Note pyrite in narrow qtz veins ‖ c.a. Pyrite + Chlorite alteration	<5%	95%		63503		.032		
Typical Crowded Porphyry cut by aphanitic – myrmekitic V.F.g. Q.M. vein or zone at 280'	Probably [illegible] Biotite in cores of some feldspars – [illegible] alteration as above: [illegible] Biotite + Kspar veins			280	V. minor Moly on fractures with Kspar [illegible] Pyrite [illegible]	Planes: Kspar overprint qtz as above	<5%	95%		63504		.012		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. 214 SHEET No. 5 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Altered Crowded Porphyry – as above: large fresh Kspar Xstals – small altered plag Xstals – 84'-85' – specks of pyrite in porphyry matrix.	Plag ⇒ green chlorite and/or altered. green tint to rock. Pyrite + chlorite on frcts. 10°			290	Good MoS_2 hairline ∥ c.a. other specks in (?) hairline qtz veins ± 90° c.a. ∥ c.a. & 45° c.a.	typical altered chloritized Crowded Porphyry	<5'	98%		63505		·025		
Crowded Porphyry – with large and small phenos in an aphanitic matrix – there patches around 300 resemble sparse porphyry. –	Green tint to matrix + plag alteration ⇒ chlorite. gouge on fractures 30° c.a.			300	MoS_2 blebs in rare qtz veins and fractures, v. with 90° c.a.	Kspar overprints a qtz vein. Pink tint to Kspar.	<5'	98%		63506		·037		
Crowded Porphyry – as above, large and small phenocrysts in an aphanitic matrix: v. altered and complex blend variety at 310' = biotite rich	Plag phenocrysts altered to dark green chlorite & etched. – pink tint to feldspar (Kspar).			310	Hairline frcts. + qtz veinlets + specks MoS_2, not coarse. – coarse veins qtz not v. rich in MoS_2	typical chloritic alteration of crowded porphyry	<5'	98%		63507		·091		
Continues as above typical chloritic porphyry – variable g.s. and proportions of phenocrysts to matrix, usually (± 50%)	Note v. fresh biotite overprints feldspar – possibly zoning. Frcts + pyrite, chlorite			320	coarse MoS_2 blebs in wide qtz veins & specks in narrow veins 90° c.a., ∥ c.a. and 45° c.a.	4 cm vein QM cuts porphyry 50° c.a. at 310' (Not rich)	<5'	98%		63508		·051		
Continues – broken and more altered Crowded porphyry with abundant fresh biotite – chloritic shear at 321'	Biotite overprints feldspar: – Plag ⇒ chlorite, sericite-clay alteration of Kspar: – V. sooty biotite		—	330	V. minor MoS_2 in specks and blebs in rare qtz veins	typical chloritic porphyry	10'	95%		63509		·063		
Crowded Porphyry as above, cut by a dyke of Q.S.A.P. (rebstrongly phenos) + veins of Kspar + Biotite 90° c.a.	alteration as before, largely chlorite alteration of Plag. Minor sericite-clay + pyrite		H.S.	P 340	Minor MoS_2 in specks and veins in minor qtz veins and fractures. Not abundant	typical altered porphyry – chlorite + pyrite type.	10'	96%		63510		·032		
Coarse Crowded Porphyry – fresher than above – less obvious feldspar alteration, less chloritic and less green tint.	Relatively fresh, unaltered, note v. fresh biotite			350	Pyrite and chlorite + fluorite in hairlines 90° c.a. V. little MoS_2 – in the veins	MoS_2 blebs in 5 cm qtz veins 90° c.a. (rare)	10'	95%		63511		·020		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Crowded Porphyry - fairly fresh cut by 7 (0.8cm) qtz veins 60-90° c.a. + 4 (0.5cm) at 10-20° c.a. - Late faults: e.g. gouge ± 10° c.a.	minor plag alteration to chlorite; - Kspar appears ± fresh, also Biotite.	C		360	qtz veins 90°c.a. = barren. Hairlines and minor veins 10-20° c.a. + MoS2	Significant Sulfide in low angle qtz veins. duplicate assay	5'	95%		63512		.140		
Typical fresh Crowded Porphyry - V. minor alteration of plag: Kspar fresh, mk = brown, abundant Biotite.	50% euhedral Kspar, Qtz, Bio, Plag. V. fine, aphanitic matrix.			370	MoS2 specks in 2 qtz veins 90°c.a., 1 45°c.a. & 1 hairline ‖ c.a. Not V. rich but significant.	Local patches of 'sparse' Mainly V. crowded.	5'	98%		63513		.077		
Crowded Porphyry: fresh patches grade to sparse porphyry - fresh Kspar + Biotite	Note Kspar Bio: zone appears to isolate qtz vein at 380' - minor chlorite alteration of plag.		K SP	380	V. few qtz veins, V. little MoS2	gradational crowded - sparse porphyries.	5'	95%		63514		.021		
Crowded Porphyry - cut by Kspar zone ‖ qtz-MoS2 veins (45°c.a.) at 389' - typical Porphyry - Variable alteration	Kspar added: - alternate chlorite replacing plag & strong secondary biotite alteration. - Kspar altered near fracts.		K	390	Trace in qtz MoS2 - Biotite vein 90° c.a. - V. rare	biotite alteration [illegible]	5'	98%		63515		.020		
as above:	" "		E.O.H. 394'	400	" "	" "								

PLACER DEVELOPMENT LIMITED

HOLE No. 214
SHEET No. 2 of 6

GRID: ______

LOCATION: 10 SN | BEARING: ______ | LATITUDE: 6 620 312.2 | PROPERTY: Adanac.
DATE COLLARED: 23rd July '79 | LENGTH: 402' | DEPARTURE: 589 722.0 | CORE SIZE: NQ | LOGGED BY: R.H. Pinsent
DATE COMPLETED: 25th July '79 | DIP: Vertical. | ELEVATION: 1499.8 | SCALE OF LOG: ______ | DATE: 28th July '79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS (Mo Loss)	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
V. little overburden: CgQM is cut by a minor FgQM dyke at 7'. Typical deformed CgQM - shear (silicified) 90°c.a. locally	Fairly fresh CgQM with only minor plag. alteration to clay + sericite. Limonite along fractures & cracks in Kspar.		Cg		Fg	10	Minor qtz. veins in Cg and Fg QM - no visible MoS2	typical CgQM - etched MoS2	100%	70%						
As above - badly deformed and fractured CgQM - cut by silicified shears and dykes (5cm) of FgQM - sorted in - sharp irregular contact ±90°c.a.	as above: minor alteration of plag: → sericite/clay + limonite stain of fractures: fresh biotite					20	fresh specks MoS2 in a 1-2mm qtz veinlet 90°c.a. Others = ± etched.	Xenocrysts in FgQM dyke. texture of CgQM locally goes sub porphyritic.	60%	90%		63516		.008		
typical CgQM contacts FgQM at 26': Cg = variable texture, locally develops sub-porph. texture: FgQM = salt-pepper texture: - No planar.	V. minor alteration: Plag = fairly fresh: limonite stains fractures in Cg and whole rock in Fg areas.					30	No MoS2 visible but 1-2" qtz veins in Fg = etched - probable loss	Note fresh biotite: - veinlets commonly 90°c. some at shallow angle.	100%	90%		63517		.007		
Typical Fg QM with irreg. inclusions of CgQM - also small contact dykes of medium equigranular QM - appears to intrude FgQM (rare dyke type - restricted to CgQM contact areas (?))	as above, minor alteration only - some limonite stain - fresh biotite. Local Kspar addition at 38' (?)				Cg 90°	40	10 qtz veinlets, mostly ±70°c.a. wide (3-5mm) 80-90°c.a. No visible MoS2 some etching	equigranular med-grained = focus of FgQM (?) - Pyrite on some fractures. Also rust stained.	100%	90%		63518		.008		
Coarse grained Quartz Monz. (CgQM) - porphyritic - variable texture, much deformed, local silicified shears 90°c.a. + fractures 20°-50°c.a.	Minor alteration of feldspars: - note v. fresh biotite in Kspar xstals - 2ndary (?) V. strong silicified shear at 47'					50	Specks MoS2 in qtz veins: - rare - pyrite with qtz veins strongly leached. ∥ c.a.	typical CgQM - also early stage of shearing 90°c.a. not found in Fg. - older (?)	90% ?	90%		63519		.002		
as above, CgQM, V. deformed feldspars & slightly altered plag: Note pyrite with qtz veins 20°c.a. = strongly etched.	alteration of plag: - some → light green clay + sericite - weak limonite stain on fractures & in Kspar cracks				Fg	60	free in hairline fracture 90°c.a. - rest probably etched out	Minor FgQM matrix develops in CgQM - start of liquidization "soaking"	90% ?	80%		63520		.003		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
CgQM - locally with [illegible] of FgQM in matrix - subpegmatitic: - V. broken and V. poor recovery: - cut by veins of FgQM and (?) sparse porph[illegible]	Increased alteration - chalky Kspar and etched and stained plagioclase: - [illegible] increase in sericite + clay			70	Broken qtz veins in gravel. No visible MoS2	reduced limonite stain reason for loss or recovery [illegible]	100'/	44%		63521		·002		
as above: poor recovery to 75' (mainly CgQM) continues as CgQM with patches showing a subpegmatitic texture: traces of FgQM [illegible] matrix between Xstals	deformed CgQM with moderate alteration of plag: (above) and fairly fresh Kspar, and biotite. qtz veins mainly 90° c.a.			80	some etching but visible blebs of MoS2 in qtz veins - also coating on hairline fract: 70° c.a.	- V. variable deformed CgQM with visible sulphide	60'/ ?	75%		63522		·078		
CgQM cut by dykes of FgQM at 83'-85': typical CgQM - deformed, slightly altered plag: - slight limonite staining. FgQM = chilled, sharp contacts	limonite stain of altered plag: locally Kspar fairly fresh. -	? 9	- Fg Fg	90	1 qtz vein (4mm) 50° ca + specks MoS2 - other veins barren or etched trace Pyrite	CgQM - weakly mineralized - no loss estimate [illegible]	60'/ ?	92%		63523		·023		
Highly deformed CgQM cut by narrow silicified shears (90° c.a.) and some contacts FgQM (30° c.a.) large CgQM feldspars V. cracked and limonite stained	Plag: → sericite + clay (light green) - locally stained and etched out. little Kspar alteration			100	No visible MoS2, V. few qtz veins.	Biotite = less fresh [illegible]: typical texture	100'/	90%		63524		·007		
Coarse grained quartz Monzonite: - V. variable in composition and texture. odd mixture of chilled FgQM and qtz. - pegmatitic, at 106' - feldspathic at 110'	typical deformation and alteration of plag → sericite / clay: limonite staining locally.			110	Pyrite + qtz in vein 70° c.a. - MoS2 in hairline fract: in Kspar [illegible] zone (60-90° ca) not V. rich	V. mixed section CgQM - cut by narrow dykes (<10cm) FgQM.	40'/ ?	90%		63525		·029		
CgQM - V. deformed, xeno-fractured. - cut by qtz. veins, ‖ c.a., 40° ca, 70° ca. 90° c.a. fairly abundant. - rare silicified shears 90° c.a. -	Plag altered to sericite / clay - light green mixture. Note diffuse, pseudo pegmatite texture to much of CgQM			120	+ rare coarse blebs fairly MoS2 rich, coarse blebs in qtz veins. at variety of angles & hairline fractures	Significant increase in MoS2 content - correlates with more diffuse textured CgQM	<10'/	95%		63526		·087		
CgQM, large diffuse Kspars - locally pseudopegmatitic texture: - irregular Xstals of Kspar	Plag alteration, as above - forms minor sericite/clay - No limonite. Kspar = fairly fresh			130	fairly rich in MoS2 - blebs in qtz veins and hairline fractures - large + small qtz veins - variety of angles: - commonly 90°, 45° c.a. Note qtz = grey, not smokey.		<6'/	95%		63527		·060		

GRID: ___ PLACER DEVELOPMENT LIMITED HOLE No. 74 SHEET No. 5 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
CgQM passes to hybrid porphyry at 136' (fine ground + large phenos of qtz (feld) - resembles sparse P. - but matrix coarser and more salt and pepper like	Slight: minor plag alteration to clay-sericite. - No limonite. - Mainly fresh Kspar/Qtz.	Cg, Hy; 140		1/	Many large (0.2-1.0 cm) qtz veins (35!) mostly 60-90° c.a. Moly + ... MoS2: Nil	Sharp contact, young hybrid ... xenoliths of CgQM - significant increase in MoS2 & qtz vein content.	20'	95%		63528		.160		
Very sheared hybrid porphyry - possibly faulted between 142 and 145'. Passes to FgQM at 147' - possibly sub-fault(?)	strong development of dark green chlorite .. plag. near shear & along slip planes. pyrite on slip planes	Fault, Fg; 150	Flt 35°		MoS2 caught up in slip pl. in shear zone and in fractures in FgQM.	V. pyrite rich zone. Related to shear. Minor MoS2.	<10'	90%		63529		.109		
FgQM with complex hybrid Cg section from 151-152' - a hybrid porphyry zone at 155'. FgQM = altered and cream-grey coloured. cut by Kspar zones and qtz veins	Kspar envelope for 2-3mm qtz-Moly vein || c.a. and younger qtz vein 90° c.a. Kspar zone 90° c.a. at 157'. Not abundant pyrite in	Cg, Fg; 160	*, Hy, K	*	good MoS2 in a variety of qtz veins - Much veins 70° c.a. + ... also veinlets || c.a.	Best MoS2 where K qtz veins cross. Note fresh biotite - relatively mafic FgQM.	<10'	95%		63530		.157		
FgQM - similar to above contains <10' qtz-Kspar phenos: less mafic than last section - nearer typical salt and pepper variety. - cut by 2cm glassy, aplitic FgQM vein, 90° c.a.	Xfractured biotite. V. little ... alteration - local Kspar envelopes to qtz veins (|| to 70° c.a.) + diffuse - matrix:	170	K		Good MoS2 in stockwork of qtz veins 70-90° c.a. & || c.a. (+ pyrite) 2-45° ...	Probably 2ndary biotite - good veins and X cutting relations MoS2 + qtz veins.	<10'	95%		63531		.350		
FgQM - typical salt and pepper texture - few phenos. - cut by Kspar enveloped qtz veins || c.a. & 70° c.a. Kspar replaces qtz vein(?)	Probably fresh biotite in qtz veins (± chlorite) and Kspar diffusion out from veins particularly || c.a. (late fault 20° c.a.)	180	K		MoS2 and pyrite in small qtz veins. Not abundant - though all in Kspar.	2nd biotite + Kspar * Pyrite on fracture surfaces.	<10'	95%		63532		.067		
FgQM - locally gradational to H.S.A.P. - increase in phenos & biotite content - texture of matrix still FgQM - Kspar envelopes for quartz veins	alteration increases from 187', broken ground, sericite - kaolinite alteration of feldspars: minor limonite stain!	190			small qtz veins 70-90 c.a. + 30-50 c.a. - Not abundant - 9 broken veins - loss	Note ... gradational towards H.S.A.P. - still ± FgQM. Major MoS2 shear at 190'	15'	95%		63533		.123		
FgQM, as above, only more altered. - contains inclusions of CgQM from 197' - sheared at 197'; V. rotten. rock Kspar additions locally	altered FgQM with sericite-kaolinite alteration (± carbonate) and chlorite alteration. Fluorite in qtz veins	200	*		V good MoS2 in ... (1-2) qtz veins || c.a. & 45° c.a. - large Cg blocks cut FgQM	Note fluorite + pyrite + Kspar in CgQM enclaves (fracture fill.)	25' 4			63534		.325		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. [illegible] of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Fg QM with leaching — blocks of Cg QM extends to 204. Typical Fg — no phenos — Typical Cg phases to altered M.S.A.P. (or Fg?) — (is M.S.A.P. an alteration product of Fg QM?)	Normal Sericite-clay alteration of plag. in Cg → probable generation of secondary K-feldspar. Above, more intense alteration — M.S.A.P. → Fg QM.	Fg / Cg / MSAP 210			Narrow veinlets of qtz (1mm) + blebs MoS2 — mostly 70-90° & 70-30° c.a. — Biotite — some [illegible]	strong etching of plag. and overprinting (?) of biotite from 208' — fairly good MoS2	10'	75%		63535		.121		
M.S.A.P. — continuing to 214 — size of grains tend to be [illegible] to [illegible] (1-2mm) Fg QM still strongly altered and Cg QM unknown [illegible]	Kspar + Biotite veins envelope MoS2 (90° ca) in MoS2 + qtz (20° ca) typical sericite-clay alteration of plag. & [illegible] of biotite	220		*	cut by MoS2 + Qtz veins — 2-6mm veins [illegible] 70-90° and 20° c.a. MoS2 lost at 218'	amount of MoS2 not as [illegible] relatively qtz free fracts: + good MoS2	10'	75%		63536		.147		
Variety of Fg QM — moderately coarse (as above) salt and pepper texture — altered → tiny(?) [illegible] phenos Qtz/Kspar + sparse biotite.	Probable secondary biotite; locally intense alteration (sericite-clay) mainly plag but also Kspar/biotite (?)	Fg 230	*	*	Variety of qtz veins: — all angles — major (stockwork?) MoS2 qtz veins 90° c.a.	Late fracts 20° c.a. + yellow/white gouge — MoS2 specks in sericite veins	15'	95%		63537		.372		
as above, Sandy Fg QM few phenos: — with chilled contact against Mafic Porphyry [illegible] contact (ca) grades to typical Mafic Porphyry at 237'	similar but less intense biotite alteration and sericite-clay alteration: — good potential for MoS2 loss or [illegible]	Mafic 240	**	*	V. good MoS2 in a shear 20° c.a. at 232' and specks in qtz veins	poor recovery in area with coarse blebby MoS2 — some in gravel; loss [illegible]	35' ?	70%		63538		.435		
Mafic Porphyry cut by dykes of Fg QM at 242' and 248' dykes ± 10° c.a., vertical (?), feeders to overlying [illegible] Mafic inclusions in dyke material	Minor alteration of Kspar and Plag. in Mafic Porphyry — Biotite — Kspar MoS2 below at 243' — Fractured + gouge at 246'	Fg / Maf 250	10° 75°		Minor qtz veins + MoS2, mainly 70-90° c.a. — no major MoS2 veins.	Note feeder dykes resemble sparse porphyry locally, more fused.	5'	95%		63539		.112		
Mafic Porphyry — typical, cut by dykes of Fg QM — and qtz veins: — aplite dykes, close to ‖ c.a. (vertical) — fused matrix ([illegible]) to Fg QM + rare phenos and cut [illegible] of Mafic.	Minor alteration — possibly some [illegible] Biotite — sericite/clay in late fractures + ‖ c.a. qtz veining (early) offset by 90° c.a. = late	Fg / Maf / Fg / Fg 260	15° 10° Mafic 50°		MoS2 specks and blebs in variety of qtz (good) hairline (1mm) ‖ c.a. at 257-260' [illegible]	dyking continues: — MoS2 content dropped off but still significant — dispersed in veins	5'	90%		63540		.144 ~~.154~~		
Mafic Porphyry cut by small Fg QM dyke at 262' (30° ca) and qtz veins. Qtz veins ‖ c.a. = early, 90° c.a. = late. Note late fracture sets 15° c.o.	Little primary alteration. Significant [illegible] in clay-sericite (± carbonate) alteration in late fractures ± ‖ c.a.	270			Combination of small qtz veinlets + MoS2 specks at 261' — not v. abundant MoS2	Biotite in qtz veins. Typical Mafic Porphyry [illegible]	5'	95%		63541		.137		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porphyry - typical texture: - large [illegible]: [illegible] phenos in a diffuse [illegible] rich matrix; - cut many 1cm qtz veins around 276' - 90° c.a. - Minor MoS2	Kspar vein at 288'-45° c.a. - No visible MoS2 largely fresh, relatively unaltered: - only v. little sericite - clay or late fracts. Note Kspar overprints qtz		U	280	MoS2 with qtz vein (80° c.a.) 4mm + 15 [illegible] with mineralized [illegible], - [illegible] few [illegible]	Note abundant qtz but low MoS2 in matrix. Note Kspar phenos and qtz veins.	5'	98%		63542	,	.045		
Mafic Porphyry - similar to above but with increased [illegible] and 2ndary alteration: - fault at 290'. Mafic Porphyry cut by equigranular aplite veinlets, which predate [illegible] alteration	Kspar alteration || fract. || c.a. - vein has pyrite - chlorite - chalco - qtz, cuts qtz veins 90° c.a. : late.		U F	290	Not v. rich, coarse MoS2's in some qtz veins (+ [illegible]) 40-80° c.a. - sporadic	Note chalco in late vein, || c.a. at 285' and alteration increase towards late fault.	5'	95%		63543		.059		
Highly altered Mafic Porphyry - returns to fresh at 300' ± Note shears and fracts: || c.a. - Rich in Fluorite, chlorite pyrite at 296' -	Massive Kspar addition - replaces matrix (?): texture lost: - and widespread sericite - clay chlorite, epidote (?) alteration		50° K	300	MoS2 specks and blebs in hairline fracts. - V. few qtz veins: Not V. rich:	V. intense alteration - particularly of feldspar. - appears to be related to fault.	10'	90%		63544		.123		
Variable alteration of Mafic Porphyry - fairly strong from 302-304' (rock type unrecognisable) Mafic Porphyry cut by qtz veins and Kspar enveloped qtz veins	Kspar envelope with xstals growing in to qtz vein 20° c.a. - pyrite + chalco (?) and chlorite in vein. - typical green sericite - clay - chlorite alteration			310	V. minor MoS2 - trace only in qtz veins, dispersed specks, MoS2 veins 60-70° c.a.	Note Kspar alteration after qtz veining + late sericite	5'	90%		63545		.040		
Typical Mafic Porphyry. fairly fresh, fractured || c.a. at 315', + white gouge. Characteristic texture.	Note Kspar xstals partially overprint qtz veins at 90° c.a. Most veins 40-80° c.a.: Biotite on hairline fractures 60° c.a.			320	few qtz veins - mostly with trace MoS2, one MoS2 rich at 315 (some [illegible])	Note definite 2nd biotite - V. fresh biotite	10'	90%		63546		.093		
Mafic Porphyry cut by sandy, aplitic, BQM (brown) equigranular, 1mm, fairly leucocratic but not altered. Note fresh biotite specks.	BQM - slight clay-sericite alteration and [illegible] of plag. - biotite, fresh. Mafic Porphyry also fairly fresh	G BQM	40° 40°	330	Minor MoS2 in a few qtz veins mostly 70°-90° c.a. No major veins	Note odd hybrid zone at 328' - coarser BQM than normal with CgQM inclusions !! fresh, + biotite	5'	95%		63547		.047		
Mafic Porphyry with small dykelets of BQM - Mafic Porphyry - typical, fairly fresh,	V. minor Kspar addition along some small qtz veins (70° c.a.). Fresh biotite, minor sericite - clay alteration			340	Specks of biotite - [illegible] - 1mm qtz vein 20° c.a.: Good MoS2 in broken qtz vein (60° c.a.)	Note abundance of || structures in Mafic v. [illegible] structures 333' - CgQM	15'			63548		.127		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porphyry cut by numerous dykes of variable FgQM – aplitic texture (sandy) grain size varies, non-porphyritic – qtz veins are post dyke	V. slight alteration – minor sericite – clay alteration of feldspars.		Fg	350	slight: MoS₂ specks & blebs in qtz veins & stockworks 45° c.a. – Not Vuln	Probably pulses of FgQM injection ∴ variation	<5%	95%		63549		·045		
Mafic Porphyry cut by FgQM vein at 355' – and showing marked increase in chloritic alteration from 359' – Major qtz vein in alteration at 359' vein (20°ca) cored by pyrite, chlorite, Moly & fluorite	Feldspars vary from ± fresh to sericite – clay altered and epidotized. Note green tint to altered portions. – Pyro gouge in late fractures.			360	MoS₂ in early qtz-hairline veinlets ∥ c.a and later black qtz veins 90° c.a.	fresh biotite, even in altered sections: significant MoS₂	<5%	95%		63550		·130		
Mafic Porphyry – cut by aplite (FgQM) dykes at 364' and 369' (resemble sparse porph. but for salt and pepper matrix) Possible Basalt – qtz vein 361	Moderately altered from 360-369' – with light green coloration to feldspars possibly basalt dyklet. ∥ qtz, fluorite, & white vein		20°	* 370	Note MoS₂ specks in (?) basalt in qtz vein – also pyrite – chalco: abundant rare specks in small veinlets.	coarse MoS₂ in vein adjacent to "basalt" & sil: chlorite	<10%	95%		63551		·081		
altered Mafic Porphyry cut by dykes of altered FgQM and porphyritic FgQM – (wide) – dykes cut by open fractures – dykes + inclusions of mafic porph:	increased sericite-clay alteration near dykes: – Xstalline carbonate in open fracts. – general increase.	Fg	20°	380	MoS₂ rich shear plane 50° c.a. at 377' – good: – only one good vein.	Note open fractures at shallow angle c.a. + carbonate	<5%	95%		63552		·083		
V. strongly altered and probably faulted Mafic Porphyry → sparse porphyry at 382' – equally chloritic and altered. V. crumbly in fault zone	Strong chlorite (?) alteration of plag. and sericite-clay alteration of kspar. – plag in porphyry (sparse) = etched dark green pseudomorphs			390	No qtz veins but some MoS₂ in sheared zone on fractures: also in irreg network qtz veins in sparse	Porph: – strong chlorite alteration – & strong development of fresh biotite	<10%	95%		63553		·102		
altered and bleached sparse porphyry – locally no phenos, – mostly ± 10% qtz, feldspar, euhedral, in aphanitic matrix.	abundant fresh [illegible] (?) biotite, plag → chlorite general green tint to rock. some sericite-clay		Sh	400	MoS₂ on shear surface at 391' and – minor 1-7mm qtz veins, ∥ c.a., 90° c.a. and 45° c.a.	Probably chilled zone for sparse porphyry. – low pyrite	<5%	95%		63554		·091		
			402' E.O.H.											

PLACER DEVELOPMENT LIMITED

GRID: ____

HOLE No. 215
SHEET No. 1 of 6

LOCATION: 2E 5N — BEARING: — LATITUDE: 6620 360·7 — PROPERTY: Adamac
DATE COLLARED: 25th July — LENGTH: 400' — DEPARTURE: 589 801·4 — CORE SIZE: NQ — LOGGED BY: R.A. Rugent
DATE COMPLETED: 27th July — DIP: Vertical — ELEVATION: 1487·5 — SCALE OF LOG: — DATE: 30 July '77

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
0 – 22' = overburden boulders of FgQM, CgQM, sparse porphyry and foliated 43 July diorite	—			20	—	—	Most loss estimate							
Coarse grained Quartz Monzonite (CgQM) – deformed and weakly altered: cut by Mafic sparse Aplite Porphyry dyke at 28' – sharp contacts: 90° c.a.	Minor alteration: Kspar = fresh, Plag ⇒ clay – sericite and stained by limonite. Limonite in cracks and fractures.	Cg	MSAP	30	Large (1-2cm) qtz veins ±20° ca but no visible MoS_2 – probably all leached out	Note deformed nature of kspar – cracks emphasized by rust.	100'	85%		63555		·001		
CgQM reduced to rubble from 32' – 40' – poor recovery: rocktype as above – (deformed Xstals, fractures ‖ c.a. = strong.	Kspar fairly fresh (?) – extreme alteration of Plag ⇒ rust stained clay.	Cg		40	No MoS_2 visible – probably all oxidized but strong limonite	Biotite unstable. Limonite possibly after pyrite	100'	35%		63556		·001		
CgQM, as above – cut by narrow fine grained (FgQM) zones: – fuzzy sutured, relations obscure.	alteration, as above, unstable biotite, Plag ⇒ clay stained by limonite		Fg	50	qtz veins – up to 1cm wide – appear to be barren (plus voids).	any MoS_2 probably lost, as above: – poor ground.	100'	50%		63557		·001		
Bad ground continues: – poor recovery: typical deformed and stained CgQM passes to FgQM at 56' sericite-clay alteration,	CgQM becomes V. altered and rotten from 52' on. Note Fg = sandy & leucocratic with specks of fresh biotite	Cg		60	None visible – probably leached, qtz veins 90° c.a. – rare	Note fract: ‖ c.a probable cause of alteration & breakdown	100'	40%		63558		·001		
FgQM – possibly with minor inclusions of CgQM – V. sandy, disaggregated, broken up	Sericite-clay alteration of FgQM + limonite stain	Fg		70	No visible MoS_2 – qtz veins = broken up	altered, rotten & disintegrated FgQM	100'	40%		63559		·002		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Rotten, rusty, FgQM passes to relatively fresh CgQM at 75' - recovery improved below oxidized layer: - Typical CgQM passes to leucocratic FgQM at 78'	rapid transition from rusty to rust free. CgQM - plag = pale green soft, sericite - clay alteration - biotite > Kspar - fairly fresh, minor alteration	Fg / Cg / ?	70° / 10°	80	MoS2 + Pyrite in fractures and veins below rust zone. None above. Minor qtz veining + traces MoS2	- CgQM passes sharply to FgQM	75% ?	50%		63560		·034		
FgQM - resque or M.S.A.P locally - Minor (30% qtz. FeO phenos in an altered sugary FgQM matrix - Note specks of fresh biotite	Kspar. sericite, clay alteration in chalky and powdery feldspars. Kspar envelopes to veins of qtz (10°c.a.) + MoS2	F	* * K	90	Coarse MoS2 on stream 90° Kspar veins and blebs in 10cm qtz Kspar vein (10°c.a.) - also blebs in other qtz veins 90° c.a.	bright green fract to rock. Loss of MoS2 on breaks extensive!	30% ?	90%		63561		·146		
FgQM - locally resembling MSAP - slightly porphyritic: - mainly qtz phenos in typical salt and pepper matrix: - green to grey colour,	Kspar veining and local Kspar envelopes to qtz veins; - mainly chalky, sericite - clay alteration of feldspar in FgQM.	Fg	* * *	100	Patches of V. good MoS2 - MSIV blebs in qtz veins at 92' → 95' - 90°c.a. 4 main veins,	Veins + coarse MoS2 = broken ∴ Loss. Not pyrite with MoS2	40% ?	85%		63562		·548		
FgQM grades in (relatively) mafic sparse cplate porphyry coarser matrix, more fractured around 10% phenos - scattered fresh specks biotite	alteration as for FgQM - sericite - clay to biotite (any (?) or 2nday (?)		45°	110	MoS2 in fine hairline fractures in low qtz veins, fast, 90 c.a. // c.a.	M.S.A.P - Variety of FgQM not V. distinct unit	10%	80%		63563		·027		
M.S.A.P. - as above: - textured, low matrix with I 10% phenos: - specks of fresh biotite in matrix: - cut by qtz veins. (70-90° c.a.) and (20-45°) + MoS2	Kspar vein 45° c.a. at 112' - V. MoS2: - otherwise typical chalky sericite - clay alteration - not very extreme: note late pyrite, calcite, chlorite fractures 10°c.a.			120	Variety of qtz veins: - strongly, only some with coarse blebs MoS2 - rock = broken ∴ loss inferred	texture of M.S.A.P. = V. similar to FgQM - gradation but intrusive contact.	20%	70%		63564		·081		
M.S.A.P - continues, becomes more distinctive as a unit, esp. coarser, cplate matrix: more phenos and biotite - green tint to rock - alteration	increase in sericite - clay and chlorite alteration. Note chlorite on slips and fracture planes: abundant fractures // c.a.			130	MoS2 in qtz veinlets - mostly 10-30° c.a. - 1mm - MoS2 not abundant: - not V. broken rock	alteration increases but few qtz veinlets in little disseminated MoS2	25% ?	70%		63565		·028		
M.S.A.P. becomes coarser grained at 135' - medium grained, equigranular (contact frozen to CgQM) and passes to CgQM at 137' - contact relations obscure:	alteration as above: - sericite - clay and chlorite alteration, - particularly near late fractures 10-90°c.a. Fresh biotite in M.S.A.P.	Cg	30° ?	140	MoS2 specks in 1mm qtz veinlet in MSAP - //c.a. - coarse blebs in disrupted qtz vein (90°c.a.) = CgQM	Note medium grained equigranular - ? - possibly a separate phase - gravity? crystallized?	15%	90%		63566		·163		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
CgQM – fairly typical texture and composition – alteration effecting [illegible] chalky Kspar and chloritic plag: – [illegible] ± qz.	fresh biotite (?) plag → dark green chloritic replacement + clay, sericite: – Kspar [illegible] to sericite – clay [illegible] gouge in late fracts: ± 10° c.a.		6		[illegible]	150	V. pyritic shears (+ chlorite) + local MoS2 = 10° c.a. few qtz veins: 1 major [illegible] vein + MoS2 90° c.a. at	145' [V. major MoS2 [illegible]] Note these sericite rich qtz [illegible] rare tree(?)	10%	92%		63567		.381		
CgQM – less altered than above but ± similar: Note internal deformation and fracturing of Kspar xtals sharp contact 90° c.a. at 158'	Kspar alteration less intense but plag → dark green chlorite: Note V. fresh abundant biotite [illegible] (?)		Hyb[illegible]			160	V. minor MoS2 in hairline fractures and qtz veinlets (1[illegible]) 10° ‖ c.a. –	Note MoS2 V locally different: in CgQM – replacing silicate (?)	25%	95%		63568		.112		
Typical FgQM – with Cg inclusions near contact: – Note shear 90° c.a. at 160' – V. largely aphanitic to [illegible] [illegible] type – few phenos:	qtz + fine fresh biotite set in V. fine, slightly chalky and altered, Kspar – plag matrix: – FgQM cut by Kspar & Kspar + biot + qtz veins 50° c.a.		Fg			170	MoS2 [illegible] from major MoS2 shear at 160' – also occurs in minor qtz veins 90° c.a., ‖ c.a. and 50° c.a.	Note Hybrid Porphyry contact zone between Cg and Fg QM. Pyrite rich in some [illegible] hairlines ‖ c.a.	25%	95%		63569		.121		
increased alteration near contact with CgQM – CgQM – V. unstable and altered. passes to [illegible] M.S.A.P. –	extreme sericite – clay alteration of Kspar and plag: – generation of gouge for fractures, chlorite concentrated in shears		Cg			180	MoS2 appears to be restricted to a series of late hairline shears. 10° ‖ c.a. at 173'	intense alteration but no significant mineralization	5%	80%		63570		.044		
V. altered, broken, M.S.A.P. extends to 187' characteristic texture to M.S.A.P. – phenocrysts in an aphanitic matrix – note fresh biotite in M.S.A.P. / fracts. 10-20° c.a.	Kspar vein + biotite in core 70° c.a. – mainly feldspar alteration & generation of sericite – clay gouge: – Locally extreme alteration		Mafic			190	few qtz veins & little obvious sulphide. Traces on shears and in hairline fracts: 10° ‖ c.a.	Contact relations with mafic Porphyry = complex and obscure – either inclusion or dyke	5%	90%		63571		.041		
altered Mafic Porphyry – cut by a few Kspar and qtz-Kspar veins and qtz veins: mainly 90° c.a. except for some pre-Kspar qtz veins ‖ c.a. –	addition of Kspar (± qtz) veins and subsequent alteration to sericite – clay (± carbonate) chlorite concentrates in late shears 10-15° c.a.		MSAP		[illegible]	200	Pyrite with chlorite in shears, – MoS2 = rare specks in qtz and Kspar veins.	crumbly rock, very altered, little MoS2.	10%	95%		63572		.045		
Typical mafic Porphyry – large [illegible] feldspar phenos in a biotite rich matrix: – Characteristic Comp: & texture:	Relatively fresh – local alteration of feldspar → generation of gouge for fractures 10-20° c.a. – biotite locally in veins [illegible]					210	poor Mineralization – MoS2 restricted to 2 (broken) qtz veins 90° c.a. (4?) not rich:	less altered, note relatively low MoS2 content of rock	10%	95%		63573		.093		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porphyry cut by lesser equigranular Fg. dykes - possibly feeders from Fg GM and some aplitic texture. - Mafic Porphyry = typical, comp. & texture & alteration.	Minor Kspar-qtz veining & relatively minor sericite / clay alteration of feldspar - yellow [illegible] called gouge in fractures 40°c.a.	Fg	50°	220	MoS2 in small amounts in hairline fractures & minor (1mm) qtz veinlets, poor [illegible]	Not significantly fractured with than at contact above	<5%	95%		63574		.093		
Mafic Porphyry - typical, as above, cut by odd small Cg zone bordered by Fg. - xenolith (?) Note degree of alteration of Mafic = variable, increases towards 270'	fresh Kspar veins. - Note fresh biotite to 222' then Mafic Porphyry becomes chloritic + Minor sericite / clay alteration	Cg	1	230	small qtz veins (1-2cm) 90°c.a. + thicker MoS2 - Not V. rich dry free hairlines 30°c.a.	typical biotite rich mafic Porphyry → turbid, chloritic variety	<5%	95%		63575		.074		
Mafic Porphyry - similar to above but altered - chloritic - light green colours. strong shear at 234' → 238' (30°) → slickensided shears 10°c.a.	- feldspar extremely altered to light green sericite - clay ± chlorite anomalous [illegible] fractures mostly 10-20°c.a.		30°	240	1 major 90°c.a. qtz vein / shear zone in MoS2 + Pyrite. otherwise Not V. abundant.	chlorite increases on shears; altered Mafic Porphyry	<10%	95%		63576		.239		
altered, green, chloritic mafic porphyry contacts Sparse porphyry dyke at 247' (20°) Sparse Porphyry - altered flows / ≡ aplitic texture.	altered mafic porphyry as above. - rotten feldspar; Minor Kspar veining; slickensided shears ≡ chloritic 30°c.a.	SP	20°	250	Minor MoS2 in qtz veins 90°c.a. - blebs, also in qtz free hairlines ∥ c.a.	Sparse porphyry becomes [illegible] around 250 (characteristic texture → conf.)	<5%	95%		63577		.145		
Sparse porphyry ⇒ Mafic porphyry at 252' - both altered and deformed - Note late fractures in Mafic Porphyry ∥ c.a. some gouge	Minor Kspar - qtz veining - mostly clay alteration, green tint to both rock types, Feldspar ⇒ sericite / clay / ± chlorite			260	Minor MoS2 mineralization in hairline fractures; in a case qtz veins as blebs	Kspar [illegible] qtz veins?? younger, veins in MoS2 90°, 45°c.a.	<10%	95%		63578		.110		
Mafic Porphyry - as above - altered: - increase in large (1cm) qtz veins - mostly 70-90 c.a. - Note Kspar veining 40°c.a., defines contacts: -	as above: - Kspar rich zones, and light green sericite - clay - chlorite alteration of feldspars.			270	large qtz veins + MoS2 mainly 90°-70° c.a. - veinlets ∥ c.a. + [illegible] (1mm)	soft, altered mafic Porphyry; Pyrite traces with MoS2	<10%	95%		63579		.083		
Mafic Porphyry - becomes increasingly deformed and altered - sheared from 275' - 285', approaching fault.	typical alteration, as above, becomes increasingly more sheared, texture lost. - chlorite on shears: -		40°	280	MoS2 in blebs in wide (1cm) qtz veins, offset by 10° fracturing & in slip in shear.	Mafic Porphyry approaches fault zone; Silica created in shear qtz breccia in shear zone	<10%	95%		63580		.139		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo	EST. GRADE
Smashed up, brecciated and generally sheared Mafic Porphyry – locally breccia, sheared 40°ca	complete alteration of feldspars: clay, sericite, chlorite forms. – note barite appears V. fresh	290	F 40°		No qtz veins, MoS2 occurs as coatings on slips and fractures in shear zone.	Major fault zone with intense, late alteration.	30% ?	90%		63581		.141	
slightly less deformed Mafic Porphyry from 290'–298' then second shear zone. Mafic Porphyry – typical tex not deformed.	secondary alteration as above – feldspars altered, qtz veins broken up. –	300			MoS2 blebs in hairline fracts. and on slips: Not common: low grade	approaching 2nd major shear zone. Note low MoS2 content	<10%	85%		63582		.026	
Sheared Mafic Porphyry at 301 => gouge to 308'. Then sparse porphyry to 310' – Note Sparse porphyry is fairly fresh, – Mafic is V. altered	alteration much as before – note breccia, fragments of both rocktypes in clay gouge.	310	F		as above, MoS2 on slips in shear zone, not qtz veins.	Major fault contact. Mafic => Sparse	20% ?	40%		63583		.078	
"chilled" sparse porphyry – aphanitic matrix – (plag. altered to chlorite) – fades to Crowded Porphyry. Sheet is possibly chilled phase of intrusion against Mafic	– Plag. altered to dark green chlorite – also traces of some K-spar: – Note dissem. pyrite in Mafic porphyry chlorite	SP / CP / Mafic; 320			minor MoS2 in qtz veins cutting aphanitic porphyries – not rich.	green tint to sparse/crowded porphyry – altered	<10%	95%		63584		.059	
Chilled, then sparse contact against Mafic Porphyry at incision – grades into crowded porphyry. – typical texture, 45% phenos. euhedral:	– Note plag: alteration as above, possibly with fresh chlorite overprint. (some K-spar (?))	CP; 330			1-2 mm qtz veinlets running 0 c.a. carry MoS2 specks – also on 90° X fractures:	settles down to typical crowded porphyry – few qtz veins, little MoS2	<5%	95%		63585		.087	
Crowded Porphyry continues (local patches = sparse) approx. 40-50% phenos: – aphanitic matrix: green tint.	as above, Plag => green chloritic material (+pyrite) K-spar along rare hairline fractures:	340			V. minor MoS2 in rare qtz veinlets?	low grade. little sign of mineralization in crowded porph.	<5%	95%		63586		.029	
Crowded Porphyry – fairly fresh, – cut by gouge filled fractures, 45° c.a., locally fractures + fluorite	Plag is less altered and lighter green: Matrix tinted brown, not green. – rare qtz veins at 90°ca, 45°ca, and 25°ca	350			rare traces of MoS2 in hairline fractures – V. low grade	V. fresh porphyry –	<5%	95%		63587		.041	

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Crowded Porphyry - as above, with sectioned veining or sparse; - note Kspar zone at 351' ultimately qtz vein running ∥ c.a.; younger.	Kspar alteration + minor feldspar alteration to sericite + clay: - generally fresh.		∧	360	Minor MoS2 mineralization, traces in qtz veinlets (1mm) adding up!! also on a [illegible]	X-fracture (90°ca) vein extends from 351-357' significant increase in ST.	<5'	95'		63588		.144		
Crowded Porphyry - as above, large, euhedral phenos: (40% ±) in an aphanitic matrix. Note V. fresh biotite. - some 2nd'ary (?) on fract. Kspar:	Minor sericite - clay alteration of Kspar and Plag: - fairly fresh: - note fractures 40°ca + increased alteration			370	MoS2 restricted to specks in hairline or narrow qtz veins - traces only.	as above: Crowded Porphyry but less ST.	<5'	95'		63589		.013		
Crowded Porphyry - slight increase in deformation and alteration: - Note sheared fractures 25°c.a. + gouge:	increase in sericite - clay alteration - note biotite overprints altered plagioclase (2nd'ary)			380	as above, traces only, in qtz veins and hairline fractures.	Note increase in alteration correlates with increase in deformation	<5'	95'		63590		.041		
Crowded Porphyry - fresh, Note variable g.s. of phenos in aphanitic matrix - - locally badly altered.	obvious 2nd'ary biotite V. fresh overprint. Note local Kspar alteration zones envelope fracts. & qtz veins.			390	MoS2 specks in minor qtz veins (1-2mm) - not V. [illegible] - pyrite in fractures	typical crowded porphyry - V low grade	<5'	95'		63591		.062		
Crowded Porphyry - as above, strong development of biotite: - fresh.	minor Kspar overprints qtz veins - strong biotite content. 2nd'ary (?)			400	MoS2 in hairline 10-15° ca. + rare 90° fractures - not V. abundant consistent pyrite - MoS2 - carbonate fracts 20°ca.	typical porphyry Note barren qtz veins 90°ca.	<5'	95'		63592		.079		
	E.O.H. 400													

PLACER DEVELOPMENT LIMITED

GRID: ______ HOLE No. 216 SHEET No. 1 of 6

LOCATION: 4N. 1W. BEARING: ______ LATITUDE: 6620 288.1 PROPERTY: Adanac

DATE COLLARED: 25th July '79 LENGTH: 402' DEPARTURE: 589 733.4 CORE SIZE: NQ. LOGGED BY: R.H. Russell

DATE COMPLETED: 27th July '79 DIP: Vertical ELEVATION: 1494.8 SCALE OF LOG: ______ DATE: 31 July '79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
0-26' Probably largely overburden - may include some V. weathered outcrop (CgQM). V. clay.	deformed CgQM - clay - limonite stain					30	None visible	Shears 90°c.a.	MoS2 Lo'l estimate			63593 ~~639~~		.001		
CgQM - as above - strongly deformed → cut by 1cm silicified shears 90°c.a. - late fractures 50°c.a. and ||c.a. - stained.	Kspar ± feldsp., plag → dark green, soft, sericite/clay ± chlorite, stained → etching - biotite altered (?)	Cg				40	No visible MoS2 - few qtz veins probably not much originally.	MoS2 - etched, rock - deformed × limonite stained	100%	70%		63594		.001		
Sharp igneous contact: deformed CgQM → apparently undeformed FgQM dyke. fine salt and pepper type, contains rare qtz, Kspar phenos	FgQM - slightly limonite stained: - Kspar vein 90°c.a. at 46' - no MoS2 (etched) qtz veins 70-90°c.a. - common 1cm → 8mm	Fg			70° 90°	50	no MoS2 visible - probably etched out. cavities -	unchanged if Cg - Fg and fingers of Fg intrude Cg. good recovery.	100%	90%		63595		.001		
CgQM - highly deformed and locally V. altered - tending to sub-porphyritic texture - fine matrix (large phenos) cut by silicified shears, qtz veins, FgQM dykes 1cm 90°c.a.	V. rich in Kspar - as large phenos & in matrix - possibly zone of Kspar enrichment at 52' - limonite stained.	Cg			Tg	60	MoS2 specks in qtz veinlets 90°c.a. and ||c.a. (2mm) + disseminated specks	90° veins early || vein - late. strong etching of Kspar rich zone	70% ?	95%		63596		.019		
CgQM - deformed, cut by 1-2cm qtz veins, silicified shears. Biotite locally appears fresh: typical Cg texture: irreg Kspar poikilitically enclose qtz.	Kspar - fractured & stained by limonite. - plag - altered replaced by limonite stained clay - sericite. - late fracts: 10°ca - 50°ca	Cg				70	qtz veins mainly 90°ca. (1-2mm) - some 50°ca - very rare visible MoS2 some etching of qtz veins	strong alteration at 67' - probably etching - cavities in some qtz veins	50%	95%		63597		.006		
CgQM. as above, deformed - fractures and cracks etched out by Mn (black stain). Sheared zone of dyke of FgQM at 75', then continues fractures	similar to above increased Kspar alteration towards 80 - late limonite stain and black (MnO?) stain on					80	few qtz veinlets, little sign of MoS2 - probably etched, V. altered	Plagioclase - V. altered; late fractures mostly 10-20° c.a.	80%	95%		63598		.004		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo	EST. GRADE
CgQM - badly [illegible] fractured, mostly fracts 15-20° c.a. - variable; - completely altered (sericite-clay) FgQM dyke ± 86-90 c.a. = sandy clay [illegible]:	sericite - clay alteration of [illegible] Kspar and plag: + staining with limonite on [illegible] fracture surfaces. limonite stain:	Cg	Fg			90	No MoS2 seen, and V. few qtz veins, [illegible] not [illegible] regionally -	increased alteration Kspar and biotite altered: intense:	86' ?	90%		63599		.014	
altered and [illegible] to 92' then returns to fresher CgQM typical:- local increase in Kspar and biotite. Kspar zone from 99-100'	2 days biotite (?) at 95' - distinct increase: Normal pref[illegible] alteration of plag ± fresh Kspar - chlorite alteration 97	Cg				2 / 100	MoS2 increases around [illegible] in [illegible] to 97' = [illegible] - 1 good qtz vein 90°c.a., 1 30° in	pyrite - chlorite zone (97-99) and MoS2 [illegible] fractures and replacing mafics ± Kspar	20' ?	95%		63600		.281	
V. complex section: - sugary silicified FgQM intruded by "sparse porphyry" - characteristic but [illegible] grades to [illegible] variety of Fg (like silicified [illegible] variety)	odd alteration zone (1) silicification ± FgQM (2) sericite - clay (+chlorite) alteration of feldspars (- slight) ± V. fresh biotite	Fg Sp Fg Cg			S.I.? <1.?	110	section cut by 4-6cm qtz veins 45-90° c.a. - some + Kspar envelope: MoS2 blebs in qtz	- interesting zone alteration - silicification rather than sericite veins dominant	<10'	95%		63601		.073	
Possibly slightly silicified CgQM extends to 112', - return to silicified sparse porphyry - - some V. large Kspar phenos, - grades into coarser facies of FgQM	silicified at contact sparse porphyry = "increasingly" altered - sericite / clay: + 2ndary biotite :-	Sp Fg			20° S.I.	120	abundant qtz veins 30° to 90°c.a. + MoS2 blebs: - dispersed, responsible amount	fresh biotite altered feldspars - poor recovery at 116'-117'	<10'	95%		63602		.018	
V. FgQM - extreme alteration : leucocratic: - strong shear at 124', // c.a. and 50° c.a. (No biotite)	sericite - clay ± carbonate alteration - V. chalky matrix. - limonite stained FgQM	Cg Fg				130	MoS2 in few qtz veins and fractures. - commonly 90° c.a.	extreme hydrothermal alteration of FgQM.	<15'	95%		63603		.150	
Types of FgQM - leucocratic altered variety = more mafic (bio+chlor) coarser grained variety (2-3mm) q.s. - passes back to silicified mafic Fg. variety grades back to normal FgQM	notable silicification around 132' and 138' Note relatively [illegible] and [illegible] sections. (+pyrite) limonite stains fractures.				[illegible]	140	MoS2 in qtz veins 10°c.a. and 45°c.a. - 70°c.a. : Variable: - significant, dispersed	silicified rock [illegible] in [illegible] 1 good MoS2 - qtz MoS2 vein broken	<15'	95%		63604		.190	
Return to typical FgQM pasty, salt and pepper matrix. <10% phenos: - grey-green colour. variable texture:	Note spells of fresh looking biotite. - minor sericite - clay alteration limonite restricted to fractures	Fg				150	MoS2 in variety of manner (1-4mm) qtz veins. significant amounts.	V. reduced alteration of feldspar.	<5'	95%		63605		.096	

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG Rock Type Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
FgQM, 150' – grades into (M)S.A.P. phenos: qtz, Kspar in pasty salt & pepper matrix – = FgQM – only ≈ coarser – fresh biotite in matrix. (gradation from FgQM)	Extensive Kspar alteration envelope to some qtz (+MoS2) veins (90°c.a.) → 20°c.a.) Kspar vein 20°c.a. early than straight qtz 90°c.a.	(M) S.A.P.	166		K	*	disseminated. Main trace in qtz veins. Most 1–5mm x 70–90 c.a. – others = hairlines at 10–20°c.a.	Note variable colour – light to dark grey. V. good SE in 1 qtz-Kspar vein	<5'	95'		63606		.121		
(M) S.A.P. variety of FgQM – not particularly mafic. Note large qtz/Kspar phenos in sandy matrix (aplitic). Not 'sparse' porphyry.	Kspar vein ≈ 70–90°c.a. at 166' – (1cm wide) – post dates qtz vein 20°c.a. Pyrite – no MoS2 with Kspar		170		K		MoS2 in coarse blebs in qtz veins – mostly 90°c.a. + traces of pyrite.	V. weak 2ndary alteration ~~fresh~~ biotite	<5'	95'		63607		.121		
FgQM – grades back into (M) S.A.P. at 176' – two rock types similar – related. Slightly porphyritic FgQM grades to coarser, aplitic, matrix	green & dk sugary chloritic alteration of rock – little mafic – clay – biotite remains + fresh – minor Kspar oddly	Fg / MSA	180		P	*	11 2–20mm qtz veins ±90°c.a. some with blebs MoS2 – not all. Minor MoS2 in veins 20°c.a.	significant SE – 20° veins early 90° – late Kspar phenos locally adjacent qtz veins 90°c.a.	<5'	95'		63608		.149		
recrystallization zone contact to CgQM – probably [illegible] – note sugary texture to likely Cg (recrystallized?) → M.S.A.P at contact. Returns to altered M.S.A.P.	– probably recrystallized relationship. Note possible silicification of M.S.A.P. near contact + [illegible] clay alteration	Cg / MSA / S-?	190		silicified		Large qtz veins (1cm) 15°c.a. + blebs coarse MoS2 (dispersed) + MoS2 in hairline fractures ‖ 90° 20°c.a.	reduction in SE noted. Note variety of rock types – most probably related to FgQM	<5'	95'		63609		.024		
Note silicified zone (Cg?) to 189', then CgQM. CgQM – v. distorted, locally sugary/aplitic – (v. fine, sugary matrix) – elsewhere strongly silicified, and/or chloritized.	V. deformed, altered CgQM – silicified, chloritized, K-feldspar veined (soaked) chlorite/pyrite in fractures	Cg	200				MoS2 in hairline fracts. around qtz veins, 90°c.a., 20°c.a. Not common.	deformed qtz but not extensive MoS2 – not [illegible] drilling – rock fractures 10°c.a.	10'	90'		63610		.045		
V. rusty altered CgQM – only small dykes of slightly porphyritic FgQM (90°c.a.) – CgQM cut by silicious shears 90°c.a. and fractures (mainly ‖ c.a.) & Limonite	V. altered; poor recovery 203–206' – rusty CgQM gravel: – minor sericite – clay alteration (+ limonite) and chlorite alteration (+ pyrite)		210				qtz veins 90°c.a. & 20°c.a. but V. little MoS2 – possibly some washed out.	+ rust fault zone? V. deep weathered zone	90' ?	80'		63611		.029		
relatively fresh CgQM. No limonite slight chlorite alteration, typical texture, internally deformed. Only narrow dyklets of fairly coarse FgQM	Plagioclase a bit grained green by chlorite – & biotite appears altered: locally – elsewhere V. fresh		220				coarse MoS2 blebs in 1 qtz vein (1cm) 90°c.a. Not v. abundant – also traces in veins ±10°c.a.	return to CgQM alteration shows local chlorite alteration.	<5'	95'		63612		.019		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
V. variable rock section: — deformed CgQM (sheared) grades to what is essentially M.F.P. (alt. V. mafic but texture & mold) — then grades to V. phenocryst rich Hybrid Porphyry — large phenos: ≈ 50%	sericite-clay alteration of plag: → [illegible] of K-spar: — chloritic alteration of key mafic biotite (?) — pyrite, fresh biotite [illegible]	Cg / MFP / Hybrid — 230			MoS2 — hairline fractures 10° c.a. (rarely) cut by biotite (1cm) [illegible] 30° c.a.	V. variable "transition zone" — medium — between CgQM & hybrid magma.	<5'	95%		63613		.103		
Returns to "normal" CgQM matrix at 232' — retains traces of hybridized magma: — sheared 90° c.a. — breaks down to rubble (limonite stained) at 235'	chloritized plag. minor sericite clay alteration: — intensity increases in rubble zone	CgQ — 240	?F		good MoS2 in hairline 90° c.a. & ∥ c.a. — also MoS2 in rusty gouge — around (lost) rubble	probably a fault at 238'	20' ?	90%		63614		.225		
altered CgQM passes to a med. grained equigranular variety and then Mafic Porphyry — contacts appear to be sharp, igneous (90° CA)	Med. grained & fairly fresh but Cg → Mafic is altered. — sericite-clay alteration or chloritization	Cg / MP — 250	grained		MoS2 in hairline ∥ c.a. (with pyrite & chlorite) — Not common — but good MoS2 (where found)	alteration along Mafic / Med / Coarse g. contact.	15' ?	90%		63615		.110		
V. altered & crumbly Mafic Porphyry — becomes fresher near 260': local K-spar-qtz MoS2 veins 90° c.a.	strong sericite-clay (± carbonate) alteration of feldspars: rotten rock, limonite stained, pyrite & chlorite in fractures.	MP — 260	?		traces of MoS2 in gravel and rotten porphyry (lost ?)	chlorite + epidote? Biotite? fault?	25' ?	90%		63616		.122		
Typical Mafic Porphyry — large (.6-1cm) feldspar phenos, in part ± [illegible], in a biotite rich matrix: Qtz veinlets (4mm) commonly & narrow K-spar envelopes:	Note pink alteration of some feldspars — possibly following sericite-clay alteration: epidote / biotite in hairline fracts.	MP — 270	∧		qtz veinlets 90° c.a. — fairly common: — most barren or partly pyrite MoS2 — not rich	Note pink alteration carbonate? otherwise typical	<<'	95%		63617		.055		
Mafic Porphyry — rich in epidote biotite, contains inclusions (?) CgQM — returns to highly chloritic Mafic Porphyry CgQM strongly fractured ∥ c.a.	alteration varies: V. chloritic at 277 whereas sericite-clay in CgQM zone. becomes fresher from 278'	Cg — 280	70 / 70		good MoS2 — from qtz. 10° c.a. from 271-273' — qtz at 50° c.a. — few veins, fairly NIL	altered Mafic Porphyry	<5'	95%		63618		.175		
Mafic Porphyry — V. biotite rich, becomes chloritic from 283 to 288'. fractured ∥ c.a. at 289' — fractures & gouge — crumbly.	zones of chlorite alteration, sericite-clay alteration & ± fresh Mafic Porphyry. —	MP — 290			3 narrow (2mm) qtz veins + MoS2 & ∥ c.a. [illegible] — younger qtz veins, 90° c.a.	good MoS2 mainly as veinlets ∥ c.a. Most cont. shear 50° c.a.	<5'	95%		63619		.266		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porphyry - Moderately fresh unaltered - fresh biotite - unaltered feldspars: 2cm dykelets of TgφM fractures 20°ca + gouge:	Kspar pink Kspar veinlets (+ Biot) - Kspar xtals in some qtz veins: - Chlorite content increases at 299'			300	Mo in qtz veins (Not in Kspar veins) - veins mainly 20°-45°C.a. - some + biotite.	Typical Mafic Porphyry - note better MoS than usual for rock type	<5!	95%		63620		·197		
Mafic Porphyry - chloritic alteration - fresh looking biotite: - (Bio ≥ qtz veins) - Note plag ⇒ chlorite alteration fairly strong:	Sericite/clay alteration (± carbonate) near fractures: 10-15° C.a. - Note Kspar xtals border some qtz veins.			310	good MoS in 1 qtz vein 90° Ca. (better) - also in 1 Kspar vein 90° c.a.	several barren qtz veins - reason uncertain.	<5!	95%		63621		·069		
Mafic Porphyry - cut by narrow (10cm) dykes of sparse porphyry (phenos in aphanitic matrix) - Pyrite + chlorite in fractures.	Local Kspar alteration envelopes qtz veins (90°ca) → (45°ca) - Note main alteration - plag ⇒ chlorite.			320	MoS₂ abundant as specks in qtz veins (2-4mm) - & hairlines from 70°-90° c.a. -	Note dykes of Sparse P, sharp: 90° c.a contacts.	<5!	95%		63622		·098		
Mafic Porphyry cut by Kspar alteration zones and dykes of sparse porphyry. Typical mafic porphyry - characteristic chlorite alteration	Zones of Kspar addition at 325' → 328' - and Kspar fringe to minor qtz veins in mafic → sparse porphyry		K 3P.	330	V. good, coarse MoS₂ in 2 veins 20° ca (8mm) + minor MoS₂ in hairlines.	Note limonite on late fracts. !! V. deep MoS oxided?	10%	95%		63623		·217		
Chloritic Mafic Porphyry: - typical texture: - (few phenos) plag ⇒ chlorite → strong. generation of biotite.	alteration as above. - chlorite, minor Kspar as envelopes to qtz veins. limonite on fractures		TgφM - bigd?	340	few qtz veins, V. little MoS traces in hairline fracts. 70°C.a.	does not correlate with Pyrite zone?	<5%	95%		63624		·039		
Sparse porphyry dyke appears to grade into medium grained QM. Then Mafic Porphyry - cut by 3' dyke of fairly coarse TgφM - typical, sandy, no phenos, sharp contacts.	Kspar-biotite-qtz, in enveloped veins 10°ca → 70°c.a. in mafic and TgφM. Note chlorite alteration + fresh biotite		3P 70° 70°	350	1 v. good MoS vein ≥ broken. Loss (45°c.a) related to Kspar vein, other traces in hairlines:	Note TgφM dyke is v. different from sparse porphyry - above.	15% ?	95%		63625		·066		
Mafic Porphyry - with minor chloritic alteration. Typical texture and composition - irregular feldspars in diffuse, mafic matrix.	Local Kspar veins → envelopes (+ biotite) - locally + MoS - otherwise chloritization → minor sericite-clay alteration near fractures (10°C.a) eg. 359'			360	MoS₂ in hairline fractures ‖ c.a. → 90°c.a also in Kspar and Qtz veins, fairly rich but coarse spread	good MoS for Mafic Porphyry - why?	10%	95%		63626		·140		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porphyry - typical texture and composition but apparently more altered:- local dykes of Sparse Porphyry (10 cm)	sericite - clay and chlorite alteration - broken and rubbly in places:-	Mafic		* 370	good Moly as specks in qtz veins, mainly from 2mm qtz veins // to 40° c.a. also 90° c.a. - coarse blebs	Note coarse blebs along late 90° (c.a.) qtz vein cuts early hairline // c.a.	10'	95%		63627		.202		
Mafic Porphyry - V. altered, cut by fault at 50° at 372' and fractures, // to 10° c.a. — cutting medium grained, equigranular zone at 378'	mixture of sericite - clay and chlorite alteration - similar to zone. Med. grained zone could be alteration (K?)		50° 1-2 ft	380	MoS2 mainly as specks and blebs in fractures hairlines 20° c.a. Not V. rich	significant alteration and deformation approaching contact.	<5'	95%		63628		.081		
altered Mafic Porphyry contacts Sparse porphyry at 383' - typical chilled margin to sparse porphyry - few, euhedral, phenos:-	some K-spar - qtz - biotite veining of sparse porphyry (70-90° c.a.) - strong development of fresh (ending?) biotite. Sparse slightly chloritic		70°	390	large (4cm) qtz vein // contact = barren. MoS2 in narrow (1-2mm) veins 10-20° c.a. - bordered by K-spar	Strong biotite alteration on contact. - ? grading not fault.	<5'	95%		63629		.110		
typical Sparse porphyry - as above, but increase in deformation and alteration: fractures // to 10° c.a. = common: - fresh, early (?) biotite	Strong chlorite alteration of feldspar phenos: - ? (mafic) + minor sericite/clay. Note chlorite + pyrite in fractures			400	good MoS2 in fractures (not qtz veins) as blebs, also coated specks on hairline fractures 90° c.a.	increased alteration, ends in good MoS2	<5'	95		63630		.097		
			E.O.H. 402'											

PLACER DEVELOPMENT LIMITED

GRID: ___

HOLE No. 217
SHEET No. Lo 6

LOCATION: O.P. | BEARING: | LATITUDE: 6 620 279.7 | PROPERTY: Adanac

DATE COLLARED: 27th July '79 | LENGTH: 400' | DEPARTURE: 589 783.5 | CORE SIZE: NQ. | LOGGED BY: R.D. Pinsent

DATE COMPLETED: 29th July '79 | DIP: Vertical | ELEVATION: 1488.5 | SCALE OF LOG: | DATE: 1 August '79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Boulders and overburden from 0-28. CgQM, FgQM, Hybrid Porphyry, 4th July dist. 28-49, No recovery — Sand + clay.	—		49'		—	—	MoS2 loss estimate			63634		.002		
CgQM — highly altered and deformed — largely reduced to rubble or gravel. — V. unstable structure obliterated.	typical clay-sericite alteration of feldspar (advanced) + limonite staining and etching.	Cg	60		few qtz veins 90° ca. — etched. No visible MoS2 (leached out)	highly altered CgQM — exceptional. ∴ poor recovery.	100%	50%		63635		.002		
CgQM — probably cut by FgQM dyke from 60'-64' — V. crumbly — rubble only. — CgQM locally resembles breccia — probably	intense sericite-clay alteration — clay replaces feldspar; soft and unstable ∴ fault zone	Fg / Cg	70		No visible SiO2 — even in relict qtz veins — leached out(?)	limonite stain strong. late fracts: = 11 c.a. or 10° c.a.	100%	80%		63636		.002		
CgQM — as above, highly deformed and altered: — strongly fractured 10-15° c.a. + slight breccia at 75'. Relatively [illegible] zone 73-76'	V. strong sericite-clay alteration — mafic reduced to rare specks biotite; abundant gouge — limonite stain.	Cg	10° TC; 80		relict MoS2 traces in qtz veins in broken rubble — loss inferred.	still altered but less deformed: — large (1cm) qtz veins 90° c.a. appear barren	80% ?	90%		63637		.011		
CgQM, V. altered, as above, appears to be mixed with, and changes to "hybrid porphyry" — abundant phenocrysts in fine aplite matrix.	deformation and alteration much as above — Kspar + Plag = V. altered to stained clay and deformed	H / Cg	90		about 7 large (4-8mm) qtz veins 90° c.a. + other cavities. No MoS2 visible — lost.	Mixing of "hybrid" and CgQM hard to decipher in altered rock.	100%	90%		63638		.097		
Hybrid Porphyry with short sections of CgQM. V. large phenos in porphyry matrix — aplitic: — characteristic texture	alteration as above: — slightly less limonite stain. still fractured 20° ca	H	100		MoS2 present in qtz veins 90° c.a. (thin) and fractures 90° c.a. No MoS2 in	fracts 20° c.a. (late). — probably some loss.	40% ?	90%		63639		.119		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. 44 SHEET No. 2 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Hybrid extends to 107' then sharp return to CgQM — thus appears to grade back into hybrid at 107' — large phenos in fine — possibly subsolidus matrix.	alteration decreases rapidly, some sericite-clay alteration, NO limonite stain. Note chlorite + pyrite replaces plag	Cg	110				≤ V.large (2cm) qtz veins 90° c.a. + V. large masses MoS2, V. rich — Not much left.	CgQM probably injected by magma — stoped in it. — are phenos actually xenocrysts?	10%	95%		63640		.161		
Hybrid Porphyry extends to 119' — then → coarse FgQM. V. typical hybrid — large euhedral zoned xtals in fine aplite matrix — (Not like sparse P.)	fairly fresh: chloritic tint to matrix and plagioclase phenocrysts. — limonite near fractures only.	Fg	120				V. minor MoS2 in veinlets 90° c.a. and pyrite on fracts. 90° c.a.	V. extensive hybrid zone — typical — few qtz veins little MoS2	<5%	90%		63641		.027		
Largely CgQM with sections transitional to Hybrid Porphyry — e.g. matrix developing in CgQM (wide textured) — typical hybrid, then oddball transition	Local Kspar veining and jointing in CgQM — typical chlorite alteration of plagioclase phases (Note fresh biotite)	Cg, Cg	130		Hyb. ca. 2		Sparse MoS2 — specks in hairline fractures and are qtz veins (1cm) // c.a. and 90° c.a.	typical transition Cg → hybrid	<5%	95%		63642		.103		
Transition — variety of Hybrid (little matrix) — cut by 10cm dykes of 'coarse' FgQM at 132' and 134' — transition regains Cg texture (sheared) and 134' —	then cut by similar dyke at 136' and chilled contact against FgQM at 137' → intense sericite-clay alteration of Fg dykes especially from "chill" to 140'	Hybrid, Fg	140				MoS2 in rare qtz veins as blebs, Not common — Note specks disseminated MoS2 in FgQM at 136	sandy FgQM dykes c salt and pepper + qtz, sandy altered Not disseminated MoS2	<10%	90%		63643		.086		
Complex intrusions — Cg/hybrid rock grades to Fg (note rich biotite) → felsic core) grades (?) to M.S.A.P. Such contacts are inclusions of rhythmically fresh CgQM (typical) — contact — sharp — M.S.A.P. cut (70°) by FgQM	Fairly fresh, both Kspar veins cut Hybrid, M.A.P., FgQM — mainly 45°-70° c.a. — barren, No qtz. local	Hy, Fg, Cg, MSA	150		MSAP, p, p		good MoS2 — mainly in 0.5-1.0 cm qtz veins 90° c.a. (some veins ± barren) — Bio. hairlines // c.a.	Chlorite alteration prevalent. FgQM → Hybrid → M.S.A.P. (note sparse, Aplite Porphyry) = same trend unit	<10%	95%		63644		.145		
FgQM with patches (probably inclusions) of coarser grained material (largely CgQM) — Locally M.S.A.P. — FgQM cut by vein qtz-Kspar MoS2 pegmatite at 157' and veins of Biotite — Kspar:	Sericite-clay alteration. Note fairly fresh, alteration Kspar appears to increase. Kspar rich zone — chlorite + fresh biotite specks:	Fg	160				2-5mm qtz veins mostly 90° c.a. — some 20° c.a. Xcutting + Mica MoS2 — large blebs in pegmatite	Variable texture but ± typical FgQM zone + smokey qtz. veins	<5%	95%		63645		.080		
Continue, similar to above: FgQM with irregular intrusive contact M.S.A.P. at 169'. FgQM = sandy, salt and pepper variety — [illegible]	— sericite-clay alteration of FgQM — not extensive but fairly chalky. Fresh biotite + few Kspar veins.	Fg	170		h		MoS2 specks in minor qtz veins and fractures 90° c.a. and // c.a. — Not V. rich.	why broken up? — increase in alteration, probably	<10% ?	85%		63646		.094		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. 74 SHEET No. 3 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
coarse M.S.A.P. and angular inclusion of CgQM has igneous contact with TgQM at 173' – Note V. porphyritic variety of TgQM – not 'space of hybrid' – more M.S.A.P. but too Tg [illegible]	fairly strong sericite – clay alteration from 173'–180' – chalky + gouge on fractures :– feldspars altered. Note strong [illegible] [illegible] – plag – chloritized.	M.S.A.P. / Tg	✱✱	180	V. good MoS2 blebs in 1 qtz vein (1 cm, 70° c.a.) + smaller veins & hairlines various angles.	good MoS2 vein cuts CgQM inclusion at 171' – Not much lost.	<10%	95%		63647		·229		
Altered M.S.A.P. – with sections of altered TgQM – V. transitional rock-types: – M.S.A.P. – coarser, kspar phenos. + fresh biotite in matrix. Late fractures 20° c.c.	sericite. clay alteration – strong, chalky and rotten: Plags light green sericite-chlorite, also gouge	M.S.A.P. / Tg	? ✱ ✱ ??	190	4 qtz veins (0.5–1.0 cm) ≈ 90° c.a. + coarse MoS2 blebs . . good MoS2 Many loss: – due to coarse MoS2 on shears	altered and broken but MoS2 in qtz + complete around of MoS2 lost in gouge [illegible] 5' Loss 186–191'	20% ?	70%		63648		·885		
Variable M.S.A.P. – Locally contains large kspar phenos. – resembles hybrid – only aplite matrix. Mafic content in variable – increase around 199'–203' resembles Mafic Porphyry ?!!	less altered than above but strong around 197' – shows 25% c.a. sericite-clay and chlorite alteration. fresh biotite.	M.S.A.P.		200	Minor MoS2 in qtz veinlets ‖ c.a. 90° c.a. etc. and in shear zone Not rich	to mafic Porphyry related to M.S.A.P. ?	10%	90%		63649		·069		
Possible gradation into Mafic Porphyry then igneous contact with MG equigranular QM (MgQM) – (grain size goes finer – no more) then Hybrid Porphyry typical	Note common biotite enrichment near contacts: – Minor chlorite alteration of Plag: – fairly fresh.	Maf / MgQM / Hybrid		210	hairlines ≈ 10° c.a. + good coating of MoS2 – good MoS2 value	Pyrite in hairline fracts ‖ c.a.	<5%	95%		63650		·045		
Typical Hybrid Porphyry – large euhedral kspar + qtz phenos in a fg pasty matrix – V. kspar rich matrix (phenos + xenoliths) at the contact with equigranular MgQM mottled texture	returns to a more mafic Hybrid. Seem grades into CgQM with minor interstitial matrix. – Minor alteration only chloritization.	MgQM / Hybrid		220	Most MoS2 in qtz-[illegible] hairlines ‖ c.a. and 70° c.a. good coating on fractures: Note Pyrite – [illegible]	Note Hybrid grades into variety of CgQM which has [illegible] of interstitial magma.	<5%	95%		63651		·085		
CgQM with local interstitial matrix – Cut by narrow (6 cm) TgQM dyke (90° c.a.)	Minor sericite – chlorite alteration. Fractured ‖ c.a. Locally fairly fresh.	Cg		230	qtz veins + traces MoS2 90° c.a. – also + pyrite on cavities Not V. rich	relatively fresh and (?) undeformed CgQM	<5%	95%		63652		·098		
CgQM similar to above: Minor deformation and alteration: patches of interstitial matrix locally –	mainly chlorite alteration of plag: kspar fresh: – probably 2nd biotite – V. fresh.	Cg		240	MoS2 in 4–6 mm qtz veins 70–90° c.a. (4) and in hairlines 20° c.a. – + Pyrite	Pyrite with chlorite. MoS2 = deposited – no major concentration	<5%	95%		63653		·047		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
CgPM - V. similar to above, fresh biotite, CgPM with V local intergranular matrix (aggregates?) chlorite alteration of plag: fresh biotite - probably [illegible]	Kspar (up to 3cm) in fresh - minor alteration of plag: note biotite specks in old plag: xtals		Cg			250	MoS2 in cracks and fractures, also rare qtz veins, dispersed: - note good MoS2	in hairline ‖ c.a. - No major MoS2 concentrations	<5'	95%		63654		.131		
CgPM, similar to above (little intergranular matrix) - cut by shear zone and alteration increase around 257' - and small sparse porphyry vein at 259'	as above - with increase in Kspar alteration and sericite - clay and plag chlorite. Late fracts 10° ‖ c.a. largely fairly fresh		Cg			260	MoS2 dispersed in hairline fractures ‖ c.a. - 45° c.a. traces only: -	increased alteration may relate to [illegible] contacts	<5'	95%		63655		.063		
CgPM cut by small dykes of TgPM and possibly sparse porphyry - contains fragments of CgPM? V. rubbly ? fault(?) at	contact with Mafic Porphyry - intense alteration near contact of sericite-clay and chlorite: (biotite + fresh)		Cg		F ?	270	MoS2 traces in hairline fracts: and in gouge + contact	Note variety of dyke compositions near contact, also note shearing nature of contact.	9.0'	95%		63656		.071		
Altered Mafic Porphyry with either Cg "dykes" or more likely inclusions goes to CgPM, which is cut by TgPM (sericite porph) dyke.	sericite - clay probably decreases away from Mafic Porphyry - only minor chlorite + trace in CgPM.		Cg Tg Cg		80° 20° 70°	280	rare MoS2 on fracts in Tg and CgPM and in a large qtz vein (as above) - vein 20° c.a. (0.8cm)	Little MoS2 except for 1 vein. - Note Mafic P. may be younger than Cg.	<5'	95%		63657		.110		
CgPM - as above, relatively fresh and unaltered to 289'. - shears 25° c.c. cut by small dykes (inclusions?) of mafic TgPM -	chlorite alteration of plag: - probable fresh biotite -		Cg			290	Minor MoS2 on qtz veins & fractures 70-90° c.a. and shears or fractures at 290'	relatively fresh CgPM + consistent MoS2 traces	<5' ?	90%		63658		.031		
CgPM sheared against Mafic Porphyry - V. altered rocks, chloritic shear 30° c.a. Mafic Porphyry = homogeneous - large biotite phenos in mafic matrix.	sericite-clay and chlorite alteration in fault zone. decreases away from faults and fractures.				F 30°	300	good crystals of MoS2 in qtz-bio-MoS2 hairlines ± 30° c.a. - Not V rich	Some biotite in veins: -	<5'	95%		63659		.070		
Mafic Porphyry - typical, cut by chloritic shears 30° c.a. + small veinlets (3cm) TgPM	decrease in alteration away from fault - chloritic near shears.					310	MoS2 blebs in qtz veins 70°-90° c.a. (t. abund) and hairlines 30° c.a.	typical Mafic Porphyry with chloritic shears	<5'	95%		63660		.055		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porphyry – typical texture and composition – large irreg: feldspar phenos in a mafic (V. bio rich) matrix	Moderately strongly altered Mafic Porphyry – both sericite-clay and chlorite alteration – fresh looking Biotite			320	E major qtz veins (7cm), 90°c.a. + parts of core masses of MoS2 + no smaller qtz veins 90°c.a.	and fractures ‖ c.a. – adds up ∴ rich; few qtz veins but rich in MoS2	<5%	95%		63661		·094		
Mafic Porphyry – as above but fairly intensely altered, – probably related to fracturing ± 5–15° c.a. –	sericite-clay and chlorite alteration completely rotten around 327'			330	dispersed MoS2 in 63661 – qtz veins, coating on hairline fractures and sheared [illegible]	fractures – significant amount of MoS2	<5%	95%		63662		·132		
Mafic Porphyry – extends to 340' – (cut by 7cm dyke let at 337?) No phenos – strong alteration of mafic porphyry – fresh biotite	typical alteration of feldspars – Note Biotite in qtz veins.			340	MoS2 on 2 90°c.a. fractures and 1 at 30°c.a. Largely qtz free pyrite traces in fractures.	decrease in MoS2 content	<5%	95%		63663		·108		
Sparse Porphyry – chilled, V. few phenos: – abundant fresh biotite. 2ndary? – probably.	variable alteration – strong adjacent to qtz vein at 401' (30°c.a.) otherwise fairly fresh – chlorite after plag. –			350	MoS2 blebs in 2 major qtz vein – 3 sheared hairline fracs – reasonably rich.	Note intrusive contact mafic ⇒ sparse. – Chilled sparse.	<5%	80%		63664		·111		
Sparse Porphyry – few phenos: – alteration increases towards 360' – abundant fractures ‖ 10° c.a. –	V. rotten and altered rock – Kspar + plag ⇒ sericite – clay. – fresh biotite 2ndary.		F 10°	360	V. minor MoS2 on shear slip surfaces	post biotite deformation and alteration.	20%?	95%		63665		·034		
Sparse Porphyry – as above: – becomes fresher and less altered at 364' –	Slight alteration of Kspar, plag altered & etched, partly replaced by biotite			370	MoS2 in qtz veins and hairline fractures – not abundant	as above, Sparse, sparse porphyry + strong 2ndary Biotite	<5%	98%		63666		·083		
Sparse Porphyry – as above, larger phenos; euhedral Kspar, fresh,	strong biotite addition – alteration of plag:			380	MoS2 in [illegible], minor qtz veins, not abundant specks of disseminated Pyrite	as above, Strong 2ndary Biotite	<5%	95%		63667		·031		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 6 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
sparse porphyry - typical texture and composition and strong 2ndary biotite overprint. Significant increase in 2ndary biotite from 388-392	as above: kspar ± fresh, Plag ⇒ chlorite ± biotite					39(	MoS_2 and pyrite in rare veins & hairline fractures — Not V. rich	Not V. bio rich section - sharp contacts	<5%	92%		63668		.068		
sparse porphyry, as above: - alteration increases to bottom of hole. strong development of chlorite.	chlorite alteration increases (+ traces of pyrite).					40	traces of MoS_2 in fractures: rare qtz veins = ± barren.	strong hydrothermal alteration	<5%	98%		63669		.045		
					5.0% 48											

PLACER DEVELOPMENT LIMITED

GRID: ___
HOLE No. 218
SHEET No. 1 of 6

LOCATION: 2N 110 BEARING: LATITUDE: 6620 227.7 PROPERTY:
DATE COLLARED: LENGTH: DEPARTURE: 589 767.5 CORE SIZE: LOGGED BY:
DATE COMPLETED: DIP: ELEVATION: 1488.3 SCALE OF LOG: DATE:

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	ASSAY RESULTS: Cu	ASSAY RESULTS: Mo	ASSAY RESULTS	EST. GRADE
Overburden to ±25'. exact position hard to fix: - consists of boulders of Mafic & Sparse Porphyry and above unit CgQM - sand.	—					20		MoS2 Log estimate				63670		·049		
25-30' - Typical CgQM - slightly deformed and fractured: V. irregular texture:	fractures stained with limonite; Kspar appears V. fresh					30	qtz veins ‖ c.a. (4mm) No visible MoS2: probably etched.	typical Coarse grained Qtz. Monzonite	100'			63671		·001		
CgQM - as above: Note local shears (1-4cm) 70°c.a. (silicified). Relatively fresh looking CgQM - note fresh biotite.	V. little alteration of Kspar but plag. ⇒ limonite stained clay; Kspar & fractured & fracture-zone stained					40	qtz veins 90°c.a. (etch contents) and 45°c.a. but No visible MoS2	MoS2 probably etched: Poor recovery: broken ground:	100'	60'		63672		·002		
CgQM, as above: - possibly slightly greater Kspar, plag alteration but less limonite stain: - typical texture 2.5'. irregular intergrowth qtz & Kspar.	Plag ⇒ light green sericite & clay ⇒ rust stained with limonite: broken ground.					50	as above, etched qtz veins fairly common. - No visible MoS2.	Not deformed nature of CgQM typical. (early phase)	100'	50'		63673		·001		
As above, CgQM - poor recovery (these not looked) but no apparent change. Represents same texture and composition	as above: - fresh Kspar, slightly rusty plag: biotite fairly fresh:					60	None visible - etched	V. poor recovery - fault in drilling.	100'	10'		63674		·002		
CgQM similar to above: Kspar flooding at 67' - V. abundant Kspar with prominent inclusions of qtz (graphic). internal deformation of Kspar, as above	probable addition of Kspar, note xtals growing together to form continuous mesh - late alteration as above.				V	70	qtz veins 90° c.a. & 10°c.a. - No visible MoS2 - etched out.	ground still V. broken - poor recovery:	100'	50'		63675		·001		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. ____ SHEET No. 2 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG Rock Type Alteration	GRAPHIC LOG Footage	GRAPHIC LOG Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
CgQM - similar to above. V. deformed internally. Kspar xstals cracked and limonite stained. irregular texture, variable.	Plag. sericite and limonite and chlorite stained. replaces some biotite. fairly typical CgQM					80	qtz veins and ... 70°c.a. ... (4-6mm) - no MoS2.	as above only MoS2 extremely fresh and etched.	100%	75%		63676		.001		
CgQM - similar to above - locally flooded with Kspar and more altered than above. Kspar rich from 84'-88'. xstals deformed.	increased alteration of feldspar from 87' - sericite-clay alteration (chalky) limonite ... at 87'					90	no visible MoS2 - qtz veins appear to be ... broken	V. rotten CgQM - poor recovery	100%	50%		63677		.001		
CgQM - V. altered and completely rotten. locally crumbly but held together fairly well. V. close fractures ± 10°c.a.	sericite-clay alteration of feldspar & chlorite alteration of biotite - abundant gouge					100	weathered and etched, no visible S.	minor limonite stain - fractures locally sheared.	100%	75%		63678		.001		
CgQM extends to 108'. V. altered to 104 then fresher. Typical rock type - clearly etched and leached.	deformed Kspar + limonite stained. local shears (slickensided) 90°c.a. - alteration as above: locally extreme					110	good qtz vein 90°c.a. leached. no visible MoS2	CgQM cut by small dykelets (?) of FgQM 90°c.a.	100%	85%		63679		.007		
Fine FgQM - dark brown, altered, salt & pepper type - cut by dyke of fine MgQM or coarse FgQM (aplogranite) - fresh biotite. CgQM = typical.	typical sericite-clay alteration + limonite stain. (coarse FgQM = remarkably fresh!)	Fg Cg				120	Hairline qtz veins (chl to ...) 90°c.a. and ‖c.a. - locally ... locally + small blebs MoS2	strong late fracture set ‖c.a. + limonite stain - in CgQM	60%	90%		63680		.044		
CgQM continues to 124' where it passes to sparse porphyry - contact 0°c.a. CgQM - fairly typical, feldspars near contact; sparse atypical but	qtz-Kspar veining extensive: 90°c.a., 70°c.a. ± ‖c.a. - note Kspar locally overprints qtz. ... : minor chlorite alteration				K	130	qtz veins ... increases ... 90°c.a., ± 30°c.a. locally ... disseminated MoS2	Note pyrite with chlorite - in ... plag. ... fractures: ...	<15%	90%		63681		.102		
Sparse porphyry cut by ... of coarser grained material - gradational feature - V. minor ... ‖SAP - sparse porphyry = grey. fairly fresh.	local Kspar-qtz veining mostly just qtz (± biotite). Plag. xstals = etched (not stained) - possible late ... biotite.					140	MoS2 in fine ... hairline fract: ‖c.a. also on ... 2mm qtz veins (70°c.a.)	as above chlorite & pyrite early Kspar-qtz veins ‖c.a. - late = 90°c.a.	<5%	95%		63682		.062		

GRID: ____ **PLACER DEVELOPMENT LIMITED** HOLE No. [illegible] SHEET No. 2 of [illegible]

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo	EST. GRADE
coarse facies of PgQM (?) at 117 appears to grade into aplite porphyry – (MSAP) which returned to sparse porphyry – aphanitic matrix at 148 – typical sparse porphyry	chlorite alteration of plag. xstals & sparse biotite – also strong biotite ... Kspar ... Kspar–qtz veins 40 to 75° c.a.	Pg; 140			chlorite ... pyrite ... MoS2 ... mainly ... hairlines	Note PgQM inclusions in MSAP at 117' / veins ... 90° veins = late 40 to 70° c.a.	<5'	95%		63683		.118	
typical sparse porphyry variety of PgQM – ... more typical matrix (chlorite) and smaller less regular Kspar phenos. – resembles MSAP slightly finer	chlorite alteration – green ... no wholesale alteration of Kspar. Note pyrite fractures; minor Kspar ...	160		X	good clear MoS2 in qtz veins 90° c.a. (5-6 mm) blebs in narrow qtz veins 45° c.a.	Note Kspar ... on ... ; V. ... PgQM.	<5'	95%		63684		.142	
Mixed facies of PgQM – commonly weakly porphyritic with aphanitic, pasty or Pg (aplitic) matrix – resembles MSAP	minor chlorite alteration; rare Kspar veins & envelope; local secondary biotite.	Pg; MSAP; 170			good MoS2 as blebs in qtz veins 90° c.a. and 90° c.a. – MoS2 – dispersed in ...	Pyrite with chlorite ... feldspars. Abrupt gradation PgQM to MSAP	<5'	95%		63685		.091	
MSAP – V. like above – division difficult – ... in matrix ... aplitic and porphyritic passes to aphanitic variety of matrix – porphyry still (unlike ...)	as above, minor chlorite alteration – possibly ... of 2ndary biotite. chlorite & pyrite in hairlines 90° c.a.	Pg; MSAP; 180	X	X	larger qtz veins 90° c.a. (0.5-3.0 cm) + coarse MoS2 ... + similar veins at 10° c.a. no good veins	good veins in several directions: MoS2 dispersed.	<5'	98%		63686		.268	
Very sparse MSAP – (<10% phenos) but still ... to aplite texture, again variety of PgQM – gradational.	Fairly fresh, minor chlorite alteration of feldspars. Kspar–qtz–MoS2 veins 90° c.a. → 35°	190	X	X	good dispersed MoS2 in ... of qtz veins X ... all ...	Pyrite & chlorite on late fractures. Very rich (no good veins)	<5'	98%		63687		.081	
as above; – fine variety of MSAP resembles slightly porphyritic PgQM – pasty matrix unlike sparse porphyry –	V. little alteration, as above – largely chlorite alteration; – Note Kspar–qtz veins 90° c.a. 45° c.a.	200	X	X	abundant qtz veins & MoS2 – dispersed, mostly 70-90° c.a. but ... 20° c.a.	Excellent MoS2 – coarse blebs in qtz. ; little ...	<5'	98%		63688		.212	
as above, porphyritic PgQM (pasty matrix – not sparse) – pheno content increases, ... contact → MSAP – typical	V. minor alteration, as above, chlorite & pyrite replace plag; possibly 2ndary biot...	210		X	Fewer qtz veins & ... MoS2 – still good, mostly 70-90° c.a. (good) veins 10° c.a.	typical MSAP & igneous contact:	<5'	95%		63689		.156	

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
M.S.A.P. [illegible] FgQM [illegible] against CgQM at 211' – CgQM – typical texture, [illegible] and cut by late fractures (not important) [illegible]	Kspar + [illegible] alteration [illegible] and gouge [illegible] fractures – mostly ‖ [illegible] c.a. [illegible] Carbonate [illegible]					220	qtz veins [illegible] [illegible] feldspar [illegible] [illegible] mainly 25° c.a.	appears to be [illegible] [illegible] altered [illegible] CgQM [illegible] – clay – deformed.	10'	95%		63690		.084		
deformed and altered CgQM – as above: – strong late fractures ‖ to 25° c.a. + thick clay gouge – [illegible] with texture.	diffuse veins + flooding by Kspar ± [illegible] B[illegible] addition: Main alteration feldspar ⇒ sericite/clay and chlorite –				[illegible]	230	Minor MoS₂ on hairline fractures [illegible] 70° c.a. and in qtz veins 90° c.a. – reduced from [illegible]	strong alteration of feldspar [illegible] CgQM.	10'	95%		63691		.059		
CgQM – as above: deformed and altered. [illegible] of feldspars and late fractures [illegible] 5–25° c.a. + gouge – [illegible] less altered than above:	sericite-clay alteration ± chlorite and carbonate – Kspar [illegible] altered [illegible] [illegible] – note fresh biotite.					240	MoS₂ in qtz veins (0.5–1.0 cm) 90° c.a. and hairline fractures [illegible] 10–75° c.a.	significant MoS₂ content – mostly large blebs in large qtz veins.	10'	95%		63692		.097		
CgQM – as above, deformed and altered: – broken core – possibly less altered than above – similar fractures ‖ to 10° c.a.	sericite-clay + chlorite alteration – feldspars [illegible] altered, biotite fresh				[illegible]	250	MoS₂ in hairlines ‖ to 70° c.a. and large blebs in qtz veins (0.4–0.8 cm) 90° c.a.	V. good MoS₂ content. – [illegible] soaked by MoS₂	15'	95%		63693		.294		
CgQM – typical texture. – note local Kspar enrichment [illegible] fused together – [illegible] – cut by 2 narrow (10 cm) FgQM dykes: – sandy.	possible Kspar addition associated with V. good MoS₂ fracture 90° c.a. – normal sericite-clay & chlorite alteration (gouge)				[illegible]	260	V. good MoS₂ [illegible] [illegible] also in qtz veins 45° c.a. – [illegible]	late fracts ‖ c.a. – gouge. typical CgQM.	15'	95%		63694		.180		
CgQM – typical, as above – becomes increasingly deformed and altered from 265'. Note pyrite with chlorite – mainly fracture control	strong fracturing 30° c.a. – increase in sericite, clay and chlorite alteration – biotite remains fresh					270	MoS₂ on fracture [illegible] – 45° c.a. → qtz veins 90° c.a. – (?) Not V. [illegible] significant.	increase in deformation near mafic porphyry contact.	10'	95%		63695		.146		
CgQM continues to 279' – sheared contact with mafic porphyry (45°) increase in deformation towards contact.	V. similar to above: – strongly chloritic shear at 276' – otherwise typical alteration:				[illegible] 45°	280	Minor MoS₂ in hairlines & fractures:	V. strong alteration and deformation near contact fault (?)	10'	95%		63696		.067		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Deformed and altered rhyolite porphyry – V. crumbly – strong fracturing, etc. – fresh biotite (?)	Strong feldspar alteration – sericite – clay alteration – also [illegible] – biotite, Kspar [illegible]			[illegible]	MoS2 in fractures – qtz veins 60° 70° c.a. [illegible]	Note coarse [illegible] qtz veins [illegible]	<10'	95%		63697		.047		
V. intensely altered chlorite-sericite/clay alteration of rhyolite porphyry – structure almost totally lost – [illegible] altered.	Commonly clay alteration of feldspar – [illegible] sparse porphyry unaltered (?)		45°	280	rare MoS2 in qtz veinlets [illegible] 20° c.a.	Alteration in proximity to contact at 280'	15' ?	90%		63698		.055		
Strongly altered sparse porphyry – not V. deformed, [illegible] at 305'. Typical [illegible] sparse porphyry – aplitic matrix.	Strong chlorite-pyrite alteration from 295-305 – [illegible] – qtz veins (+ pyrite + [illegible]) (carbonate)		[illegible]	290	Large qtz veins 45° c.a. [illegible] MoS2 associated with late structures	V. fresh biotite – unaltered sparse porphyry. epidote [illegible]	15'	95%		63699		.129		
Typical sparse porphyry – slightly altered, [illegible], large euhedral phenos in aplitic matrix.	Sericite clay alteration of plag. [illegible] – Note biotite overprints altered feldspar [illegible]		[illegible]	310	MoS2 [illegible] fractures 70° c.a. – not common.	Note rare Kspar veins. x biotite in fractures (2ndary)	15'	95%		63700		.054		
Typical sparse porphyry continues: – euhedral phenos in aplitic matrix: – minor alteration plag: – probable 2ndary biotite overprint.	rare Kspar veins 70° c.a. Minor sericite/clay and chlorite alteration in gouge – fractures // c.a.		[illegible]	330	Pyrite with [illegible]. MoS2 in variety of [illegible] qtz veins, also clay.	Significant disseminated MoS2 in minor qtz veinlets. No major cores.	<5'	95%		63701		.088		
Typical sparse porphyry – as above – variable [illegible] of phenos – (<20%) euhedral Xstals.	Moderately fresh – strong alteration near fractures (15° c.a.) sericite-clay and chlorite-pyrite [illegible]			340	qtz veinlets 70° c.a. [illegible] MoS2 [illegible] fracture related.	Alteration variable – appears proportional to fracture density	<10'	95%		63702		.038		
Sharp gradation from sparse porphyry – as above, into crowded porphyry – abundant phenocrysts (70%?) – late faults – 30° [illegible] c.a.	Alteration similar to above: Note V. strong 2ndary biotite development. Sericite/clay and chlorite-pyrite alteration related to [illegible]			350	MoS2 on fractures 30° c.a. [illegible] qtz veins 45° 65° c.a. [illegible] fairly [illegible]	Strong 2ndary biotite – typical sparse and crowded porphyry	<10'	95%		63703		.092		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Typical Crowded Porphyry – large euhedral plag [illegible] matrix – [illegible] black, fresh [illegible] biotite [illegible] [illegible]	[illegible] Crowded Porphyry – altered [illegible] chlorite [illegible] [illegible]			360	[illegible] fracture [illegible] qtz [illegible] [illegible]	fine [illegible] Crowded Porphyry. [illegible]	15'	95%		63704		·129		
Crowded Porphyry – typical to 365' then completely [illegible] and disrupted – large [illegible] qtz vein 30° c.a. at 370' Fault (?)	fresh to 365' then complete breakdown to sericite – clay and chlorite (± carbonate) note [illegible] yellow		[illegible]	[illegible]	[illegible] to 365' and disrupted qtz veinlets – [illegible] major qtz vein at 370'	major [illegible] alteration and deformation from 365' – [illegible] broken zone	15' ?	90%		63705		·064		
Crowded Porphyry – highly deformed and altered throughout – [illegible] fractures 20°-40° c.a. + local chloritic shears [illegible]	sericite + [illegible] feldspar and [illegible] of yellow gouge – biotite remains fresh!			[illegible]	[illegible] porphyry [illegible] primarily [illegible]	extremely altered and deformed	15' ?	90%		63706		·042		
Alteration to equally badly deformed and altered Sparse porphyry – sheared 45° c.a. and fractured ‖ c.a. –	as above Sericite – clay and chlorite + [illegible] – [illegible] biotite			[illegible]	[illegible] traces in disrupted qtz [illegible] fractures – [illegible]	as above.	15' ?	90%		63707		·051		
Sparse porphyry continues – alteration less, highly disrupted by fractures 10°-30° c.a.	less altered than above but similar fractures filled with yellow gouge – biotite fresh.			[illegible]	[illegible] – minor qtz [illegible] disrupted.	deformed Sparse Porphyry – reduced alteration [illegible]	(15)	90%		63708		·059		
			E.O.H. [illegible]											

PLACER DEVELOPMENT LIMITED

GRID. —

HOLE No. 219
SHEET No. 1 of 6

LOCATION: 0 – 1W
BEARING:
LATITUDE: 6 620 180·0
PROPERTY: Adanac
DATE COLLARED: 27th July 79
LENGTH: 390'
DEPARTURE: 589 791·8
CORE SIZE: NQ
LOGGED BY: [illegible]
DATE COMPLETED: 31st July 79
DIP: Vertical
ELEVATION: 1486·2
SCALE OF LOG:
DATE: 4th August '79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Overburden: – Mixed gravels of CGQM, FGQM, Sparse porphyry, & [illegible] diorite.	—			20	—	—	Hole loss [illegible]			63709		·004		
Straight into fresh non-limonite stained sparse porphyry – few fractures ∥ c.a. otherwise unde[illegible], Kspar + [illegible] zone envelopes MoS2 fracture 20° c.a.	Chlorite and sericite-clay alteration of plag. Xstals – abundant fresh biotite	[illegible]	[illegible]	30	V. good MoS2 clustered onto Kspar envelope fracture: only 1 good fracture	late biotite in fracture 30° c.a. rare dissem MoS2 specks:	10%	75%		63710		·124		
grey sparse porphyry – also passes to mafic dyke (basalt?) at 35° contact = broken porphyry large plag (?) phenos in aphanitic matrix	relatively fresh, as above; mafic rock rich in chlorite and biotite in porphyroblasts and fractures.	[illegible]		40	No MoS2 visible – qtz veins (70° c.a.) sem = [illegible] + calcite [illegible].	Looks like meta basalt dyke – fine grained, altered mafic rock.	100%	60%		63711		·007		
broken section – dyke material and sparse porphyry inclusions (?). Note phenos of Plag. and (?) qtz amygdales. spherical [illegible] near contact:	as above: relatively fresh feldspars but V. altered, mafic, matrix:	[illegible]	25°	50	No visible MoS2 mineralization	late dyke (or inclusion – [illegible]) – note metamorphosed	100%	70%		63712		·002		
Coarse grained QM – slightly porphyritic variety: grades towards Hybrid Porphyry – large Kspar, Qtz phenos in V. minor groundmass.	– relatively fresh; minor clay-sericite alteration, and limonite stain of plagioclase Xstals.	CQ		60	large 0.5–3.0 cm qtz veins 70°–90° c.a. and 20° c.a. – V. little visible MoS2 – possibly some altered.	Transition phase from CGQM to hybrid porphyry – result of contamination (?)	50%	95%		63713		·029		
CGQM – transition variety. Local patches of interstitial magma: – Note silicified shears 70° c.a. V. variable texture:	minor alteration of plag: and margins of Kspar – sericite-clay type alteration – slight stain.			70	few qtz veins, 25° c.a. (3–5 mm) + specks MoS2 – poor mineralization.	fresh biotite replaces chlorite (?) variable amount groundmass.	< 15%	95%		63714		·006		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
CgQM - as above: - variable texture - locally significant interstitial groundmass. Strongly zoned, euhedral feldspars.	Slight alteration of Kspar margins and Plag. cores: - biotite may overprint plag. (2ndary).			80	Traces of MoS2 in larger qtz veins (0.5-0.8cm) 90° and ∥ c.a. - rust % with also in fractures 20°c.a.	Variable CgQM - transition towards Hybrid Porphyry	<5%	95%		63715		.015		-
CgQM - as above - transition phase => Hybrid Porphyry - <10% matrix: large zoned Kspars. Note local shears - silicified, 90°c.a.	as above - alteration of Plag: - Kspar fairly fresh. 2ndary biotite in plag?			90	Large qtz veins (0.5cm) 30° c.a. + trace MoS2 - not much	Note matrix = aplitic not aphanitic.	<5%	95%		63716		.014		
CgQM - as above: - low matrix in most of it - probable increase in Kspar (Contact?). - Note several discrete slices (and shear zones) - 90°c.a.	as above: - Kspar + matrix fresh. plag - altered. fresh biotite.			100	rare qtz veins + traces MoS2 - not common 70°c.a., 90°c.a.	Note large Kspar phenos: with and without matrix Kspar = included.	<5%	95%		63717		.017		
CgQM - transitional type - <10% matrix, large Kspar phenos - Variable. Cut by silicified shears (90°c.a.) and biotite Kspar vein.	as above - locally Kspar rich - may be added to: - plag alteration + biotite			110	rare traces of MoS2 - few qtz veins + biotite	transitional CgQM sheared at 90°c.a. found in "Normal" CgQM as well.	<5%	90%		63718		.011		
CgQM with mixed "normal" and transitional textures cut by narrow (5cm) dyke of hybrid Porphyry at 117' -	Marked Kspar increase from 118' - Xstals coalesce - rather like pegmatite. - alteration as above fresh biotite.			120	Most qtz veins (90°c.a.) c biotite - some 20°c.a. + specks MoS2	- Kspar enrichment (?) - fused Xstals.	<5%	95%		63719		.030		
CgQM - as above. - large, fused Kspar Xstals - almost pegmatitic integrowth - mostly without matrix.	V. minor alteration of plag: - rest, + biotite - fresh. large qtz veins (0.5cm) c biotite			130	MoS2 traces in fractures and V. narrow (2mm) qtz. veins 90°, 20°, ∥ c.a.	V. minor MoS2 - Note rare 'dissem' specks (No fracture)	<5%	90%		63720		.025		
CgQM - as above - continues to 139' - contact with FgQM dyke (aphanitic - fairly mafic). CgQM = normal textured; 70°c.a.	as above, minor plag. alteration + fresh biotite.			140	MoS2 traces in hairline fractures: 1 qtz vein (broken: lost)	Sharp igneous contact! - inclusions of CgQM in FgQM	20% ?	95%		63721		.013		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. 61 SHEET No. 5 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	ASSAY RESULTS Cu	Mo		EST. GRADE
FgQM dyke - aphanitic to fine grained - pepper texture: contact sharp (75° c.a.) - CgQM (leucocratic?) - silicified; normal variety cut by narrow (3cm) dyklets of Sparse Porph - Porph contact = sharp (90°) (70°)	- as above with probably local silicification: - relatively fresh	CG	FgQM	150	MoS₂ traces in qtz veins (1mm - 20°) both rock [illegible] 90° c.a. [illegible] - Not V. rich	Significant traces of MoS₂ - dispersed.	10'	95%		63722		.047		
Typical Sparse Porphyry - brown tint, aphanitic matrix, < 20% phenos - euhedral, V. fresh sparse biotite - contains inclusions (?) QM.	V. altered and bleached 155' and 160' + deformed, minor sericite - clay alteration: fresh biotite.	SP	Dr [illegible]	160	rare MoS₂ specks in fractures - poor. less uncertain	Standard Sparse Porphyry	40 ?	60%		63723		.007		
Significant Fault at 161 - also deformed and broken 163'-165' - then returns to normal. Fractures at 164' // to 20° c.a. slight rock slam. Local Kspar - qtz - MoS₂ veins	intense sericite clay alteration near faults and fractures - main rock = fairly fresh	SP		170	fairly good MoS₂ in qtz veins 90° c.a. and 70° c.a. above 167' - also in shear	large blobs MoS₂ in sheared rock - fresher [illegible]	10'	90%		63724		.188		
Sparse Porphyry grades to CGQP and out of plag-free FgQM zone at 171' - then shows progressive increase in pheno: content. (Still sparse) possible CgQM inclusion at 177'	V. strong biotite development in 'fresh' rock - alt. of biotite plag: - deformation increases from 175' fractures: // to 20° c.a.	SP	Fg / FgQM	180	MoS₂ traces in fractures - mainly 10-20° c.a. - Not V. rich	rare Kspar + pyrite veins 90° c.a.	10'	95%		63725		.067		
Sparse Porphyry - as above: strongly sheared and altered: 50° c.a. - also late fracts: // c.a.	extreme sericite - clay alteration - rock = 'rotten' locally + sheared fabric. Note fresh biotite!			190	MoS₂ mainly sheared out of slip planes. - [illegible] recovery little loss	- Shear zone or fault. amount of MoS₂ uncertain.	10'	95%		63726		.036		
Sparse Porphyry - grades into FgQM (plag free) from 193' 197' - phase of same unit. then returns to normal porphyry - leucocratic ground mostly	moderate deformation and sericite - clay alteration (yellow gouge in fracts: // to 10° c.a. fresh biotite	Fg		200	MoS₂ in fracts: 90° and 25° c.a. and on shear slips: - Not V. abundant.	Note pyrite + chlorite on some shears. shears mainly 20°-30° c.a.	20' ?	95%		63727		.076		
Sparse Porphyry - increased deformation and alteration - cross-cutting shears (50°) at 203' - little sheared MoS₂	fairly extreme sericite - clay alteration - chalky rock, - green (light) alteration after plag: - fresh biotite			210	No qtz veins! MoS₂ on slips and fractures in deformed rock	faults or shears correlate with increased alteration	20% ?	80%		63728		.134		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 4 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
deformed and [illegible] sparse porphyry extends to 215' then [illegible] - return to normal - sparse porphyry grades into crowded for 4' at 215'	altered [illegible] as above - from 215' porphyry [illegible] fresh - minor alteration of plag and strong development biotite		SP		[illegible]	220	[illegible] MoS2 [illegible] shear at 110' 20° c.a. (1500) MoS2 related to shear zone slip	> shear off [illegible] qtz vein 10cm No ST [illegible] qtz vein, 90° c.a. - 10° c.a.	<5' ?	95%		63729		.137		
Variable, fresh, sparse porphyry - cut by 10cm Kspar biotite zone at 223' (70° c.a.) phenos increase in size and number, still chilled matrix + biotite.	minor alteration of feldspar phenos - matrix + biotite fresh. Kspar phenos locally cut qtz veins 70° c.a.		[illegible]			230	increase in qtz veins (.2 [illegible]) [illegible] 70°-70° and [illegible]-70° c.a. + specks MoS2	Minor movement on fractures 70° c.a. - offsets veins.	<5%	95%		63730		.145		
Typical, fresh, sparse porphyry. cut by some Kspar - biotite (±MoS2) fractures 70°-90° c.a. - and variety of qtz veins.	V. minor alteration of plag. - Kspar mostly [illegible] [illegible] fresh biotite		SP		[illegible]	240	MoS2 in narrow (1-4mm) qtz veinlets (Variable) ‖ c.a., 20° c.a., 70°-90° [illegible] disseminated MoS2 specks	Significant increase in qtz vein content from 220'.	<5%	95%		63731		.072		
Typical fresh sparse porphyry - variable grain size and pheno content - locally <15% small (4mm) Kspar xlls	V. slight alteration of feldspars, even plag = fairly fresh - still + fresh biotite.					250	Minor qtz veins (1-4mm) ‖ c.a., 20°, 70-90° c.a. specks - as above:	- as above: - typical fresh sparse porphyry [illegible]	<5%	98%		63732		.083		
Sparse porphyry - as above, continues to 255' - sharp gradation to typical crowded porphyry - increase in pheno content (50%) and matrix grain etc.	qtz-Kspar-biotite veins 45° c.a. - (±MoS2) otherwise minor alteration of plag + [illegible] biotite		Crowded			260	as above, specks and [illegible] in narrow qtz veins, (6) 90° c.a. veins	- variety of qtz veinlets, return to dominant 90° structure	<5%	95%		63733		.050		
Crowded porphyry - typical, fresh, abundant phenos in a fine to aplitic matrix.	fresh, minor alteration of plag => light green clay + biotite overprint and slight chloritization to K-spar.					270	Large qtz vein (1cm) - 70° c.a. - [illegible], MoS2 in small veinlets 10°-75° c.a.	MoS2 dispersed - not concentrated - not [illegible]	<5%	98%		63734		.060		
Crowded porphyry - note matrix becomes increasingly aplitic: - [illegible]. >50% phenos.	fairly fresh, as above - biotite growth over plag:					280	small qtz veinlets - 70° and 70° c.a. + specks MoS2 - not [illegible]	Crowded porphyry with coarse matrix	<5%	98%		63735		.070		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 2 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Crowded Porphyry – as above: – gradual coarsening of matrix – locally granitic appearance rock. Note K-spar-Bio. – MoS2 vein (10cm), 70° at 284'	V. fresh, pasty matrix – Plag ⇒ biotite (fresh). to K-spar. Locally strong biotite.			290	Specks – small blebs MoS2 in qtz veins 10–70° c.a. – Not abundant.	as above, typical Crowded Porphyry	<5'	95%		63736		·023		
Crowded Porphyry cut by mafic dyke at 294' – irreg. igneous contact: – Mafic dyke (?) + stoped fragments (X-tal) from Porphyry. Both rocks = [illegible]	biotite near contact: porphyroblasts (?) Mafic dyke metamorphosed to biotite + chlorite hornfels + phenos as Xenos of plag.			300	MoS2 in qtz veins cutting Mafic dyke: (70° c.a.) dyke predates final mineralization	Pre-mineral metamorphosed mafic dyke. build-up of biotite in Crowded inclusions in mafic dyke	<5'	98%		63737		·062		
Mafic dyke – metamorphosed aphanitic ⇒ pasty, [illegible] rich in inclusion material (granite clots) (contaminated) biotite rich – (late fracts: 10° c.a.)	– alteration as above – "basalt" ⇒ biotite, chlorite assemblage, fresh phenos.	Mafic Dyke		310	rare qtz veins 90° c.a. + V. minor MoS2 trace only.	Mafic dyke + consumed fragments of contaminated porphyry	<5'	98%		63738		·042		
Mafic dyke – as above, cut by 3cm vein of sparse porphyry (45° c.a.) – chilled. Note sections of dyke – fairly coarse, contain abundant plag. phenos.	little alteration – biotite-chlorite hornfels – early metamorphism.			320	Fracture cutting mafic & sparse P. dyke = coated by coarse MoS2 (min 45° c.a.)	(Post Crowded – pre Sparse dyke pre mineralization)	<5'	98%		63739		·081		
Mafic dyke, as above – variable g.s. – mostly basaltic – recrystallized. Cut by 3 larger qtz veins, 90° c.a. (trace of [illegible])	biotite – chlorite alteration: feldspar = fresh. clay gouge in late fractures			330	V. minor MoS2 in qtz veins, 90° c.a.	dyke = metamorphosed	<5'	95%		63740		·066		
dyke contains inclusions of Crowded Porphyry (rich in biotite) near contact at 337' grades to altered Crowded Porphyry which has sparse porphyry chilled against it at 339'	– as above. Crowded Porphyry plag ⇒ sericite clay + biotite overprint.			340	large MoS2 blebs in (0.8cm) qtz vein 90° c.a. at 378' – also in hairline fracts. 11° c.a.	MoS2 increases with qtz. vein increase in porphyry	<5'	95%		63741		·100		
Sparse porphyry – typical away from chilled contact (+ Crowded inclusion) – fractured, altered, rotten, ⇒ rubble.	sericite – clay alteration. – Minor chlorite – alteration related to fractures 10° c.a. (abundant)			[illegible]	traces MoS2 in qtz veins 90° c.a. & 25° c.a. – not common [illegible].	V. altered Sparse Porphyry – affected by fault (?)	15' ?	85%		63742		·053		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
highly altered, deformed Sparse Porphyry – gravel at 350–354' Note V. shorgelines (20°c.a.) coated with MoS2 – brecciation to porphyry texture	Strong sericite – clay alteration of matrix and planes – biotite fresh.		*	360	MoS2 in qtz veins (rare) and shears, fine and 2nd. ? 70° c.a. –	deformation zone V extensive continues to 370'	20/9	85/		63743		.118		
Sheared sparse porphyry – note breccia zones 367'–369' – gouge cement. (post biotite deformation)	Same alteration as above – sericite + clay, chlorite in shears. fresh biotite			370	MoS2 restricted to slip planes shears. – locally fairly rich	Major shear zone – exact location of fault uncertain	30/9	90/		63744		.074		
Sparse Porphyry – less altered and deformed – still not v. fresh, typical texture	sericite – clay alteration – noted dark green alteration of plag. in fresh biotite			380	traces of MoS2 in rare qtz veins 50° c.a. – Not common	– less deformation but not fresh	20/9	90/		63745		.031		
Sparse Porphyry – as above, less deformed but still fairly altered. fractures // to 10° c.a. Not much gouge.	alteration as above –			390	traces only in minor qtz veinlets and fractures. rare	Note pyrite disseminated with chlorite	9/10	98/		63746		.049		
			E.O.H. = 390'											

GRID: ______

PLACER DEVELOPMENT LIMITED

HOLE No. 220
SHEET No. 1 of 6

LOCATION: 3W 3N — BEARING: ______ — LATITUDE: 6620 256.7 — PROPERTY: Adanac

DATE COLLARED: 30th July '79 — LENGTH: 397' — DEPARTURE: 589 713.3 — CORE SIZE: NQ — LOGGED BY: R.H. Pinsent

DATE COMPLETED: 1st August — DIP: Vertical — ELEVATION: 1497.1 — SCALE OF LOG: ______ — DATE: 5th August '79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Overburden – sand with a few boulders of slightly porphyritic RgQM. –				10		[illegible]				63747		·002		
CgQM from 18' – typical texture – with local traces of transformed matrix. Not No limonite stain!	deformed CgQM – cut by slips (slickensided) 90°c.a. – 2 (1cm) qtz-veins; – No ox; – feldspars deformed, minor alteration of plag.			20	No visible sulphide – CgQM – etched but no limonite (? no pyrite?)	Fresh looking CgQM, qtz veins 90° and 20° c.a. = barren	100%	85%		63748		·001		
CgQM – as above – terrible recovery: increased alteration of plag: – still no stain – gravel	Plag > white, chalky alteration – sericite – clay, biotite fairly fresh. No obvious reason for low recovery!	Cg		30	No visible sulphide	Typical CgQM – Not V. sheared or altered.	100%	15%	!	63749		·001		
V. poor recovery to 36' – No obvious fault – CgQM reduced to clay & gravel – V. rubbly – no stain –	Sericite – clay alteration of plag: and kspar: gouge in close fractures ‖ c.a.		?	40	No visible sulphide – few qtz veins etched(?)	Typical, deformed (fractured) CgQM – cut by dykelets of RgQM	100%	50%		63750		·002		
as above, deformed, fractured CgQM – internal deformation – not faulted – fractures ‖ c.a. CgQM cut by narrow RgQM dykes, + qtz veins	Local slickensided shears 90°c.a. – minor alteration of plag > sericite/clay, alteration of biotite (slight stain? near fractures	Cg		50	No visible sulphide – qtz veins 90° & 70° c.a. – etched.	typical CgQM – No [illegible]	100%	90%		63751		·002		
CgQM – cut by narrow dikelets RgQM – (20° to c.a.) – etched qtz veins 90°c.a. – strong fractures ‖ c.a. – rubble	Probable increase in alteration – loss in recovery: – alteration as above. Fluorite in rubble			60	Fine [illegible] fluorite in rubble – qtz veins with fluorite	Note strong etching of qtz veins (90° c.a.) –	75% ?	50%		63752		·001		

GRID: ___ PLACER DEVELOPMENT LIMITED HOLE No. ___ SHEET No. 2 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
CgQM - reduced to gravel from 62'-66' - V. highly deformed internally and no real evidence for a fault. CgQM [illegible] texture - cut by stringers 90° and qtz [illegible]	Kspar appears fairly fresh - plag - v. altered, sericite - clay, fractures ‖ c.a. - late [illegible]			70	No visible sulphides - [illegible]	V. crumbly CgQM - otherwise typical. Cavities in qtz veins	100'	60'		63753		.002		
CgQM - as above (not as crumbly) - cut by narrow dykelets (3cm) of FgQM (10° c.a.) and Kspar [illegible] (90° c.a.) late fractures ‖ c.a. & 10° c.a.	as above: sericite clay (illite) ± carbonate alteration of plag: Kspar appears fresh, biotite ⇒ chlorite (?)	Cg		80	No visible sulphides - [illegible] stringers - [illegible] and pyrite	slightly altered, V. broken CgQM. recovery improving	105'	85'		63754		.010		
Broken CgQM extends to 85' - sharp (broken) contact with FgQM - [illegible] similar to Fg, fairly mafic, uniform composition - undeformed.	CgQM - as above - relatively minor sericite - clay alteration. Fg = similar, plag ⇒ rust stained clay.	Fg		90	Abundant 1-2mm stringers cut FgQM - contain [illegible] specks [illegible] MoS_2 - [illegible] 70° c.a. [illegible]	Kspar envelope to 1 major qtz vein 90° c.a. Still qtz = etched, MoS2 lost	40' ?	70'		63755		.003		
FgQM extends to [illegible] contact at 95' - (Fg [illegible]) contact (70°) returns to typical CgQM - competent and more stable than before - few late fracts	as above: - moderate to plag alteration - fresh Kspar and biotite little [illegible] texture of CgQM - diffuse Kspar [illegible]		70°	100	Moly blebs in CgQM with a [illegible] fractures: qtz veins (70-90°) also seen	few qtz veins in FgQM [illegible] still etched [illegible]	40' ?	95'		63756		.051		
Typical CgQM - large irregular Kspar Xtals, embayed by qtz, altered plag & smaller - biotite largely fresh, interstitial - CgQM cut by [illegible]	Zone - interstitial magma segregation at (transition towards [illegible]) - odd texture, alteration as above.	Cg	[illegible]	110	Pyrite and Moly in fractures [illegible] - [illegible] Moly	typical CgQM - largely normal, little interstitial magma (? zone)	20' ?	90'		63757		.002		
Sandy, salt and pepper, FgQM dyke from 111-113' - fairly coarse grained - equigranular (unlike above) CgQM becomes increasingly porphyritic - large Kspar phenos in [illegible] matrix.	Local traces of [illegible] in porphyritic CgQM - ⇒ transition. Standard alteration - Plag ⇒ sericite - clay + biotite	Fg, Cg	Fg	120	90% [illegible] 90° fractures/qtz [illegible] in FgQM - x2 hairline fracts 70° c.a. [illegible]	Zone of Kspar - magma alteration of [illegible]. Plag: biotite overprint	<15'	98'		63758		.031		
V. similar to above, CgQM - porphyritic, large Kspars - Locally + [illegible] interstitial groundmass (grades to transition)	as above: - Plag: alteration [illegible] by fresh biotite overprint Kspar with zone at 120'	Cg	K	130	[illegible] biotite, MoS_2, - mostly on qtz - free fractures 90° c.a.	fresh CgQM - few late fractures.	<15'	95'		63759		.042		

GRID: ___ **PLACER DEVELOPMENT LIMITED** HOLE No. ___ SHEET No. 2 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
CgQM - as above, reduced to rubble from 135' - continues as rubble to 156' - if fault, location uncertain	Marked increase in alteration and deformation. - clay-sericite alteration of feldspar,	Cg		140	No visible MoS_2 - Loss ... probably ...	Few qtz veins - fracts: 30' c.a. probably ‖ fault.	50' ?	60%		63760		·028		
as above - rubble derived from CgQM - sericite - clay alteration of feldspars: exact location of fault uncertain	strong sericite-clay alteration minor limonite stain. biotite fairly fresh		TC	150	No visible MoS2, few qtz veins, probably little loss	- as above: V. altered and deformed CgQM	40' ?	50%		63761		·001		
CgQM rubble becomes less disrupted after 156' - note cutting FgQM dike, - Fg. mafic type. CgQM = strongly fractured ‖ 10' c.a. -	strong alteration, probably decreases after 156' - as above:		Fg	160	No visible SF. - No qtz veins. - Local limonite stain - possible loss.	strong deformation of CgQM.	40' ?	60%		63762		·001		
as above, highly deformed and altered CgQM. Note 1cm vein of coarse (locally porphyritic) FgQM (salted appearance) and inclusions of CgQM	Locally similar to Hyland Porphyry, but coarser grained. typical alteration, note limonite (magnetite?) in dyke	Cg, Fg		170	1cm qtz veins 90° c.a. = barren. traces of SF on fractures 30° c.a. Not rich:	CgQM fractured ‖ c.a. - similar but less intense fracts: in FgQM - little MoS2	<20' ?	90%		63763		·002		
Silicified CgQM and Hyland Porphyry. - probably also silicified & cutting shear at 175' and 1cm qtz veins 90° c.a. = barren	Very silicified assemblage from 172' to 177' - possibly related to fault zone. Note fracture at Hyly.	Cg, Sh, Hyl	35°	180	MoS2 smeared onto slip plane in fault ‖ in core, surface fractures:	Locally strongly silicified.	<15' ?	95%		63764		·046		
altered, locally silicified CgQM - V. variable texture: cutting fault-breccia zone at 186' 20° c.a. and Kspar zone at 189' -	extreme alteration, silicification more than sericite-clay - biotite > chlorite.	Cg	20°	190	Large qtz vein 90° c.a. = barren. MoS2 traces in hairline fracts: 20° and 90° c.a. - rare:	Similar to above: - distinctive alteration - not common	<15' ?	95%		63765		·038		
Silicified CgQM => 'normal' cut by, and soaked by, salt and pepper variety FgQM. - mixtures - remnants of Fg. - Cg and Cg inclusions in Fg.	Locally silicified. - normal, minor feldspar alteration arising from Fg. material. - minor limonite stain:	Fg, Cg		200	Qtz veins but V little MoS2 - veins mostly >30° c.a. - 90° c.a. - barren.	inclusion of Fg into Cg. QM - typical, note fresh biotite	<15' ?	90%		63766		·002		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type/Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
[illegible] CgQM cut by small dykes Fg QM (30° c.a.) sharp - igneous contacts - minor sections of Fg [illegible]	V. strong Kspar zone at 205' grading(?) Fg QM cut by dyke [illegible] [illegible]		15 (?)	210	Trace of Moly qtz veins [illegible] Pyrite in fractures	grey, barren qtz veins - [illegible] Normal contact	(5'	70'		63767		.010		
Sheared contact (fault?) between CgQM (above) and reddish pink Fg QM (fairly Fg) - Fg intruded (or intruded by?) sparse aplite porphyry - typical [illegible] sparse porphyry.	- Fairly strong sericite - clay alteration at fault(?) at 210' - decreases rapidly to normal [illegible] - plag alteration (?)	213 214½		220	with chlorite. significant decrease in qtz veins + Moly content	igneous contacts. Kspar veins in MoS2 zone, predates qtz veins	(10'	90'		63768		.076		
Typical Sparse Porphyry, cut by Kspar zones at 221', 223'. Fresh porphyry - characteristic feature - Late fractures (75° c.a.) increase ar. 225'.	Kspar zones cut by Qtz veins. 2 Kspar Xstals locally cut qtz veins. Typical plag. alteration, => light green sericite clay; V. fine biotite.	5'	K X	230	[illegible] (1cm) qtz veins 90° c.a. + cross [illegible] [illegible] 20°, 70-70°, [illegible]	Major increase in MoS2 near contact. Sparse Porphyry	20'	95'		63769		.228		
Shattered Sparse Porphyry - marked increase in alteration approaching major fault.	sericite - clay alteration of plag and Kspar and matrix - V. sandy biotite.	Sp		240	apparent drop in qtz veins, in MoS2 content in altered porphyry	Moly loss uncertain, —	40 ?	60'		63770		.007		
as above, Sparse Porphyry - typical, reduced to gouge for 242-247' - clay + flakes of fresh biotite, regains competence at 247'.	extreme sericite, clay alteration near fault. broken ground, alteration less intense, plags dark green sericite - chlorite + pyrite		F	250	No MoS2 in gouge but fresh - qtz veins 90° c.a. for 247'	Major fault zone? —	50' ?	50'		63771		.167		
Sparse Porphyry - typical, euhedral phenos in aphanitic matrix - locally strongly fractured 10° c.a. - V. poor recovery.	plag altered and stained by limonite degree alteration & degree of fracturing. - strong limonite on fractures	Sp		260	Variety of qtz veins, often (10° c.a.) + specks Moly - some, 70-90° c.a. + barren. Not much	Moly loss uncertain, - Note fault did not [illegible] at 267'	55' ?	45'		63772		.035		
as above, Sparse Porphyry - minor late fracturing (10° c.a.) - less limonite stain than above.	Moderate alteration plag => sericite + chlorite + [illegible] Pink stain to Kspar (local pyrite + chlorite)			270	Minor MoS2 in rare qtz veins 75° c.a. -	poor recovery - ground broken.	55' ?	45'		63773		.004		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG Rock Type Alteration	GRAPHIC LOG Footage	GRAPHIC LOG Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Sparse porphyry - typical texture and composition, becomes increasingly [illegible] from 295' - highly fractured [illegible] bottom of fault gouge at 279'	Sericite - clay alteration of [illegible] areas - chalky, [illegible] [illegible] biotite - [illegible] [illegible]		280	SP	[illegible]		little [illegible] [illegible] [illegible] qtz veins [illegible] [illegible] traces in gravel	± altered sparse porphyry from [illegible] of 247 to fault at 279'	40' ?	80%		63774		.018		
Sparse porphyry - few phenos - fairly typical texture slightly altered matrix. Fresh biotite.	Bio destroyed [illegible] as above - plag to sericite - chlorite + biotite overprint, note strongly [illegible] to qtz [illegible]		290	SP			qtz [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] 45° [illegible] 70° ca	Upper locally [illegible] qtz veins - minor sericite alteration	40'	95%		63775		.037		
Sparse porphyry - large euhedral phenos - aplitic matrix, - sericite - chlorite alteration - smoky qtz [illegible] [illegible] in qtz veins [illegible]	Bio - flosh [illegible] [illegible] 70° ca at 290 - fresh biotite chalky alteration [illegible] etched [illegible] of plag and some [illegible]		300	SP	[illegible]		[illegible] qtz veins 70° ca, 10° ca [illegible] coarse flosh [illegible] V. [illegible]	qtz veins V. broken (rubbly [illegible]) - fair [illegible] estimated	40'	90%		63776		.050		
along contact [illegible] sparse porphyry with coarse plag [illegible] [illegible] [illegible] - [illegible] variety of sparse porphyry [illegible] [illegible] [illegible] [illegible]	[illegible] qtz vein [illegible] sericite - clay alteration - plag [illegible] sericite ± [illegible] - typical biotite fresh		310	? SP	[illegible] 118' [illegible]		[illegible] qtz veins 70° ca (bases) [illegible] [illegible] [illegible] trace [illegible] [illegible] biotite [illegible] 70° ca	chlorite + pyrite [illegible] some fractures [illegible] broken [illegible] loss	20'	85%		63777		.035		
Variable textured sparse porphyry - cut by small dykes of V. fine (mafic?) [illegible] along contact [illegible] coarse matrix porphyry [illegible] at 317' [illegible]	largely typical clay - sericite + [illegible] of plag: ± overprint of [illegible] biotite [illegible] [illegible]		320				chlorite + pyrite [illegible] 70° ca. [illegible] open fracts: [illegible] [illegible] small [illegible] [illegible]	V. broken [illegible] qtz veins [illegible] fractures: 70° ca, 20° ca and 45° ca - some loss probably	15'	70%		63778		.041		
Variable sparse porphyry - variation in matrix and pheno [illegible] content, some late fractures and deformation - 90° ca	as above: biotite [illegible] - overprints plag: - note light green (epidote?) alteration [illegible]		330				variety of small [illegible] [illegible] [illegible] [illegible] [illegible] + sparse [illegible] flosh	fairly typical sparse porphyry section	50'	95%		63779		.030		
altered sparse porphyry - cut by epidote (?) flosh, pyrite shear at 338' - (20° ca). Late fracts: 10-15° c.a. No [illegible] core 330-335'	Significant [illegible] in chlorite (epidote?) alteration of plag. V. fresh biotite - veins [illegible] fractures		340	[illegible]	[illegible]		[illegible] [illegible] flosh [illegible] pyrite in shear zone [illegible] traces [illegible] [illegible] small [illegible]	Note change in type of alteration from sericite to epidote	40'	60%		63780		.067		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
V. altered sparse porphyry – deformed and crumbly. Minor Kspar veins [illegible] + [illegible] veins. fresh biotite	epidote – chlorite type alteration, as above – [illegible] from 346-349 + strong [illegible] 30° C.A.		[illegible]			350	qtz veins 70° and 90° C.A. + blebs MoS2 – [illegible] MoS2 on fracture 90° CA.	as above, + epidote – chlorite + pyrite alteration	<10'	90%		63781		·095		
Sparse Porphyry – with Kspar – biotite [illegible] 350-352. Fairly typical porphyry – becomes increasingly altered at 357'	[illegible] to sericite – clay + chlorite [illegible] of alteration – note yellow gouge on late fracture 10° C.A. – V. fresh biotite				[illegible] F [illegible]	360	good MoS2 on relatively qtz – free fractures 70°-90° CA – (few ‖ CA.)	significant increase in MoS2.	<10'	90%		63782		·089		
Phenocryst content [illegible] at 361' → Crowded porphyry with small dykes of chilled [illegible] (no planes). Crowded locally grades into sparse [illegible].	alteration, as above, [illegible] clay derived from plag – note biotite [illegible].					370	little MoS2 [illegible] qtz [illegible] 70-90° and 70° C.A. ± [illegible].	late [illegible] ‖ CA gradational change in rock type.	<5'	95%		63783		·039		
Crowded Porphyry – typical texture and [illegible] – fairly coarse matrix – moderately deformed and altered.	Sericite – clay + chlorite alteration of plag. and minor Kspar. – Note V. fresh biotite = 2-3%					380	qtz veins not v. rich in MoS2, [illegible] blebs ‖ CA: 70°-90° CA.	V. strong biotite overprint	<5'	98%		63784		·044		
Crowded porphyry – as above; – increase in matrix g.s. and % matrix: starts to resemble aplite porphyry – (variety of crowded)	as above – with pink stain to Kspar: – fresh biotite except near fractures (late)					390	qtz veins 70°-90° and 50° CA ± [illegible], MoS2 in [illegible] fractures: [illegible] ± 70° CA.	distinctive variety of Crowded porphyry.	<5'	98%		63785		·010		
Crowded Porphyry + patchy aplitic matrix continues – cut by dykelets of [illegible] (chilled) 20° CA.	alteration as above – strong biotite = fresh		–		C.C.	‖. 400	MoS2 traces in narrow qtz veins. 377' 20° CA	as above – note not v. disturbed – strongly altered.	<5'	98%		63786		·032		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 6 of 6

ROCK TYPES AND TEXTURES	ALTERATION SEE PAGE 2	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Boulders down to 32'. mixed with overburden, mainly CgQM, FgQM, sparse porphyry and 4th July [illegible]				30			MoS2 loss expected -			63787		.001		
Probable overburden limit 35' - may be deeper - CgQM (mud in cracks) CgQM = deformed, fairly fresh. late fractures ‖ c.a.	Plag Xtals ⇒ sericite + clay & stained by limonite. Minor stain in cracks in Kspar.			40	1 cm qtz vein 90° c.a. No visible MoS2 possibly refilled	standard texture CgQM	100'/	90'/		63788		.006		
CgQM - strongly fractured ‖ c.a. - limonite gouge in fractures - deformed fabric feldspars cracked and stained.	as above, plag alteration with minor Kspar alteration - altered Xtal margins. Biotite slightly altered	Cg		50	qtz veins & breccia ‖ c.a. mainly - some hairlines 10° c.a. + traces MoS2	fractured and altered CgQM	50'/ ?	90'/		63789		.018		
CgQM cut by dyke of fairly cg. FgQM - porph, equigranular, 1mm gr. - lower cont. - not [illegible] CgQM as above	Sericite - clay + chlorite alteration of plag: - + disseminated biotite specks. - limonite stain (weak)	Cg	30° Fg	60	qtz veins (7-4 mm) ‖ and 70° c.a. + specks of MoS2 (mainly ‖ c.a.)	sharp igneous contact. no chill. MoS2 not v. rich.	<15'/	90'/		63790		.024		
CgQM - locally soaked by FgQM (as above) transition dyke - typical, non porph. CgQM - no groundmass - strong fracture ‖ c.a.	alteration as above: plag = altered and rust stained, sericite in gouge biotite appears to be fresh.			70	V. rare qtz veins ‖ c.a. and 90° c.a. - not common. Low MoS2 content	sericite altered, fractured CgQM.	<15'/	90'/		63791		.005		
CgQM, as above, broken from 74' and strongly altered and fractured for 76-77 (fault?) strong fracture ‖ c.a.	Sericite - clay alteration = extreme in fault - chalky. - other scale = as above.		F	80	No visible MoS2 - qtz veins 90° c.a. + etch cavities - loss.	as above - note mud in cracks - V. open system.	100'/	75'/		63792		.001		
CgQM, as above, typical texture and composition - strong late fracture ‖ c.a. cut by narrow dyke Sparse P.	Sericite - clay ± chlorite alteration. typical alteration in Sparse Porphyry - some	Sp		90	e.g. qtz veins 70° c.a., sericite - also 90° c.a. - No visible MoS2 -	as above - mud in cracks - typical CgQM	100'/	90'/		63793		.001		

PLACER DEVELOPMENT LIMITED

GRID: ______

HOLE No. 221
SHEET No. 2 of 6

LOCATION: 3W 1N	BEARING:	LATITUDE: 6620176.9	PROPERTY: Adanac		
DATE COLLARED:	LENGTH: 450'	DEPARTURE: 589723.2	CORE SIZE: NQ	LOGGED BY: R.H. Russell	
DATE COMPLETED:	DIP: Vertical	ELEVATION: 1493.5	SCALE OF LOG:	DATE:	

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	ASSAY RESULTS: Cu	ASSAY RESULTS: Mo	ASSAY RESULTS:	EST. GRADE
CgQM - typical, no groundmass - equigranular, locally V. Kspar rich from 97 - 100'. Typical deformation - 10° c.a. (Not ll).	Standard sericite - clay alteration of plagioclase - etched → stained - misty traces of limonite. Plag locally + large clots of biotite.					100	Large (1cm) qtz veins 20° ca: and 90° ca. both barren. No visible MoS2 - veins - etched	altered and etched CgQM - probably stain MoS2 Lott	10'/	95%		63794		.001		
CgQM - cut by silicified shears 70° ca. at 103' - CgQM - probably less altered and deformed than above - V. irregular texture to CgQM	Standard Plag alteration - Kspars appear ± fresh - only biotite limonite restricted to fractures.		CG			110	Hairline fract. ll c.a. + specks MoS2 and 1 qtz vein 30° ca. + coarse blebs.	freshish, standard CgQM. Local etching of qtz veins.	10'/	95%		63795		.007		
CgQM characteristic mottled texture + irregular Xtals cutting Kspar zone (20° ca) at 112' and limonite stained fractures at 113 - 119' -	Fresh looking CgQM - Plag: → light green, soft, etched, sericite clay - red ± unaltered.					120	MoS2 + 1 qtz vein (broken) 90° ca. at 119'. Not common	typical CgQM - no groundmass	<5'/	95%		63796		.040		
Typical non-porphyritic, irregular CgQM - cutting porphyry vein of FgQM at 129' (mafic variety) - fine phenos - grey/brown	similar to above: - Plag alteration. Pot. ± feld.		CG		80°	130	Hairline fracts ll to 10° ca. + 90° ca. MoS2 and biotite also broken fract: 90° ca. + coarse blebs	Fg. dyke is limonite stained - Pyrite (?) Yes!!	10'/	98%		63797		.032		
FgQM dyke extends to 133' - then returns to standard CgQM. - irregular, homogeneous, CG (2cm) ± silicified shear 90° ca. and lode fractures ll c.a. (rare)	typical alteration pattern - Plag → sericite + clay. Note late biotite in fractures		FG		70°	140	3 qtz veins 90° ca. + MoS2 blebs also hairline fracts: 90° c.a. + qtz, biotite + MoS2	typical CgQM texture	10'/	98%		63798		.059		
CgQM - as above, cut by silicified shears and wide (1cm) qtz veins 90° ca. - (7) Pyrite - minor MoS2 - veins - etched.	alteration as above - note weak limonite stain to Plag.					150	hairline 20° ca. + MoS2 - MoS2 most large qtz veins broken or etched	possibly a slight decrease in deformation	10'/	90%		63799		.019		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Typical CgQM cut by [illegible] silicified vein (1 mm?) at 158' texture of CgQM – standard, no grain [illegible] silicified zone related to [illegible]	typical alteration of plag: note slight biotite stain. Large qtz veins barren 70° c.a. post date hairline + [illegible]					160	Moly in hairline fractures & veinlets 70° c.a. – cut by barren vein 90° c.a.	Low grade mineralization – little sulphide	<5'	98%		63800		.026		
Typical CgQM – as above – irregular texture, [illegible] – porphyritic, – also 1 cm qtz vein (90° c.a.) barren – and [illegible] smaller veins	as above: – Plag alteration mainly – [illegible] biotite, Kspar.		Cg		Ksp	170	Moly in hairline fracts: > qtz veinlets 70° c.a. –	typical CgQM – note late barren qtz veins 90° c.a.	<5'	98%		63801		.061		
CgQM – change from 'typical' to matrix bearing transitional variety, large phenos in Kspar-qtz matrix.	Note Kspar zone at 170' (90° c.a.) cut by qtz vein. – typical alteration of CgQM Biotite – hairline fracts:		[illegible]			180	qtz veins 70° c.a. (0.5–1.0 cm) – barren, [illegible] – rare moly in [illegible] moly qtz hairl.	Change to transition variety [illegible] + [illegible]	<5'	98%		63802		.014		
transition variety of CgQM becomes ± silicified locally and cut by Kspar-Bio-qtz zone at 186' extends to 191' – zone cut by qtz veins 90° c.a.	alteration zone – Kspar + patches of biotite + veins of qtz – relatively fresh.		Cg Ksp			190	Traces of moly in hairline fractures – as above; – V. little in altered	Kspar alteration – no Moly increase or zone	<10'	90%		63803		.020		
V. irregular, heterogeneous transition CgQM – large phenos in fine-med grained matrix – cut by small dykes of FgQM – (5 cm) mixed angles.	diffuse sandy [illegible] type: – standard alteration of plag: light green, otherwise ± fresh.					200	qtz veins 70-90° c.a. & 30° c.a. – ‖ c.a. + minor [illegible] moly. Not v. [illegible]	Qtz-Kspar + FgQM pegmatite zone at 196' Local silicified sheets 90° c.a.	<10'	95%		63804		.064		
CgQM – transition variety V. coarse grained Kspar phenos (1-2 cm) in cg. matrix: – cut by Kspar-bio-qtz zone at 202'	typical alteration of plag: V. [illegible] biotite overprint on plag: – Late fracts: ‖ c.a.				Ksp	210	rare blebs in qtz veins 90° c.a. – specks in hairline fractures 10° c.a. in Kspar zone in CgQM	poor mineralization. Note matrix of Cg = coarse, not chilled.	<10'	95%		63805		.234		
CgQM – transition type, as above – cut by mixed FgQM, MSAP and hybrid porphyry dyke at 219' –	typical alteration, as above: – Note Kspar-qtz pegmatite in Fg dyke zone.		Cg			220	Large qtz veins 90° c.a. + blebs moly also narrow (3 mm) veinlets 90° c.a. + specks.	transition CgQM => hybrid mixture – [illegible] by magma	<10'	95%		63806		.172		

GRID: ____ **PLACER DEVELOPMENT LIMITED** HOLE No. ____ SHEET No. __ of __

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Odd fg dyke envelope to silicified Cg/Sl near chilled contact of Sparse porphyry at 225' - inclusion of Sl/Cg from 227-228'. Typical Sparse porphyry - igneous [illegible]	Silicified zone = chloritic and sericitic, cut by qtz vein, 90° ca. 70° ca. - note v. fresh biotite in Sparse porph.		Sil Cg.		?° [illegible]	230	MoS2 + pyrite - abundant in qtz veins in silicified zone - limited	contact @ 70° ca. qtz veins cross chilled contact at 20° ca.	<5'	98%		63807		.063		
Sparse Porphyry - coarse variety - large phenos (0.5-1.5cm) in aphanitic matrix (25%) - not quite crowded => v. fine porphyry (phenos <0.5cm) at 235.	mild alteration of Sparse Porphyry - note local Kspar veins 80-90° c.a. and major alteration and etching of Plag -		SP			240	MoS2 in hairline fracts. 30° ca, 90° ca. and 70° ca. - fairly abundant 1 big vein 90° ca.	internal variation within same unit - [illegible]	<5'	98%		63808		.109		
Borderline crowded/Sparse phase of porphyry (fg to chilled matrix) 35% phenos from 241-250 contacts = sharp, 90° ca.	Sericite - clay alteration of Plag. - etched phenos - gouge on fractures 10° ca.		CCD		10°, 70°	250	1 big qtz vein at 90° ca. + good MoS2 on hairline 10°-30° ca. - pyrite in fractures	Not carrying a large qtz veins 90° ca. - Vuggy.	10'	95%		63809		.187		
Sparse Porphyry - fg variety - phenocryst g.s. increases ~3% increase down section - porphyritic, aphanitic matrix.	Plag altered to white gouge - locally => biotite (biotite also in some fractures 70° ca.) fairly fresh, Kspar envelopes		SP		½	260	MoS2 abundant in qtz veins, large late veins 90° ca. (vuggy), early small to small (1-2mm) hairline qtz veins early, 70-90° and 10-20° - specks of MoS2	hairline fracts: 10°-30° ca. - speckled with MoS2 - dispersed.	10'	98%		63810		.065		
Sparse Porphyry - note (?) Mafic Porphyry inclusion at 264' (xenolith) - 90% aphanitic matrix - phenos - up to 1cm. Xtals	rare Kspar enveloped veins. - Fairly fresh, Plag => clay - etched, Local clots of biotite replace (?) plag.					270		fairly typical Sparse Porphyry. Pyrite + chlorite locally.	<10'	95%		63811		.073		
Sparse Porphyry - as above + local Kspar veins envelopes to qtz veins (70° ca) - [illegible] phenos, typical matrix - v. fresh biotite	typical alteration, Plag => sericite/clay ± etched or fractured.		SP			280	No large qtz veins, rare qtz veins 70-90° and 20-30° c.a. - rare specks.	- MoS2 not v. abundant.	<10'	95%		63812		.019		
Sparse Porphyry - broken up from 280'-287' cut by rare Kspar + biotite veins 90° c.a. and qtz veins 60, 70-90 and 20° ca.	Fractured 20° ca. - increase in deformation and alteration - same type as above					290	rare MoS2 in hairline qtz veins, 40° ca.	increase in deformation - no obvious fault.	<10'	92%		63813		.025		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Sparse Porphyry with short (10cm) sections (possibly inclusions?) of Crowded Sparse Porphyry, qtz, pyrite, [illegible] and Kspar veins (70-90° C.A.)	Kspar veining - (No [illegible]) - & Xstals [illegible] [illegible] - otherwise typical alteration and fresh [illegible] Biotite				V.	30'	[illegible] 90° C.A. sparse [illegible] [illegible] blebs; veins 70° C.A. [illegible] specks	Note late fractures (+ carbonate) 30° C.A. - open	<5%	92%		63814		.094		
Sparse Porphyry - with increased fracture deformation, increase in alteration; Local shears 25° C.A. and late, open fractures 0-15° C.A.	sericite clay alteration - more extreme, Xstals commonly [illegible] & Note Veins in late fractures - fresh biotite			Sp		310'	Plenty blebs on few hairline qtz veins 10-40° C.A. → [illegible] 70-90° C.A.	Local effect (± 10cm) on late fractures.	<5%	95%		63815		.045		
Variable Sparse Porphyry, Locally sheared and deformed, Locally grades into Crowded Porphyry. Fractures ± ll C.A.	rare Kspar veining, otherwise typical alteration - note V. fresh biotites.			Sp	K	320'	as above [illegible] [illegible] [illegible] 90° C.A. + spaced [illegible]	gradation from [illegible] to [illegible] sparse porphyry little [illegible]	<5%	90%		63816		.087		
Mixed Crowded and Sparse Porphyries cut by Mafic dyke at 321 (biotite-chlorite) - borderline, but breaks qtz veins; emplaced post date mafic dyke	alteration as above: - mostly plag ⇒ clay/sericite ⇒ biotite			Cr	MoS₂	330'	abundant qtz veins ll C.A. 10-20° C.A. → 70-90° C.A. + rare [illegible] [illegible] MoS₂	- lack of qtz but V. diffuse MoS₂ - [illegible] 70° qtz veins - late ll C.A. = early	<5%	98%		63817		.128		
Relatively crowded sparse porphyry extends to 335' then returns to less phenocrysts variety. - Pyrite in fracture 90° C.A.	typical alteration of plag: - fresh biotite increased alteration along fractures.			Cr / Sp		340'	fairly abundant qtz veins few + disseminated specks MoS₂ - 70° C.A. - [illegible]	90° C.A. = late vein, as above, variable - porphyry	<5%	85%		63818		.031		
Mixed Porphyry - Variable comp. - borderline sparse - crowded. - strong fracture 30° C.A. at 346'	alteration as above; fresh biotite; Kspar Xstals and qtz veins			Sp		350'	MoS₂ coated on fractures 90° C.A. - + blebs in qtz veins 90° C.A.	less MoS₂ - hairlines ll to 90° C.A. than above, Note variable comp. [illegible] Porphyry	<5%	95%		63819		.052		
Mixed Porphyry to 352' then V. largely crowded - Note extreme alteration above and below shear at 356' (40° C.A.) Fault	alteration of Plag and Kspar to white mica, crumbly, fractured, mainly sericite clay, chlorite. No Fresh Biotite			Cr	40°		MoS₂ concentrated in sheared [illegible] Sericite faces and as blebs in altered rock.	Extreme alteration related to late fault. - chloritic gouge	90% ?	95%		63820		.036		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
largely sparse porphyry from and intrusive shear at ... porphyry = V. altered, fractured and sheared. Most fractures 50° c.a.	extreme alteration, as above, V. completely rock. biotite fairly fresh.	50'	50 1	370	Moly specks rare qtz veins ... fairly ...	Late alteration related to shear.	<15'	95%		63821		.042		
altered and deformed sparse porphyry - cut by 0.5 cm qtz vein ‖ axis 380-381' + trace Moly	extreme alteration - normal variety, plag => soft clay sericitized biotite - fresh			380	good Moly veins (+ qtz) 70° ca and vein ‖ c.a. - fairly rich	increased alteration & deformation. abundant qtz veining	<10'	90%		63822		.347		
Sparse porphyry - less deformed than above - fairly altered plag. note clay-sericite gouge = fractures 25° ca to ‖ c.a.	standard alteration plag => light green gouge.	5'		390	many Moly in fractures and some qtz veins, not common	less altered than above.	<15'	90%		63823		.113		
Sparse porphyry - as above - fractured and qtz veined:- (Kspar envelopes to qtz veins)	Plag = altered, green clay-sericite fresh biotite - late fracts: 20° ca. = + 90°			400	large number of 1-2 mm qtz veinlets 20° ca. + 90° ca + sparse Moly	similar to above, note lack of Moly = qtz veins	<10'	95%		63824		.023		
			E.O.H. 400'											

PLACER DEVELOPMENT LIMITED

GRID: ____

HOLE No. 222
SHEET No. 1 of 6

LOCATION: 2W [illegible]
BEARING:
LATITUDE: 6620 193.7
PROPERTY: Adanac
DATE COLLARED: 30 August 79
LENGTH: 400'
DEPARTURE: 589 752.3
CORE SIZE: NQ
LOGGED BY: [illegible]
DATE COMPLETED: 5th August
DIP: Vertical
ELEVATION: 1489.6
SCALE OF LOG:
DATE: 10th August '79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Overburden - sand, gravel + boulders of CgQM, [illegible] - ? 4th July dike -	—	30		–	—	—	Est. [illegible] [illegible] Coll	—		63825		.001		
CgQM - broken and [illegible] rock, - poor recovery: - typical texture - deformed Kspar Xstals, altered and etched plagioclase - limonite stain	Plag => clay + limonite stain, [illegible] in Kspar => limonite stain late fractures ‖ co.	cg / 40			4 mm qtz veins 90° co. - no visible Moly	- loss of [illegible] partially [illegible] disturbed(?) - [illegible] fractures.	100'	40'		63826		.001		
CgQM - [illegible] above, - broken [illegible] - large deformed Kspar Xstals (1-5 cm) in qtz, plag, bio: matrix: - irregular granitic texture - not [illegible]	as above, plag => frosty clay + etched limonite stain [illegible] fractures in [illegible] and in Kspar Xstals.	50	30° 20°		3-6 mm qtz veins 90° co. → 90° co. - [illegible] cavities in Moly [illegible] visible in 90° veins and MoS₂ [illegible] 20° [illegible]	Note strong [illegible] 50' at 47' → 20' at 48' - fairly fresh [illegible]?	50'?	80'		63827		.002		
CgQM, slightly less broken and stained. - becomes [illegible] at 10' - late fractures 20' → 1/ co. (+ gouge)	fresh biotite Kspar - fairly fresh, plag => clay ± rust stain - [illegible] limonite, [illegible] fractures.	60			rare qtz veins 90' → 20° co (± 6 mm) - no visible Moly	Note limonite - free gouge by 60'.	100'	85'		63828		.011		
CgQM - mainly typical, irregular mosaic - locally starting to develop an interstitial groundmass - gradation towards transition variety	standard alteration pattern, fracturing of Kspar - etching of plag: - biotite appears fairly fresh	70			Minor Moly on hairline fractures + qtz veins (6 mm [illegible]) 90° co. -	Large Kspar Xstals (2 cm) subporphyritic texture: -	50'	90'		63829		.004		
CgQM - v. similar to above: - subporphyritic, small amounts of interstitial groundmass locally. late fractures 10-90° co. + gouge	Kspar = fresh, plag = altered. V. little limonite stain fresh looking biotite	80			Moly in qtz veins (90° → 20° co.) - [illegible] v. common: Minor MoS₂	tendency toward transition texture:	80'	90'		63830		.036		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
CgQM – with large fresh, irregular Kspar phenos; little groundmass magma. Fairly normal. [illegible] late fractures 20° Ca. – ‖ Ca.	Kspar – fresh; Plag – light green sericite – clay alteration ± [illegible]; fresh biotite locally overprints feldspar.					90	[illegible] of MoS2 [illegible] fractures: NO good qtz veins; trace of MoS2 only	relatively fresh, alteration [illegible] of late fracture	90' ?	90'		63831		.006		
CgQM – as above: – large Kspar xtals, minor [illegible] [illegible] groundmass – deformed feldspars – late fracturing 10° Ca. – some stain	typical alteration – & deformation. Fresh bio: Kspar ± altered plag.		Cg		[illegible]	100	qtz veins + large blebs; good MoS2 90°–70° Ca. (15) = 4–8mm blebs < 1cm	significant increase in qtz + MoS2 mostly in [illegible] veins	10'	90'		63832		.215		
CgQM – as above: – typical deformation and alteration – relatively little groundmass. – V. [illegible] around 102' & deformed (20° Ca.) at 108' – fault (?)	feldspars (Kspar + Plag) both – V. altered at fault. – otherwise standard alteration + slight limonite stain.				10°	110	qtz veins 90° (70°) Ca. and ‖ to 20° Ca. + small blebs MoS2 – not [illegible]	Note [illegible] in [illegible] fracture 30° Ca. and in Kspar vein 90° Ca.	< 10'	90'		63833		.024		
CgQM cut by dykes of relatively mafic TgQM (+ rare xenocrysts) and strong shear zone at 119' (minor Tg QM caught up in shear	significant increase in deformation – mainly fracturing 10° Ca. – also shear at 119 – typical alteration [illegible]	?	Cg		– Tg 30°	120	MoS2 in 1 qtz vein within TgQM – otherwise none seen. –	V. chalky Kspar; possible increase in alteration	< 10'	90'		63834		.073		
CgQM cut by TgQM dyke at 123' – irreg. contacts: Cg = [illegible] by Tg. Minor dyklets in section – Tg similar to above (11?) – locally + phenos – gradation to (?)	standard alteration pattern + [illegible] limonite stain: – fresh biotite, etched plag: [illegible]				Tg	130	qtz veins and fractures 90° Ca., – ‖ to 10° Ca. + rare blebs MoS2 significant but not [illegible]	increase – qtz vein content. MoS2 dispersed [illegible] quantity of veins	20' ?	90'		63835		.026		
CgQM – typical, relatively fresh – V. irreg. Kspars. – no groundmass. Kspar envelope to MoS2 vein 80° Ca. at 134'	fresh biotite & Kspar altered plag: slight green sericite/clay – V. minor rust. – 2ndary biotite (?) – in some qtz veins		Cg		K	140	good MoS2 – 4 qtz veins 90° Ca. and 45° Ca. narrow veins + blebs MoS2	Locally porphyritic – large euhedral Kspars. – late fractures: 20° to Ca.	< 20'	95'		63836		.063		
CgQM cut by Kspar zone at 142' (6") and possible fault or fracture at 144' – V. minor (1cm) TgQM cut Cg locally.	– relatively fresh CgQM minor alteration of plag: Kspar and Bio – fresh except near fault				K 15°	150	MoS2 traces in shears and in Kspar zone – V. minor.	alteration increases near fault.	< 15'	90'		63837		.066		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
CgQM - fairly typical, + dyke of Tg at 152' Kspar [illegible] (15cm) at 157' - from 157 Cg = transition variety, V. [illegible] matrix: locally stained [illegible] Tg	V. [illegible] - Cg deformed → changed to transition - different alteration [illegible] Fault at 159'	Cg	X 50°	160	1 MoS traces in qtz veins and fractures - rare - [illegible] veins [illegible] by [illegible]	alteration increases near fault. generally V. [illegible]	<10'	90'		63838		.048		
CgQM - Transition variety large Kspar phenos in distinct matrix. - cut by qtz veins, biotite in hairline fractures, → Kspar [illegible]	relatively minor alteration. Plag → clay - margins [illegible]. [illegible] appears to be fresh.	Cg (T)		170	1 MoS2 increase in qtz veins 70-90° Ca. → 20° Ca. - [illegible] in qtz [illegible] fractures	Coarse MoS2 blebs - scattered little loss	<10'	95'		63839		.148		
CgQM - mainly Transition type, note V. irregular Kspars - Kspar [illegible] together. [illegible] rock: - cut by narrow Tg QM dyke (10cm) at 179'	relatively minor alteration → deformation of Kspar [illegible]. Local veins 50° Ca.	Cg		180	10 qtz veins + specks → blebs of MoS2 - mainly 20° + 70° C.a. 2-6mm. veinlets	good MoS2 - dispersed - little loss	<15'	90'		63840		.056		
Chilled faces of sparse porphyry passes through [illegible] zone of sparse aplite porphyry into silicified CgQM - cut by abundant qtz veins, mainly 90° Ca	Silicification → chloritization of CgQM. -	SP / Cg / Sil	MA?	190	Minor MoS2 blebs in qtz veins - mainly // to 20° Ca. = richer than 70°-90° c.a. vein set.	CgQM locally [illegible] by [illegible] with aplite phase.	<15'	90'		63841		.123		
V. altered, hydrated [illegible] silicified CQM is cut by a complex sparse porphyry type dyke, - full of inclusions of Cg [illegible] veining, overprinted by aplite	Silicification → chloritization of CgQM - [illegible]. sparse porphyry appears to be [illegible].	Sp. / [illegible] Cg		200	hairline qtz fract: // c.a. + small MoS2 blebs = cut by large (1cm) [illegible] qtz veins 90° - note good MoS2	on 190' [illegible] 90° c.a. qtz vein at 197' - increases toward 200' Tg QM. eg:	<10'	90'		63842		.298		
Tg QM - cut by qtz veins, ± biotite and Kspar envelopes: 90° + 70° ca - from 1mm to 1.5cm - mostly abundant. Tg QM [illegible] porphyritic - small feldspar phenos: -	Minor chlorite alteration of plag. Xtals - also 2ndary biotite overprint locally. Large qtz veins ± [illegible]	Tg	K 50°	210	small blebs MoS2 in 14 small (<0.6cm) qtz veins, variable angles. MoS2 - dispersed	- pasty grey-green matrix - not like sparse porph. - closer to MSAP.	<10'	95'		63843		.075		
Sharp igneous contact: Tg → Sp. at 210' (50° Ca.) sparse P. = [illegible] biotite [illegible] large feldspar phenos; - fine matrix [illegible] qtz phenos:	Plag in sparse P. → chlorite which is locally changed to biotite. Local Kspar veining envelopes qtz // Ca.		*	220	qtz vein (2mm) // Ca. ± [illegible] MoS2 specks: V. rich. [illegible] - cut by younger qtz vein 90° Ca.	2ndary biotite in plag: [illegible] qtz veins - good MoS2 // C.a.	<10'	95'		63844		.306		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Sparse Porphyry with strong hydrothermal alteration. V. strong 2ndary biotite & Kspar flooding adjacent to some qtz-MoS2 veins 50° ca. - (222')	Porphyry - typical but: (1) Slightly bleached. (2) Plag ⇒ light green clay (3) 2ndary biotite prevalent (4) Kspar veins & envelope				✱	✱ 230	V. good MoS2 in qtz-Kspar vein systems ± 70-90° ca. - thick MoS2 blebs.	strong 2ndary alteration associated with MoS2 qtz veins 90° ca. = sparse	10'	90'		63845		.364		
Sparse Porphyry - as above - strong 2ndary biotite. Kspar veining - good MoS2 typical porphyry	Plag altered - as above, also Kspar envelopes to qtz veins ‖ ca. rare late fractures ‖ ca.			Sp	✗ ✱	240	good MoS2 @ in qtz veins ‖ ca. & @ in qtz veins 90° ca.	wide veins qtz 90° ca. + blebs MoS2 = late. Muchaga above - good MoS2	25' ?	90'		63846		.203		
Sparse Porphyry - as above - strong 2ndary biotite, disintegrates into gouge zone from 245' to 252'	intense hydrothermal alteration near fault. sericite - clay ± biotite abundant gouge; fresh looking biotite -			Sp		250	Smear around of MoS2 on slips in fault zone and minor qtz veins near fault.	MoS2 loss uncertain.	40' ?	70'		63847		.093		
Sparse Porphyry - as above, strongly altered and locally reduced to gouge (255-257) late typical fractures ‖ to 10° ca	intense sericite - clay alteration ⇒ yellow or white flakey gouge. Plag altered, 2ndary biotite = V. fresh			Sp Sp		260	1 good MoS2 - qtz vein 90° ca. & good hairline ‖ ca. - not many qtz veins	- MoS2 not extensive, none in gouge	40' ?	65'		63848		.055		
Variable Sparse Porphyry - pheno. content varies - (0-20%) abundant fractures + qtz veins (± Kspar envelopes)	typical alteration of plag; Kspars and matrix fresher - still abundant fresh biotite + Kspar envelopes				K	✱ 270	sparse MoS2 dispersed in qtz veins ‖ to 0° ca. and 80°-90° ca.	Bio + Kspar veins 50° ca. good MoS2 - dispersed.	20' ?	90'		63849		.128		
Sparse Porphyry - typical - few large Kspar & qtz xstals, embedded in aphanitic matrix. ±15% phenos - fresher than above -	less altered porphyry still V. fresh biotite note Kspar phenos locally cut qtz veins.			Sp		280	Minor MoS2 in smoky qtz veins (1-2mm) ‖ ca., 20° ca. and rarely 90° ca.	dispersed MoS2 less qtz veining, less alteration	15' ?	90'		63850		.076		
Sparse Porphyry - as above - badly broken ground, - no obvious fault: - late fractures ‖ ca. + gouge	increased alteration in crumbly porphyry - note Kspar veins and envelopes & fresh biotite					290	MoS2 mainly in 1 qtz vein complex ±‖ ca. at 284' - elsewhere few veins	note some of the larger qtz veins (‖ → 90° ca.) = barren.	<15'	85'		63851		.109		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. [illegible] of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	ASSAY RESULTS: Cu	ASSAY RESULTS: Mo		EST. GRADE
Sparse Porphyry – slightly foozy, coarser grained matrix phenos' / variable, ≤20% – large qtz + Kspar – Porphyry sheared and chloritized.	plag ⇒ chlorite ⇒ biotite overprint. (fresh) – Kspar veins 50° and 90° ca + MoS2 traces only.	Sp	300		F ?		MoS2 specks in qtz veins 70–90° Ca. and ∥ ca. Minor Pyrite traces in chlorite in ...	also in qtz veins 20° Ca. Strong 2ndary biotite	20' ?	90'		63852		.148		
Sparse Porphyry with clots (inclusions?) of Crowded – variable % phenos. Porphyry cut by fault zone at 301' and Kspar alteration at 305'	sericite – clay alteration around 301' – v. chalky & broken, biotites – fresh – plag ⇒ chlorite ± biotite overprint.		310		K		good MoS2 on shear ∥ Ca. – minor fractures & qtz veins; – not abundant.	Kspar envelope to qtz vein 90° Ca. V. Variable porphyry comp.	25'	85'		63853		.102		
Sparse Porphyry – variable composition – 5% phenos: locally close to Crowded in comp: gradational change.	Kspar – also, vein 90° ca. – No MoS2: otherwise standard plag alteration and 2ndary biotite: – overprints feldspar.	Sp	320		K	*	1/in qtz veins 50° Ca. + coarse blebs MoS2: also minor fractures ∥ Ca. –	Late Kspar veins 90° c.a. offset early qtz hairlines ∥ Ca.	<20'	95'		63854		.210		
Sparse Porphyry becomes crowded locally – gradation; contact. Shear zone at 325' – fractures ∥ co.	Strong biotite overprint on chlorite, after plag: local Kspar envelopes to qtz veins 90° C.a.	Sp / Cr	330		K ?		Minor MoS2 in hairline fractures ∥ Ca. ≈20° ca. several broken qtz veins	Still clearly 2ndary biotite recovery loss around 324'	<20'	70'		63855		.063		
Sparse Porphyry continues to 333' then grades(?) abruptly into characteristic crowded variety: V. rich in feds, euhedral phenos: Kspar, qtz, + fine matrix.	alteration as above: – plag ⇒ chlorite + biotite. local Kspar envelopes to qtz + MoS2 veins	Sp / Cr	340				MoS2 specks in qtz veins and hairline fracts: 5–10° to c.a. not v. rich	gouge in fractures ∥ and 50° c.a. fresh 2ndary biotite	40'	95'		63856		.071		
Crowded Porphyry – showing increased alteration and deformation towards 350' – possible fault – late fracts. 30° Ca	sericite – clay alteration increases; gouge in fractures: – biotite stays fresh		350		* → *		MoS2 in qtz veins enveloped by Kspar: + 1 2mm MoS2 vein 50° Ca. – also	MoS2 on shears 20° Ca. – good MoS2 with strong alteration	15'	90'		63857		.169		
altered crowded Porphyry – fractured ∥ to 20° c.a. + gouge	Moderate sericite – clay alteration ± crumbly + fresh biotite		360				good MoS2 on fractures 90° Ca. – also hairlines 20° Ca – few qtz veins	general alteration increase MoS2 loss.	30' ?	90'		63858		.139		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Crowded Porphyry - altered and deformed - as above: - cut by narrow 5cm dykes FgQM - (20° ca) strongly fractured porphyry + fault 2.(?)	alteration as above - sericite-clay and chlorite alteration - abundant biotite, fresh		? 70 50	370	V. little visible MoS2 in crackled crowded porphyry	V. crumbly from 367'-374' probable fault 50° ca.	50' ?	75%		63859		.035		
V. altered Crowded Porph. extends to 377' - contacts dyke of FgQM (sandy, salt and pepper texture) - porphyry deformed to 374'	typical alteration - strong biotite development. - Plag - V. altered, K-spar-biotite zone at 377'			380	good MoS2 in rare fractures in crumbled rock.	Still good SR and strong hydrothermal alteration	50' ?	60%		63860		.066		
FgQM extends to 383' - igneous contact (50°) with crowded porphyry - V. altered porphyry - alteration + deformation increases to shear at 389' (50°)	extreme alteration - abundant sericite-clay & chlorite - replacing plagioclase - fresh biotite	Fg	50'	390	qtz-MoS2 veins cut FgQM and adjacent porphyry - not common - + rare MoS2 on →	slips in shear zone — strong shear at 389'	40'	90%		63861		.141		
Faulted contact => sparse porphyry - extends to end of hole. Becomes fresher with depth - less deformed. Still + strong alteration.	Biotite overprints plag (chlorite) - wispy envelopes to qtz vein (45° ca)		12	400	qtz veins 70-80° ca. - common but V. little MoS2	Note alteration and mineralization extends to depth. V. good hole	60'	95%		63862		.038		
late fractures (20° ca).			EOH, 400'											

PLACER DEVELOPMENT LIMITED

GRID: ____

HOLE No. 223
SHEET No. 1 of 6.

LOCATION: 1N 5W	BEARING:	LATITUDE: 6620 148.6	PROPERTY: Adanac		
DATE COLLARED: 4th Aug '79	LENGTH: 400'	DEPARTURE: 589 667.9	CORE SIZE: NQ	LOGGED BY: R.H. Pinsent	
DATE COMPLETED: 8th Aug '79	DIP: Vertical	ELEVATION: 1496.1	SCALE OF LOG:	DATE: 12th Aug '79	

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
0 – 60' = Overburden: - gravel and boulders, mixed. Poor recovery - boulders = CgQM, Spur Porphyry, FgQM, 4th July Granite.	—					60	—	— estimated Mos. Loss				63863		.001		
V. crumbly CgQM - V. little stain for such altered rock: typical texture. ± fresh biotite. Fracturing 14' to ‖ Co. locally cut by small (5cm) FgQM dyke (90° Co)	alteration of Plag ⇒ light green clay - etched; also Kspar ⇒ sericite/clay ∴ crumbly.	Cg				? 70	good Mos on fractures 50' Co. - coarse flakes, but often qtz vein 70' Co.	Significant lack of limonite stain (?) due fresh Mos loss uncertain	50' ?	65'		63864		.057		
V crumbly CgQM - no limonite stain: late fractures ± ‖ Co. - plag & Kspar ± altered, fresh biotite - 'normal' texture.	Plag ⇒ soft clay & etched. Kspar = crumbly. Also = fairly fresh looking.					80	rare qtz veins ±90° Co. - barren, not common. No visible Mos probably never rich	gouge in fractures. - poor drilling - limo stain - no pyrite ?	100'	55'		63865		.001		
V. crumbly CgQM - as above: - V. strong hydrothermal alteration → late fracture system ‖ Co. abundant white gouge	as above - both plag → Kspar = altered. crumbly rock - No limonite stain!					90	No visible Mos - rare qtz veins, probably never rich	biotite → fresh - 2ndary (?)	100'	50'		63866		.012		
CgQM - cut by possible dyke of mafic porphyry (5cm) at 90°. CgQM = coarse mafic FgQM: CgQM = Kspar rich - xstals fused together - mainly 1cm irreg: phenos.	less crumbly, but still V. altered as above. still strong fracture ‖ c.a. biotite looks fresh					100	Mos in qtz veins (1-2mm) 90° Co. → ‖ Co. 1 good vein ‖ Co. at 95' (1' long)	Note Kspar abundance, & irreg. granitic texture.	45' ?	80'		63867		.089		
CgQM - as above: - characteristic texture, Kspar rich - irregular fused phenos: - strong shear ‖ to 10° Co. at 107'	standard alteration of plag. ± etching → Kspar slightly chalky. Fresh biotite					110	rare qtz veins 90° → ‖ Co. + traces Mos: Not V. rich	graphic qtz Kspar intergrowth about qtz vein 90° ca.	100'	80'		63868		.037		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. [illegible] of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
CgQM cut by 2 narrow dykelets (5cm) [illegible] FgQM (sag → porphyry) extends to 119' = sharp 90° [illegible] contact with chilled Sparse Porphyry: - Kspar + qtz buildup near contact.	unsecured alteration in CgQM - crumbly → fractured 0-10° Ca. FgQM dykes = 30° Ca. 2 V large (2cm) qtz veins 90° Ca = [illegible]	Cg	K	120	Visible MoS2 despite qtz [illegible]. Some in fractures at Sparse P. contact.	V. altered → fractured cracked zone. Note Fg dykes [illegible] coarser than Sparse P.	20'	70'		63869		.037		
strongly altered Sparse Porphyry V. aphanitic matrix, few phenos: possibly chilled, cut by wavy qtz veins 90° Ca → ‖ Ca	rust decreases away from contact: → grey/brown fresh biotite in porphyry chlorite alteration [illegible]	Sp		130	No MoS2 in [illegible] qtz veins, some in 1 30° fracture - coarse blebs	Plagmatic [illegible] of qtz veins near contact - V. common, [illegible]	20'	80'		63870		.048		
altered, mottled, Sparse Porphyry - V fine chilled matrix + few phenos: - Plag = etched pit (1cm) = fresh: - cut by abundant qtz veins (straight) 70-90° Ca + 10-‖ Ca.	Possibly locally silicified. + minor sericite - clay + chlorite alteration			140	Variable width qtz veins (1mm → 1cm) + rare blebs MoS2 - content not ∝ amount of veins	Kspar "phenos" overprint some qtz veins (70° Ca) [illegible] in fractures.	20'	90'		63871		.023		
Sparse Porphyry - cut by Kspar envelopes qtz veins at 142' - 30° Ca. → 90° Ca both with biotite → MoS2 in qtz vein. late fractures 5-10° Ca → 50°	alteration slightly less obvious & plag → light green clay ± overprinted with biotite.			150	MoS2 dispersed in a number of fine qtz veins → fractures 90° → 70° Ca.	Significant MoS2 but not V. good	20'	85'		63872		.081		
Sparse Porphyry - increase in pheno [illegible] ~ 1% large qtz (not Kspar) xtals: - slightly chloritic matrix: - late fractures ‖ Ca	Strong 2ndary biotite in qtz veinlets → hairline fractures (90° Ca.) - overprinted chlorite (after plag) - slight sericite - clay alteration		*	160	qtz veins ‖ → 90° Ca. (4-8mm) = largely barren + few blebs: Most MoS2 in fractures x narrow veinlets	good MoS2 in gravel in box - disrupted X fracture [illegible]	20'	85'		63873		.122		
Sparse Porphyry - variable pheno rich (15%) → poor (5%) sections, gradational - cut by diff. matrix (aphanitic) stable biotite, as above	alteration appears to decrease. sericite - clay alteration in fractured porphyry (0°-20° Ca. - chalky appearance:			170	MoS2 in 1-2mm veinlets → hairline fractures ‖ Ca. 20 → 90°, large veins (>1cm)	= barren. fresh 2ndary biotite	<20'	90'		63874		.054		
Sparse Porphyry - rubbly, poor recovery ? Why? No obvious reason - typical rocktype.	Minor sericite - clay & chlorite alteration + addition of biotite			180	MoS2 traces on hairline fracts ‖ → 70° Ca.	strong fracture ± ‖ Ca. - may relate to poor recovery.	40' ?	40'		63875		.090		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Sparse Porphyry - as above - altered, V. little recovery badly ground. No obvious fault. - typical rocktype	strong chlorite alteration of plag:- Kspar = fresh, minor sericite-clay. Note fresh biotite.	SP		190	MoS_2 on hairline facts. // Ca. → 90° Ca. - few qtz veins MoS_2 common	possible assay in elevated due to sodium - poor recovery	40'	55'		63876		.061		
Sparse Porphyry - as above, V. broken, V. poor recovery - probably a fault from 193-196. Biotite = fresh.	Sericite - clay alteration of matrix → Kspar (chalky) light green plag alteration		30° F	200	hairline fractures in fragments remaining + MoS_2 loss	Terrible recovery - probably a fault.	60'	40'		63877		.060		
Sparse Porphyry - typical, altered, - cut by fault 30° ca. V. poor recovery: white gouge in fractures	extreme alteration near fault - sericite - clay + chlorite. Biotite = fresh		30° F	210	hairline facts & 1-2mm qtz veins + MoS_2 noticeable in gravel:	MoS_2 loss in broken core. - distinct fault.	50'	60'		63878		.120		
Sparse Porphyry - locally variable pheno content:. resembles crowded variety. - typical porphyry	minor alteration - typical, Kspar = fresh, Plag → etched clay±chlorite Bio: [illegible] = fresh, 2ndary.	SP		220	traces MoS_2 only - hairline fractures probably never MoS_2 rich	V. wide core - different unit? Late facts: 40°, 10° - // Ca. + gouge	40'	80'		63879		.034		
Sparse Porphyry - variable in pheno and degree of alteration - mostly fairly fresh, - altered near fractures (10° ca) at 222' + gouge	Kspar pheno: cuts qtz hairline (50° ca) otherwise typical plag alteration - Kspar = fresh = Bio = fresh		F?	230	Pyrite mass in qtz vein 90° ca. MoS_2 in rare hairlines & 1mm qtz veins 30°-90° ca.	strong alteration at 227' disrupted core.	20'	90'		63880		.057		
Sparse Porphyry - locally partly crowded (max 25% phenos) cut by zone of chilled matrix (FgQM?) Note variable size phenos some irregular:	Kspar veins and envelope to qtz veins (90° ca) standard alteration Note V. variable degree V. strong biotites		90° Fg 10°	240	qtz veins (1-4mm) traces MoS_2 - lost in hairlines // Ca. → in veins in FgQM zone	chloritic shear 50° Ca. at 232' and 237' = fault?	<15'	90'		63881		.023		
Chilled contact chalky FgQM (matrix to sparse) grades into typical [illegible] Sparse P. = part of intrusion: Kspar veins & envelopes 90° & // ca.	standard alteration pattern - Note V. grey chalky FgQM => bio alt, plag: etched porphyry	Fg	K.	250	MoS_2 - minor amounts in qtz veins (1-2mm) 30° ca, 10° ca. + fractures, no qtz.	large qtz veins 90° ca = barren Kspar not related to MoS_2	25'	90'		63882		.088		

GRID: ___ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. [illegible] of 6.

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
- Variable Sparse Porphyry - phenos 95 and % variable - locally resembles crowded, + inclusion of V. mafic (w/m?) rock 257-259 = soaked in porphyry	- Mafic rock - 40% chlorite hornfels. - + amphibole (?) standard alteration of plag in sparse P. - Fresh biotite			260	MoS2 in bm qtz veinlets and hairline fracts. 70° CA also rare fracts 90° CA. fldr	V rich in secondary biotite mafic or cataclastic? feed?	<20'	90%		63883		.036		
Sparse porphyry - grades to crowded locally. - Suggestion of crowded inclusions in sparse. Variable g.s. % phenos. - Rare qtz remnants + Kspar.	Kspar associated with qtz veins 70° CA (1mm) and otherwise normal alteration. - Plag altered & etched. Fresh biotite overprint.			270	small qtz veins (1-3mm) + small blebs MoS2, not rich mainly 20° & 70°-90° CA.	early veins 20° CA. late veins 90° CA: Note mixed sparse & crowded	<5'	90%		63884		.043		
Sparse Porphyry ⇒ texture crowded - variable texture, locally + V. coarse phenos Kspar qtz. - Minor gouge (white) in late fractures 30° CA. ⇒	typical alteration, locally plag alteration fractured ⇒ fresh biotite otherwise plag = etched.	3P		280	MoS2 traces in hairline and 1mm qtz veins + // CA along fracture surfaces.	sparse P. locally resembles crowded - no true crowded	<5'	80%		63885		.047		
Sparse P. - gradational towards crowded, variable % phenos: - also 95 - Note a few V. large Kspar (1cm) crowded late fracts - 30-50° CA.	Moderately fresh, typical alteration - Local Kspar - qtz vein 90° CA. - V. strong fresh biotite			290	good mineralized qtz vein at 28' - 50° CA. - other small veins + fracs MoS2 = 90°, 50°, 10°, // CA.	transitional porphyry - getting towards crowded	<10'	90%		63886		.093		
Fresh Sparse Porphyry - fairly homogeneous - 0.5in phenos qtz feldspar = 90% in chilled matrix, aphanitic; Kspar-bio vein at 297' = 50° CA.	V. minor alteration of plag + strong growth of 2ndary biotite (over feldspar) locally.			300	trace SF in narrow (1-2mm) qtz veins & hairlines. 20°-90° CA. Varied.	settling down to uniform rock unit after above	<5'	95%		63887		.033 ~~.003~~		
Crowded form of Sparse Porphyry - gradational phase - as above, large mixed phenos (max 0.8cm) + strong biotite.	V. minor alteration. - Note Kspar overprints qtz veins / biotite locally overprints feldspar.	3/		310	rare MoS2 blebs in minor qtz veins and fractures, variety of angles.	fairly fresh, homogeneous porphyry	<5'	90%		63888		.051		
Sparse Porphyry - fairly crowded, as above, - homogeneous, fairly fresh, cut by late fractures // CA + gouge	alteration average near fractures - otherwise typical			320	rare MoS2 specks in qtz veins //, 20°, 50°, & 90° CA. Variable (1mm)	as above: + late fracturing	<5'	95%		63889		.074		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 2 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
gradational Sparse. P. → crowded. – large phenos: – euhedral – aphanitic matrix: ± homogeneous, 25% phenos: late fracts ‖, 20° and 90° Ca	Kspar – qtz veins 70° Ca. locally rare, otherwise → fresh → only minor alteration of plag: – v. fresh biotite – late		⋀	330	traces in hairline fracts: + qtz veins (1mm) 20° and 70° Ca. abutting fracture faces	probably shell phase of Sparse P.	<10%	90%		63890		.084		
as above Sparse P. – locally fairly crowded homogeneous: – plag + biotite – chlorite + Kspar zone?	as above: Kspar envelopes to qtz veins and Kspar phenos' overprint qtz veins – (rare) otherwise as above:			340	fine qtz veins + fractures have trace of Moly abutting: – Not V. rich:	as above: variety of Sparse. P.	<5%	95%		63891		.037		
as above. Slightly more variable Sparse P. (9.5 and %, phenos) – Locally cut by Kspar "veins" – 90° Ca. few late fracts. ≈ 50°	Significant increase in qtz vein content 70°, 90° (2–6mm) + hairline 0–10° Ca. Typical alteration of plag: + biotite generally = fresh.	Sp.	⋀	350	large qtz veins = ± barren, sliced str. in hairlines 10° to ‖ Ca. – not rich despite qtz increase	as above, still strong 2ndary biotite	<5%	95%		63892		.025		
Sparse Porphyry – as above: – variable 9.5 and % – some large Kspar > 1.5cm, euhedral, aphanitic matrix	as above, rare Kspar zones (1cm veins) 90° Ca. + typical alteration of plag – overprint of biotite (clots pre-xstal)			360	V. minor trace Moly – qtz vein 10° Ca: – Most qtz veinlets (rare) = barren	fairly fresh Sparse P. V. Little Moly	<5%	95%		63893		.062		
Continuation of above, – fairly fresh Sparse. P. same texture and degree of alteration.	– as above. Note qtz veins cut by Kspar phenos! increase – qtz vein content:			370	Moly in ca. 2mm qtz veins ‖ to 20° Ca. – veins 90° Ca. = ± barren:	as above, variety of Sparse P.	<5%	95%		63894		.062		
Sparse Porphyry – as above with increased deformation and alteration towards a fault at 380'. Kspar/qtz veins (+ biot) at 379' (40° Ca.)	standard alteration – more extreme sericite-clay + chlorite at fault. late fracts. ‖ Ca. or 50° Ca.		⊤⌐	380	Moly specks in qtz veins: not rich veins = fairly abundant 90° Ca., ‖ Ca.	approaching late fault ∴ alteration increase	<5%	85%		63895		.037		
Sheared and altered Sparse Porphyry – shears = chloritic and altered Sparse P. epidote (?) + sericite clay.	Major fault: 30° Ca. – note matrix of porphyry = altered, light green colouration possibly epidote		30° ⊤⌐ 30°	390	Moly on some shears and in some qtz veins (30° Ca.)	not sheared from 384' – just altered. – post dates qtz veinlets	<5%	80%		63896		.028		

GRID: _____ PLACER DEVELOPMENT LIMITED HOLE No. 274 SHEET No 2 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	ASSAY RESULTS: Cu	ASSAY RESULTS: Mo	ASSAY RESULTS:	EST. GRADE
00 down - Sheared, fractured and locally altered sparse. P. becoming slightly fractured at 410' - 30' sheared at 392 - otherwise fracture: 10' to 11 Co.	V. soft and crumbly. chlorite + epidote (?) alteration with Sericite - clay. hematite altered, May = chlorite				30°	400	Trace of darker pyrite. - Molybdenite, restricted to fractures.	Shear zone continues, good recovery altered rock	<5'	95%		6397		.020		

PLACER DEVELOPMENT LIMITED

GRID: ______

HOLE No. 224
SHEET No. 1 of 6

LOCATION: IN 7W
BEARING:
LATITUDE: 6620 120.2
PROPERTY: Adanac
DATE COLLARED: 8th August 79
LENGTH: 400'
DEPARTURE: 589 613.3
CORE SIZE: NQ
LOGGED BY: R.A. Pinsent
DATE COMPLETED: 10th August 79
DIP: Vertical
ELEVATION: 1500.4
SCALE OF LOG:
DATE: 14th August 79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
No recovery until ± 29' - then consistent CgQM - probably stayed into bedrock				29										
CgQM - (first few feet possibly boulders) - normal texture, not transition, large irregular Kspar Xstals ± fused together	Plag = ± altered and etched, Not V. extreme alteration ⇒ white-rust clay/sericite. Minor limonite stain.	Cg		30 / 40	traces in qtz vein 30° Ca. + hairline fracts in Kspar; Not rich	V. minor dykelets of FgQM (40° C.A.) ≤ 1cm. Kspar = deformed fractured, qtz veined	10'	80%		63898		.081		
CgQM - as above, irregular deformed - fractured Xstals + minor stain on fracts: - irreg: qtz veins (0.4-1.0cm) 40-90° Ca none ∥ Ca altered plag - fresh biotite	Plag ⇒ soft, etched green to rust clay/sericite ragged, interstitial biotite = fresh (locally over plag?)			50	MoS₂ blebs in 1 qtz vein 30° Ca - and in hairline fracts. in feldspar:	fresh CgQM - minor alteration - note V. little stain.	10'	80%		63899		.036		
CgQM - as above, slightly more variable texture: - large, irregular, fractured, Kspar Xstals soaked in qtz. Minor plag: & biotite	Minor limonite stain around 51'-52' otherwise ± fresh, plag altered, biotite = fresh looking.			60	qtz veins 20° and 70-90° Ca. + blebs MoS₂ Not rich, also hairlines ±40° Ca	Similar to above, fresh CgQM	10'	80%		63900		.108		
CgQM - as above drop in recovery from 65-70' - irregular texture, deformed Kspar - typical, note few large plag Xstals - mostly small.	Plag ⇒ soft, etched, sericite/clay + rust stain (minor) - Kspar + biotite = fresh,			70	MoS₂ mainly as small blebs in 5mm qtz veins 70-90° Ca some in late fracts: ∥ Ca.	Late fracts ∥ to 20° Ca. and locally 50° Ca. - Similar to above	20'?	55%		63901		.076		
CgQM, as above, but increased alteration of feldspar to sericite/clay: reduced to rubble - poor recovery.	No obvious fault but late fractures ∥ Ca. increase in Kspar alteration: crumbly - No limonite stain.			80	few qtz veins, some MoS₂ - gravel loss.	gouge on fractures ∥ Ca: - typical CgQM	5'?	50%		63902		.059		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
CgPM – much as above V. irregular pegmatitic texture, locally Kspar xstals enriched i.e. Kspar zone (87').	standard sericite/clay alteration of plag ⇒ altered green musk – slightly chalky Kspar: not V. altered fresh	Cg 90			MoS2 on fractures in Kspar rich zone – not V. rich – qtz veins mainly 30° ca.	late fractures 30° ca. (?) cause of core loss	20' ?	75%		63903		·073		
typical CgPM – large irregular xstals Kspar, peg: texture – fractured xstals. gouge in fracture 20° ca. locally PM ⇒ granite	light green alteration after plag. – fresh Kspar → (?)	100			traces MoS2 only, in qtz veins 90° → 70° ca. + rare hairline	Note No shears 90° ca. (silicified type) ?	20' ?	60%		63904		·053		
typical CgPM cut by (?) fault at 102' – cut by gouge (20° ca) – otherwise ± normal, large Kspars irreg: broken late fault	extreme sericite-clay alteration in fault zone – (?) association of Kspar = 70-30° ca. ± fresh	Cg 110	F 20°		Minor MoS2 in hairline fract. 70° ca. and in shear zone	CgPM – fairly typical, with late fault.	40' ?	60%		63905		·085		
typical CgPM cut by TgPM dyke 114'-116' – (90° ca ?) includes deformed and altered zone in CgPM.	Kspar ± fused together in Cg "pegmatite" – extreme sericite-clay alteration at 114' → silicified shear zone at 117' + chlorite 10° ca	Tg 120			MoS2 on broken fracture 90° ca. & in hairline fractures	CgPM intruded by TgPM typical salt and pepper, TgPM	40' ?	70%		63906		·077		
CgPM cut by V. narrow (?-30cm) TgPM dykes (soaked into CgPM) irreg: contacts, – crackle (?) to rubble at 127' → remains fractured and altered to 130'	strong sericite/clay alteration near fault zone (rich in (?) sericite gouge) fractures 50° and // ca.	Cg 130	F 50°	1	2cm qtz vein 90° ca. + (?) MoS2 – also qtz vein 50° ca. + specks in V. few qtz veins, (?) MoS2	Fault zone, increase in alteration	40' ?	60%		63907		·188		
CgPM becomes silicified at 132' + large qtz veins 90° ca & small dykes of TgPM (5cm) returns to normal CgPM at 134' = fairly fresh, non fractured Kspar rich	Variable alteration ① silicification of Cg near contact of TgPM ② chlorite alteration, calcite above: sericite-clay fault at 134'	Cg 140	Sil 90° ca.		qtz hairlines & veins 90° – 20° ca. variable in width – No visible MoS2 – few qtz-free hairline fracts:	altered zone near sparse P. contact	20' ?	80%		63908		·064		
Contact with Sparse P. at 141' sharp, (?), 90° ca. few, small, phenos near contact increase in size with depth. Note crenulated Kspar veins 50° ca.	fairly fresh, minor sericite clay alteration of plag. → Kspar ± chlorite in plag: biotite = fresh	SP 150	90°		abundant qtz veins // to 10° and 70-90° ca. variable width – locally + MoS2 flakes	odd (?) Kspar and qtz-Kspar veins at contact. Kspar qtz veins 90° ca.	<10%	90%		63909		·052		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Sparse Porphyry – typical (low pheno content (5-10%) variety – chilled (aphanitic) brown matrix – rare euhedral qtz-Feld. xstals. late fracts = 90° ca ∥ ca. & 30° ca	plag = altered; mild sericite/clay alteration – note qtz phenos = smoky and biotite laths = fresh		Sp			160	large (1cm) qtz veins ± wisps (90° ca) late MoS_2 in fine & hairline fractures	MoS_2 hairline ∥ ca. postdates qtz vein 90° ca. (1cm) poor recovery	40%	60%		63910		·068		
Sparse Porphyry – chilled variety – few small phenos. + chilled matrix: typical. poor recovery from 165' (20° ca.)	Plag = altered, rest ± fresh. note fresh biotite & 2ndary biotite in qtz veins.					170	– as above V. little MoS_2 in large qtz veins 90° ca. MoS_2 in small veinlets →	hairline fracts: 90° → 50° c.a. small amount MoS_2	<20%	80%		63911		·044		
fine variety of Sparse P. becomes richer in phenos and coarser with depth: – (0.5-1.0 cm) phenos at 180'	typical alteration. plag = altered, biotite = fresh (found in qtz+Kspar veins) and overprints plag!				K	180	large qtz veins 70°, 90° → 60° variable width = virtually non-mineralized, rare qtz-fracs	hairline ∥ ca + MoS_2 — Kspar veins (± bio, qtz) 90° ca.	<10%	90%		63912		·016		
Sparse Porphyry – as above approx 10-20% phenos, fairly homogeneous: – cut by rare Kspar-qtz vein (80° ca) and qtz veins (± 14) 70-90° ca. most related to late fractures = 30° ca	plag → some Kspar = altered and etched rest = fairly fresh, fresh biotite					190	rare MoS_2 blebs & specks in numerous qtz veins, not v. rich	Note decrease in MoS_2 — not qtz vein content	<5%	90%		63913		·012		
Variable Sparse Porphyry – some with large phenos as above – others with smaller & fewer phenos: – cut by large and small qtz veins, 90° ∥ ca.	Strong chloritization of plag + biotite overprint at 198' – otherwise typical alteration.		Sp			200	Similar to above, qtz veins common but not much MoS_2 – more than above	V. fractured → broken rock	<10%	90%		63914		·058		
Sparse Porphyry – cut by shears at 204' and 209' ∴ increase in deformation, alteration and drop in recovery	strong sericite – clay alteration of Kspar & plag: + chlorite: V. chalky at 209'				50°	210	good MoS_2 in qtz veins (2-3mm) 40° ca. & 90° ca. at 209' & 204' rest = barren	veins = broken ∴ MoS_2 loss may be great Major fault. + breccia	50% ?	65%		63915		·063		
Fault: angular Sparse P. frags. in breccia at 210' – disintegrates into rubble at 213 → becomes harder again at 218'	Sericite – Clay + Carbonate (?) cement → gouge in rotten fault zone. Chloritic shear (20° ca) at 219'			F		220	all MoS_2 up to 218' = lost in fault zone – trace in fresh rock only	Porphyry = normal adjacent to fault zone	80%	70%		63916		·106		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Sparse Porphyry - strongly faulted and disintegrated from 221' to 225' main fracture 30° Ca. - Porphyry = variable in pheno size and % fairly typical.	V. strong sericite - clay alteration in fault zone + gouge in fractures (30°) in fresh rock plag = altered, bio = fresh		F 30°	230	MoS2 blebs in qtz veins 90° → 30° Ca. - fracture + fairly coarse blebs.	strong fault zone continues - typical Sparse Porphyry	40% ?	70%		63917		.107		
V. variable Sparse Porphyry - local clots = fairly coarse large phenos (0.5-1.0 cm) - chilled matrix: - strong Kspar / chlorite - pyrite alteration at 238' - + fluorite	different type of alteration - rock = bleached Kspar veined, bio > chlor - related to late (open) fracts. // Ca.	SP		240	qtz veins (1-5 mm) // 45° → 90° Ca. + V. rare specks MoS2, not rich	Fluorite in altered zone less disintegrated than above	30% ?	80%		63918		.023		
V. altered Sparse P. variable, locally moderately crowded - locally V sparse: - possible fault zone at 247' - trace of pyrite + fluorite	bleached-type alteration not much disintegration - strong chloritization - pervasively of plag: - no fresh biotite (?)	SP	F	250	1 good MoS2 fracture 90° Ca. not V rich - trace MoS2 in ground.	alteration - late fractures // Ca. distinct from usual sericite - clay alteration	40% ?	90%		63919		.082		
V. variable Sparse Porphyry - fresh rock = similar fairly crowded cg - cut by Kspar zones and above sericite - chlorite alteration from 256	Kspar zone at 253 appears to obliterate qtz vein // Ca. - late, similar zone at 257' + Vg. MoS2 - bleaching and chlorite alteration (+ fluorite) related to fracts // Ca.	SP	✳ ✳ //	260	good MoS2 in 1 vein 90° → 120° Ca (X cutting) also in (2 cm) qtz vein // Ca.	V. significant MoS2 increase - sericite veins + good MoS2 - predates alteration (?)	20% ?	90%		63920		.201		
Sparse, Sparse Porphyry actually wide Kspar zone - result of Kspar alteration of matrix of porphyry - (+ fresh biotite) - sharp contacts (90° Ca) -	Kspar alteration as noted: - + late chlorite alteration similar to above - No disintegration but etching and late fractures // Ca.		Kspar K	270	Main Kspar zone - barren, but MoS2 in qtz veins // Ca → 70° Ca.	Kspar alteration = significant not coincident	<15%	95%		63921		.041		
Sparse Porphyry fairly typical texture - showing strong chlorite alteration, green tint to rock.	Plag = dark green chlorite, matrix + green tint biotite ~locally fairly fresh (?) - Note local Kspar alteration ... fractures ...	SP		280	MoS2 in hairlines 40° → 60° Ca partly overprinted by Kspar: - also qtz veins 90° Ca.	similar to above but less extreme Kspar → chlorite.	<10%	95%		63922		.089		
Sparse Porphyry - less altered than above - grey/brown tint, + slightly coarser matrix - locally resembles (MSAP) Not!!	1 cm Kspar vein/envelope at 286' - otherwise progressively decreasing chloritization of Plag:			290	large qtz veins (1 cm) 90° Ca: = common + traces of MoS2 only, not rich.	note decrease in chlorite, increase in matrix g.s.	<10%	95%		63923		.023		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 5 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
typical ± fresh, Sparse Porphyry - variable in pheno g.s. and % - slightly pasty matrix: grey colour - contains (?) chilled mafic porph. inclusions.	Slight alteration Plag ± faintly chloritic - locally overprinted by biotite, some etching of feldspar.		P			300	good qtz veins 70-90° c.a. ± barren, MoS2 in hairline fractures 20-40° c.a.	fresh sparse porph. note qtz veins [illegible]	<10'	95%		63924		.058		
Sparse P. - grades sharply into Crowded Porphyry with increased pheno% (50%) & matrix g.s. - possibly inclusions (?) contact relations obscure, returns to typical	V. little alteration, fairly fresh. minor alteration and etching of plagioclase. Sparse P		CP CP		P	310	MoS2 traces in hairline fracts: 90° c.a. - also ±20° c.a. Not V. rich.	are sections of Crowded P. inclusions?	<5'	95%		63925		.022		
Sparse Porphyry - fairly typical texture and composition - locally pheno: rich, grades towards Crowded	fresh biotite laths: Locally overprinted plag: generally V. fresh.					320	few qtz veins, mostly 70-90° c.a. - no visible MoS2.	fresh but ± barren Sparse Porphyry	<5'	90%		63926		.018		
as above, Sparse Porphyry, ±15% phenos, scattered, slightly pasty matrix, not strongly aphanitic	slight increase in alteration: Plag → Chlorite (dark) and etched. qtz veins + fluorite at 327'		P			330	qtz veins - grey, not smokey, mostly 45°-70° c.a. - rare blebs MoS2 mostly ± barren, MoS2 in hairline fracts 90° c.a.	increase in chloritic type alteration	<5'	90%		63927		.036		
Sparse Porphyry - with increase in biotite content - V. fresh black biotites overprint plag. (2ndary)	Plag altered ± etched and biotite overprinted, return to sericite - clay alteration type - [illegible] in late fractures (30° c.a.)					340	qtz veins 90° c.a. ± common but V. little MoS2 - (8 x 1cm)	Change in alteration type. [illegible] in qtz veins	<5'	90%		63928		.022		
Sparse Porphyry - V. similar to above, strong biotite, moderate sericite - clay alteration, ± homogeneous.	Plag altered & etched → light green sericite - clay: - strong biotite - 2ndary; - abundant qtz veins 70-90° c.a.				?	350	wide veins ± barren, 1mm ± hairline fracts: ± MoS2: Not rich late fracts: 10-90° c.a.	- alteration increases at 349' fault ?	<5'	90%		63929		.027		
Sparse Porphyry - V. similar to above, increase in alteration → local deformation possible fault at 359'	as above, light green replacement of plag: Kspar ⇒ sericite + clay alteration country rock: fresh biotite				?	360	as above, wide (1-2cm) grey qtz veins 90° c.a. ± barren, traces in hairline fracts:	as above - moderate to strong alteration	<5'	85%		63930		.010		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
highly deformed and altered Sparse Porphyry – cut by chloritic shears (40° c.a.) at 361' and 369' – also cut by fractures ± ‖ c.a. ∴ strongly affected.	sericite - clay and chlorite alteration, ± carbonate in gouge		40° / 40°	370	qtz veins 90° c.a. & some MoS2 in fractures 90° c.a. & on shear planes.	Not v. many but MoS2 as present increased deformation	<5'/	90%		63931		.056		
highly altered and deformed sparse porphyry – cut by chloritic shears at 372', 375', 377', 379' – mainly 30°-40° c.a.	chlorite and sericite - clay alteration – as above. biotite appears to be fresh			380	V. good MoS2 on chloritic shear, also found in rare fractures & hairlines	internal deformation in porphyry + chlorite shears:	30'/9	80%		63932		.031		
highly altered and fractured Sparse Porphyry – as above: – V. strongly fractured 20°-40° c.a. + gouge	Sericite - clay alteration – little chlorite, rich in fresh biotite			390	MoS2 traces in hairlines only.	open fracture deformation + gouge generation.	<10'/	65%		63933		.041		
Same as above slightly more deformed and poorer recovery. fault at 394' and 397' – V. altered Sparse Porphyry.	same alteration as above, fresh biotite, minor chlorite		30°	400	None visible	extensive deformation from 350'.	<10'/	50%		63934		.040		
			E.O.H. 400'											

PLACER DEVELOPMENT LIMITED

GRID: —

HOLE No. 79-5
SHEET No. 4 of 6

LOCATION: 15 S(W) BEARING: LATITUDE: 6620 092.9 PROPERTY: Adanac

DATE COLLARED: 10th Aug. '79 LENGTH: 450' DEPARTURE: 589 699.4 CORE SIZE: NQ. LOGGED BY: R.H. [illegible]

DATE COMPLETED: 12th Aug. '79 DIP: Vertical ELEVATION: 1498.2 SCALE OF LOG: DATE: 15th August '79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Probably boulders until 42' — no clear distinction between gravel/boulders and disrupted bedrock	Mainly CgQM and sparse porphyry (hybrid) transition and normal CgQM varieties.				40			V. [illegible] sparse porphyry related to FgQM?	estimated Moly loss			63935		.003		
CgQM — normal variety, V. disrupted & poor recovery ⇒ gravel. Resembles overburden but [illegible] and more angular fragments.	Sericite–clay alteration ∴ soft, etched plag: V. little limonite stain.					50	No visible MoS2 — few qtz veins ∴ probably none V. [illegible].	V. good ground contact between bedrock & overburden vague.	100%	25%		63936		.001		
CgQM, similar to above but more variable texture: locally cut by sandy FgQM dykes (aegirine-augite 1mm) — [illegible]	[illegible] as matrix in CgQM locally ∴ transition alteration as above, plag altered & etched, little limonite.	Cg / Fg				60	1 qtz vein (1mm) 70° c.a. + [illegible] [illegible], slightly etched and rusty. —	CgQM soaked in aegirine-augite 'magma' — grades to coarse (sparse porphyry)	90%	40%		63937		.010		
Variety of coarse hybrid porphyry — resembles sparse P but coarser, aplitic matrix; grades from sandy FgQM through sparse variety into transition CgQM	V. poor recovery — feldspars = etched, rust stained.	Hybrid				70	qtz veins 70° c.a. but no visible MoS2	Hybrid porphyry resembling sparse P.	100%	25%		63938		.029		
Hybrid porphyry — returns to normal CgQM at 75'. CgQM = fractured and altered, late fracts. = ∥ to 20° c.a.	Plag & Kspar = altered, ∴ crumbly with little limonite. Biotite appears to be fresh.	Cg				80	rare, etched qtz veins (1–2mm) variety of angles, no visible MoS2. Possibly none [illegible]	V. unstable CgQM — chalky Kspar — disrupted.	100%	30%		63939		.005		
Fairly normal CgQM cut by a hybrid porphyry zone. Note V. mafic, aplitic component matrix to Hybrid P. — recovery improves from 87'8": CgQM = normal, non-transitional type.	Sericite–clay alteration of CgQM — plag ⇒ light green, soft, clay altered, — rock = deformed. Late fracts 30° c.a.	Hybrid / Cg				90	2cm (grey) qtz vein 90° c.a. = barren; small MoS2 blebs in 3mm qtz vein 75° c.a.	Fairly normal CgQM (+ some alteration) cut by bodies of hybrid.	90%	65%		63940		.045		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 5 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Transitional CgQM → Hybrid Porphyry - mixed unit - large irregular phenos Kspar in s-150 [illegible] chloritic matrix: - cut by small dykes (4cm) of sandy EgQM → qtz veins	Pervasible silicification, chloritization and faulting (25° ca) from 99'-101' - rust in fault zone	Hybrid; Cg/QM	25°; 75°	100	8 3-6mm qtz veins 70-90° ca. + small blebs MoS2 - not v. much also in few qtz veins // ca.	Transition zone - V. distributed texture. Fresh biotite?	40'?	75%		63941		.035		
CgQM - deformed 70° ca → altered, V. broken rock. sheared 40° ca at ± 102' normal texture; irregular large (1cm) Kspars.	alteration of plag: & Kspar: sericite - clay + chlorite - biotite appears fresh. V. little limonite stain	Cg	Fg	110	qtz veins 10° ca, + good blebs MoS2 - not v. common? Pyrite + chlorite	appears replacing primary biotite 2 stages bio - fresh.	20'?	75%		63942		.066		
Narrow dykes of sandy equigranular (1-5mm) EgQM then typical CgQM - V. irreg. texture, normal variety V. rich in Kspar, Xstals fused together	standard alteration of plag → light to dark green - sericite/chlorite fresh, interstitial biotite			120	MoS2 in minor qtz veins 10° ca. & in veins 90° ca. -	Limonite on late fractures 20° → 50° ca.	20'?	70%		63943		.068		
CgQM - with minor hybrid porphyry at 120' CgQM - deformed → reduced to rubble at 128' - possible fault (?)	strong sericite - clay alteration, ± chlorite, increases in fault zone late fracs // ca	Hybrid	?	130	MoS2 on shear planes 50° ca. - V. good also MoS2 in gouge.	increased fracturing, V. variable directions, core loss [illegible]	85'?	85%		63944		.084		
V. altered CgQM - strongly deformed crumbly → ± rubble - fault 90° ca at 136' - vigorous deformation → alteration related to shear:	extreme sericite - clay and chlorite. coupled shear alteration - white chalky rubble late fracs // ca:	Cg	90°; 70°	140	MoS2 on slip planes in shear zone → frequently in gravel.	Minor limonite stain: - strong development of chlorite from 137' [illegible] mainly on shear	40'?	50%		63945		.128		
CgQM - strongly chloritic shear zone at 142' - with CgQM chloritized → sheared on cobble scale:	intense chlorite alteration - dark green near fault - elsewhere, mainly sericite - clay alteration; rock = crumbly		F 40°	150	MoS2 in hairline fract. 10° ca. + frags. in shear zone - few qtz veins.	MoS2 blebs in chloritic shear zone large qtz vein (grey) 90° ca. = late = barren	40'?	65%		63946		.286		
Mixed CgQM → hybrid porphyry (1mm equigranular matrix variety) - as above: - V. poor recovery: late fracs // ca:	intense sericite - clay and chlorite alteration. No fresh biotite? No [illegible] fault			160	Pyrite + chlorite in rubble - MoS2 trace in 1mm qtz vein 25° ca.	terrible recovery - reason uncertain.	50'	30%		63947		.041		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 3 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
QFP extends to 167' = chilled contact with Sparse Porphyry - locally resembles QFP - strong sericite-clay alteration: light green/grey tint	strong sericite-clay + chlorite alteration in QFP near contact zone (plag ⇒ chlorite) intense fractures ∥ CA. fault at 164 fault?		Cg		? 90°	170	Significant increase MoS2 below contact, in qtz veins 90° CA & hairline fractures ∥ CA	recovery increases with sparse [illegible], [illegible], note fault [illegible] Kspar veining 45° CA	30'	50%		63948		.090		
Sparse Porphyry - V. sparse and altered, light green tint to rock, plag + Kspar ⇒ light green clay-sericite (± chlorite) altered.	Kspar envelopes to some qtz veins 90° CA. - small amounts of fresh biotite - not all chloritic.		SP		K	* 180	good MoS2 on fractures 90° CA: + in qtz veins 45° → 10° CA: - good sulfide	V. broken rock but better recovery. still ± chilled contact.	<20'	85%		63949		.099		
Sparse Porphyry - as above - slight increase in Kspar pheno content and biotite content: matrix still chlorite plag ⇒ dark green clay -	alteration as above - sericite-clay + chlorite (with pyrite locally) - cut by qtz veins 90° CA (grey)				?	190	large qtz vein + barren, good MoS2 in a few fractures 90° CA.	V. broken rock: - possible fault at 187' ± chilled porphyry	30'	80%		63950		.054		
Sparse Porphyry - as above - increase in qtz, Kspar phenos (still <10%) and biotite xtals - fresh V. strong late fracture set.	reduced chlorite alteration - more sericite - clay - [illegible] tint. late fracts. 10° CA. [illegible] Kspar envelope to qtz vein		SP		? K F	200	Minor MoS2 in rare qtz veins 30° CA. + traces in gravel: [illegible]:	transition into more normal Sparse Porphyry	<20'	70%		63951		.044		
Sparse Porphyry - variable composition - some ± 10% large phenos - [illegible] ± few of plags; matrix = chloritic: - strong shear at 210'	alteration as above: Plag ⇒ light green sericite/clay alteration = altered. rock retains [illegible] tint.				20°	210	large qtz veins 90° CA. + rare coarse blebs MoS2, also narrow (1mm) veins 20° CA.	Note large clots fresh biotite	<10'	90%		63952		.094		
Similar to above, variable composition Sparse P. - on average a slight increase in pheno size and content. [illegible] late fracts: 10° CA, and fault at 50° CA.	increased alteration near fault zone same as above: Biotite - fresh,				F 50°	220	small amount MoS2 in qtz veins 50°-90° CA. (4-8mm) also traces on hairline fracts:	increased deformation and alteration - fair recovery:	<10'	90%		63953		.165		
Variation of Sparse Porphyry - V. strongly fractured, ± ∥ CA. to 222' - Porphyry + 10% [illegible] grades into phase with <5% at 226'	Sericite - clay alteration decreases and chlorite alteration increases towards 230 -					230	MoS2 in early fracts 70-90° CA. cut by late fracts ∥ CA. Locally on late shears.	few qtz veins, rare MoS2	<20'	95%		63954		.109		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 4 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Sparse - Sparse Porphyry - altered, reduced to crumbled mass from 234' - 238' (fault) - Biotite fresh in chlorite zone, altered in sericite zone	chlorite alteration with increased sericite/clay alteration near fault - V. chalky & crumbly. Fluorite with sericite gouge		–	240	crumbly MoS2 in altered fault zone, no good qtz veins	Strong hydrothermal alteration related to fault.	30' ?	65'		63955		.035		
highly altered Sparse P. - possibly silicified at 244' cut by major Kspar-qtz vein at 246' (mixed qtz (grey) Kspar + inclusions)	altered Sparse P. silicified Sparse P. cut by V coarse qtz-Kspar pegmatite, strongly altered	SP Qtz		250	qtz Kspar = late, postdates MoS2 vein // Ca. MoS2 in shears & fractures.	Possible wolframite needles in qtz vein. vein = late	26' ?	85'		63956		.044		
Qtz Kspar vein parallel to (?) silicified Sparse P. => normal chlorite (+ minor sericite-clay) altered Sparse P. - fractures // Ca. sericite - clay alteration increases	towards 260' = fault zone; cut by Kspar-Bio rich zone at 254'	Ksp	K	[illegible] 260	MoS2 on shears at 253' and in qtz vein 5° Ca. MoS2 + pyrite on shears parallel	to main fault, - mainly ±70° Ca; some fractures = pyrite rich	40' ?	45'		63957		.098		
V. altered Sparse P. continues to 264' then returns to normal chloritic variety (+ fresh biotite) - phenos = ±10%, - altered. 3 cm qtz vein 80° Ca. = barren	sericite - clay variety => chlorite alteration dropped.			270	MoS2 in rare qtz veins and fractures	speckles MoS2 envelope qtz veins, no conc. blebs.	25' ?	70'		63958		.116		
altered Sparse Porphyry variable phenos q.s. ±%, - ±10% phenos: note V. strong biotite development.	standard alteration - plag & Kspar. minor sericite - clay: biotite commonly replaces plag.	SP		280	good MoS2 on ? shears 70° Ca. traces in qtz veins and hairline fractures.	increased biotite, 90° and // Ca.	20'	85'		63959		.059		
altered Sparse Porphyry - largely chloritic - variable q.s. and % phenos: cut by Kspar-Bio zone at 281'	V. strong biotite development, 2ndary - locally replaces plag. V. chloritic, green porphyry.		U	290	MoS2 in qtz vein 5° Ca and in rare fractures. V little.	Strongly altered porphyry. Fresh 2ndary biotite	<10'	95'		63960		.023		
Change to fresher brown tinted Sparse P. - (grades to coarser) cut by Kspar envelope qtz vein // Ca and Kspar vein 70° Ca.	apple-green alteration of plag; ± biotite pseudomorphs. - clay = altered.	c/d		300	qtz vein 70° Ca. visible MoS2 - also hairlines 20° Ca. + disseminated specks, qtz veins 90° Ca.	Varied MoS2 distribution, not V rich	<10'	95'		63961		.064		

GRID: ______ **PLACER DEVELOPMENT LIMITED** HOLE No. [illegible] SHEET No. 5 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Sparse Porphyry with fairly crowded sections: – ± 40% phenos. – strong 2ndary Biotite large qtz vein (3cm) 80° co.	Minor chlorite alteration + biotite overprint Kspar + MoS2 vein 60° ca.					310	MoS2 blebs (coarse) in 4mm qtz vein 70° ca. Not rich:	Non - normal looking Sparse P. + low alteration	<10%	90%		63962		.086		
Fairly fresh looking Sparse P. – locally V. close to Crowded. P. – etched plag: strong biotite overprint.	late fractures 20-30° Ca. + gouge: (sericite - clay – light green) –		3p			320	trace of MoS2 only. specks in rare hairline fracts. ∥ → 90° ca.	gradation towards Crowded Porphyry	<5%	90%		63963		.029		
as above, fairly crowded Sparse P. cut by 40° shear zones → fractures ∥ Co. – alteration increases with deformation	sericite – clay alteration increases near faults → fractures: – Biotite + fresh overprint.		~		40°	330	abundant qtz veins 90° Ca. & ∥ Co. – little MoS2. specks only.	qtz veins up to 1cm = ± barren + rare blebs MoS2.	<5%	90%		63964		.031		
Variable Sparse P. – as above, grades to Crowded. fairly fresh: Strong biotite overprint	Mild sericite - clay → chlorite alteration of Kspar, Plag. → Matrix.		5p			340	3 cm qtz vein 80° Ca. & barren, + minor qtz veins – no MoS2 – rare specks only	Standard Sparse P. – fairly crowded.	<5%	90%		63965		.013		
V. fresh brown tinted sparse P. – as above – fairly crowded locally. Strong biotite overprint, euhedral phenos ± 35%	Note Plag = relatively fresh, – No chlorite, Kspar phenos cut qtz veinlets. Kspar vein 20° ca. late chlorite fracts: 30° Co.				K	350	Minor 1-2mm qtz veinlets, 70-90° → 25° Co. ± barren, MoS2 in 1 6mm qtz vein 70 Co.	relatively fresh Sparse. P.	<5%	90%		63966		.039		
as above, fresh, fairly crowded Sparse Porphyry – variable % and g.s. phenos: – grey-brown tint,	strong biotite overprint – locally replaces plag. otherwise fairly fresh – no chlorite – gouge in late fractures. ∥ to 20° C.A.					360	MoS2 specks in hairline to 2mm qtz veins, 20° + 70-90° Ca (X-cutting) Not rich	– possibly crowded in part.	<5%	95%		63967		.064		
as above, fairly fresh Sparse to Crowded Porphyry euhedral Kspar phenos ± ± 20-34% phenos no late fractures, V3 [illegible]	V little late alteration, strong biotite - as above Kspar Xtals overprint qtz veins					370	Numerous 1-2mm qtz veins + specks MoS2 15° Ca. + 90° Ca, at 60° Ca. rich.	V. fresh porphyry.	<5%	95%		63968		.046		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	ASSAY RESULTS: Cu	ASSAY RESULTS: Mo	ASSAY RESULTS	EST. GRADE
Variable sparse / crowded porphyry - fresh, minor Kspar veining (envelope qtz mosi vein 90° ca) - good 2ndary biotite.	Kspar also at 30° ca. [illegible] q.s. V. little late alteration [illegible]				K	390	qtz veins [illegible]	qtz veins not V. Moly rich	<5'	95%		63969		.144		
similar to above - variable % [illegible] q.s. - sparse - gradually crowded porphyry [illegible] V. large Kspar [illegible] (2cm). V. little alteration	fresh, V. minor plag. alteration [illegible] Biotite - also in qtz veins (planar [illegible] to 45°)					395	Moly in qtz veins 90°, 45° and 20° ca [illegible] Not V. rich.	Biotite selvage to qtz vein ‖ Ca. 1 offset by qtz vein 90° ca.	<5'	90%		63970		.030		
as above - mixed sparse to crowded porphyry - variable q.s. and % [illegible] No late fracture [illegible] alteration early [illegible]	Kspar vein [illegible] envelope to qtz veins 60° ca - Kspar [illegible] cut qtz veinlets; strong 2ndary Biotite					400	slight increase in Moly - [illegible] fractures 90° ca. and [illegible] qtz veins [illegible]	excellent core. spalled only fresh porphyry.		90%		63971		.103		
					[illegible] 485'											

PLACER DEVELOPMENT LIMITED

GRID: ___ HOLE No. 226
SHEET No. 1 of 6

LOCATION: 15 2 W BEARING: ___ LATITUDE: 6620 123.6 PROPERTY: Adanac
DATE COLLARED: 12th Aug. 79 LENGTH: 286' DEPARTURE: 589 755.3 CORE SIZE: NQ LOGGED BY: R.H. Pinsent
DATE COMPLETED: 14th Aug. 79 DIP: Vertical ELEVATION: 1489.9 SCALE OF LOG: ___ DATE: 23rd Aug. 79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
0 – 50' – overburden: consists of hybrid porphyry blocks, poor recovery; note qtz veins ∥ CA. + clay alteration	– large blocks. near – outcrop bouldery: ± uniform [illegible]			50	No visible S.F.	rounded pebbles at 47' probably overburden.	estimated 10% loss			63972		·003		
Hybrid Porphyry = broken outcrop. – Large 1-2 cm phenos euhedral Kspar in fine aplite matrix – characteristic texture for Hybrid Porphyry	margins of plag phenos = altered and ± stained with limonite – stain fairly slight. moderate alteration	Hybrid Porphyry		60	qtz veinlets 90° CA., 30° CA. – grey, 3-4 mm – no visible S.F.	Hybrid = variety of "transition" with f. fine matrix + phenos.	60%	40%		63973		·001		
Hybrid Porphyry – as above large phenos, fairly crowded, matrix = fine, sandy, – mud filled fracture at 68'	as above, margins of some feldspar phenos → clay + sericite, V. crumbly and altered 68'–70'			70	2-4 mm qtz veins (grey) ∥, 90° and 30° CA – locally etched out – probable MoS₂ loss.	– Same inferred, near surface – open fractures	90%	30%		63974		·013		
as above, Hybrid Porphyry – crowded type with little matrix – related to "transition" CgQM.	less limonite, more obvious sericite/clay and chlorite alteration. Fairly muddy at around 80			80	Significant MoS₂ traces in hairline fracts. ∥ to 30° CA. and in bag's of qtz veins	could be still overburden	80%	20%		63975		·054		
V. poor recovery – largely CgQM. V. crumbly, fractured ∥ CA. contact relations = obscure. –	sericite – clay + chlorite alteration no feldspar [illegible] traces of limonite	Cg		90	MoS₂ traces in hairline fracts. → 1 mm qtz veinlets 20° CA.	still possible overburden: V. poor recovery	90%	15%		63976		·092		
Hybrid Porphyry extends into CgQM which has a variable composition. Grades from V. Kspar rich coarse variety to transition	chloritic and sericite/clay alteration Minor limonite.	Hyb / Cg / 45° / Trans		100	MoS₂ in qtz veins and in shear zone 45° CA (96') – possible loss	variable, altered [illegible] fractured ∥ CA. ; poor recovery	50%	45%		63977		·062		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. 2-6 SHEET No. 2 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Transition - CgQM - [illegible] traces of interstitial matrix ∴ related to Hybrid. P. poor recovery. shear at 102'	sericite - clay and chlorite alteration - soft and broken. V. poor recovery: late [illegible] ∥ Ca:		Cg		30°	110	1 MoS2 on shears and fractures, no qtz veins, mainly 20-30° Co:	Mixed CgQM and transition	70%	30%		63978		.016		
chloritic shear + qtz vein + MoS2 smear at 117' - marks transition to fresher CgQM - generally less altered and limonite stained -	CgQM = formerly "normal" non-transition variety. V. ragged feldspar - irregular CgQM (cut by [illegible] dykes) [illegible]		Cg		25°	* 120	fine-grained good MoS2 in shear zone and in qtz vein 70° Co: -	fresh biotite, significant MoS2 despite poor recovery	50%	50%		63979		.041		
CgQM - normal variety - far fresher than above, [illegible] light green - alteration of plag: note siliceous shears 90° Co. at 125' and traces of matrix. → transition	No limonite, fresh Bio + Kspar, minor sericite/clay alteration locally. - Note [illegible] recovery					130	0.5-1.0 cm qtz veins (grey) 90° Co. = ± barren (70-90°) good MoS2 in F3 mm qtz veins 20° Co.	fairly rich - qtz veins but most = barren. significant SR	25%	75%		63980		.072		
CgQM - normal variety, as above, V. ragged interlocking feldspar Xtals, ± fresh, (late frac's at 15° Co.): traces of fine matrix	qtz-Kspar zones = soaked veins 90° Co. Minor sericite - clay light-green alteration of locally. Plag: - fresh biotite		Cg			140	1-3 cm qtz veins 50-90° Co. = barren or + large blebs MoS2 - good MoS2 also in massive veins 90° Co.	as above: - Note limonitic mud in late fractures ∥ to 15° Ca.	20% ?	90%		63981		.115		
CgQM cut by Sparse P. dyke: chilled contact zone at 143' = exploited by 1' dyke of pasty/sandy salt-and-pepper TgQM). Porphyry atypical. CgQM = deformed, fresh, + minor matrix	Minor sericite - clay alteration of plag: otherwise ± fresh! good recovery. Strong Kspar biotite soaked zone at 142'		30°		Tg 30°	* 150	good MoS2 in 1 3 mm vein 70° Co and in hairlines ∥ Co. significant MoS2 content.	good Sparse P. intrusion into CgQM. + 2-day Kspar soaking	<10%	90%		63982		.137		
CgQM, as above, fresh, irregular "normal" texture, cut by narrow (xxx) dyke(?) of Mafic Porphyry at 154' + 2 narrow silicified shear at 155' - 90° Co.	CgQM soaked with Kspar + biotite adjacent to silicified shear: - typical 2-day alteration.		Cg			160	MoS2 in specks in 2 mm qtz veinlets ∥ Co. ∴ extensive - adds up:	? dyke or inclusion of Mafic Porphyry.	<10%	85%		63983		.095		
Fresh CgQM cut by silicified shear 90° Co., and dyke of sandy TgQM at 168': Qtz veins 90° Co. cut by Kspars,	V. fresh looking, slight "green" tint to plag & pink to Kspar; fresh biotite - mainly: good recovery		TgQ			1 170	Best MoS2 - specks in 2-3 mm qtz veins 15-20° Co. ± blebs in veins at 90° Co.	Kspar looks ± recrystallized; rare Pyrite + chlorite replaces Biotite	<10%	90%		63984		.122		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
CgQM – fresh looking, deformed, probably ± recrystallized, + fairly abundant qtz veins 70–90° c.a. (coarse Moly) → Kspar rich zones	Probable Kspar enrichment envelopes qtz vein 70° c.a. – phenos fuse together (late growth) V. minor eq. alteration – only of plag: Bio = fresh	Cg				180	MoS2 ≥ .25c, as specks in hairline fracts: ‖ c.a. to 45° c.a.	V. pasty CgQM – suggests late growth of Kspar	<10'	95%		63985		.021		
Broken contact with Sparse Porphyry at 183' – porphyry – fresh, variable qtz chilled, pheno-free section from 188'–190' (Fig.)	Strong Kspar zones at 182', 188' – otherwise fairly fresh – light green alteration of plag – rich Kspar.	SP				190	MoS2 – 2.3mm qtz veins 50–70° c.a. – near to contact: Pyrite in hairline fractures 70° c.a.	Fresh biotite euhedral (max 1cm) feldspar in porphyry	<10'	90%		63986		.030		
Sparse Porphyry – variable pheno %, and gs. – mostly around 20% phenos euhedral (max 1cm) phenos Kspar locally cut qtz veins 70–90° c.a.	Slight sericite-clay alteration of plag: ± biotite overprint replacement – 2ndary Bio: – plag = etched and clay					200	MoS2 in fairly abundant qtz veins and hairline fracts: variety of directions, scattered:	– note early fractures – all directions – few late.	<10'	85%		63987		.063		
Sparse Porphyry – as above, variable gs. & % phenos: – V. fine, aphanitic, chilled matrix.	Plag = clay & sericite = etched or overprinted by biotite otherwise = fresh. Bio in hairline fracture 50° c.a.					210	1 large qtz vein 70° c.a. + variety of 1-2mm qtz veins, all angles:	poor recovery. – reason uncertain tube did not lock	40' ?	50%		63988		.058		
Sparse Porphyry – as above cut by Kspar enveloped qtz-Bio vein late 50–90° c.a. – and variety of qtz veins. – Possibly chilled zones in porphyry – no phenos:	Plag = strongly altered, etched, or overprinted with biotite, late fractures ± 10'–30° c.a. + gouge (yellow)	SP			K	220	MoS2 specks in 1-2mm qtz veins 10°–30° c.a. cut Kspar vein.	standard Sparse P. with 2ndary Biotite overprint.	20'	80%		63989		.061		
Variable Sparse Porphyry with strong overprint of 2ndary Biotite: – as clots & replacing plag: –	Plag ≫ sericite/clay ≫ Biotite: – chlorite on late fractures ‖ to 20° c.a.					230	MoS2 blebs and specks in qtz veins 10, 45 and 70° c.a. – scattered	as above, little MoS2 likely typical porphyry	<10'	90%		63990		.059		
Sparse Porphyry – as above, with clots of Kspar/qtz/Biotite and Kspar envelopes to veins 70° c.a. and ‖ c.a. ← (+MoS2)	Kspar alteration around veins and typical plag alteration to sericite: Biotite = fresh				*	240	fairly good MoS2 in fractures ‖ and 70° c.a. – ‖ equivalent qtz veins	Late fracts: 15–25° c.a. + clay gouge: – MoS2 dispersed last 20' up.	<5'	92%		63991		.135		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. 26 SHEET No. 4 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Sparse Porphyry – as above but for slight increase in pheno: % (30%?) – and increased alteration; late fracts: 20° to // Co. + yellow sericite/clay gouge.	as above but increased Kspar alteration ⇒ sericite; Biotite remains fresh & also in fractures 70° Co.		✱	250	qtz veins //, 15 and 45° Co = moderately rich in MoS2 specks = dispersed but common	MoS2 veins Not related to late fractures. good MoS2	<5%	92%		63992		.061		
Sparse Porphyry – as above, v. variable g.s. pheno. (± 30%) (max g.s. = 1cm.) – cut by major Kspar envelope (qtz vein) at 151'	strong Kspar alteration (+biotite) adjacent to 50° Co. vein at 151' – 2ndary alteration = typical + Biotite overprint of plag.		✱✱	260	good qtz veins rich in MoS2 abundant veins // to 70° Co (early) 70-90° Co (late)	– good MoS2 – dispersed MoS2 & qtz vein content	<10%	90%		63993		.150		
Sparse Porphyry – grades towards Crowded, decrease in g.s. increase in % phenos: (–35%) clearly related to Sparse P. v. similar to above.	alteration of plag ⇒ clay/sericite and/or 2ndary biotite = rich. possibly later chlorite also, + pyrite	SP		270	MoS2 in qtz veins (3-4mm) 90° Co. and 2 1-2mm qtz veins 5° Co. (± //).	dispersed MoS2 in qtz in little bits, weighted by 1 vein ± // Co.	<10%	90%		63994		.077		
Sparse Porphyry – grades to Crowded: fresh looking, grey colour, Strong 2ndary biotite development.	Kspar envelopes to some qtz veins 90° Co. & Kspar phenos overprint some; others (Term) qtz veins + coarse MoS2 = late,			280	6 qtz veins (2-10 mm) 90° Co. + MoS2 and 2 1-2mm veins // to 10° Co. MoS2 dispersed,	Plag: = fresh locally altered & overprinted by biotite Note: dissem. Pyrite.	<5%	95%		63995		.144		
Sparse Porphyry – as above, locally fairly crowded: – cut by Kspar zone at 286' (+ biotite) – note sharp increase in fine matrix biotite from	Kspar addition + bio – irregular vein zone with Typical Plag alteration & 289' – less development – likely extra matrix Biotite	—	K – Ksp	290	traces dissem. Pyrite + MoS2 blebs in Kspar zone 90° Co. – few qtz veins + less MoS2 than	Note smokey qtz in cavities = late also chlorite near altered zone. qtz veins	<5%	95%		63996		.045		
Sparse Porphyry – showing increased alteration near late features // to 15° Co. – gouge in fractures: –	fine dusting of biotite locally, as well as large overprinted crystals. Note some late Kspar phenos cut qtz veins	SP		300	MoS2 traces in qtz veins // and 90° Co (±10°) dispersed MoS2 locked in qtz veins	MoS2 on outer fringe of qtz veins. earlier than qtz ≡ MoS2	<10%	90%		63997		.032		
Sparse Porphyry – gradation towards Crowded, cut by Kspar-bio zone at 304' and qtz veins // and 90° Co – and late fractures (+ gouge) // Co. in loss	Minor Kspar addition along veins: – otherwise typical alteration of Plag ⇒ sericite/clay + Biotite			310	qtz veins 90° and 10° to // Co. + little MoS2 & MoS2 content decreased	Strong sericite-clay (white to light green) development as gouge	<10%	85%		63998		.074		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Sparse Porphyry – similar to above, V. broken, late fractures coated with gouge – mainly ‖ to 20° C.A. – typical Sparse Porphyry – 25% plag ±	plag → minor Kspar alteration ≥ sericite/clay (light green – yellow) + strong fresh biotite development			320	Tr, minor qtz veins, 1-2 mm, mainly 70°-90° C.A. + rare specks MoS₂	as above, deformed Porphyry + gouge.	<10'	80%		63999		.033		
Sparse Porphyry – as above, with possible fault at 323' – strong local deformation → fracturing (late ‖ to 20° C.A.) + gouge: rare Kspar post date qtz veins	sericite – clay (yellow) alteration of plag. Kspar + matrix of porphyry – chalky, + fresh biotite		F	330	Minor qtz veins, mostly ‖ angles, mostly 1-3 mm, V. little MoS₂, largely barren	as above, deformed → weakly altered. porphyry.	<10'	85%		64000		.016		
Sparse Porphyry – as above, cut by 2 (5cm) dikes of sandy salt and pepper, FqPM, 10° C.A. at 336': deformed → slightly altered porphyry –	increase in porphyry alteration – gradually as above: – late fractures ‖ to 15° C.A. + gouge.			340	qtz veins 90° C.A. cut late rock types. – no MoS₂ = rare in 1mm veins 10° C.A.	Note vertical dikes of fairly coarse (1mm) Fq PM	<10'	85%		64001		.030		
Slightly altered, deformed porphyry extends to 343' – then dissected in alteration → fracture: cut by 2' dyke of aphanitic leucocratic felsite = altered sericite rock: alteration product	Standard alteration of porphyry — Fq zone = chalky, no mafics, + veins of MoS₂		60° Fg 80°		MoS₂ increase, associated with dike & in porphyry in fract. 90° C.A.	hydrothermally altered dyke + specks MoS₂ silicified (?)	<15'	70%		64002		.119		
Sparse Porphyry – normal variety, brown tint, partly silicified, fractures ‖ to 10° C.A. – no gouge, – V. fresh biotite,	less altered than above, fresher plag: strong secondary biotite			350 / 360	rare qtz veins ‖ C.A. → 90° C.A. + specks MoS₂, variable angles	hard, Sparse P. little late deformation but brittle.	20' ?	80%		64003		.047		
Sparse Porphyry with recovery loss around 366' – fault? V. hard, silicified (?) porphyry – no significant sericite-clay gouge in fractures –	minor alteration of plag: → strong biotite overprint		? F	370	qtz veins (1-5mm) ‖, 90°, 45° → 70° C.A. + specks MoS₂, but veins 90° C.A.	hard, brittle Sparse P., as above. little alteration	20' ?	75%		64004		.056		
Sparse P. – as above, + late fractures 10° C.A. + gouge, increase in alteration – typical porphyry:	strong biotite overprint = fresh, (coarse & fine) – Minor alteration of plag: increases near fracts:			380	Most qtz veins ± barren, good MoS₂ = 1 mm 90° C.A.	typical Sparse P.	<10'	90%		64005		.057		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 6 of 6

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Sparse P and [illegible] slate, aphanitic, dyked (E above) - chilled, hydrothermally altered, - cut by late fractures // Co.	chilled zone in specks in [illegible] biotite (fresh) - also found in porphyry -	3P 15g	15g 50°	370	No MoS2 observed, associated with 1% Py - some in [illegible] in porphyry [45]	Note dykes + sharp contacts - good [illegible], little Moly	<10'	84'		64006		.053		
	End 386'													

PLACER DEVELOPMENT LIMITED

GRID: ______

HOLE No. 227
SHEET No. 1 of 8

LOCATION: 8N 2W | BEARING: | LATITUDE: 6 620 386.9 | PROPERTY: Adanac
DATE COLLARED: 15th Aug. | LENGTH: 557' | DEPARTURE: 589 657.98 | CORE SIZE: NQ | LOGGED BY: R.H. Pinsent
DATE COMPLETED: 20th Aug. | DIP: Vertical | ELEVATION: 1537.98 | SCALE OF LOG: | DATE: 24 August '79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
0-20' mixed overburden, ground rock fragments, mainly mafic Hybrid Porphyry to 4th July granite	- Note biotite rich nature of odd Imperial rock type				None visible			estimated MoS2 loss ↙		64007		·001		
20'-74' as above, mixed overburden, mainly 4th July and mafic variety of Imperial porphyry - possibly related to KgQM - aplite matrix + phenos qtz/Feld = rock type found N. of Fault at Kelly Lake)				70	None visible	No CgQM fragments!				64008		·001		
Overburden passes to crumbly and broken CgQM - rock = much fractured ∥ to 20° C.A. further up: Feldspars = deformed	Strong limonite stain on fractures and in cracks in Kspar: - Plag = altered & rust stained			80	No visible MoS2 - if any present = etched. No qtz veins	altered CgQM, reduced to rubble angular frags:	100%	35%		64009		·001		
as above, typical CgQM - normal texture, v. deformed, & fractured ∥ to 20° C.A. fragmented & poor recovery	Plag ⇒ sericite - clay & stained with rust. Limonite on fracture faces & in cracks - Kspar.			90	No visible MoS2 - qtz vein (60° C.A.) ± etched, barren.	possible fault zone poor recovery.	100%	45%		64010		·001		
Similar to above - CgQM reduced to sand from 96-99' = proper fault zone - abundant gouge - lost [illegible]	alteration and deformation = as above: - biotite fresh in unbroken sections.		F	100	No visible MoS2, as above: - etched no qtz veins	deforming near-surface, faulting CgQM.	100%	25%		64011		·001		
Crumbly CgQM - as above: - poor recovery: - main fractures ∥, 90° and 50° C.A.: rock = highly deformed.	alteration = typical, Plag ⇒ rusty clay strongly etched. No visible qtz veins			110	No visible MoS2 - probably all lost	biotite appears ± fresh - as above:	100%	30%		64012		·001		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. 224 SHEET No 2 of 8

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
as above, fragments of CgQM cut by gouge zone 113'-116' - white clay: gouge + CgQM + late fracts. ‖ Co:	standard alteration of CgQM - sericite - clay + limonite stain. crumbly:		90°? F	120	No visible MoS_2 - etched: qtz veins 70° Co.	Much of clay gouge = washed out ∴ poor recovery:	100%	50%		64013		·001		
as above, CgQM, v. broken, deformed, altered, cut by small gouge zone at 121' and abundant qtz veins (90° Co.) at 122', Fault 10° Co. + gouge	Plag ⇒ sericite-clay ± etched or stained to 126': - Bio: ⇒ Chlor: - Kspar - deformed at 125 - + limonite sta.		F F	130	qtz veins 90° Co. = etched, no visible MoS_2 -	Badly fractured ‖ to 20° Co. ∴ broken up	100%	50%		64014		·012		
as above, CgQM with delicate fault gouge at 137'-140' (white clay) V. poor recovery:	alteration as above, increases near fault zone ∴ CgQM ⇒ rubble limonite stained		F	140	No visible MoS_2 - barren qtz veins (4mm) 70° Co.	as above, rotten ⇒ fractured CgQM.	100%	30%		64015		·006		
CgQM - significant recovery increase: - less broken up: - CgQM = highly deformed & fractured ‖ to 30° Co. Main fracture ≈ 30°	limonite stain on fractures & Kspar cracks + extends to 148' - stops: - alteration as above: possibly biotite still fresh			152	Trace MoS_2 in hairline fracts: - also pyrite with chlorite	less disrupted ∴ better recovery: Note Pyrite L [illegible] stained part.	90%	80%		64016		·015		
deformed CgQM without limonite stain: - except on fracture faces: - typical CgQM - normal variety, no groundmass: -	Bio partly ⇒ chlor: Plag ⇒ sericite/clay ± chlorite - (not stained) + specks pyrite V. irregular texture:		F	160	good MoS_2 in (0.5mm) qtz veins 70°-90° Co. = coarse blebs in grey qtz. [illegible] fractures 90° Co.	Note late fracture 30° Co. + Fault at 157' ⇒ 159'-160'	20% ?	75%		64017		·134		
as above, CgQM - no stain, irregular texture: deformed but not disrupted. - qtz veins to 1cm 70° Co.	Plag replaced by sericite/clay ± chlorite ∴ dark green. - Kspar = milky but ± fresh also biotite fresh		*	170	good MoS_2 in 1mm to hairline fracts, qtz veins 90° Co. ‖ Ca, 20° Co. -	MoS_2 held in qtz ∴ little loss: Late fracts: mainly ± 40° Co.	<20%	70%		64018		·066		
as above, CgQM irregular texture, deformed and altered: Chloritic: stain restricted to fractures.	Plag: ⇒ sericite/clay ⇒ chlorite ? ± pyrite Kspar - milky but fresh biotite - fresh, not [illegible]			180	MoS_2 restricted to specks in hairline fracts: and fine qtz veins (1mm)	Not V rich in MoS_2 Note chlorite alteration.	40% ?	60%		64019		·033		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. 2?? SHEET No. ? of ?

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
CgQM – as above, except texture, – Kspar Xstals locally flowing together – rel. – V. deformed around 186' – fractures ∥ Co.	alteration as above, chlorite after plag. – fresh biotite + Kspar local etching ± No limonite stain	190			Moly in hairline fracts: ∥ → 90° Co. also in rare qtz vein irregular, disseminated	distribution ↑ Moly – note ∥ mafic inclusion (?) at 187	20' ?	80'		64020		.091		
V. crumbly, gravelly, CgQM in proximity to major fault – chloritic gouge from 198'–201' (cored well) –	strong increase in chloritic alteration adjacent to fault. Plag and Kspar → chlorite	200	⊤		Moly visible in qtz veins cutting CgQM adjacent to fault – none in fault	Most qtz veins 90° Co. and late fractures ∥ Co. Pyrite in gravel at 192'	40' ?	60'		64021		.025		
highly altered CgQM – into ?? from fault to contact zone at 208' – then mixed felsic and mafic phases of PgQM – variable contact – 90° gradations – Pg.	CgQM – chloritic alteration: + pyrite, fresh biotite + etched plag alteration: Kspar = milky. – PgQM = pasty, variable biotite,	Cg / Pg; 210	90°		Moly + Pyrite in qtz veins 90° Co. and 25° Co. scattered, Xcutting qtz veins.	strong hydrothermal alteration near contact – both sides	25' !	80'		64022		.042		
PgQM – V. pasty, aphanitic, ± no phenos: – variable comp. grades from mafic to felsic – sandy – hydrothermally altered.	altered PgQM – bio = either added or removed: – cut by Kspar veins and qtz veins + Kspar envelopes	220	K		Moly + Pyrite in fractures and qtz veins 70–90° Co. → ∥ Co.	highly altered PgQM fresh biotite, ± etched.	20' ?	80'		64023		.039		
PgQM – as above, altered and slightly variable comp: – V. Pg – pasty, locally felsic, locally fine dusting biotite, generally non-porphyritic, sandy.	strong, variable, biotite = fresh, ± sericite / clay alteration – rock looks etched: – no phenos – feldspar in groundmass.	230			Moly in hairline fractures and minor qtz veins, variety of angles: Sc mafic and Moly – not Vn	altered PgQM qtz Xstals in feldspar matrix: ± biotite	20' ?	85'		64024		.055		
PgQM – strongly altered mixed felsic and mafic phases of ± biotite Pg, pasty – qtz specks in feldspar matrix, sandy.	strong hydrothermal alteration: variable, local Kspar veining – locally + fresh disseminated biotite. – chlorite alteration of plag – porphyry	Pg; Hyla; 240			5cm qtz vein 90° Co. = barren. ? Moly in thin and hairline qtz veins ∥ Co. 90° Co. significant not	Pg passes to typical Hyland Porphyry – large Kspars in Pg matrix.	20' ?	85'		64025		.044		
Hyland Porphyry zone – Pg matrix + euhedral qtz/Fspar phenos: – returns to Pg with sharp 90° contact with CgQM.	sericite / clay + chlorite alteration, ± dusting of biotite – typical milky Kspar:	Pg / Cg; 250	90°		Moly and Pyrite in late fractures → qtz veins: – 1 good qtz vein 50° Co.	Possible fault at 250' 9" – dominant sericite-clay gouge.	15' ?	90'		64026		.083		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
CgQM → mixed TgQM and Hybrid Porphyry zone at 255' - CgQM = V. deformed, altered, patchily recrystallized — Kspars fused together. -	Sericite - clay and chlorite alteration - typical - note V milky Kspar. & plag → green clay ± chlorite & pyrite	Cg, Tg, Cg; 260	**		good MoS2 in qtz veins 90°, ‖ and 70° CA. coarse blebs. grey qtz "dry" fracts.	V. irregular qtz veins in CgQM commonly as [illegible] ends - V good MoS2 - spread out.	20' / 9	90%		64027		.223		
highly altered CgQM - large fused mass of Kspar + qtz with dark patches of altered plag: passes to pasty TgQM - locally + Kspar phenos → hybrid variety	sericite - clay alteration of both, traces of chlorite & biotite locally: - TgQM = chalky - grades from mafics to felsic	Tg; 270			+ pyrite. MoS2 in qtz veins 20°, 90° ‖ CA. - scattered vein blebs, [illegible] up.	Local pyrite replacement of mafics in felsic [illegible] late fracts 20° CA.	30' / 9	80%		64028		.031		
highly altered and deformed CgQM and by dykes of TgQM and a significant fault zone at 280' - Note late fracts: in Cg = ‖ CA = post mineral	intense alteration, particularly near fault. Sericite - clay alteration, plag → clay ± chlorite, patches locally sericite (2-3 [illegible])	Cg, Tg, Cg, F; 280	**		Open fractures + rich in pyrite and MoS2, V good [illegible] peripheral to qtz veins 70° CA	[illegible] - Fault intense hydrothermal activity MoS2 - pyrite deposition:	25' / 9	70%		64029		.177		
intensely altered CgQM rich in MoS2 and pyrite, extends to 288' - then sharp contact → altered TgQM. fine, pasty variety.	strong + intense sericite - clay alteration (+ milky Kspar) ± chlorite in plag but little biotite	Cg, Tg; 290	*		good MoS2 + pyrite in fracts: + qtz veins in [illegible]: irreg. distribution	V. large MoS2 blebs - rich MoS2 content not ∝ width of qtz vein.	20' / 9	90%		64030		.259		
as above, highly altered TgQM + specks darker [illegible] biotite — Moderate - strong alteration + late fracts: ‖ to 20° CA.	strong sericite - clay alteration, ± some etching of feldspar: - (pasty to sandy texture ± crumbly locally)	Tg, Cg; 300	*		MoS2 + pyrite in hairline fracts: → 1mm qtz veins - MoS2 along some late shears: 1 vg qtz vein + MoS2	V coarse MoS2 blebs in vein [illegible]. traces fluorite - altered CgQM blebs	15' / [illegible]	70%		64031		.133		
V. similar to above, highly deformed and intensely altered CgQM → similarly altered TgQM (+ fault?) they [illegible] hybrid porphyry	strong sericite - clay alteration ± chlorite, biotite, as above ± silicification in fault zone.	Tg, Hy; 310	45° TC		Pyrite + MoS2 in fault zone. open fractures with X lining qtz	V. intense alteration adjacent to fault.	25'	70%		64032		.105		
highly deformed and altered Tg and CgQM + abundant late fractures 40° CA. - typical alteration type	strong sericite - clay ± chlorite alteration of both rocks - large qtz veins small CgQM (± MoS2)	Tg, Cg; 320			wide variety of qtz veins - some with blebs MoS2	MoS2 not ∝ qtz vein size	20'	70%		64033		.063		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Mixed CgQM → FgQM ± silicified V. altered cut by large [illegible] qtz-stripes (5cm) – [illegible] – [illegible] 40° to // Co: V. [illegible] [illegible]	typical sericite/clay + chlorite alteration – biotite rich [illegible] locally – mainly felsic.		Cg Fg (Fg)		Fg	330	MoS2 + Pyrite in fractures and qtz veins //, 90° and 45° Co. Varied.	V large qtz veins = barren better MoS2 in narrow (1-2mm) veins	30'/?	75%		64034		·124		
Feldspathic – cream coloured FgQM – altered ∴ only rare mafic specks: – Typical altered FgQM, sandy + clay matrix: late fracts = 30° Co.	mafics ± removed, hydrothermal alteration – sericite/clay: + rare biotite: – 1mm qtz veins 90°, // and 45° Co. + MoS2				*	340	good MoS2 in widespread, narrow (1-4mm) qtz veins, as blebs (± pyrite)	V. broken rock ∴ MoS2 ± lost from fractures	30'/?	80%		64035		·284		
FgQM – as above, creamy, pasty, highly altered FgQM + rare specks biotite + chlorite in fillers: – qtz in matrix & feldspar + clay	– alteration of large mafics + some sericite – clay alteration of matrix feldspar ∴ chalky. – pyrite in qtz veins & fracts:				*	350	MoS2 abundant in qtz veins & hairlines 20°, 40°, 90° → // Co. also + pyrite in fracts:	Note specks [illegible] biotite – feldspar envelopes locally & high MoS2 to qtz ratio:	15'/	85%		64036		·080		
FgQM – fault, typical, less broken than might be above – but local phases of qtz, feldspar: – matrix still pasty to sandy tending towards M.S.A.(?)	strong sericite/clay alteration – also [illegible] alteration with qtz veins & fractures + rare specks 2ndary biotite				K	360	as above, MoS2 + Pyrite in qtz veins & fractures – commonly 90°-70° Co.	starting to develop into S.A. Porphyry – little late deformation	15'/	85%		64037		·174		
FgQM – gradational into S. Aplite porphyry – ∴ slightly coarse grained matrix: – still fairly pasty & altered. few late fractures	Note Kspar vein 70° Co. + specks of fresh 2ndary biotite – Plag ⇒ Chlorite(?)				K	370	qtz veins 1mm → 1cm, commonly 70°-90° Co. = barren or + small blebs STE.	MoS2 replaces chlorite, replacing Plag: significant STE	<10'/	90%		64038		·058		
porphyritic variety of FgQM grades into MgQM – equigranular at contact with CgQM – 90° Co.	sericite – clay → chlorite alteration of all rock units: + traces fresh biotite (?)		Fg Mg Cg		90°	* 380	MoS2 in large (1cm) → small (1mm) qtz veins, 90° and 20° Co.	good recovery, late fractures = minor.	<10'/	90%		64039		·126		
intensely deformed and highly altered CgQM – cut by fault at 384' – & local shears 90° Co.	– strong sericite – clay + chlorite alteration with qtz veins 90° Co. – late fractures // Co.		Cg			* 390	0.6cm qtz veins 60°-90° Co. + large blebs MoS2 (6)	V. soft, altered rock, abundant chlorite & sericite.	<10'/	90%		64040		·201		

GRID: ____ **PLACER DEVELOPMENT LIMITED** HOLE No. 24 SHEET No. 6 of 8

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
CgQM - highly deformed and altered - V. green and chloritic in appearance - normal, shearing texture: V. crumbly, soft rock	Plagioclase dark green chlorite. also found on shear planes: - shears = 40°-50° C.A. Pope gouge at 398'.	Cg	K	400	decreased MoS₂ content. - few qtz veins & mineralized fractures:	drop in MoS₂ content. Note late fractures ‖ to 10° C.A.	<5%	90%		64041		·047		
highly altered CgQM passes to similarly altered Mafic Porphyry at 408' - contact = igneous (@ 60°) Mafic Porphyry = altered & sheared, no biotite.	visible until 409' - texture that of Mafic unit. - chloritized. (+ pyrite) + sericite - clay alteration.	Cg	✳ 40°	✳ 410	MoS₂ on and in shear zone (40°) at 408' - good ST. good recovery. otherwise V. little	highly altered mafic P. near contact.	<10%	85%		64042		·123		
Typical Mafic Porphyry - mottled, large euhedral Kspar in fine matrix + biotite, - V. sheared at 413 and 419' late fracts ‖ to 10° C.A. = common	alteration increases near shears -. decrease in bio: content, increase in chlorite + sericite - also fluorite		30° 20°	✳ 420	good MoS₂ in fractures 90° C.A. - little qtz rare, where present = large blebs.	strong development of gouge in late fractures ± ‖ C.A.:	<10%	90%		64043		·245		
V. altered Mafic Porphyry mixed with fresh: - note chlorite on shears (10° C.A.) and milky appearance to feldspar: - deformation - 430'	intense sericite - clay alteration - mainly near shears and late fractures (± ‖ C.A.)		✳ 12	430	good MoS₂ on 1 set of shears at 427 and in 1 qtz vein: - not common, rich where present.	hydrothermally altered zone of Mafic P. - note MoS₂ on shear slips	<10%	90%		64044		·125		
Mafic Porphyry ± altered and deformed, typical texture - cut by Kspar enveloped qtz-calc veinlets 70° C.A. & shears ‖ to 10° C.A.	strong sericite - clay & chlorite alteration, - Plagioclase dark chlorite, Bio = fresh.		K	440	qtz veins (1-4.0 cm) at 50-90° C.A. + large coarse blebs MoS₂ - (4) - also on fractures	as above, altered Mafic Porphyry + MoS₂ in qtz. veins	<10%	90%		64045		·120		
altered Mafic Porphyry - cut by Kspar vein at 453' and late fractures ‖ C.A. - Porphyry = typical texture, crenulated:	chlorite and sericite - clay alteration: + fresh biotite - - green hint to rock. gouge on late fractures		K	450	MoS₂ traces, with flint in 1-2 mm veinlets 90° ‖ C.A. and ± 90° C.A. - also blebs in Kspar vein	decrease in MoS₂ content Not V. rich	<10%	90%		64046		·040		
as above, altered Mafic Porphyry - typical texture, slightly deformed. - note late fractures ‖ C.A. = common	- typical alteration - sericite + clay & chlorite - (fresh biotite) gouge in late fractures			460	Traces MoS₂ in 1-2 mm qtz veinlets 45°-90° C.A. - No major concentrations	typical altered Mafic P. - note relatively fine grained	<10%	85%		64047		·054		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. [illegible] of [illegible]

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porphyry – typical, altered, strongly sheared at 465' and commonly fractured ‖ Co. – fractures filled with gouge – alteration increases near faults.	Strong sericite – clay & chlorite alteration – particularly strong near faults & fractures.			470	qtz veins 45°, 70° Co. + blebs MoS2: Minor MoS2 on hairline fracts:	Note 1cm TGQM (aplite) dykes 45° Co. typical.	<15%	80%		64048		.097		
Mafic Porphyry – typical, less altered than above: – less fractured and veined: – cut by 2-4 cm dykes TGQM (aplite) 90° Co.	Minor K-spar envelopes to some qtz veins 70° Co. – otherwise normal sericite – clay & chlorite – less intense.			480	MoS2 as blebs in 2-4mm qtz veins 90° Co. (3) – not V rich.	typical less altered mafic porphyry – less deformed.	<10%	90%		64049		.062		
Typical Mafic Porphyry – as above, fairly fresh – grey tint (not green) – few fresh K-spar enveloped qtz veins (1mm) 70-90° Co. ± biotite	weak sericite – clay & chlorite alteration, v. fresh biotite,			490	MoS2 specks in fracts: and narrow qtz veins 90° Co. (not rich)	typical, fairly fresh	<10%	92%		64050		.081		
Typical Mafic Porphyry – large K-spar phenos – biotite speckled matrix – weakly fractured and altered: – cut by 1cm qtz veins 90° Co. – (6)	standard alteration – weak, note minor gouge in fractures ‖ Co. = sericite + clay			500	MoS2 blebs in qtz veins, – not rich but significant – rare coarse blebs.	– still good MoS2 in qtz veins.	15%	85%		64051		.055		
V. similar to above, typical, Moderately altered Mafic Porphyry – cut by V. altered fault zone at 506'	strong sericite – clay alteration in fault zone – crumbly. (+ pyrite)		F	510	sporadic qtz veins (2-4mm) + specks MoS2 – Most 45°–90° Co.	significant mineralization – dispersed, (±14 veins)	15%	85%		64052		.055		
Mafic Porphyry cut by strongly chloritic shears, and a 10 cm dyke of aplitic TGQM –	Much as above, sericite – clay alteration and chlorite alteration increases near faults.			520	MoS2 + trace pyrite on shears and in fractures – possibly some MoS2 with chlorite in slips: –	altered mafic porphyry. few qtz veins	15%	85%		64053		.092		
Mafic Porphyry – variable alteration – goes from grey (fresh) + biotite to green & chloritic. Note occasional qtz veins 90° Co.	strong chlorite alteration + sericite – clay: – minor gouge on fractures (sericite + chlorite)			530	occasional blebs MoS2 in qtz veins and in hairline fractures	typical altered porphyry.		85%		64054		.026		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
altered Mafic Porphyry - cut by late fractures 10° c.a. → 2cm dykelets of FG 4(?) - possibly Spruce Porphyry -	Sericite - clay + chlorite alteration - note fresh biotite in hairline fractures (+ pyrite)			540	rare specks x blebs of MoS_2 in fractures x few qtz veins.	V. few qtz veins! better MoS_2 on shears and fractures	<5'	99%		64055		.042		
Mafic Porphyry - typical, ragged xtals in mottled matrix - fairly fresh, cut by aplite (FG 4??) dykelets (2cm)	V. minor alteration - some xtalline sericite flakes on fracture faces: - open fracture 10° c.a. + carbonate			550	good blebs MoS_2 in fractures x 1mm qtz veins 90° c.a. → 45° c.a. (±10)	fairly good MoS_2 despite absence of qtz veins.	<5'	99%		64056		.036		
Mafic Porphyry - mixed fresh → altered - cut by 1-2mm qtz, hypr, Mol veinlets, mainly 60°-90° c.a.	- green tint, note carbonate some epidote as well as chlorite		E.O.H. 555'	560	V. good MoS_2 blebs in qtz veins also found	still altered Mafic Porphyry - as above - still some MoS_2.	<10'	80%		64057		.036		

PLACER DEVELOPMENT LIMITED

GRID: ____

HOLE No. 228
SHEET No. 1 of 2

LOCATION: 8N 2E | BEARING: | LATITUDE: 6630 437.5 | PROPERTY: Adanac
DATE COLLARED: 20th Aug. | LENGTH: 536' | DEPARTURE: 589 761.9 | CORE SIZE: | LOGGED BY: R.H. Pinsent
DATE COMPLETED: 23rd Aug. | DIP: Vertical | ELEVATION: 1513.7 | SCALE OF LOG: NQ. | DATE: 26th August '79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Overburden to 64' – above 30' recovery = only boulders of 4th July Batt. Foliated diorite below 30' predominantly rusty CQFM boulders.				60						64064		.001		
CQFM deformed, rusty, broken up! fractured // ca 20° c.a. Normal textured CQFM – V. large qs. – altered: Kspar = shattered & fractured = stained.	Normal alteration – (boulders & outcrop) – plag => soft green or brown (limonite) stained clay: etched		oc ?	70	Some qtz veins 60-90 c.a. = broken & etched – no visible MoS_2:	typical rusty, deformed CQFM – angular fragments = outcrop (?)?	100'	50%		64065		.001		
CQFM as above, apparent outcrop – reduced to subrounded gravel from 75'-90'. Typical deformed, fragmented, stained CQFM	late fractures ± // c.a.: fragmented and lost. sericite-sericite – clay alteration to 84' –			80	No visible MoS_2 – as above, all MoS_2 etched	gravel from 75'-90' looks like overburden fracture fill ??	100'	50%		64066		.001		
CQFM gravel; – either still in overburden or gravel seam in fracture	as above: – chips of CQFM – altered, local.			90	None	V. poor recovery:	100'	5%		64067		.003		
Typical deformed, fragmented CQFM with limonite stained crafts – feldspar and gouge filled fractures ± // to 10° c.a.	standard alteration of plag => limonite stained clay: – + sericite – clay alteration		oc ?	100	None visible	Open fractures near surface – fine gravel.	100'	45%		64068		.001		
Typical CQFM – deformed altered, less limonite staining clay along limonite near fractures: No late fractures // c.a.	slight sericite-clay alteration: Plag => soft, green, chloritic? alteration product.			110	long qtz veins fractures 90° c.a. + small blebs MoS_2 – no MoS_2 in rusty rock	CQFM – fairly fresh, getting harder with depth	20'	80%		64069		.011		

GRID: ___ PLACER DEVELOPMENT LIMITED HOLE No. 228 SHEET No. 2 of 8

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
CgQPM – as above – deformed and cut by silicified shear zone 90° ca. at 115' – also by late fractures (+ stain) 10° to ∥ ca. – gouge in late fracts:	Plag ⇒ soft clay (sericite + clay) ± stain & etched. Plag ⇒ green? – biotite in CgQPM appears fresh	Cg 120			qtz veins (4-5mm) 90° ca. = barren possibly some etching:	V. irreg. texture to CgQPM. Kspars = fresh. Possibly also argil? of plag:	80%	70%		64070		.016		
Typical, deformed, fairly fresh CgQPM ⇒ V. silicified 125' (90° ca) then hybrid porphyry – large xtals plag & qtz in a fine, spongy matrix:	– myrmekitic matrix? – odd texture. Probably zoning silicification, chloritic + alteration of plag:	Hy 130	Sil – Cg	*	1mm qtz veins 20° – 90° ca. – variably etched. No visible MoS2 except in 1 Vg vein 90° ca:	Fresh biotite in CgQPM. Hybrid P = silicified.	<20%	80%		64071		.176		
V. silicified contact hybrid ⇒ CgQPM. Limonite restricted to fractures. – Kspars = V. irreg; fused,	Minor sericite-clay alteration, possibly of chlorite alteration of plag. – biotite = fresh, – late fracts. 30° ca. also qtz veins	Cg 140			No visible MoS2 – some etched qtz veins	V. strong silicification associated with hybrid porphyry	100%	80%		64072		.014		
V. strongly silicified CgQPM at 140' passes to normal variety (no stain). V. irregular Kspar xtals, locally fused, "soaked" with Kspar at 148'.	strong silicification + minor Kspar addition. Plag ⇒ chlorite + fresh biotite:	Cg 150	Sil K		abundant qtz veins 90° to 30° + coarse visible MoS2 – also found in fractures	some qtz veins predate Kspar growth. Late fractures ∥ to 10° ca. 45 ca.	20%	90%		64073		.203		
V. strongly silicified CgQPM grades into "normal" unstained variety at 157 – 159' – shears & silicified zone = 90° ca.	Note strong chlorite alteration and biotite associated with silicified rock – typical alteration in CgQPM	Sil Cg Cg Cg 160	Sil		MoS2 in qtz veins 40°-70° ca. – blebs & blebs of MoS2. – veins cut silicified zone:	early silicification – pre mineral	<20%	70%		64074		.151		
Normal CgQPM passes to silicified variety at 165' – extends to 171. Probably small fault at 167' – crumbly and sericite-clay altered CgQPM, not V. silicified:	extreme silicification, + chlorite and biotite alteration – note many silicified shears (90°) in Cg.	Cg Cg 170			Pyrite in fracts: in silicified Cg. – MoS2 – small veins and fracts: in CgQPM.	– little MoS2 in silicified zone: – otherwise as above	30%	70%		64075		.050		
Return to "normal" CgQPM – highly deformed and altered, locally silicified. – irreg: texture, chloritic plag	Fresh biotite & chlorite replaces plag: Kspar = milky, ± fresh some etching of plag:	Cg 180		*	1 Vg qtz-MoS2 vein 90° ca – coarse MoS2 blebs – otherwise traces in veins only.	Late fracts ∥ to 10° ca.	<10%	80%		64076		.448		-

GRID: __ __ PLACER DEVELOPMENT LIMITED HOLE No. 228 SHEET No. 3 of [illegible]

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Silicified CgPM - highly altered and deformed - qtz veined pre to (1mm) FgPM dyke(?) with equigranular, aplitic texture, sandy - contacts both silicified & deformed CgPM	Silicification - extreme along contacts of Fg. unit. Note silicified shears - Cg - 90° c.a. - deep chlorite + biotite + pyrite	SI / Fg / Cg — 190'			Late Moly (rare) in qtz veins 70-90° c.a. - Not rich, also in hairlines 20° c.a.	Late faults: 11 to 10° c.a. Locally Cg resembles fanglomerate matrix	20'	80%		64077		.031		
Typical altered but not silicified CgPM ⇒ FgPM - sharp igneous contact - FgPM = sandy, tendency towards S.A.P. - not quite aplitic.	Kspar veins (1-2mm) and envelopes to qtz veins in FgPM - normal, minor sericite-clay alteration, + chlorite/biotite	Cg / Fg — 200			Pyrite in hairline fracts: 11° c.a. MoS2 in fine qtz veins, not common, fine veins, little MoS2	Open qtz veins - good X'tals qtz + MoS2. 1cm qtz vein 90° c.a. - fine MoS2 only	10'	92%		64078		.043		
FgPM - V. slightly porphyritic - few qtz + feld. phenos, pasty matrix - not really aplitic related to S.A.P. - faults at 208' and 205'.	Kspar veins & envelopes, 45° & 90° c.a. - strong sericite-clay alteration near faults. - fresh biotite specks.	K — 210			1-2mm qtz veins + fracs and coatings of MoS2 - not v. rich, few veins.	- strong sericite alteration - poor mineral. as to few qtz veins.	20'	70%		64079		.154		
FgPM - as above, V. slightly qtz-feld. porphyritic - V. fine to aplitic matrix - altered, cut by qtz veins and late fractures 11 to 20° c.a. -	as above, Kspar veins and envelopes: to some veins + moderate to strong sericite-clay alteration, ± specks fresh biotite	K — 220			1-2mm qtz veinlets ± fluor = ± barren. rare MoS2 + pyrite in some qtz veins	Low MoS2 content also due to qtz veins. - note rich in pyrite locally	10'	92%		64080		.018		
FgPM - resembles S.A.P but fine matrix - green tint, probably chlorite + specks fresh, 2ndary biotite - passes to slightly transitional CgPM.	Kspar veins, as above: + minor sericite-clay and slight chlorite alteration: bio: overprints plag: in CgPM	Fg — 230	90'		Significant increase in MoS2, in qtz veins 70-90° and 45° c.a. -	Locally large (1cm) veins + coarse MoS2 blebs: (?) good MoS2 veins! increase in qtz + MoS2:	10'	85%		64081		.218		
CgPM, sheared and deformed, altered, passes to S.A.P variety of FgPM (aplite matrix + phenos) late faults cut cg: ±45° c.a.	green, chloritic tint to both rock-types & fresh overprint of biotite: large barren qtz-Kspar vein 90° c.a. in Fg.	Cg / Fg — 240			Scattered MoS2 in qtz veins (1-3mm) and in fractures: - also replacing plag! ± pyrite	MoS2 dispersed, not V rich. large, late qtz veins = barren	20'	80%		64082		.090		
Medium Sparse Aplite Porphyry - textured, aplitic, matrix - scattered phenos: - cut by rare Kspar enveloped qtz veins and Kspar veins ±70° c.a.	greenish tint: chloritic: - plag ⇒ chlorite/clay ± etched, overprinted by biotite	M.S.A.P. — 250			MoS2 = trace only, restricted to few qtz veins (fracts) - lenses of feld(?)	- again, V little qtz veining: V little MoS2	10'	92%		64083		.038		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
M.S.A.P. – variety of fg QM aplitic matrix (patchy) to weakly porph. fg. rock – grades (?) into med. grained equigranular granite at contact with CgQM	Local Kspar envelopes to qtz veins – (90°ca) + qtz veins (2-10mm) at 40°-90° ca. – little sericite alteration but chlorite & overprinted by biotite	Mg	70°	260	MoS₂ blebs in some qtz veins 90° ca + traces in hairline fracts. NOT ALL.	typical, only chloritic and relatively little MoS₂	10'	95%		64084		.041		
standard CgQM, irregular texture, sharp contact with above (70°) – from 266-268 qtz flooded – qtz i.e. qtz soaked CgQM – featured Kspar in qtz replacement	strong qtz replacement little sericite, mainly chlorite + biotite alteration:	Cg / Sl / Cg	9.	270	specks of MoS₂ in CgQM along fracts. – 1 MoS₂ fracture 70°ca = good.	V. silicified CgQM 'soaked' in qtz – No MoS₂ increase, V. poor.	5'	90%		64085		.070		
fairly typical CgQM with V. large (1cm) altered plag phenos becomes progressively deformed and altered near fault zone.	increase in sericite – clay alteration near fault → crumbly gouge:		45°	* 280	V. good MoS₂ zone in fault and also blebs in rare qtz veins.	– Note relative absence of faults in hole so far.	10'	80%		64086		.075		
V. Kspar rich CgQM. Xtals fused together – partially deformed and altered – sheared 90°ca. cut by narrow chloritic shear (30°ca) at 281' and major fault. 287-290	sericite – clay alteration increases towards fault zone: → white, crumbly sand: Plag = chlorite (?) – CgQM		30°	290	Pyrite in chloritic shear: – large qtz vein (white) ±1cm, 90°, 70°, 50° + coarse blebs MoS₂	Not V. good MoS₂ significant blebs in 3 wide veins	30' ?	70%		64087		.123		
Highly altered CgQM extends to igneous contact with Mafic Porph. at 299' – both rocks = V. altered & sheared, 296', 298', 294'	Plag → brown, soft, chlorite / clay alteration & Kspar → sericite: good chlorite on shears + MoS₂? – V. rotten rock	Cg		* 300	traces dissem. pyrite in altered rock: No qtz veins: MoS₂ conc. on shear surfaces:	Note igneous contact both units V. altered – probably some good MoS₂ on shears	30' ?	70%		64088		.063		
Highly altered Mafic Porphyry – typical alteration and texture: – cut by late shears and fractures 45°ca.	– [illegible] extreme alteration Plag → chlor: – Note Kspar veinlets, mainly 70°-90°ca. (+ MoS₂ traces) abundant gouge			310	qtz veins – few (and 70°ca. + specks MoS₂ – also 1 fracture 90°ca. = MoS₂ rich.	Not V. good MoS₂ – few qtz veins	20'	70%		64089		.035		
Highly altered Mafic Porphyry – typical texture, biotite in matrix – except [illegible] altered, near fractures	local Kspar + qtz veins 312 and 313' & locally intense sericite clay & chlorite alteration near fractures ‖ to 10°ca – abundant gouge			320	rare qtz veins 90°ca + specks MoS₂ – not common.	chlorite + ? epidote alteration of plag	20'	80%		64090		.037		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
as above, highly altered Mafic Porphyry - original texture retained but strong hydrothermal overprint: Variable alteration [illegible]	Locally [illegible] fresh, hidden mafics + Plag ⇒ dark green chlorite (greasy + epidote), [illegible] of Kspar; [illegible] gouge, fracts [illegible]			330	V. minor SiO2 veining - veins 'breaks' to [illegible] - trace of MoS2 only	Variably altered porphyry - little MoS2	<10'	90%		64091		.032		
as above, highly variable Mafic Porphyry - mostly fairly fresh, typical grey/black [illegible] porphyry - local alteration of plag + biotite ⇒ green epidote	alteration increases near qtz veins (wide, [illegible]) 90° C.A. - & late fractures chlorite (not common) (less deformed)			340	Small amounts of good MoS2 (coarse) in qtz veins - not v. rich	less altered & deformed, less gouge, fracts.	<10'	92%		64092		.049		
as above, more intense alteration of Mafic Porphyry - cut by late fracts: 20° C.A. - & rare, (1cm) qtz veins 90° C.A.	Kspar and Kspar-qtz veins cut porphyry 45-90° C.A. diffuse, [illegible] partial chloritization of plag: -			350	MoS2 in qtz vein (90° C.A.) ⇒ [illegible] fracts: mainly 70-90° C.A. some 30° C.A. -	Note Pyrite on fracture faces: little sulphide	15'	80%		64093		.030		
as above, alteration increases adjacent to dyke of Pasty FgQM. - otherwise typical altered Mafic Porphyry -	Biot + Plag ⇒ chlor (± epidote) with increased alteration - also Kspar ⇒ clearly ⇒ sericite - clay altered.		FG	360	MoS2 - blebs in qtz veins cutting FgQM & Mafic P, variety of angles, Not common -	aplite vein qtz vein cut by FgQM * on surfaces:	<10'	79%		64094		.110		
Mafic Porphyry - as above, - increased alteration near crumbly fault zone: - cut by 3cm qtz vein 90° C.A. (No MoS2) Late fractures mainly 20° & 50° C.A.	minor Kspar veining and alteration: - mainly typical sericite - clay chlorite alteration (with or without biotite)		FZ	370	Trace of MoS2 only: on 2 1mm qtz veins, 70° & 25° C.A. - Not rich	distinct fault zone - orientation uncertain	<10'	90%		64095		.034		
generally fresh, less altered Mafic Porphyry cut by 10cm Fg QM-dyke - sharp, sinuous contact - slightly pasty - could be sparse porphyry - few large phenos, light brown,	Kspar alteration on contact of Fg dyke: - also rare Kspar veins, qtz-Kspar veins and 1cm qtz vein 90° C.A. - otherwise same alteration as above			380	MoS2 in 1 qtz vein 90° C.A. - coarse blobs & blebs - also small, 1mm fr. veins. Not rich	Mafic Porphyry cut by younger FgQM/sparse p. dyke	15'	85%		64096		.058		
relatively fresh Mafic Porphyry - large phenos Kspar - [illegible] in fine matrix + biotite cut by 2 wide (2cm) qtz veins 90° C.A. (+ trace MoS2)	minor sericite - clay + chlorite alteration, Note some Kspar + qtz veins ±70° C.A. - & late fracts: 50° C.A.			390	traces of MoS2 in qtz veins ± 90° C.A. - Not rich:	Standard Mafic Porphyry + minor alteration:	<10'	90%		64097		.025		

GRID: __ PLACER DEVELOPMENT LIMITED HOLE No. 228 SHEET No. 6 of 8

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
as above, typical Mafic Porphyry – standard texture: – variable alteration fresh to strong, cut by 5cm dykes of fairly TgQM 90°–20° Co.	weak fault/shear at 392, gouge + rub. typical alteration – sericite + clay + chlorite slightly green tint.		25°	400	V. minor MoS₂ in qtz veins (1–4mm) 90° Co. – not common, disseminated in fault	altered Mafic Porphyry – some fresh biotite weak mineralization	10'	90%		64098		·039		
More highly altered Mafic Porphyry – same texture: – cut by chloritic shear at 409' and late fracts. 10°–20° Co.	standard sericite-clay + chlorite alteration – plag = replaced green chlorite – biotite either present or altered locally			410	MoS₂ blebs in 2 qtz veins 30–90° Co. – sparse, ∴ not rich.	disseminated pyrite on fracture surfaces typical:	<10'	92%		64099		·069		
Mafic Porphyry – as above, fairly highly altered: – typical rock type: late fractures ∥ Co. ∴ intense alteration	sericite-clay and chlorite alteration – as above: – Kspar veins with chlorite patches + MoS₂			420	rare Kspar + MoS₂ veins 20–40° Co. Not rich.	alteration increase, ∴ gouge abundant, little MoS₂	<10'	92%		64100		·027		
as above, possibly less strongly altered Mafic Porph: – mostly + fresh biotite & typical texture: –	Cut by Kspar veins 90° Co. – and late fracts. 20°–30° Co. – rich in gouge – typical alteration			430	Traces MoS₂ in 1–4mm qtz veins (rare) – 30–60° Co. – specks only, dispersed.	dispersed MoS₂ – not rich, fairly typical.	10'	90%		64101		·034		
Mafic Porphyry – fairly fresh – cut by TgQM dyke at 434'; sandy, equigranular, coarse, – Mafic Porph – typical texture	fresh biotite – fairly coarse, some feldspar alteration ∴ white fringes on fractures – little chlorite – no green tint		Tg	440	good MoS₂ in 1 fracture 70° Co. at 430' – otherwise only rare specks in narrow qtz veins (1mm)	probably coarser grained Mafic P. – gradation	<10'	92%		64102		·067		
altered Mafic Porphyry – fairly green → chloritized – cut by well mineralized qtz veins 60°, 20°, 90° Co. – 5–6mm	Minor secondary alteration – plag + biotite → chlorite: – little sericite/clay alteration some fresh biotite		✕✕	450	Significant increase MoS₂ – coarse blebs in 6 qtz veins.	strong alteration adjacent to qtz vein.	<10'	92%		64103		·186		
fairly coarse, fresh, Mafic Porphyry – cut by sandy TgQM dyke (30° Co.) at 451' – also cut by qtz veins and qtz + Kspar veins 90° Co.	Note Kspar xstals cut qtz veins: fresh biotite in some qtz veins & overgrowths rock. mainly chlorite alteration		Tg	460	specks MoS₂ in 2mm–1cm qtz veins and in minor fractures, not v. rich	typical Mafic Porph: Minor MoS₂	<10'	92%		64104		·185		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
standard [illegible] - as above, moderate alteration: still [illegible] - slightly [illegible] chlorite + sericite clay on fracs.	Note FgQM dykelet max 1cm wide 90° c.a. late fracs: 30°-40° c.a. + [illegible] gouge: irreg. qtz veins (1-3mm) [illegible] angles.	470			Traces MoS2 in 1-2mm qtz veinlets 90° ± 10° c.a. Not V. rich	typical altered Mafic P. + weak mineralization	<10%	92%		64105		.032		
as above, strong late fracture 20°-40° c.a. + abundant gouge - [illegible] weak fault at 478' - 3cm FgQM dykelet 90° c.a. -	strongly altered near faults. - Plag + [illegible] → sericite / clay + chlorite - Z [illegible] (5-10mm) qtz vein	480			qtz vein zones 70°-90° c.a. c traces of MoS2 [illegible], late [illegible] veins ∥ c.a.	Significant trace MoS2, not rich. Little loss	<10%	90%		64106		.061		
as above. V. mottled Mafic Porphyry - V. ragged texture - [illegible] pheno: - diffuse grades [illegible] altered (near fracs:) - late faults 10°-30° + gouge.	Partially Kspar [illegible]: - [illegible] patches Kspar with also large qtz veins (90°) = [illegible] (± [illegible])	490			MoS2 - small specks [illegible] coatings on [illegible] 1-2mm [illegible]: varied angles, dispersed	- reasonably good MoS2 - [illegible] in large qtz veins	<10%	92%		64107		.049		
as above, V. diffuse [illegible]: Mafic Porphyry + V. large (1cm) Kspar phenos, - mottled matrix - [illegible] biotite except near fractures: - gouge in [illegible] 10°-20° c.a. -	Biotite in fracs.; veins [illegible] replacing plag. - Kspar "phenos" [illegible] qtz veins. late, open, fracs + carbonate 20° c.a.	500			increase in MoS2 content - mainly [illegible] + coatings on 1-2mm fractures + qtz veins ± 45° c.a.	Note [illegible] & good MoS2 in narrow, not wide, qtz veins = early?	<10%	92%		64108		.051		
Mafic Porphyry becoming increasingly V. crumbly altered towards contact with FgQM dyke at 505' FgQM = highly altered, chalky. Shear near contact at 506'	intense sericite/clay chlorite alteration of Mafic unit, Fg = only sericite-clay no chlorite, pyrite dissem.	510	*		Wolframite in qtz vein cutting altered Mafic Porph. MoS2 in 1mm qtz veins, 20°, 90° c.a.	[illegible]: FgQM = V. [illegible] at 510'; MoS2 loss possible	40%?	80%		64109		.041		
V crumbly, highly altered FgQM sheared against V. altered Mafic Porphyry at 515' - Shear = 20°-30° c.a. + V. rich in MoS2	intense sericite-clay alteration of both rock types. - [illegible] chlorite [illegible] of Mafic - fresh [illegible] away from fault	520	* * 25°		Excellent MoS2 gouge in fault shear - also [illegible] in Mafic P.	V. intense hydrothermal alteration associated with FgQM dyke	35%?	65%		64110		.164		
highly altered Mafic P. cut by fault & V. crumbly at 522' - igneous contact with Fg porphyry ? (sparse P) 90°, highly altered and deformed.	V. intense sericite-clay alteration of both rock units; texture diffuse: - [illegible] chlorite, No [illegible]	530	20°?		traces of MoS2 in fault zones, [illegible] major MoS2 shears. - dissem pyrite	Large fault gouge cemented breccia from 526-529'. Not much MoS2	20%?	80%		64111		.060		

GRID: PLACER DEVELOPMENT LIMITED HOLE No. 7-8 SHEET No. 8 of 8

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	ASSAY RESULTS: Cu	ASSAY RESULTS: Mo	ASSAY RESULTS:	EST. GRADE
Contact sparse porphyry + mafic – sharp, igneous. – Mafic continues to end of hole = highly altered, sericite-clay → chlorite. Late fractures 90° CA	Possibly some K-spar alteration – mafic unit is feldspathic – related to K-spar, + later alteration – rare biotite altered to chlorite				45°	540	Qtz veins 70–90° CA = barren or + trace MoS2 – not much.	intense alteration but MoS2 much reduced.	<10'	90%		64112		.056		
	E.O.H. 536'															

PLACER DEVELOPMENT LIMITED

GRID: ______

HOLE No. 229
SHEET No. 2 of 5

LOCATION: 1 S (W) BEARING: ______ LATITUDE: 6620 150.5 PROPERTY: Adanac
DATE COLLARED: 20th Aug. LENGTH: 351' DEPARTURE: 589809.2 CORE SIZE: NQ. LOGGED BY: R.H. Pinsent
DATE COMPLETED: 23rd Aug DIP: Vertical ELEVATION: 1481.9 SCALE OF LOG: ______ DATE: 28th Aug. 1979

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
0'–40' No recovery; Sand & gravel of Ruby Creek						40		Mostly lost estimate								
intensely deformed and altered porphyry – either sparse or crowded. V. crumbly, possibly a fault zone.	relatively fresh biotite at 42' + biotite overprint. – Laumontite V. soft, chloritic clay rich from 44' – sheared 60°CA				60°?	50	traces of MoS_2 in shear zones and in qtz-fluorite veins 60°CA. – possibly loss	fault zone near surface – note relatively good recovery & reduced limonite	40' ?	70%		64113		.030		
as above. intensely sheared, deformed and altered sparse/crowded porphyry – too altered to tell. Cut by a major MoS_2 coated shear at 57' = 30°CA.	V. highly altered, sericite – clay + chlorite alteration, soft biotite altered.				*	* 60	V. good MoS_2 on sheared slip planes, ∥ CA, 30°CA → 90°CA. certain loss	shears in porphyry commonly 70–90°CA. – limonite stain at 50'	40' ?	60%		64114		.110		
as above, highly altered sparse (?) porphyry – V. crumbly, poor recovery – probably rounded at 62' → 67' → 70' – broken rock extends to 72'	highly altered porphyry plag ⇒ soft green gouge (sericite – clay). Mafics ⇒ chlorite – [illegible] Kspar ⇒ sericite ∴ crumbly					70	MoS_2 traces in gravel – mostly lost	abundant gouge, gravel and crumbly slicks – note late fracts: ∥ CA: fresh biotite	80%	25%		64115		.046		
fairly crowded sparse porphyry with v. fine – slightly pasty matrix with biotite specks – large (1cm) phenos Kspar locally cut qtz veins 90°CA.	– rock = much fresher, matrix mottled, plag ⇒ sericite + clay – also some Kspar, mafics = fresh, biotite may overprint plag.				*	* 80	V. good MoS_2 in qtz-Kspar-MoS_2-bio vein 30°CA (1cm) – also – qtz veins 90° and 10°–20°CA.	alteration clay late fractures, 90° CA. sparse qtz veins = sericite or + pyrite	30' ?	75%		64116		.168		
V. mixed porphyry – sparse → fairly crowded sections – variable/changing → texture of matrix. aphanitic to fine grained	– hard, silicification slight sericite – clay alteration of plag. – note qtz-Kspar vein 20°CA. | Fresh biotite					90	qtz veins ∥ → 70°CA – also 20° ± – variable width (1–4mm) + minor MoS_2, in selvages	late fractures ∥ to 10°CA. – not visible MoS_2	20' ?	80%		64117		.115		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. 25? __ SHEET No. _ of _

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Porphyry - largely sparse, as above, cut by strong shear at 93' → V. altered (mafic?) f.g. 94' dykelet - 90° c.a. return to sparse P. - faulted gouge at 96'	V. leather rock; alteration (sericite-clay) increase near 2 fault zones, crumbly, fresh(?) biotite; Kspar vein 30° c.a. at 99'				V	100	qtz veins (2-4mm) 70-90° c.a. and hairline fracts ∥ c.a. + traces MoS2	Late fractures ∥ to 10° c.a. influences alteration. Kspar cuts qtz veins at 70° c.a.	30' ?	70%	6L	64118		·059		
Much as above, fairly crowded sparse P (variable % of g.i. phenos) - fault zone c.90° c.a. (103'-104'), contains breccia, sericite + carbonate gouge	rock = moderately altered, hard, siliceous + etched light green clay replacement of plag. and strong ?ding biotite overprint				Γ.	110	coarse MoS2 flakes in 1-4 mm qtz veins - leather - considerable loss	- leather core but if good MoS2 lost.	50' ?	70%		64119		·128		
as above, fairly crowded sparse P. - euhedral phenos. Kspar, (+ plag & qtz) in ± aphanitic matrix: biotite rich speckled overprints feldspar	Plag → soft clay = etched, late fracts 10° c.a. + some light green gouge sericite-clay alteration near faults					120	Traces of MoS2 in qtz veins (4-6mm) 20°-50° c.a. specks of MoS2 - not ??	note traces of dissem. pyrite in altered porphyry	25' ?	75%		64120		·111		
highly altered and altered from 120'-130', probable fault zone: note rock = altered sparse P. - main fractures appear to be ∥ to 90° c.a.	- as above but more extreme alteration sericite - clay alteration rock crumbly or chalky					130	MoS2 traces in rubble, locally rich in large veins, loss probably great.	Relatively late fractures ± ∥ c.a. ?? deformation	50' ?	50%		64121		·124		
Sparse P. - locally grades to crowded, V. leather, fault zone at 136' - biotite replaces plag?	Kspar + Bio veinlets locally & Kspar phenos; cut qtz veins - plag → light green sericite-clay ± etched, + strong biotite overprint.					140	traces of MoS2 on fractures 70° c.a. and in 1mm qtz veinlets, rare.	Variable texture P. sparse P. locally resembles crowded	20'	75%		64122		·030		
Sparse Porphyry - (to crowded) - cut by fault at 141' - V. hard siliceous porphyry - 25% phenos - max g.s. = 1cm Kspar V. rich in biotite	Plag = altered to light green clay - etched, & overprinted by biotite - fresh and dark				.70°	150	Traces MoS2 in 1mm qtz veins, 30° c.a. & also chatting shear at 141' -	Late fracts ∥ to 10° c.a. + carbonate good MoS2 on shear plane	15'	85%		64123		·044		
fairly fresh sparse porphyry - locally fairly crowded - cut by dike of f.g. mafic rock - too mafic for normal f.g. - diorite	Minor sericite-clay alteration of plag; major generation of biotite some overprints plag & Kspar; some Kspar phenos ... qtz veins				10°.	✱ 160	3) 1mm qtz veins/fracts 70-90° c.a. + good MoS2 locally + chlorite, biotite & pyrite noted: -	fresh phenos, 1cm max: euhedral - aphanitic matrix. Late fracts: 10° c.a. + gouge:	10'	92%		64124		·225		

GRID: ___ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 5 of 5

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Sparse Porphyry - as above - Slight increase in alteration - still fairly fresh - grades into partly Crowded variety + more coarse matrix & ±45% phenos:	Standard alteration. Plag → clay ± chlorite → Biotite overprint minor biotite. clay in fractures: 20-30° ca		SP CRD.			170	Mo - 1 MoS2 specks in qtz veins ±30°-40° CA. - (cut by Kspar) also [illegible] veins 10° ca.	Late Kspar cut qtz veins: - strong biotite overprint of feldspar	<5'	95%		64125		.281		
Mixed Crowded → Sparse P. - sparse may intrude into Crowded, due to characteristic, volcanic phenos + coarser, more aplitic matrix than sparse.	Plag - weakly altered, as above: - some clay stained: - abundant fresh biotite - some over old feldspars.				170' SP	180	trace MoS2 only in qtz veins (mm) 60-90° ca. 1 large (2cm qtz vein - barren) 90° ca	Kspar cuts qtz in veins 20° ca. Note V9007 recovery:	<5'	95%		64126		.019		
Crowded Porphyry with fairly coarse, aplitic matrix: - variable pheno content around 40% cv: euhedral, Kspar, max 1cm	Kspar - bio, envelope to qtz + carbonate vein 90° ca (5cm wide) + 1 [illegible] trace, otherwise as above, Plag → biotite		crowded			190	MoS2 traces in 1mm qtz veins, 90° → 20° ca - 1 mm rich [illegible] well scattered	Note pyrite specks with chlorite(?) and biotite.	<5'	95'		64127		.086		
Crowded Porphyry - rich in phenos Kspar: + qtz + fairly coarse, aplitic matrix: alteration increases from 196' - slightly sheared → deformed.	Kspar + bio → bio-qtz veins, varied angles from 20-90° ca. - otherwise as above. Fresh 2ndary biotite, altered etched Plag: pyrite + chlorite in shears.					200	traces in fine-grained qtz veins & MoS2 on slip planes in deformed zone at 200' -	altered Crowded P. still good recovery:	<5'	95'		64128		.030		
Sheared Crowded Porphyry returns to fresh, undeformed at 202' - as above, grey-brown pasty-aplitic matrix, mottled.	chlorite - carbonate (?) rich shear zone, ± lineated, otherwise normal, mild alteration.				25°	210	MoS2 specks in blebs in qtz veins (1mm-6mm) 20° → 90° ca. + 1 ca scattered.	No MoS2 in shear zone,	<5'	90'		64129		.096		
Crowded Porphyry - locally grades to sparse: - same aplitic matrix, qz. (max 1cm) euhedral, note fairly common qtz veins 0.4-1.0cm + little MoS2	V. abundant fresh biotite, late, I think - some after Plag: - otherwise typical.					220	rare MoS2 specks in qtz veins, not common,	fairly coarse crowded porph phase: fresh	<5'	95'		64130		.048		
V9007, typical Crowded Porphyry fresh: - note [illegible] qtz-Kspar veins (20° → 70° ca) - Kspar phenos cut qtz veins	alteration as above, note late Kspar in and on qtz veins → late biotite; fairly fresh. Note late alteration.					230	qtz veins + specks MoS2 - 20°, 90° ca. + [illegible] - scattered MoS2: -	Note post magmatic Kspar + biso	<5'	95'		64131		.094		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG Rock Type Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Crowded Porphyry – much as above, aplitic matrix, variable g.s. of phenos – contact with Sparse at 237' – igneous (90° Ca) – typical Sparse P. – aphanitic matrix	standard alteration of plag: – generally v. fresh rock – trace chlorite + pyrite – abundant biotite		CRD; SP			240	as above MoS2 specks in rare qtz veins (1–2 mm) 20–80° Ca. variable	sparse appears to intrude Crowded Porphyry	<10'	85%		64132		.036		
Sparse Porphyry – abundant phenos (~60%) + embedded in aphanitic matrix: – qtz veins 90°, 30° w/ Ca. late fracts 10°–20° Ca	Standard alteration Plag. → light green sericite / clay + fresh biotite, trace of chlorite both					250	MoS2 specks in qtz veins: – hairline // Ca. + traces in other, not [illegible]	qtz + v. little MoS2 still predominantly biotite	[illegible]'	80%		64133		.072		
Typical Sparse Porphyry fairly homogeneous, (20% phenos) variable g.s. (max 1cm) v. fine, almost aphanitic texture	rare bio + Kspar vein 90° Ca – several qtz veins, as above, 10°, 90°, 30° variable width (1mm – 8mm) + rare Kspar Xstal.					260	large qtz veins 20° Ca. – above little MoS2 on narrow qtz veins or fractures 60°–90° Ca.	qtz + slightly greater MoS2 content pyr. chlor. on fracts:	<10'	90%		64134		.084		
Typical Sparse Porphyry – as above, with increased deformation and fracture at 268' – increased alteration: – not clots of mafic amphibole (?) – 1cm. – angular fault	Similar, but increased alteration – plag & bio: as before + more sericite – clay near fault				20°	270	rare MoS2 on fractures (no qtz) 90° Ca. & slips 35° Ca. – rare qtz veins ± barren	little MoS2 in fault zone not much lost	<10'	80%		64135		.043		
Mostly altered and deformed sparse Porphyry (271'–275' shear zone) – return to fresh, unaltered Sparse P.	↺ sericite – clay + chlorite increase in shear zone (20° Ca?) – strong biotite overprint.				?, 20°	280	v. rare MoS2 specks in shear zone	Note shear with cored, v. little loss, no carbonly alteration	15'	85%		64136		.019		
Fresh Sparse Porphyry – v. little late alteration, typical texture, ±20% phenos: – embedded in fine matrix grey – brown colours,	strong 2ndary biotite – some amphibole feldspar (?) Kspar veins 90° Ca (1cm). – v. little sericite – clay alteration					290	fine hairline 10° Ca. + specks MoS2, with barren qtz vein → 20° Ca. variety of qtz veins	+ specks MoS2 – variety of and[illegible] note significant increase	<10'	95%		64137		.118		
Fresh Sparse Porphyry – v. fine grained matrix (not aphanitic) embedded phenos. Typical.	Kspar – qtz alteration zone 25° Ca, + strong regional overprint of biotite. Plag → chlorite + v. minor sericite – clay.					300	MoS2 mainly on fractures 80–90° Ca. – Trace: Pyrite in fracts. 20° Ca.	as above, sparse Porph. ± fresh [illegible]	15'	85%		64138		.034		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. [illegible] of [illegible]

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
					Hairline 20°Co: X									
Typical ± fresh, Sparse Porphyry + fine matrix - grey, <20% phenos, homogeneous, variable g.s. pheno:-	Kspar alteration veins 20° → 90° co. - (± qtz). → fairly common qtz veins 40°-90° ± MoS2. fresh biotite, otherwise fairly fresh			310	MoS2 on fract: - fr. 90°Co. ± in qtz veins 30°Co. Not all veins mineralized.	Note Kspar alteration crystals cut qtz veins locally - also fairly 950 qtz, only little MoS2	10'	90%		64139		.052		
Sparse Porphyry - V. similar to above. + fresh, grey, sharp texture:- phenos <15% average.	as above:- rare Kspar veins, qtz common 30°-90° hairline ≥ 8 cm - and biotite, V. minor fld. alteration			320	MoS2 + Pyrite on fracts: 90°Co + traces in other, wide, qtz veins, not rich.	Note V. irreg. qtz veins, wavey, rock = hard, competent.	10'	90%		64140		.023		
V. hard, fresh, typical - grey, Sparse P. <20% phenos: generally phenos (0.5cm, euhedral - abundant (1cm) qtz veins Xcutting:	Kspar vein + Biotite, - also Kspar Xstals cut qtz veins - Plag ⇒ chlorite ± biotite, epidote? - V. little alteration			330	abundant fine qtz veinlets + traces MoS2 - mostly 20°-80° Xcutting	fresh Sparse Porphyry	(10'	95%		64141		.023		
Sparse Porphyry - as above, hard, typical grey, fresh rock, cut by large 1cm qtz veins 20°Co. (3) ± Bore-	Kspar selvage envelope (1) qtz vein 20°co. - V. ragged, some Kspar phenos cut qtz, biotite overprints feldspar:			340	V. little MoS2 in large 20° Co. veins: Trace of MoS2 in hairline fracts 90°Co.	fresh, + qtz + Kspar cut. not rich in MoS2	<5'	95%		64142		.014		
Sparse P. as above, variable g.s. pheno: pheno = <20%, cut by abundant qtz veins (1mm ⇒ 1cm) 90°, 35°, 10° Xcutting.	(1) Kspar zone + Kspar - Qtz zone 90°Co. - Note V. ragged + irreg: qtz veins - locally cut by Kspar phenos:-			350	traces of MoS2 in qtz veins, all angles, not rich, scattered	Note pyrite in Kspar zones, - typical Sparse P.	5'	95%		64143		.033		
			20°; 35°											

PLACER DEVELOPMENT LIMITED

GRID: ____

HOLE No. 230
SHEET No. 1 of 8

LOCATION: 9N 3W	BEARING:	LATITUDE: 6620 398.95	PROPERTY: Adanac		
DATE COLLARED: 23rd Aug.	LENGTH: 602'	DEPARTURE: 589 606.2	CORE SIZE: NQ.	LOGGED BY: R.H. Pinsent
DATE COMPLETED: 28th Aug.	DIP: Vertical.	ELEVATION: 1545.7	SCALE OF LOG:	DATE: 21st August

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
0'-70' Overburden: mostly 4th July dyke + TJ mafic unit (Rossby Lake type) - No CgQM					None.	potential MoS2 loss.				64144		.001		
70'-90' Overburden, as above, ground fragments - no matrix recovered. - No CgQM - 4th July + Porphyry				90	None.					64145		.001		
CgQM - V. altered and deformed, probably mixed 'normal' and 'transition' textured varieties: - hard to tell, but local patches of matrix. Late fracts: ‖ Co. ∴ Poor recovery:	- deformed & fracture limonitized, ∴ etched note biotite appears fresh, not altered Sericite + chlorite	CgQM		100	rare 2mm qtz veins 90° Co, but No visible MoS2: - etched?	possibly silicified - certainly atypical CgQM.	150'	40%		64146		.001		
Transitional variety of CgQM → Hybrid Porphyry @ 106' - variable rock type, highly altered and deformed rocks: - cut by chloritized silicified zones (10° Co.)	strongly altered, & deformed, silicification + minor sericite - clay & strong limonite Biotite - fresh:			110	Leached and fractures etched & stained: no MoS2	fractures many ‖ to 30° Co. - no MoS2 in the vein (1mm) 30° Co.	100'	55%		64147		.006		
Hybrid Porphyry - large Kspar + qtz "phenocrysts" in aplitic matrix (Pg and mafic - biotite rich) - again V. leached zone:	Local strong silicification eg: 110' - 90° Co. also minor sericite-clay alteration & little chlorite, late fracts X-cutting, shattered	Hybrid Porphyry		120	qtz veins (2mm) 90°, 270° Co. = limonite etched? limonite stained fracts.	V. leached hybrid Porph: V. etched & stained	100'?	40%		64148		.001		
Hybrid Porphyry - as above, fairly extended locally - V. fine grained aplite matrix. closely ragged feldspar phenos: ... 45 -	limonite to 125' and ... from 126'-129' → fracture zone, + strong fracts 10° Co. strong silicification ...			130	MoS2 traces in non limonite stained fracts, - in qtz veins - in - (Pegmatites) (Minor)	deformed by late fracts & strongly silicified.	80'?	50%		64149		.005		

GRID: ___ PLACER DEVELOPMENT LIMITED HOLE No. ___ SHEET No. _ of 8

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Hyland Porphyry continues: strong fault at 141' - sericite clay gouge: - much of rock reduced to gravel - gouge: - poor recovery: typical rock type:	No limonite stain: chlorite alteration after plag & sericite - clay after Kspar: traces of fresh biotite.	Hy	50°	140	-film (1mm) qtz veins, + fracts varied - less - few (1 in): pyrite on fracts 80° Co.	matrix - V. fine, sandy: strong late fracts // Co., V deformed from 139'	65'/?	35%		64150		.004		
Varied Hyland Porphyry - deformed and sheared to 143' - V. disrupted texture large phenos of Kspar & qtz in fine matrix: late fracts 10°-20°Co. & 35-50°	chlorite & sericite - clay alteration: - Kspar phenos cut into qtz veins. Plag = chlorite, fresh biotite?	Hy	70	150	Qtz-Kspar vein 70° Co. = lower V. good MoS₂ - (1) qtz vein, 90° Co. (broken - loss)	70° fracts * post date // Co. fracts	30%?	55%		64151		.033		
Mixed Hyland Porphyry and Transition CQFM! Gradation: V. disturbed texture - matrix broken & faults Cg: essentially both same, altered rock type:	chalky Kspars, - chlorite alteration of plag: - & minor sericite - clay alteration of matrix = Kspar - biotite - fresh:	Cg(T) Hy Cg(T)	60	160	qtz veins 30° Co. (2mm) = ± breccia, MoS₂ ± rare traces, ≤ qtz veins in fragments	good recovery to 157' - sericite alteration may increase from 157' - clay strong fracts // to 20° Co.	30'?	70%		64152		.006		
CQFM - transition variety - resembles Hyland locally - highly deformed and altered - faults at 165', 167', 169' = V. gravelly, altered, rock = broken	possible silicification of transition CQFM between closely shears & faults. Intense sericite - clay alteration locally fresh biotite ± & [illegible]			170	MoS₂ in shear gravel at 170' - small blebs in qtz vein (1cm, 90° Co.) also on fracts: 80° Co. (No qtz)	highly altered & deformed Transition - Not good MoS₂ - shear [illegible]	30'?	60%		64153		.059		
Highly altered and deformed "Transition" CQFM - texture highly altered: - V. strong late fracts // to 20° Co. & 70°-90° Co. : V. broken.	V. strong sericite - clay alteration of [illegible] rock . chalky & locally [illegible] Possible fault at 177 fresh biotite	Cg (T)	20°	180	MoS₂ coating fract: on frags: variety of angles (1) good fract 45° (+ pyrite)	- V. rare qtz veins + MoS₂ - few Probably large MoS₂ loss	50'?	55%		64154		.045		
transition back to Hyland Porphyry - few phenos: qtz-Kspar in fine aplitic matrix - still V. altered and deformed, variable comp. & texture:	as above, strong to moderate sericite - clay & chlorite alteration & fresh biotite (locally met) - sandy textured matrix.	Hy	Variable	190	(1) 2cm qtz vein 10° Co. + trace MoS₂ - 1 - chlorite in veins 10° Co. (1mm) Not much, note trace dissem pyrite	Variably, post MoS₂ to late fractures // to 20° Co. & ± 60-70° Co.	45'?	55%		64155		.030		
Hyland Porphyry - continues, V. broken, much fractured and altered pheno: content decreasing towards 200' sandy textured matrix.	V. strong sericite - clay alteration: chalky + minor chlorite - after plag & on fractures. Note traces of biotite & pyrite	Hy	60	200	V. little MoS₂ - traces on shear planes: - qtz veins (10° Co.) ± breccia	increased alteration - unit still recognizable as Hyland P.	55'?	45%		64156		.004		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. 200 SHEET No. 4 of 8

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Hybrid porphyry — deformed and altered; cut by fault (?) 205' — strong alteration, crumbly — latest fault(?) 110° Ca. — slickensided shears 205'-208'	Chlorite + sericite — clay alteration. V. sericitic to porphyry — [illegible] — specks (?) fresh biotite			210	MoS2 streaks in shear zones + specks in gouge [illegible] — significant trace only	Fluorite in sericite-clay altered shears; some pyrite; [illegible] dissem.	25' ?	75%		64157		.018		
As above. Hybrid porphyry — starts to resemble coarse-grained sparse porphyry — [illegible] of Adera fault — sandy matrix — sporadic [illegible]	Strong sericite — clay alteration, forms gouge — + minor chlorite alteration. Late fracts. // Ca. common			220	MoS2 on shear slips 70° Ca. and slight veins 70-90° Ca. — also pyrite on fracts.	Probably hangingwall of Adera fault?	20'	75%		64158		.084		
V. highly altered porphyry — sparse aplite porphyry — probably epidote altered. — strong shears 45° Ca. + block — sooty alteration — chlorite? carbonate?	V. strong epidote alteration of matrix & plag. feldspar — V. soft, also strong sericite + clay alteration		30°	230	MoS2 with shears & fracts.; more in [illegible]; sphalerite in qtz epidote vein	Zones + MoS2 in [illegible] qtz veins & shear zones — [illegible] stuff?	20'	90%		64159		.128		
V. highly altered rock, probably originally CgQM(?) — V. highly deformed, — specks fresh biotite — [illegible] clay	V. sericitic, white, chalky — V. soft and crumbly, cut by shears and slips // to 30° Ca. Chlorite & MoS2 on shears.			240	V. good MoS2 on slips & shears — mostly 20-40° Ca. (?) — (soft rock but good recovery)	Note extreme alteration; + fluorite & dissem. pyrite	20'	80%		64160		.134		
Probably originally CgQM — so altered = hard to determine original texture — now = white, soft, chalky, crumbly gouge; trace Xtals qtz & feldspar	Extremely deformed, obvious fractures & shears mainly // to 30° Ca. — note intense sericite — clay & minor biotite. — chlorite dissem.			250	Minor MoS2 on shears and slips — not V. much	As above. Note V. fresh biotite — also fluorite in altered rock	10'	80%		64161		.046		
Relatively undeformed CgQM to 256' then grades to V. intensely sheared CgQM (60° Ca.) -> then chlorite gouge at 260' — black gouge = chlorite (?)	Same alteration as above, only less extreme, weak sericite-clay, plag -> chlorite, still fresh biotite + traces fluorite		Ch	260	MoS2 traces on same slips in shear zone, not V. common	Open fractures & etched zones — fine Xtals. clear needles:	30'	70%		64162		.051		
Gouge — with fine fragments in sandy cement — fault breccia — V. chloritic (?) at 260'-261' (black) => white — mafic-free	Intense sericite — clay — probably chlorite (mafic) moved from centre to margins, symmetrical,		F	270	Probably minor MoS2 with chlorite — note pyrite dissem. in sericite gouge	Main fault zone — fault breccia + gouge:	30'	70%		64163		.083		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
as above, breccia, cemented by sandy gorge, sericitic, V. crumbly, chalky - fine (<1cm) angular fragments gouge - grey 277-278' (Moly)	strong, intense sericite - clay alteration - V. little mafic chlorite or biotite, + dissem pyrite xstals in "grey" gouge			280	grey gouge + frags of Qtz + Moly - Moly certain gouge rich (pyrite)	main Adera fault zone, fine breccia gouge.	30%	55%		64164		.113		
chloritic gouge to 282' then highly broken but NOT sheared CgQM extends to 290' - V. poor recovery of CgQM.	strong alteration as above, strongly chloritic shears at boundary of fault - block, strong.	Cg QM	Chl	290	possibly traces of Moly in chlorite shears zone on margin of fault.	V. poor recovery of CgQM ? - CgQM may be fragment (block)	50%	20%		64165		.085		
strongly chloritic gouge extends to 292' then breccias + highly sheared fine breccia zone, as above - shears // to 30°ca. chlorite zone at 297 - sheared gravel CgQM.	intense sericite-clay and/or chlorite alteration related to fault system // to 30°ca.		Chl 1C Chl	300	Moly traces in chlorite portion of shear zone not V. rich	Note block, chloritic alteration on contact: shear zone & contact.	45%	55%		64166		.181		
Highly sheared and deformed recognisable CgQM ± brecciated at 305' & fragments cemented by chlorite - grades into cemented fault gouge (as above)	V. rotten and poor recovery from 305' - crumbly chloritic, then sericite-clay gouge:	Cg	Chl.	310	traces of Moly on some shears, not V. rich,	as above, chlorite at margin of fault zone	75%	25%		64167		.052		
V. crumbly & altered - disaggregated CgQM = fault zone intense alteration ∴ extreme loss of recovery.	sericite - clay alteration with minor chlorite on shears:	Cg		320	Moly traces in gravel: not common	extreme alteration - terrible recovery.	85%	15%		64168		.080		
as above, V. crumbly gravel & frags: CgQM - V. highly altered and deformed, V. poor recovery	- extreme sericite - clay alteration, ∴ feldspars + disintegrated traces of chlorite	Cg		330	traces of Moly in gravel: & clots on rare slip planes in large frags:	dissem pyrite + traces Moly V. altered and V. poor recovery.	85%	15%		64169		.161		
as above, V. crumbly gravel + frags; - probably altered CgQM - becomes dark and (?) chloritic near 340'	typical sericite-clay alteration: shear surfaces + chlorite (?) block contact near 340		Chl	340	Moly traces in gravel: - not V. rich large loss possible	- again, chloritic near contact of shear fault.	90%	10%		64170		.091		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. [illegible] of 8

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
less altered fragments of recognizable CgQM - still poor (re core) 345, then returns to black, chloritic alteration (±16%) along shears, ‖ 40°Co.	V. intense alteration - sericite + clay & alsoilonite ⊥ fault 70°- 40°Co.	Cg		350	abundant speckle traces in gravel; rocks disrupted - Loss = great.	as above, intense alteration - note good MoS₂.	85%	15%		64171		·120		
CgQM - showing intense alteration and deformation - still recognizable & not much disaggregated. - cut by chloritic shears 70°± Co.	intense alteration but less deformation; texture relative; sericite + clay & chloritic shears + pyrite	Cg		360	MoS₂ in qtz veins & as fragments in broken rock - MoS₂ - lost.	sharp contact with altered FgQM variety at 359' epidotized?	30%	70%		64172		·181		
FgQM - V. highly altered, sandy + small frags: Cg. near contact: - strong green tint - possibly epidote alteration - cut by chlorite shears (70°±) and	intense alteration - possibly epidote c Fg - mainly sericite + clay in MoS₂ frcts: CgQM.	Fg / Cg	✱	370	'chloritic' shears possibly + MoS₂ rich, V. similar, some definite MoS₂ coated shears	late frcts: ‖ to 30°Co. V. good MoS₂	45%	55%		64173		·094		
highly altered CgQM cut by dykes of FgQM - sharp contacts: - both V. strongly altered → weakly to moderately deformed	possibly epidote - note green tint to both rocktypes: - strong sericite + clay alteration + chloritic slips:	Fg / Cg	✱ ✱	380	MoS₂ in coarse blebs & slips - V. lost in up few qtz veins	V. soft, altered rock + slicken-sided shears coated with MoS₂	35%	75%		64174		·094		
CgQM - cut by fractures all co. at 381' - becomes hard, silicified and undeformed. V. deformed texture, irreg., little late frcts.	highly altered, plag → chlorite, Kspar = diffuse, whole rock silicified - V. hard, not crumbly.	Cg / Si	✱	390	MoS₂ blebs (to c. 1cm) in qtz veins (1-2cm) 90°Co (5) - traces in hairline fractures.	Marked change in alteration type & porosity increased - hard, not soft	30%	80%		64175		·287		
silicified CgQM passing to altered FgQM at 392' - extends to 400' - V. silicified contacts with qtz veins (90°Co) = common (2-4 cm) Very fine sandy FgQM, no phenos:	strong silicification → weak sericite-clay chloritization of both Cg and FgQM - hard rock: V. strong hydrothermal alteration	Si / Fg / Si	✱ ✱	400	qtz veins ‖ → 90°Co. (10) + coarse blebs MoS₂: - some hairline MoS₂ lost: Most V = 90°Co:	FgQM cut by qtz-type pegmatite dykes + pyrite traces in qtz veins	25%	90%		64176		·256		
CgQM - mildly silicified - V strong qtz veining 90°Co. at 400' - (No MoS₂) - lower veins, regular transparent - typical irreg.; texture decreases in alteration & fracturing	some silicification → chloritization: V. little sericite-clay alteration: - fresh biotite locally overprints plag:			410	MoS₂ specks in qtz veins, mainly 70°-90°Co. - traces in hairline significant	becomes more fractured and altered from 406' - ‖ to 20°Co:	20%	80%		64177		·077		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
broken → crumbly CgQM — locally crumbly, loss — great: typical texture: Plag-fractured ∥to 40° C.A. — (possible fault) 419-420	Plag ⇒ chlorite & Kspar ⇒ crumbly clay, ± sericite, + traces fresh biotite: intense sericite + clay alteration at 420			420	MoS2 specks → fracts: good: not v. good: lost in crushing of trace pyrite	poor recovery — CgQM — late fractures — broken little MoS2	55%	45%		64175		.044		
CgQM — with slightly transitional texture — small % aplitic matrix (<10%) — cut by TgQM dyke at 426 (+ phenos qtz, Kspar, altered) deformed &	mafic min less ∥30° — standard alteration — plag ⇒ chlorite, Kspar ⇒ sericite + clay + pyrite with chlorite of feldspar (?) fresh biotite	Tg		430	2) MoS2 coated fracts: 90° C.A. — coarse MoS2 good + large MoS2 loss.	TgQM ⇒ light green matrix — ∥ C.A. alteration on late fracts ∥ C.A. crumbly	50%	50%		64179		.169		
deformed & altered CgQM extends to 434 then broken contact with TgQM — Cg = fractured ∥C.A. & altered, Tg = fractured but less crumbly. —	typical alteration of plag & Kspar. — Note fresh biotite common & fluorite & qtz veins chlorite on slip surfaces.	Cg, Tg		440	1 V good MoS2 shear at 431' & MoS2 on fractures & qtz veins cutting TgQM.	V. sandy, fine, TgQM & rich in biotite specks near contact with CgQM.	20%	80%		64180		.106		
Typical altered TgQM — aphanitic to Tg, sandy — light green tint, altered, cut by qtz veinlets 90°, 60°, 90° C.A.	broken up, late fracts: mostly 30°-40° C.A. clay alteration of feldspar — white (green) & chalky: — V. little gouge.		*	* 450	MoS2 + pyrite on 1 good fract: 10° C.A. also on late hairline fracts: & in qtz veins 90° C.A.	V. broken probably large loss of MoS2 from qtz veins pyrite traces on some fracts:	40%	80%		64181		.084		
similar, TgQM — slightly coarser & more porphyritic — +2-3% qtz & Kspar phenos: — matrix = pasty, not aplitic — cut by late fracts ∥ C.A.; 65° C.A. 80° C.A.	slightly green tint V. altered TgQM — not crumbly — broken up — possibly some early Kspar alteration (Not much) + fluorite	Tg	*	460	MoS2 + pyrite in narrow qtz veins ∥ C.A. — traces: + (4) qtz veins + good MoS2 80° C.A.	MoS2 content not ∝ width of qtz vein sericite & chlorite (?) on fracts:	25%	80%		64182		.078		
Similar TgQM — broken & fractured, poor recovery — not crumbly, note late fracts ∥ to 30° C.A.: slightly porphyritic, light green, altered TgQM pasty to sandy matrix.	sericite + clay alteration — minor light green gouge on fractures — traces of fresh biotite, largely mafic free			470	clean band from qtz veins — all ... some + traces MoS2 (1) good MoS2 vein 90° C.A.	highly altered, sericitic, TgQM, fairly typical.	30%	55%		64183		.118		
as above, typical TgQM — V. pasty, goes to equigranular medium grained QM — which goes to CgQM at 479' — igneous contacts:	standard sericite + clay & chlorite alteration: — note fresh biotite specks in TgQM & MgQM. large qtz vein ∥ contact at 479'	Tg, Mg	70°, 30°	* 480	MoS2 blebs & specks in qtz veins (20° + 30°) & (70-90° C.A.) (1) = V good vein	entirely recrystallized: Cg a separate intrusion of MgQM — distinctive texture:	10%	90%		64184		.144		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Highly altered & deformed CgQM - cut by 10cm dykes of extra [illegible] QM & sparse Porph. - sharp igneous contacts 45°-90° - CgQM = locally transition type, & locally silicified.	V. siliceous near qtz veins & shears. - Long qtz veins 60-80° + trace pyrite + MoS2 - also chlorite alteration of plag. & minor fresh biotite	Cg		490	2) V good MoS2 veins 70°ca (No 1-7) + V coarse MoS2 blebs. - also traces in qtz veins elsewhere	Upper appears fairly fresh: good MoS2 - late fractures ∥ to ca.	15'	90%		64185		.226		
CgQM intruded by Mafic Porphyry at 491' - igneous contact 90°ca - Xenolith of Cg [illegible] plastic in mafic Porphyry - CgQM porphyry contact partly silicified. -	possible silicification near contact. - also chloritization of Cg & Mafic P. to 495', then mainly sericite clay			500	2) qtz veins ± 70°ca. + blebs MoS2 - cut CgQM MoS2 traces in [illegible] veins in mafic	chill zone to mafic Porphyry at contact: ∥ V. fractured ∥ to 20° ca from 495'	15'	85%		64186		.074		
Mafic Porphyry - small (± 0.5cm) Kspar phenos in V. pasty groundmass - rich in fresh biotite specks: - cut by altered shear at 504' else fairly fresh.	pyrite in fracts: chloritic shear at 504' - otherwise fairly unfractured, fresh - sericite alteration increased from 508' (fractured)			510	traces of MoS2 mainly in fracts, not common (45°ca.)	Note alteration & degree of deformation	15'	85%		64187		.039		
Strongly altered Mafic Porphyry - chloritization & sericite + clay alteration: - V. little fresh biotite.	typical texture - dry diffuse & Kspar phenos. 1-2cm q.s. - secondary chlorite & sericite clay from qtz veins mostly 90°ca.		✳ ?	520	MoS2 traces in hairline fract. ∥ ca. + black gouge - maybe [illegible] (10°ca)	sooty black stuff with MoS2 - lowered % of Slot?	15'	85%		64188		.046		
Mafic Porphyry - mainly fairly fresh with large (1cm) irreg. Kspar phenos in a biotite rich matrix: - minor chloritization near qtz veins and fractures:	chlorite alteration of plag. & biotite. Locally - qtz veins 1mm - 8cm - varied angles, 40-90° Xcutting:			530	small scattered patches of MoS2 in fractures & qtz veins, not V. rich, dispersed	typical Mafic Porphyry + common qtz veins.	15'	95%		64189		.081		
Mafic Porphyry - as above, mainly fresh, - late fracts mostly 50°-60°ca + few ∥ to 10°ca. -	cut by narrow Kspar veins (45°) & qtz veins: V. locally Kspar - V. minor chlor. + sericite alteration - Xcutting qtz veins also			540	Py + Chalco + chlor. in hairline 10°ca. V. minor MoS2 in broken qtz vein,	possible Chalco: in hairline fract.	15'	85%		64190		.030		
Mafic Porphyry - as above, fault zone 545'-546' increased sericite + clay alteration: otherwise fairly fresh:	large irreg. Kspar phenos in diffuse matrix: Qtz veins (1mm to 1cm) at varied angles Xcutting:			550	traces of MoS2 in hairline to 1mm qtz veins 70°ca. + blebs in 1cm vein 70°ca	typical Mafic Porphyry	10'	85%		64191.		.132		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
fresh Mafic Porphyry – grey, mottled, large white plates Kspar (1cm) – mottled matrix – diffuse: – cut by 4-5cm qtz vein + MoS2 (1)	trace of alteration only, (sericite + clay and chlorite) – minor sericite gouge on fracts. 20° C.A. – qtz veins 30° & 70°-90°			560	specks MoS2 in qtz veins, blebs & total 1% MoS2 undeformed and unaltered	good fresh mafic porphyry veins:	<5'	95%		64192		.129		
as above, fairly fresh Mafic Porphyry – texture as above – cut by equigranular FgQM dyke (10cm) & granite vein (2cm) 90° C.A.	V. minor chlorite, sericite & clay alteration, – qtz veins & fracture 10° to ∥ C.A. – fracts + sericite gouge			570	MoS2 coats fracts 45° C.A. & in some 1cm – qtz veins:	Note biotite in some qtz veins	<5'	95%		64193		.041		
fairly fresh Mafic Porphyry – typical texture: – alteration increases towards 580' + more broken fractures:	local sericite + clay & chlorite alteration – nil V. mod. white local Kspar developed qtz veins 80° C.A.			580	(1) good qtz vein + MoS2 – 60° C.A. + some minor [illegible] fract. surfaces:	some fracts: 90° C.A. + pyrite little MoS2 Loss:	<5'	90%		64194		.110		
as above, Mafic Porphyry – cut by chlorite zone with qtz + MoS2 vein: – & shear zone at 582 – 586'	degree of chlorite & sericite & clay alteration related to deformation. biotite altered in shear zone		[illegible]	590	(1) good MoS2 vein + qtz 55° C.A. – V. sparse [illegible] + other [illegible] fracts. 90° C.A.	largely undeformed Mafic P. – some alteration	<5'	90%		64195		.190		
V. fresh Mafic Porphyry cut by small dykes of equigranular (1-2cm) FgQM – 90° C.A. – typical Mafic P. – large phenos Kspar, ragged, in diffuse matrix:	V. little alteration – mild chloritization & sericite alteration near fractures & veins			600	fine MoS2 coating on hairline fracts: 30° C.A. disseminated MoS2	V. fresh looking Mafic P. not affected by fault	<5'	95%		64196		.058		
			EOH 602'											

PLACER DEVELOPMENT LIMITED

GRID: ____ HOLE No. 237 SHEET No. 1 of __

LOCATION: 5N 3W BEARING: ____ LATITUDE: 6620 284.3 PROPERTY: Adanac

DATE COLLARED: 24 Aug. LENGTH: 477' DEPARTURE: 589 667.6 CORE SIZE: NQ LOGGED BY: R.A. Rive. F.

DATE COMPLETED: 4 Aug. DIP: Vertical ELEVATION: 1508.4 SCALE OF LOG: ____ DATE: ____

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
No recovery of overburden: broken outcrop at 15' – Transitional CgQM: – [illegible] Kspar phenos in an odd, aplitic matrix: Variable gs! – [illegible]	Strong shear zone at 17' + [illegible] (extreme) – mainly mild sericite + clay alteration of plag & Kspar + limonite stain:			20	No visible MoS_2 – [illegible]	Late faults 11 to 10° Ca. = common + [illegible] limonite stained gouge. Kspar Xtals fractured	100%	80%		64197		·002		
V. variable, transitional variety CgQM – large [illegible] Qtz-Kspar in aplitic, plag matrix: Note local [illegible] of [illegible] small veins (1") of FgQM	Sericite + clay alteration of plag – mainly + limonite stain: – Kspar cracked. Local shears & qtz veins 30-90° Ca. & faults (late) @ 10° Ca.	Cg (T)		30	(11) qtz veins mainly 40°-90° Ca. [illegible] – No visible MoS_2, some [illegible]	Some Kspar Xtals post-date qtz veins: overprint. Biotite + rare specks: fresh:	100%	90%		64198		·001		
V. irregular "transitional" variety CgQM. V. disturbed texture, [illegible] – variable matrix – goes to fairly mafic FgQM after 1' Hybrid Porphyry:	Fairly typical, altered and limonite stained FgQM returns to less transitional CgQM at 38' – Mainly [illegible] + clay alteration of feld.	Fg / Cg	HP	40	[illegible] qtz veins, 1m to 5mm, 45°-90° Ca. [illegible] late faults: 10° Ca. – No visible MoS_2	Limonite rich FgQM zone, good Qtz, no MoS_2 – altered:	100%	90%		64199		·001		
Fairly 'normal' CgQM passes to V. fine to aplitic FgQM + mafic specks: – altered and stained, FgQM cut by dykes of coarse grained (1mm) [illegible] FgQM & locally [illegible]	[illegible] sericite + clay alteration than above but typical. – stained with limonite: Plag = [illegible]: V. soft [illegible]	Fg		50	qtz veins [illegible] 45°-90° (FgQM) = No visible [illegible] (leached?)	V. broken rock, locally rubbly, ∴ loss [illegible]:	100%	65%		64200		·002		
Standard FgQM (mafic & aplitic) + Kspar & Qtz [illegible] V. irregular contact with CgQM at 53' – the "transitional" CgQM – soaked in fine [illegible] magma [illegible]:	Typical plag: alteration & limonite staining – [illegible] of clay: – odd pegmatitic – graphic intergrowths:	Cg (T)		60	Good MoS_2 = (1) qtz vein 45° Ca. – (= CgQM) – otherwise traces on fractures only: probably some [illegible]	Late faults 10° off Ca: – normal, + limonite stained gouge: – odd [illegible] texture to CgQM	60%	75%		64201		·030		
Highly complex transitional, CgQM with small patches of Hybrid Porphyry: CgQM – large Kspar Xtals & coarse aplitic matrix: graphic intergrowths qtz + Kspar = common:	Plag = highly altered, Kspar fairly fresh, Bio = fresh: – Plag ⇒ clay & limonite stain: strong [illegible]:	Cg (T) Fg	HP 30°	70	MoS_2 = traces only in qtz vein 70° Ca. – some [illegible] veins, little MoS_2	Limonite decreases at 62' – thereafter = trace: – late faults = 20°-30° Ca. + gouge.		75%		64202		·010		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. [illegible] of ___

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Transitional CgQM + patches of Hybrid Porphyry — V. irreg. texture: — CgQM [illegible] ≈ [illegible]: — cut by narrow dyke of equigranular, sandy, FgQM [illegible]	graphic intergrowths qtz + Kspar in matrix of Cg: — locally euhedral Kspar + chilled matrix [illegible] flow [illegible] sericite + clay alteration		Cg (T)			80	rare MoS2 — in large (1cm) qtz veins 80°Ca. [illegible] [illegible] mainly qtz veins	Mixed rock: V. little Mineral: late fracts: ± 20-30°Ca. Plag → (?) [illegible] [illegible]	35' ?	85%		64203		.086		
Transitional CgQM cut by FgQM dyke at 85' — equigranular, sandy, [illegible] (1mm gs) — CgQM becomes less transitional & more "normal" in texture: —	Plag: ⇒ sericite + clay: ≈ white or light green, locally limonite stained, etched — overprint of poorly xtalline biotite = fresh		Fg Cg		Fg	90	rare MoS2 as blebs in large (0.5-1.0cm) qtz veins 90°Ca. — Not rich, as above:	CgQM becomes less contaminated with depth in hole	25' ?	85%		64204		.006		
"Normal" irreg. pegmatitic CgQM — fairly [illegible]: — becomes transitional with addition of interstitial [illegible] — [illegible] 98': late fracts: ≈ 30°Ca	Kspar "phenos" cut qtz veins 70°Ca — typical Plag alteration some [illegible] (BiO: replaces feldspar: —		Cg			100	MoS2 blebs = rare, in narrow qtz veins (90°Ca) + other [illegible]: trace in [illegible] fracts:	CgQM xtals ≈ deformed and fractured — typical.	15'	95%		64205		.015		
CgQM — largely transitional variety — cut by major shear + qtz vein 90°Ca at 104' — possible increase in silicification from 108' — late fracts 30°Ca + 90°Ca.	V. soaked in silica enriched from 106' — + chlorite alteration: — & [illegible] biotite: — [illegible] fracture [illegible]	\	(T) Cg		90°	110	MoS2 traces in hairline fracts. 30°-70°Ca. and in (rare) qtz veins 60°Ca. — Not common.	qtz veins ≈ still etched: + cavities, possible MoS2 loss	50'	95%		64206		.015		
Fairly "normal" CgQM with internal deformation and possible silicification — slightly transitional in places: late fracts ≈ rare, 30°Ca.	Plag ⇒ clay + sericite (light green) [illegible] ⇒ dark green (?) [illegible] ± biotite overprint: Kspar ≈ fresh, [illegible]		Cg			120	MoS2 + pyrite specks in hairline fracts: & 1mm qtz veins 30°-90°Ca.	(1) [illegible] qtz veins + envelope of MoS2 Not. V. rich, less silicified:	15'	95%		64207		.065		
CgQM — Transition Variety: large irreg. Kspar phenos: in aplitic groundmass ≈ qtz xtals embedded in feldspar: — specks of [illegible], interstitial biotite, zoned feldspars.	local qtz-Kspar graphic intergrowths. chlorite [illegible] alteration: Plag ⇒ light green sericite ⇒ chlorite & pyrite ⇒ biotite,		(T) Cg			✳ 130	qtz veins 20°-90°Ca. + specks (of pyrite) + good MoS2 in silicified CgQM at 127'	Kspars max 2cm g.s. ± euhedral, zoned, silicified at 127'	<10'	95%		64208		.077		
CgQM - as above, largely Transitional variety, + [illegible], — cut by equigranular (1mm), sandy, FgQM dyke — (70) qtz veins 60°-90°Ca. [illegible]	sericite + clay alteration weak, except near fracts: 30°Ca & Fg dyke: — CgQM ≈ internally deformed — xtals fractured [illegible] chlorite & biotite [illegible]		Fg		Fg	✳ 140	[illegible] MoS2 content — [illegible] [illegible] qtz vein 90°Ca. & rare veins 10°-30°Ca.	— V. [illegible] CgQM - zoned feldspars soaked in aplitic matrix. Kspar phenos cut qtz veins 90°Ca.	<10'	90%		64209		.122		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. ____ SHEET No. ____ of ____

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
highly complex transition CgQM & large Kspar phenos in fine matrix of rounded qtz Xstals & ragged feldspar. — Note strong stacked sheer 90°ca. [illegible]	V. fresh looking; plag - zoned, & altered to light green sericite + clay partially overprinted by biotite - also in matrix:			S.L		150	Traces of Moly in blobs in barren fracts: 20°ca & 90 ca. Not [illegible]	highly complex CgQM - note coarseness of aplitic matrix	<10'	95%		64210		.075		
deformed CgQM - as above complex transitional variety with coarse aplitic matrix. Large zoned Kspar phenos: - Late fracts: = // to 20°ca.	Kspar + fresh, mild alteration of plag: + biotite (?) overprinted: (+ chlorite & pyrite) abundant qtz veins 20° & 90°			Cg		160	qtz veins - large 0.5 - 2.0 (cm) most - barren (?) = rich coarse crystal blobs - dark bleb in barren fracts 70°ca:	as qtz veins barren (?) also it just scattered through vein: coarse in vein contact	10'	90%		64211		.122		
CgQM continues, - less transitional & notice i.e.:- large matrix Xstals & smaller phenos: - reverting to normal: [illegible] cut by large qtz veins 70°ca + stacked shears ~ 10 70°ca	weak alteration of feldspar & biotite overprinted: some as plagioclase altered & stained. Also green → (?) chlorite:			Cg		170	sec (4-5cm) qtz veins 70°ca. - partly altered - some + large blebs [illegible] - pyrite in late fracts 60°-80°ca	- rich in pyrite, infrequently good Moly - Note etching still a factor.	<10'	95%		64212		.026		
CgQM extends to 173' then intruded by dyke of FgQM (90°ca) - extends to 178': CgQM = fairly normal facies - coarse matrix & few large phenos: - Fg = V. fine grained, fairly to sandy.	Common near 176' + Xenoliths of CgQM - FgQM + biotite specks. [Not sparse P] typical, fairly weak feldspar alteration.			Fg	90° 60°	180	Py, Po, Cpy, + calcite + chlor + qtz in vein 20°ca. traces in barren 10°ca. - Fg overprinted by Kspar zone.	Large qtz veins but V. little Moly - scattered traces only. Not pyrite rich.	5'	95%		64213		.025		
CgQM - as above: highly variable, irregular texture:- largely transition with V. coarse phenos and coarse aplitic matrix! -	Zoned feldspar phenos: - locally cut qtz veins: - minor sericite + clay & chlorite alteration + biotite alteration (fresh)			Cg		190	large (4-8cm) qtz veined, 90°, 45° & 20°ca. - X cutting; + vein 3cm, 90°ca. = barren - small blebs = 10cm veins	Late fracts: = 90°-75°ca - few // ca:	<10'	95%		64214		.049		
CgQM cut by dyke of SP - Porphyry (30°ca) with chilled, cross contacts & typical texture, - few phenos Kspar & biotite: cuts variable transition type CgQM	fractures 20°ca: at 184': sericite + clay alteration + limonite & etching + typical alteration. Note 10 cm dyke of FgQM at 190' 40°ca.			SP	40° 30° 10°	200	No qtz veins in sparse P - veins cutting Cg & Fg = 90° & 20°ca + rare blebs Moly also in barren [illegible] fracts.	Sparse P. GAS qtz vein in CgQM.	<10'	95%		64215		.044		
CgQM - variable texture: - mainly coarse transitional variety, large phenos Kspar & coarse aplitic matrix: - fresh appearance	Kspar Xstals locally fused together. fresh, minor chlorite & pyrite ± interstitial biotite & in qtz veins.			CG		210	1cm (±) qtz veins 70°ca. - mostly barren (?) + good blebs SF. Moly in barren fracts // to 20°ca & 90°ca:	7 cm dyke of FgQM 80°ca. Note abundance of pyrite	<10'	95%		64216		.060		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. ______ SHEET No. 4 of ______

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
CQFM – fairly normal to 212' – v. silicified 210–217' – original texture lost – [illegible] Kspar planes in fine silicified matrix: –	strong silicification & [illegible] biotite [illegible] CQFM – texture v. [illegible] + clay x chlorite					220	qtz veins [illegible] 90°Ca. + traces [illegible] x Covellite ([illegible]) – traces [illegible] hairline fracts	3 cm dyke of sandy FQFM cuts CQFM at 70°Ca. – alteration possibly associated with FQFM	<5'	95%		64217		.045		
weakly silicified, fairly normal textured CQFM – large irreg. Kspar ± fresh [illegible] interstitial biotite – slightly altered plag (sericite + clay = green)	cut by small dykes of FQFM – (90°Ca) variable width 10" → 40cm – sandy variety, [illegible] fairly common [illegible] with CQFM.				.Fg / .Fg.	230	small qtz veins x hairline fracts 90° & 20°Ca. [illegible] pyrite & biotite	late fracts: ll to 10°Ca. – No [illegible] – little sericite alteration	<5'	95%		64218		.030		
Typical "normal" textured CQFM, intruded by FgQM at 232' – chilled contact, [illegible] = Fg. similar to sparse P. but grey, pasty matrix: – V. fine [illegible]	biotite specks [illegible] coarse Xtals) – Kspar veins & envelopes – present, [illegible] plag sericite + clay [illegible]		Fg		70°	240	hairline fracts [illegible] specks MoS2 – (10° & 90°Ca) also [illegible] qtz veins 90°Ca.	internal chill zones: pulses of intrusion: little MoS2 & some pyrite	<10'	98%		64219		.044		
FgQM – largely porphyritic – close to M.S.A.P. [illegible] but matrix = too pasty, [illegible] plag altered Kspar x Qtz <0.5 cm: – minor phase variation – variable	Brecciated by [illegible] plag planes: [illegible] biotite – texture unlike sparse porphyry –			[illegible]		250	abundant qtz veins, 90° to 20°Ca. [illegible] specks / MoS2: – not v. rich:	qtz veins + Kspar envelopes locally [illegible] Vugs & Covellite [illegible] qtz veins.	<5'	98%		64220		.045		
Variable FgQM phases: – mainly pasty porphyry – as above, but also dykes of coarse, equigranular, sandy (1–2cm) FgQM [illegible] dykes [illegible] 2–10cm x 60°Ca.	– increase in Kspar envelopes & vein contact, – 90°, 35° → 60° – borders equigranular Fg – dykes: – alteration as above: –				l	260	Fairly abundant qtz veins, mainly 90°Ca. + some hairlines 10°Ca. – veins commonly [illegible]	(1) Kspar – qtz vein + pyrite (1) good MoS2 vein 30°Ca. V. little in 90° veins	<5'	95%		64221		.036		
Variable FgQM – much as above, mainly weakly porphyritic & [illegible] aphanitic pasty [illegible] fine [illegible] matrix [illegible] resembles MSAP – places – (too fine grained?) – definitely not sparse P.	weak plag: alteration as above: – otherwise fairly fresh – few Kspar envelopes [illegible] – as above, equigranular Fg dykes at porphyritic variety				✱	270	Large 3 cm qtz [illegible] 70°Ca. [illegible] qtz vein 5°Ca. [illegible] MoS2 [illegible] late = [illegible]	large veins = barren, [illegible] (1–3[illegible]) qtz veins ± 70°Ca. [illegible] MoS2 [illegible] veins [illegible] fairly rich	<5'	95%		64222	*	.074		
Variable FgQM – pasty matrix porphyry (= MSAP) grades to [illegible] matrix variety + [illegible] back to pasty variety at (274') [illegible] then [illegible]	plag % significant increase in q.s. – matrix [illegible] 1mm [illegible] ± 0.6cm. Minor alteration as above – Kspar envelopes x vein				90°Ca	280	Large qtz veins [illegible] (90°) – smaller veins 90°Ca. locally + [illegible] MoS2 also hairline fracts 30°Ca.	Powellite (yellow) & (?) blue fluorescence in Kspar, MoS2, chlor, & carb., vein 90°Ca.	<5'	95%		64223		.051		

GRID: HOLE No. 1 SHEET No. of

PLACER DEVELOPMENT LIMITED

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Very variable, mixed coarse-grained phase of FgQM - ranges into equigranular fine, medium-grained CgQM - [illegible] FgQM (xenolith?) - similar to [illegible] sandy, equigranular texture	Mild alteration of plag ⇒ light green sericite + clay - biotite + Kspar ± fairly white Kspar zones 70° to mixed zone - [illegible]	Cg	MgQM	290	Qtz veins in Mg + CgQM - partly [illegible] by Kspar - [illegible] [illegible] [illegible] [illegible]	typical CgQM cut by [illegible] [illegible] Fg - sandy, equigranular [illegible] MgQM	<5'	95%		64224		·026		
CgQM - normal texture ±1cm [illegible] irregular [illegible] Kspar + [illegible] biotite fairly [illegible], cut by large qtz veins 70° CA [illegible] 70° CA. -	mild alteration of plag ⇒ Kspar: - biotite ⇒ chlor(?)		✳	300	[illegible] MoS2 [illegible] - 7 [illegible] veins 70° CA also [illegible]	return to relatively fresh CgQM + [illegible] MoS2	<5'	95%		64225		·133		
CgQM - cut by silicified zone at 301'-307' [illegible] 70° CA. - [illegible] "normal" [illegible] CgQM - [illegible] Kspar locally - No [illegible] - all [illegible] [illegible] qtz V.	Minor alteration of plag ⇒ light green sericite + clay: [illegible] Kspar [illegible] fresh! CgQM deformed, note fracs 20° CA.		✳?	310	V large 3-5cm qtz + veins [illegible] [illegible] + V large [illegible] coarse MoS2 - also [illegible] [illegible] fracts:	local coarse MoS2 - sparse typical CgQM:	<5'	95%		64226		·188		
CgQM - highly deformed 70° CA - cut by shears (90° CA) - silicified zones - also FgQM dykes <5cm, 90° CA distinct texture to CgQM	- [illegible] 50 [illegible], [illegible] altered plag - [illegible] chlorite & V. minor pyrite - [illegible] [illegible] [illegible] clay	Cg		320	MoS2 mainly [illegible] fracts: ll 70° CA + [illegible] V. [illegible] - qtz veins	V. dispersed MoS2 - significant [illegible] deformation of CgQM	<5'	95%		64227		·077		
CgQM cut by a 10cm dyke of Spar P. at 320' - [illegible] [illegible] Kspar zone [illegible] sides: - igneous contacts: 90° CA - CgQM cut by shears 90° CA [illegible] qtz veins:	CgQM ⇒ Mafic Porphyry at 325' igneous contact, 90° Both rocks fairly fresh, mild alteration as above:	[illegible]	90°	330	MoS2 restricted to [illegible] fracts: clay [illegible] MoS2: qtz veins 70° CA [illegible] + trace:	igneous contacts, [illegible] sides [illegible] undeformed	<5'	95%		64228		·028		
Mafic Porphyry extends to 339' then igneous contact with Spar P. - chilled contact, 60° CA - typical Mafic Porphyry - large [illegible] Kspar in fine matrix.	Mild alteration of Mafic P. - slight sericite + clay & chlorite alteration: Note late fracts 10° CA.	[illegible]	60°	340	(?) large qtz veins 90° CA [illegible], trace of MoS2 as [illegible] - fine qtz veins & fracts:	Biotite + some qtz veins gouge on fracts: Not V. MoS2 rich	<10'	90%		64229		·036		
Spar Porphyry - typical: few <1% [illegible] Kspar + Qtz in aphanitic matrix. Note large fresh biotite laths: Kspar [illegible] to fine qtz veins 70-90°	Minor alteration - plag ⇒ sericite + clay & chlorite + biotite [illegible] Kspar = fairly fresh, note [illegible] [illegible] fracts 11-10°			350	(?) main qtz veins 90° CA + rare [illegible] MoS2 - little MoS2 [illegible] veins or fractures, not [illegible].	Note V. fresh biotite [illegible]?	<10'	90%		64230		·029		

GRID: PLACER DEVELOPMENT LIMITED HOLE No. SHEET No. of

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Sparse Porphyry - continues but more fractured (10-90° Ca.) .. much more altered biotite remains fresh: shear 30°Ca. at 356' -	strong sericite + clay alteration of Kspar. Plag: - cream / light yellow-green (gouge in fractures):	360			qtz veins (1-6mm) 50-70°Ca. ... ∥ Ca: molybdenite [illegible] disseminated	late fractures + alteration - biotite fresh	15'	85%		64231		.043		
Sparse Porphyry - cut by late fractures: altered: - typical porphyry - scattered qtz + Kspar blebs - + V. strong biotite occurrent:	fractures 10-20°Ca. + areas of soft sericite + clay gouge: - less altered than above:	370			minor qtz veins 60°-60° Ca. - [illegible]	good MoS2 on (D) shear - 70° Ca: + chlorite & pyrite: good recovery.	10'	90%		64232		.111		
Sparse Porphyry - cut by rare fractures 40 to 45° Ca. - after shear zone at 371' - [illegible] - large qtz vein at 20°Ca. + 16 [illegible] Typical Porphyry	mild sericite + clay alteration of plag & Kspar - biotite stable, biotite fresh, locally chlorite + pyrite	380			traces of MoS2 in sericite qtz veins 20°Ca. - fairly rich (?) fault fractures at steep angles:	Kspar [illegible] a vein 80°Ca. [illegible] + MoS2	10'	95%		64233		.098		
Sparse Porphyry - much as above, - [illegible] plag & Kspar & qtz [illegible] - cut by Ksp + [illegible] veins 25°-45°Ca. - Late fracts: 10°Ca.	minor clay alteration - plag → light green sericite + clay: locally → biotite	390			many qtz veins - MoS2 in (1) [illegible] fracture [illegible] qtz vein at 20°Ca. - MoS2 showed on [illegible]	late fract: ∥ Ca. with pyrite - biotite not [illegible]	15'	85%		64234		.070		
Sparse Porphyry - as above mostly weak chlorite alteration but increased sericite + clay near fractured zones: along [illegible] late fract: 20°Ca.	typical sparse P texture - light green alteration [illegible] plag → light → dark alteration V. soft chlorite(?) locally [illegible]	400			small (1-3mm) qtz veins 60-70° Ca. ± [illegible] little MoS2 in veins 20°Ca. & hairline fracts: not visible	Plag = etched [illegible] altered typical sparse P. + secondary biotite	10'	90%		64235		.022		
Sparse Porphyry - as above, typical texture, chlorite and secondary biotite rich: green tint: - cut by altered shear zone at 401' = soft:	increased sericite + clay alteration near fractures & shears (∥ to 20°Ca.) dark altered plag ⇒ dark green chlorite (+ pyrite) & fresh biotite [illegible] Kspar vein	410			qtz & Kspar veins 60-70°Ca. - trace of green - trace of MoS2 on (1) vein at 30° → (1) at 60° Ca. + rare fracts:	- Note [illegible] fractures + [illegible] - abundant qtz veins but little MoS2	10'	90%		64236		.040		
Sparse Porphyry - as above - with significant increase in internal deformation and alteration from 418'.	cut by Kspar + biotite vein at 417' - (No MoS2) & local qtz + Kspar veins: - extreme chlorite alteration & [illegible] sericite & clay	420			(3) qtz veins 10°Ca. + small specks MoS2 - [illegible] 70° - main qtz veins [illegible]	V. chlorite fractures - 30-40° Ca. + slickensides	10'	90%		64237		.084		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. [illegible] of ___

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Sparse Porphyry – as above, V. altered and deformed cut by chloritic shear 40° C.A. at 425' – [illegible] fractures ∥ to 10° C.A.: [illegible]	alteration as above – chloritic and sericitic clay alteration [illegible]		[illegible]	430	traces of MoS₂ in qtz veins [illegible] 70° C.A. not [illegible]	increased alteration & deformation – [illegible] sulfides	20' ?	90%		64238		.038		
Sparse Porphyry as above, V. strongly altered, [illegible] sheared [illegible] fracturing 20° C.A. (lots) ∥ C.A. – rock – more [illegible]	alteration typical, V. chloritic [illegible] plag: – more sericite clay: [illegible]			440	MoS₂ traces in qtz + [illegible] veins ([illegible]) 70–90° C.A. – [illegible] ∥ C.A.:	Still V. altered sparse P. [illegible]	20' ?	90%		64239		.070		
Much as above, Sparse P. [illegible] typical V. [illegible] texture mixed with [illegible] – [illegible] rich [illegible] locally.	alteration as above, V. strong chlorite alteration: – biotite [illegible] – gouge ≥ chlorite on fractures:			450	[illegible] small qtz veins ([illegible]) = [illegible], [illegible] fractures ([illegible])	texture of Sparse P. retained as [illegible] sericite + clay	30' ?	85%		64240		.063		
intensely altered and deformed Sparse Porphyry – strongly fractured ∥ to C.A. [illegible] gouge fracture ∥ C.A. also chloritic shear 30° C.A. at 453'	V. highly altered Sparse Porphyry – [illegible] chloritized [illegible] sericite + clay: [illegible] biotite = [illegible],		[illegible]	460	MoS₂ traces on fracture [illegible] – not in qtz veins: + traces disseminated pyrite	intense alteration related to fracts: ∥ C.A.	15' ?	85%		64241		.075		
Similar to above: – V. intensely altered Crowded (?) Porphyry – cut by late fracts: 463' to 468	– fractures ± 40° C.A. + gouge: – intense chlorite + sericite + clay alteration + [illegible] biotite.			470	[illegible] in [illegible] qtz veins (3) [illegible] 70° C.A. not common + pyrite traces.	highly altered, possibly [illegible] faults	10'	90%		64242		.052		
Continues as above, V. deformed and altered Crowded P. [illegible] in fault. 10–30° C.A. – strong chloritic shear at 476'	as above increase chlorite veining ∥ [illegible] from 473' V. soft in fault zone + sericite/clay:		[illegible] 477'	480	MoS₂ in [illegible] qtz veins [illegible] [illegible] [illegible] not [illegible]	altered porphyry = fairly crowded from 460' (?)	15'	85%		64243		.053		

PLACER DEVELOPMENT LIMITED

GRID: ____

HOLE No. 232
SHEET No. 2 of 8

LOCATION: 6N 4W | BEARING: | LATITUDE: 6620 299.98 | PROPERTY: Adanac
DATE COLLARED: 27th Aug '79 | LENGTH: Vertical. | DEPARTURE: 589 619.86 | CORE SIZE: NQ | LOGGED BY: R.H. Pinsent
DATE COMPLETED: 31st Aug '79 | DIP: 502' | ELEVATION: 1527.01 | SCALE OF LOG: | DATE: 8 Sept '79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Overburden – No recovery.	–			10	–	–	Made loss estimate							
highly deformed + limonite stained CgQM, characteristic 'normal' texture – Kspar = large, fractured, [illegible]: ± fresh, & stained with [illegible].	late fracts: ≈ 30–40°C. Locally abundant: – [illegible] gouge – rusty limonite – [illegible] fracts: in feldspar degree of stain varies: – [illegible]			20	qtz veins large (1 cm) → small (1mm) [illegible] ± etched No visible MoS2.	well developed Mo [illegible] – sericite in some qtz veins. small [illegible] dyke at 18'	10'	70%	64244	64244		.001		
CgQM – as above, K. [illegible] [illegible], highly deformed, + late fracts. (30°±) irreg: Kspar = less stained, but cracks in feldspar = stained red.	Plag → sericite, clay ± rust stained limonite – Kspar = ± fresh: [illegible] appear to be fresh.			30	No visible MoS2 – all qtz veins ± [illegible] etched, (fr[illegible] qtz veins, 90°C).	Mn + limonite stain on fracts: V. deformed CgQM	10'	70%		64245		.001		
CgQM – as above, V. highly deformed + locally altered. Crumbly at 31'–37', 33'–3[illegible] + V. strong sericite + clay alteration – limonite stained	typical deformation fractures of rock (30°) in feldspar – random (?) with strong limonite stain: [illegible] + chlorite		? ?	40	No visible MoS2 – all fractures of [illegible] few qtz veins – [illegible] etched,	Note patches of V. coarse sericite / [illegible] in fractures	10'	70%		64246		.001		
CgQM – similar to above, highly deformed, fractured 30°–40° C. – feldspars = sl. altered, + stained – crumbly around 49'.	Mn + limonite stain on fractures: – Mainly plag → clay + limonite ± etched, + gouge on some fractures: [illegible] (?)			50	rare qtz veins 90°C (?) – No visible MoS2 – [illegible] [illegible]	Mostly as above – [illegible] [illegible] sericite at: near 49' –	10'	85%		64247		.001		
CgQM – as above, deformed, alteration (sericite + clay) increases towards fault (?) at 55'	fresh (?) biotite. More Kspar alteration & etching – sericite + clay / crumbly, plag → clay + limonite stain:			60	qtz veins 90° → 30°C – No visible MoS2 – still etched.	fresh (?) biotite: – increased alteration	10'	60%		64298		.001		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. ____ SHEET No. __ of 8

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
CgQM – Large irreg. Kspar Xstals – deformed, commonly fused: – weak limonite stain: fractures 30-40° C.A. limonite, strong silicification 90° C.A.	Plag ⇒ sericite + clay + limonite stain. qtz veins 70° → 30° C.A. – etched. No fresh biotite					70	No visible sulphide – strongly etched – probable loss	Similar altered – normal CgQM – badly fractured	10'/	?%		64249		.001		
CgQM – large Xstals, as above: + strong deformation 30-40° fractures: locally, minor boundaries to qtz Xstals. biotite ⇒ chlorite, limonite	as above. limonite stained Kspar + plag Xstals. Bio ⇒ chlorite:					80	qtz vein silica – etched: also veins at 90° – No visible MoS₂	as above: – deformed CgQM	10'/	80%		64250		.001		
CgQM – Large Xstals – irreg. texture. – possibly silicified from 88' – highly deformed Kspar Xstals: – normal fractures c 15-40° – as above:	limonite stain & etching of plag – probably chloritic altered biotite.					90	Large qtz vein (?) etched – coarse – ? MoS₂: No visible MoS₂	– Still strongly stained & etched	10'/	90%		64251		.007		
Sharp decrease in limonite stain: – CgQM as above, green chloritic tint, possibly silicified in places:	Plag ⇒ green (chloritic) ? plates ... ? ... ? with + green ... small amounts of (?) fresh biotite. few fracts: 30°				✗	100	V. good MoS₂ in hairline fractures & qtz veins 80° C.A. (1) excellent MoS₂ vein c qtz 30° C.A. [illegible]	Pyrite traces in fracts: 40° C.A. – V. good mineralization	10'/	95%		64252		.130		
CgQM – similar to above, large, irreg. CgQM texture – normal, but with V. abundant silica – possibly silicified: limonite stain fracts 30° C.A.	Kspar ± fresh, plag ⇒ dark green ? chlorite alteration: – fresh ? biotite flakes: – light green ? to ?		SCI			110	Flecks of pyrite in hairline fracts: & qtz veins: traces moly. Not V. rich:	highly disturbed, ?? etched, silicified CgQM	20'/	92%		64253		.022		
Highly disturbed CgQM – locally with matrix ⇒ transitional type: Coarse matrix: – strongly silicified locally & Kspar Xstals fused:	Plag ⇒ chlorite ± fresh biotite ?: – ? at fractures 40° C.A. possibly Kspar flooding.		SCI			120	cross cutting qtz veins (< 6 mm) 30-60° C.A. + specks MoS₂ along silicified ? + MoS₂	Not V. MoS₂ rich, but very ? silicified Kspar ? CgQM	10'/	90%		64254		.003		
CgQM – deformed and altered, typical, some areas V. ?, others = Kspar rich. – more chloritization ? fresh biotite	typical alteration. plag ⇒ sericite + clay ⇒ MoS₂: mild limonite stain – ? on core fracts: 10° C.A.					130	etched qtz vein 20° C.A. + pyrite, no visible MoS₂ –	Fairly typical CgQM – normal type, standard alteration.	10'/	95%		65255		.060		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
CgQM – fairly typical, normal texture, – irregular Kspar Xtals, fused, with Kspar ... fractures = 10° C.A. – common.	Plag ⇒ chlorite and/or sericite + clay – partly altered, – fracture ... ... to ... – slight limonite stain.	Cg		140	qtz veins (.5cm) 50–80° 90° C.A. = ... – ... qtz veins ... ... Mo... ...	Kspar ... to qtz veins – still strong limonite stain + ...	60'	90%		64256		.116		
V. strongly altered (limonite + altered clay) CgQM ⇒ ... – ... (... ...) ... altered, only qtz veins 90° C.A. & fracts: 10° C.A. ⇒ V. ... CgQM (...	strong ... clay alteration of all feldspar ... soft ... limonite stained, ...	Cg	20°	150	... ... qtz veins (90°) ... fracts.	Mod alteration related to late fracts: 10° C.A.	100'	65%		64257		.002		
Sparse porphyry – V. ... ... qtz ... Kspar ... ... CgQM – typical CgQM – less altered than above – ... (Kspar, small qtz ... ... ⇒ transition type:	Large Plag – fairly fresh, slight ... ... Kspar, some ... = ... and ... Kspar + ... veins 90° C.A. and silicified qtz vein 90° C.A. –	Cg / Q		160	... traces in hairline fracts: 45° C.A. & in qtz veins / silicified zone 90° C.A. ... V ...	Note fairly fresh CgQM ... transition	<15'	85%		64258		.021		
CgQM – V. irregular granitic texture, – porphyritic large irreg. fused Kspar Xtals + ... – ... tends to transition – slight chlorite	Fairly fresh, slight alteration of plag: ... = fresh, Kspar: strong silicification 168'			170	... MoS2 blebs in qtz veins (1–4mm) 25–90° C.A. – (6) ... silicified zone	Similar, fresh, CgQM – Minor MoS2.	<10'	90%		64259		.015		
CgQM – similar to above, V. mixed texture – possibly ... ... large fused Xtals ... ... Xtals, not ... transition.	Strong silicified zone 177'–178' ... 90° C.A. + ... MoS2 blebs – (1)5mm ... vein: slight plag. alteration ... ... plag	Cg		180	Several qtz veins 4–8mm 60°–90° C.A. – some ... ... MoS2 – pyrite in silicified zone near MoS2 vein.	as above: + MoS2 increase in qtz veins	15'	85%		64260		.073		
CgQM – as above, fairly fresh ... 184', ... late fractures 35° C.A. ... C.A. – 90° C.A. and some limonite staining: CgQM – as above but less transitional	Plag ⇒ limonite stained clay = altered ... Kspar ... = ± fresh, no silicification – typical ... Kspar.	Cg / G		190	MoS2 ... in fractures 30° C.A., & blebs in qtz & Kspar veins 90° C.A. – ...	Minor chlorite alteration – typical ... CgQM. Pyrite – ... fractures	<15'	85%		64261		.025		
CgQM, ... and locally silicified (191'–198'), chloritic but no limonite stain, little late fracturing: some early + MoS2 ...	Silicified zone 90° C.A. + qtz veins (90°) ... Kspar zone. weak chloritic alteration of plag ⇒ dark green gouge		10°–50°	200	rare ... MoS2 blebs in qtz vein in silicified zone + MoS2 ... in ... qtz veins & fracts: ...	mainly 10°–40° C.A. ... Most MoS2 –	<10'	92%		64262		.148		

GRID: ___ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 4 of 8

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
altered CgQM, fractured, broken and [illegible] limonite stain of pyrite + [illegible]. ⇒ altered contact, [illegible] Xenocrysts in aphanitic matrix ⇒ fresh FgQM [illegible]	late fracture 10° Co near contact: alteration of limonite of clays & [illegible] - Fg [illegible] fracts 90° Co - [illegible] limonite [illegible] biotite.	Cg / Fg	11/5	210	Pyrite only in [illegible] (0.5-[illegible]) [illegible] Moly [illegible]	green-grey Fg QM + few [illegible] or specks fresh biotite = [illegible]	25' ?	90%		64263		.030		
aphanitic to fine porphyry - light grey-green FgQM [illegible] matrix. - [illegible] to V. altered and [illegible] (limonite stained) CgQM + late fractures.	FgQM = slightly chloritic, fairly fresh + [illegible] (?) biotite - limonite [illegible] fractures: - V. altered CgQM.	Fg		220	Py + [illegible] in qtz vein // Co, also in 1-3mm [illegible] 70-90° Co. - (10) [illegible] pyrite in FgQM	Relatively fresh FgQM ⇒ altered Cg: - 'Transitional'	(10'	90%		64264		.053		
CgQM - locally 'transitional' or hybrid porphyry - mainly normal, [illegible] FgQM [illegible] zone 224'-228, Fg - similar to above but V. altered.	V. soft and rotten, limonite stained, fractured, - late (10-20 Co) crumbly : sericite + clay No Bio or (?) chlor - limonite [illegible]	Cg (T) Fg		230	Py in fracts // Co, MoS2 in (1) qtz vein 70° Co [illegible] [illegible]	Either Fg or Cg = highly altered → fractured.	40' ?	70%		64265		.031		
Rubble fault at 231' - sandy rubble - [illegible] highly altered but not [illegible] to stained CgQM - normal texture, [illegible] Xtals.	Plag & some Kspar ⇒ sericite + clay ⇒ chlor: = soft and [illegible]: - traces of fresh Bio: [illegible] plag. deformed	Cg	[illegible]	240	MoS2 traces in [illegible] fracts: [illegible] [illegible] 90° Co.	Bio + chlor, no limonite stain to alteration.	10'	90%		64266		.004		
Highly altered CgQM = sheared at 244' → 260' = Major fault zone: extreme alteration: - sericite + clay, qtz, chlorite, MoS2 [illegible] slip planes.	V. intense hydrothermal CgQM alteration Plag ⇒ chlor: Kspar ⇒ sericite + clay: [illegible] = soft [illegible]: No limonite or biotite		55° [illegible]	250	MoS2 in qtz vein 30° Co [illegible] fault [illegible] slip [illegible] chloritic V. soft, crumbly.	Intense alteration: - now soft clay completely altered,	20'	85%		64267		.105		
either CgQM or mixture of CgQM and fault gouge breccia derived from CgQM - V. intense alteration - texture largely lost: soft & crumbly:	intense alteration, as above, sericite + clay (kaolinite ?) + chlorite patches + pyrite.		30°	260	MoS2 restricted to slip planes in shear zone, [illegible] V. [illegible] Note dissem. pyrite.	Major fault zone, only weak MoS2	20'	80%		64268		.056		
fractured but strongly sheared, recognizable CgQM - Fracts = 30° Co - [illegible] Alteration decreases [illegible] shear zone at 270' - speckled [illegible] biotite	less intense alteration, texture retained, [illegible] chlorite + [illegible] sericite alteration: [illegible]		[illegible]	270	Pyrite shows fracts 70° Co. & dissem in alteration: - little visible MoS2 [illegible] qtz veins 90° Co.	still strongly altered, return to fault shear at 269' - [illegible] clay gouge	30'	90%		64269		.033		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 5 of 8

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
highly altered CgQM ± sheared to 275' - V. chloritic alteration - also strong chalky sericite + kaolinite (clay) alteration: crumbly: - fractures [illegible]	strong sericite + clay + chlorite altered - fault zone, + fresh [illegible] biotite; - fresh rock = [illegible] CgQM [illegible]			280	MoS2 - [illegible] 90° c.a. - fault zone [illegible] fairly high	V. sharp transition from altered to ± fresh Cg QM	40'	70%		64270		.041		
Highly altered CgQM - fractured but not faulted or crumbly: - late faults 10°-30° c.a. + strong [illegible] of gouge: large qtz veins (Bio) + siliceous [illegible] 90° c.a. [illegible] texture	Normal CgQM - slight alt: plag → sericite + clay + chlorite, little [illegible] fresh Kspar & biotite, biotite [illegible] cut CgQM			290	large qtz veins = [illegible] - [illegible] = [illegible] faults & narrow [illegible] qtz veins: 90°/c.a.	small dyke of sandy FgQM - equigranular - ± 90° c.a. + trace of [illegible]	15'	90%		64271		.018		
Highly altered CgQM - similar to above: - cut by 2-4 cm dykes of FgQM (sandy) 90° c.a. - [illegible] qtz veins 90° c.a. & fractures 10°-30° c.a.	similar to above: Plag → sericite + clay ± [illegible] - Kspar - fresh [illegible] biotite = secondary - after plag:			300	[illegible] plag/Kspar - fractures: - V. little MoS2, large qtz veins - barren	Strong biotite alteration secondary	15'	85%		64272		.020		
CgQM - still moderately altered, + some fracturing 10-30° c.a. + gouge, - cut by 10 cm FgQM (sandy) dyke 90° c.a. late Kspar contact: zone	Kspar V. weakly altered plag → sericite + clay [illegible] near faults: locally → [illegible] biotite = strong [illegible]			310	[illegible] qtz veins 90° c.a. [illegible] - V. little MoS2 [illegible] fault: 80° c.a.	normal CgQM - typical texture qtz but little MoS2	<10'	97%		64273		.030		
CgQM - similar to above: normal, [illegible] texture - locally qtz - flooded & stalked, not xtal & large [illegible] 90° c.a. - minor late faults:	Kspar 'stalked' veins 70° c.a. at 319' (+ qtz & Bio) otherwise = normal, plag = altered, Kspar & bio [illegible] plag:			320	good [illegible] MoS2 in qtz vein 0.6cm 70° c.a. - (6) similar veins & barren	Bio & in veins + [illegible] secondary, as above:	<10'	92%		64274		.058		
CgQM - as above: - [illegible] texture, ± [illegible] Xtals qtz, Kspar, plag. - deformed Xtal Kspar: - silica(?) zone + qtz veins at 322'.	weak alteration - as above: - slight green [illegible] to rock: - fresh [illegible] in qtz veins, [illegible] + pyrite [illegible]			330	large qtz veins (90°) = barren = [illegible] [illegible] + MoS2 // c.a. MoS2 = only [illegible]	V. fresh 2ndary Bio: in Cg [illegible] typical CgQM	<10'	92%		64275		.051		
CgQM cut by dykes of [illegible] sparse [illegible] at 335' (30° c.a.) - diffuse contact with FgQM at 339' CgQM = highly silicified & recrystallized from 336-337	typical alteration of CgQM - with [illegible] near FgQM - green [illegible] plag alteration - sparse [illegible] Cg & Fg: - chlorite, [illegible]		SP	340	(1) good MoS2 coating fracture 90° c.a. + [illegible] fracts with [illegible] - qtz veins 90° = barren,	Cg - [illegible] to Fg, mottled rock [illegible] contact - diffuse - 90° trace of MoS2	10'	92%		64276		.020		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
typical Sparse Porph. (altered) intrudes Fg [illegible] at 345' 90° Co. sharp contact (chilled margin) Fg = no porph. [illegible] qtz grey matrix – Sparse P. – aplanitic matrix	[illegible] qtz, Kspar, biotite. Fg = biotite, Kspar, fresh biotite, qtz. [illegible] plag flooded [illegible]		Fg SP			350	[illegible] 90° (1-4mm) [illegible] 90° [illegible] MoS2 [illegible] Veins, Sparse [illegible]	late fractures [illegible] Co. – V. Minor MoS2 [illegible] Sparse [illegible] Fg ?	20' ?	90%		64277		.132		
Moderately altered Sparse Porphyry – slight green tint. aplanitic matrix – <20% plag. Kspar (0.5cm) & fresh plag = altered (1) late qtz vein // Co. (4mm) + others	10 cm Kspar zone 90° Co. – matrix replaced. Plag ⇒ light green sericite ± dark green chlorite – 90° Co. ± [illegible]				K	360	MoS2 in fracts: & 1-4mm qtz veins – most 70-90° Co. – many veins little MoS2	Pyrite traces in plag. with chlorite. Fresh biotite + chlorite	<5'	95%		64278		.040		
altered Sparse Porphyry – with strong overprint of secondary biotite: – uniform rock ±15% plag. – altered matrix = chalky late fracts 10-30° Co.	chalky – sericite – clay (kaolinite) attacked of matrix & some Kspar. plag = sericite ± chlorite & chlorite,					370	MoS2 traces in narrow qtz veins (1-4mm) & [illegible] fracts, [illegible]	Minor Kspar envelopes to some qtz veins. Minor MoS2	<5'	85%		64279		.068		
as above Sparse Porphyry – light biotite ⇒ green tint, Minor alteration V. little deformation.	as above, slight chlorite of plag. Kspar + biotite = fresh. Kspar cuts qtz vein 90° Co.					380	1-4mm qtz veins, mainly 70-90° Co. + rare traces of MoS2 – not rich.	typical Sparse Porphyry & alteration	<10'	92%		64280		.024		
Sparse Porphyry – as above, less late alteration ⇒ from green to brown tint ±20% plag, aplanitic matrix:	strong, fresh, 2ndary biotite overprint, (1) bio+qtz vein (20° Co.) Kspar vein 90° Co. chlorite + pyrite near vein 2[illegible]					390	traces of MoS2 in (1) qtz vein 60° Co. (9mm) & in qtz bio fractures: other veins, 90° Co.	– less alteration than above. + pyrite & MoS2.	<5'	95%		64281		.025		
Sparse Porphyry – increase in alteration. Note chlorite cemented shear – breccia at 397' (20° Co.) otherwise typical.	Kspar envelope to qtz vein 90° Co. & Kspar + MoS2 fracture 20° Co. – typical sericite + clay & chlorite alteration, + fresh biotite.					400	qtz veins 80-90° = 1-4mm, (mainly) – MoS2 in hairline fractures 20 to 60 Co. – Xcutting.	typical, Note V. little MoS2 in qtz veins	<5'	85%		64282		.040		
Sparse Porphyry, as above, cut by 10cm dike of chilled FgQM (aplanitic) at 410' (70° Co.) qtz veins + Sericite 20° Co.	typical moderate alteration plag ⇒ sericite + clay &/or chlorite + biotite. – rare Kspar veins & envelopes.				X	410	(3) 6-8mm qtz veins + blebs & specks MoS2 – 25-45° Co. some veins – barren:	Note Sericite (muscovite) on fracts: & in some qtz veins	<5'	85%		64283		.117		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Slightly altered Sparse Porphyry – as above, cut by several [illegible] (chilled) + 60° C.A. – & cut by Kspar veins 60° C.A.	typical alteration – biotite preferentially plag ± fresh, Kspar in unaltered [illegible] – late faults ± 20° C.A. porphyry [illegible]			[illegible]	MoS2 traces in [illegible] (1mm) qtz [illegible] 20° [illegible] [illegible]	typical Sparse Porphyry – + long [illegible] alteration.	15' ?	85%		64284		.016		
weakly altered Sparse Porphyry – relatively undeformed, typical texture – return to [illegible] – less sericite + clay – minor faults 10-30° C.A. + gouge [illegible]	plag → sericite + clay (nodal green chlorite) ± overprinted by fresh biotite, – [illegible] replace plag.			[illegible]	hairline faults & 1mm qtz veins, [illegible] mostly 60-90° C.A. some [illegible]	– fresher, no MoS2 increase, typical porphyry.	<10%	90%		64285		.034		
[illegible] as above, slight increase in alteration, typical Sparse Porphyry texture – (<10% phenos. max size – 0.5cm. – qtz veins 45°-90° C.A.	as above, – possibly some chlorite replaces plag – also fresh biotite – note rare Kspar envelope to qtz vein: some [illegible]		/\	440	coarse MoS2 in (1) qtz vein (+Kspar) 90° C.A. – other veins (?) barren: traces in hairline fractures.	as above. Moderately altered Sparse Porphyry	<10%	90%		64286		.015		
Sparse Porphyry – much as above, slight green tint – altered, [illegible] qtz vein 20° C.A. cut by barren veins 70° C.A.	large plag xtals (0.6cm) → chloritic green clay & [illegible] or overprinted by biotite: – Kspar ± fresh matrix [illegible] green [illegible] Kspar veins.		/\	450	Pyr on faults 20° C.A.: – (1) good vein + MoS2 (70° C.A.) & traces [illegible] fract. face 90° C.A.	traces of dissem. pyrite in rock. as above, altered porphyry	15%	90%		64287		.043		
Sparse Porphyry – as above, ± 20% phenos, max 1.0cm q.s. (euhedral Kspar) in aphanitic matrix ± [illegible] – broken – loss on recovery.	late faults 10-30° C.A. – [illegible] alteration of plag & matrix (weak) strong secondary biotite = fresh.			460	Pyrite on late faults 30° C.A. ± traces of MoS2: MoS2 traces on faults 90° C.A. – also	1mm qtz veins 40°-70° C.A. – no real change from above:	<20%	80%		64288		.073		
[illegible] fault at 460' – V. crumbly, typical porphyry – q.s. max = 1.0cm V. rich in secondary biotite – fresh, [illegible] alteration in green tint to matrix.	typical plag alteration + minor chalky alteration of matrix.			475	traces in qtz veins 45° C.A. & [illegible] faults – mostly [illegible] [illegible]	increase in matrix alteration near fault.	25% ?	80%		64289		.024		
Sparse Porphyry – as above, cut by qtz-bio vein with Kspar envelope – 20° C.A. Moderate alteration of typical [illegible]. Late faults 10 → 40° C.A.	typical plag alteration & strong biotite overprint: – note clay [illegible] – gouge:			485	trace MoS2 in fine qtz veins & fractures, not [illegible] trace only.	sericite in some qtz veins 11 C.A. – (No MoS2) typical porphyry	<10%	90%		64290		.017		

GRID:

PLACER DEVELOPMENT LIMITED

HOLE No.

SHEET No. of

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Moderately altered, Sparse Porphyry — fairly crowded locally — nearly 20% pheno — faulted at 475 sericite + clay gouge + slip surf chlorite — No MoS2 — 90° ¶ c.a.	traces of fluorite in fault (minor slip surface) slickensides along — Kspar envelope to qtz veins — 25° c.a. — (no MoS2) otherwise normal alteration.				20-45° 15	470	trace of MoS2 in [illegible] fractures [illegible] [illegible], 70° c.a. — barren MoS2 [illegible] shear.	alteration in shear — intersection — 10 cm gouge [illegible] [illegible] [illegible]	40'	80%		64291		.007		
Sparse Porphyry — (±25% pheno: Max qz, larger) aphanitic matrix · cut by major fault at 500'. Variable alteration: (fault 20° c.a. ?).	argillic alteration near fault — fresh rock from 495-499' — Kspar envelopes to qtz veins: intense sericite + clay — shear at end of hole.					500	FeS2 in shear zone at bottom of hole — V. little fractures with MoS2	intense alteration from 500'-502 MoS2 = gouge	20' ?	90%		64292		.032		
					E.O.H. 502'											

PLACER DEVELOPMENT LIMITED

GRID: ______

HOLE No. 233
SHEET No. 1 of 7

LOCATION: 9N 1W
DATE COLLARED: 28th Aug.
DATE COMPLETED: 2? Sept.
BEARING: ______
LENGTH: 551'
DIP: Vertical.
LATITUDE: 6620 427.9
DEPARTURE: 589 663.8
ELEVATION: 1532.4
PROPERTY: Adanac
CORE SIZE: NQ.
SCALE OF LOG: ______
LOGGED BY: R.H. Pinsent
DATE: 11 Sept. 79.

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
0'-50' Mixed Overburden: ground fragments of Sparse P. and 4th July alaskite	—				None.	fines [illegible]: washed out. Most loss estimate.				64327		.001		
50'-70' as above, mainly ground fragments of Sparse P. - 4th July alaskite & fine mafic porphyry.	—				None	" "				64328		.001		
70'-90' as above: ground fragments of 4th July, Sparse P. & a chilled mafic rock - possibly [illegible] fragments of mafic porphyry:	—				None	" "				64329		.001		
90'-110' Possibly boulders & overburden to around 107': then CgQM outcrop: - V. broken and altered, rusty	sericite + clay alteration of CgQM ∴ crumbly: also limonite staining: fracts: 11 to 30° CA.	Cg		110	None visible.	V. deep overburden - close to Adanac Fault: CgQM - transitional type porphyry:	100%	—		64330		.001		
Transitional form of CgQM ⇒ Hybrid Porphyry ⇒ possible variety of Sparse Porphyry - Note much coarser matrix than typical Sparse & No secondary biotite.	strong sericite + clay (kaolinite ?) alteration ∴ crumbly: late fracts: 30° CA - Specks of [illegible] chalky: biotite.	Hy / AP		120	1 Gr. % in 1mm Qtz veins and on [illegible] fracture faces - gravel: - V. fragmented section	apparent gradation from Cg ⇒ Hybrid ⇒ aplite Porphyry	70% ?	30%		64331		.031		
Aplite Porphyry - grey variant of Hybrid Porphyry - similar to Sparse P. but coarser matrix: - possibly related to CgQM	fractured 10°-20° + crumbly ∴ V. poor recovery, some sericite + clay alteration. [illegible] fracts:			130	traces of MoS₂ on disjointed fractures: rare.	sandy texture - rocktype = typical of area on Hollyhollo Creek	80%	80%		64332		.010		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 2 of 7

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
as above, Variety of hybrid? or Sparse Porphyry? - Aplite porphyry - sandy texture trace fine dissem biotite (& pyrite), V. crumbly: -	intense sericite + clay alteration, : matrix ⇒ fine-grained oriented fine white clay: - biot fresh	140	?		Specks of free MoS2 in gravel - grain or fracture = disrupted.	V. crumbly Aplite porphyry - related to Fg? or Sparse, uncertain!	75'/ ?	25%		64333		.061		
as above, Aplite porphyry - few <5% phenos, qtz + Kspar, sandy matrix: V. intense alteration - fragmented - gravel. No obvious fault.	Sericite + clay alteration of feldspars : sandy in matrix, + fine qtz considerable clay.	150			MoS2 traces in frags. & narrow qtz veins in fragments in gravel.	as above, V. altered aplite porphyry - affinity obscure!	80'/ ?	20%		64334		.036		
as above, Aplite porphyry - less altered (slightly) - resembles FgPM more than Sparse Porph. - fine biotite, sandy texture distinctive.	as above: - Sericite + clay alteration - chalky appearance, less extreme than above	160	?		trace MoS2 in rare thin qtz veins & fractures, - in fragments in gravel	<5% phenos. large Kspar + qtz. No obvious fault.	65'/ ?	35%		64335		.075		
as above, Aplite porphyry - <5% phenos qtz + Kspar: sandy aplitic matrix: - V. intense alteration - fractured - crumbly clay.	V. intense sericite + clay alteration gouge (silt, kaolinite) - in fault zones, No biotite - gouge	170			V. rare traces MoS2 in gravel & in veins in frags: in gravel.	+ traces of dissem. pyrite increased alteration.	80'/ ?	28%		64336		.009		
as above, fragments of aplite porphyry ⇒ gouge: - crumbly, cut by chloritic slips, & MoS2 coated slips: - V. fine crumbly gouge, silt,	gouge - Sericite + clay (kaolinite (?)) alteration of aplite porphyry - total, No texture retained.	G 180			(1) good MoS2 coated slip ≠ ∥ CA at 177' No qtz veins	Main gouge zone - fault.	75'/ ?	25%		64337		.029		
fault gouge continues to 183' - then ⇒ aplite porphyry again - less altered - still + specks biotite, - closely resembles Hybrid Porphyry - not Sparse.	alteration - near fault & as above, sericite + clay = silt, chalky assay = more chloritic	190			traces dissem pyrite, + specks MoS2 in qtz veins (1-2 mm) all angles, abundant.	- related to FgPM? Note green tint to fresh rock	50'/ ?	50%		64338		.010		
as above, mixture of aplite porphyry fragments - and fine gouge: - V. crumbly rock - poor recovery. as above:	traces of biotite and (?) chlorite - in less altered rock fragments, mostly sericite + clay, as above	[illegible]			MoS2 in thin qtz veins + fracts. - all angles commonly at fragments	V. fine aplite, + rare phenos, resembles FgPM.	60'/ ?	40%		64339		.025		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Aplite Porphyry - possibly related to Hyland Porphyry Tg - to coarse for Spaver P. and (similarly) too fine: - No obvious fault but broken up and crumbly	slight sericite + clay alteration - locally fragments retain green (chloritic ?) tint and specks fresh biotite			210	MoS2 in qtz veins and fractures cutting fragments of Aplite Porphyry: -	as above, moderately altered porphyry	75% ?	25%		64340		.026		
as above, some aplite porphyry as fragments in crumbly altered zones - faults. - Qtz, chalky, gouge	extreme sericite + clay (Kaolinite ?) alteration - traces of chlorite on slip planes - v. crumbly			220	MoS2 in fine qtz veins - fractures - rare	same altered rock - either Tg or Spaver P. variety	55% ?	45%		64341		.039		
as above - v. closely resembling Hyland Porphyry phase of Tg(PM) - large K-fsp phenos in fine matrix (sandy) + traces of biotite.	traces of chlorite on sheared surfaces. mainly strong to moderate sericite + clay alteration increases near faults	℔	Γ	230	rare traces of MoS2 - as above in fracts + qtz veins fragments!	same variety of porphyry - on balance, relates to Tg.	60% ?	40%		64342		.023		
change to characteristic Tg(PM) at 230' - No phenos; leucocratic - highly altered, crumbly & poor recovery: - chlorite on some shears:	v. intense sericite + clay alteration - chalky white, of fine sandy, clay + fine gt. cutting shears + MoS2	Tg	Γ	✱ 240	MoS2 restricted to shear slip, mainly ∥ to 80° C.A. - Fairly rich:	Note traces of dacitic aplite (Tg(PM))	60% ?	40%		64343		.024		
Fault gouge: - slip, sheared contact between altered leucocratic Tg(PM) and black chlorite gouge: crumbly sheared 10° C.A. - extends to 254' then Breccia +	clay (white) cement → chloritic shear gouge at 246' - Further leucocratic clay gouge then extends to 251'		chl / chl	250	Possibly some MoS2 in black chlorite slip zones.	Fault zone + intense alteration zoned into leuco to mafic sections	50% ?	50%		64344		.043		
fragments of aplite porphyry (or Tg(PM)) - cut by 1-2 mm qtz veins, - pass to fault breccia at 258' - zone with smaller frags cemented by matrix - locally chloritic:	v. intense alteration of feldspar : clay, soft - contact of breccia zone = chlorite		chl	260	Possibly some MoS2 in chlorite shear zone - also in 1-2 mm qtz veins in	chlorite shear ≈10° CA concentration of fractures gravel: hydrothermal	60% ?	40%		64345		.044		
fragments of ground aplite porphyry - moderately fresh - fault at 262' otherwise none obvious: - fine sandy matrix: few phenos:	light green tint, - + speckled fresh biotite locally: - irregular fragments.			270	traces of disseminated pyrite: MoS2 traces on shears at 262'	relatively fresh, underlying section. poor recovery	75% ?	25%		64346		.038		

GRID: ___ PLACER DEVELOPMENT LIMITED HOLE No. ___ SHEET No. 2 of 7

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
fragments of aplite porphyry extend to 272 – then occur as fragments in clay cemented breccia to 274' → increasingly altered → gouge zone	gouge = cemented breccia, slate, sericite + clay rich: (kaolinite?) breccia cut by chlorite slips 20°-30° Ca		70° 30°	280	some MoS2 on slip planes (70° ± Ca.) No qtz veins.	Major gouge zone starts with breccia:	25/7	75%		64347		.060		
Gouge zone, good recovery! Mixed clay cemented breccia + relict fragments of altered CgQM chloritic shear at 290' – (30° Ca.)	intense sericite + clay alteration: abundant gouge: frags. of qtz + altered [illegible] c slips;	G	Chl.	290	MoS2 on slips in chlorite shear zone at 290'	Much of gouge is rotten CgQM: note fluorite in altered rock.	10/7	90%		64348		.037		
gouge zone: – V. strongly sheared, V. little relict primary texture: – V. strongly sheared CgQM. No late qtz veins.	strong chlorite veining (shears) at 293' – V. intense sericite + clay alteration:	G	Chl.	* 300	MoS2 coats slips & shears ± slickensided: locally fairly rich:	soft, altered CgQM – totally sheared ± 30° Ca.	20/7	90%		64349		.099		
highly sheared but recognizable CgQM extends to 305' – then disintegrates to crumbly rubble – No recognizable texture – fault: chlorite shear at 309' – 40° Ca.	V. intense sericite + clay alteration – particularly near shear, note segregations of fluorite.	Cg		310	traces MoS2 on slip planes and in barren qtz veins: ± pyrite, dissem.	as above, intense alteration near major fault.	30/7	70%		64350		.027		
V. highly altered CgQM. – largely unrecognizable, crumbly: ± gouge → fragments of aplite porphyry	as above: intense clay alteration – slate – fractures ∥ Ca. chlorite near shears, faults	Cg S.A		320	MoS2 bearing qtz in gravel & MoS2 smeared onto fracture slips. Not rich	still strongly affected by fault: – Low recovery.	60/7	40%		64351		.049		
sparse aplite frags: dyke? → deformed and altered but texturally distinct CgQM becomes crumbly at 328' – Note 1cm qtz vein 90° Ca.	slight decrease – sericite + clay and increase in chlorite alteration, holds together better:	Cg		330	good MoS2 in thin qtz veins 80° Ca. & in rare fractures: Not V. rich	+ traces dissem pyrite. Moderate alteration	45/7	55%		64352		.037		
CgQM – similar to above – good recovery to 332 then → gravel & sand (gouge – fault contact (?) with TgQM at 338' – qtz veins (1cm ±) + V. good MoS2	decrease in chlorite, increase in sericite + clay (slate) in rotten fault zones typical:			340	(4) large qtz veins (white...) + coarse blebs MoS2; Low recovery.	contact with V. altered TgQM: Note pyrite traces	50/7	20%		64353		.325		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 5 of 7

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Leucocratic TgQM – intensely altered, rest mafics = specks of chlorite, – sandy texture, no planar – fairly typical.	Sericite + clay kaolinite (?) alteration – soft, crumbly, fracts + pale green illite/chlorite		Tg			350	traces of dissem. pyrite + MoS2 on shear planes @ 11 pf	intensely altered TgQM. No qtz veins. MoS2 on fracts.	45' ?	55%		64354		.191		
similar to above, with increased deformation of TgQM → v. abundant MoS2 – MoS2 on shears, 50°ca, in barren qtz veins, v. broken up	– similar to above but less [illegible] – better recovery – more gouge, more chlorite – slips 10–30°ca				[illegible]	360	v. good MoS2 on shears, v. broken... possible loss = v. great.	Tg host in faulted zone & v. rich in MoS2	30' ?	70%		64355		1.140		
highly deformed and altered TgQM, completely destroyed by fault => start appears to be Sparse Porphyry fragments.	intense sericite + clay (talc) alteration of TgQM – note biotite in Sparse Porphyry		Tg / Sp		(?)	370	MoS2 along slip planes & [illegible] contact of TgQM @ 360' 365'	increased alteration near fault? contact	30' ?	50%		64356		.189		
V. highly altered rock – possibly sparse porphyry? – goes to equally altered but recognizable CgQM with faulting/fragment.	intense sericite + clay alteration + minor light green alteration of plag in CgQM – v. crumbly!		SpP / Cg			380	good MoS2 on later slip surfaces – crumbly.	potential MoS2 loss = great. Not there dissem. pyrite	40' ?	70%		64357		.040		
CgQM – broken and crumbly fragment – gravel of fault zone, recognizable texture – Note late fracts // ca.	moderate to strong sericite + clay alteration + chlorite/talc – light green tint.					390	MoS2 with chlor. on some late shears & fractures, no qtz veins.	Local fluorite & biotite in CgQM + trace dissem. pyrite	50' ?	50%		64358		.042		
Much improved recovery as non-faulted, although late fracts // ca and abundant internal deformation of CgQM – igneous contact with Sparse P. (10°ca)	decrease in both sericite + clay and chlorite alteration, fresh biotite.		Cg / Sp		10°	400	MoS2 in qtz veins 90 ca (Sparse P) and fractures in CgQM – Not v. rich.	CgQM still fairly crumbly.	15'	85%		64359		.050		
Sparse Porphyry – few fine planes – goes to CgQM, much as above, v. deformed and altered, crumbly faulted 407'+	increase in sericite + clay in fault zone – also in biotite stock? soft → crumbly CgQM		Cg			410	MoS2 on broken fracture surfaces and slickensided shear planes.	deformed and altered CgQM – typical	24' ?	85%		64360		.070		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 6 of 7

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
altered and deformed CQFP grades to V. altered Mafic Porphyry at 418' — fairly good recovery. possibly cut & silicified locally.	moderate alteration of CQFM texture retained, K-spar fairly fresh, plag altered, bio altered.	CQ — 420			qtz veins 90° to c.a. + fractures with small blebs MoS_2 — fairly good MoS_2	Mafic Porph. near (igneous?) contact = V. strongly sericitized + [illegible] clay	<10'	92%		64361		·213		
Highly altered and broken Mafic Porphyry — fractures high and low angles to c.a. — crumbly, abundant gouge.	white gouge in fractures — clay + sericite, white clay + small bright green, altered — biotite fairly fresh.	MP — 430	[illegible]		MoS_2 smeared planes cutting Mafic Porphyry. Locally in gouge.	highly altered soft Mafic P. + gouge.	20' ?	80%		64362		·046		
Highly altered Mafic Porphyry cut by dyke of equigranular Fg QM (sandy) — broken fragments of [illegible] crystals — V. fractured Mafic Porphyry — crumbly.	soft crumbly fragments of Mafic P. + Fg QM in gouge — mainly white sericite + clay — also some bright green.	FQ — 440			MoS_2 traces in fractures and small broken qtz veins in Mafic P.	intense alteration of Mafic P. — still enhanced by fault.	45' ?	45%		64363		·110		
V. similar to above, highly deformed and altered mafic porphyry cut by dyke of FgQM — similar to above but abundant leucocratic — No mafics, altered	V. intense alteration, general [illegible] white clay gouge — crushed fractures. Gouge in fault at 446'.	MP / Fg — 450	45° Fg.	[illegible]	Trace: crushed by MoS_2, pyrite + trace fluorite 45° c.a. — 440'.	as above altered Mafic P. — cut by FgQM dykes	40' ?	60%		64364		·107		
Moderately altered and deformed Mafic Porphyry — less fractured and broken up, less gouge — more fresh biotite & recognizable qtz veins 45°–80° c.a.	white sericite + clay alteration of some K-spar & plag: little green chlorite. Bio = ± fresh.	460			MoS_2 mainly crushed on fractures 50–80° c.a. (4) Not in qtz veins.	typical altered Mafic Porph: away from fault.	75' ?	75%		64365		·096		
Moderately altered Mafic Porphyry — characteristic texture — not V. deformed — few large K-spar phenos — fairly mafic.	typical alteration of feldspar + minor chlorite; bio fresh, K-spar + Bio vein 60° c.a. also qtz veins (·6–10 cm) 60°–70°	470	[illegible]		Minor MoS_2 in fractures — as above, all V. minor qtz veins ± [illegible]	as above, typical Mafic Porph.		85%		64366		·032		
Mafic Porphyry — V. similar to above, moderate alteration — increased fractures 10–30° c.a. + gouge — white	typical sericite + clay alteration, little chlorite — fresh biotite.	480	*	*	(3) Vuggy qtz veins + MoS_2 blebs (1–4 mm) 70°–90° c.a. & 1 vein 10° c.a.	Marked MoS_2 increase — still relatively minor qtz.	<10'	90%		64367		·188		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porphyry - as above: + moderate alteration [illegible] late fractures (10°c.a. + gouge): - [illegible]	[illegible] Kspar veins 70°c.a. & qtz veins 70-90°c.a. [illegible] alteration [illegible] Kspar + Plag + sericite + clay.		490		[illegible]		[illegible] veins + coarse [illegible] blebs 80°c.a. - [illegible]	slickensided shears: [illegible] Mafic Porphyry	15'?	90%		64368	-	·550		
Mafic Porphyry - as above, - weak to moderate alteration - [illegible] texture: - [illegible] Kspar [illegible] + biotite specks:	weak to moderate Kspar & Plag alteration - Bio: - fresh: qtz veins locally + Kspar envelope.		500				qtz veins 70-90°c.a. & 25°c.a. - + small blebs MoS2 & Pyrite [illegible]	- qtz veins 45°c.a. [illegible] but significant	<10'	72%		64369		·091		
Mafic Porphyry - as above, cut by rare Kspar + Bio qtz veins: - qtz veins: - minor late fracs 0 to 15°c.a. + gouge:	standard moderate alteration texture retained strong Biotite.		510				qtz X fracts: 90°c.a. & - for qtz veins (1) MoS2 in an qtz vein 70°c.a.	Not V. rich - [illegible] - Note: [illegible] along fracts:	<10'	90%		64370		·096		
Mafic Porphyry as above, fractures 10-20°c.a., + gouge: - fresh biotite, + original texture - V. good MoS2 - fractures:	slight [illegible] of Plag + Kspar (⇒ sericite + clay) + large chlorite: Bio = fresh (in veins)		520		[illegible]		(1) Major MoS2 vein 80°c.a. and (1) 20°c.a. extends to 521' - excellent mineralization	Possibly Wolframite with MoS2 - a large vein 90°c.a.	<10'	90%		64371		·270		
Mafic Porphyry - much as above, - slightly more [illegible] especially near MoS2 vein at 520 - also 527 broken up, poor recovery.	fairly fresh but altered near MoS2 veins: Bio ⇒ chlor, Plag + Kspar ⇒ sericite + clay:		530		[illegible]		(1) MoS2 vein 70°c.a. continues from above (+ Wolframite + Pyrite) - also ⇒	coarse blebs in qtz veins ‖ 20°c.a. - at 527' -	30'?	65%		64372		·297		
Mafic Porphyry - as above, moderate to weak alteration, characteristic texture, slight etching: - fracts 10-20°c.a.	slight sericite + clay and possibly chlorite alteration near qtz veins: - Kspar + Bio veins 90°c.a.		540				traces of MoS2 in Kspar + Bio veins or fracts (+ pyrite) traces.	similar to above but No MoS2 in qtz veins, less mineralization	35'?	65%		64373		·051		
Mafic Porphyry passes to chilled [illegible] [illegible] to altered Sparse Porphyry - strong chlorite [illegible] to sparse P.	weak chlorite-[illegible] alteration of Sparse P. - late fracts 10°c.a. + Pyrite & gouge.	Tg / SP	550				qtz veins 50-80°c.a. + small blebs MoS2 Not V. rich:	(E.O.H. 551) Sparse Porph. resembles variety of Tg: [illegible]	<10'	92%		64374		·104		

PLACER DEVELOPMENT LIMITED

GRID: ____

HOLE No. 234
SHEET No. 1 of 7

LOCATION: 9N 1E	BEARING:	LATITUDE: 6620 452.3	PROPERTY: Adanac		
DATE COLLARED: 31st Aug.	LENGTH: 490'	DEPARTURE: 589 719.8	CORE SIZE: NQ	LOGGED BY: R.H. Russell	
DATE COMPLETED: 4th Sept.	DIP: Vertical	ELEVATION: 1520.4	SCALE OF LOG:	DATE: 13th Sept. '79	

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
No recovery to 65'. 65'–80' – rubbly overburden – sand, gravel & fragments spread, CgPM, 4th July.	–			80	–	–				64375		·008		
V. leached → disrupted CgPM – stained with limonite, rusty: deformed, relict texture still visible.	CgPM cut by fractures 50° ca, – V. crumbly, feldspars → altered, no fresh biotite.			90	No visible MoS₂ – all etched.	V. gravelly – highly altered subsurface outcrop: could be overburden	100'	35'		64376		·072		
recognizable as CgPM to 91' then → gouge cemented breccia: rock fragments, sand to gravel size cemented by white kaolinite clay: largely derived from CgPM	V. intense sericite + kaolinite (clay) alteration of feldspar + minor chlorite after plag: no biotite.	Cg		100	good flakes of → chlorite on (1) slip & Cq. clock sooty, pyrite dissem in	gouge. V. intense alteration, good recovery.	40'	75'		64377		·018		
CgPM rubble from 101'–105' = V. sheared → cut by chloritic shears (20° ca) – CgPM = highly deformed → altered, from 105 → disrupted Cg rubble, gravel in Cg ...	V. intense sc. sericite + clay (kaolinite?) alteration of feldspars, crumbly from ... (sandy chlorite)	Cg	chl.	110	Black gouge – sheared with CgPM – may be MoS₂ rich?	Change from gouge → Cg → crumbly CgPM – intense alteration	45'?	55'		64378		·027		
CgPM – gravel from disrupted CgPM. ... low recovery: recognizable texture to Cg: V. crumbly feldspars.	V. strong sericite + clay – as above + traces of chlorite. No biotite (fols. ...?)			120	V. large (1mm) MoS₂ flakes in gravel. V. large vein disrupted (1) good vein 70° ca.	Fresh MoS₂ in vein of qtz in Cg = 70° ca. – loss may be V. great	50'?	50'		64379		·308		
CgPM – as above, almost completely reduced to sand and gravel: – few relict frags. + atypical CgPM texture: fragments + shears at 40° ca.	Intense sericite + clay alteration. V. crumbly & disrupted. Plag → chlorite, V. rare traces of fresh biotite			130	traces dissem. pyrite in gouge & gravel. MoS₂ flakes in gravel.	V. soft and crumbly, altered CgPM.	40'	50'		64380		·027		

GRID: [illegible] PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. [illegible] of [illegible]

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
as above: — CgQM (reduced to sand and gravel: V. disrupted — local crumbly sections retain texture and fractures 40-50° Ca. —	intense sericite + clay alteration, as above — crumbly feldspars — Plag ⇒ chlorite + fluorite					140	MoS2 traces and flakes in gravel. MoS2 veins disrupted. Loss possible	V. similar to above: AB probably lies near main Ashton fault?	9 35%	75%		64381		·049		
as above, CgQM reduced to gravel + fragments of relict CgQM — fairly undisturbed from 147-150' — generally less altered than above.	Plag ⇒ light green chlorite, gouge & Kspar ⇒ sericite + clay; generally less altered (but more consolidated)	Cg				150	MoS2 in gravel and in qtz veins + 80° Ca. + as specks & small fresh blebs	Still crumbly but less altered. Sericite & late Qtz 20° Ca.	25% ?	75%		64382		·142		
as above, crumbly CgQM, mostly reduced to sand and gravel. Minor relict CgQM + dyke of FgQM at 158' — qtz veins, disrupted in CgQM	alteration as above, V. crumbly Fg and CgQM. No mafics — Fg = qtz + clay only: + chlorite stains, shears	Fg				* 160	MoS2 coating on shear cutting FgQM, elsewhere flakes in gravel & of qtz frags.	Note sericite + pyrite + fluorite clots in altered gravel.	55% ?	45%		64383		·052		
as above, CgQM reduced to gravel and clay + sand: — large fragments retain texture — large qtz vein (no MoS2) disrupted in the CgQM	typical alteration sericite + clay: note sericite flakes on fractures. Minor chlorite & fresh biotite					170	clay and pyrite & minor MoS2 on fracts. & in gravel, fine,	fractures ∥ to 90° Ca. Note pyrite "knots" in gravel.	65% ?	35%		64384		·020		
as above, CgQM — V. poor recovery: — more strongly altered than above, fewer fragments with recognizable texture: more sericite + clay	± intense sericite + clay alteration of feldspar: fragments still fractured ± 10° to ∥ Ca.	Cg				180	rare flakes in gravel and gouge: — + specks pyrite	Note coarse grained sericite (1mm) in gouge.	80% ?	20%		64385		·031		
Mixture of CgQM (highly altered) and gouge. — apparently derived from CgQM — in situ alteration: some sections = gouge	V. strong sericite + clay (kaolinite?) alteration of feldspar. ± No chlorite.					190	MoS2 in fracts: sheared zones at 187' + traces in gravel.	intense alteration — approaching fault zone	70% ?	30%		64386		·087		
Soft gouge — mainly derived from CgQM — few remnants undisrupted, V. poor recovery.	— as above, strong sericite + clay alteration: + traces of chlorite				*	* 200	V good MoS2 mass at 197' = concentration on shear plane (at 45° Ca)	as above note disrupted MoS2 pass — no gravel.	50% ?	25%		64387		·136		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
as above, CgQM → disrupted zone → gravel from CgQM - some undeformed CgQM at 201'-205'	strong sericite + clay alteration, [illegible] of feldspar: Plag → chlor. increases with depth: -			210	MoS2 traces in gravel: Not very rich	V. intense alteration - still CgQM	65' 9	35'		64388		·074		
mixed zone :- gravel (CgQM) ⇒ chlorite cemented breccia ⇒ pure chlorite gouge at 217' - dark green, soft, fault gouge.	intense alteration of CgQM - as above, slight increase in chlorite ⇒ chlorite gouge zone + pyrite.		Chl Chl	220	traces of MoS2 - [illegible] abundant pyrite in gouge zone: -	V. major fault intense chloritization	45' ?	55'		64389		·055		
Chlorite gouge - soft: locally with broken up qtz fragments: - tr. traces of pyrite	complete alteration - chlorite gouge zone.	G		* 230	Cut by 'veins' of qtz + MoS2 [illegible] qtz frags cemented by MoS2?	MoS2 veins postdate chlorite?	20'	80'		64390		·035		
Pure chlorite gouge extends to 233' - then ⇒ qtz + chlorite zone, probably CgQM with all feldspar ⇒ chlorite, normal qtz distinguish[illegible]	degree of chlorite alteration decreases from 236-240' - visible Kspar + CgQM texture: abundant qtz veins, not [illegible]	Cg	Chl	* (?) 240	Chlor. qtz zone cut by MoS2 + pyrite vein 80 Ca. - also cut by qtz + MoS2 breccia vein	30° Ca, - MoS2 = probable cement of breccia zone at 235'	15' 7	85'		64391		·157		
altered CgQM cut by narrow sections of TgQM - similarly altered, - fault at 246' = V. chlorite rich, as above, gouge.	V. varied alteration. CgQM = silicified - hard + fresh biotite, to 244', chlorite decreases from 248'		20° Chl	250	scattered MoS2 in qtz veins ± 90° Ca, & shear plane & fractures ± 45° Ca. Not V. rich	pyrite on faults: - intense alteration adjacent to fault:	15' 7	85'		64392		·057		
CgQM fragments ⇒ Tg at ≈ 252' broken contact: - CgQM [illegible] as above, TgQM v. fine, sandy, [illegible] qtz [illegible] pyrite but V. little mafic bio or chlor.	Tg - non porph - Qtz sericite - clay cement. MoS2 ⇒ pyrite: No bio, chlor restricted to few slip surfaces.	Tg		260	MoS2 - (1) qtz vein cutting TgQM & on (1) slip plane 70° Ca. - TgQM not V. rich.	intense alteration of both units: probably post mineralization	70' 9	30'		64393		·030		
highly altered TgQM (broken) continues: - fault suggestion of early Kspar flood: - also completely altered, possibly also Kspar [illegible] cut TgQM	sericite + clay alteration of feldspar - note coarse sericite flakes in fractures: - chlorite restricted to slips, sandy texture:			270	(1) 1cm qtz vein [illegible] & Kspar envelope & MoS2 in qtz. + traces of MoS2 on fractures:	fine 1cm qtz vein cut TgQM - not [illegible]	55' 9	45'		64394		·078		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
V. fine variety of FgQM – as above – cut by Kspar + pyrite-free zone at 279'; also [illegible] Kspar veinlets.	Much as above, although [illegible] ... extremely sericite ... [illegible] green [illegible] ... [illegible]		280				[illegible] pyrite ... [illegible] ... qtz veins	[illegible] casting throw. Mostly from [illegible]	30' ?	70'		64395		.095		
Same FgQM unit, highly altered, weakly defined ... cut by qtz veins & fractures ... note [illegible] chlorite ... [illegible] less [illegible]	Similar [illegible] ... chlorite, bio ... plagioclase altered, [illegible] ... pyrite		290				qtz veins [illegible] 90° ... pyrite ... [illegible]	altered variety of FgQM. Note [illegible] chloritic [illegible] above	15' ?	85'		64396		.061		
FgQM – highly altered ... [illegible] at 297 – strong ... [illegible] – [illegible] QM / No mafics (?) highly altered.	note [illegible] chlorite above ... [illegible] ... [illegible]	Fg	300		[illegible]		FgQM cut by 70–60° qtz veins ... [illegible] ... chlorite [illegible]	V. variable alteration pattern, 9 main types: chlorite [illegible]	10'	8'		64397		.200		
CgQM – highly altered but typical texture: – normal [illegible] transitional. Cut by [illegible] qtz vein 80° ca. – No MoS2. Kspar [illegible] deformed.	– [illegible] ... clay alteration at contact ... plag = chlorite ... [illegible] ... [illegible] fractures	Cg	310				MoS2 [illegible] ... 80° ca. ... [illegible]	strong alteration but texture retained. Late fracs: // ca.	10'	95'		64398		.151		
CgQM – V. similar to above! highly altered and weakly deformed: "normal" texture. Kspar deformed → late fracture //to 20° ca.	– as above, Kspar ... [illegible] – weak [illegible] ... Clay alteration plag = dark green, chlorite. No biotite		320				qtz veins (3–4 ...) ... MoS2 [illegible] 90° ca. ... [illegible] 70° ca.	typical CgQM – strongly altered.	10'	92'		64399		.043		
CgQM, V. similar to above, highly altered and weakly deformed – relict texture. Cut by large (2–4 cm) qtz veins ± MoS2.	as above, plag → [illegible] green chlorite, Kspar! [illegible] – No biotite! – late fracs //to 20° ca.	Cg	330				[illegible] ... 45° ca. ... coarse blebs in (1) large qtz vein 70° ca. Pyrite [illegible]	typical CgQM, as above ... affected [illegible]	15' ?	85'		64400		.160		
[illegible] contact between CgQM → Mafic Porphyry – V. highly altered: – Mafic P. cut by late fracs 20° ca. ... [illegible] ... not V. altered).	intense sericite clay alteration of Kspar near contact, & relict chlorite, [illegible] texture from 334' ... Kspar & more chlorite		340				[illegible] MoS2 ... Kspar veins 70° ca. ... [illegible]	V. highly altered Mafic Porphyry	20'	80'		64401		.044		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. ____ SHEET No. 2 of 7

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG Rock Type Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
highly altered Mafic Porphyry – locally soft & crumbly. – late fracts 70° c.a. + gouge. Variable alteration – typical texture.	Mixed alteration – some sericite = smectite clay rot (chlorite (?)) [illegible] (+ lower Kspar)					350	Massive qtz veins 70°±90° c.a. [illegible] MoS2 – [illegible]	Strongly altered & chloritic. – late fresh biotite locally	10'	97%		64402		.074		
Mafic Porphyry – Moderately altered [illegible] largely chloritic – cut by Kspar enveloped qtz veinlets (?mm) 90° c.a. – typical texture to Mafic P.	Kspar affected rocks: Note locally Mafic P. → fairly fresh locally: Mostly chlorite alteration of plag: – Trace Kspar & biotite					360	(1) 1cm qtz vein 90° c.a. w/ good blebs of MoS2: others smaller veins [illegible]	far fresher than above – partially Kspar & biotite	10'	95%		64403		.077		
Mafic Porphyry: – as above, variably but fairly moderate alteration: typical texture, [illegible] Kspar [illegible] – [illegible] rocks	Local Kspar alteration near veins & fractures: – sericite + clay: Plag → clay/green chlorite: Bio = fresh.					370	Fairly abundant qtz veins (mainly 1/4–2cm) 20°–90° c.a. small rosettes & blebs of MoS2 [illegible]	Late fracts: 70–40° c.a. late qtz veins fairly large & common	10'	95%		64404		.084		
Mafic Porphyry – as above moderate to strong alteration: + qtz veins,	as above, sericite + clay increases near veins & fractures (leached) – rest – green chloritic, biotite = fresh.					380	Qtz veins 10–30° & 70–90° c.a. with MoS2 specks – mainly [illegible], 1/2 vein 70° c.a.:	Moderate qtz veining & MoS2. Clay in late fractures	10'	95%		64405		.143		
Mafic Porphyry – as above, moderate to strong alteration. typical texture – few planes: abundant qtz veins	as above, largely chlorite alteration – green tint: – locally sericite & clay + etching of feldspars					390	qtz veins 20° & 70–90° c.a. – fairly [illegible] 1/2–1cm (+ Kspar also locally) – some small amounts MoS2	70–90° ca qtz veins younger than 20° ca veins: Low late fracts 20° c.a.	10'	95%		64406		.058		
Mafic Porphyry – as above, fairly strong alteration: – locally appears silicified, otherwise mainly chlorite alteration.	silicified at ± 395' – chlorite as above strong chlorite development after plag & on slips: Bio = fresh, locally.				40°	400	(6) large qtz veins varied angles, 60–70° c.a. – carry small specks MoS2: Not much.	typical moderately altered chloritic Mafic Porphyry.	10'	95%		64407		.240		
broken Mafic Porphyry much as above locally crumbly. late fracts 0 to 30° c.a. + gouge: (sericite + clay) [illegible]	mainly Plag → chlorite & chlorite on slip planes: – minor sericite near veins & fractures:					410	qtz veins 20° and 80° c.a. + Pyrite, traces MoS2 – (1) 2mm qtz vein 90° c.a.	broken up Mafic Porphyry – altered	25' ?	75%		64408		.071		

GRID: PLACER DEVELOPMENT LIMITED HOLE No. SHEET No. 2 of [illegible]

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
as above, broken up Mafic Porphyry - sheared and fractured + [illegible] (70° [illegible]) - typical Mafic [illegible] [illegible] [illegible] [illegible] [illegible] fractures [illegible] 40° [illegible] + gouge.	sericite + clay + pyrite [illegible] qtz veins (90°C) + fluorite (1440 [illegible]) - [illegible] + chlorite alteration concentrated [illegible]					1420	some blebs MoS2 in [illegible] qtz veins, 90° c.a., [illegible] 90° c.a. [illegible]	as above, [illegible] chlorite altered [illegible]	70' ?	80'		64409		·085		
as above, altered and broken up Mafic Porphyry - cut by Kspar vein - [illegible] (2-4 cm) qtz vein 90° c.a. - biotite = fresh	as above: - sericite + clay [illegible] fracts: 30-40° c.a. & [illegible] chlorite [illegible] [illegible] fluorite [illegible] Kspar veins.				11	1430	MoS2 [illegible] qtz veins (90° c.a.) Not V. [illegible]	as above, typical altered Mafic P.	75' ?	75'		64410		·085		
Mafic Porphyry - cut by major shear at [illegible] (70° c.a.) - intense alteration of Mafic P. above and below shear, & chlorite in shear: [illegible]	Kspar and Plag = altered and [illegible]: = light green [illegible] [illegible] with sericite & [illegible]				20° 75°	1440	qtz veins 70°-90° c.a. (1 mm - 1 cm) [illegible] blebs MoS2: [illegible] alteration	plag = Kspar altered.	20'	80'		64411		·081		
Mafic Porphyry - highly altered, texture [illegible] - cut by abundant qtz veins, [illegible]	qtz veins diffuse, all [illegible] - strong chlorite and sericite alteration [illegible] [illegible] fluorite [illegible]					1450	traces (MoS2 in qtz veins (+ fluorite) 90° → 30° c.a. [illegible] disseminated pyrite:	Strongly altered Mafic Porphyry	< 10'	95'		64412		·092		
V. altered and soft Mafic Porphyry to 455' - sheared = slightly fresher variety, less deformed, retains texture - fresh biotite remains:	weak chlorite & sericite + clay alteration from 455' - fairly strong below 455'					1460	qtz veins 70-90° c.a. + blebs MoS2: also (1) 30° c.a.	less altered Mafic Porphyry	25' ?	75'		64413		·078		
weakly altered to fresh Mafic Porphyry - typical texture, [illegible] Kspar [illegible] matrix with [illegible] biotite [illegible]:	cut by large (1-2 cm) qtz veins 70° & 50° c.a. and fractures [illegible] 70° c.a. with peripheral alteration, sericite + chlorite					1470	MoS2 in some qtz veins and [illegible] fracts: 90° c.a. Not V. [illegible]	relatively fresh Mafic Porphyry	< 10'	90'		64414		·140		
Mafic Porphyry - Mainly fresh but altered around qtz veins (90° c.a.) and progressively altered from 477' typical texture.	Plag = chlorite & mild sericite + clay alteration of Kspar: biotite fresh					1480	MoS2 in [illegible] fracts 90° c.a. in most altered [illegible] of core	Fairly fresh, note MoS2 in altered porphyry	< 10'	90'		64415		·035		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	ASSAY RESULTS: Cu	ASSAY RESULTS: Mo	ASSAY RESULTS	EST. GRADE
Mafic Porphyry possibly [illegible] 480'-485' [illegible] 486' - [illegible] 485 [illegible] Mafic Porphyry	[illegible]				[illegible]		[illegible]	[illegible] veins 25°C [illegible] alteration of [illegible] veins.	10'	90'		64416		.065		
					[illegible]	[illegible]										

PLACER DEVELOPMENT LIMITED

GRID: ______

HOLE No. 235
SHEET No. 1 of [illegible]

LOCATION: 7N 15
DATE COLLARED: 4th Sept. 79
DATE COMPLETED: 7th Sept. 79
BEARING: ______
LENGTH: 502'
DIP: Vertical.
LATITUDE: 6620 402.7
DEPARTURE: 589 744.1
ELEVATION: 1516.5
PROPERTY: Adanac
CORE SIZE: NQ
SCALE OF LOG: ______
LOGGED BY: R.A. [illegible]
DATE: ______

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
0 – 58' overburden: V. little recovery: CgQM outcrop starts at 58'	CgQM = fairly fresh minor alteration of feldspar → limonite stain.			60	MoS₂ in qtz veins 70–90° Ca. [illegible] specks of MoS₂ in (1) qtz vein ∥ Ca. (?)	Note fresh state of rock & presence of MoS₂	–	–		64417		·045		
CgQM – normal (?) texture – deformed Kspar crystals, fractures stained by limonite: – 4mm qtz vein ∥ Ca. → 4–7mm qtz veins 70–90° Ca.	Kspar = ± fresh. Plag → sericite + clay = limonite stained and etched – Biotite – fresh or weakly chloritic. Late fracts: (10° & 80° Ca)			70	MoS₂ in qtz veins 90° to Ca. [illegible] V. significant [illegible] single vein 90° Ca.	Note coarse granite texture fracture faces (flakes) & local etching of qtz veins	10'	90%		64418		·080		
CgQM – as above, cut by sheared (?) zone (5cm, 90° Ca) – tendency to "transitional" texture – [illegible] of matrix – Kspars deformed, stained.	as above: – Plag = more strongly altered than Kspar: – both altered and rotten from 76': late fracts. 40° Ca		40°	80	sericite in qtz veins with [illegible] limonite specks: – etched but no visible MoS₂	– characteristic sericite flakes in etched cavities: stained	10'?	75%		64419		·001		
CgQM – crumbly & altered from 80'–86' – otherwise as above, – "normal", irregular aggregate texture: – No matrix. deformed by late fracts ∥ to 20° Ca.	strong increase in sericite + clay alteration of Kspar in rotten areas – coarse [illegible] – limonite stained			90	No visible MoS₂: some qtz veins 90° Ca. & etched (?)	deformed, stained, CgQM – plag = etched with [illegible] ± unstable → [illegible]	10'?	70%		64420		·001		
CgQM – as above, crumbly at 91' and from 96': late fracts ∥ – 30° Ca. + limonite stained gouge locally + [illegible] stain on fracts:	increased alteration, as above, in crumbly areas: – mainly plag → sericite & clay, [illegible] Biot. ± fresh or chloritic.			100	No visible MoS₂: some qtz veins 70° Ca. & etched.	altered CgQM – stained:	10'?	65%		64421		·001		
Another CgQM – similar to above, – cut by small sandy dykes of PgQM at 105' – CgQM = normal variety:	alteration typical for CgQM – plag → light green ± limonite stained clay & etched Kspar crumbly – [illegible]			110	MoS₂ specks – grained: None visible in rock or qtz veins = [illegible]	Sheared CgQM + qtz veins & silicification – Note fresh [illegible] & crumbly [illegible]	9'?	60%		64422		·001		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	ASSAY RESULTS: Cu	ASSAY RESULTS: Mo	ASSAY RESULTS:	EST. GRADE
CgΦM cut by narrow (5-10cm) dykes of FgΦM (114'-116') & cut by qtz veins 90°Ca. (±1cm). Typical CgΦM - normal texture, deformed feldspars.	Late fracts. - Abundant 10°-20°Ca. - Variable limonite stain - poor fractures [illegible] - typical clay alteration of plag. Conformable to chlorite					120	750 MoS₂ in (1) qtz vein 20° & (1) 70°Ca. other veins [illegible] trace [illegible]	Probably MoS₂ loss from (1) vein: - other [illegible] [illegible]	10' ?	85%		64423		.114		
Typical CgΦM to 121' - then → V. silicified zone - possibly related to FgΦM margins, to 124' then returns to relatively unaltered CgΦM. Normal texture. Silicified shears 90°Ca.	V. little limonite except in and near fractures. Silicified zone = fine sponge of qtz-feld & fragments of CgΦM.		S:l		40°	130	V. massive clot (MoS₂ at 128' 70° Ca. V. little qtz) (1cm thick) (1 + 6 loss)	Pyrite on fracts. Bio = fresh, Only in silicified zone.	15' ?	90%		64424		.458		
CgΦM - V. variable texture: - locally = normal locally = transitional - locally cut by silicified shears (90°Ca.) → small dykes FgΦM (90°Ca.).	- Limonite stain restricted to fractured areas: - Plag → light green sericite? clay (cont.) alteration: Bio = fresh, Kspar = fresh.		(T)			140	Pyrite = rich, on fracts: MoS₂ = fine specks in 1mm qtz veins 90° & 70°Ca. Not rich.	Light green chlorite? colour to rock: Note [illegible] locally overprints plag.	10' ?	92%		64425		.035		
V. variable CgΦM cut by dykes of FgΦM (10cm) 90°Ca. - sandy, equigranular FgΦM - mottled, V. irreg. texture & contact, segregated matrix of [illegible] Transition	Note graphic intergrowth qtz + feld. in matrix & local shears 90°Ca. = silicified: minor alteration of plag: rest = fresh		(T)			150	traces of MoS₂ in hairline fracts: → 1mm MoS₂ qtz veins. Most large veins 40°-[illegible] (1) 70°Ca MoS₂	Rich in qtz veins, not in MoS₂: - some loss.	15' ?	92%		64426		.025		
Complex, variable CgΦM - numerous [illegible] - cut by silicified shear zones (70°Ca.) → Massive Kspar zone (10cm, 90°Ca.) - transitional texture, massive Kspar	in Bio matrix: - large irreg. Kspar phenos: - Plag altered → green clay + sericite → Biotite overprint, some = chlorite		(T)			160	qtz veins 90° and 80°Ca. + specks MoS₂ on borders scattered: - traces only	Note sericite flakes on fractures. V. irreg. texture.	10'	92%		64427		.042		
CgΦM - as above: - transitional texture: - large irreg. Kspar phenos in a matrix of qtz + feldspar. - silicified shears 90°Ca. ± (2-4cm)	Mild alteration of plag: as above. → green clay = soft, etched, - Bio = fresh to altered (chlorite) →		(T)			170	Pyrite rich on fracture faces: MoS₂ coated on (1) fracture, 70° Ca. qtz vein + [illegible]	Not coarse sericite still around: - Pyrite rich fractures	20' ?	85%		64428		.030		
Silicified zone, possibly replacing CgΦM - typical texture, V sandy → transition → Fg + frags. of Cg: - igneous breccia → fault breccia. V. rusty matrix.	Silicification → aplastic matrix + Bio & chlorite laths & veins: - (90°Ca.) Fault breccia = V. rotten → rusty Fg breccia.		S:l / Fg		30° / CS	180	MoS₂ blebs in qtz veins: - & chlorite fracts: in silicified zone, [illegible]	Odd igneous breccia V. altered rock. related to fault breccia.	5' ?	45%		64429		.022		

GRID: PLACER DEVELOPMENT LIMITED HOLE No SHEET No. of

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
CgQM - breccia? ... silicified ... complete [illegible] ... no CgQM texture. Note texture of CgQM ... [illegible]	Plag. altered ... chlorite ... fairly fresh, unaltered. Kspar [illegible]	CgQ			[illegible] CgQM ... [illegible]	normal CgQM → transition ... silicified ... [illegible]	[illegible]	92%		[illegible]		.038		
Silicified zone grades into variety of FgQM ... what texture (CgQM) ... zone ... silicified zone - Fg [illegible] aplite, partly	... silicification ... near FgQM contact ... texture ... fresh plag. Kspar altered	Si / Fg			large qtz veins ... [illegible]	Note Kspar + bio veins cut FgQM ... sparse aplite porph.	25'	95%		[illegible]		.056		
Same partly FgQM unit ... to ... contact at 207' ... Fg locally porphyritic, qtz + Kspar ... cut by veins Kspar, qtz, 50-90°	Biotite - fresh, possibly ... overprints plag ... Kspar altered ... sericite + clay alteration	FG / CQ			MoS2 - (1) ... Kspar ... 70° ...	Pyrite + MoS2 ... 10' ... sericite flakes ... qtz vein	25'	95%		[illegible]		.081		
Typical CgQM, deformed Kspar, ... altered: cut by ... appears to be sparse porphyry - Note large biotite ... aplitic matrix	→ partly ... contact ... chl. ... altered ... biotite ... plag → sericite ± pyrite				good MoS2 ... (1) ... 70° ... (coated) ... traces ...	- aplitic matrix ... sparse ... Not FgQM??	25'	90%		[illegible]		.155		
V. broken section of sparse porphyry (not FgQM?) - fine to aplitic matrix ... rare flakes (± 10°) ... flakes. green ...	strong Kspar ... 70°. ... otherwise plag → ... biotite ... sericite + clay alteration ... pyrite ... Kspar ... (20°)			120'	several MoS2 ... pyrite ... qtz veins ... (1) qtz vein ... good MoS2	No obvious reason for ... fault	25' ?	85%		[illegible]		.181		
... V. broken → altered sparse porphyry - ? not FgQM? Resembles FgQM - coarser grained ...	cut by veins Kspar: 70° - 90° ... gouge ... fractures ... 70°... pyrite ... sericite + clay ...			200'	MoS2 → ... pyrite ... fracture faces:	qtz veins + MoS2 offset ... pyrite ...	15' ?	85%		[illegible]		.170		
intensely altered sparse porphyry (?) grades to more normal variety approaching contact with CgQM - sparse P. ... inclusions of CgQM	Narrow (1') zone of FgQM ... contact ... obscure: - intense sericite + clay ... at 142' ±		Mg		qtz veins || 20° ... 70 - 90° ... + MoS2 - (2) good ... 90° ... 4 traces ... fractures	- resembles sparse P ... chilled ... CgQM ... coarse ... altered,	20' ?	85%		[illegible]		.173		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
CgQM – normal texture – cut by dykes of sparse porphyry – similar to above – V. [illegible], possibly [illegible]	– strong sericite + clay (kaolinite ?) alteration of Kspar – sericite alteration of plag – (soft, light [illegible])	Cg 260	35° ?	1	Large [illegible] of Mo in sparse [illegible] – qtz vein (?) – V. [illegible] qtz veins	90°–20° Ca. Strong alteration – crumbly rock	35' ?	75'		64437		·665		
V. crumbly, altered CgQM at 260' – cut by chlorite shear (50° Ca) becomes fresher with depth – normal texture – cut by narrow (25cm) dykes of equigranular FgQM	– Plag → light and dark green clay + chlorite – Kspar [illegible] = + fresh – chlorite + qtz vein 20° Ca. (+ sericite?)	Cg 270			Mo specks in narrow qtz veins (1–2cm) 20° Ca. rare	Late fracts @ 20° Ca. Note coarse sericite flakes on fracts	<10'	90'		64438		·066		
CgQM cut by dyke of MgQM (equigranular, medium grained) mottled texture – CgQM = typical normal variety, with large Kspars	as above, Plag → dark green (chloritized?) alteration: Biotite = fresh specks: locally overprint plag: fresh Kspar	Cg Mg 280		*	few qtz veins + coarse Mo: Mo 70° Ca. – chalcopyrite 20° Ca – well dispersed	Characteristic CgQM cut by qtz veins + Moly	<5'	98'		64439		·130		
CgQM cut by dyke of fairly coarse MgQM – mottled appearance, sharp igneous contact – pointly Mg + feldspar to Cg. – Mg cut by large qtz vein + FgQM dyke 90° Ca	– distinctive unit, unlike CgQM – less deformed and altered, fairly fresh, minor alteration of plag – @ 287'	Cg Mg 290	70°		Narrow Mo: large (10cm) qtz vein at 287' x [illegible] other qtz veins 70–90° Ca. –	Variable Comp: MgQM may be younger intrusion or (?) [illegible] zone	<5'	95'		64440		·013		
Sharp, igneous contact with Mafic Porphyry (90° Ca.) Kspar + Bio on contact! Typical Mafic Porphyry – [illegible] Kspar mottled matrix with phenos [illegible]	fairly fresh, sericite alteration near veins & fracts: – Note Kspar + qtz veins 90° Ca – [illegible] – [illegible] gouge on late fracts:	300			Mo (?) in hairline fracts: 90° Ca. – large 2cm qtz veins = barren	Note fresh, Mafic, [illegible] + coarse sericite as gouge in fracts!	<5'	95'		64441		·028		
Mafic Porphyry – cut by 10cm shear zone (V. altered) 50° Ca. – chlorite, sericite, kaolinite – Typical Mafic Porph. texture – large [illegible] plags – diffuse matrix qtz vein // cut by qtz/Kspar vein 70° Ca.	White sericite + clay (kaolinite) gouge on fracture faces & in fault soft, crumbly, not fairly fresh. Kspar vein 70° Ca.	310	50° K		fine hairline fracts x 2–3mm qtz veins // Ca + Moly + pyrite, + chlor – clay Py + Moly on (?) fract 50° Ca	Typical Mafic Porph: + weak dispersed Mineralization	<10'	90'		64442		·079		
Mafic Porphyry – V. crumbly and altered from 311 to 316' – cut by shears + fractures 50° to // Ca. + intense alteration: (sericite + kaolinite) Biotite = fresh ?	Soft and crumbly: general alteration increased + intense in sheared zones: Kspar = white sericite + clay gouge: little chlorite	320			Mafic crushing + (?) fracts: 50°–90° Ca. – fairly rich: – qtz veins = [illegible]	increased alteration, Much as above:	<10'	90'		64443		·052		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porph. — large (<1cm) Kspar [illegible] partly [illegible] matrix [illegible] [illegible] — fairly [illegible] alteration [illegible] fractures [illegible]	[illegible] — qtz-Kspar veins 60°-70° C.A. little alteration; — [illegible] adjacent to fracts. 40°-50° C.A. — [illegible] clay alteration					330	[illegible] Moly [illegible] (pyrite) [illegible] edge of [illegible], adjacent to walls	Much as above: Mafic Porph.: — normal [illegible]	<5'	90%		[illegible]		.105		
Mafic Porphyry: — typical texture: — relatively fresh, cut by 10cm dyke of [illegible] (5 [illegible]) [illegible], no mafics: alteration increases near fractures:	Late fracts: 10°-70° C.A. [illegible] sericite + clay alteration — [illegible] fresh, little chloritization.					340	(1) [illegible] Moly [illegible] 90° C.A. [illegible] [illegible] [illegible]	as above: [illegible] related to late fracts:	<10'	98%		6444[illegible]		.209		
Mafic Porphyry — v. similar to above, weak to moderate alteration, cut by large (5cm) qtz vein 30° C.A. & [illegible] qtz veins 90° → 50° C.A.	alteration as above, [illegible] near fracture planes at 340' (→ crumbly) possibly [illegible] some veins:				20	350	Moly blebs in smaller qtz veins [illegible] vein → [illegible] note Moly blebs [illegible] qtz veins:	fairly typical alteration & mineralization	<5'	95%		64446		.087		
weakly to moderately altered Mafic Porphyry — as above: — cut by abundant qtz veins (?) [illegible] qtz + Kspar [illegible] 10° C.A. cut by others ± 70-90° C.A.	slight alteration increases near veins: Kspar = clay; — also near fractures (eg. 355') = sericite + clay:				60	360	vein 10° C.A. cuts veins 70-90° Moly traces [illegible] in most veins, good Moly in (2) veins 90° C.A.	as above: Mafic P. [illegible] mineralization in qtz veins	<5'	92%		64447		.194		
Mafic Porphyry — similar to above, — [illegible] alteration at 360' → 367' — crushed zone, fractured — [illegible] fairly fresh. typical texture — [illegible] & [illegible] Kspar:	[illegible] sericite + clay alteration and [illegible] in deformed [illegible]: little chloritization, [illegible] biotite,				[illegible]	370	Moly in (1) [illegible] qtz vein 90° C.A. & traces in other fractures — minor qtz veins	(1) Kspar vein 90° C.A. [illegible] qtz veins: [illegible] Moly (?)	<10'	92%		64448		.083		
Mafic Porphyry — as above, moderately deformed and altered: — typical texture: — cut by fractures 10° C.A. and highly deformed [illegible] 377	slight chlorite & note extreme sericite + clay alteration of feldspar [illegible]: + [illegible] gouge.					380	traces Moly [illegible] slips 10° C.A. [illegible] fracts: 90° C.A. [illegible]:	as above: Mafic P. + weak mineralization	15'?	85%		64449		.073		
fairly altered Mafic Porphyry — alteration related to fractures at 380' → late fract. (1) // C.A. with [illegible] offset to qtz veins (5cm) cavities + carbonate ? in fract.	carbonate sericite + clay alteration → white (kaolinite ?) clay: after Kspar: little chlorite, [illegible] ± fresh: —				25°	[illegible]	10cm qtz vein 90° C.A. [illegible], Moly in (1) qtz vein (1cm) 70° C.A. — otherwise rare.	Late fract. // C.A. + alteration & carbonate in cavities.	<10'	85%		64450		.082		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
relatively fresh – undeformed Mafic Porphyry. cut by Kspar vein 90°Ca. – also qtz veins 70° to 90°Ca, – typical texture: large (1cm) phenos [illegible] matrix + [illegible]:	weak alteration, [illegible] near fractures & veins. [illegible] Kspar + qtz – [illegible] chlorite ? –			405	V. minor qtz veins & fracts ‖ & 90°Ca + pyrite + sericite + [illegible] × MoS2 traces: qtz veins 90° + MoS2 blebs:	fairly typical Mafic Porphyry	<10'	92%		64451		.043		
Mafic Porphyry – as above, typical texture: – relatively fresh, undeformed, cut by Kspar vein & qtz veins (± 1cm) 90°Ca. –	weak alteration, as above: – note [illegible] at 410' + gouge + coarse sericite + clay:		30°	410	qtz veins + minor MoS2 traces in fracts ‖ Ca with py & chlorite.	Note Kspar crystals within qtz veins:	<5'	92%		64452		.036		
Mafic Porphyry – similar to above. note [illegible] Kspar phenos & more [illegible], [illegible] texture: – cut by major qtz + Kspar vein (20cm) 90°Ca. at 416'	abundant qtz & Kspar, Kspar [illegible]: [illegible] 90(±) Ca. Kspar veins – diffuse margins: – Kspar [illegible] qtz veins.		0°	420	MoS2 on (?) late fracts: 90°Ca., V. little in large qtz vein. Not V. rich:	typical late alteration moderate to weak late fracts: 30°Ca.	<5'	94%		64453		.097		
Mafic Porphyry – [illegible] increased alteration near qtz vein (70°Ca.) & dyke of FGQM – sandy [illegible], [illegible], [illegible] little mafic! chilled contact.	qtz veins cutting FGQM bordered by Kspar: increased chlorite alteration of Mafic P near [illegible] [illegible] gouge in fracts.		90° 70° 45° 70°	430	Sericite + py + wolframite? in (?) fract 40°Ca. – MoS2 traces in fracts & qtz veins:	coarse sericite flakes in gouge on fractures:	<10'	94%		64454		.045		
Mafic Porphyry – fairly typical – few large [illegible] Kspar [illegible] – [illegible]. – fairly [illegible] [illegible] & fractures: cutting [illegible] dyke of FGQM (?) [illegible] 50°Ca)	[illegible] Kspar zones cut 90 Ca. – diffuse contacts: & large qtz veins (90°Ca.) [illegible] FGQM qtz vein + Kspar: (5cm)			440	Large qtz vein = barren, smaller veins 45° to 90° Ca. + small blebs. Pyrite & chlorite in fracture ‖ Ca.	typical sericite + clay alteration increases at 440' – fault (minor)	<10'	90%		64455		.098		
Mafic Porphyry – as above, slight increase in alteration & deformation: – cut by late fracts 20°Ca.: fault at 448', 30°Ca	mainly sericite + clay alteration. chlorite gouge in fracts: – Note Kspar envelopes to (?) qtz vein (90°Ca).		30°	450	good MoS2 in qtz vein 45°Ca. [illegible] slip plane (30°Ca.) & [illegible]	Chlorite alteration near fault at 448'	<10'	92%		64456		.039		
Mafic Porphyry – largely undeformed, weak to moderate alteration – [illegible] Kspar soaked locally, cut by narrow dykes (4cm) FGQM (60°Ca.)	Kspar vein (?) ‖ Ca. and alteration to Kspar around vein: – also chlorite: – otherwise fairly mild alteration:			460	Pyrite + MoS2 + chlor in qtz veins 45° Ca. MoS2 blebs in qtz veins (?) 90°Ca. blebs [illegible].	Note abundance of pyrite, [illegible] texture of FGQM veins & [illegible] of chalco + chlorite.	<5%	95%		64457		.110		

GRID: | PLACER DEVELOPMENT LIMITED | HOLE No. | SHEET No. of

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porphyry – typical texture: 1cm plagio[illegible] ragged, pasty matrix – possible Kspar! flooding at 464'? – dilutes qtz veins: – v. narrow [illegible] dykelets (2cm) 70° c.a.	Kspar alteration (?) diffuse, replacing Mafic [illegible] – [illegible] weak chlorite alteration at 470' –			470'	1cm qtz vein 90° c.a. [illegible], 9003 [illegible] [illegible] qtz vein 70° c.a.	[illegible] typical Mafic Porphyry – [illegible] well formed	<10'	92%		[illegible]		.048		
Mafic Porphyry – cut by 10cm FgQM dyke (90° c.a.) at 471' → contact FgQM [illegible] at 479'. Mafic Porph. typical. [illegible] speckled: [illegible]	coarse sericite flakes [illegible] feldspars 45° c.a. + pyrite – Mafic P. fairly fresh. Note fracts: 40° c.a. + Carbonate at 478' (open)			480'	1cm qtz vein 60° c.a. [illegible], minor MoS2 on fract: → hairline 20 & 90° c.a. – Locally [illegible] crust	Note small diffs. of typical, sandy, FgQM	<5'	95%		[illegible]		.053		
Broken contact (igneous) Mafic P. ⇒ FgQM: – [illegible] typical texture, weak alteration [illegible] typical sparse aplite texture variety (H.S.A.P.) –	weak chlorite alteration little change in Kspar: Note v. rare biotite in FgQM: rare Kspar veins 90° c.a.	Fg	[illegible]	490'	qtz veins in [illegible] units: 50° – 90° → [illegible] 11 c.a. + [illegible] Locally [illegible] MoS2; large qtz vein = [illegible]	aplite matrix to [illegible] porphyritic, [illegible] V. [illegible] [illegible]	<5'	95%		[illegible]		.075		
FgQM variable texture: – locally porphyritic (coarse [illegible]) – locally essentially sandy, equigranular with few [illegible]. typical varieties gradational:	Kspar veins, (V. strong) 60, 40 → 90 c.a. + 9003 MoS2 = [illegible] → sericite [illegible] core in [illegible]: – Fg relatively fresh, slightly chloritic	Fg Mv		500'	MoS2 on hairline fractures: No qtz veins:	typical FgQM varieties: + Strong Kspar alteration	<5'	95%		[illegible]		.060		
			EOH 502'											

GRID:

PLACER DEVELOPMENT LIMITED

HOLE No. 236
SHEET No. 1 of 8

LOCATION: 6N 2W — BEARING: — LATITUDE: 6620 330.4 — PROPERTY: Adanac

DATE COLLARED: 4th Sept. — LENGTH: 542' — DEPARTURE: 589 685.0 — CORE SIZE: NQ — LOGGED BY: R.H. Pinsent

DATE COMPLETED: 10th Sept. — DIP: Vertical — ELEVATION: 1512.5 — SCALE OF LOG: — DATE: 16th Sept. '77

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Outcrop and/or overburden consisting of CQFM: - broken by 16' - mostly fractured, abnormal texture - deformed feldspars + rare qtz veins	Limonite staining on fractures in Kspar & stained dust - [illegible] clay - also limonite [illegible] surfaces			20	None visible	typical altered CQFM probably [illegible]	—	—		64462		.004		
highly altered, deformed, sheared, and broken CQFM - shears (30°C) - cut by dyke of [illegible] to sparse [illegible] (?)	- limonite stain on plag - loss in Kspar - some etching of [illegible] flakes on fractures: partly fairly fresh		30° sp(?)	30	None visible	possibly fault [illegible] - etched, fractures fairly open - Not qtz veins (60°C.)	100%	70%		64463		.001		
V. altered and sheared CQFM - shears ±90°C. - plag altered to limonite stained clay: - Kspar - stained: [illegible] etched, some partly fresh	Late fractures + limonite: - as above: Note coarse sericite flakes in fractures			40	None visible	typical near-surface CQFM - normal variety.	100%	75%		64464		.002		
CQFM, as above, - regular texture, moderate limonite stain, possibly fairly fresh. abundant late fracts: ±30°C. + stain	- Kspar locally fixed: abundant plag > sericite + clay & stained, Kspar + [illegible], locally fairly fresh: sericite flakes on fracts:			50	qtz veins cut. No visible Moly: etched cavities locally.	fairly typical, leached, open fractures . . . [illegible]	100%	85%		64465		.001		
V. crumbly CQFM from 51' to 55' - broken up and altered, now limonite stained gravel. fault (?): CQFM continues - Note V. deformed internally + limonite on fracts:	Kspar Xstals locally fixed: - V. rough texture to CQFM rare silicified shears 90°C. fresh sericite plag = ± etched limonite			60	No visible CQFM: - fractures & veins etched:	Late fracts: ±11°C. cavities in veins	100%	65%		64466		.001		
CQFM, less altered and stained than above: - still plag etched, - cut by dykes of [illegible] - [illegible], no fluorescent [illegible]	Moderate to weak alteration, increasing from 67' to shear zone at 70' (75°C.) [illegible] sericite + clay alteration		75° 60° 75°	70	abundant qtz veins - 75° & some (less) - 1°: 90 and 70°C. - No visible Moly	Coarse flakes sericite on fractures: (with cavities) Kspar with fine qtz [illegible]	100%	80%		64467		.001		

GRID: — PLACER DEVELOPMENT LIMITED HOLE No SHEET No. of

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
FgQM – [illegible] ... sandy (V. fine [illegible]): [illegible]	[illegible] ... Little sericite [illegible] ... not [illegible]	Fg		80	[illegible] (1-4mm) [illegible] ... [illegible] MoS2	[illegible]	[illegible]	75%		64465		·001		
FgQM less rusty, [illegible] ... mottled [illegible] V. fg. [illegible] CgQM [illegible]	Veg [illegible] 70-90°ca. (ave) ... CgQM [illegible] ± stained rusty	Cg		90	[illegible] ... CgQM	[illegible] ... late fracts 10°ca. ... sericite	60%?	70%		64467		·026		
CgQM – transitional variety – large Kspars + fine matrix ("Stalked"?) in [illegible] magma: – small dyke [illegible] FgQM at 90' and 100'	strong [illegible] ... locally crumbly – sericite – clay [illegible] biotite – [illegible]			100	[illegible] No visible ...	Note "[illegible]" ... to CgQM "Transitional"	nil	75%		64470		·001		
Standard of CgQM – [illegible] ... sericite + clay gouge at 101' and back to CgQM: – Mudseam at 104' – relatively undeformed Cg-[illegible]	Limonite stain ... sericite – clay alteration of Kspar + plag: [illegible]		75°	110	No visible ... – few qtz veins (90°ca)	strong fault 70°ca + sericite + [illegible] ... MoS2	100%	70%		64471		·001		
V. rotten and crumbly CgQM – normal variety with 'transitional' patches: – faulting at 118' + gouge (sericite + clay)	Late fracts: // ca to 20°ca ... crumbly: – strong sericite + clay alteration + limonite			120	No visible MoS2: [illegible]	V. crumbly – near fault? through veins	150%?	65%		64472		·001		
back – and altered CgQM – normal texture, large phenos' – Kspar embedded, with plag + qtz; fractured Xstals with limonite stain on fractures:	Late fracts 45°ca. + limonite ... plag → light green soft, clay ± stained rusty: – Bio → chlor (?)			130	No visible MoS2 ... [illegible]	Normal CgQM deformed, [illegible] limonite stained	100%	75%		64473		·011		
CgQM, normal texture, with patches of transitional ... CgQM and segregations of fine sandy, equigranular FgQM	– below limonite stain at 135' – Late fracts // to 15 and 70°ca. Sericite + clay alteration moderate [illegible]			140	Large qtz veins = 90°ca. [illegible] ... [illegible] MoS2 [illegible] (35°ca) + traces in small veins 70-90°ca	Large Kspar Xstals locally [illegible]: below limonite ... good MoS2	40%?	70%		64474		·092		

GRID: ... PLACER DEVELOPMENT LIMITED HOLE No. ... SHEET No. ... of 8

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
CgQM – normal texture, relatively fresh, no breccia, no crumbly sections; K-spar Xtals large, & qtz: fresh biotite. Lode fracts 60°ca.	Locally silicified – narrow 7 mm 90°ca. also qtz veins (2-6mm) 90°ca. – Plag → light green sericite, clay, CO_3, K-spar [illegible]	Cg		150	rare MoS_2 [illegible] qtz (?) veins 90°ca. & fractures: Not V. rich.	Fairly fresh, [illegible] & [illegible], [illegible] uniformly.	10'	92%		64475		.101		
CgQM – as above. V irregular normal texture intruded by mafic TgQM – porphyry texture – no phenos + rare Xtals from Cg. (xenocrysts)	CgQM – fairly fresh. moderate plag. alteration – green tint, locally chlorite = [illegible] fresh biotite – Mafic = [illegible]	Tg	K	160	V. good MoS_2 in [illegible] qtz veins 2-90°ca. 1-4 [illegible] TgQM: + [illegible]	K-spar + qtz vein 70°ca. in TgQM; qtz veins good, 70 & 60°ca.	<10'	95%		64476		.136		
CgQM – as above, cut by 20 cm dyke of TgQM – as above – mafic, porphyry type: + xenocrysts of Cg. – normal texture to Cg. – irreg. mottles, fresh.	typical argillic alteration of plag. ± altered [illegible] – Biotite = fresh: [illegible] plag (?) – K-spar ± fresh.	Cg / Tg	K	170	[illegible] qtz veins mainly 4-8mm 70-90°ca. (?) + V. coarse blebs MoS_2; [illegible] scattered blebs.	– MoS_2 peripheral to qtz vein, on walls: also in [illegible] fresh: [illegible] pyrite	<5'	95%		64477		.141		
CgQM – as above, becomes silicified from 177' => 175'. texture lost, replaced by fine silica: – local silicified shears 90°ca.	qtz + MoS_2 + K-spar veins 90°ca. – mainly silicification + some alteration to sericite, – green tint, plag = altered to sericite + clay in K-spar.	Si	K	180	good MoS_2 in (?) qtz veins 2-4 mm, 70° & 90°ca. – faces in [illegible] veins.	silicification related to shears 90°ca. – horizontal zones cut by qtz + [illegible]	<5'	95%		64478		.100		
typical CgQM (cut by 15 cm dyke of TgQM) becomes deformed and altered from 184' => transition, altered & cut by shears 20°ca.	increase in sericite + clay & chlorite alteration with change to Transition X shear. Chlorite [illegible] 2.5 cm wide		? 20° K	190	MoS_2 crushed on shear plane 20°ca. good MoS_2 [illegible] crumbly	Note shear zone coincides with transition zone significant?	15' ?	90%		64479		.145		
deformed and altered 'transitional' CgQM – V. altered and crumbly at 191-193' – faults? – Note abundant fracts: ∥ to 30°ca. + [illegible] 90-20.	Moderate → strong sericite + clay alteration – chlorite, in faults. → typical CgQM from 195, + green plag: [illegible]		K	200	MoS_2 frags and fine MoS_2 in qtz veins – large veins (1cm) 90°ca. small (1-2mm) 45°-90° + pyrite	K-spar zone, [illegible] contact with TgQM (+ fluorite)	15' ?	85%		64480		.169		
Complex contact zone. TgQM – highly brecciated – (?) angular frags: cemented by carbonate – late (post vein) & related to late fracts ∥ to 20°ca.	Note pyrite and carbonate in matrix: alteration generally moderate. K-spar veinlets (10%) in TgQM	Tg		210	qtz veins in breccia zone broken up: – pyrite & fine specks MoS_2 in [illegible]	brecciation near contact => typical TgQM (fractured)	10'	90%		64481		.034		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
FGQM - pasty matrix: Locally + few phenos Kspar: - can resemble sparse porphyry - Mainly typical FGQM: - fractured, visible internal brecciation	Minor plag alteration → green clay ± etching, little Kspar alteration (sericite + clay): remaining ground = carbonate + local chlorite: - relate to fracts: ??		[illegible]	220	V good MoS₂ = (2) qtz veins → 90°c.a. cored: 45°: x ~ (1) Short 90°c.a. ... fracs.	brecciation c post-qtz vein: - [illegible] V. little MoS₂ Loss	<5'	95%		64482		.250		
FGQM - Locally 'Mafic Sparse Aplitic Porphyry' variety: phenos qtz + Kspar: - aplitic/banded matrix: little biotite pyrite + MoS₂ on fracts.	Cut by veins Kspar 70-90° c.a. → qtz + Kspar Kspar locally cuts qtz veins: Less sericite + clay alteration than above	Tg		230	Large (7cm) qtz vein 90°c.a. ± [illegible], - small veins + hairlines 90°, 70°, 20° etc. - MoS₂ specks.	(3) good MoS₂ veins - 70°c.a. Note V. leached & heavy-cemented with calcite at 230'	<10'	92%		64483		.214		
highly porphyritic FGQM - (M.S.A.P.) - pasty matrix, aplitic, no coarse biotite. not sparse P. - cut by Kspar & qtz veins: - 60-70°c.a.	Kspar = discrete veins & envelopes: rock = fairly fresh, minor plag alteration + little sericite + clay & chlorite:			240	qtz veins 70 & 10°c.a. + MoS₂: disperse, No V. good veins but still significant	No Kspar alteration to sericite: note Kspar veins well developed	15'	85%		64484		.113		
as above, aplitic FGQM becoming coarser → more phenos, rich ... depth: 248' - sharp contact to V. mottled Medium equigranular QM (MQM)	Silicified zone cuts FGQM at 242' (90°c.a.) Minor plag alteration → dark green clay ? or chlorite ?	Tg / Mq		250	MoS₂ = sericite large (1cm) and small qtz veins 70° → 10°c.a. - veinlets + pyrite	rare Kspar veins & crystals in qtz veins: pyrite on fracts: 45°c.a.	<5'	95%		64485		.214		
Contact with Mafic Porphyry at 250' - sharp, irregular: Mafic unit cut by typical silicified zone on contact: 90°c.a. - & shear zone at 257', otherwise fairly typical characteristic:	strong silicification on contact + chlorite, - mainly fresh biotite in Mafic, mild sericite + clay - minor chlorite on shears.		Sil / 20	260	qtz veins 60°c.a. = common (6±) 2-3cm, + fracs MoS₂ & pyrite. Not V. rich.	Sericite flakes on fracture surfaces: - Minor sericite gouge.	20' ?	80%		64486		.039		
Mafic Porphyry - typical texture, few phenos but mottled biotite rich matrix: fairly abundant fractures 30-50°c.a. + minor gouge.	moderate sericite + clay alteration of feldspar: - [illegible] gouge, + some ... fairly near fractured zone.			270	qtz veins 70° c.a. + hairline MoS₂: - also + fluorite fracs: mostly dispersed qtz veins, not	Minor dykes of FGQM cut Mafic P. (2-5cm) ± 45°c.a. V. rich: - significant.	15' ?	85%		64487		.087		
Mafic Porphyry - more altered than above, mainly from 273-275' - strongly sheared and sericitic (10-30°c.a.) - otherwise typical texture: broken rock.	Minor chloritization and locally intense sericite - clay alteration & etching of Kspar: - biotite = fresh (?)			280	rare qtz veins + specks & also hairline fracts: - V. little MoS₂:	increase in pervasive alteration of Mafic Porphyry	15' ?	85%		64488		.070		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porphyry: — moderate to strong alteration — sericite + chlorite + late fracts [illegible] ca. cut by FgQM dyke at 288 - FgQM equigranular, sandy, non porph.	biotite — fresh? fairly feldspar alteration — sericite near fracts/fractures: sericite + clay [illegible]%		Fg	290	minor MoS2 in fractures & narrow (1mm) qtz veins, 90°ca. (significant MoS2)	block faulted, fractured, + sericite gouge & traces chlorite	15' ?	85%		64489		.088		
Mafic Porphyry — as above, moderate to strong alteration — typical texture few large white phenos — ragged, diffuse matrix:	Fresh biotite, moderate sericite + clay alteration of Fsp: gouge on fracts: 40-50° ca. (sericite) — chlorite from qtz veins:		K	300	MoS2 on slips 40° ca. & in qtz veins (1mm) 60-90° ca. (5) dispersed.	Kspar + chlorite in vein 10° ca. fairly good MoS2.	15'	85%		64490		.084		
Mafic Porphyry — as above, variable moderate to weak K alteration — few phenos, fairly coarse [illegible] matrix [illegible] — cut by dyke FgQM with Kspar + qtz veins:	mainly sericite + clay alteration near fracts (40°ca) — also minor chlorite near qtz veins: Note Kspar + chlorite vein 70°ca.		Fg.	310	MoS2 — variably & qtz veins, 70° to 10° ca. & in Kspar + chlorite vein: —	qtz veins cut Kspar vein — FgQM section. MoS2 in fracts: 11 ca.	<10'	90%		64491		.088		
Mafic Porphyry — much larger fractures 130-11 ca. variable alteration — weak to moderate: — gouge in fractures typical texture:	rare Kspar vein 70° ca. — sericite + clay & chlorite alteration locally — commonly near fracts & qtz veins.		K 30°	320	MoS2 — variably of qtz veins + hairline fracts: — many 60-90° ca. (3) K good MoS2	Note V. rugged — diffuse to texture to porphyry.	<10'	90%		64492		.194		
Mafic Porphyry — as above, V. diffuse texture to matrix + phenos Kspar (0.5-1.0 cm) cut by rare (1cm) veins FgQM → Kspar (90°ca)	weak sericite + clay alteration: — minor gouge in fracts: 20-30° ca. fresh biotite, locally in qtz vein			330	minor MoS2 in qtz veins 90°ca. — as blebs: — traces in hairline fracts:	fairly fresh Mafic Porphyry.	<10'	92%		64493		.063		
Mafic Porphyry — relatively fresh, undeformed, cut by narrow dyke FgQM (90°ca) — sandy, equigranular type: —	Kspar alteration from 332'! Kspar soaking into rock, replaces all but biotite — little late clay alteration		K	340	(3) good MoS2 bearing veins 90°ca. — 2cm vein + V. large blebs, smaller veins with smaller blebs:	V. large fresh Mafic P. — Note pervasive Kspar alteration.	<5'	98%		64494		.393		
Mafic Porphyry — more deformed + more altered than above — fracts: 70° ca. also V. rare FgQM dykelets, 90° ca.	moderate sericite + clay alteration — Kspar soaking continues to 343' — Note biotite in qtz hairlines: —			350	Not V. rich: small blebs in qtz veins 70-90° ca.	chloritic alteration near qtz veins: in some fractures:	<10'	92%		64495		.074		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. 236 SHEET No. 6 of 8

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
altered Mafic Porphyry extends to fault at 360' - (major). - Mafic Porphyry - fairly typical - alteration pronounced but few qtz veins ‖→ 90° c.a.	mixed - probably sericite + clay and chlorite - biotite altered near veins, Kspar ..., sericite gouge on fractures:		45°	360	MoS2 traces in qtz veins 90° ≈ 10° c.a. - pyrite traces in altered rock	intense deformation near fault: - chlorite & gouge at 360'	<10'	92%		64496		.045		
Mafic Porphyry - alteration decreases away from fault at 360' - fresh by 365' - late fracts: 90° & 20-30° c.a.	- intense sericite + clay alteration in fault: + chlorite - pale plag: - crumbly: - abundant sericite gouge on fractures 30° c.a.			370	MoS2 on fractures 30° c.a. & in qtz veins 90° c.a. fairly good MoS2	(?) Poor MoS2 veins: - Note alteration related to fault.	<5'	95%		64497		.044		
Mafic Porphyry - fairly fresh, increased alteration near fractures 20-30° c.a. + gouge: - typical ... few phenos.	4cm dyke of Tg QPM 90° c.a. - sandy. Sericite + clay - biotite alteration of ... biotite = fresh.			380	traces MoS2 on fracture surfaces, mostly 90° c.a. No major qtz veins.	Traces of biotite on fractures: late.	<10'	92%		64498		.075		
Mafic Porphyry fresh, mottled textured: - few ragged Kspar phenos in a diffuse matrix: - cut by rare dyklets (2-15cm) Tg QPM (sandy type)	rare late fracts at 10° c.a. & qtz veins 70-90° c.a. - Biotite + Kspar veins adjacent to Tg QPM dyklets 3 places: - related (?) minor secondary alteration:			390	traces MoS2 in qtz veins (rare) & fractures 70° and 10-20° c.a. - mainly shallow fractures.	Bio: on late fractures again: late: MoS2 specks - dispersed.	<10'	92%		64499		.098		
again, Mafic Porphyry - relatively fresh, larger (1cm) Kspar phenos in ragged matrix: + scattered biotite specks. Cut by qtz and Kspar-Biot vein, 90° c.a.	1-2cm dyklets Tg QPM - as above: - also Kspar + Bio veins (No MoS2) and qtz. Little sericite + clay alteration, possibly trace of chlorite			400	V. few qtz veins, mainly 1-2mm 90° → 10-20° c.a. + specks MoS2 - Not very high.	V. fresh looking biotite - possibly some secondary.	<5'	95%		64500		.139		
as above, Mafic Porphyry - relatively fresh, typical mottled texture, cut by small (<10cm) dyklets of sandy, Tg QPM - (45° c.a.)	Biotite + Kspar veins + ... and associated alteration ... dyklets: - otherwise minor feldspar (clay?) alteration near veins and fractures: - chlorite at 400'.			410	MoS2 specks and MoS2 in narrow (1-2mm) qtz veins & hairline fracts 30°→90° c.a.	poor MoS2: - fresh Mafic Porphyry: - (mainly)	<5'	95%		64501		.048		
Mafic Porphyry - relatively fresh, cut by major sericite-gouge bearing fracture 10° c.a. & cut by Sparse P. at 419' Sparse P. = chilled against Mafic:	Mafic Porphyry - typical alteration - weak generation of sericite (gouge, slight etching of Kspar phenos - Sparse P.		70°	420	traces of MoS2 - hairline ... qtz veins, (... plag: + (1) 1cm qtz vein 90° c.a.	Sharp igneous contact, Sparse P. definitely chilled.	<5'	90%		64502		.068		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG Rock Type / Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Sparse Porphyry – typical [illegible] (Hmos, qtz, euhedral Kspar, & large fresh biotite; late fract: 10° c.a. [illegible]	Minor etching of Kspar & Plag phenocrysts (sericite + clay) – biotite overprint (Plag?) – veins of Kspar [illegible]					430	Kspar envelopes qtz vein + good MoS_2, 90° c.a. – also specks in hairline qtz veins, all angles.	near contact, Sparse P and by dyke of Chilled [illegible] (40)	5'	95%		64503		.070		
Sparse Porphyry – as above, slightly altered feldspars otherwise fresh – V. fresh biotite overprinted: – note Kspar [illegible] (4cm) 90° c.a.	Light green alteration of plag & white sericite – clay (kaolinite?) after Kspar – yellow tinted gouge (20° c.a.) Biotite in fractures					440	[illegible] qtz veins, partly 1-3 mm, ∥ 90° & other angles + [illegible] MoS_2 – V. significant	MoS_2 – Note pyrite in fract: 30° c.a.	10'	92%		64504		.075		
Sparse Porphyry – homogeneous – uniform texture: – ±10% phenos in aphanitic, brown, matrix: ± fresh (only minor alteration)	weak Kspar & sericite 30° c.a. envelopes qtz veins (with biotite & MoS_2) – also slight etching of white plag & clay – Kspar:					450	MoS_2 specks in qtz veins 20-30 c.a. (4 mm) – similarly on fractures [illegible]	Biotite overprints some feldspar: locally + pyrite: MoS_2:	10'	92%		64505		.062		
Sparse Porphyry – as above, 10-15% phenos: – V. weakly altered feldspars: – fresh biotite [illegible]: Note small (3cm) rounded inclusions of Mafic Porph:	Kspar vein (+ biotite) 45° c.a. (No MoS_2) – slight sericite + clay alteration – etching of Kspar & Plag:					460	MoS_2 specks in qtz veins (1-3 mm) varied angles, & blebs in fracts: 90° c.a.	Note inclusions of Mafic. but significant trace MoS_2	5'	98%		64506		.059		
Sparse Porphyry – as above, uniform comp. & texture, euhedral phenos, aphanitic texture. Better ground from 467' porphyry:	Kspar & Plag – soft & etched: some with overprint of fresh biotite: – V. weak alteration					470	varied qtz veins + small blebs MoS_2: – (70-90°) & hairline fracts ∥ c.a.	significant trace MoS_2: Note biotite in fractures ∥ c.a.	25'?	75%		64507		.221		
Sparse Porphyry – V. similar texture & comp. to above – ± fresh late fracture 20° c.a., no gouge:	cut by (1) qtz Kspar vein 50° c.a. – (No MoS_2) + other indications of Kspar on fracts: – V. minor sericite & clay alteration:					480	varied qtz veins, many 70-90° c.a. (1 cm) – some + fine specks (with good MoS_2)	much as above, consistent qtz veining & weak MoS_2 mineral:	25'?	75%		64508		.038		
typical Sparse Porphyry as above: – slight increase in phenos (?) ± 15% texture as above:	Kspar + qtz vein (envelope) 30° c.a. – Kspar veins + biotite ∥ c.a., V. weak alteration of phenos: typical,					490	MoS_2 restricted to hairline to fine qtz veins at shallow angle to c.a.	scattered trace of MoS_2: – disseminated: obvious late biotite:	5'	78%		64509		.036		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. ____ SHEET No. [illegible] of 8

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Typical Sparse Porphyry 10%-15% plagios in a felsitic matrix: V. small alteration, V. strong [illegible] - locally replaces plag.	trace sericite + clay alteration: - also trace of feldspar near fractures & veins. rare Kspar + Biotite veins, 60°		⅄	500	1-4mm qtz veins, banded & plag speckle [illegible] - [illegible]	Pyrite crystals on fracture faces.	<10'	97%		64510		.053		
Typical Sparse Porphyry - same as above, ± [illegible], largely unbroken - cut by 6cm Kspar + qtz + 50% [illegible] at 506	V. trace alteration of plag: only, Kspar ± [illegible] sericite [illegible] fractures [illegible] plag		⅄	510	(1½%) MoS2 qtz vein 70° Co. + scattered MoS2 coating hairlines ll [illegible] 80° Co.	V. fine MoS2 speckle along infrequent qtz hairlines.	10'	90%		64511		.128		
Typical Sparse Porphyry - as above, uniform comp. & texture - + patches [illegible] - Kspar at 519	as above, V. slight alteration			520	MoS2 on fracts: and in narrow (1-3mm) qtz veins 50-80° Co. (6)	V. typical, unaltered ± good [illegible] mineralization	<10'	92%		64512		.074		
Typical Sparse Porphyry - as above, uniform comp. & texture: - cut by (1-2cm) Kspar + Biotite veins & [illegible] ±10° Co.	weak chlorite alteration near some veins: few systematic late fractures.			530	MoS2 on fracts: & qtz veins ± 90°→20° Co. also / hairlines 45° Co.	Mostly coarse MoS2 blebs in fracts & veins: - significant trace.	10'	90%		64513		.054		
Typical Sparse Porphyry - as above - same comp. (10-15% plagios) in aphanitic matrix: + strong [illegible] overprint.	Locally + slight green (chlorite) tint, V. little sericite + clay alteration (V. rare late fractures)			540	Pyrite + MoS2 in (chlorite) hairlines ll Co. - MoS2 speckles in qtz veins & 1mm fracts 30°-90° Co.	trace MoS2 in fresh MoS2: - V. few qtz veins: low grade	10'	90%		64514		.049		
			E.O.H. 542'	550										

PLACER DEVELOPMENT LIMITED

GRID: ____

HOLE No. 237
SHEET No. 1 of 8

LOCATION: FN 2W
DATE COLLARED: 7th Sept. '79
DATE COMPLETED: 9th Sept. '79
BEARING:
LENGTH: 552'
DIP: Vertical
LATITUDE:
DEPARTURE:
ELEVATION:
PROPERTY: Adanac
CORE SIZE: NQ
SCALE OF LOG:
LOGGED BY: R. H. Pinsent
DATE: 19th Sept. '79

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	ASSAY RESULTS: Cu	ASSAY RESULTS: Mo	ASSAY RESULTS:	EST. GRADE
0'–40' – No recovery: Overburden.	—					40	—	—								
Gravel to 41' – includes fragments of 4th July diorite: – bedrock = CgQM – typical coarse grained, deformed, irregular textured qtz. Monzonite	fractured 0–30 ca. + limonite stained gouge: – plag ⇒ clay + rust stain, etched, fractured Kspar stained by limonite					50	rare qtz veins 70–90° ca. but no visible MoS₂ – good evidence for leaching	typical near-surface altered CgQM	100'	45%		64515		·003		
fractured, broken, locally gravelly CgQM – as above, – note abundant fracts. 40° ca. – gouge & limonite: –	alteration & No. of fractures & wide areas: biotite – fresh, bleach plag. replaced by limonitic clay					60	No visible MoS₂ – etched?	as above: typical near surface rock	100'	75%		64516		·001		
V. similar to above: CgQM cut by abundant fracts: (45°) internally deformed (Kspar broken). limonite stain:	Prim. biotite, plag. altn. slight green clay or limonite stained, ochre-ish stain: locally soft & crumbly. Kspar altered:					70	qtz veins 50–60° ca. – No visible MoS₂ – probably etched!	as above, increased sericite + clay near faulted areas	100'	80%		64517		·001		
FgQM – aplitic variety, sandy, equigranular texture, leucocratic, v. little mafics: – v. broken up, recemented by massive qtz veins ⇒ chill zone (aphanitic) + frags. of FgQM	the ⇒ CgQM – carbonate, sericite + clay alteration of FgQM, disrupted: + limonite stain in CgQM	FG				80	No MoS₂ in broken vein (massive) in FgQM unit: or in CgQM veins fract.:	Note ⇒ abundant gravel from 77'–79'	100'	50%		64518		·001		
V. highly deformed and fractured CgQM – fault + gouge at 82' abundant late fracts. ∥ to 20° ca. with limonite + gouge:	Moderate to extreme sericite + clay alteration, – strong etching of fractures & plag. crystals + limonite stain:				40°	90	No visible MoS₂ – as above – probably etched out.	'Normal' variety of CgQM	100'	75%		64519		·001		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 2 of 8

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
CQOM – normal texture, v. irregular + deformed, texture: broken up crystals, variety of ble fracts: from ∥ca to 40°ca. –	moderate sericite + clay alteration: limonite stained: note some fresh biotite: locally v. soaked in qtz (veinlets)					100	qtz veins in frac (40°) = ? + cavities, ? qtz ? veins,	typical altered + stained CQOM.	10'/	85%		64520		.001		
CQOM – deformed + fractured: mainly ∥ to 40°ca. – 'Normal' Fq CQOM – possible fault at 110'	sericite + clay alteration increases near faults & fracts: + limonite stained gouge:				Fq	110	No visible MoS2: ? (cracked):	as above: Note large etch cavities & some qtz veins (10%).	10'/	85%		64521		.001		
CQOM – as above, deformed, altered, limonite stained: Old clay fault at 117' – (sandy breccia 70%, + clay gouge 7%)	intense sericite + clay alteration: biotite ? fresh?) → chlorite: still limonite stained.				F	120	large (0.5-1.0 cm) qtz veins + etch cavities – No visible MoS2	as above – CQOM cut by significant fault.	10'/	85%		64522		.006		
CQOM – highly deformed & altered but less late fractures less limonite stain (except 127-?) – MoS2 present. – Odd dyke of FqQM + brecciated contacts:	less intense sericite + clay alteration but strong chlorite (after biotite) in stain-free zone: sericite				Fq	130	Blebs of MoS2 and pyrite in fracts and veins, all angles, also Bh? shears.	fracts: 30-40°ca. Note deforming nature of CQOM	25'/ ?	92%		64523		.112		
highly deformed CQOM – strongly fractured 30-40°ca. – Normal texture: – Fault at 137' – (?-? %) ∥ ca.	increases again from 127' strong to moderate sericite + clay alteration: ? limonite stain:					140	No visible MoS2 – strong limonite stain: ?	Much as above, deformed CQOM.	10'/	85%		64524		.001		
CQOM + dykes (70°ca) of FqQM at 141 = sandy, aphanitic, ? type: hydrothermally altered: sericite + clay, ? deformed (fract 1:30) → silicified CQOM to 147' –	the dyke of above FqQM (less altered) → silicified CQOM grades? to aphanitic type FqQM + biotite sparkles – chlorite				Fq, –Fq, C-9	150	MoS2 → pyrite in veins and fracts: cutting silicified CQOM	complex contact zone CQOM → FqQM	10'/ ?	90%		64525		.088		
FqQM – pasty, mafic, variety aphanitic + v. rare ? phenos: + ? disseminated ? chlorite – Cut by mafic feldspar ?	? alteration possible in ? veins cutting FqQM. – ? sericite ?		Fq		R 40°	160	Note disseminated pyrite. Minor MoS2 in ? ? cutting ? QM. ?	resembles chilled mafic porphyry?		90%		64526		.052		

GRID: PLACER DEVELOPMENT LIMITED HOLE No. SHEET No. of

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo	EST. GRADE
TgQM – [illegible]	[illegible]	Fg		70	[illegible]	[illegible]	<10'	90%		64527		·068	
CgQM [illegible]	[illegible] CgQM [illegible]	Chl; cg		80	[illegible]	good MoS₂ [illegible] Post date [illegible]	10'	9'!		64528		·041	
CgQM – [illegible]	chlorite [illegible] clay	[illegible]		90	qtz veins [illegible]	[illegible]	20'	80'		64529		·097	
deformed [illegible] altered CgQM [illegible] to CgQM [illegible]	Kspar rich CgQM, [illegible]	(T); I/U	S.1	200	[illegible]	Pyrite crust on fractures – [illegible]	15' ?	85'		64530		·185	
CgQM → highly [illegible] TgQM – [illegible] CgQM: [illegible]	[illegible]	Fg	cg	210	4 cm qtz vein [illegible]	Note only MoS₂ qtz vein: [illegible] Highly complex zone:	15' ?	85'		64531		2·300	
Mixed zone: – [illegible] CgQM [illegible]	[illegible]	(T)		220	MoS₂ in qtz veins [illegible]	Kspar rich CgQM. transitional [illegible] fault 20°	20'	90'		64532		·318	
highly complex mixture of CgQM & [illegible]	complex [illegible] between transitional [illegible]	(T)		230	[illegible] MoS₂ [illegible]	Pyrite crust on late frcts: 20° [illegible] complex.	15' ?	90'		64533		·207	

GRID: PLACER DEVELOPMENT LIMITED   HOLE No.   SHEET No. 5 of [illegible]

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
CQPM - normal variety with traces of transition locally. Cut by qtz veins & silicified shears 90°ca. Small fault at 235	strong sericite-clay, crumbly and white gouge in fault at 235 - main alteration - Plag ⇒ dark grey, waxy, soft, chlorite -		240		12	*	Pyrite in late fracts: 90° → 90°ca. MoS2 in several qtz veins & fracts 70-90°ca.	Note plag + wolframite in waxy qtz vein ‖ ca - late (veins → cracked?) + [illegible]	5'	95'		64534		.301		
CQPM - v. distorted texture, deformed, possibly recrystallized. Silicified from 245'. Mainly "normal" textured CQPM with brecciated zone ‖ ca at 245'	strong silicification replacement of CQPM by silica + chlorite. Kspar & plag clay or silicified:	Cg, Si	250				veins & fracts with MoS2 blebs & pyrite (r/c). No major masses or veins MoS2:	Note coarse flakes sericite in fractures of qtz veins. Still intense alteration	10'	90'		64535		.101		
CQPM - as above, with variable silicification - texture retained except for 257-267' silicification possibly related to shears 70°ca. - (2 zones)	variable silicification - extreme for 257. [illegible] white qtz vein 70°C [illegible] chlorite alteration [illegible] also	Si, Si	260				MoS2 restricted to hairline fracts: 90° → 30°ca. - Only traces in qtz veins.	Minor sericite + clay alteration. Slightly transitional CQPM	10'	92'		64536		.077		
as above: CQPM - probably deformed transitional-type, now radically silicified - texture lost in extreme zones. - possibly cut by dykes of FQPM (sandy)	v. fresh biotite. Kspar - coarse, fresh, biotite at 260' - [illegible] alteration with qtz, also coarse sericite -	Si, Cg, Si	270		K		Note abundant pyrite in fracts: [illegible]. MoS2 + biotite in same fracts: Note [illegible] veins.	No good MoS2 veins - mainly dispersed to hairline fractures: late qtz veins + py, chlorite, wolf. 20°ca.	10'	90'		64537		.091		
as above. Silicified CQPM - variable zones of extreme silicification. CQ texture probably transitional, biot. altered, variable.	intense local silicification and at 278', sericite + clay alteration (crumbly in fault zone) - Plag ⇒ chlorite, biotite fresh.	(T), Si	280			*K	MoS2 in qtz veins (9-6mm) 60-90°ca. (?) + traces in fractures. Pyrite in fracts.	Varied degree of silicification in CQPM	15' ?	85'		64538		.028		
CQPM - as above, transitional type & minor interstitial porphyritic & frags: zones: FQPM dykes (v. altered) - leucocratic (‖ ca)	intense alteration - fractures = v. etched. Locally strong sericite + clay alteration near fractures (to 287) less silicified	(T)	290				MoS2 - rare, restricted to hairline fracts: small blebs in breccia zone + calcite	Late fracts: 30-40°ca. + calcite in cavities: etched: breccia	20' ?	92'		64539		.217		
weakly silicified CQPM - fresh feldspars - v. rapid texture - weakly transitional - chilled contact with dyke of FQPM - leucocratic, sandy variety.	less silicification & more sericite + clay alteration - Plag ⇒ [illegible] chlorite at footwall. No fresh biotite in Cg:	Cg, Fg	300				abundant blebs pyrite in late qtz vein ‖ ca - CQPM MoS2 - many blebs in qtz veins ‖ → 90°ca.	qtz veins 90°ca, cut veins 20°ca, MoS2 as shears contact: (40°ca)	10'	95'		64540		.071		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. [illegible] of [illegible]

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
FgQM – grey [illegible], fairly pasty aq. fine matrix, not quite aplitic in [illegible] [illegible] – V. few [illegible], slightly aplitic texture	cut by Kspar [illegible] 70° to ca, envelopes to qtz veins – note [illegible] locally [illegible] qtz [illegible]	310	[illegible]		Variety of qtz veins, ± 70° [illegible] to ca. [illegible] – Not vis.	large qtz vein, 70° [illegible]; note qs. matrix [illegible] at 310'	<5'	92%		64541		.096		
Variable FgQM – locally [illegible], sparse porphyry [illegible], aplitic matrix, traces biotite [illegible] – coarser, aplitic matrix, sandy, lumps.	Scattered traces of biotite specks: Plag → chlorite to [illegible] alteration of matrix, little [illegible] [illegible] Kspar veins [illegible]	320			[illegible] (1-4mm) qtz veins, mainly 90° ± ca. – Not [illegible] dispersed.	Probably Fg: [illegible] resembles [illegible]; late [illegible] fracts: 40° ca	10'	90%		64542		.038		
FgQM – showing increased alteration and deformation, fractures [illegible] 10-30° ca. – Calcite in open fractures: slightly porphyritic, pasty matrix	[illegible], sparse [illegible] in part – (not enough biotite) – increased sericite + clay alteration of matrix. [illegible] fractures	330			[illegible] specks in qtz veins 20° to 70° ca. Not V. vis., dispersed	large qtz vein 90° [illegible]; Pyrite [illegible] fracts:	20'	85%		64543		.047		
FgQM – altered aplite, pasty matrix – porphyry [illegible] above – (fine aplitic matrix) cut by Kspar veins & envelopes.	Fresh biotite – mild to moderate sericite + clay alteration of porphyry matrix [illegible] plag → [illegible]	340	[illegible]		2 veins of qtz + good MoS2 – 90° ca. + traces in fractures (1) [illegible] 70° ca.	Late fracture ‖ to 70° ca: V. [illegible] feldspars:	<5'	98%		64544		.075		
FgQM as above, becomes V. deformed & altered – [illegible] Kspar(?) around 344? – Kspar → gouge, texture destroyed. Suggestion Fg to 348'.	chloritic [illegible] ‖ to 80° ca. [illegible] 346' [illegible] fault, otherwise intense sericite + clay (kaolinite) [illegible] alteration:	350	[illegible] 40°(?)		traces in gouge: V. [illegible] MoS2:	Major fault contact: Fg/Cg	10'	70%		64545		.030		
Highly altered and deformed CgQM → Mafic porphyry at 358' – [illegible] igneous(?) contact: [illegible] similarly altered: Cg – [illegible] fractured 40° ca (intense)	strong chloritization of plag in Cg & Mafic units, also [illegible] + clay alteration & Kspar: fresh [illegible] away from fracts:	360			[illegible] traces in fracts: 45° ca, 90° ca. – No qtz veins – V. minor MoS2:	altered igneous(?) contact, Cg & Mafic porphyry	20'	80%		64546		.034		
altered Mafic porphyry – cut by 2cm qtz vein 90° ca. (barren) and fractures: 15 to 70-90° ca. [illegible] Mafic texture, few [illegible]: –	biotite = + fresh, feldspars altered, probably both chlorite & [illegible] & [illegible] in fracts:	370			V. rare specks in fractures ± 70° ca. – Not vis:	Sericite alteration variable, increases near fracture	<10'	92%		64547		.019		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. [illegible] of [illegible]

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porphyry – typical texture, weakly to moderately altered: – [illegible] [illegible] (Kspar [illegible]) [illegible] [illegible] matrix:	[illegible] [illegible] & sericite alteration [illegible] [illegible] qtz & [illegible] fractures [illegible] 70°-70° c.a. [illegible] 10-20° [illegible] 45°-70°			350	MoS₂ specks – significant, in (1) qtz vein ([illegible]) 20° c.a. – [illegible]	altered Mafic Porphyry – [illegible] (1) Kspar vein 70° c.a.	10'	85%		64548		.035		
Moderately altered Mafic Porphyry – typical texture – altered; [illegible] texture to matrix: – [illegible] [illegible] 40-60° c.a.	(1) Kspar vein 70° c.a. & [illegible] qtz vein (4mm) [illegible] [illegible] alteration [illegible] [illegible] for Kspar green chlorite for [illegible]			370	[illegible] scattered, [illegible] MoS₂ in qtz veins & [illegible] in [illegible] fractures. [illegible]	moderately altered Mafic Porphyry	10'	70%		64549		.049		
as above. Moderate to extreme alteration in Mafic Porphyry – texture retained, abundant [illegible] Biotite [illegible] moderate, [illegible] extreme:	mainly [illegible] [illegible] sericite + (moderate) clay alteration near [illegible]: – chlorite alteration in more altered [illegible] [illegible] veins.			380	MoS₂ in (1) qtz vein 70° c.a. as [illegible] & [illegible] [illegible] [illegible] [illegible]	Chlorite slip planes – 50° to 10° c.a. Sericite [illegible] on some [illegible]:	15'	92%		64550		.056		
Mafic Porphyry – as above, – moderate [illegible] alteration as above, – sericite [illegible] zones = [illegible] [illegible] faults?	Kspar vein [illegible] 70° c.a. & [illegible] envelopes to [illegible], 90° c.a. – [illegible] chlorite alteration, sericite [illegible] [illegible]			410	[illegible] disseminated pyrite in intensely altered rock: – rare MoS₂ traces in [illegible] fractures.	Variable alteration in Mafic Porphyry:	20'	80%		64551		.066		
Mafic Porphyry – as above, v. ragged texture [illegible] Kspar phenos: – [illegible] matrix. Moderate to intense alteration [illegible] [illegible] dykes 80° c.a.	chlorite alteration near qtz veins & fractures, replaces [illegible] [illegible]: [illegible] + [illegible] (pyrite) [illegible] sericite + clay in [illegible] [illegible]			420	(1) good MoS₂ [illegible] vein 20° c.a. (4mm) [illegible] traces: pyrite + chlorite in fractures:	as above, [illegible] altered Mafic Porphyry	5'	95%		64552		.082		
highly altered Mafic Porphyry – similar to above, v. ragged & diffuse [illegible] rock = deformed, fractured and locally sheared.	variable but strong chloritic & sericitic alteration. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]			430	qtz veins 5-10mm 30° to 90° c.a. + [illegible] [illegible] [illegible] MoS₂ significant but [illegible]	Chlorite on slips & fractures: 20° c.a. to 70° c.a.	10'	80%		64553		.034		
Mafic Porphyry highly altered, diffuse [illegible] texture, ragged, few phenos: [illegible] typical:	as above, variable chlorite & sericite alteration, Biotite [illegible] [illegible] [illegible]			440	(1) qtz vein 25° c.a. + MoS₂, Py [illegible] + [illegible] [illegible] – V little MoS₂	Sericite [illegible] on late fractures – or chlorite on slip planes	15'	85%		64554		.049		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. 7 of 8

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
Highly altered Mafic Porphyry – as above – [illegible] altered [illegible] [illegible] Kspar: – late fracts: 10°-20° c.a.	Chlorite alteration, [illegible] fresh biotite – clay chlorite in fracts: [illegible]; sericite gouge [illegible] in fractured zones.	450			[illegible] specks in [illegible] – [illegible] fracture 20° c.a. (late [illegible])	coarse sericite flakes in fracture [illegible]	10'	95%		64555		·030		
Highly altered and deformed Mafic Porphyry – as above cut by 1-4 cm dykelets of [illegible] (90° c.a.) – late fracts 20°-45° c.a. + gouge.	alteration variable, mainly chlorite [illegible] [illegible] biotite & plag: – minor sericite on [illegible].	460			Minor MoS₂ as [illegible] blebs in [illegible] [illegible] [illegible] 70° c.a. (?)	Flaky sericite in gouge. – alteration to sericite [illegible] [illegible] fracture	15'	85%		64556		·053		
Sharp, irregular, contact (70°) between Mafic Porphyry – as (above) and altered Sparse Porphyry: (typical texture) [illegible] altered.	increase in both sericite & chlorite alteration near contact: – abundant light coloured gouge. [illegible] sparse [illegible]	470	70°		MoS₂ blebs in sheared Sparse P. adjacent to contact [illegible] in [illegible] qtz veins.	– Moderate to strong alteration of Sparse [illegible] [illegible] [illegible]	15'	85%		64557		·039		
highly altered Sparse Porph. [?] → chilled basalt dyke (?) [?] Mafic (chloritic zone – green [illegible] specks) – [illegible]: dyke [illegible].	Typical Sparse Porphyry – Plag → dark green [illegible] matrix → sericite + clay + [illegible] [illegible] 30°-40° c.a.	480			V. rare specks of MoS₂ in [illegible] Sparse P.	Origin of chloritic unit uncertain.	15'	85%		64558		·033		
Mafic dyke intrudes Sparse Porphyry – irregular contact: – (diabase) only aphanitic: [illegible] Sparse Porphyry than above.	Fairly [illegible] Sparse Porphyry – abundant [illegible] biotite, Plag → light green chloritic alteration.	Dyke; 490			No MoS₂ in dyke – traces in qtz veins in Sparse Porphyry	Probably chilled 'basalt' dyke.	15'	95%		64559		·009		
Sparse Porphyry – similar to above but less altered, [illegible], ± 95% pheno – fairly crowded, matrix ± aphanitic – abundant biotite locally overprints Plag	Plag → light green sericite + clay (± chlorite) – lighter green than above – less altered. – Kspar ± fresh:	500			Pyrite + sericite on fractures 30°-50° c.a. – trace MoS₂ in [illegible] [illegible] qtz veins & [illegible] at 496'	(?) qtz vein 90° c.a. + envelope Kspar: – (rock = fresher) Late fracts: 45° c.a.	6'	95%		64560		·051		
Sparse Porphyry – as above, moderate alteration, minor deformation. fresh biotite, abundant.	qtz vein + Kspar envelope 40° c.a. – Plag → light green alteration & Kspar → minor sericite alteration –	510			[illegible] fracts – MoS₂ 20° c.a. (?) – [illegible] 30° c.a. (?). – Not [illegible] pyrite + sericite on fracts:	as above, moderate chlorite (?) alteration of Sparse P.	6'	95%		64561		·061		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. [illegible] of [illegible]

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
as above, Sparse Porphyry – altered; [illegible] matrix: – Biotite = V. fresh, locally [illegible] plag. – typical texture, [illegible] late fractures.	as above Chlorite [illegible], [illegible] plag [illegible], possibly sericite – clay.	1		520	Pyrite and MoS2 [illegible] late [illegible] 70–90°C. MoS2 blades in (1) qtz vein + Kspar.	[illegible] (Km) 36°C. – well crystalline MoS2 + [illegible] V. little MoS2	<10'	92%		64562		·036		
Sparse Porphyry – sheared and/or faulted at 477' + sericite gouge & chloritic slips, increase in chlorite & sericite alteration near fault.	typical texture to Sparse Porphyry – [illegible] fresh biotite: – more intense alteration [illegible]			530	(?) fracts: ± 70°Ca. + MoS2 (1) [illegible] slight, V. fine veins (1mm)	:. V. little MoS2: alteration – late related to faults.	15' ?	85%		64563		·066		
Relatively fresh Sparse Porphyry – typical texture, – 15–20% [illegible] in aplanitic matrix. – cut by fracts: 40°Ca. & 30°Ca. + minor sericite gouge	qtz vein (·6cm) 50°Ca. + Kspar envelope: – & biotite in [illegible] 50°Ca. biotite also replaces feldspar, V. minor chlorite alteration of plag.			540	MoS2 restricted to [illegible] fractures, 15°–90°Ca.	No good MoS2 [illegible] qtz veins, only fracts.	10'	90%		64564		·091		
Sparse Porphyry – fresh looking: 15–20% phenos: mainly Kspar – note V. [illegible] biotite locally overprinted; feldspar & found in qtz veins:	clearly Kspar crystals (white, etched slightly) = sericite, [illegible] alteration	1	*	550	[illegible] in qtz vein width & amount + [illegible] MoS2 content, blebs in qtz veins.	qtz veins at all angles, commonly 90°, 45°, 90° [illegible] MoS2 – blades – qtz.	<5'	98%		64565		·045		
			E.O.H 552'											

PLACER DEVELOPMENT LIMITED

GRID: ____ | HOLE No. [illegible] | SHEET No. 1 of 2

LOCATION: [illegible]	BEARING:	LATITUDE:	PROPERTY: Adanac
DATE COLLARED: 9th Sept.	LENGTH: 527'	DEPARTURE:	CORE SIZE: NQ
DATE COMPLETED: 12th Sept.	DIP: Vertical	ELEVATION:	SCALE OF LOG:

LOGGED BY: [illegible] DATE: 20 Sept. 77

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
0-47' - boulders of Cq. Vein [illegible], mafic (highly) fine grained. Bedrock - [illegible] CQFM	[illegible] limonite stained & stain free. bedrock = stained.	47'		50	No visible MoS2	possibly mafic unit = chilled margin (?)				64566		.001		
V. variable CQFM. [illegible] possibly [illegible] large [illegible] K-spars locally, [illegible]	V. deformed, intensely fractured, [illegible] K-spars [illegible] limonite stained [illegible]			60	[illegible] 70° CA. [illegible] veins. No visible MoS2	V. disturbed CQFM, limonite stained	100'	90'		64567		.001		
highly deformed and fractured CQFM, normal texture - (// to 70° CA) sericite flakes on fracture surfaces.	fresh biotite, plag [illegible] clay + limonite stained - stain [illegible] fractures [illegible] feldspars	Cg		70	No visible MoS2, - V. few [illegible] qtz veins	Stained near surface alteration of CQFM	100'	70'		64568		.008	.	
highly deformed, normal CQFM - locally with large (7cm) K-spar phenos. (two [illegible]) - [illegible] fractures [illegible] 20° CA - strongly limonitic (breccia)	[illegible] fracts: also 70° CA + limonite [illegible] fairly fresh [illegible] [illegible] cracks, + fresh biotite			70	[illegible] cavities in qtz veins 60°-90° CA - No visible MoS2	as above, normal alteration & deformation of CQFM	100'	98'		64569		.001		
gradational change to transitional variety of CQFM + minor interstitial matrix - highly deformed internally - K-spar cracked, fracts: // to 70° and 70° CA	limonite on cracks and fractures: Plag = light green clay (locally stained) - locally [illegible] biotite			90	Pair MoS2 on fracts/qtz veins 40° CA. partially [illegible] - (?) veins	sericite on fracts: & in cavities: - still stained	60'	75'		64570		.040		
V. disturbed, transitional CQFM - fine matrix (+ qtz) + large relict crystals - deformed, [illegible] fracts: - 35° and 60° CA.	plag = limonite stained clay + [illegible] K-spar cracked & stained; & [illegible] [illegible] 90° CA.			[illegible]	Large (2-3 cm) qtz vein 70° CA. [illegible] No visible MoS2	Much fractured & broken up [illegible]	100'	80'		64571		.009		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
'Transitional' CQM - Cq + intercalated [illegible] aplite:- highly altered Kspar crystals. - much fractured Core, 70° ca. + 10° ca. - V. little gouge.	limonite stained fractures & cracks - [illegible] locally [illegible] fresh, partly altered.	(?)	((	110	[illegible] 2-5mm qtz veins cross-cutting at 70°, [illegible]	Kspar [illegible] (10mm) at 101' - much fractured & stained - typical CQM	10.0'/	75%		64572		.001		
'Normal' CQM + pebbles of transitional, - v. broken, porphyritic:- highly fractured [illegible] 10-20, 70 & 90° c.a.	typical alteration of CQM - plag [illegible] stained [illegible] Kspar - fresh cracks & fracts. stained.			120	No visible MoS_2: - few veins qtz - veins [illegible] stained	typical Non-surface, stained CQM.	10.0'/	70%		64573		.004		
Transitional CQM mixed with normal, v. fractured & broken - crumbly at 128-130' [illegible] zones 10° ca. + fracts 10-70° ca.	typical alteration of CQM - plag - stained, cracks & fracts: - stained gouge - fracts - stained	(?)		130	No visible MoS_2 - few qtz veins.	Mild chlorite & variable sericite + clay alteration [illegible] gouge [illegible] fracts	10.0'/	80%		64574		.020		
highly altered - crumbly CQM - probably transitional - rare relict identifiable - mainly [illegible] v. soft, friable.	crumbly - probably surface sericite + clay alteration - no visible local [illegible] chlorite: 2 fractures 10-70 ca. & 40-80 ca.			140	No visible MoS_2: stained.	Limonite stained gouge cements breccia in fracts: 10-20 ca.	10.0'/	55%		64575		.001		
- altered CQM as for [illegible] found at 140' - stained gouge cementing breccia => highly silicified [illegible] to 148' (10° ca.)	typical silicified [illegible] relicts of Kspar, note all [illegible] Not 90° ca. (No MoS_2) [illegible] fracts 20° ca.	Sil / Cq	T.	150	Silicified zone [illegible] fracts: rare specks of MoS_2 - qtz veins [illegible] silicified	odd silicified zone - usually 70° [illegible] 10° ca.	6.0'/	85%		64576		.006		
- transition CQM going to silicified zone at 150' - not as extreme as above - relicts of Kspar retained - main orientation - silicified 70-90° ca.	Kspar & Plag & [illegible] replaced by qtz traces of chlorite & biotite:-	Sil		160	CQM [illegible] on fracts: traces:- traces [illegible] MoS_2 [illegible] fracts 70° ca. & in fracts	+ MoS_2 blebs [illegible] - Not v. rich [illegible] limonite stain 70° ca.	4.0'/	90%		64577		.058		
partly silicified CQM - CQM 'soaked' in qtz:- retains original texture:- narrow limonite stain - on fracts:	moderate (variable) silicification of CQM - Plag => green chlorite (+ sericite) and [illegible] traces	Cq.		170	(1) qtz vein (2mm) 60° ca + [illegible] - otherwise - [illegible] partially [illegible]	Mottled CQM - silicified locally	6.0'/	85%		64578		.041		

GRID: — PLACER DEVELOPMENT LIMITED HOLE No. [illegible] SHEET No. [illegible] of [illegible]

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
deformed CGQM – sheared 30°ca. ⇒ altered, possibly silicified FgQM – [illegible] texture – traces [illegible] pyrite [illegible] fractures 10–20° [illegible] 30°ca.	[illegible] FgQM [illegible] possibly silicified, not no [illegible] except chlorite (+ pyrite) [illegible] fractures.	Fg Si	180				Traces MoS2 [illegible] specks [illegible] qtz veins. V. rare.	[illegible] silicified [illegible] altered FgQM	10'	90%		64579		·041		
Sericite + clay gouge + ground [illegible] brecciated fragments of FgQM – V. crumbly, soft, texture largely lost ⇒ partly FgQM (as above) at 189'	Intense to extreme sericite + clay (kaolinite) [illegible] alteration: – No [illegible] Note trace of fluorite.	Fg Fg	190		F		MoS2 in qtz vein 30°ca. – ([illegible]) cutting Fg altered [illegible] gouge [illegible] also with pyrite	on slip planes → sheared, 60°ca. good qtz + MoS2 vein 11°ca. at 189'	50'	85%	—	64580		·162		
Intensely altered FgQM + sericite + kaolinite [illegible] + [illegible] to [illegible] ⇒ modified CgQM (transitional) Locally + silicification + Kspar addition	[illegible] + sericite + clay in Fg zone: + chlorite on slips (10°ca.) (40°ca.) Fractures in CgQM chlorite, some fresh biotite	Cg	200				Specks MoS2 in qtz veins + frcts in CgQM (+ pyrite) little trace in FgQM	CgQM [illegible] [illegible] (unaltered) FgQM and soaked [illegible] Kspar + silica. Locally.	10'	92%		64581		·163		
Highly deformed and [illegible] 'Transitional' CgQM – with zones of strong local silicification. Note original texture lost 206–209' – Kspar crystals + qtz in fine matrix, crystals [illegible]	= crushed + fractured. – Little sericite + clay alteration – [illegible] ↗ Chlorite + pyrite after plagioclase [illegible] fresh biotite.	(T) Si	210				qtz veins = fairly rare: – locally + large [illegible] + crystals MoS2: [illegible] vein 70° [illegible] 70°ca.	late frcts: – silicified zone (10°ca.) + pyrite.	25'	92%		64582		·111		
as above, Transitional CgQM + silicified zones: – original QM 'soaked' in silica + Later fractured strongly 70°ca. – Note porphyritic texture, V. large [illegible]	Kspar crystals [illegible] in silica [illegible] – [illegible] of [illegible] biotite – plag [illegible] chlorite + pyrite – also in frcts: – as above	Si Si	220				Minor traces MoS2 – hairline frcts + 1–2mm qtz veins. 70° + 60–70°ca.	Strongly silicified, 'transitional' CgQM	10'	90%		64583		·054		
as above, 'transitional CgQM' soaked in silica: – large euhedral Kspar crystals (and veins Kspar, 70°ca.) + fresh, deformed – crushed clay QM + [illegible] biotite [illegible]	Strong silicification; – fresh Kspar to 226' – then intense sericite + clay alteration ⇒ (crumbly [illegible])	Si	230		F		MoS2 coats [illegible] fractures cutting CgQM hairline frcts: mainly + pyrite + [illegible]	as above Kspar 'floats' in qtz: Note [illegible] Kspar vein = [illegible]	30' ?	90%		64584		·121		
V. highly variable 'Transitional' CgQM – Locally V. silicified: + veined by Kspar: – V. variable texture: – large [illegible] Kspar [illegible] in mixed [illegible] + qtz matrix.	Note intense deformation + Kspar: – soaked [illegible] of [illegible] V. silicified but few qtz veins: No [illegible], some chlorite + pyrite: alteration	(T)	[illegible]				(11'). good MoS2 vein ([illegible]) 70°ca. + traces in hairline frcts: 20 and 90°ca. –	Most qtz veins – barren: some + [illegible] MoS2:	10'	90%		64585		·192		

GRID: ______ PLACER DEVELOPMENT LIMITED HOLE No. ____ SHEET No. __ of __

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type / Alteration, Footage, Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo		EST. GRADE
as above, transitional type CqPM + silic(ified) zones – highly irregular texture – [illegible] Kspar crystals, areas [illegible] = qtz-[illegible]	V. deformed Kspar – [illegible] chlorite [illegible] fractures: [illegible] silicified zones – [illegible] clay alteration	S.I / (F.T.)		250	V. little MoS₂, [illegible] fractures	late fault: 10° Ca + gouge & calcite	<10'	92%		64586		·043		
CqPM → V. variable FgPM [illegible] of Cg: – [illegible] contact Fg – sandy, equigranular – chilled – possibly silic(ified) [illegible] – returns to altered Cg	strong silicification locally – odd texture, note [illegible] graphic [illegible] – FgPM + [illegible] Kspar + biotite vein ∥ Ca	Fg / S.I / Cg		260	few qtz veins – [illegible] small [illegible] MoS₂ [illegible] above, but not [illegible]	V. variable, silic(ified) variety of FgPM	<10'	92%		64587		·047		
sheared contact against chilled(?) FgPM – mainly [illegible] of slightly [illegible] aplite – [illegible] (M.S.A.P.) – rare [illegible], aplite matrix	FgPM cut by [illegible] Kspar 60-90° Ca – [illegible] weak sericite + clay altered (increases near fractures & contact)		50°	✱ 270	2-8 mm qtz veins 60-90° Ca + [illegible] coarse MoS₂ – also [illegible] fracts near contact	[illegible] MoS₂ (1) V. well crusted fracture 90° Ca (some [illegible])	20'	85%		64588		·276		
M.S.A.P. – sparse aplite, porphyry variety of FgPM – moderately deformed and altered ± 10% phenos – aplite matrix – [illegible] biotite	moderate sericite + clay alteration – note open fractures ∥ to 20° Ca + calcite – rare Kspar veins 20° Ca			✱ 280	[illegible] qtz veins (1-4 mm) – 50-90° Ca some [illegible] MoS₂ (1) [illegible] MoS₂ veins, 90° Ca	Locally [illegible] sparse P. but probably not: large qtz vein [illegible]	15' ?	90%		64589		·182		
as above, M.S.A.P. – variety of FgPM – V. fine aplite matrix – [illegible] 10% and rare flakes fresh biotite – not sparse P. – deformed and altered	late fracts ∥ to 30° Ca + calcite [illegible] – [illegible] chlor ± pyrite, with minor sericite + clay alteration			290	MoS₂ on hairline fractures – No good veins – MoS₂ qtz veins [illegible]	altered FgPM (M.S.A.P.) as above	10'	92%		64590		·059		
as above, M.S.A.P. variety of FgPM – increasingly deformed with depth – altered: sheared along length: note rare fresh biotite	(1) chlorite + pyrite [illegible] sheared – mainly ∥ to 20° Ca – moderate to weak sericite + clay alteration			✱ 300	(1) good vein 90° Ca + good MoS₂ on shear slip plane ∥ Ca (293-297) polished & slickensided	rare qtz veins, most with little MoS₂, (1) = [illegible]	10'	92%		64591		·120		
M.S.A.P. – becomes V. [illegible] (20' ±) – strongly altered – possibly addition of Kspar: sericite & qtz veins 20° Ca	silicified zone at 304' & Kspar stalked [illegible] – note specks of fresh [illegible] biotite – plag → chlorite			✱ 310	good MoS₂ crusted on (1) 50° Ca fracture – [illegible] rare specks in qtz veins & hairline ∥ Ca	Still V. altered and [illegible] odd texture	20'	80%		64592		·065		

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG Rock Type Alteration	Footage	Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	SAMPLE No.	Cu	Mo	EST. GRADE
Vague transition from MSAP into medium grained equigranular granite, QM - contacts CgQM (disturbed transition type) at 3?? - Note [illegible] at [illegible]	moderate alteration of late units: - Plag → chlorite ± altered biotite - faintly fresh, minor sericite + clay, late fracts 10-30°c.	Mg Cg	310				(3) qtz veins 70°Ca + [illegible] MoS₂ - also [illegible] fracts: 40°Ca. Pyrite + chlor: slipping faults.	strong late fract 30-40°Ca. V. deformed transition Cg. + late faults:	<10'	95%		64593		·077	
Silicified altered CQM ⇒ Mafic Porphyry → V. altered Mafic Porphyry - uniform comp.: V. diffuse texture: - late fracts 10°-30°ca (dip. [illegible])	silicification and chlorite incl. Mafic P near contact ⇒ less chlorite, more sericite + clay rich (gouge [illegible]) at 275' + chlorite coats fracts.		320		80	*	MoS₂ with chlorite on slip planes: & in [illegible] qtz veins 70-25°Ca. Pyrite on fracts.	highly altered Mafic Porphyry V. chlorite [illegible] altered;	10' ?	95%		64594		·057	
Mafic Porphyry - as above, chlorite alteration decreases from 333' → typical textured [illegible] Mafic Porphyry: - late fracts - [illegible] 40-50° Ca. -	sericite on fract. faces: rare Kspar veins, 90°Ca. - Chlorite alteration decreases & sericite increases [illegible]:		340			* *	good MoS₂ in [illegible] qtz veins 20, 60, 90°Ca. (?) veins [illegible] vein 20°Ca = 15cm long:	Mafic Porphyry:	20' ?	85%		64595		·167	
Mafic Porphyry - as above, deformed ⇒ [illegible]: + moderate, pervasive chlorite & sericite alteration: late fracts 10°-30°Ca.	moderate chlorite & sericite [illegible] - biotite to [illegible] fresh, - possible fault at 3?6' as [illegible] & sericitic:		350			* *	20' qtz vein + shear complex - V. rich in MoS₂ + pyrite [illegible] also specks in qtz veins:	Note best MoS₂ here and along qtz veins 20°Ca.	20' ?	80%		64596		·714	
Mafic Porphyry - generally less deformed & altered than above: - few Kspar phenos - ragged texture, abundant fine biotite.	sericite on fractures - traces of gouge: - little chlorite alteration except near fracts & veins: - sericite moderate to weak		360				MoS₂ traces in (?) hairline fracts 90°Ca. fracts, but no MoS₂ on qtz veins 20°Ca.	- as above Mafic Porph. - little MoS₂	10'	90%		64597		·282	
Mafic Porphyry - abundant white ragged Kspar phenos in diffuse matrix. - [illegible], late fracts: 40°Ca.	little chlorite alteration - weak to moderate sericite + clay: [illegible] gouge.		370				qtz veins 30° - 90°Ca. + little MoS₂: - also slickensided MoS₂ on fract. 40°Ca.	typical altered Mafic Porphyry.	<10'	90%		64598		·049	
Mafic Porphyry - increased deformation & alteration towards shear at 376', late faults (70) below [illegible] + sericite gouge	Fault zone = mixture of chlorite, pyrite + MoS₂ (?) - slickensided intense sericite + clay - little alteration by shear - little MoS₂		380		20° F	* *	good MoS₂ in shear zone 90°Ca. + traces in fracture 80°Ca. (?)	amount of MoS₂ uncertain - if all black gouge = MoS₂, [illegible] great	10'	90%		64599		·157	

GRID: ___ PLACER DEVELOPMENT LIMITED HOLE No. 238 SHEET No. 6 of 8

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo	EST. GRADE
Mafic Porphyry - as above, large ragged kspar phenos in diffuse matrix: - cut by qtz veins, 90°ca. - faults (+40°?) 20°ca. ∠ 40°ca.	chloritic alteration (+py?) no biotite. minor (1) qtz vein 40°ca. - otherwise chlorite-free, moderate sericite + clay alteration.				70°	390	(?) mineralized shears, faults, + slickensides, 60-90°ca. step.	typical Mafic Porphyry	10'	90%		64600		.062	
Mafic Porphyry cut by - FgQM dyke: sandy, equigranular variety: - cut by kspar veins & enveloped qtz veins: - Typical Mafic Porphyry - as above	Fg & Mafic unit cut by kspar veins: (not common) & qtz veins 90°, 30, 50° mainly 1-3mm - Moderate sericite + clay alteration		Fg		60° ∠	400	MoS2 locally - some qtz veins 90°ca. - also hairline fractures: ±70°ca. (?).	significant trace MoS2. Note dyke + shear contacts:	10'	90%		64601		.090	
altered Mafic Porphyry - fractured and broken: - strongly at 401' = chloritic, most 40° fractures + pyrite gouge: - [illegible] ⇒ chlorite, adjacent to seam	faults and qtz veins - minor alteration - sericite + kaolinite clay: fractured areas [illegible]	\	~		40°	410	MoS2 - (?) 4-5mm qtz veins 70-90°ca. & (1) vein 70°ca. Not V. rich	(1) sericite + chlorite + pyrite qtz vein 40°ca. with strong envelope chloritized.	15'	85%		64602		.101	
Mafic Porphyry - altered, cut by late faults: 10-30°ca. + sericite gouge, & by rare qtz veins 90°ca.	abundant white gouge (kaolinite? - sericite) - patches with mica chlorite alteration in addition.					420	MoS2 restricted to hairline fracts & 1mm qtz veins, mainly 60-90°ca. ... Not V. rich	as above, altered Mafic Porphyry	10'	90%		64603		.059	
Mafic Porphyry - cut by 5cm FgQM dyke at 427' - 70°ca. - typical texture - large ragged kspars + diffuse matrix. chloritic alteration. little biotite seen.	423-427' - fractured 40°ca. & qtz veins 30°ca. - sericite & chlorite alteration. from 428' = fresh					430	small MoS2 blebs in (1) qtz vein 30°ca. Also in hairline fracts. 70°ca.	altered → fresh Mafic Porphyry.	10'	92%		64604		.057	
Fairly fresh Mafic Porphyry cut by dyke FgQM (equigranular, sandy - as above) 40°ca. few late fractures, massive mafic porphyry.	V. little chlorite & sericite + chlorite alteration. note qtz veins (1-6mm) 60°, 90°ca.				Fg	440	qtz veins + MoS2 - (?) well mineralized & other veins + trace.	fresh Mafic Porphyry cut by Fg dyke	<5'	95%		64605		.157	
Mafic Porphyry - as above, - moderately fresh, local chlorite alteration cut by qtz veins 20°, 70° to 90°ca.	Minor sericite & chlorite alteration: - mainly near veins & fractures					450	large (1mm) qtz veins + few blebs MoS2 not V. rich	weakly altered Mafic Porphyry	<10'	92%		64606		.064	

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. ____ SHEET No. __ of __

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG (Rock Type Alteration / Footage / Structure)	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS SAMPLE No.	Cu	Mo		EST. GRADE
Mafic Porphyry – as above, relatively fresh, ragged white kspar in mottled matrix – fresh biotite locally overprints feldspar.	little chlorite → sericite + clay alteration; rare qtz veins 60-90° Ca.			460	small blebs MoS2 in qtz veins ±60 Ca. (1) MoS2 coated fracture 70 Ca.	Fairly fresh, typical Mafic Porph.	<5'	95'		64607		.048		
Mafic Porphyry cut by dykes of FgQM – (similar to above) – altered and broken contact; rare kspar veins 70 Ca.	moderate increase in sericite + clay alteration in Fg & Mafic adjacent to FgQM		Fg	470	qtz veins 60-90 Ca + concise blebs MoS2 – not v rich. few veins (3).	Note sericite rich gouge near Fg. & fractures –	20'	90'		64608		.037		
Mafic Porphyry – typical texture, large kspar phenos ± ragged & diffuse matrix grains; biotite alteration – slight.	sericite rich gouge in fracts 30 Ca. otherwise little chlorite alteration.			480	qtz veins 70, 20, 75 Ca. (1-2mm) + small blebs MoS2. Not rich	significant MoS2 but not v. rich – typical Mafic Porphyry	<5'	95'		64609		.077		
Mafic Porphyry – typical, as above, v. ragged, fairly fresh, cut by (2) small dykes FgQM (90°)	qtz + MoS2 + chlor. vein ∥ Ca ___ + pyrite. (1) kspar vein 70 Ca. – otherwise + weak alteration			490	specks MoS2 along 4mm qtz vein ∥ Ca. – along fracts 90 Ca.	Standard Mafic Porphyry massive, few late fracts.	<5'	98'		64610		.150		
Mafic Porphyry – typical texture, fairly fresh, – v. ragged & mottled. + kspar rich zone around 496' –	chlorite alteration increases peripheral to qtz veins, – v. little sericite + clay.			500	rare MoS2 traces in qtz vein (1) 70 Ca. & hairline fract.	Standard Mafic Porphyry. Massive.	<10'	90'		64611		.020		
Mafic Porphyry typical, fresh, cut by dyke of equigranular sandy FgQM – as above (90 Ca) – also cut by fracts 20 Ca + 90 …	sericite + clay gouge in fracts: – minor chlorite alteration around qtz vein 70 Ca. (+ py, chalco, MoS2)		Fg	510	(1) qtz vein, 30 Ca. + large blebs MoS2; other veins + trace – few veins.	as above, Massive Mafic Porphyry	<10'	90'		64612		.152		
Mafic Porphyry – generally ± fresh, locally + chlorite alteration; typical texture.	Py, sericite, fluorite + Wolframite in vein 20 Ca. vein enveloped by chlorite alteration; – top alteration by MoS2 bearing qtz veins.			520	qtz veins 60–90 Ca. + MoS2 specks & blebs, Not v. rich	Note Wolframite in late fracture system.	<10'	90'		64613		.016		

GRID: ____ PLACER DEVELOPMENT LIMITED HOLE No. __ SHEET No 2 of 2

ROCK TYPES AND TEXTURES	ALTERATION	GRAPHIC LOG: Rock Type / Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	JOINT OR CONTACT ANGLES	% PYRITE	MINERALIZATION	REMARKS	FOOTAGE BLOCKS	EST. CORE REC.	COMPOSITES	ASSAY RESULTS: SAMPLE No.	Cu	Mo		EST. GRADE
Mafic porphyry becomes [illegible] alteration contact with FQPM (MSA?) [illegible] feldspar/plagioclase matrix (15% [illegible]) –	[illegible] – [illegible] (20m) 70°, [illegible] (40°) – [illegible] qtz + [illegible] + [illegible] (20°)		15			[illegible]	[illegible] MoS_2 [illegible] (1mm) (FQPM)	[illegible] TG 9M [illegible]	[illegible]	95%		64619		.011		
	E.OH, 527															