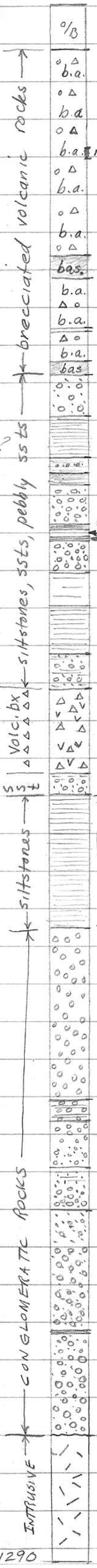
896334

1972 QUINTANA / GETTY DRILLING

#4

1" = 100'



Bxtd med gray bas. and; vuggy   subaqueous flow??

reddish layer (flow boundary?)

contains clasts of underlying basalt

Porphyritic basalt flow

Bxtd bas. and.

thin bedded reddish silts - dips 2-5°

Bx again

weakly bxtd porphyritic basalt flow

Interbedded coarse pebbly sands/silts/muds; granitoid, volc., pyroclastic clasts

pollen? med. gray, varved f.g. seds; carbonaceous mat'l abundant; bedding 0-10° dip

similar to above but local pebble beds

varved silts

cobble conglomerate, sand matrix. Cobbles Bm, Bsda & Guichon (lots) - some well altered, some mineralized

varved sediments ← pebble mudflow thin bedded sediments

pebble mudflow - Bsda, Skeena pebbles common

poorly bedded
well bedded } siltstone; dips 0-15°

interbedded coarse sands, pebbly sands, silts, muds, carbonaceous layers

Volcanic breccia - sediment matrix (seds. baked)

several 3-9' interbedded siltstone sections

graded pebble siltone to pebbly sandstone at base

thin bedded silty seds., carbonaceous flecks common in varved layers; average dip 5°.

pebble to cobble conglomerate; clasts mainly somewhat rounded, pyrite as open space filling and as cement; mainly guichon and Bm clasts, some skeena, Bsda, porphyry, KV; matrix locally is mud,

pebble sands, silts with carbonaceous layers

cobble conglomerate grades to cobble, pebble sandstone

faintly bedded sandstone/siltstone grades to boulder-cobble conglomerate
cobbles mainly Bm some chataway (minlzd), crowded fs porphyry

coarse sst to pebble sst to cobble cgl

silts, mud

pebble to boulder cgl; clasts Bm, Gu, Hyb. are larger and not so well-rounded; also less altered --- locally derived?

UNCONFORMITY

Guichon - strong silicate altn, chl, ep fr. filling

cpy, bn, MoS_2 in fractures

Hole #4

From	To	Core Box No.	Length	Recy.		Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	Sulph.	Vein	Py/Cpy	Mag.
0	36				Overburden													
36	206				Brecciated med. grey basaltic andesite (subagueous flow?) vuggy - clasts are extremely angular with narrow ~~salvages~~ selvedges (palagonite?? or alteration rim??) vent agglomerate possible but not likely. Oxidized reddish layer (118-127) flow boundary?														
206	226				Weakly brecciated porphyritic basalt flow of identical composition to breccia clasts above.													
226	268				Volcanic breccia as above.													
268	270				Thin bedded reddish brown tuffaceous? silts and sands - bedding dips 2°-5°.													
270	296				Volcanic breccia as above.													
296	307				Weakly brecciated porphyritic basalt flow													
307	340				Interbeded coarse pebbly sands silts muds mixed granitoid -volc & pyroclastic in character some unusual soft greenish silts & sands as in hole #2-some woody material.													
340	373				Med. to dark grey varved fine grained sediments abundant carbonaceous material bedding dips 0-10°													
373	389				As above but with pebble beds silty matrix locally pyritic - pebbles a) weakly to strongly alt. Gui - Kamloops BQFP intr. - K.V. flows.													
389	397				Thin bedded varved seds. as above.													
397	430				Cobble conglomerate sand matrix - cobbles Bethsaida, Bethlehem & Guichon numerous most well altered - several with cpy also some moderately well rounded - some sub-angular.													
430	433				Varved fine grained sediments.													
433	440				Pebble mudflow-carboneceous material abundant													
440	444				Thin bedded sediments (1' graded sand bed).													
444	470				Pebble mudflow as above Beth.-Trans. pebbles common													
470	539				Poorly bedded siltstone - becoming well bedded from 497' dips 0-15°													
539	567				Interbedded coarse sands - pebbly sands silts muds carbonaceous layers.													
567	638				Volcanic breccia sediments form matrix & appear baked, several 3-9' thick interbedded sedimentary (silt mudstone) sections.													
638	652				Pebbly siltstone - sand matrix at base. Unit is graded.													

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcy.		Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	Sulph.	Vein	Py/Cpy	Mag.		
652	765				Thin bedded fine grained silty sediments varved - carbonacaous flecked layers common															
765	907				average dip of 5°. Pebble-cobble conglomate sand matrix many pebbles touch - most show some degree of rounding - some open space. Post dep.. pyrite sometimes coates pebbles fills spaces, cements.														
					Pebbles															
					Bethlehem - Guichon phases predominant. Some Transitional - Bathsaida - some porphyry dyke (crowded feldspar-epidote bleb) - K.V. flow, intrusive common-no Chataway most pebbles and altered, some chalcopyrite mineralized														
					Matrix becomes muddier downwards. Intruded by porphyritic K.V. basaltic dykes (locally brecciated 822-888) below about 810 pebbles are suspended in mud matrix (not touching) sand matrix again near base.														
907	925				Interbedded pebble sands silts carbonaceous layers.															
925	965				Cobble conglomerate sand matrix grading to cobble pebble sandstone at 940' matrix becomes muddy and then sandy again at base - pebbles suspended in muddy section.															
965	1000				Faintly bedded sandstone - siltstone grading to sand matrix boulder cobble conglomerate at 971 - matrix muddier from 990. Cobbles mainly Bethleham - guichon two Chataway some well mineralized, crowded felds porph.														
1000	1100				Matrix sandy near base. Coarse sandstone to pebble sandstone grading to sand matrix cobble conglomerate at about 1030' Matrix locally muddy and cobble-pebbles are suspended.															
1100	1101				Thin bedded sediments - silts - mud															
1101	1188				Pebble-boulder conglomerate larger clasts not so well rounded - Bet. Gui, Hyb are probably more locally derived not so well altered as above.															
1188					UNCONFORMITY															

From	To	No.	Length	Rcy.		Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss./ Vein	Py/Cpy	Mag.		
1188	1299				Guichon qtz. diorite strong P2 silicate alteration related to fractures at 10° 30° to core axis. Pale & dark green chlorite fracture coatings & fillings some epidote disseminated epidote pervades in 3-4" wide selvages. Sulphide baring fractures are at 30-40 to core axis most have a pinkish															
1190	1200	Q5853	10	chip	(hematite stained albite?) selvage with															
1240	2150	Q5854	10		chloritized mafics and minor epidote															
1290	1299	Q5855	10		MoS2 also coats some chloritized fractures as at 1194'. Chalcopyrite and bornite are associated.															

ASSAYS							AVERAGES	
Cu PPM	MoS_2 PPM	Ag	Au					
330	165.0							
44	5.7							
80	0.9							