

895052

Island Copper Core Library

This suite of rocks was collected in Nov. 1995 as part of the archiving of the Island Copper Mine that is due to be shut down Dec. 1995. Drill holes lying on or near five cross sections through the pit were selected, as well as several others of interest. Samples were taken to represent each significant change in alteration or lithology. Sample descriptions are based on visual inspection at the time of collection, but understanding of the alteration is based on a petrographic study of over 200 thin and polished sections completed early in 1995 by K. Ross and C. Leitch.

The diskette contains a file(Corelibr.xls, saved in Excel 5.0) listing the samples, organized by cross section, with the footage the sample was collected at and a brief description of the rock. Four matching suites were collected, multiple footage entries apply to samples in different suites.

The PLOT directory contains the five cross sections with drill hole traces and assays. They are saved in HPGL format and can be printed from DOS.

The THINSECT directory contains the unpublished thinsection descriptions of the alteration study completed earlier in the year, (saved in Excel 5.0). Footages will not match this rock suite, but may serve as a guide to comparing hand samples to the detailed petrography. These files have not been edited and contain typos, abbreviations and comments.

The ASSAY directory contains all assay information for the drill holes in the suite. The plot files contain some additional assay information for holes that were not sampled.

Photocopies of working sections with geological interpretations are also included.

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SECTION	139 W	FOOTAGE**					
	D-71	50	55	60	70		early QFP, magnetite alteration
		82	86	87	88		quartz-sericite overprint of the same QFP
		125		132	133		sheeted quartz-magnetite veins grading to breccia
		290	291	296	305	308	sheeted quartz-magnetite veins grading to breccia
		296	317				chlorite-sericite overprint on the quartz-magnetite alteration QFP
		351	352	353	363		Bonanza volcanics intense magnetite-actinolite/biotite/chlorite alteration, quartz veins with chalcopyrite
		384	391	399	426		fine grained volcanics, magnetic
		488	587	589			late zeolite-calcite veinlets overprinting volcanics
		551	543	559			magnetite only veinlet in volcanics
		680					late QFP dyklet with zeolite alteration in volcanics
		740					zeolite alteration
		731	732	733	745		relatively fresh looking volcanics, mafic phenocrysts still visible but probably has pervasive actinolite-magnetite alteration
		816					green pebble dyke/ breccia, matrix contains sulphides pyrite- chalcopyrite ?, quartz and tuffaceous clasts
		841	846				propylitically altered volcanics, disseminated and fracture controlled pyrite- calcite- epidote -chlorite
	D-75	20	24	25			QFP with chlorite-magnetite alteration with a sericite- pyrite- clay overprint
		60	119				watery grey quartz veins in volcanics
		46			51		intensely altered volcanic, actinolite/chlorite-magnetite-albite alteration with sericite-pyrite overprint
		166					intensely altered volcanics , clottyactinolite/chlorite-magnetite-albite alteration with sericite- pyrite overprint, watery quartz vein
		148					quartz-magnetite veinlet
		149					pyrite overprint and/or reopening of a quartz-magnetite veinlet
		187					intense magnetite-actinolite alteration of volcanics with a cross cutting quartz vein
		192					green pebble dyke
		225	227	230			intense magnetite-actinolite alteration with abundant cross cutting magnetite-quartz and quartz veins
		458					volcanics , disseminated magnetite and quartz veins with pervasive chlorite after actinolite or biotite
		517	520	527			pervasive magnetite-biotite alteration, probably at least partially chloritized, some chalcopyrite mineralization
		591					intense sericite- pyrite overprint
		596					pervasive magnetite-actinolite with ghostly early quartz veins
		705					pervasive biotite-magnetite with quartz-magnetite veinlets in volcanics with late calcite-zeolite veins/stockwork
		860					fine grained volcanics , phenocrysts preserved, pervasive magnetite-biotite/actinolite? with ghostly quartz-magnetite veins, sulphides present
		890	930				coarse magnetite veinlet
		1020					intense zeolite stockwork, rock is highly fractured
		1050					fine grained volcanics with numerous planar magnetite veinlets
	D-77	16	24				intense pyrite-calcite overprint on volcanics
		16					QFP or pebble dyke
		226	230	235			QFP dykelet, intra to late mineral, has watery quartz veins with molybdenite, disseminated pyrite-chalcopyrite in groundmass
		250					QFP with zeolite overprint
		260	265				disseminated magnetite in QFP with watery grey quartz veins
		285	320				QFP, sericite- pyrite-clay overprint the quartz-magnetite alteration, concentrated along fractures
		292					relatively fresh QFP, primary K-feldspar in groundmass, intra mineral QFP
		333					sericite- pyrite-quartz overprint of QFP, overprinted again by zeolite alteration
		575					QFP with minor disseminated magnetite and pink primary K-feldspar in the groundmass, some salmon pink zeolite overprinting

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		652				same as above, note small fine grained clasts
		734				textural change in the QFP, the quartz and plagioclase phenocrysts are smaller, higher proportion of pink K-feldspar matrix
		889	891			same QFP, some silicification
	D-152	20	25			QFP, intensely silicified matrix, chlorite alteration, disseminated sulphides, with surface weathering
		46				intense quartz-chlorite, obliterates protolith-probably volcanic
		81	97	92		volcanics grading into a pebble dyke texture with quartz vein clasts
		115				QFP with sericite overprint
		152				volcanic and quartz veins nearly a marginal breccia texture
		232				quartz-se overprint on breccia
		240				quartz-magnetite veins cross cutting another
		245				pebble dyke/ marginal breccia
		252				volcanic with quartz-magnetite-actinolite alteration
	D-153	25				fine grained magnetite-actinolite altered volcanics
		31	32	33		classic green pebble dyke, chlorite-pyrite matrix and quartz clasts
		71	83			propylitically altered volcanics, variable disseminated mt
		172				volcanic, albite/quartz matrix, chlorite clots
		385				volcanic, albite/quartz matrix, chlorite clots
	D-154	201	202			contact between quartz-magnetite altered volcanics and a green QFP with marginal breccia developed on sides, dyke is 5 metres wide
	D-157	14	16	17	21	actinolite-magnetite volcanic, watery quartz vein
		36				watery quartz vein, some chalcopyrite on fractures
		42				actinolite-magnetite volcanic, watery quartz vein
		69	70	72	81	old QFP, with quartz-magnetite-albite? vein and watery laminated quartz veins
		88	93			intense sericite overprint of QFP
		131				QFP sericite-chlorite alteration, with an sericite-clay overprint, planar grey quartz with molybdenite down the center
		264				contact between two phases of QFP, the older phase has coarse eyes and an intense silicification of the groundmass, the younger slightly finer grained phase has more intense sericite alteration of plagioclase phenocrysts
		340	391	400		intense quartz-magnetite alteration of older QFP, sheeted quartz-magnetite veins cross cut by a watery quartz vein
		467	472			magnetite-actinolite altered volcanic
		472.5				contact between volcanic and old QFP??
		473				QFP, oldest phase?
		522				contact between volcanic and intra-mineral QFP
		529				intense sericite alteration on QFP, cannot tell which phase
		555				intra-mineral QFP, quartz-magnetite veins are still present but it lacks the intense quartz-magnetite alteration characteristic of the older phase
		640				relatively fresh intra-mineral QFP, groundmass is still primary pinkish K-feldspar
	D-159	37	42	43		fragmental volcanics with clotty chlorite alteration, possibly disseminated magnetite in groundmass
		102				volcanics with abundant disseminated magnetite, chlorite clots and groundmass albite/quartz? alteration, pyrite on fractures
		220				similar, with magnetite veinlets, cut by later calcite veins
		315				similar volcanics with an overprint of zeolite-calcite, possibly overprinting pervasive chlorite-sericite alteration
		350	352	355		first appearance of watery grey quartz veins in volcanics, followed by a sharp contact with an intra-late mineral QFP
		383	388	403		sericite-pyrite alteration on QFP, possibly addition of quartz as well
		412				pink primary K-feldspar and a zeolite overprint, weak quartz magnetite alteration
		442	445			sericite alteration, watery quartz veins
	D-163	92				intensely zeolite altered volcanics?
		125				volcanics, silicified matrix, chlorite clots, pyrite-chalcopyrite? present, zeolite overprint

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	168	202				pink watery quartz veins, sericite alteration is common around them
	210					intense quartz-zeolite alteration, quartz vein
	240					may be oldest QFP, dark green, very large quartz eyes
	310					sulphides in quartz veins, disseminated magnetite in eyes, sericitic alteration
C-157	210	215				fragmental volcanics, albite/quartz groundmass, chlorite clots
	315					similar, with disseminated sulphides, variable fragmental component
	565	612				watery grey quartz veins in the same type of chlorite-albite altered volcanic
	620					green QFP, old phase?
	824	845	840			oldest QFP, intense sericite-chlorite alteration
	852	870				sheeted quartz-magnetite veins in old phase of QFP
	1008	990	985	1045	1050	sheeted quartz-magnetite veins in old phase of QFP
	1060					sericite overprint on quartz-magnetite altered QFP
	1270					magnetite-quartz alteration in QFP??
	1397					magnetite-quartz alteration in QFP??
SECTION 155 W						
D-72	37	39	74			clotty volcanics, matrix is either albitized or silicified, with chloritic clots
	88	84				similar with disseminated and veinlet magnetite
	97					sericite- pyrite overprint on previous alteration
	140					volcanics , possibly chlorite after pervasive biotite
	174					magnetite-quartz veinlets in magnetite-actinolite/chlorite altered volcanics
	238					clotty albite/quartz-chlorite with a weak pyrite overprint
	281					porphyritic volcanics with disseminated magnetite and probably with pervasive actinolite/chlorite alteration
	372					intense sericite- pyrite- clay overprint of porphyritic volcanics
	392	397				magnetite-chlorite/actinolite-albite alteration of volcanics
	452	457				green pebble dyke with definite QFP fragments, do not know which phase of QFP
D-79	25	30	35			intense pervasive and fracture controlled epidote pyrite-hematite alteration of volcanics with an overprinting calcite-zeolite stockwork
	71					less intense propylitic alteration, confined to fractures, disseminated magnetite in groundmass
	116	127	137			heterogenous fragmental volcanic, possibly a precursor to the clotty chlorite-albite /quartz altered volcanics
	140					sericite- clay-pyrite alteration around a fracture, overprinting sericite- chlorite-epidote
	178					propylitic alteration of volcanic
	182					hole ends in a maroon volcanic unit with calcite veins
D-187	25					fine grained fragmental-tuffaceous volcanics with chlorite-pyrite alteration pervasive and in veinlets
	30					intense albitic alteration, quartz veins appear to pre-date the albite, which is in turn overprinted by sericite-chlorite
	45					quartz-magnetite veins, pervasive biotite alteration in volcanics
	66					albite-chlorite overprinting the biotite
	163					relict pervasive biotite alteration in volcanics
	230	231				chilled QFP in sharp contact with the volcanics, siliceous groundmass
	235	240	245			usual coarse QFP, with large quartz eyes, albitized groundmass with a zeolite overprint, minor quartz veins present, lower contact with volcanics is also chilled
	263					volcanic with chlorite-sericite alteration and a quartz stockwork
	343					volcanics were probably pervasively biotite altered at one time, now with a sericite-chlorite overprint, watery quartz veins contain scattered blebs of chalcopyrite-pyrite
	357					QFP dykelet with intense sericite alteration and watery quartz veins with pyrite-molybdenite ?-chalcopyrite
	415					zone of pure pink-grey quartz ("quartzalite" in mine terminology), often occurs adjacent to contacts with intermediate QFP
	421	424				intra-mineral QFP, pink primary K-feldspar in groundmass, lower contact to volcanics is ambiguous, gradational over 30 cm
	475					volcanic with a chlorite overprint, possibly on pervasive biotite, quartz veins
D-188	47					fine grained fragmental volcanics with intense pervasive epidote -sericite alteration
	66					intense pervasive epidote alteration with calcite-sphalerite? veinlets and euhedral pyrite

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		114									fine grained volcanics, pervasive epidote , calcite-hematite veinlets, hematite is common in epidotized volcanics peripheral to the porphyry system
		122									a maroon, slightly porphyritic volcanic (flow?), 32 feet thick in core
		159									fine grained volcanics, pervasive epidote , euhedral pyrite
		258									End Creek Fault
		278	281								reddish coloured fine grained plagioclase-porphyritic rock, not a QFP, lacks the quartz eyes, abundant disseminated pyrite
		297	296	291							same porphyritic rock, feldspars (plagioclase) are clay-sericite altered, groundmass is either silicified or sericite altered, highly variable over a short distance
		330	337								same porphyritic rock, either a dyke or a flow, not a QFP
		350									fragmental volcanic with hematite and epidote alteration and abundant disseminated
		401									maroon volcanic, 27 feet thick in core
		429									green fragmental volcanic, epidote alteration
		532									more homogenous volcanic, abundant disseminated pyrite
		661									sericite-chlorite alteration of same volcanics
	C-137										old core, much missing
		230									intense sericite-clay-pyrite alteration of QFP, quartz stockwork still visible, phase uncertain
		352	370	395	400	405					chlorite-sericite-pyrite alteration on volcanics with quartz veins
		542	563	566							chlorite-sericite-pyrite alteration on volcanics with quartz veins
	C-139										old core, much missing
		325	330								intensely sericite-clay altered QFP? with quartz veins, protolith unidentifiable
		370	374								fine grained volcanics with siliceous or albitized groundmass, clots of chlorite and disseminated magnetite??
		432	440								sericite-clay alteration of volcanics, overprinting albite-chlorite
		855	860	865							old QFP, large quartz eyes, sheeted quartz-magnetite veins
		1189	1200	1205							intra-late? mineral QFP, weak alteration
		1430									chloritized volcanics with calcite-zeolite stockwork
	C-152										old core, much missing
		469	470								fine grained volcanics with pervasive magnetite-ac/chlorite alteration, late pyrite fractures
		645	650	662							possibly quartz-magnetite-actinolite alteration of volcanics, quartz veins
		684	690								quartz-actinolite-magnetite alteration of fine grained volcanics
		824	826								grey massive quartz, "quartzalite"
		1130	1140								old QFP sericite-chlorite alteration
SECTION 171 W											
	D-59	26									volcanics, peripheral propylitic alteration, chlorite-epidote -calcite with cross cutting zeolite-calcite veins
		52									pervasive chlorite-epidote alteration with disseminated pyrite and calcite veins
		104									intense pervasive epidote sericite-pyrite alteration of volcanics
		245									"Yellow Dog" Fe-carbonate-dolomite-hematite alteration overprinting propylitic alteration, dolomite in groundmass, calcite and Fe-carbonate in veinlets-stockworks
		280									fine grained volcanics with chlorite-epidote alteration
		290	295								fine grained volcanics with chlorite-epidote calcite alteration
	D-83	25	30								fine grained dark grey volcanic, overprinted with sericite- pyrite and abundant calcite
		60	70								volcanic, dark grey chlorite-sericite-quartz altered matrix, chlorite-pyrite clots and calcite veins
		98									sericite- pyrite overprint on same clotty volcanic
		150									volcanic, fine grained, epidote chlorite-se-calcite alteration
		182									matrix quartz-sericite- albite?? with chlorite-pyrite clots
		235									"Yellow Dog" dolomite-calcite-Fe-carbonate overprint on fine grained volcanic,
		278									intense sericite-pyrite overprint on volcanics
		281									"Yellow Dog" dolomite-calcite-Fe-carbonate overprinting intense sericite altered fine grained volcanics
		357									"Yellow Dog" dolomite-calcite-Fe-carbonate alteration of volcanics, crackle veinlets of calcite and Fe-carbonate

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	407				"Yellow Dog" dolomite-calcite-Fe-carbonate alteration of possibly previously magnetite-quartz altered volcanics, quartz vein may be relicts of this stage
	484				sericite- chlorite-pyrite altered volcanics with calcite veins
	592				sericite- chlorite alteration with dolomite overprint
	759				fine grained volcanic, pervasive biotite alteration with a chlorite overprint, magnetite-albite quartz-chalcopryrite-pyrite veinlets and disseminated pyrite-chalcopryrite
	783				biotite alteration spreading from a vein overprinting actinolite alteration, pervasive sericite overprint and late calcite veinlets
	812				strong dolomite-carbonate-sericite overprint of volcanics
	846				pervasive actinolite-magnetite overprinted by chlorite-pyrite, relict magnetite-albite veins
	865				biotite-sulphide overprint in actinolite-magnetite alteration, weak sericite- pyrite overprint as well
D-147	40				intra-mineral QFP, pink K-feldspar matrix, some magnetite veinlets and inclusions of older QFP with sheeted quartz-magnetite veins, variable zeolite overprint
	84	92			older QFP with quartz-magnetite veins, rare inclusion in younger QFP
	181				intra-mineral QFP, minor magnetite-quartz veins present, magnetite disseminated in groundmass locally, molybdenite on slip surfaces
	232				fresh intra-mineral QFP, molybdenite on slip surfaces
	258	276			older quartz-magnetite altered QFP, contact between the two in faulted, crushed
	383				QFP, possibly a slightly younger phase, it appears to be cutting a quartz-magnetite clast
	402				pure quartz-magnetite with pyrite on fractures
	431	436			younger QFP in sharp contact with older phase, intense clay sericite alteration
	571				intra-late? mineral QFP with a "Yellow Dog breccia" overprint, Fe-carbonate-dolomite alteration, veinlets form a crackle breccia texture, dolomite is also present in the
	623				contact between volcanics and QFP is quartz veined and brecciated, and overprinted by the Yellow Dog alteration as well, textures are destroyed, this sample is volcanics only
D-209	25	30			marginal breccia, chlorite (after actinolite?) altered volcanics and pervasive quartz-magnetite alteration, in sharp contact with a chilled QFP, quartz-magnetite alteration in the QFP in the first few cm, then QFP is totally non-magnetic
	52				magnetite altered QFP, the magnetite may be due to partial assimilation of the volcanics
	62				non-magnetic QFP with a quartz stockwork, this is an intermediate phase, not the one responsible for the earlier intense magnetite alteration, siliceous, chloritized mafics, disseminated sulphide, possibly some relict K-feldspar
	85				QFP with some magnetite +/- quartz sheeted veins, some sulphide replacement of the magnetite
	176				this is large body continuous body of porphyry, magnetite hairline veinlets are increasing in abundance, sericite alteration of the plagioclase phenocrysts , K-feldspar in groundmass is still fresh looking, groundmass is intensely silicified locally
	236				intense quartz-sericite- clay overprint nearly obliterating the QFP texture, quartz-magnetite veinlets were not abundant here
	252				alteration front or contact? intense sericite alteration in sharp contact with very fresh QFP, the texture of this QFP is slightly different then that previously occurring in this hole, it may be a younger phase,
	270				examples of the QFP, there is more K-feldspar groundmass, fewer plagioclase phenocrysts than before, some biotite may still be unchloritized, there is a zeolite
	288				inclusion? of older sericite- quartz altered QFP in fresh younger phase, x-cutting quartz-molybdenite vein
	305				quartz-molybdenite vein
	345				intense zeolite overprint, destroys the plagioclase, changes the texture of the QFP, quartz + -pyrite-chalcopryrite-molybdenite stockwork
	438				intense silicification of QFP, quartz-molybdenite-pyrite + - chalcopryrite veins
	549				localized intense sericite of matrix, quartz-molybdenite veins
	605				sericite alteration possibly albite alteration of groundmass, some zeolite overprint , sulphides in quartz veins and disseminated
	642				relatively fresh QFP
	662	670			faulted, brecciated contact between volcanics and QFP, interfingering
	689				volcanic, intense actinolite-magnetite alteration, overprint by chlorite, sheeted quartz-magnetite veins, abundant later calcite veins, clast of QFP in one sample

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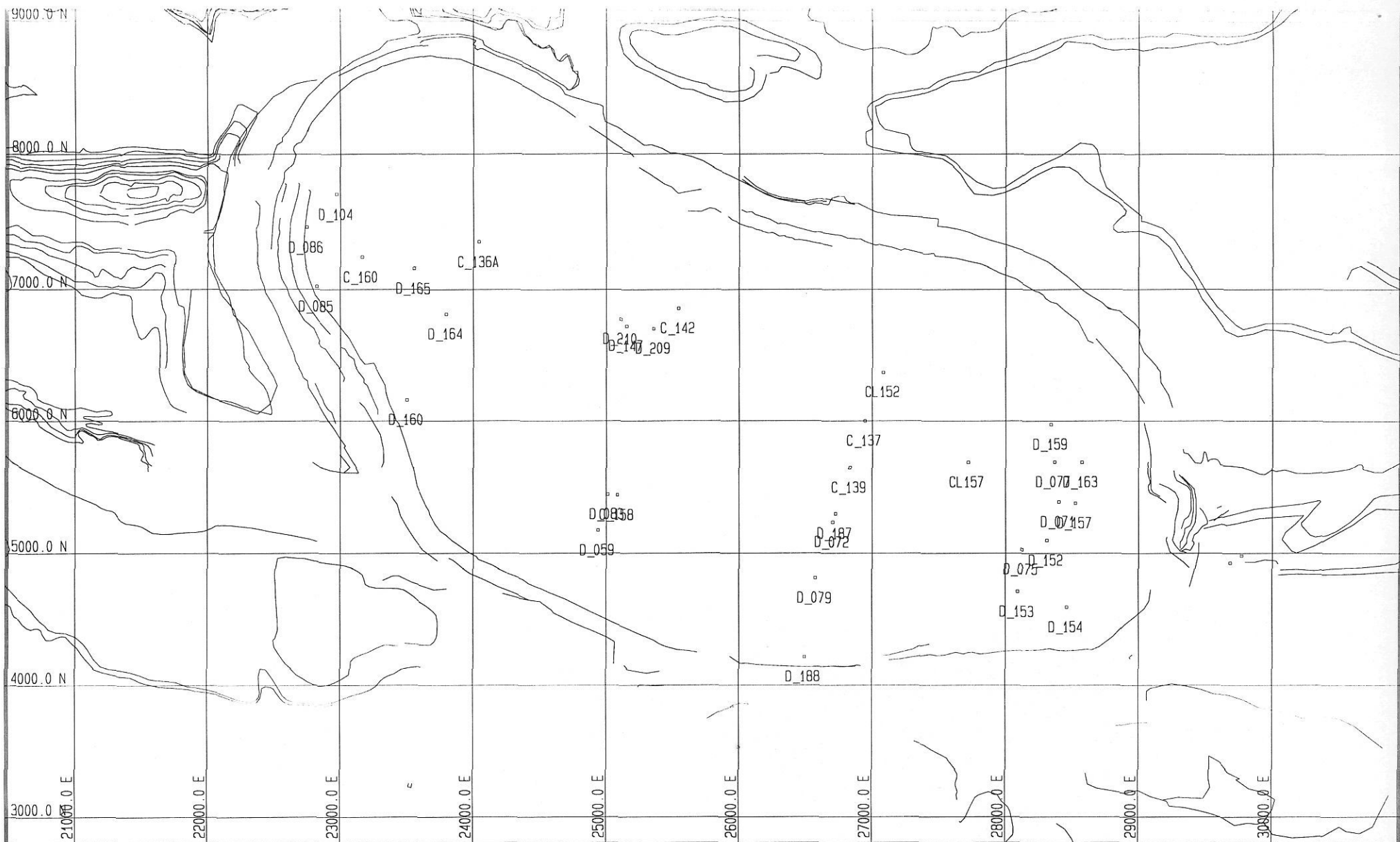
	C-142	250				volcanics, clotty chlorite in a sericite- chlorite-quartz groundmass, disseminated pyrite
		470	500			Yellow Dog overprint in sericite- chlorite altered volcanics
		640				sericite- chlorite alteration, quartz veins, sulphide on fractures, late calcite veinlets
	C158	200	201	206		intense quartz-sericite-clay overprint of chlorite-sericite, quartz veins in volcanics
		266				chlorite-pyrite clots in a sericite- chlorite-quartz groundmass, volcanics
		270				intense silicification of the same volcanics
		400	403			textural variation of the volcanic, plagioclase-phyric, actinolite-magnetite? altered groundmass appears to be transitional back to the clotty chlorite altered volcanics
		470				heterogenous, possibly a fragmental volcanic, quartz-chlorite-sulphide clots with albite-K-feldspar? rims in a quartz-albite? altered matix
		780				pervasive biotite alteration with quartz veins and disseminated sulphides
		782	907			an example of the uncommon quartz veins with a K-feldspar envelope, sericitic alteration and coarser sulphides
		1421				Yellow Dog overprint on volcanics
		1480				volcanic, actinolite-magnetite alteration, calcite-zeolite veins
		1530				volcanic, actinolite-magnetite alteration, calcite-zeolite veins
SECTION 187 W						
	C-136A	142				silicified volcanic with chlorite clots
		495	515	563		quartz-magnetite ? altered volcanic
		586				old green QFP
		635				volcanic
		829				volcanic
	D-160	325				volcanics, chloritized and intensely zeolite-calcite altered, some quartz vein fragments
		365				contact with QFP, some quartz-magnetite alteration of QFP at the contact
		370	375			non-magnetic QFP dyke, sharp lower contact at 419 with intense sericite- clay alteration
		420				chlorite-magnetite-quartz altered volcanics, cut by quartz-molybdenite veins
		467				obliterating sericite- clay-pyrite overprint on quartz-magnetite altered volcanic
		469				protolith to above alteration, intense quartz-magnetite , very little volcanic component, this is the beginning of a large body of marginal breccia
		566				marginal breccia, dominantlysheeted and massive quartz-magnetite
		715				marginal breccia with a higher proportion of volcanic rock than previous section
		768				small QFP dykelet in sharp contact with pervasively biotite? altered volcanics
		827				pervasive biotite-magnetite ? altered volcanics with disseminated chalcopyrite -pyrite
		892				pervasive biotite-magnetite ? altered volcanics with disseminated chalcopyrite -pyrite
		980				pervasive biotite-magnetite altered volcanics with disseminated chalcopyrite -pyrite and calcite-chalcopyrite veinlets, some quartz veins with irregular pervasive K-feldspar
		982				pervasive biotite-magnetite altered volcanics with disseminated chalcopyrite -pyrite and calcite-chalcopyrite veinlets
	D-164	30				intra or late mineral QFP, silicified or albitized?? groundmass, epidote pyrite alteration and intense pervasive zeolite alteration
		129	132	137		intra or late mineral QFP, albitized groundmass with an intense pervasive zeolite overprint
		185	188			magnetite is disseminated in the groundmass locally, but is generally lacking in this QFP
		200				molybdenite and chalcopyrite on a fracture surface
		224	227			intense clay alteration of a coarse QFP - possibly the older phase
		250	252			quartz-magnetite stockwork/breccia
		334	337			quartz-magnetite stockwork/breccia
		397				QFP with quartz-magnetite stockwork
		476	481	479		QFP with sheeted quartz-magnetite veins and partially digested inclusions of volcanic, pink colour due to primary K-feldspar
		530	536	542		QFP with intense quartz-magnetite stockwork
		691	694	695		pure quartz-magnetite , pyrite along fractures
		707				End Creek Fault/ cuts off the orebody
		730				volcanic with intense calcite-zeolite stockwork
		807				volcanic with intense calcite-zeolite stockwork
		895	897			fragmental volcanic with chloritic alteration and pyrite veinlets
		915				intense calcite-zeolite stockwork forming a crackle breccia in the volcanic

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		966				regional? propylitic alteration of volcanics, chloritic clots in an albitized matrix, disseminated magnetite??
		1161				volcanic with an aphanitic groundmass and rounded lapilli? of epidote chlorite-pyrite-calcite
SECTION 195 W						
	D-85	84	85	81		pyrophyllite-dumortierite altered volcanics
		110	120			possible precursor to the pyrophyllite-dumortierite rock - a clotty chlorite-albite /quartz altered volcanic
		143	165			pyrophyllite-dumortierite altered volcanics
		265				pyrophyllite-dumortierite altered breccia
		316				possible precursor a clotty chlorite-albite /quartz altered volcanic
		396				sericite overprint of pyrophyllite or chlorite stage
	D-86	35	40			pyrophyllite-dumortierite altered volcanics, some remnant chlorite
		96				pyrophyllite-dumortierite alteration developed on a breccia, QFP and quartz vein clasts are visible
		184	189			precursor breccia, predates the pyrophyllite-dumortierite
		199				intense sericite overprint, abundant quartz veining
		290	284	315		quartz-sericite alteration on volcanics
		335				sericite overprint on chlorite
		453				intense sericite- pyrite-quartz alteration and gilsonite? - black mineral
		476	481			clotty volcanic, ab/quartz groundmass with chloritic clots
		535	545	548		clotty volcanic, albitic rims on chlorite clots and along fractures
	D-104	88				fine grained volcanics with clotty chlorite in a quartz-sericite- chlorite altered groundmass minor epidote
		112				similar, coarser chlorite clots with pale albitic? or sericitic rims
		117	135			sericite- pyrite overprint on the chlorite alteration,
		185				weaker sericite overprint, chlorite clots are still visible, groundmass is more siliceous, pyrite in fractures and clots
		355				alternating quartz-sericite alteration and chlorite-sericite alteration in volcanics
		418				sericite- chlorite alteration, chlorite veinlets, later zeolite-calcite-pyrite-chalcocopyrite veinlets
		527				fine grained volcanics, silicified, pervasive actinolite-magnetite?
		666				pervasive biotite with a sericite overprint, quartz vein with a chlorite envelope and a quartz + magnetite? vein with no envelope
		727				chlorite overprint on pervasive biotite, some vague groundmass replacement by quartz and possibly K-feldspar, disseminated and blebby sulphides
		767				chlorite overprint on pervasive biotite, relict quartz-magnetite veins with albite envelope , disseminated sulphides
	C-160					old core, much missing
		127				fine grained featureless volcanics with intense pyrophyllite-sericite alteration
		137				intense pyrophyllite with some dumortierite
		430				intense sericite- clay altered QFP, texture barely recognizable, 10 m dyke
		450				intensely silicified, chlorite altered volcanic, sulphide veinlets
		775	860			fine grained volcanic, chlorite-sericite alteration, possibly overprinting pervasive biotite, disseminated sulphides?
Miscellaneous						
	D-165	141				late mineral? QFP, intense albite alteration of groundmass, coarse euhedral pyrite
		143	148	150		igneous? breccia with propylitic alteration, volcanic clasts in a possibly igneous matrix, both with pyrite-epidote alteration
		167				magnetite-rich, volcanic clast dominated marginal breccia
		287				quartz-magnetite-actinolite stockwork in volcanic, possibly pervasive biotite alteration in the larger clasts
		331	335	360	349	intense zeolite-epidote overprint of the breccia, volcanic clasts dominant, rare QFP
		523	537			marginal breccia with more QFP clasts than further up the hole
		637				sharp contact, intra-mineral QFP and breccia
		640				the QFP is chilled the first 2m from the contact, minor quartz-magnetite veinlets are

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	645				the QFP grades into a coarse grained variety with large (1cm) quartz eyes, salmon pink colour is due to pervasive zeolite alteration
	660				fresher QFP, pink colour is due to primary K-feldspar
	668	681	704		sharp contact between intra-mineral QFP and older quartz-magnetite altered volcanics
	803	815			typical sheeted quartz-magnetite veins, comprise 90% or more of the rock
	830				End Creek Fault cuts off the quartz-magnetite alteration
	857	862			volcanics with a stockwork of calcite-zeolite, generally highly fractured
	1020				fine grained volcanics, less zeolite alteration, disseminated mag in matrix?
	1052				propylitically altered volcanics, pyrite-epidote calcite-hematite, typical of propylitic alteration peripheral to the deposit
	D-210				very briefly logged to observe QFP/volcanic contacts and nature of QFP
	168				fine grained volcanic, non-magnetic?? in sharp contact with fresh QFP, minor
	171	164	175		examples of contact between rocks
	175				QFP, fresh K-feldspar groundmass, chloritized biotite, large body of intra or late-mineral porphyry
	356	366			QFP, locally silicified, locally overprinted by zeolite, quartz-molybdenite -pyrite veins, same to end of drill hole
Bay Lake Zone					
	E-92				hole goes through over 600 feet of intensely calcite-zeolite altered volcanics
	660				quartz stockwork increasing in intensely altered volcanics, chlorite/actinolite-magnetite with calcite-zeolite overprint
	701				sheeted quartz-magnetite veins, K-feldspar? or zeolite in volcanics
	755				sheeted quartz-magnetite veins, in chlorite/actinolite altered volcanics
	781	782	783		sharp, but intensely zeolite altered and crumbly contact with QFP
	798				very fresh QFP, primary K-feldspar matrix, weak zeolite overprint
	840				same QFP with zeolites replacing plagioclase phenocrysts
	909				QFP without the zeolites
	939	964			partially assimilated inclusion? this fine grained rock shows up sporadically in this QFP for less than 1 m intervals, in some cases quartz and plagioclase phenocrysts occur in it
	999				QFP/volcanic contact
	1029				actinolite-quartz-magnetite altered QFP, quartz-magnetite veins with intense zeolite
	1067				actinolite-quartz-magnetite altered QFP, quartz-magnetite veins with intense zeolite
**					
Four matching suites of rocks were collected, two for BHP, one for MDRU at UBC and one for the BC Geological Survey, therefore multiple footages are listed for samples that were collected further than one foot apart. Each suite will only have one sample.					



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DATE: 11/29/95 TIME: 11:21:40

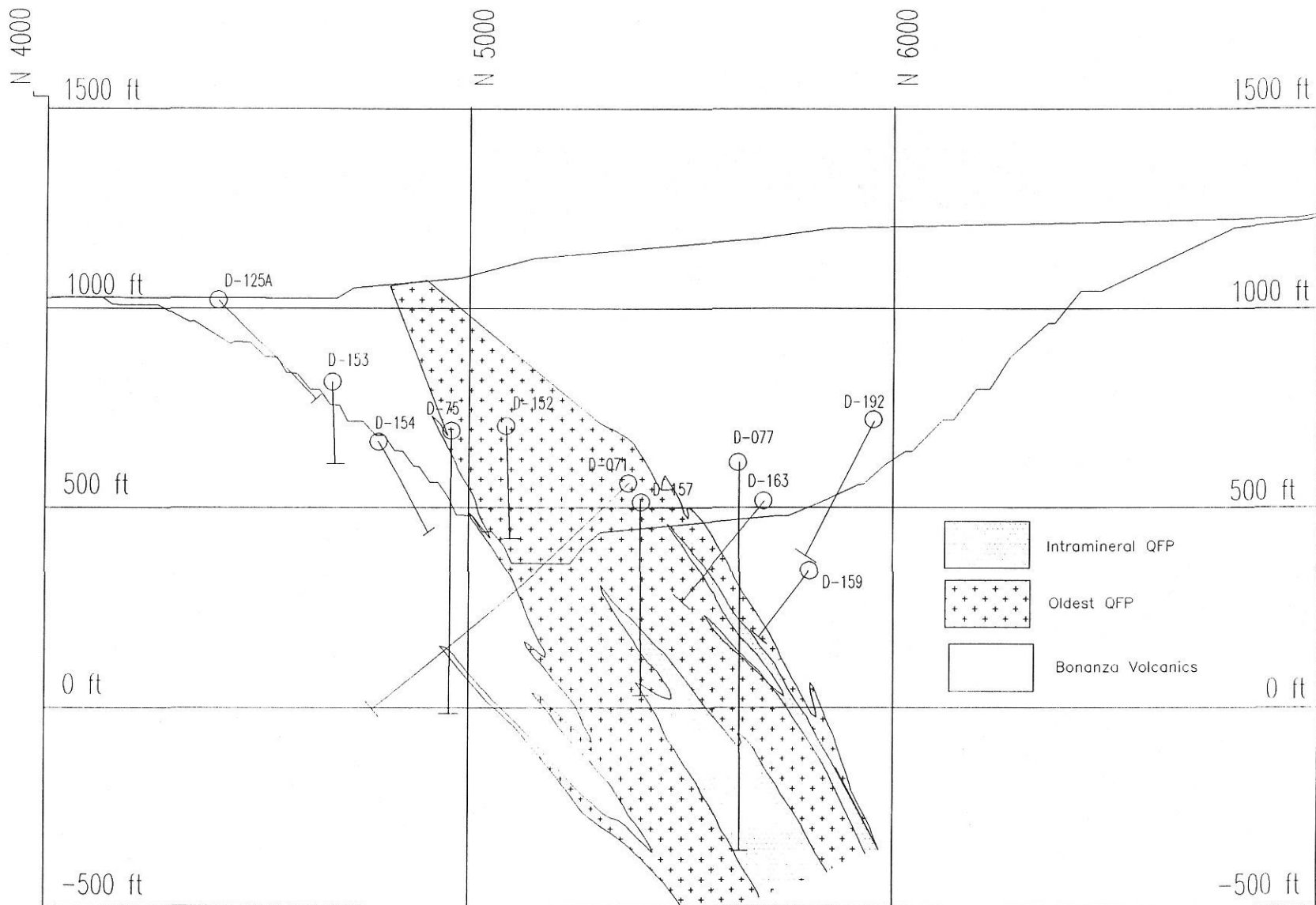
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ICM PIT CORE SAMPLING PROGRAM SAMPLED-HOLE LOCATIONS

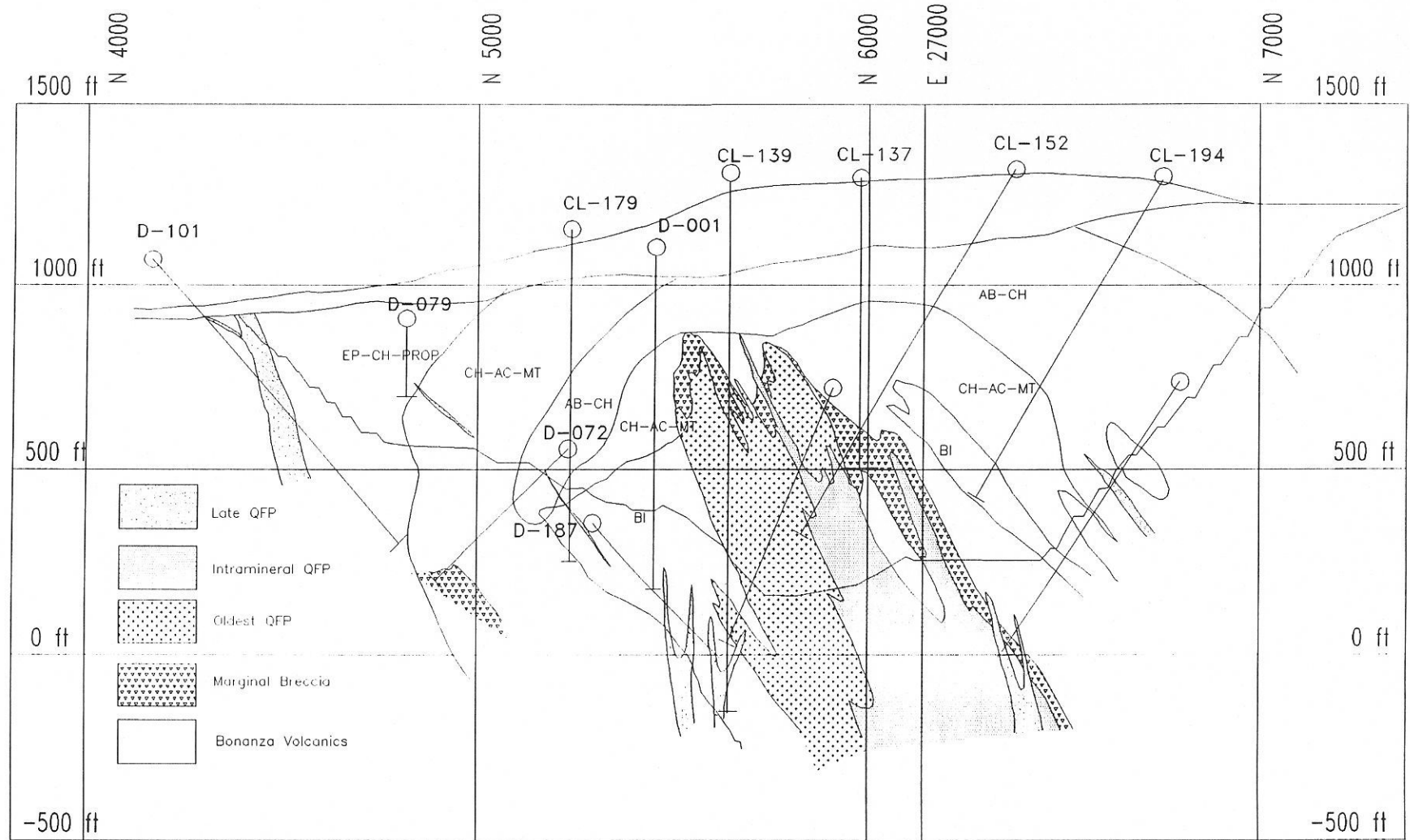
Holes Sampled November 17-22, 1995

To Accompany Report by Kika Ross

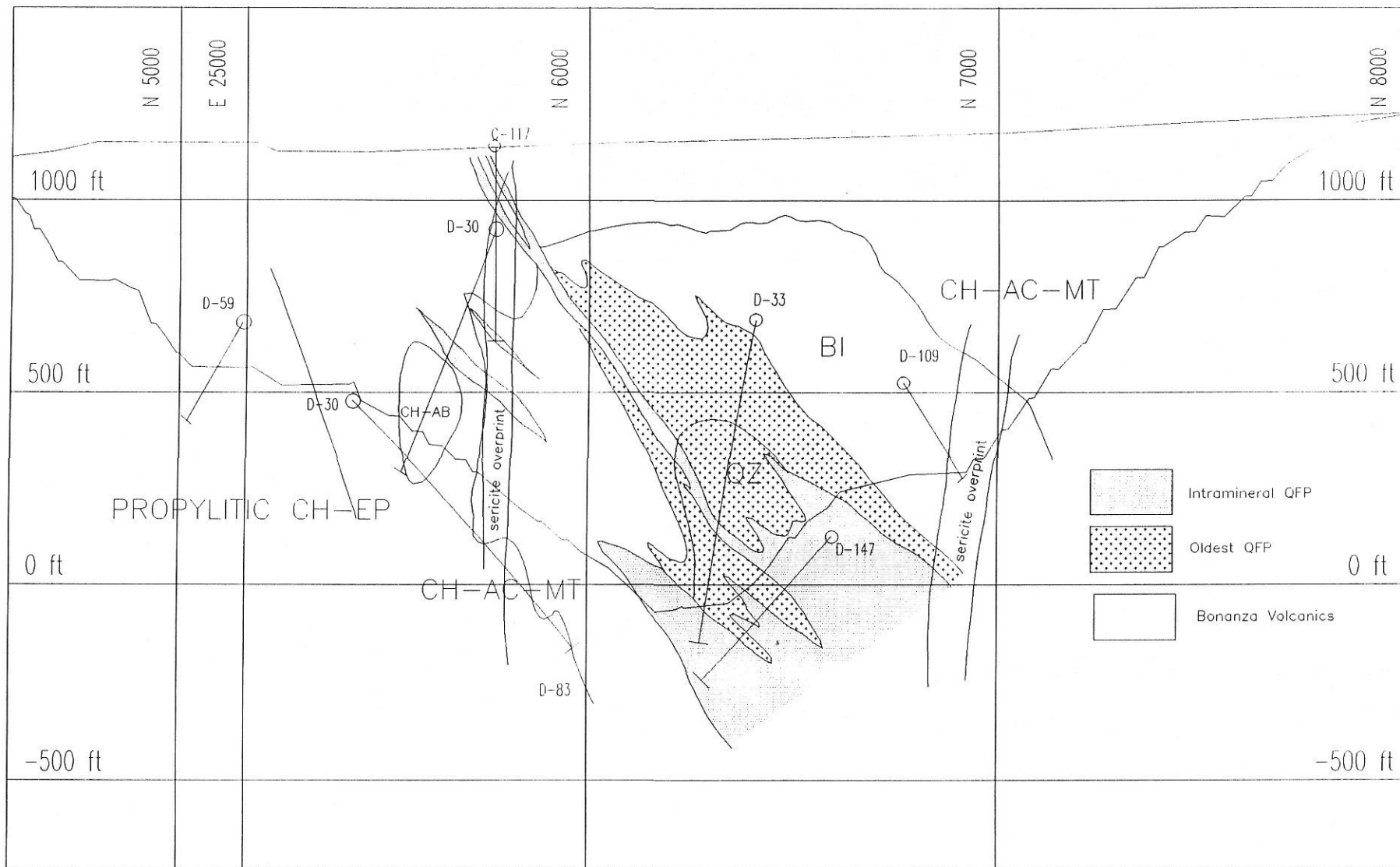
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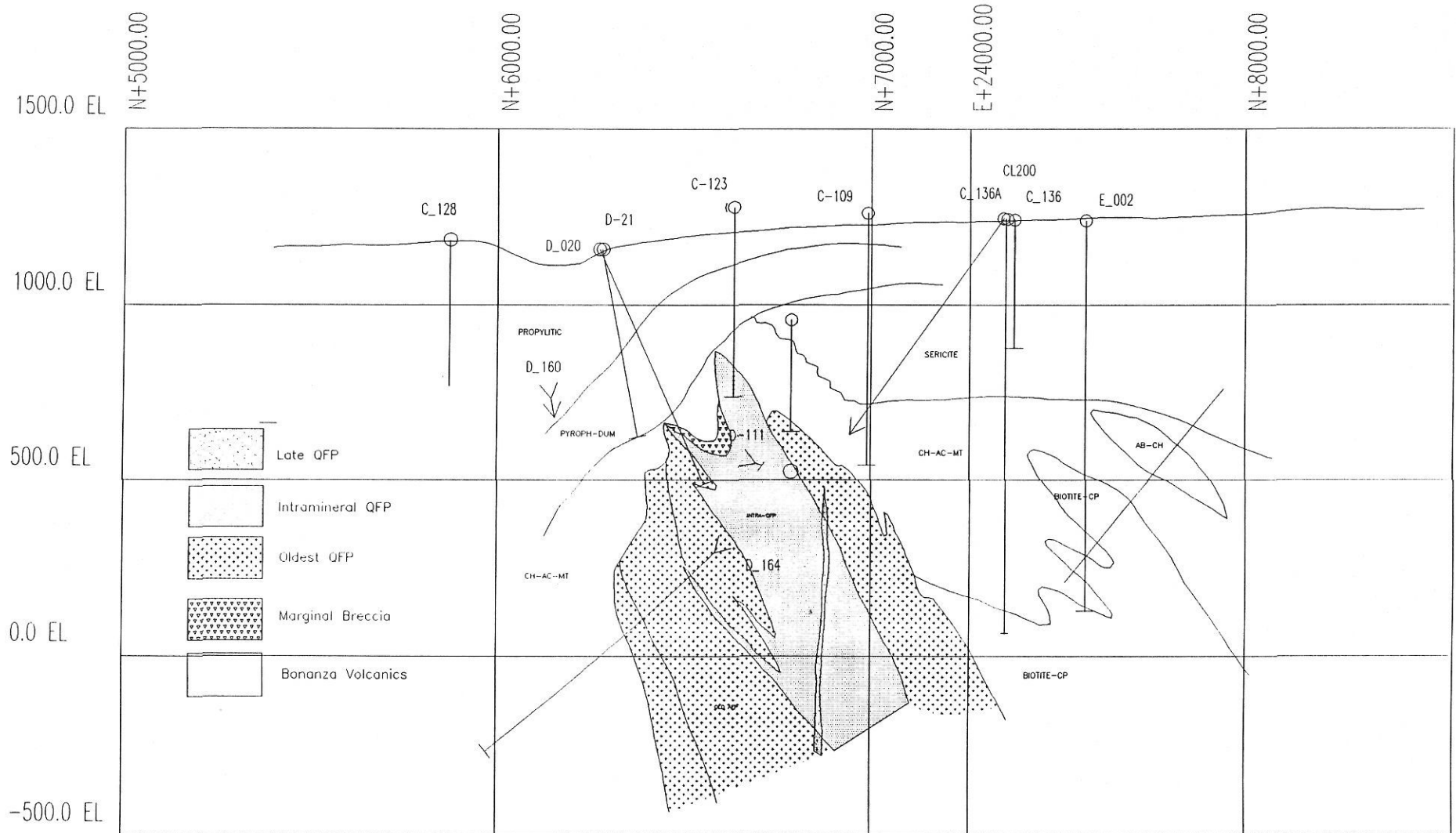
Cross Section 155



Cross Section 171



Cross Section 187



Cross Section 195

