HOLE NO. E 28
CASING COLLAR ELEV.: +231.5 GROUND ELEV.:
COORDINATES: 11413' N. 15739' E.
INCLINATION: -76° BEARING: 202°

PROJECT: Island Copper
DATE STARTED: 17 October 1974
DATE FINISHED: 24 October 1974
TOTAL DEPTH: 843'

PAGE NO: 1 OF 15
REF. TO CLAIM CORNER:
SCALE: 1" = 10'
LOGGED BY: PMK

012562

COMMENTS: Note - Sea level taken @ 1000'.

ALTERATION	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
			Q16	Overburden					NQ - WL			
Sil Tuff Bx silicified zone Sil Sericite Pyr dark andes run	very well shattered.			16-56 Siliceous Alt'd Andesite Medium to light grey but w few darker grey-green, less alt'd andesite runs. Some brown-purplish blotches - dissem hematite ? possibly some gils flooding through matrix ? Generally very silic - silicification + bleaching of andes. Some chlor alt'n remaining on some darker runs. Few fine calc viniets, qtz viniets, white alt'n viniets, bleaching. Some black dissem. of manganese ?, gils blotches areas. Dissem. + veined py Extremely well fractured, coarse grd.				87		20 30		<.2
Silicified Bx Pseudo Porphyritic chlor. alt'n vns in silic run,												
alt'd + tuff / tuff bx												
Yellow Dog Altn probably formerly tuff but now has appearance because of pyrite.	chlor alt'n, sericite gils			(Sp 50 yellow Dog Altn - mineralogy) (Tr malachite stn)						50		
altered Tuff Breccia	dark black - manganese? dissem.			(Sp 54 Yellow Dog tuff Bx - mineralogy).								
Yellow Dog Altn	purplish hem ?: stained			Yellow Dog strain [illegible]								<.2
Pseudo Porphyritic Calc Altn Tuff Bx	dark, muddy carbonaceous. 1/4" oblong. rd. chlor frags, fract'd through (E28-65) Sericite - Yellow Dog Altn			56-80 See following page						60		

HOLE NO. "E 28

CASING COLLAR ELEV.:

GROUND ELEV.:

COORDINATES: N. E.

INCLINATION:

BEARING:

PROJECT:

DATE STARTED:

DATE FINISHED:

TOTAL DEPTH:

REF TO CLAIM CORNER:

SCALE:

LOGGED BY: PMK

SECTION	ALTERATION / FRACTURING / MINERAL / GEOLOGY	COMMENTS	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
60 – 70 – 80	Shattered Int. XXXXXX; Yellow Dos Stain In Pseudo Porphyry; Breccia – Silica, sericite Pyrophyllite altn.; Pseudo Porph grey – mg fragments of xtals in an aphanitic matrix	Cataclastic texture? sericite (Sp. 72 Lithology) mangan dendrites silicif, darker-more hem. chlor andes spots.	56-80 Well bleached, alt'd Andesite Creme-white colour w. pale green sericite + white bleached alt. minerals, – esp. in vns. + spots. Faint purplish-red hematite dissem. through Some qtz frags + vnlets. Fine blk manganese? dendrites. Silicificat. of rx. evident in spots. Disseminated py throughout. Mod fracturing, med. gr'd.			92		80		
80 – 90 – 100		Tuff hem. spot cut by qtz vnlet w. orange alt. ring shattered, chlor, epid, qtz, calc vnlets.	80–100 Fragmt'l (Lapilli) Tuff ✓ dk/med. grey-green, fine gr'd matrix, well fractured. Pale orange creme calc. vns. Fine qtz vnlets. Hematite conc.'s w qtz, orange alt. ring. Epid altn along fracts, + w qtz vnlets, calc. Dissem. hematite through parts of core + in calc vns. Green chlor? vnlets in calc. Chloritic alt. through andesite Dissem. py.					90		<.2
100 – 110	Breccia – Former tuff frags? Silica & Pyrophyllite? Sericite altn.	dark carbonaceous vn. w qtz. hem stain. Altered tuff Bx (Sp 109. Pyroph?) andes bx frags	100–115. Silic Bleached ~~Fragmt'l Andesite~~ Breccia generally med. grey, siliceous colour w. areas of faint hematite stain + frags. of chlor green andes. Occas large (>1") andes. subrounded frag. Bleached creme + green areas mottled through grey. Fine calc vnlets, occas qtz vnlet.					110		
120			115-134 Fragmt'l (Lapilli) Tuff – Tuff breccia dark grey green. v. purplish-red. hematite overtones. throughout. Fine calc vnlets, some epid spots					120		<.2

HOLE NO.: E 28 | PROJECT: | PAGE NO.: 3 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | REF. O CLAIM CORNER:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY: PMK

SECTION	ALTERATION	FRACTURING	MINERAL	GEOLOGY	COMMENTS: / DESCRIPTIVE GEOLOGY	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
120				hem-calc frags.	115-134 Fragmt'l - lapilli Tuff Breccia cont'd from previous page Tuff Bx some frags with intrusive appearance. Some crumbly, gouge inlets. Dissem py. Weakly magnetic. (Sp 132 Lithology)								
130				crumbly vns, w some gouge									
				epid spotting									
	(Sp 142 Intr frags w/ intrusive appearance)			6" fine, light green alt'n	134-155 Alt'd, fragmt'l - lapilli tuff med grey-green w specks of dark green chlor andes, mottled spots of creme calc + purplish hematite overtones throughout. Epid Spotting. Few fine calc inlets. Occas. qtz vnlet. Chlor slips w calc.						140		
	Some frags w intrusive appearance			shear w calc, chlor, gouge.									
	Tuff Bx some frags & purplish matrix		Py	light grey matrix frags (Sp 145 Lithology)									
				mag. streak.									
150				blr (1/4") calc-chlor. frags & vns						90			∠.2.
				well shattered.	Disseminated py. through. Weakly magnetic, occas magnetite streak.						150		
				epid.	155-179 Bleached, silicified fragmt'l andesite (lapilli tuff)? med grey, silic matrix w. dark green chlor andes frags - most < 1/4", few > 1/2" subround-frags. Epid. Spotting - Fine calc vnlets, some frags White f'spar'? sub ang. frags. Dark carbonaceous vnlets. Hematite overtones, less pronounced than previously. Small qtz spots?								
160													
	Sil-Clay alt'n Fragmental Pseudo porphyritic appearance locally			white f'spar.? frags. Qtz grains cont scatt alt tuff frgs. sandy-lier chlor frags.							170		
170													
	altered tuff & Tuff Bx - w some pseudo porphyritic grains as above				(Sp 178 - Mineralogy). (Sp 170 - Lithology)								∠.2
XXX	Crushed zone -												
180											180		

HOLE NO. E 28

CASING COLLAR ELEV.: - GROUND ELEV.:

COORDINATES: N. E.

INCLINATION: BEARING:

PROJECT:

DATE STARTED:

DATE FINISHED:

TOTAL DEPTH:

REF. TO CLAIM CORNER:

SCALE:

LOGGED BY: PMK

COMMENTS: -

AVE CORE REC'Y / HOLE

SECTION	ALTERATION	FRACTURING	MINERAL	GEOLOGY	COMMENTS / DESCRIPTIVE GEOLOGY		% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
180	Thin tuff interbeds in tuff breccia				vnlet gouge, chlor. smear	179-218 Fragmental Andesite							
	Ep throughout				fined gr'd tuff interbedded w. beds of minute bx'd frags.	Dark grey-green w green epidote spotting and white calc veining. Some purplish hematite blotches. Small (<1/8") grey qtz frags. spotted throughout chloritic matrix. Occas. qtz vnlet. Vaguely bedded w. very fine gr'd, lighter grey-green tuff w zones of small angular tuffaceous frags. (bx'd + relithified?)							
190	Tuff Bx - l/m grn mott by purplish - post porph altered mottled; Fracts // to core or 10° off - qtz-sericite cut by later calcite				light grey-green w. blotches of light sericite hem. bleached andes. epid, py specks; calc, qtz vnlets								
	Tuff Bx										200		
	sil & Sericite; Pseudo porph appearance				lighter bleached run - seric hem. irreg. epid spots. Scatt[illegible] siliceous(?) fragments	Lighter grey-red zones of hem bleached andes. With epid spots, calc, qtz, chlor. Some sericite.			90				<.2
210	Ep		Py		chlor fragmt'l. w calc vns; epid, hem spots, py.	Dissem py, few vnlets. Weakly magnetic					210		
	XX				dark sphal. vnlets w calc.	Occas sphalerite vnlet in calc vn.							
	Crushed zone sil				slightly alt'd, silicified bx, calc vnlets, sericite								
220	XX sil crushed zone; sil			-	bx'd, minor clay alt'n, sericite	218-413 Fragmental Tuff. Medium grey-green, some mottling by purplish, fine gr'd, fair fracture density. Calcite veinlets crossing through core, occas vnlet w muddy dark carbonaceous mat'l. Few spots of red hematite. Occas qtz vnlet interbedded w calc vnlets, epid spots.							
230					calc vnlets.				90		230		
					epid - chlor frags.	233-255 - Vns. of calc studded w. sphal. xtals, some vn. formation bordering calc. in smooth grey green tuff.							
240		pale	Spl		sphal. specks + vnlets ← (SP 240 [illegible] sphal)						240		<.2

HOLE NO. E 28 | PROJECT: | PAGE NO: 5 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | REF TO CLAIM CORNER:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY: PMK

SECTION	ALTERATION	FRACTURING	MINERAL	GEOLOGY	COMMENTS: / DESCRIPTIVE GEOLOGY	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
240					218 - 413 Fragmental Tuff ✓ cont'd from previous page								
					sphal xtals in calc vnlet.								
					Disseminated pyrite								
250					Weak to no magn'tm								
					Tuff Breccia -								
					epid spots w. dark chlor specks.								
					abd fractured								
260		Cal lau			(Sp 263 fracture system for mineralogy & sequence) (Sp 263 red fracture filling for identification)						260		
													<.2
270	EP				abundant epid.- large clots. w. calc + qtz xtals, vnlets.						270		
					Tuff - Tuff Breccia - widely scattered fragments -								
					Mod fract - calc & laumontite filling -								
280					shattered								
					increasing number of dark chloritic frags.								
290	EP										290		
	↓												
	shattered zone				much epid, hematite staining.								<.2
300	↓				Sp vein - min - identification						300		

HOLE NO. E 28 | PROJECT: | PAGE NO: 6 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | REF TO CLAIM CORNER:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY: PMK

SECTION	ALTERATION	FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED

DESCRIPTIVE GEOLOGY

300

DH grey tuff intrusive — increas. hematite stain, w. epid.

218 - 413 Fragmental Tuff Breccia with some tuff intrusives: med. to dark grey green spotted w. apple-green epidote. Cut by few fine calc veinlets, occas. qtz vn. Red hematite stain streaked and blotched through matrix. Minor orange laum on fract surfaces. py. disseminated through epid-hem-calc.

Ep

310 — shattered.

much epid. small dark chloritic andes. frags. w. much epid, some qtz + calc.

320

Calc laum

dark green-purple-red due to increas. amt of hematite

Tuff Breccia — chlor & hematite rich intrusive intervals

Pervasive Epidote alt'n.

95

320

Ep

330 — med grey-green, much epid, some minor hematite. minor or laum on fract.

Tuff Breccia -

330

340 — increased hem. - streaks + dissem.; epid abundant. calc vnlets + frags.

Calc laum

Ep

350

350

Ep

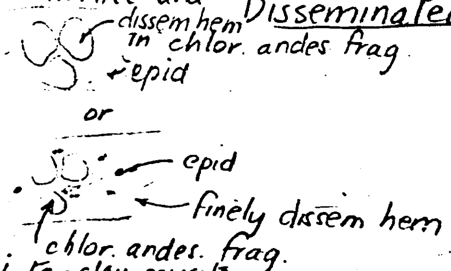
Tuff Bx - w tuff intrusives

360 — much epid masking through tuff, calc vnlets, some calc around andes frags.

360

HOLE NO.: E 28 | PROJECT: | PAGE NO.: 7 OF 15
CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | REF. TO CLAIM CORNER:
COORDINATES: N. E. | DATE FINISHED: | SCALE:
INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY: PMK

SECTION	ALTERATION	FRACTURING	MINERAL	GEOLOGY	COMMENTS	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
360–380	Ep; XXXX crushed zone; Tuff or intr? (Sp 375)		Calc hem		(Sp 374 Identify veinlet.) Well indurated Tuff Bx. alt'd white, calc frags, surrounded by hem. hem. band containing tuffaceous frags.	**218–413 Fragmental Tuff Breccia** chloritic & hematitic matrix, chloritic & hematitic fragments. med grey green w few darker green chloritic zones; fine gr'd but w. speckles of epidote throughout. Occas. dark chloritic frag. some > 1". Hematite staining – finely dissem + mottled through matrix often around the frags. Much epid in vnlets, small frags. + masking through matrix around chlor. frags. surrounded by hem. in places. Occas. calc + pale orange zeol. vn. Few crumbly, alt'd vns. Occas qtz frag. slightly silic matrix.			97		380		<.2
380–390	Ep				fine calc vnlets. darker green 2' slightly mag'tc						390		
390–400	Ep		Calc hem		small epid specks. hem. around chloritic and frags	Disseminated pyrite							
400–413	Ep; XXX Crushed				alt'd white - clay, sericite vns. w. py, hem, calc-qtz						410		
413–420	XXXXX Shattered.				Shattered.	**413–445 Hematite-Rich Fragm'tl Andesite Tuff Breccia** Dark grey-green, med gr'd, extremely well fractured. Dark purplish-red hematite as frags.					420		<.2



HOLE NO. E 28 | PROJECT: | PAGE NO: 8 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | REF TO CLAIM CORNER:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY: PMK

SECTION	ALTERATION	FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED

DESCRIPTIVE GEOLOGY

420

dissem hem
chlor frag.
crumbly, alt'd vn.
(Soapy when Sp 429 for silicification)
dark purple-red matrix w. occas andes frag.
calc-laum vn

413-445 fragmt'l Andesite (cont'd)
or else surrounding green chlor andes frags
Occas. calc vn, orange laum
Dissem py.
Tuff Breccia, chloritic and hematitic fragments in a chloritic & hematitic matrix

Cal laum

430

87

440

Crushed zone

445

Hem

abd shattered zone

hem. frags

epid alt'n of matrix around chlor. andes. frags.

calc vns.

445-462 Fragmental Andesite Tuff Bx
med grey-green, med-gr'd, fair fracturing.
Abundant <½" andes. frags, outlined by calc vnlets + white alt'n, epid alt'n Some hem frags. & hematitic zone at top of int

92

450

Ep Chl

460

shattered zone

462-479 Fragmental Andesite Tuff bx & Tuff.
med. grey green cut by white and pale orange calc + laum vns. Spots of light green epid., dark red-purple hematite and dark green chloritic andes. frags (1" / < 1/8") Some andes. frags. in calc vns. + flooding of matrix.
Med. gr'd, mod. fracturing.
Dissem py.

470

"salt + pepper" epid, chlor + hem in lighter green matrix

Ep Chl.

fine qtz unlets
calc-laum unlets.

480

<.2

490

HOLE NO. E 28

CASING COLLAR ELEV.: GROUND ELEV.:

COORDINATES: N. E.

INCLINATION: BEARING:

PROJECT:

DATE STARTED:

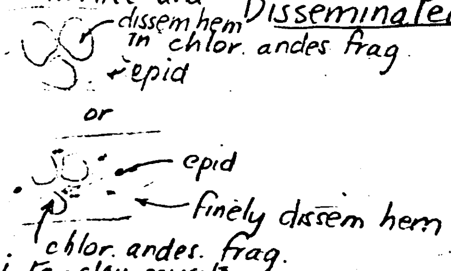
DATE FINISHED:

TOTAL DEPTH:

REF. TO CLAIM CORNER:

SCALE:

LOGGED BY: PMK

SECTION	ALTERATION	FRACTURING	MINERAL	GEOLOGY	COMMENTS	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
360–390	Ep ↑↓; xxxx crushed zone; Tuff or intr? (Sp 375); Ep	Calc hem	(Sp 374 Identify vein ?)		Well indurated Tuff Bx. alt'd white, calc frags, surrounded by hem. hem. band containing tuffaceous frags. fine calc vnlets. darker green 2' slightly mag'tc	**218-413 Fragmental Tuff Breccia** chloritic & hematitic matrix, chloritic & hematitic fragments. med grey green w few darker green chloritic zones; fine gr'd but w. speckles of epidote throughout. Occas. dark chloritic frag. some > 1". Hematite Staining - finely dissem + mottled through matrix often around the frags. Much epid in vnlets, small frags. + masking through matrix around chlor. frags. surrounded by hem. in places. Occas. calc + pale orange zeol. vn. Few crumbly, alt'd vns. Occas qtz frag. slightly silic matrix.			97		380; 390		<.2
390–413	↑ Ep; xxx Crushed	Calc hem			small epid specks. hem. around chloritic and frags. alt'd white - clay, sericite vns. w. py, hem, calc-qtz	Disseminated pyrite 					410		
413–420	XXXXX Shattered				Shattered.	**413-445 Hematite-Rich Fragm'tl Andesite Tuff Breccia** Dark grey-green, med gr'd, extremely well fractured. Dark purplish-red hematite as frags.					420		<.2

HOLE NO. E 28 | PROJECT: | PAGE NO: 8 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | REF TO CLAIM CORNER:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY: PMK

SECTION	ALTERATION	FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED

DESCRIPTIVE GEOLOGY

420

dissem hem
chlor frag.
crumbly, alt'd vn.
(Soapy when Sp 429 for silicification)
dark purple-red matrix w. occas andes frag.
calc-laum vn

413-445 fragmt'l Andesite (cont'd)
or else surrounding green chlor andes frags
Occas. calc vn, orange laum
Dissem py.
Tuff Breccia, chloritic and hematitic fragments in a chloritic & hematitic matrix

Cal laum

430

87

440

Crushed zone

445

Hem

abd shattered zone

hem. frags

epid alt'n of matrix around chlor. andes. frags.

calc vns.

445-462 Fragmental Andesite Tuff Bx
med grey-green, med-gr'd, fair fracturing.
Abundant <½" andes. frags, outlined by calc vnlets + white alt'n, epid alt'n Some hem frags. & hematitic zone at top of int

92

450

Ep Chl

460

shattered zone

462-479 Fragmental Andesite Tuff bx & Tuff.
med. grey green cut by white and pale orange calc + laum vns. Spots of light green epid., dark red-purple hematite and dark green chloritic andes. frags (1" / < 1/8") Some andes. frags. in calc vns. + flooding of matrix.
Med. gr'd, mod. fracturing.
Dissem py.

470

"salt + pepper" epid, chlor + hem in lighter green matrix

Ep Chl.

fine qtz unlets
calc-laum unlets.

480

<.2

490

HOLE NO. E 28 | PROJECT: | PAGE NO: 9 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | REF TO CLAIM CORNER:

COORDINATES: N. E | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY: PMK

SECTION	ALTERATION	FRACTURING	MINERAL	GEOLOGY	COMMENTS:	DESCRIPTIVE GEOLOGY	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
480						479-519 Altered Fragmt'l Tuff, mg, med. grey-green w. abundant apple green epid alt'n throughout matrix - in small spots + irregular alt'n of matrix. Much purple-red hematite also mottled and fused(?) through. Few white calc crossing through core occas. qtz unlet. w frags. Dissem py.								
	Crushed	Calc Lets		Several crushed zones Calcite infilling										
490	Crushed													
	Crushed													
500	Abd fractured/brecciated				darker-grey green - little epid or alt'n	499-506 Run of darker grey green fragmt'l tuff. Little epid, some hematite. Few calc + qtz uns.				92		500		
	Ep				qtz.-calc unlets.	Tuff, epidote alteration Abundantly fractured.						510		4.2
510	Ep chl.					Tuff Breccia								
520														
	Hem				deep red-purple hematite stain ✓	519-551. Hematite stained Fragmt'l Andesite Tuff Breccia med. grey-green w. areas of deep purple-red hematite stain. fused through matrix. Sub angular chloritic frags. occas. frag. is hematite stain. Minor amts of epid. alt'n around frags. Fine calc + few orange lawn veinlets. Occas. milky qtz unlet. Abundant frags. in alt'd andes. matrix. Dissem. pyrite. Little or no magn't'sm						530		
530	Ep chl.				good fragmt'l. chlor, hem frags in epid alt'n. epid spots. patches of hematite stain, chloritic alt'n									
540	Fract'd											540		4.2

HOLE NO. E 28 | PROJECT: | PAGE NO: 9 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | REF TO CLAIM CORNER:

COORDINATES: N. E | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY: PMK

SECTION	ALTERATION	FRACTURING	MINERAL	GEOLOGY	COMMENTS:	DESCRIPTIVE GEOLOGY	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
480						479-519 Altered Fragmt'l Tuff, mg, med. grey-green w. abundant apple green epid alt'n throughout matrix - in small spots + irregular alt'n of matrix. Much purple-red hematite also mottled and fused(?) through. Few white calc crossing through core occas. qtz unlet. w frags. Dissem py.								
	Crushed	Calc Lets		Several crushed zones Calcite infilling										
490	Crushed													
	Crushed													
500	Abd fractured/brecciated				darker-grey green - little epid or alt'n	499-506 Run of darker grey green fragmt'l tuff. Little epid, some hematite. Few calc + qtz uns.				92		500		
	Ep				qtz.-calc unlets.	Tuff, epidote alteration Abundantly fractured.						510		4.2
510	Ep chl.					Tuff Breccia								
520														
	Hem				deep red-purple hematite stain ✓	519-551. Hematite stained Fragmt'l Andesite Tuff Breccia med. grey-green w. areas of deep purple-red hematite stain. fused through matrix. Sub angular chloritic frags. occas. frag. is hematite stain. Minor amts of epid. alt'n around frags. Fine calc + few orange lawn veinlets. Occas. milky qtz unlet. Abundant frags. in alt'd andes. matrix. Dissem. pyrite. Little or no magn't'sm						530		
530	Ep chl.				good fragmt'l. chlor, hem frags in epid alt'n. epid spots. patches of hematite stain, chloritic alt'n									
540	Fract'd											540		4.2

HOLE NO. E28 | PROJECT: | PAGE NO: 10 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | REF TO CLAIM CORNER:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY: PMK

SECTION	ALTERATION	FRACTURING	MINERAL	GEOLOGY	COMMENTS:	DESCRIPTIVE GEOLOGY	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
550	Chlor Abd fract throughout				more chlor. frags + chlor. alt'n of matrix Hematite in matrix	519-551 Hematite-Stained Fragmental Andesite – Tuff Breccia- see previous page. occas. vn. of alt'd matl'l - calc, qtz, minerals								
560	Chlor-				hem streak laum-calc vns.	551-565 Fragmental Andesite Tuff Bx w some intbd tuff beds. dark grey green - chlor-rich matrix frags. many frag's (<½") Some hematite streaks. Fine calc + laum veining Small amts. epid alt'n selective in matrix. Dissem py. Well fractured, med grid.				87		560		
570	Ep Chl	Ep Cal Lau			calc vns; hem-epid alt'n bx frags. fine qtz vnlets. dark carbonaceous 'beds' slipped w. calc-qtz vnlets	565-580 Fragmental Tuff. Med grey-green, fine grd fragmt'l tuff. Mod fracturing. Epid alt'n in veinlets + spots. Sub ang frags - darker than matrix. Frags >1" Some hematite w. epid. Some calc veining						570		4.2
580	Abd fract Ep Chl	Ep Cal Lau			few calc-geol. vns darker grey-green, very fine grd tuff well fract'd.	580-709 Fragmental Tuff Medium grey green w. some darker runs. Abundant apple green epidote alteration - in fine veinlets - in fractures, and speckled through matrix. Occas. calcite veinlet crossing through core. Minor amts of qtz in fine vnlets. Fine grd, well shattered to 600. Dissem - py throughout.						590		
600	Abd fract											600		4.2

HOLE NO. E 28 | PROJECT: | PAGE NO: 11 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | REF TO CLAIM CORNER:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY: PMK

COMMENTS: –

AVE CORE REC'Y / HOLE

SECTION	ALTERATION	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
600				dark grey-green	580–709 Fragmental Tuff dark grey green to 605' then med. grey-green w. increased amts. epidote in veinlets + speckled through matrix generally few calc-laum-qtz veinlets. very fine grained. Fair fracturing from 600							
610				med grey-green much epidote								
620										620		
630	Ep Chl	Ep Calc laum			Tuff, int m + l grey grn, spotted by epidote + cut by epidote stgrs – on veinlets – Late calc + laumanite veinlets –			92		630		<.2
640	Ep Chl	Ep Calc laum		calc vns, some bx with calc-qtz frags. bx vein 4" - calc-qtz in alt'd mins.	Tuff, m grey grn with d + lighter grn. – massive – Epidote in fracts – + spots –							
650				qtz-calc vns - flooded through andes + epid. moly? vn. slightly alt'd - crumbly in fracts. qtz-calc.	Abd shattered –					650		<.2
660										660		

HOLE NO. E 28 | PROJECT: | PAGE NO: 12 of 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | REF. TO CLAIM CORNER:

COORDINATES: N. E. | DATE FINISHED: | SCALE

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY: PMK

SECTION	ALTERATION	FRACTURING	MINERAL	GEOLOGY	COMMENTS:	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
660	Ep Chl	Cal Lam			AVE CORE REC'Y / HOLE								
					well shattered.	580-709 Fragmental Andesitic Tuff epid veining through medium grey-green andesitic tuff.							
670					much epid veining	well shattered 660-680							
					mirror hematite dissem in epid.	Calc + qtz veining - qtz replacing calc ? in vns. - 2 fused together or white zeolite w. calc.							
XXXX	Brecciated Zone										680		
	Ep	Cal Lam	Py		well b'x'd. - calc-qtz fspar frags w. epid in tuff - 2%	Tuff - some tuff bx - abd frag - Epidote altn Diss py			87				<.1
690	Ep Chl	Ep (Cal Lam)			streaks of hematite ¼" vn. grey qtz frags. bdd. by orange laum + calc.	Tuff. m grey grn, massive Sp @ 694 bedding tuff (flow ??)					690		
					calc.-qtz vn w. grey carbonaceous ? coating	Ep altn - spots + fracture filling							
700					3" calc-qtz flooding through epidote tuff.								
710					qtz + calc frags in ½" vn.	709-727 ~~Fragmental~~ Tuff massive Med grey green spotted + veined w epidote Fair fracture density, fine grained. Occas. white qtz + calc veinlet. Disseminated py.					710		<.1
720											720		

HOLE NO. E28 | PROJECT: | PAGE NO: 13 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | REF. TO CLAIM CORNER:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY: PMK

SECTION	ALTERATION	FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
					DESCRIPTIVE GEOLOGY								

720

Ep Cl — Ep (Cal Lau) ✓ — Sp 715 orange bleaching around epid vn.

709-727 ~~Fragmental~~ Tuff, massive Medium green, epidote spotted altn — & epidote in fractures

730

Ep Cl — Cal Lau

727-740 ~~Fragmental~~ Tuff - massive dark grey-green, fine gr'd, fair fracturing. Epid. spotting + veining Some fine calc veinlets. Occas. orange zeol. Little dissem py.

92

740

Ep Cl Cal Lau — Crackle zone.

pale red-orange bleaching. (Sp 742 Thick 10' wide)

740-744 {~~Intrusive~~? Fragmt'l Tuff - light grey green, Near intrusive contact bleached. fine gr'd w. pale red hem. + buff bleaching. Minute specks of chlor; epid. altn Fine calc vnlets. occas., minor qtz vng

<0.1

750

744-834 Fragmental Tuff Breccia

qtz-calc 1" calc vns x calc vns

Ep Cl Cal Lau

occas. dark frags. > ½"

medium grey-green w. mottled areas of lighter grey green colour. Fine gr'd, low fracture density. & m/dk purplish grey frags

Epidote alteration in veinlets and spots fused through matrix. Minute chloritic specks. Some large chloritic andesite frags.

Few fine calc + orange zeol vnlets.

Occas qtz vnlet or fragment.

Minor occurence of hematite -

95

770

Ep Cl — Cal Lau — qtz-calc vning

Disseminated pyrite

<0.1

780

HOLE NO. E 28 | PROJECT: | PAGE NO: 14 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | REF TO CLAIM CORNER:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY: PMK

SECTION	ALTERATION	FRACTURING	MINERAL	GEOLOGY	COMMENTS: — AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED

DESCRIPTIVE GEOLOGY

780

744 – 834 Fragmental Tuff

see previous page.

increasingly more fragmental. Generally dark chloritic frags. in lighter green tuff. Hematite staining in few frags. Fine calc & qtz veinlets - w. frags. in vn.

Epid. alt? in minute subround + angular xtals - <1/16" replacing fspar, qtz + some chlorite ?

subangular chloritic frags.

buff fspar + qtz frags.

small lathe-like (<1/16") white + buff xtals. qtz + fspar.

calc vn. w. small qtz frags.

Sp @ 799 – massive tuff? flow?

790

epid. alt? around med green frags

hematite

med. green w. epid blotches.

800

810

95

pale orange geol. in fracts.

epid in <qtz - fspar chlor xtals (<1/16")

hematite stain - in dark frags + matrix

Ep alt in pervasive & in fracts – 817 – 834

Tuff & Tuff Bx – m grn grey & m grey with purplish tint, cntbd. mass in tuff & Tuff bx

820

Ep

Cal Lau

qtz flooding vn. around andesitic frags.

qtz veinlets.

830

840

Tuff Bx – xtal Tuff frags

834 – 843 Fragmt'l Tuff

similar to above: med grey-green, med gr'd, small chlor. andesite, qtz, fspar xtals. specks

Chl Ep

Cal

< 0.1

HOLE NO. E 28 | PROJECT: | PAGE NO: 15 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | REF. TO CLAIM CORNER:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY: PMK

SECTION	ALTERATION	FRACTURING	MINERAL	GEOLOGY	COMMENTS: / DESCRIPTIVE GEOLOGY	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
840					Throughout. Epidote blotches. Hematite smears through matrix.								
					843 - End of hole.								

COORDINATES: 11413 N 15739 E E 28

COLLOR ELEVATION: 1231.5' LENGTH: 843 ft.

INCLINATION: -76° BEARING: 202° Az

	Sample Footage	ASSAY % Cu	% Mo
1			
2			
	20-30	.04	.001
5	50-60	.08	.000
6			
7	80-90	.05	.001
8			
9	110-120	.04	001
10			
11	140-150	.05	.000
12			
13	170-180	.06	.000
14			
15	200-210	.06	.000
16			
17	230-240	.11	.003
18			
19	260-270	.05	.001
20			
21	290-300	.06	.001
22			
23	320-330	.04	.001
24			
25	350-360	.06	.001
26			
27	380-390	.06	.001
28			
29	410-420	.06	.007
30			
31	440-450	.05	.001
32			
33	470-480	.05	.001
34			
35	500-510	.06	.001
36			
37	530-540	.05	.001
38			
39	560-570	.05	.001

	Sample Footage	ASSAY % W	% Mo
1	590-600	.05	.001
2			
3	620-630	.05	.001
4			
5	650-660	.05	.001
6			
7	680-690	.05	.001
8			
9	710-720	.05	.002
10			
11	740-750	.06	.004
12			
13	770-780	.05	.002
14			
15	800-810	05	.002
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			