Kennecott Canada Exploration Inc.

1997 GEOLOGICAL, GEOCHEMICAL, GEOPHYSICAL, AND DIAMOND DRILLING ASSESSMENT REPORT on the IRISHMAN CREEK OPTION

VOLUME 2

- **DIAMOND DRILL HOLE LOGS (ORIGINAL)**

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- Date of report -
May 29, 1998

File: 97irishman-asst-rpt.doc

Appendix VII

Diamond Drill Hole Logs (original)

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Project: MOYIE, IRISHMAN BLOCK　Mining Division: FT. STEELE　Purpose: TEST OF GRAVITY ANOMALY.

Location: ≈ 5458640 UTM northing　Elevation: ≈1775m　Drilling Contractor: LONE RANGER
≈ 564220 UTM easting

LANDMARK LOCATION: SPRUCE TREE, METAL TAG: HOLE COLLAR 26.3m @ 090° FROM SPRUCE TREE.

Hole test:

From	To	Azimuth	Dip
2500 (762.0m)	2500 (762.0m)	ACID TEST	84°

Hole No: 97K-02　Collar Azimuth: 0°　Collar Dip: 90°

Total Depth: 762.0 m　% Recovery: 98.9%
Core size: NQ

Logged By: James Ryley
Start Date: Aug 06, 1997
Finish Date: Aug 22, 1997

Intensity Modifiers: T = trace/weak　W = weak　M = moderate　S = strong

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fre	Mineralization: poo	pyy	gal	sph
	The graphic log displays primary and secondary features (lithology and alteration). Boldness increases, as a result of a change in lithology or hydrothermal alteration, are reflected by graphic form extension to the right. These profiles are to be viewed as per text & attention.	Scale 1:100													
10m	0 - .91m overburden (1.0)		.91m												
	.91 - 3.05 med through with HQ case casing set to 3.05m. Core recovery began at 3.05m (2)														
	3.05 - Quartzitic Wacke (3)														
	Middle Aldridge Formation sediments, hole collared approximately 80 metres below the Kid marker (4, 5)														
25°	light - medium gray fine [illegible] typically graded on 1-3m scale with 10-30cm light grey-white well sorted medium grain planar bases which have sharp upper contacts and transitional (6, 7)		occasional 1-3mm [illegible] wacke; 6.15 - 7.39 marker?												

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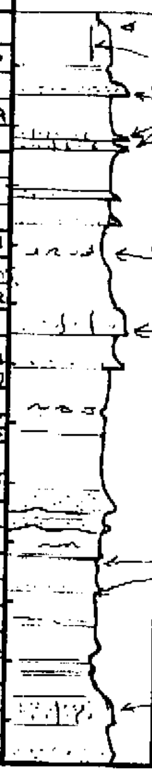
DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
10° frac.	to disrupted lower contacts. Sediments fine ... predominantly is fine grained moderately sorted medium (8) grey quartz wacke with 2-5% disseminated [illegible] [illegible] (after [illegible] sediment). Laminated to thin (9) planar to undulatory beds of medium-dark grey subwacke typically terminate the sequence. 5-20cm interbeds are not uncommon. Subwacke is very fine grained (10) argillaceous siltstone (siltite) with minor bronze grey-black argillite. Subwacke is planar to locally lenticular (11) and disrupted with load casted ripples and cross-ripple lamination. (12)		— marker ? base — open albitized fracture — 2-3cm aggregate biotite, po, trace cpy, limonitic bands, calcite-lined fractures — load casts, [illegible]		W							W			
	Light grey-white intervals are hard, siliceous, commonly contain 1-5/cm bands coarse aggregate biotite, minor pyrrhotite, open and healed calcite/limonite lined fractures (13) and weak-moderate K-spar (potassic) alteration characterized by 1-3mm subhedral to locally pervasive pink patches (14)		— fractured												
[illegible] bedding	(15)														
	16.33 - 16.45: Analyzed marker interval (16)		— micro laminae (possible marker with minor disrupted interval)												
	17.40 - 18.10: 10-15cm bands slump disturbed beds of v. thin [illegible] (17)														
	18.07, 18.34: 5-10cm intervals planar biotite-rich laminae colour bank (dk grey/white) (18) (19)		— healed fractures												

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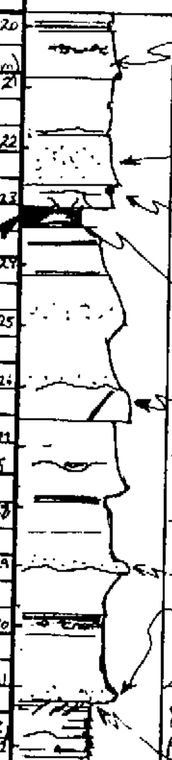
DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description
parallel TCA, open healed fractures, local sulphide min'zn	Relatively compact quartzitic wacke from 19.45 to 29.60 m; minor intercepts (10-15 cm) graded greywacke with lenticular to ... laminae ... greywacke (biotite-rich). Beds are typically ... at the base and slumped tops. Contact with overlying quartz wacke is distinct. Minimal turbidite activity, disruption appears to be distal owing to lack of dynamic disruption of beds.
10° @ 24.22 (vein)	22.97–23.35: 2 cm strongly chloritic calc-silicate veinlet, friable selvage, locally 20-30% biotite/muscovite development. * Occasional 3-5 mm blebs hematite, chalcopyrite and lesser malachite in irregular discontinuous calc-silicate veinlets to 1 cm wide at high angle to core axis (TCA)
85° bed	26.21–26.62: Strong garnet development (pink) in qtz wacke as 5-10 mm blebs at upper contact of qtz veinlet. Veinlet is open with abundant iron-oxide and bleaching (albitite) as an alteration envelopes, dendritic MnO. U & L contacts bound by biotite-rich laminae, trace pyrrhotite

Graphic Log (20–32 m)



Metre/Notes

- hard qtz-rich concretion, bio 20A2 ...
- biotite poor gray-white massive qtz wacke
- healed fractures, weakly calcareous.
- lower contact with min'zn @ 50° TCA.
- high angle 1 cm dilatant qtz vein, strong garnet development.
- biotite-rich
- ex. hard white medium grain qtz wacke, siliceous, 2-1 cm qtz veins, minor pyrrhotite, fe-ox broken core.

Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
		S	W		S		M				
				S							
	W		W					W			

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
15° frac	31.22 - 35.06: v. fine grained qtz wacke to subwacke, thinly bedded graded medium to light gray planar bands siltite with laminae argillaceous siltite interbeds, Rare 3-5 cm convoluted argillaceous beds		broken core; 33.18 silicic; 33.60 qtz wacke, fe-ox stain												
	convoluted to lensoidal subwacke/wacke		35.39												
	35.18 - 35.69: Analyzed marker interval														
	38.16 - 38.26 limonitic fractures, dendritic MnO		fractures parallel TCA.												
85°	* 38.43 - 38.71: possible marker interval		38.76												
10-15° frac	thinly interbedded, medium-dark grey subwacke		numerous limonitic fractures possible albite alteration envelopes; 40.81; 41.04												
	biotite-rich rip-up clasts		cross-ripples; 42.47												
25° frac	8-10 healed fractures		biotite-mottled white qtz wacke; 43.81												

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
85° bed	45 1.5cm quartz veinlet		45.15												
	46		46.31												
	47 49.07 slump disturbed bed														
30°, frac.	48		48.26												
	49 3-4% coarse biotite, trace pyrrhotite, 2-3% 1-2mm potassic altered feldspar flecks (garnet)		biotite-rich concretion with quartzofeldspathic halo												
5° vein-let, minzn	50 50.62-50.77m SAMPLED * 3-8mm irregular veinlet resinous, granular sphalerite, lesser pyrrhotite, trace chalcopyrite, within calc-silicate fill.		50.29 high angle									W			M
	51														
	52 51.2-51.9: laminated to thinly bedded graded subwacke 3-5% medium crystalline biotite, typically planar with minor slumped beds, occasional beds mottled biotite.		hard, lenticular, 52.9 (concretion?) quartzofeldspathic												
	53														
90° bed	54 52.7: weak-moderate chloritized 3-4mm veinlet, hard, albitic		load casted upper subwacke beds, convoluted interbeds.										W		
	54.29: 2-4mm coarse pyrrhotite to 1%		54.95 bleached, quartzitic, aphanitic lenticular.												
85° bed	55 55.37-55.57: thinly bedded light gray subwacke interbedded with dark gray laminar argillaceous subwacke. Planar bedding														
	56														
	57														

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration					Structure			Mineralization			
				tou	alb	chl	ser	gar	con	fbx	fra	pod	pyy	gal	sph
	57.40 - 58.20: dynamic sedimentation, load-casted lensoidal disrupted beds, occasional mm size elongate bedding-parallel pyrrhotite	57 59 60	abundant (50%) discontinuous laminae biotite									W			
20° to inlet, min'n	57.40 - 62.00: Turbidite activity: continuous sections hummocky beds, load-casts, minor clip-up clasts, occasional tangential cross-beds.	61 61.15	1-2mm pyrrhotite lined calc-silicate veinlet, minor sphalerite, trace galena.			W	W					W		W	W
25° to vein	60.97 - 61.15: pervasively fractured quartz vein, occasional patches chlorite-muscovite, with minor associated pyrrhotite, coarse aggregate biotite at contact.	62	slumped v. thin beds									W			
		63													
	massive medium-grain quartzitic wacke	64	laminated subwacke/wacke												
85-90° to bed.	planar thin-bedded subwacke with laminae biotite-rich wacke/subwacke	65 66													
	high angle moderately chloritic albitic healed fractures with thin intermittent "stitch" alteration normal to fracture	67 68	67.57												
			68.35 weakly chloritic qtz wacke												
20° to frac	numerous opposing, oblique chloritic fractures (healed)	69 70	interbedded qtz wacke/subwacke, laminated/lamp												

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DIAMOND DRILL HOLE RECORD

Hole No: 97E-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
80° bed	* 70.66-71.20: possible marker, (Falls?)		71.20												
	71.56-73.14: medium-thickly bedded quartzitic wacke, subtle grading, planar, tops and bases, occasional discordant interconnected laminae, subwacke - possible incipient fluidization, slight slumped low angle beds near base.		light gray-white, hard, coarse biotite, weak potassic alteration												
20° vein	75.29 pervasively fractured high angle 1-2cm qtz vein with minor talc/sericite brecciated fragments.		quartz-rich load clast. 75.29 slumped, lensoidal bed												
85° bed	73.49-102.57: ALTERATION: Blocky section characterized by numerous open and healed longitudinal fractures with medium green albite/chlorite alteration envelopes. Medium-thick bedded qtz wacke is faintly pink. Potassic alteration of feldspar, while silty beds are altered from light gray to light green. Section is hard (8-7), weak-moderate biotite-chlorite alteration. Alteration a product of contact with underlying gabbro, possible lithification emplacement along a divergent growth fault or post intrusive tectonic activity. Calc-silicate veinlets within gabbro are discordant to bedding at 10-40° TA.		light gray-buff soft feldspathic wacke, broken. albitic/sericitic qtz wacke bleached qtz wacke. 82.70		MS										

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Metre/Notes
15° frac	82.89 - 83.57: laminated to thinly bedded subwacke, slumped lensoidal to local tangential cross-beds. (84)	
	*83.57 - 84.19: planar laminated subwacke/wacke (argillaceous siltite) : marker type facies (85)	hard qtz wacke, numerous albitic seams (healed).
45° opposing frac.	highly fractured, chloritic gouge (86) (87)	
	85.95 - 87.18: fault gouge, friable, 2cm calc-silicate veinlet (3-4H), abundant brecciated angular fragments, veinlet possibly actinolite). (88)	87.18 open fractures.
	P.S. 86.78 : Petrographic Analysis Sample.	
	87.90: strong albitization cored by strong chloritic alteration, 1-3mm potassic altered granules. (89)	89.20 strong chlorite patchwork, albitite halo, 1X2cm pyrrhotite, trace chalcopyrite
85° bed	(90)	90.0
45° veinlet	89.15 - 90.0 : healed silicic - locally albitized coarse fault breccia moderate-strongly chloritic, muscovite development, localized 1cm displacement, minor sericite. (91) (92)	91.4 fractured. silicic, mod chloritized
	92.83 - 93.27: fault gouge, broken unconsolidated fragments (93) (94)	highly fractured parallel TCA grades to rubble
85° bed	95.62 - 95.80: ex. hard bleached (albitized) quartzwacke texture-destructive. (95)	albitized.

Graphic Log:

Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
							M				
							M				
	M	M									
		W					S				
		M									
		MS									
	M	S						M			
					M						
							M				
	S										

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration					Structure			Mineralization				
				tou	alb	chl	ser	gar	con	fbx	fra	po	py	gal	sph
15° frac.	biotite-rich base	96	95.85 laminated planar subwacke		S	M	W				M				
		97	strongly albitized		M	M									
		98	97.67		M	W					M				
45° open frac	99.35: synthetic open fractures 99.67: 3-5cm albitic/silicic alteration halo	99			M W	M									
	100.23 platey, soft, greasy lustre: sericitic (?) alteration of thin-bedded planar subwacke/wacke couplets.	100	sericite alteration of subwacke				M				M				
		101				M									
	101.23 – 102.70: badly broken, moderately chloritic planar subwacke grading to locally pulverized strongly chloritic weakly cemented coarse breccia.	102								S	M S				
		103	broken, longitudinal and oblique open fractures			S					S				
		104									M				
	102.70 – 104.26: dark green strongly chloritic quartzitic wacke with 2-10mm white, irregular discontinuous calc-silicate bands (selective replacement of quartzofeldspathic load casts?), synthetic at 55° TCA	104.5				SW					W		W		
		105	calc-silicate irregular to tapered seams.									M	M		
		106	hummocky load-casted beds.			S					M		W		
5° & 45° frac	105.50: 3mm pyrrhotite-lined fracture	107	107.08								MW				
	107.20 – 108.27: numerous open/weak longitudinal fractures, selective to quartzitic wacke	108	thick-bedded quartzwacke												

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Metre/Notes
≈55° contact; 20° frac.; 60°; 70° calc-silicate	108.87 – 109.40: weak-moderate albitized thick-bedded medium-grain quartz wacke/arenite, 3-5% disseminated biotite throughout, albite bedding-parallel alteration to 1 cm normal to longitudinal frac.	109.40
	109.40 – 300.12 GABBRO (190.72 m thick)	Magnetic Susceptibility values
	contact: indistinct broken contact, approximated at 55° TCA	@ 110.0m 0.69
50° opposing open.	109.40 – 110.47: aphanitic (equigranular) mesocratic hbbld/actinolite gabbro. Equal 1-2mm grain size between feldspar and amphibole with fine-grain disseminated anhedral to subhedral (15-20%) felsic mineral, lesser 1-3mm elongate dark gray-black accessory, trace biotite. Hornblende altered to tremolite/actinolite	@ 115.0 0.63
	110.47 – 292.83: transitional to phaneritic @ 112.12, to 292.83 phanetitic, locally variable. Crystal size decreased near lower contact to subaphanitic.	@ 121.0 0.65

Depth scale (m): 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121

Interval	lou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
108.87 – 109.40		W	W			M		M		W		
								W				

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration					Structure			Mineralization			
				tou	alb	chl	ser	gar	con	fbx	fra	po	py	gal	sph
	NOTE: MAGNETIC SUSCEPTIBILITY VALUES SHOWN ARE NOT CORRECTED AS MINIMAL CORRECTION FACTOR IS FOR WIDTH WHICH EXCEEDS CORE DIAMETER.														
35° open	122.14: 2.0 cm MASSIVE IRREGULAR PYRRHOTITE, TRACE CHALCOPYRITE		35° TCA, FRIABLE BROKEN U/F ∠ CONTACT.									M			
	123														
	124														
	125.15: 1.0cm & 1.0mm pyrrhotite, trace chalcopyrite 125											T			
	126														
	127														
	128														
15° open	129														
	130		0.418 MAGNETIC SUSCEPTIBILITY (M.S.)												
	131														
	132														
45° ∠	heated calcsilicate veinlet														
	133.10: mm SIZE STRINGER, CHALCOPYRITE, LESSER PYRRHOTITE 133											T			

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DIAMOND DRILL HOLE RECORD

Hole No: 97[illegible]-02

angle to core axis	Description	Depth	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
		134													
		135													
		136													
		137													
		138													
45° calcsilicate.		139													
		140													
		141													
		142	0.50 M.S.												
		143													
65° calc-silicate	14[illegible] - [illegible]: increasing [illegible] index to sub-[illegible]ciated	144													
	144.64 - 145.29: numerous synthetic 2-4mm calcsilicate veinlets	145													
		146													

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02.

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration					Structure			Mineralization			
				tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	147	Δ													
	148		0.48 M.S.												
		Δ													
	149														
	150	Δ													
	151														
		Δ													
	152														
	153														
40° calc-silicate	153.1-153.5cm @ 40° TCA, calc-silicate.	Δ													
	154														
	155	Δ													
	156														
		Δ													
	157														
	158	Δ	1.43 M.S.												
		Δ													
	159														

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration					Structure			Mineralization			
				tou	alb	chl	ser	gar	con	fbx	fra	poo	pyr	gal	sph
20° calc-silicate	160	Δ													
	161.21: STRINGER MAGNETITE WITHIN CALCSILICATE SEAM, LESSER PYRRHOTITE, TRACE CHALCOPYRITE. 161	Δ										w			
30°	162	Δ													
	163														
	164	Δ													
	165														
40°	166.38: .5-10cm MASSIVE PYRRHOTITE, TRACE CHALCOPYRITE 166	Δ										wl			
	167														
	168	Δ													
20° calc-silicate	1.0cm 169														
	170	Δ													
	171														

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration					Structure			Mineralization			
				lou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
30° / 35°	172	Δ													
	1.0cm CHLORITIC SEAM, BROKEN-FRIABLE														
	173	Δ													
	174														
	175	Δ	0.17 M.S. (meso/melanocratic)												
	176														
	177	Δ													
25° / 30cm	@ 177.84° STRONG CHLORITIC APHANITIC INTERVAL WITH CALCSILICATE SELVAGE BORDERED BY 1-2 MM TABBED BLEBS PYRRHOTITE, MINOR CHALCOPYRITE. 178	Δ										W			
	179														
	180	Δ													
	181														
	182	Δ	0.92 M.S.												
	182	Δ													
	184	Δ													

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Depth (m)	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
		185	Δ													
		186	Δ													
		187														
80° U	188.31-188.76 leucocratic, aphanitic groundmass, hornblende/augite, trace po.	188	Δ													
30 L	Calc-silicate veinlets 80° U contact, 30° L contact	189	Δ													
		190														
		191	Δ													
		192														
		193	Δ													
		194														
		195	Δ													
		196	Δ													
		197														

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration					Structure			Mineralization			
				lou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
10° / 120°	10cm calcsilicate · 1974/m														
	1979.0: 10cm calcsilicate														
	198	L													
	199														
	200	A	M.S.: 095												
	201														
	202														
	203	A													
	204														
	205	A													
	206														
	207														
	207.55: calcsilicate veinlet bordered by quartz px/cpy blebs in coarse aggregate	A													
	208														
	209														

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Metre	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
20°	210.60: breccia, chloritic selvage, weakly healed, 2.0 cm.	210														
		211	Δ													
		212														
15°	213.05: Seam, late-stage alteration, strong chloritic zone, [illegible] bounded	213	Δ													
		214														
		215	Δ	M.S.: 1.56												
		216														
		217	Δ													
		218														
		219	Δ													
		220														
		221	Δ													
		222														

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97-02

angle to core axis	Description	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	223	Δ													
	224	Δ													
55°	225.20: 1cm calcsilicate — 225														
	226	Δ													
35°	227.29: 1cm calcsilicate — 227														
	228.20: 20°, 5cm calcsilicate — 228	Δ													
	229														
	230	Δ													
	231.83, 1.0cm calcsilicate w/ trace cpy. — 231														
	232	Δ													
	233	Δ													
	234.0-250.0: mesocratic — 234	Δ													
	234.05: 3cm calcsilicate, cut by .5/1.0cm net-textured po/film trace cpy														

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DIAMOND DRILL HOLE RECORD

Hole No: 97k-02

angle to core axis	Description		Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
15°	235.89 : 1cm calcsilicate veinlet, chlorite core	235	Δ													
		236														
		237														
		238	Δ													
		239														
		240	Δ	M.S: 0.61												
		241														
		242	Δ													
		243														
		244	Δ													
		245														
		246	Δ Δ													
		247														

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Metre	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
		248	Δ													
		249														
	250.00-252.70: increased mafic holes to sub-melanocratic	250	Δ													
		251														
		251	Δ													
35°	252.67 → synthetic @ 35°, 2-5mm [illegible] veinlets; 253.02	252														
		253														
		254	Δ													
		255														
		256	Δ													
		257														
		258	Δ													

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration					Structure			Mineralization			
				tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	259														
	260	Δ													
	261														
	262	Δ	M.S.: 0.47												
	262.70 to bottom contact pegmatite														
	263														
	264	Δ													
	265														
	266	Δ													
	267														
	268	Δ													
	269														
	270	Δ													
	271														

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	272	Δ													
	273														
	274	Δ	M.S.: 0.80												
	275														
	276	Δ													
	277														
85°	278.18: 5cm subhedral coarse quartz (right angle) flanked by bleached well-healed calcsilicate, 5cm fibrous actinolite, trace chalcopyrite. 278	Δ													
	279														
	280	Δ													
30°	281.64: 3cm actinolitic chlorite bound by 3-5mm calc silicate salvage, minor coarse poo, trace mag. 281														
	282	Δ													
	283	Δ													
	284														

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	285	L													
	286	Δ													
	287	Δ													
	288														
	289	Δ													
	290														
25°	291.57: 2 cm, minor coarse aggregate poo, trace cpy. 291	Δ													
	292														
	293	Δ													
	294														
	295	Δ	M.S.: 0.59												
	296	Δ													

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration					Structure			Mineralization			
				tou	alb	chl	ser	gar	con	fbx	fra	poo	pyr	gal	sph
	292	Δ	M.S.: 0.62												
	296	Δ													
	300	Δ													
	(See page 26)														

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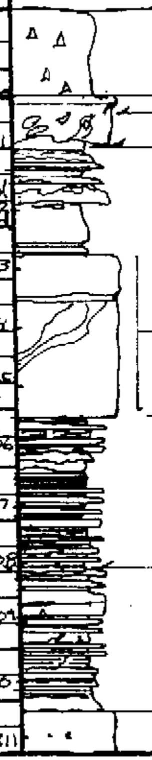
DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	299.84 - contact: granitic, transitional hybrid														
50° contact	300		albite-sericite mm-fractures.		W-S	S	W								
46° - 350.	300.12 - 302.73: QUARTZITIC WACKE / WACKE 301		spo-rich bnvne		M		W-M					M			
	Contact @ 50° CA, sharp albitic over 10cm. 300.12 - 300.40: moderately albitized thickbedded qtzwacke, contains incipient fluidization textures, weakly fragmented at contact. 300.9 - 302.73: thin bedded, argillaceous-laminae rich wacke, locally poo-rich, undulatory bed planes - slumped & loadcast, dewater structures 302, 303				M, M	W									
			302.73												
	302.73 - 305.50: QUARTZWACKE (GRANOPHYRIC)														
25° BEG LOCAL	Light-grey quartzwacke, medium bedded, impure, texture implies assimilation of argillaceous sediment via incipient fluidization as [illegible] [illegible], parallel dewater structures, 305 mm: albite [illegible] fractures transect the above and delineate [illegible] boundaries. Synsedimentary disruption/hydrothermal alt.		fine muscovite within moderate albitized qtzwacke				W-M								
			305.50												
	305.50 - 310.49: QUARTZITIC WACK / WACKE, SUBWACKE 306														
	Interbedded sequence consisting of medium bedded (10-20cm) 307 quartzitic wacke with lesser thin-medium (5-15cm) interbeds of laminar, banded wacke and subwacke. 308 These argillaceous beds contain flame structures, sinusoidal to disharmonic clastic dykes, laminae, 309 intercalated angular fragments. Bedcontacts with quartzitic wacke are transitional and sharp. 310		 incipient fluidization, wacke/subwacke.												
80° 330.															
			310.49												
	310.49 - QUARTZWACKE, MINOR WACKE/SUBWACKE. 311														

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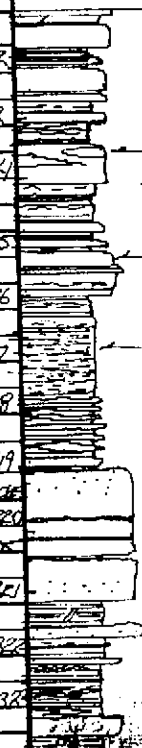
DIAMOND DRILL HOLE RECORD

Hole No: 97K-02



angle to core axis	Description	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	cpy	py	gal	sph
	310.49 - 314.19 (con't) med-gray moderately thick bedded quartzwacke, relatively well sorted, locally impure, minor 3-10mm interbeds thin-bed to laminae wacke to subwacke. This interval represents consistent deposition with occasional relatively short periods of quiescence. (312, 313, 314)	minor muscovite, metamorphic; 314.19				W								
85° 380.	314.19 - 318.79 WACKE / QUARTZITIC WACKE													
85° 380.	BIMODAL SEQUENCE, CONSISTS OF A TRANSITIONAL WACKE/ QUARTZITIC WACKE WITH LOCALIZED LESSER THIN BEDDED QUARTZWACKE. WACKE IS MED-GRAY TO BROWN AND CONTAINS WISPS TO LAMINAE SUBWACKE/ARGILLITE AT 5-10% BY VOLUME ON 50cm-100m SCALE. BEDDING IS DISCONTINUOUS, TO MOTTLED, TO PLANAR-LAMINAE INTERBEDDED. TEXTURES SUGGEST CLASTIC INPUT INCREASE DOWNSECTION, OVER BRIEF PERIODS MARKED BY 'VARVE' DEPOSITION: CYCLIC OCCURRENCE. (315, 316, 317, 318, 319)	coarse muscovite; wacke&subwacke discontinuous bedding.; 318.79		W		W-M								
	318.79 - 321.83 QUARTZWACKE/ARENITE, MINOR WACKE (320) LIGHT-MEDIUM GRAY IMPURE QUARTZWACKE. UPPER 40cm ARENACEOUS AND STRONGLY ALBITIZED. REMAINDER IS PERVASIVELY WEAK-MODERATELY ALBITIZED WITH 1-3% COARSE DISSEMINATED MUSCOVITE. V. HARD SECTION. BEDDING IS PLANAR. ORIGINAL BEDDING LITHOLOGIES ALTERED: OCCASIONAL WACKE THIN BEDS HARDENED/DISCOLOURED. (321, 322)	coarse muscovite/ albitization.		S ↓ M		W								
	321.83 - 336.45: QUARTZWACKE/WACKE, SUBWACKE (323) UPPERMOST 3.0m: LAMINAR-THINLY BEDDED PLANAR TO UNDULATORY & LOCALLY CROSS-RIPPLED WACKE/SUBWACKE													

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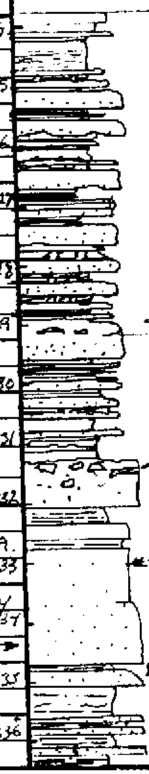
DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	lou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	324 BELOW UPPER 3.0m, SEQUENCE IS INTERBEDDED CONSISTING OF QUARTZWACKE/WACKE/SUBWACKE. MODE OF DEPOSITION IS 325 SIMILAR TO 314.19-318.79 WHERE % CLASTIC QUARTZ-RICH SEDIMENT INPUT INCREASES AND ACTIVE OVER BRIEF PERIODS 326 PUNCTUATED BY PASSIVE DEPOSITION: (ie turbidite and dynamic/quiet).						W-M								
	327 WACKE/SUBWACKE LAMINAE-THIN BEDS ARE RARELY PLANAR: TEXTURE IS DISCONTINUOUS, UNDULATORY, LENTICULAR AND MARKED BY LOCALLY H2O-ESCAPE CHANNELS. 328 ENTIRE SECTION IS WEAKLY-MODERATELY ALBITIZED. MUSCOVITE AT 1% IS COMMON TO QUARTZWACKE.				M		W-M								
	329		rip-up clasts.												
	330														
	331		albitized fragments		M-S										
	332.28 - 334.70: hard medium grey slight albititic 332 quartzwacke, strong albitization via longitudinal fractures 332.25 - 332.39. 333		332.06 3-5% coarse disseminated biotite		M										
	332.76 - 334.70: hard, medium grain clean lightgrey 334 to white quartz wacke/arenite		334.76		W										
85° bed.	335.07 - 336.07: Well laminated subwacke (argillaceous 335 siltite) w/lesser interbed clean 336 quartzwacke.		335.07 336.45.												

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DIAMOND DRILL HOLE RECORD

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Hole No: 97K-02

angle to core axis	Description
90° bed	336.45 - 337.05 planar to hummocky beds occasional discontinuous to lensoidal bedding, intervals hard, albitic quartz wacke, synthetic sets fractures oblique to bedding 337 338
	337.67 - 337.99: continuous interval thin-bedded sets tangential cross-beds 339
	339.0 - 342.06: clean, hard quartz wacke/arenite, moderate to strong alteration of 1-2% disseminated biotite, diffuse bedding contacts of occasional impure quartz wacke owing to albitization, 18-15% longitudinal open and healed (synthetic and opposing) fractures 340 341 342
	342.06 - 343.72: As above yet impure with increased biotite at 2-3% and associated weak chloritic alteration of biotite 343 344
87° Bed.	344.22 - 344.27: Biotite-rimmed quartzofeldspathic matrix. 345
	344.27 - 345.11: Gray to dark gray biotite-rich (net-textured to bedding parallel) interbedded quartzwacke, impure planar, 50/50 argillaceous siltite / quartz-feldspar matrix 346 347
	PETROGRAPHIC ANALYSES: 347.39 - 347.47: mod. hard to hard, possible weak tourmalinization. 348
	lensoidal disrupted beds → feldspathic 349

Graphic Log

Metre/Notes:
- hard
- 337.05
- 337.49
- 338.0 increased velocity
- medium green sericitic.
- very fine grain dark grey sub-wacke.
- convoluted bed.
- locally albitized.
- 343.72
- 344.27
- coarse 3-5% biotite
- 346.0
- 346.5 low angle cross ripples.
- 346.96
- gray-green feldspathic wacke, soft. (sericitic?)

Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	W										
	M										
	M										
	M	S M					S				
		↓							W		
		M ↓									
	S	W ↓									
	M	W									
N		↓	W ↓								
		W									

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02.

angle to core axis	Description	Metre/Notes	lou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
10°, open frac.	349.47 - 349.50: Very hard, chert-like argillaceous siltite, possibly tourmalinized	349.47 349.78 biotite-rich planar qtz wacke	M											
15°, frac, albitic	disrupted 'load casted' beds, grey-green interbedded with dark-grey subwacke.	light gray qtz wacke, 3-8% biotite.		W								W		
	350.73 - 351.86: Medium-thick bedded light gray quartz wacke graded, minor interbeds biotite-rich qtz wacke	351.86 load-casts biotite-rich		W										
15°, open frac.	Occasional longitudinal albitized fractures	albitic, 1cm quartz vein	W	5						M				
85° bed	albitized fractures													
	354.26 - 355.95: inversely graded quartzarenite/wacke clean at upper, biotite-rich (3-5%) near base.	354.01 argillaceous siltite.			M									
	355.84 - 357.30 interbedded dark gray and green-gray argillaceous siltite "color-banded argillites" w/ lesser pure quartzwacke. Planar with minor slumped (load casts).	green-gray sericitic slumped beds, planar tops.				W								
90° bed		chlorite lined frac. 357.07			W					W				
	Note: In general biotite undergoes weak - moderate chloritic alteration, particularly evident in quartz arenite sections.				M W									
5-10°, frac	numerous oblique, longitudinal fracture sets with pale green 1-2mm alteration halos.	medium green siltite.			M					M				

Depth marks (Description column): 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
87° bed.	361.39 – 362.58 Sequence of undulatory to loadcasted graded subwacke with minor intervals relatively pure quartz wacke/arenite. Upper contact of subwacke sequence is dark grey argillaceous siltite transitionally grading grey-green to dark gray		graded subwacke; 362.56			W	W / wV				W				
45°, silicic veinlets	* 363.50 – 373.58 ; silicified quartzwacke remnant bedding at low angle and silicic veinlets at 45° TCA (synthetic) and up to 40% by volume over 50 cm. Fe-chlorite development of argillaceous subwacke (purple-gray). Localized selective replacement causing chlorite-rimmed or chlorite-cored discontinuous subrounded alteration halos.		quartz veinlet, trace pyrite, sericite-chlorite alteration; faint remnant 2-5mm quartz fractures; grey-green sericitic subwacke.			M	M / V								
SULFIDE MIN'ZN	* 368.95 – 369.36 : Dark gray-purple very hard silicic quartzwacke with coarse net-textured chloritic fractures @ 45° TCA and sub-parallel to bedding, minor muscovite, variable content galena with lesser sphalerite & chalcopyrite. Galena is cubic, euhedral		369.36 tangential cross bed sets.; quartz arenite; muscovite/chlorite stringers											M	W
	Fe-carb/qtzwacke/dk-gray bands (green)		373.58			M V									

Depth marks: 362, 363, 364, 365, 366, 367, 369, 370, 371, 372, 373, 374

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DIAMOND DRILL HOLE RECORD

Hole No: 97k-02

angle to core axis	Description	Graphic Log	Metre/Notes
	increase in grain size (slight), graded at base 375		374.91
	374.91 - 378.56 : well laminated planar subwacke		
	laminae to thin-bedding - possible 376		
	* MARKER => ?? marker horizon (Dismissed by		
	P.Klewchuk & D.Pighin) 377		
	378		5-10% coarse fe-chlorite ??
85° bed	378.69 - 378.77 : PETROGRAPHIC ANALYSES. coarse .5-1mm 379		379.00
	sub-rounded fibrous to granular granules		fe-poor disturbed bed
15° frac, open	(actinolite / fe-chlorite?) Does not have		
	vitreous lustre or softness of biotite nor 380		380.03
	alteration to chlorite. Dendritic MnO??		planar marker type interval.
1°	379 - 380.03 : numerous longitudinal fractures (20% by 381		
	volume) @ 15°TCA. Minor muscovite (<1%)		
	382		382.07
	broken core		planar bedded dark gray subwacke.
	383		
	384		384.35
75° inter frac.	385.10 - 385.5 : sub-parallel bedding chloritic frac with longitudinal		
83° bed	normal stress fractures. 385		385.0
	385.93 : biotite-rich greywacke, moderately hard,		fe-poor mottled biotite
	2-3% diss pyrrhotite - occ. frac. fill. 386		disrupted base.
	387		

Alteration: lou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
		W					M				
							MT				
								M			

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DIAMOND DRILL HOLE RECORD

Hole No: 97-02

angle to core axis	Description	Graphic Log	Metre/Notes
82° BED	387.69 - 388.25 locally gray-purple, silicic 5-7% coarse muscovite, minor interbeds sericitic subwacke, commonly slumped.		388.25 - interformational faults.
	388.25 - 405.99: SUBWACKE (ARGILLACEOUS SILTITE/ARENITE W/ MINOR QUARTZ WACKE laminae to thin-bedded planar to locally slumped/lenticular beds occasional flute marks.		389.80
10° frac	391.84-392.57: silic gray quartzwacke numerous longitudinal qtz-chlorite-albite fractures.		392.57
			393.94
	silicic quartzwacke; longitudinal hairline chlorite-muscovite lined fractures, trace pyrite, very hard. Colour gray-magenta - dark gray Bleaching - chlorite alteration		395.07 - convoluted beds. 396.05
	396.57 coarse clastic		- 2 - gray-green sericitic wacke
	396.81-398.87: laminated to thinly bedded planar gray - to light gray siltwacke (siltite) minor undulatory bedding		398.87

Alteration					Structure			Mineralization			
tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	M	M					W				
									W		

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Depth (m)	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
45° frac, open	399 - 401.56: Graded silicic longitudinal fractures (healed) @ 10° TCA.	400	graded qtzwacke (silicic)			W					W				
		401	401.56												
87° bed		402	402.33 / 402.45												
	403.10 - 403.18: 3-5% coarse-grain pyrrhotite	403	403.00 / 403.8									M			
	occasional 3-5mm bleb pyrrhotite	404	low angle cross-ripples												
	fine grained weak-mod silicic gray	405	405.03												
84° bed	quartzwacke, 2-5% 1mm elongate biotite disseminated throughout	406	dark gray - black argillaceous siltite			W									
15°, frac, healed	planar, thin-bedded banded subwacke, rhythmically dark - light grey.	407	406.74 / gray-magenta silicic qtzwacke			W									
	thin (1cm) green sericitic beds.	408									W				
			408.48												
		409													
	410.07: quartz-rich bed with 3-5mm coarse pyrrhotite	410	minor ~~[illegible]~~ pyrrhotite / 410.07									M			
10°, frac.			silic. fine grain qtzwacke minor poo.			W					W	M			
	410.38 - 412.76: Grey - dark gray thin-medium bedded planar to locally disrupted subwacke. Pyrrhotite developed in	411										M	W		
		412									M	↓			

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-C2

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration					Structure			Mineralization				
				tou	alb	chl	ser	gar	con	fbx	fra	pod	pyy	gal	sph
	in association with fe-rich dark gray argillaceous beds.		coarse biotite at base									W			
	Interval graded into a fine grain impure quartzwacke to 413.96		413.17												
90° bed.	gray-green concretionary bed.		413.96												
			414.62												
			414.94												
	biotite-rich concretion.		415.32 biotite-rich q+wacke												
30° open frac.			415.71												
			416.96								W				
			mottled biotite									W			
	planar sub wacke/arenite, minor lenticular to load cast beds		417.89												
	419.00 - 420.98: impure quartzwacke, mottled biotite-rich to biotite-chlorite altered 1-2mm grains in silicic beds. locally has argillaceous laminae at tops of load cast beds indicative of sediment grading related to turbidite activity.		419.58												
			420.98												
			clean upper to graded lower quartzwacke.												
	422.02 - 423.03: dark gray argillaceous siltite, thin bedded grading to siltite couplet to fine-medium grained quartzwacke at base.		423.03												
			423.45												
	423.45 - 424.28: thin bedded planar fine grain qtz-wacke with variable bedding parallel disseminated medium-coarse grain pyrrhotite.		fault breccia			M-S			M	M	S	W			

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes
50°, gouge 10-15°, secondary frac.	424.38 - 425.00: fault breccia incompetent, friable, locally strongly chloritic soft heterolithic gouge, numerous anastomosing hairline hi-angle fractures. Upper ct @ ~45-50° TCA, lower ct indistinct.		- graded qtz wacke; 425.77; 426.48 - white, planar qtz-rich bed.
30°, open frac. 85° bed.	biotite-rich quartz matrix concretions		427.79 - clastic dyke
			- graded sub-wacke, dark-med gray.
10° frac.	light-medium gray qtz wacke, minor (2%) muscovite, chloritic gouge on open fracture.		430.05 - longitudinal fractures with white selvage
	note: selvage (white) on fracture plane is locally crystalline euhedral white, translucent, hardness less than 3, non-calcareous: possibly "magnesite"?		
	434.55: 1-2mm 3-5% pink garnets.		434.03
	med-dark gray moderately hard sub-quartzitic wacke, planar, occasional slumped beds.		

Depth marks (m): 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437

Alteration (lou, alb, chl, ser, gar) / Structure (con, fbx, fra) / Mineralization (poo, pyy, gal, sph):

- 425: con W; fra M; poo W/?
- 427: poo M; pyy M
- 428: fra M
- 430: fra M; poo W
- 432: fra M; alb W

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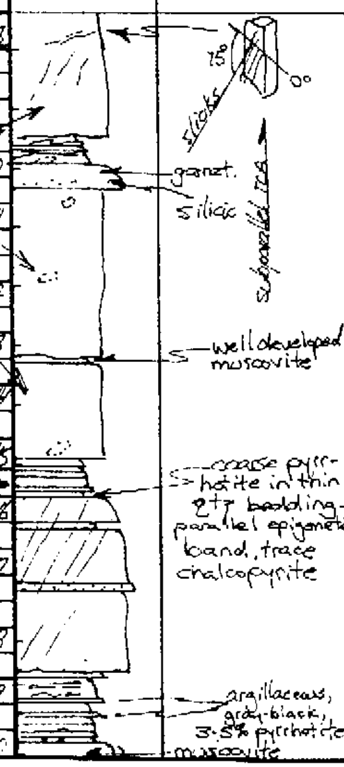
DIAMOND DRILL HOLE RECORD

Hole No:

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
15° frac. 25° frac	437.87: highangle fracture sets, slickensides with chloritite development on open fracture sub-parallel to core axis (TCA), slicks rake 75° within fracture subparallel TCA. 438 … 439		← S; 75°; slicks; 0°								M M↓				
	4?.27 - 444.98 fine grain quartzwacke, faintly graded, moderately & well sorted, moderately hard (4) 440; grading denoted by v.fine-grain disseminated biotite, only localized sharp, laminar, 441; low angle argillaceous bed contacts, these typically have strata-form diss-eminated pyrrhotite. 442; Lighter sections have light gray-green coloration which is fine grained muscovite / chlorite. 443 … 444		garnet; silicic; subparallel TCA; S — well developed muscovite												
	444.98 - 445.57 thin-med bedded light/dark gray planar subwacke. 445		S — coarse pyrrhotite in thin qtz bedding-parallel epigenetic band, trace chalcopyrite								S	W			
	PETROGRAPHIC ANALYSIS 446.13 - 446.21 446														
15-20° frac 85° bed	445.57 - 449.49: light-medium gray, variably magenta to dark gray silicic-altered fine-medium 447; grain mod. well-sorted quartzwacke + upper third contains numerous syngenetic calc-silicate features, minor biotite 448; muscovite, alteration of biotite predominantly to chlorite. 449; Interval is hard, pyrrhotite <1% throughout (trace. 450		argillaceous, gray-black, 3-5% pyrrhotite - muscovite								M↓	W-M			

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Metre/Notes	Alteration	Structure	Mineralization
	numerous biotite-rich laminae, discontinuous, med-dark gray. (451)	light gray sericitic bed grades argillaceous dark gray	ser: W		po: W
	450.88 - 452.77: medium gray fine-medium grain mod-well sorted qtzwacke 3-5% disseminated biotite grades to 5-10% locally over 20 cm. (452, 453)	452.77		fra: M; fra: W	
85° bed	452.77 - 456.58: medium bedded v.fine grain quartzwacke with lesser thin beds to p-poor subwacke. (454)	grey-black argillaceous qtzwacke, minor pyrrhotite			py: W, W
30° frac.	455.12: strong chloritic alteration, 2-3mm 2-3% garnet, within semi-competent locally friable groundmass. Muscovite/sericite alteration (455, 456)	garnet; occasional lensoidal beds; 456.58	ser: M; gar: M	fbx: W; fra: M	
5-10° frac; 85° bed	broken/healed longitudinal fractures, silicic hard qtzwacke, 3-4mm 5-10% "eyes" of silicic altered garnet (observed [illegible] boundaries) (457, 458, 459)	457.89; graded subwacke	gar: W	fra: M	po: W
	459.48 - 461.08 graded v.fine grain qtzwacke with thin bedded light gray tops (plotted) = distal facies. (460, 461)	460.13; 461.08			
	461.48 - 463.67: thick bedded, fine to locally medium grain qtzwacke. (462)		gar: W	fra: M	

Graphic Log:

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DIAMOND DRILL HOLE RECORD

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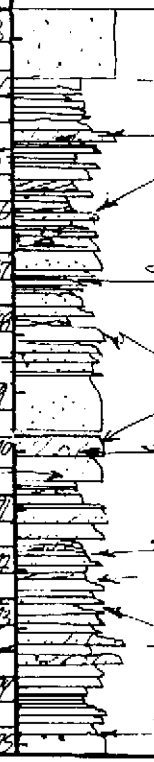
Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes
	463		463.67
	464		garnet
	464.56-464.70: longitudinal silicic fractures, hardened qtzwacke, minor garnet to 1mm. 465		
	466		
86° 360.	463.67-467.85 fine grained graded quartzwacke, thin to medium bedded with lesser inter-beds 467 light and dark gray subwacke typical of turbidity deposits; undulatory to 468 load-casted; occasional low angle cross-beds and rip-up clasts, few beds light/dark laminated marker style. 469		thin-bedded pale gray siltite with laminae dark-gray argillaceous siltite; garnet
5° frac healed	471.50-474.54: similar to 463.57-467.85		
	pyrrhotite: tangential to bedding as 1mm x .5mm elongate grains. 470		coarse cymotite, biotite
	471		
	472		clastic dykes; planar and lensoidal low angle beds.
	light gray grading to dark gray siltite upper beds thin discontinuous yet planar pyrrhotite at base in fe-rich sediments 473		473.10; 473.60 "imbricate" texture flute casts.
87° 350	474		
	garnet		474.51
	475		3-4% pyrrhotite

Approx. depth	gar (Alteration)	fra (Structure)	po (Mineralization)
464.5	M		
466	M		
467.5			W
468	M		
470	W	W	M
470.3			W
470.5			W
472			W
472.8			W
473.5	M		
475			W

Alteration: tou, alb, chl, ser, gar — Structure: con, fbx, fra — Mineralization: poo, pyy, gal, sph

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Hole No: 97k-02

angle to core axis	Description	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
27° BED.	laminated to thinly bedded siltite, hummocky beds near top, planar transition to base 476	quartz-chlorite healed fracture at 45° TCA.								W	W			
	477.0: chloritic alteration halo on subparallel TCA fracture with euhedral dilational crystals white to clear, non-calcareous, <1mm. 477	chloritic fractures, silicic.			M	W				M	W			
	478	477.86												
	garnet	478.39		M	M	M								
	478.40-478.65: albitized quartz-rich wacke, selective replacement of quartzofeldspathic cadcast beds at top, associated muscovite as coarse sheets, chloritic alteration of biotite, albitization of 2-3mm garnet at top and base. 479 480 481	479.22 / 479.71 — white, clean, v. hard. arenaceous.		W	W	W								
5°, frac, healed (veinlet)		hard, silicic.									W			
												W		
87° BED.		coarse muscovite												
	482.66-484.28: Silicic alteration of graded quartz wacke/subwacke, chloritic alteration of feldspathic/sericitic 482 483	482.65 ← hard, white, medium-coarse grain quartz arenite.		W ↓	M ↓	M ↓								
5°, open.	light gray tops (to pale green) and hardness increase, loss of primary biotite. 484	484.01		W	W	W				M				
25°, healed frac	Numerous fractures (healed) @ 25° TCA, synthetic. 485	graded subwacke								M				
		485.24												
10° N/A	quartz-chlorite 1-2mm frac (healed), longitudinal TCA. 486	silicic fine grain qtz wacke (coarser at base).			W									
	487	487.30												
	garnet						W							

Graphic Log:

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	garnet ——— 488		487.87 / 488.20				W					M / W			
	487.87-488.20: medium/dark grey planar laminae to thinly bedded qtz-wacke/ 489 siltite transitionally grades laterally to load-casted convoluted 490 beds		488.73 — hard, silicic f-grain qtzwacke; garnet, quartz arenite, white, hard. 490.85		M	W / M		M							
	→ longitudinal fracture parallel TCA with 2-4mm wide irregular frac-controlled 491 pyrrhotite, minor chalcopyrite 492										M / M				
70°? frac, calc-silicate	491.70-492.57: Broken, 3-6cm pieces, longitudinal fractures, calc-silicate and 493 selvage to chloritic/quartz fractures (hard pervasive) 494		492.35 — silicic, broken; healed breccia.		M	M						W			
	494.77-495.16: 2 bands silicic altered qtz-wacke 495 with albitized (?) contacts, strong chloritic/silicic alteration at base) with medial albitization, 496 5-10 fractures healed @ 30° TCA 497		silicic, biotite-rich, white, hard, 495.61; 1-2% 1mm pyrrhotite		W							W			
	weakly chloritic fracture 498		silicic lens fractures.								W				
	498.33-498.51: albitized qtzwacke, coarse, 3-5% biotite, disseminated pyrrhotite @ 3-5% with 499 massive 1x2cm blebs medial, localized chlorite/muscovite bedding-parallel 500		1% pyrrhotite 498.51; albititic, white hard, garnet 500.22		S / S	M / W	M	M				W / M			
35° 35°?															

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Metre	Metre/Notes	Alteration	Structure	Mineralization
	499.52 - 500.42: silicic to locally albitic		2-3% disseminated pyrrhotite			poo: W
5° frac.	slumped bedding	501				
	501.57: sub-parallel TCA chloritic frac. hardened		planar, sericitic beds	chl: W; ser: W		
	quartz-wacke.	502	502.08			
			502.60 numerous	chl: M / S; ser: M		poo: W
	qtz-band, minor coarse pyrrhotite	503	503.14 fractures, 30-40° TCA.	alb: W	fra: M	
55° veinlet frac.	502.60-503.14: sericitic upper planar contact, numerous	504	503.91		fra: M	
	mm size fractures to 1-3cm qtz-rich		v. hard, grey-white, <1%		fra: M	
30, secondary	veinlets, commonly cored with siderite,					
	matrix to alteration envelopes strongly	505	biotite, broken			
	chloritic, opposing (normal) secondary		505.14			
	fractures display 2-3mm offset	506	505.96 tangential			
10°, frac healed	numerous vague, chaotic distributed		506.52 cross-beds.	chl: M		
	fractures (healed). Section is hard	507	remnant garnet halos.			
	no visible sulphides			alb: M		
	502.60-505.14: silicic quartz-wacke with thin-bedded	508	508.10	alb: M		
	planar sericitic tops		albitic qtz-			
	soft calc-silicate fracture selvage	509	509.20 wacke within silicic interval.			
5-10° frac healed	silicic, diffuse bed contacts		cross-beds			
		510	garnet, chloritic longitudinal fractures	chl: W; gar: M		
85° bed.		511				
			hard, silicic remnant garnet halos,			
		512	511.76			
			512.[illegible]			
		513				

Alteration columns: tou, alb, chl, ser, gar. Structure columns: con, fbx, fra. Mineralization columns: poo, pyy, gal, sph.

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Hole No: 97K-02

angle to core axis	Description	Metre	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
85 brd	512.91-98: silicic argillaceous siltite, low angle slumped, lensoidal beds.	514	albitic; 513.75; 514.06; 514.44		M										
	silicic to weakly albitic	515	515.29				W								
	magenta quartzwacke, 3-5% fine disseminated pyrite	516	muscovite; silicic, mag-enta.			W	M								
	sericitic					M	M								
	intraformational fragmented bed (rip-up)	517	516.75; 517.23		M										
55° qtz/chl fracture	qtzwacke/siltwacke: silicic; 516.92-518.74: intermittent qtz/chlorite fractures, "stitch" texture facilitate silicification of intervals which are heterolithologic.	518; 519	muscovite; 519.42; Marker style grades to lensoidal.				W								
	microscale load casts	520	520.78												
82° SCO	Sedimentary facies is consistent, planar, sharp feldspathic gray-green upper beds, thin-medium interbeds argillaceous siltite with thin fine grain quartzwacke to disrupted load-casted argillaceous beds which transition rapidly to medium-thick quartzwacke at base. It is common to see this pattern repeated.	521; 522; 523	biotite-rich albitic concretion / any bed.; 522.25; 522.96		M										
		524; 525	524.04; 524.28		M	W	W					W			

Graphic Log:

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Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	526 526.38-527.92: silicic altered quartzwacke, mild texture-destructive, 527 albite/quartz/albite halo (end)		albitic, 2-3mm; 1-5% coarse biotite; discordant alteration contact.		S, S						W				
	528 528.40-528.86: medium grain, mod well sorted, light grey, hard, faintly graded, arenite, sly silicic alteration. 529		528.86		M										
10°, both sets.	530 Marker style beds grading to turbidite deposits. 531		530.47; 531.09			W, W									
	albitic concretionary bed within quartz arenite/wacke 532		532.0		M							W			
	531 – ≥570: decrease in proximal turbidites, change to sub-distal. 533		532.42												
85° BD	533.42-533.55: matrix is white, alteration is moderate, 534 as it is not pervasive through quartz grains, is matrix selective; biotite shows sporadic moderate chlorite-ization. 535		533.42; 533.55; 534.04; S-quartz arenite; weakly albitic; calc-silicate ...		S, W	W					M				
10°, Rac, calc-silic.	albitic concretion ... 536 silicic interval to 536.09, 536.99		536.09		S/M	M	M								
	536.09-536.99. Alteration is moderate to locally strongly albitic, longitudinal fractures 537 and extensive bedding-parallel fractures normal to them. Moderate biotite-chlorite 538		536.99; 538.00		M	M	M				M				

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Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
10°	539.30 - 539.59: strongly chloritic healed fracture with 2-5mm alteration envelope, minor muscovite, trace coarse sphalerite.		garnet 539.05 539.59 540			M			ξ		ξ				WL
UCT 10° LCT 10°	540.90 - 541.55: pervasively fractured competent quartz vein, bookcase fracture controlled net-textured biotite with lesser pyrrhotite/chalcopyrite, muscovite.) contact @ 10°, (contact 10°		541 541.55 albitic 542 542.30 543 543.14		M				ξ		ξ ↓ ξ		M		
	remnant garnet		544			W	W								
	543.83 - 543.87: Silicic (magenta hard), diffuse undulating alteration contacts.		545												
85° 85°	albitite, (quartz arenite alteration)		546 quartz rich band, translucent 546.32 beds parallel.												
15°	545.80-547.30: Silicic, lateral, numerous longitudinal fractures, local albitization of arenaceous beds.		547 547.30 flame structure.		M	M	W						W		
	rare tourmaline, circular		548 stepped, bands recumbent to lenticular turbidite bed 549.79		M	M	W								
15°, frac healed	1-3% beaded pyrrhotite, 2-3% at base, minor pyrite, possible ilmenite.		549 550 silicic	W		W						M	W		

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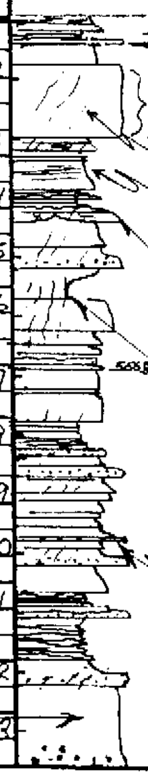
Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes
	551		
	550.53: first occurrence of acicular tourmaline in association with biotite/pyrrhotite-rich laminae and thin beds; lie within and at U&L bed contacts generally oblique to bedding, occur to lesser degree within qtzwacke medium-thick beds.		551.17
	552		551.67 — tourmalinite
	553		552.98
	554		v.thin hair-line fractures, few
	* 551.67-552.98: v.hard, dark brown extremely fine grained tourmalinization of planar qtzwacke		graded thin beds qtzwacke.
15°, frac.	555		albite envelop-ed pyrrhotite grains 1-3%.
	* possible alteration of marker bed. alteration disappears rapidly at bedding contact, no evidence of acicular xtals or hardening of lithology.		flame structure.
	556		
	557		556.81
	localized increase in pyrrhotite % to disseminated in qtzwacke, transitional & increase towards base of graded beds, 1% to 2-3% medium-coarse		fault breccia, 25cm white non-calcareous crystalline gouge, possibly anhydrite. L contact concordant, Upper high angle @15°TCA.
	558		
88° 35°.	559		
	560		albite, qtz, bio, bio, albite
	561		
	graded thin-bedded lensoidal interval, occasional laminae, planar.		561.69
	562		562.22
	medium-grain subrounded weakly graded quartzwacke		
	563		

Alteration

Depth (approx.)	tou	alb	chl	ser	gar
551–553	M ↓ S, S ↓		M		
553		W			
558			W		
559			W		
560		M, M	W		
561		M			
562		W			

Structure

Depth (approx.)	con	fbx	fra
552			W
555			M, S

Mineralization

Depth (approx.)	poo	pyy	gal	sph
551	M	M		
552–553	M-S ↓	M-S ↓		
554	M, W			
554.5	W			
561	W, W			

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Hole No: 97k-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	562 – 568: influx of moderate-well sorted detrital material with minor distal turbidite influence.		563.77 arenaceous. 565.35		W										
15°	566.51 – 566.82: hard, silicic, occasional longitudinal fractures.		566.74 567.19 567.64		W	W									
15° frac.			silicic.			M									
80°	calc-silicate fractures, soft selvage on mm fractures, alteration of quartz wacke		massive within sericitic bed.				M								
	arenaceous quartz wacke, hard														
	571.21 – 572.01: poorly sorted, inversely graded thin beds composed of rounded coarse grain quartz to lithic grains with a siltite matrix, produces a mottled texture: represents reworking of proximal clastics into argillaceous beds or laminae.		572.31 573.45 573.76 minor coarse grained siltite fracture facilitated greywacke silicification.									W			

564 565 566 567 568 569 570 571 572 573 574 575 576

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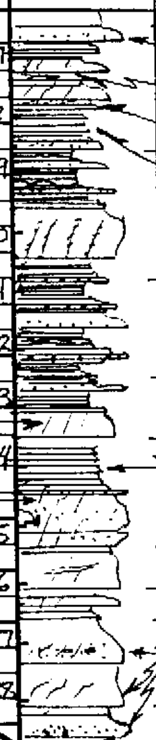

angle to core axis	Description	Metre	Metre/Notes	Alteration: lou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
15° main frac.	577.26 - mm size fracture with 6-8 mm chloritic alteration envelope and numerous high angle tex fractures.	577	576.97; quartz arenite; chloritic fractures.		W	M									
		578	cross-beds; 578.51									W			
	577.59: obliteration/destruction of biotite aggregate producing silicic "eyes" in altered band; 1-2% disseminated pyrrhotite	579	inverse grading; local, proximal sedimentation.									M, W			
		580									W				
	579.59 - 580.42: Hard qtz wacke, synthetic qtz/chlorite fractures @ 15° TCA transected by subparallel TCA fractures, bedding parallel alteration envelopes.	581, 582	580.83; 582.41									W			
20°, opposing	chloritic/pyrite fractures, "spotted" quartz (texture-destructive of biotite porphyroblasts)	583, 584	583.50; grade of greywacke.		W	M									
	numerous 1-2 cm elongate albitic "eyes" near U & L contacts	585	585.30			S	M				M				
87° 380.	585.38 - 586.04: hard, medially fractured, strong chloritite lensed with coarse muscovite	586, 587	586.04; 586.63		M, M	M	M					W			
10°		588	spotting, boudinage shaped albitic pods. 588.02		M, M										
	localized 1-2 mm subround pyrrhotite, 1-2%											M			

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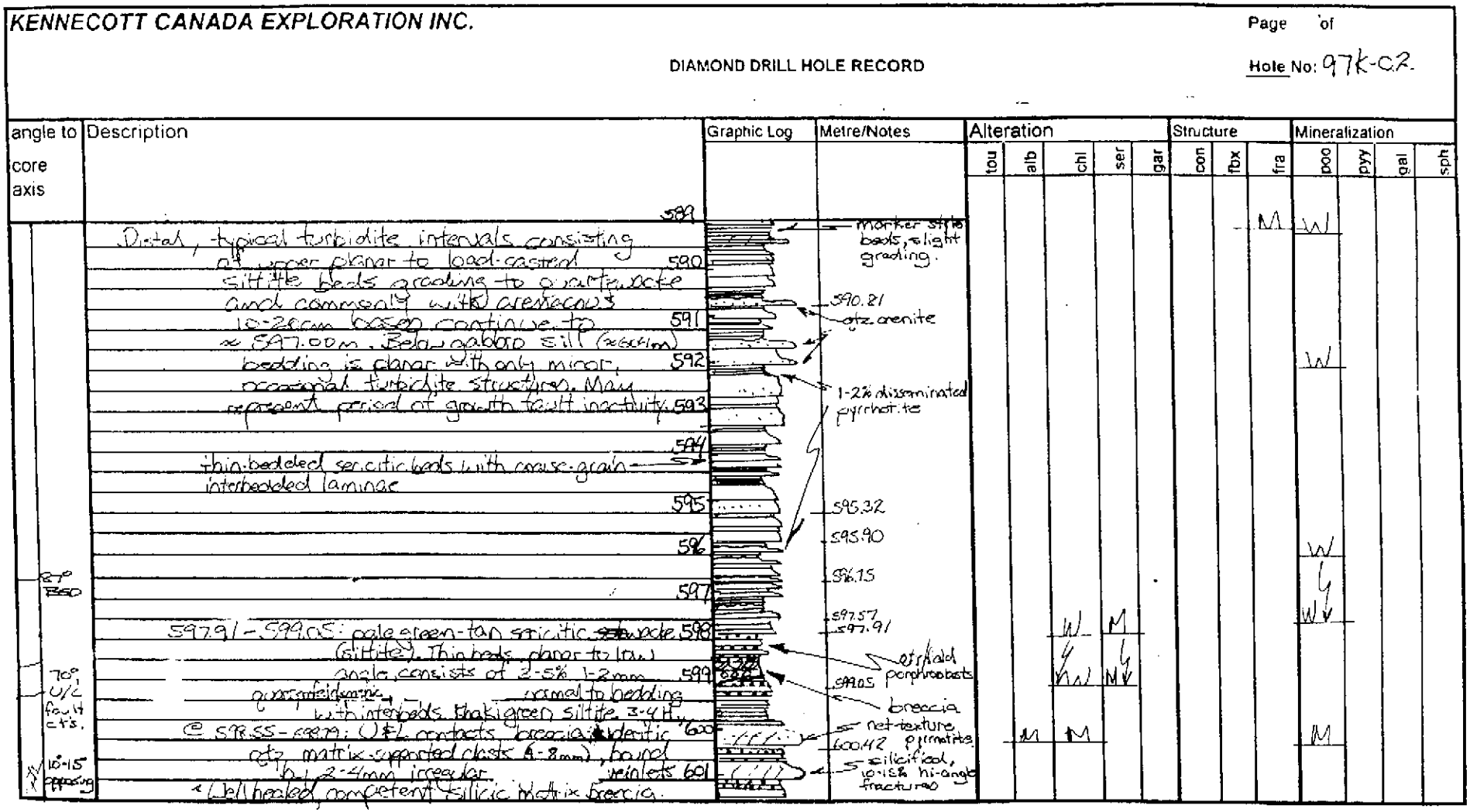

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Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph

angle to core axis: 80°, BED.; 30°

Description:

601.90 - 603.17: coarse disseminated muscovite associated with albite-sericite altered qtz-wacke which shows strong fracture (40-50% by volume) controlled albite-sericite alteration from 602.75 - 603.17. (competent) Localized pyrrhotite @ 602.86 as 1-3mm coarse aggregate.

• Fractures @ 10° F 30° TCA.

*note: slight shift in bedding angle @ 602.60 m.

603.17 - 603.73: Dark grey biotite-pyrrhotite rich (15-20%) qtz-wacke, incompetent core, broken @ 5-7cm intervals at 30° TCA. Weak foliation of biotite/pyrrhotite synthetic to fracture planes (30°). Interval is transitional to contact with gabbro.

minor felted tourmaline

603.73 - 607.59: HORNBLENDE GABBRO

• contact approximate @ 30° TCA

• mesocratic, finely crystalline (; aphanitic) light-medium green, hornblende/actinolite (40%), feldspar (50%). Hornblende displays alteration to actinolite/tremolite; mafic accessory minerals 5-10%.

siderite laminae

Metres: 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614

Metre/Notes:

602.22.

pervasive alteration, 40-50% fractures by volume

603.13 strongly chloritic, minor albitic, very hard-silicic.

Upper ct @ 30° TCA

Lower contact indistinct, transitional.

608.02

607.59: dark gray as 603.17 to 603.73, biotite hornfels, to 608.02.

608.02 - 623.8 graded felted acicular tourmaline bands, selective to argillaceous beds.

Alteration: ser M, W; alb M, W; chl S, W, M, M; tou W/M, M, S, S, S, S, S; alb M

Structure: fra W, S, S

Mineralization: poo M, M

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Hole No: 97K-02

607.59 - 762.0m QUARTZITIC WACKE

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	612.91 - 616.53: strong grading to moderate tourmaline as successive 615		tourmalinized qtzwacke and subwacke beds, overall hardness increase. 615.75	M								M			
	hands selective to fe-rich beds, imparts a net textured appearance to 616		616.53	M								W			
	massely graded beds, which terminate with felted tourmaline laminae base 617		silicic remnant biotite. 617.79 617.98	W		M									
10° frac	Biotite altered to chlorite rare coarse disseminated pyrrhotite, 618		felted tourmaline	M	M										
	disseminated throughout. 616.53 - 617.98: laminated to thin bedded subwacke. 619		619.20	M	M										
85° 350	(Siltite, lesser qtzwacke) planar, with acicular tourmaline disseminated throughout, 620		620.0	M	W							M			
	selective to argillaceous matrix. ~4 H. 618.20-620.0: Hard (7.5) silicic qtzwacke with local 621		intraformational fault. 621.14	W											
	albitic sections, alteration pervasive. 620.0 - 623.77: white, quartzofeldspathic laminae with 622		622.37 622.64									W			
	thin beds subwacke 3-4% fine acicular tourmaline as disseminated throughout 621.14 - 622.66: Rare to trace acicular tourmaline, selective 623		load casted ripples 623.48												
	to tops of thin occasional, silicic beds. 622.66 - 623: tourmaline only within set silicic thin beds 624		624.81												
	which are only occasional. 622.64 - 623.14: hard, thick-massive, bedded 625														
	mod silicic qtzwacke. 626		626.42												

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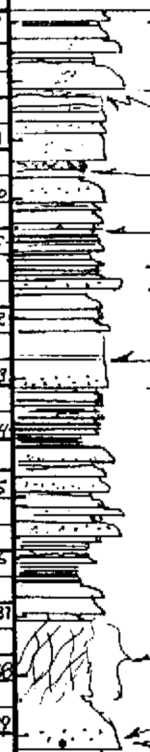
Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
8°, frac	627 to 628.12: wellsorted moderately clean gtywcke.		626.96												
			627.55		W	W									
	628 628.12 - 629.20: impure graded gtywacke with moderate to weak (5% to <1%) disseminated tourmaline.		628.12	M											
			felted tourmaline, 5-7%.	↓ W											
	629		intense hi-angle "calc-silicate" fractures.		W										
	630 meter style bedding		flamestructure.												
	631		631.07												
			631.66												
			631.87												
10°	632.01 - 633.15: longitudinal fractures facilitate silicification of gtywacke/subwacke, hard, >6H. 632		muscovite				W				W				
	633		633.15												
	634		633.91												
35° bdg			634.47												
	635		634.93												
			635.30												
			635.66												
	636		636.03												
			636.72												
25°, 5°	637.0 - 638.40: broken, openfractured interval, mod-strong fe-chlorite on subparallel TCA surfaces, locally developed euhedral pyrite, variably 638 silicic, pervasive chloritization throughout. 637		636.97			M ↓ S					S ↓		M		
			chloritic, fractured.												
			silicic.												
	639 639.0 - 639.15: 1-2mm garnet		garnet.												

KENNECOTT CANADA EXPLORATION INC.

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration					Structure			Mineralization			
				tou	alb	chl	ser	gar	con	fbx	fra	pco	pyy	gal	sph
	640		clastic dyke												
	silicic, frac-filled coarse mm size pyrrhotite on 5° T.C.A.		640.13 640.35									W			
	641		641.64												
20° open frac	641.34-641.48: "pseudo" marker sequence (stepped on fracture plane)		641.34								W				
	642		641.80												
			642.54		W										
	643		643.50												
87° core	644		net-textured silicic/albitic alteration		M										
	644.15: trace pyrrhotite/chalcopyrite				W										
			643.93												
	645														
20° open.	645.15-645.78: silicic quartz wacke, 3-4% pseudo quartz/albite fracture @ 30° T.C.A.		645.78								W				
	646														
	occasional quartzose thin beds		hard, silicic trace pyrrhotite												
	647		647.01									W			
					M										
	648		647.84		M										
			648.37												
	649		648.75												
			649.66												
	650		650.37		W										
25° core															
	651		651.30												
	652														

KENNECOTT CANADA EXPLORATION INC.

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DIAMOND DRILL HOLE RECORD

Hole No: 97-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration					Structure			Mineralization				
				tou	alb	chl	ser	gar	con	fbx	fra	po	py	gal	sph
	garnet		652.22									W			
	653		mm size stratabound pyrr. hotite.												
	654		654.36												
	655		655.38												
	656		655.87 cross-ripples												
	ripup clasts		657.34 garnet												
	658		658.70												
	recumbent supsedimentary folds		659.43												
	longitudinal fractures, silicic, minor mm size pyrrhotite, muscovite, albitic base, quartz core to 3cm band.		659.88		W							W			
	660		660.50		W						W				
	661		661.10		W										
	PETROGRAPHIC ANALYSIS 660.99 - 661.09		661.82									W			
	662		662.36									M			
87° BC	662.80 - 666.45: Numerous healed high angle fractures importing chloritic alteration, mild to locally intense where numerous, associated disseminated muscovite 663		662.16								W				
	664 development, 1-2% diss pyrrhotite. Silicic		chloritic			S									

KENNECOTT CANADA EXPLORATION INC.

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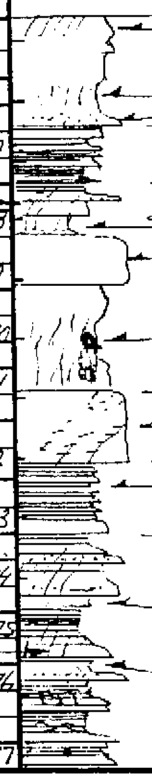
DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Metre
	664.85-666.44: graded thin-medium bedded	665
	Silicic qtzwacke.	
35°/5°, open	pyrite as point on open high angle	666
	fractures at base of interval	
20° open	666.35-667.75: 1-2% disseminated pyrrhotite	667
	calc-silicate veinlets, weak albitic →	
	alteration envelope to 4 cm.	668
	668.27-669.09: strong silicification of quartz-	669
	wacke, minor 1-2 mm pyrrhotite,	
10-15° open	localized muscovite on remnant	670
	argillaceous beds (thin), very hard,	
	diffuse UEL contacts @ 20° TCA	671
	669.09-670.86: moderate - strongly fractured	
	broken core, calc-silicate selvage	
	at 10-15° TCA, albitite at	672
	base with weak chloritite selvage.	
	670.86-672.03: Silicic qtzwacke, pervasive stress	673
	fracture, moderate-strong alteration.	
		674
5° open		
		675
	remnant garnet →	
		676
		677

Graphic Log



Metre/Notes

- strongly chloritic, v.hard.
- broken
- garnet [illegible]
- 667.15
- broken, fracture-fill pyrite
- silicic.
- 669.09
- moderately intense frac, broken
- 670.86
- silicic, cemented.
- 672.03
- planar laminae thin bedded.
- 673.24
- 673.73
- 674.24
- intensely fractured
- 675.31
- broken
- 676.17
- 676.75
- 677.14

Alteration / Structure / Mineralization

Metre	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
~665			S						W	M		
~665.5			S					M		M		
~666			M									
~666.5		w						S	W			
~668		W								M		
~668.3			M									
~669.5			W					M				
~670								S				
~670.5		M	M					M				
~671								W				
~674		W	M					M				
~675								M				
~676								M				

KENNECOTT CANADA EXPLORATION INC.

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
15° healed	676.30 - 679.15 ± competent typically graded turbidite facies (planar - disrupted - medium - coarse case)		667.84								W				
27° BED.	679.15 - 680.19 : 10-15% by volume healed 10°-15° TCA fractures, impacted silicification, 6-7H, altitic at case.		679.15 = silicic, healed.								M				
			680.27		M						M				
			680.55												
			- load-casts.												
			681.58								W				
			682.01												
	numerous anastomosing fractures		682.91												
			683.33 = silicic.												
			684.64												
	681.35 - 684.96 : silicic interval, high angle healed fractures every 10-15 cm facilitate alteration → selective permeable beds, fractures open in argillaceous siltite intervals, thicker bedding seals.		685.29 - flame structures.												
25° open			- open fractures								W				
			= garnet - silicic.					M							
2-5° open	= open, calc-silicate =		687.20 - garnet								M				
						M		M							
			689.12												
	.5 mm. 5% disseminated pyrrhotite		689.77										W		

KENNECOTT CANADA EXPLORATION INC.

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	tear fractures ← 690		690.51								W				
	690.50 - 692.27: 20-30% by volume		691.05		W						M				
5-10°, open/healed	calc-silicate bichange fractures, 691		← rip-up clast.		M										
	with 1-2cm albitic alteration envelopes,		691.69		Wk										
	minor localized pyrrhotite 692		692.27												
	692.0 - 693.5: Core is broken, 10-20cm blocks 693		693.20												
15-20°, opposing	693.5 - 698.40: penetrative calc-silicate fractures 694		694.25												
	persist within semi-competent core		694.81 ← rip-up clasts.								W				
	698.40 - 701.40: FAULT ZONE. 695														
	Fragmented core to 699.20,		← garnet												
	friable, soft, incompetent to 696														
	700.80, fragmented to 701.40.		696.25												
	U contact indistinct, L contact @ 50° TCA. 697										M				
	Consistent fracture cleavage at 45°-50° TCA		697.70												
U ct?	throughout zone. Secondary fractures oblique 698		698.40 FAULT								M				
45°, opposing	@ 45-50° intersection.		← fragmented								S				
	Weak intense argillic development 699		← rubble												
	Movement predominantly structural, veinlets are		← fragmented												
	barren with faint chloritic selvage, silicification 700										M				
	or albitization is absent.														
	Dendritic MnO in qtz-feldspathic centre.														
	701		701.40								M				
L ct @ 45°	702		← garnet								W				

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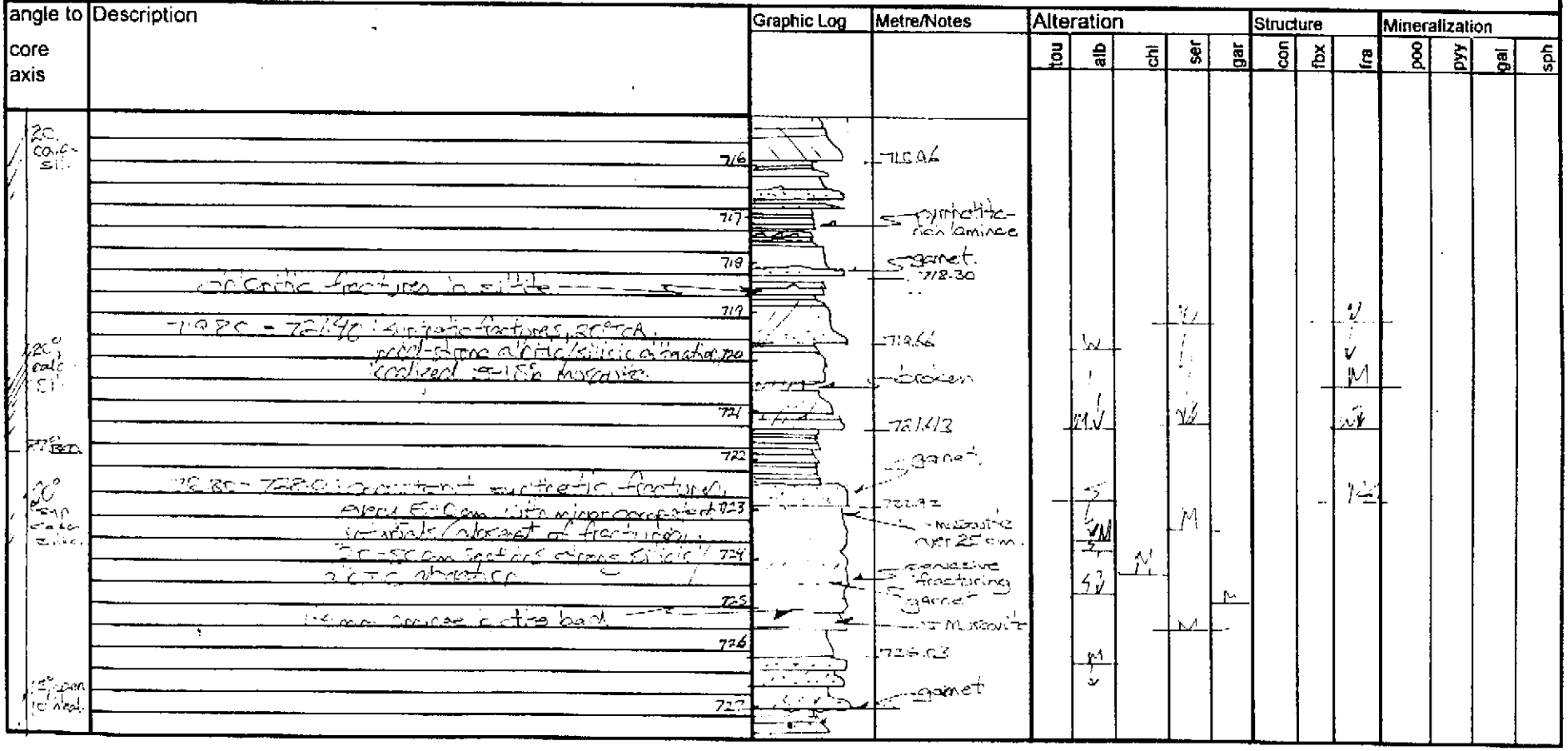
DIAMOND DRILL HOLE RECORD

Hole No: 97k-02



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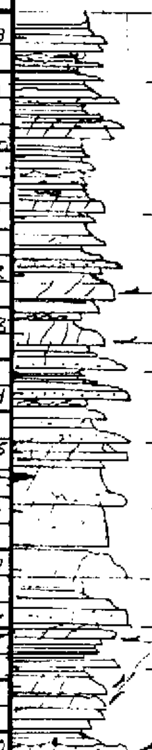
DIAMOND DRILL HOLE RECORD

Hole No: 97k-02

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	728														
	729		729.2												
	730														
	731		730.88												
			731.49												
27° 260.	732		siliceous, hard.												
	733		chloritic			M									
			733.62												
	734														
30 heal.	735		734.89		W	M									
	contact @ 25-30°				M							W			
	736		735.95		M										
	735.30 - 737.14 siliceous, locally along numerous 25-30° TCA calc-sil - ... fractures.														
	737		737.14												
	738		737.83		<	M									
	chloritic envelope fractures		garnet												
			738.77												
	739														
	740		muscovite			M	M								

KENNECOTT CANADA EXPLORATION INC.

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	741	740.88								M				
	742	741.28												
	743	742.82												
	743.37 - 745: planar thin-bedded argillaceous sediments 744	743.37									W			
	745 - discordant sericitic scm bed.				M									
58/56C	745.03 - 747.03: thickly bedded (50cm-100cm) fine grain medium gray quartzwacke, with [illegible] coarser grain bases. 745 746			W M										
	747	746.75												
	747.20 - 749.32: moderately [illegible] biotitic subwacke, minor muscovite 748	747.53			M						EW			
	749	748.99		M	W	W				M				
	[illegible] subwacke	muscovite		M W	M	M				M				
	750 751	750.70								M				
	752	751.60												
	garnet	752.62		M										

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DIAMOND DRILL HOLE RECORD

Hole No: [illegible]

angle to core axis	Description	Metre	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
		753														
				753.25								M				
5°, 15°		754				M	M					M				
	intense qtz/chlorite alteration envelopes to 1cm within 20-30% by volume [illegible] healed fractures.	755				W	W									
		756		755.70 756.26		M										
		757														
		758		garnet, potassic alteration ± [illegible] ([illegible])					M-S					W		
		759		759.[illegible] 759.[illegible] 759.85												
		760		tangential cross-bed.		W										
		761		761.59												
	762.[illegible] END OF HOLE	762		END OF HOLE												

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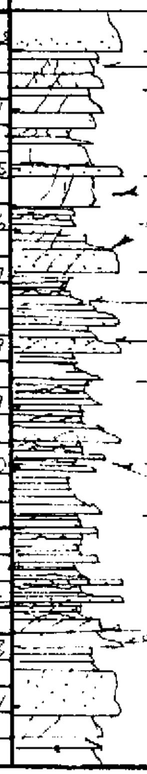
DIAMOND DRILL HOLE RECORD

Hole No: 97K-02

angle to core axis	Description	Graphic Log	Metre/Notes
40° open	703		703.0 silicic, weak
	703.50 – 710.28: carbonate rich beds show weak-mild albitic alteration as alteration envelopes or 'crackle' fractures		703.60
10° open	704		
	704.27 – 704.40: coarse 12-8cm angular breccia		705.16 mm size hi-angle calc-silicate fractures
25° calc.	705 lithic clasts hosting calc-silicate frameworks		
15° open	706		706.70 chlorite rich
	707		707.61 garnet
25° calc-sil.	708		708.55
	709		[illegible]
	710		710.2[illegible] garnet
	711		710.73
			711.6[illegible]
	712		711.98
20° calc-sil.	713		garnet 712.83
	713.50 – 714.5: synthetic, weak healed calc-silicate fracs spaced 15cm, no garnet		
	714		
	715		

Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: po	py	gal	sph
	W						M				
	M					M	M				
							M				
							M				
							W				
	M						M				
							W				
	M						M				
	W						W				

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Project: Moyie Lake | Mining Division: Ft. Steele | Purpose: Test Alteration

Location: 5457870 UTM northing; 558000 UTM easting | Elevation: ~1830m | Drilling Contractor: Lone Ranger

Hole test From	To	Azimuth	Dip
0	287.6m	185.5	71° (Fajari)
Azimuth 186.5 magnetic + 18° decl = 186.5			
0	526.7	196.5°	73°
0	759.0	205.5	76°

Hole No: 97K-03 | Collar Azimuth: 170° | Collar Dip: -70° | Total Depth: 762.00m | % Recovery:

Logged By: James Ryley
Start Date: August 25/1997
Finish Date: Sept 2/97

Intensity Modifiers: *T = trace/weak* *W = weak* *M = moderate* *S = strong*

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	The graphic log displays both primary and secondary features (ie. lithological and alteration). Hardness increases are reflected as graphic form extension to the right, these should be viewed in relation to the text description and alteration column (ie. albitization)														
	0-4.27 m: Overburden 97K-03 collared approximately 195m below the Moyie marker. This positions collar approximately close to the Park marker, as based on Mayd Hoporty marker assemblage. Based on Sullivan Mine area stratigraphy, this collar location could be 12m below the Park marker. 4.27-6.10m Casing set, core recovery starts at 6.10m 6.10-17.36: Feldspathic Quartzitic Wacke		core not recovered.												

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
45-50° open oblique & bed parallel	medium gray-green fine grain, medium-thick bedded graded ?siltier quartzwacke. Beds grade from moderately 8 well sorted quartz dominant groundmass with 5-10% biotite to poorly sorted quartzofeldspathic tops with minor 9 (3-5%) biotite and lesser subhedral muscovite/sericite. Feldspar-rich beds occasionally comprise bulk of graded 10 sequence. Biotite laminae commonly define upper contacts of beds, or exist as separate laminae. Thin 11 biotite-qtz wacke beds are common in uppermost portion.										M				
	STRUCTURE: Beds are typically planar to weakly undulatory. 12 Loadcasts, etc are uncommon, where present disrupt clay rich beds. Minor weak cross-stratification. 13 6.10-12.30: 15-20 open fractures/metre, 45° TCA - oblique & parallel 12.30-13.91: rubble/gouge; limonitic, dendritic MnO, local fault breccia 14									S M L L S	SL L SL				
	ALTERATION: Limonitic lined fractures to 13.90 m. Local texture-destructive albite with mm garnet, lesser is pervasive 15 chloritization/muscovite/sericite. * 1-2% acicular tourmaline selective to feldspathic beds. 16														
	MINERALIZATION: Pyrrhotite as irregular clots with trace chalcopyrite common (≤2%) near contact. Occasional fracture-fill pyrite within calcsilicate fractures. 17														
	17.36 - 18.61 : HORNBLENDE GABBRO Medium green mesocratic hornblende - actinolite - 18 tremolite gabbro, chloritic slickensides, semi-concordant	Δ Δ Δ Δ Δ									M L SL				
	18.61 - 22.92 : FELDSPATHIC QUARTZWACKE 19														
	19.58 - 22.92: Albite - chlorite ± quartz alteration,														

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	locally pervasive, texture destructive, angular clasts 20														
	bordered by brown biotite near upper of feldspathic														
50° qtz veinlets, 80° to bedding	thin beds. Sparsely chloritized-sericitic-muscovite 21														
	fault breccia (at 21.90): total obliteration of 1-10 cm														
	angular clasts within chlorite/sericite matrix. Albitic														
	sections cored by thin white quartz veinlets (late stage) 22														
	22.92 - 32.16: medium - thick (10-60 cm) 23														
	planar bedded fine grain quartz wacke,														
	graded from mod-well sorted base to 24														
	poorly sorted feldspathic tops. Lesser														
	interbeds of thin and laminate biotite														
	rich beds which display graded feldspathic 25														
	bases (white - black bands). Coarse sericite														
	(muscovite) common as 2-4% disseminations 26														
	upper portion of beds.														
	Albite - chlorite alteration envelopes: 2-10 mm 27														
	common to quartz wacke permeable such as														
60° albitic bedding	bedding - parallel and oblique late-stage 28														
	fractures (healed); imparts magenta														
	coloration, contrasted by pale green albite-chlorite 29														
30° x-cut late stage fracture	feldspathic [illegible] / thin beds, occasional														
	garnet.														
	tr-2% disseminated acicular tourmaline, mostly 30														
	selective to poor sorted feldspathic / sericitic														
	beds. 31														
	Limonite staining/[illegible] [illegible] on [illegible] 32														

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Metre	Metre/Notes
58° BED	32.16 - 34.91 : medium gray-green thin-medium planar bedded feldspathic wacke (siltite) interbedded with laminae to thin bedded argillaceous wacke. Feldspathic beds poorly sorted as fine to coarse grain. 1-2% tourmaline	33, 34	1-2% tourmaline; trace pyrrhotite/chalcopyrite as fracture fill. chlorite-albite-quartz-muscovite: bed-parallel & cross-cutting
	34.91 - 38.75 : medium gray medium-thick planar bedded graded quartz wacke to feldspathic wacke: sorting grades from well to poor, with subhedral muscovite and well rounded medium to coarse qtz grains within siltite matrix. 1-2% tourmaline selective to these beds, linear to bedding.	35, 36, 37, 38	quartz-calcite replacement of sub-euhedral muscovite/sericite; strong chlorite-albite fracture density (healed)
60° 300	38.75 - 39.91 : thin-medium planar bedded quartzofeldspathic to feldspathic (sericite) beds with tr tourm.	39, 40	trace pyrrhotite/arsenopyrite
	39.91 - 45.86 : medium gray fine-medium grain medium planar bedded quartz wacke typically graded to poorly sorted sericitic (upper bed portions with muscovite as sub-euhedral (porphyritic texture). Occasional scour marks on biotite-rich bed tops. 42.92 - 43.97 moderate-strong chloritic, biotite-chlorite alteration, locally pervasive, weak suture of coarse qtz grains in sericitic beds	41, 42, 43, 44, 45	quartz-biotite-pyrrhotite-albite alteration fracture destructive. Radiating-stellar translucent fibrous actinolite on open fracture. Biotite-albite-quartz, garnet.

Interval	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
32.16 - 34.91	W	M	M	M					W			
34.91 - 38.75	W	M	M	M					T			
38.75 - 39.91	W			M								
39.91 - 45.86	W	M	M		W				T			

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Metre
	45.85-47.02: Marker style beds: thin siltite beds with interbedded fe-rich laminae.	46
		47
	47.02-72.43: medium gray to gray-green graded medium-thick beds of qtz wacke to feldspathic wacke (biotite). Tops marked by sub-euhedral sericite (mus-	48
	covite); 3-5% disseminated biotite-less at 1-2% in siltic upper, trace-minor acicular tourmaline, possibly dravite and is light-medium brown, seen as rare occurrence to 72.43.	49, 50, 51
	15-60cm intervals of chlorite-albite-quartz-biotite alteration, every 80cm-1.5m. Alteration is typically pervasive and marked by high angle chlorite-albite alteration envelopes	52, 53
60° SEO.	(0.5-8cm), spotted to bedding diffuse albite. Quartz occasionally cores alteration interval, rarely in vein lets, commonly as indistinct translucent patches.	54, 55
20° chlorite albite frac. (healed)	Biotite forms occasionally at upper & lower contacts, as halos or coarse disseminations. Where intense, biotite alters to chlorite-muscovite-sericite, or pyrrhotite pseudomorphs after biotite. When alteration is not pervasively albitic a magenta colour is imparted to the rock associated with biotite depletion.	56, 57, 58

Metre/Notes:

- marker style beds.
- albitized biotite-chlorite U&L contacts.
- bedding
- slump
- garnet
- strong albite core, chlorite-albite alteration halo/envelopes
- pervasive albitization, bedding-parallel.
- magenta
- chloritic/sericitic green.
- spotted chlorite/albite
- garnet
- patch albite
- actinolite??

Alteration:

Metre	tou	alb	chl	ser	gar
46–47	W↓W				
47		M	M↓		
48		M	M		
49	W↓	M	M		
50	W↓	M	M		
51	W↓	M	M		W
52	W	M	M		
52		M	M		
52.5		S	S		
53	W↓	M	M		
54	W↓	S			
55		S	M		
55.5			S		
56	M	S			
58		S			M
58.5			W		

Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
				+		

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	59														
	pervasive biotite-chlorite alteration →		light green moderate albitic		M	M									
	60.12-60.22: PETROGRAPHIC ANALYSES														
	60														
	2-3mm pink granules: K-spar alteration? →				M										
	61														
	62														
25° chlorite-albite fractures.	63.01-67.37: 15-20 chlorite-albite fractures (healed) per metre, @ 20-25° TCA locally strongly albitized with associated K-spar development and coarse pyrite. Imparts magenta colouration to intervals where intense; pyrrhotite pseudomorph after biotite (white, albitized sections). 63, 64, 65, 66		white, albitite biotite-chlorite weak K-spar		M	W						W	M		
			rare tourmaline	W								W W			
	67														
	68														
	69														
	70														
	71.22-72.43: transitional magenta to pale green to 71														

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Metre	Graphic Log / Metre/Notes
	to cream and ocred by white 1cm veinlet.	72	tourmaline (<1%)
	This alteration; biotite-chlorite-albite-quartz		
	occurs uppermost, then transitionally in lower 2/3.	73	pyrite with 4mm calc-silicate bed parallel veinlet.
	72.43 – 77.38: medium green-gray fine-	74	
60° 3?0	coarse grain, thin-medium		
	planar bedded feldspathic beds	75	
	with thin interbeds biotite-rich		
	quartzwacke		K-spar alteration, weak, pervasive albitization.
	Subhedral muscovite/sericite common	76	
	at bed tops.		3cm bed offset, cored by 3cm qtz veinlet.
	Local thin (.5cm) calc-silicate	77	
	bed-parallel veinlets. Locally		
	pervasively chloritic	78	
	77.38 – 84.22		
	Laminar – thinly bedded feldspathic /	79	albite-biotite-garnet
	Quartzwacke planar beds out 10 metres		
	at top and base of interval with	80	
	thin-medium bedded graded fine-grain		
	quartzwacke to moderately/poorly sorted		albitized greywacke
	upper section feldspathic beds/medial.	81	
		82	s-garnet.
	minor muscovite, epidote, arsenopyrite. Sericite/		
	calcite? alteration of euhedral muscovite.	83	
	Albitization of chloritic fractures and biotite to chlorite		
	[illegible] & spar alteration, garnet.		

Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
1		M									
	S	↓									
1	S	S									
									M		
		M									
		M									
	S	M ↓									
		W		W				W			

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-01

angle to core axis	Description	Metre	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	cpo	pyy	gal	sph
		84													
	84.22-123.00m : medium gray medium to thickly bedded quartz wacke.	85	bed parallel albitization, black-brown biotite alteration		S	W					M				
	Fine grained mod-well sorted with lesser interbeds graded well sorted		garnet		M	M		W							
	to poorly sorted qtz wacke to feldspathic wacke. (Silty matrix with	86				W									
20° late stage fractures	heterogeneous mix of mod-coarse grain qtz).	87	"magenta" biotite depletion alteration		W	W									
		88	mottled chlorite-albite		↓M	M↓									
	Alteration commonly selective to qtz wacke beds. Range varies from biotite depletion		garnet		M / W			M							
58° BED.	producing "magenta" colouration, to green chloritic. commonly pervasive where it alters	89									M ↓				
	biotite-rich beds & disseminations through-	90	chloritic qtz wacke, locally over 15-20cm pervasive, minor strong albite		M	M		W ↓M							
	out qtz wacke. Complete albitization is less common, displayed as patches or total	91			S	↓									
	bed replacement. Both chloritic and albitization occur simultaneously, strength	92	to 1% tourmaline in sericitic bed.	W	S	↓									
	producing a grey white bleached or pale green (intensity).	93													
	Garnet survives both levels, occurring as .02-.5mm subhedral pink grains (locally)	94													
	bed-parallel laminae pyrrhotite with minor chalcopyrite, biotitic-pyrrhotite alteration, biotite-chlorite-sericite. Albitized beds and late-stage fractures	95			S	M	M					M			
	abundant albite-chlorite high angle healed fractures	96			M ↓	M ↓									

angle to core axis	Description	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	late-stage subparallel TCA ±2mm calcsilicate veinlets with oblique paragenetic tourmaline microveinlets		98.87												
	97														
	98														
	99		to 1% tourmaline	W	M	S									
	stratiform chloritic alteration halo/envelope of bedding, of albite and sericitic coarse-grain bed		100.20 biotite-pyrrhotite alteration		S	M						W			
	100														
	101														
	102														
	speckled chlorite-albite, garnet		103.01		M			W							
	103														
	irregular clots pyrrhotite in .5cm quartz veinlet, oblique to bedding, angle of intersection 85°, bedding @ 57° TCA		104.03									W			
35° qtz veinlet	104														
	105														
	106														
	107														
	coarse muscovite/sericite disseminations cored by albite, rimmed by albitic concretion framed by 15-20% med grain round bark black-brown biotite		trace chalcopyrite; minor pyrrhotite; 109.01									W			
	108														
	109														

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

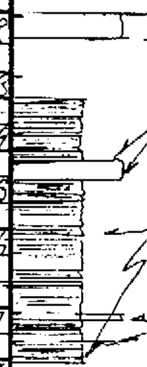
Hole No: 97K-03

angle to core axis	Description	Metre	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
15°, chlorite lined fractures	110.86-110.47: Biotite-chlorite fracture alteration of graded quartzwacke 3cm albite halo in core near upper contact, K-spar development [illegible]	110, 111	late stage chlorite lined fractures @ 15° ca; 110.74		W	M	W	W							
	111.56-113.95: pervasive chlorite alteration, near complete biotite depletion/alteration, locally stratiform albitization with biotite-pyrrhotite ~2cm bands on U&L cts. Quartz-carbonate veinlets to .5cm medial, oblique & bed parallel. Coarse books biotite at base associated with stringer chalcopyrite/pyrrhotite	112, 113, 114	albite rich beds; pervasive chlorite alteration; rare tourmaline; 113.95; concordant frac-fill chalcopyrite, pyrrhotite. Coarse books biotite.	W	M; M; M	W; M						W			
35°, minor veinlet	116.36-116.58: micro breccia, qtz-carbonate matrix, fe-chlorite selvage, pyrrhotite/chalcopyrite veinlet at lower contact, trace within breccia	115, 116, 117	min zn oblique to beds; 116.58; garnet		W; M	M						W			
	Upper chloritic schists, mottled chlorite-albite core	118, 119	118.32; 118.80		M; M	M; M									
57° 350.	121.0-122.38: Ucst: biotite-rich 2cm bed with qtz/calcite, replacement of garnet. Albite-biotite 3cm band followed by pervasive chlorite	120, 121	garnet; 120.50; to 1% tourmaline.	W	M; M; S	M; M									

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

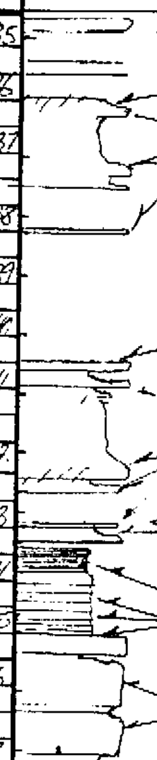
angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
25°, open, synthetic	alteration of otzwacke and sericitic beds, near total biotite-[illegible] alteration, rare tourmaline, locally albitized (122)		122.38		S	M	W				M				
	123.00 - 127.90 : ARGILLACEOUS FELDSPATHIC WACKE (123)		U and L contacts garnet, albitite, cored by chlorite												
	* 123.51 - 124.39: possible marker although bands are not likely monolithologic and some lensoidal beds occur. Possibly disrupted ± poorly developed. (124)		124.39 / 124.74		S M S	M									
	124.74 - 127.90: Planar laminae to thin bedded argillaceous otzwacke beds and sericitic beds. Weak-moderate pervasive chlorite alteration 125.60 - 127.90, localized albitized bands. (125, 126, 127)		weak-moderate chloritic alteration.												
			U & L cts albitite, chloritic core, garnet.												
	FELDSPATHIC QUARTZ WACKE														
40° fault breccia ⊥ to bed	127.90 - : medium-light gray-green medium bedded fine grain mod.-well sorted otzwacke which grades to a poor-mod sorted feldspathic argillaceous (biotite) qtz wacke on 30-50 cm scale (128, 129, 130)		coarse healed breccia, 4 cm wide, matrix-supported							W					
	130.65 - moderate albitization stratiform (131)	130.65			M	W									
	131.10 - 132.12 : selective calcite alteration of partially disrupted argillaceous beds, rare garnet at lower contact. (132)					M									
						M									
	(133)														
	(134)														

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Metre	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	134.77-134.97: calcitized biotite clusters within albitized bedding interval	135	134.97		S	M									
57° BED		136	numerous chlorite seams.			M									
	136.10 - 137.44: numerous [illegible] chlorite seams [illegible] at [illegible] contacts by spotted chlorite-biotite-albite alteration with 1cm of [illegible] at contact.	137 / 138	albitized, stratiform; 137.44		M	↓									
		138			S	M									
		139													
55° chlor seams ⊥ to beds	140.50-142.67: weak to moderate chlorite alteration, [illegible] in chlorite alteration seams (3-8mm); locally albitized 5-10cm intervals with spotted biotite-chlorite clusters	140 / 141	3mm veinlet sphalerite/pyrrhotite, lesser galena chalcopyrite.		M	M								W	W
25° chlor seams ∠ intersection 75°		142	moderate albitization.		M	↓									
	* 140.50: 3mm sphalerite/pyrrhotite veinlet with lesser galena and chalcopyrite. Intersection with bedding at 70°, angle TCA @ 50°	143	strong chloritic matrix in biotite-rich groundmass stratiform.	W	M	S		M							
		144				W									
	143.27: large (3.5mm) [illegible]-sieve garnet. (3).		thin laminae	↓		↓								W	W
	* 143.35-144.04: [illegible] [illegible], thin laminae	145	mm stratiform veinlets pyrrhotite-sphalerite, chalcopyrite, galena.	↓	W	↓								W	W
	* 144.03-145.0: thin-med bedded [illegible] siltite, lesser [illegible], with bed-parallel mm size veinlets of pyrrhotite, chalcopyrite, sphalerite and galena. Rare tourmaline	146 / 147	rare tourmaline	↓											



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DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

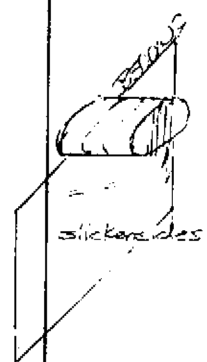
angle to core axis	Description	Metre	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	145.08 – 148.34: predominantly pervasive chlorite alteration locally strong albitization with destruction of biotite-chlorite fabric – commonly associated with zones of qtz veinlets with coarse to massive brown-black tourmaline	149		garnet	T	m	m		M							
				coarse pyrite 148.34	T	M	↓							W		
		149														
		150		mottled albite-biotite-chlorite alteration, stratiform												
		151														
	152.14 - 152.39: silicic qtz pocket with high angle carbonate/tourmaline veinlets containing needles metallic, mod hard (5.6) mineral - ilmenite??	152		152.39								M				
	152.78 – 156.20: moderate chlorite alteration, stratiform and along veinlets – those seams/fractures. Albitization rare. Magenta and green bands qtz wacke vs. sericitic respectively	153 154 155 156		156.20		W	M ↓ M ↓									
30° breccia 15-25° open	157.68 – 160.32 – microbreccia, chloritic, calcsilicate clasts, selvage matrix. Broken, ~15 open fractures/metre in first 2/3, competent at 3-5 fractures/metre to 160.32. Euhedral pyrite common on open fractures	157 158 159 160										M ↓		W W ↓		

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	161.11 - 164.74: spotted diffuse chlorite to moderate albitization - stratiform, texture destructive, x-cutting chlorite seams (161, 162)				M / M	M ↓		W / W							
	164.74 - 173.20: ARGILLACEOUS FELDSPATHIC GREYWACKE (163)		subparallel veinlet, anhydrite?												
	medium grey-green thin bedded graded planar greywacke to feldspathic / sericitic wacke. Moderately well sorted thin beds grading to mod-poorly sorted beds. [illegible] beds show minimal [illegible] disruption [illegible] lensoidal. [illegible] tops occasionally [illegible] [illegible] (164, 165, 166)		164.74												
45° BED ↑ CHANGE ↓ 45° BED	Section is atypically broken @ 5-10 open fractures/metre. [illegible] euhedral pyrite common on fracture planes. Section is weakly chloritic. Locally nucleate as facilitated by chlorite, [illegible] normal to bedding. Albitization is rare to absent. Occasional crosscutting calc-silicate veinlets are lined with pyrite. Slickensides show [illegible] oblique to plane of bedding dip. Fracturing is typically predominantly on bedding plane, occasionally at shallower angle (167, 168, 169, 170, 171, 172)		slickensides												



KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

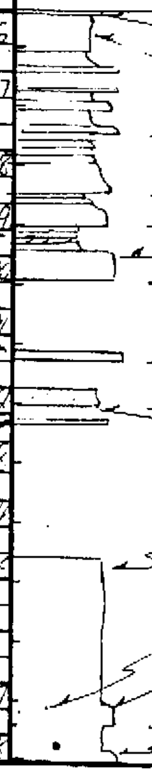
angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	173.20 – [illegible] GREYWACKE, LESSER FELDSPATHIC WACKE.		garnet magenta biotite depletion		M	M		M							
			173.86 qtz-carb band		M	M		W							
	medium gray, fine grain, mod-well sorted, medium-thick bedded planar to locally undulatory bedded greywacke. Rock shows weak foliation with sericitic (feldspathic-rich) tops common over thin intervals (2-5cm). Carbonate-rich argillaceous beds, dark gray, occur as laminae to thin beds. Thin beds occasionally display weakly developed cross-stratification and parallel lamination. Sericitic poorly sorted beds commonly display oxide-rich laminae and display poor asymptotic tangential cross beds indicative of relatively higher energy deposition. This sediment type is marked by occasionally slumped beds, [illegible] and to poorly developed differential bedding. Sericitic beds contain med-coarse grain euhedral muscovite (altered to sericite, i.e. [illegible], commonly grown owing to regional metamorphism) to ~2%, which shows weak preferential lineation (foliation).		174.15 / 174.34		W	M		W							
			175.33		M	M		W							
54° [illegible]			175.76		M	M		M				W	W		
			1cm qtz vein chloritic			↓									
			176.58		M	S		M							
			pervasive chlorite, tex-destructive, numerous seams.		M ↓	M ↓		M							
			178.51					M							
			179.62		S	M		M							
			180.18		S										
			181.01		S			W							
			182.27		S										
60° [illegible]	179.62-185.34: pale green and magenta section with localized albitized intensely [illegible] (as shown), pervasive chlorite alteration patchy to pervasive, texture destructive. Chlorite preferentially selective to sericitic beds, magenta colouration due to biotite depletion in [illegible] beds.		182.62		S										
			183.01		S										
			183.51 healed breccia		S										
			183.76		S										
			calc-silicate veinlets		S										
			185.34		S ↓	M ↓									

Depth marks: 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

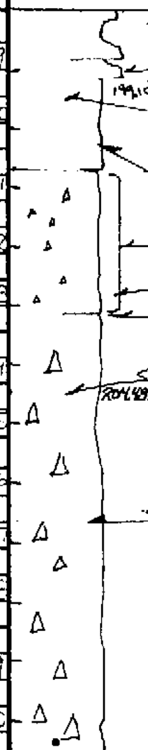
Hole No: 97K-03

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	◁ NOTE: PRECEDING GRAPHIC LOG DISPLAYS ALTERATION AND EXCEPTIONAL LITHOLOGIES ONLY. CONTINUING GRAPHIC LOG FROM 194.50 SHOWS COMPLETE SECTION OWING TO POTENTIAL SIGNIFICANT DISPLACEMENT AND SUBTLE YET IMPORTANT FACIES CHANGES.														
	...-189.0: Pervasive chloritic alteration of predominantly feldspathic thin beds! (186)		mm veinlets pyrrhotite, tr chalcopyrite; sporadic chlorite alteration. Q #L contact parasitic veinlets		W, S	M	M					W			
	(187)		187.47		M, M, M										
	(188)				M, M										
	weakly developed low angle cross-beds.		188.68		S½							W			
20° chlor frac (healed)	(189)		189.0		S										
	(190)		chloritic seams; 189.97 and x-cutting fractures.		S, ½										
	(191) Strong albitization caused by 2cm quartz vein, bumpy U & L contacts, 0.5mm pale pink garnets, Qtz veinlet with occasional coarse pyrrhotite		191.24		S	W						W			
30°, cross-cutting synthetic	(192)		191.70 numerous chlorite-calcite seams @ 30° TCA oblique to bedding					W							
70°, BED	plag-orthoclase-biotite alteration (albitization) (193)														
30° BED	@ 194.25, 40° change in bed attitude, gradually lessening over 70cm interval to 45° TCA! Localized block-slump(?) as beds are planar and normally graded, not turbiditic. Change inferred by [illegible] (194, 195)		chloritic, numerous seams, normal and oblique to bedding.		M	M									
70° BED; 20° chloritic frac (healed)	195.60-200.72: magenta and pale green coloured medium-thick bedded fine grain. Chlorite/biotite depleted altered quartzwacke. Texture-destructive, locally pervasive with diffuse undulatory bed contacts, numerous linear chlorite-albite seams normal and oblique to bedding. (196, 197, 198)		trace chalcopyrite. mod-strong albitization, mm size calcsilicate veinlets TCA. 197.39; albite-quartz core, minor chalco, pyrrho..		S, S	M						T, W			

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description		Graphic Log	Metre/Notes
	198.39 - 199.10: PROGRESSIVELY MODERATE TO STRONG ALBITIZATION, COMPETENT, HIGH HEALED FRACTURE DENSITY, LOCAL FE-CHLORITE @ (1) CONTACT OF STRONG ALBITIZED INTERVALS	199		198.08; v. strong albitized breccia; 199.10
CONTACT INDISTINCT	199.10 - 200.72: MEDIUM GREEN MODERATE TO STRONGLY CHLORITIZED QUARTZWACKE, LESSER SERICITIC WACKE. TOTAL BIOTITE DEPLETION - PYRRHOTITE PSEUDOMORPHIC TO BIOTITE.	200		trace pyrrhotite, chalcopyrite, arsenopyrite clot.
	200.72 - 246.98 GABBRO	201		200.72 GABBRO; 3cm weak net-textured pyrrhotite
	200.72 - 203.16: MESOCRATIC, APHANITIC, FINE-MEDIUM CRYSTALLINE HORNBLENDE GABBRO. HORNBLENDE SHOWS WEAK-MODERATE CHLORITIC ALTERATION (TREMOLITE, LESSER ACTINOLITE). MINOR PYROXENE, TRACE ACCESSORY MINERAL, TRACE TO WISPS PYRRH.	202, 203		aphanitic, transitional. net-texture pyrrhotite in qtz. coarse actinolite
45° massive pyrrhotite 1cm.	203.16 - 246.98: MESOCRATIC, PHANERITIC COARSELY CRYSTALLINE HORNBLENDE GABBRO. MAFIC CONTENT ≤40%, FELDSPATHIC AT 50-55%, MINOR ACCY PYROXENE, QUARTZ.	204, 205		204.49 massive 1cm pyrrhotite vein at 45°TCA
55° open, qtz-carb.	SHOWS CHLORITIC ALTERATION OF HORNBLENDE TO ACTINOLITE/TREMOLITE. CRYSTAL RANGE OF 1-4mm OF AMPHIBOLE. LOCALLY PLAGIOCLASE RICH IRREGULAR PATCHES.	206, 207		euhedral (cubic) pyrite within qtz-carbonate veinlet.
	FINE-MEDIUM (.5-2mm) BOOKED BIOTITE AT 3-5% DISSEMINATED/LESSER IN COARSE CRYSTALLINE INTERVALS. BIOTITE SHOWS WEAK CHLORITE ALTERATION, COMMON AS LIGHT BROWN VITREOUS BOOKS.	208, 209		
	PYRRHOTITE IS RARE IN WEAKLY PHANERITIC INTERVALS, ENRICHED AT 1-2% AND AS WISPS/CLOTS	210		

Alteration (tou, alb, chl, ser, gar): alb S, S, S; chl M (198.39 - 199.10)

Structure (con, fox, fra): con W (at 200.72)

Mineralization (poo, pyy, gal, sph): poo T, W, M, W, T, M, S

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description		Graphic Log	Metre/Notes	Alteration					Structure			Mineralization			
					tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	203.16-256.98 (cont): IN PHANERITIC COARSELY CRYSTALLINE INTERVALS:	211	Δ	0.34 mag susceptability net-textured pyrrhotite trace chalcopyrite												
25° qtz veinlet. 25° pyrrhotite stringers pyrite	212.29: net-TEXTURED PYRRHOTITE (20% BY VOLUME) QUARTZ (3cm) VEIN, WITH GRADING 2mm SEDIMENTARY PYRRHOTITE/TRACE ARSENOPYRITE VEINLETS	212		212.29									M			
		213	Δ													
		214	Δ	212.91 3cm qtz-albite bands at 60-70° TCA												
		215	Δ													
		216		215.75												
		217	Δ													
		218	Δ	0.75 magnetic susceptability 218.74												
		219														
		220	Δ													
		221														
30° gouge		222	Δ	pyrite/arsenopyrite in 1cm chloritic gouge										M		
		223	Δ													

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97k-09

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration					Structure			Mineralization			
				tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	224														
	225														
	226														
	227														
	228														
55° qtz vein	228.75-228.85: 10 cm WHITE COARSE QUARTZ VEIN, CORED BY 2-5 mm NET-TEXTURED PYRRHOTITE, TRACE CHALCOPYRITE.		quartz vein trace chalcopyrite within 228.85 net-texture pyrrhotite (2-5mm)									M			
	229														
	230		high angle hair-line magnetite fill microveinlets RO°TCA.												
	231														
	232														
	233														
15° carb. weak fracs	233.46-233.55: anastamosing carbonate veinlets, minor subtotal pyrite, weak brecciation, mm magnetite selvage fracture fill, strong tremolite/actinolite alteration.		233.55										I		
	234														
	235														
50°	235.46: 6 cm quartz vein		235.46												

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Metre/Notes	Alteration (tou, alb, chl, ser, gar)	Structure (con, fbx, fra)	Mineralization (po, py, gal, sph)
35° L contact QTZ vein.	235.66 - 236.77: 1.11m COARSE CRYSTALLINE QUARTZ VEIN, 30°TCA U contact, 35°TCA L contact, MINOR NET-TEXTURE PYRRHOTITE, TRACE CHALCOPYRITE AT U CONTACT AND MEDIAL. WISPS & PATCHES STRONGLY CHLORITIC, BLEACHED ACTINOLITE/TREMOLITE THROUGHOUT WITH MINOR ASSOCIATED MAGNETITE. CHLORITIZED AMPHIBOLE ALTERATION 1M ABOVE U CONTACT TO 2.0M BELOW L CONTACT.	QUARTZ VEIN; 35°TCA, L CONTACT			po: M
25° albite alt'n.		238.36 5cm albite/actinolite alteration, hi-angle pyrrhotite-lined fractures.	alb: M		po: W
20° QTZ VEINLETS	240.32, 240.70, 241.42: NET-TEXTURED PYRRHOTITE BORDER AND MEDIAL WITHIN 1-3cm QUARTZ VEINS, TRACE CHALCOPYRITE. SYNTHETIC AT 20° TCA SELVAGE OF ALBITE-CHLORITE.	240.32			po: W
		240.70 0.64 MAGNETIC SUSCEP.			po: M
		241.42			
		241.73			po: M
	243.88 - 246.98: mm-SIZE MAGNETITE MEDIUM TO HIGH ANGLE MICRO-VEINLETS EVERY 40-60cm, LATE-STAGE, OFFSET TEAR/GASH QUARTZ VEINLETS WHICH SHOW 1-2cm INITIAL OFFSET OF ALB ALTERED PATCHES	243.97 3cm QUARTZ VEIN MAGNETITE (HAIR-LINE) BORDER.			
60° U contact	246.98 - 248.80: BIOTITE HORNFELS OF QUARTZWACKE, 30-40% MEDIUM CRYSTALLINE BIOTITE (LIGHT-MEDIUM BROWN)	246.98		con: M	
		247.21 QUARTZ VEIN, TRACE PYRRHOTITE, FN-GRAIN PYRITE			po: T; py: T

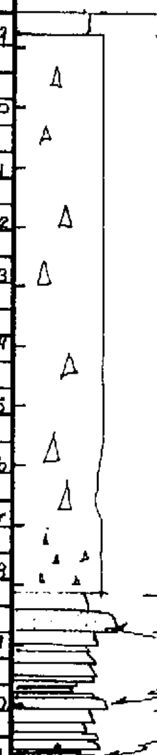
Metre marks: 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description		Graphic Log	Metre/Notes
	248.80-258.14: GABBRO	249		248.80
	248.80-256.72: MEDIUM GREEN MESOCRATIC, PHANERITIC HORNBLENDE GABBRO, MEDIUM CRYSTALLINE, 40% AMPHIBOLE, 50-55% FELDSPAR, MINOR QUARTZ, BIOTITE-CHLORITE ALTERED (11 RARE BIOTITE), TRACE PYRRHOTITE	250 251		
		252		
		253		
		254		
		255		
		256		
	256.72-258.14: MEDIUM GREEN MESOCRATIC APHANITIC GABBRO TRANSITIONAL TO CONTACT. SYNTHETIC QTZ/CARB. VEINLETS (20/METRE) @25° TCA 257.16-257.59.	257 258		258.14
CONTACT INDISTINCT	258.14-265.26: QUARTZITIC WACKE, MINOR SUBWACKE	259		258.74 garnet
	MEDIUM-LIGHT GRAY FINE-GRAIN MEDIUM TO THICK BEDDED MOD-WELL SORTED GRADED QUARTZWACKE, 5-7% FINE DISSEMINATED BIOTITE. BEDS GRADE TO FELDSPATHIC (SILTITE) TOPS YET REMAIN QTZ-RICH. BEDS TYPICALLY RODDED	260 261		slumped, albitized 260.06 minor pyrrhotite? BIOTITE-RICH CLAST.



Alteration					Structure			Mineralization			
tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
					W						
	M	M		M							
	M	M						W			

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Metre	Graphic Log	Metre/Notes
				261.39
				261.64 albitized, oblique alteration contact.
	GRADED AT TOPS. BEDDING IS PLANAR WITH ONLY LOCALIZED MINOR	262		
	SLUMPING. TURBIDITY STRUCTURES SUCH AS LOAD CASTS, BALL AND PILLOW,			
	TRACTION MARKS, etc ARE UNCOMMON	263		262.61
				263.44
	MOSAIC TEXTURE: INCIPIENT FLUIDIZATION (DEWATERING)			quartz veins, barren, oblique to bedding.
	261.76-262.61: BIOTITE-CHLORITE ALTERATION, BIOTITE REMNANT	264		strong chloritized/sericitic qtzwacke
	RIP-UP CLASTS			
		265		minor pyrrhotite, chalcopyrite. 265.26
	265.26 - 276.02: MEDIUM GREEN-GRAY FINE GRAIN, MOD-SORTED,			265.84
	PLANAR THIN BEDDED, SERICITIC QTZWACKE	266		qtz vein, 1cm.
	INTERBEDDED WITH LAMINAE ARGILLACEOUS			2-5mm rounded clasts.
	SILTITE			
	267.13 - 268.32: STRONG CHLORITIC ALTERATION, LOCALLY ALBITIC,	267		qtz vein 2cm
	SPOTTED 5-1mm GARNET, BED SELECTIVE TOURMALINE,			rip-up clasts altered tourmaline
66° BED	AS NOTED.	268		268.32
35° fault contact	268.32 - 272.40: MEDIUM BEDDED GRADED QTZWACKE WITH			268.88 siderite seam, stratiform.
	SERICITIC TOPS.	269		
	296.06-270.10: RUBBLE TO BROKEN.			RUBBLE TO BROKEN.
		270		270.05 RARE SLICKENSIDES
		271		270.96
	MINOR K-SPAR ALTERATION			271.28
	WISPS/CLOTS PYRRHOTITE			271.53 BIOTITE-ALBITE
	272.32 - 276.02: NUMEROUS LENTICULAR ARGILLACEOUS (BIOTITE-	272		272.32
	RICH) BEDS.			LOAD-CAST BED.
75° BED	CLOT-PYRRHOTITE LINED CLASTIC DYKES	273		ARGILLACEOUS BED (LAMINAE).
	(DISHARMONIC, INCIPIENT FLUIDIZATION).			

BED ATTITUDE SHIFT

Alteration					Structure			Mineralization			
tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	S	M		M							
	M						M	W			
			S								
	M	M									
M	S							M			
		S					S				
							M				
		M									
	S										
								W			

mod-high (CLAY) (LOW)

low-mod (CLAY)

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

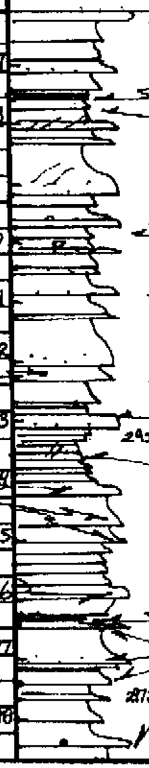
Hole No: 97K-03

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	274		273.22		M	M									
	275		275.25		S	S						In			
	275.15, 275.84: ALBITE-BIOTITE-K-SPAR ALTERATION (CONCRETION) WITH BIOTITE-PYRRHOTITE DEVELOPMENT.		275.94									ML			
	276		276.31		M	M									
	276.02-297.21 : MEDIUM-THICK BEDDED FINE-GRAIN GREYWACKE, LOCAL THIN INTERBEDS SERICITIC (SILTITE) BEDS, OCCASIONAL LAMINAE ARGILLITE.		276.84 MOD TO STRONG ALBITIZATION, Fe-CHLORITE FRACTURES.		MS	MS M									
	277		277.73 GARNET					M				W			
	278		HEALED BRECCIA		M						M				
65° BED (ASSUMED)	278.52: BIOTITE-ALBITE BASE, GRADED TO ARGILLACEOUS BLACK UPPER. (/) CONTACT QTZ/CARBONATE BED-PARALLEL		COARSE QTZ-CARB VEINLET 278.91 HI-ANGLE SILICATE VEINLET		M										
	279				M		S								
	DEFINITE.		279.32												
20° Fe-chlorite frac.	279.20-279.52: CHLORITE-ALBITE, 1cm QTZ (/) CONTACT, COARSE MUSCOVITE (/) CONTACT. S HI-ANGLE Fe-CHLORITE		280.31 garnet biotite-albite banded siltite/ argillite.		M			M							
45° BED	280														
	FRACTURES														
	281														
	FINE WHITE SERICITE (MUSCOVITE)														
	282		Minor pyrrhotite dissociation cracks.												
	FINE DISSEMINATED PYRRHOTITE														
	283.00-283.24: PERVASIVE ALBITIZATION, MOTTLED POTASSIC ALTERATION NEAR (/) CONTACT / COARSE BIOTITE ENRICHMENT AT (/) CONTACT.		282.75 Fe-chlorite 283.24 fractures. 283.46 - locally slumped.		M	M									
	284		284.14												
25° CHLORITE SEAM	garnet chlorite-albite (weak) seams		284.36 - mottled biotite-chlorite altn. 285.54 285.96		M	M									
	286														

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
			286.36		M	M									
	287: MOTTLED BIOTITE/GARNET AT L CONTACT		287.16		M	M		M							
			Banded argillite/wacke.									W			
20° CHLOR. SEAMS	288: MARKER - STYLEBED; CHLORITE-ALBITE SEAMS		disseminated/wisp pyrrhotite.		S	M / M									
	289: WISPS PYRRHOTITE, TRACE CHALCOPYRITE		289.16		W	M									
			289.21 garnet.										W		
	290		pyrite on open fractures.			M									
	291		290.84		M / M	M / A									
	292: 292.31: 2cm quartz vein with strong pervasive garnet, chlorite alteration rim.		292.31					S							
	293		remnant beds/casts in albitized qtzwacke; 293.56		M	M									
	294: 294.29: WEAK-MOD ALBITIZED BASE, SPOTTED 1-2 mm GARNET. 294.71 BIOTITE-CHLORITE ALTERATION		minor pyrrhotite/chalcopyrite; 294.71; 295.02		M / M	M		M / M							
	295														
	296: STRONG ALBITIZATION, OBLIQUE Fe-CHLORITE FRACTURES, REMNANT BEDDING; 296.21: strong chloritized gauge.		296.07; gauge chloritic		S / M / M / M	S / M / M		M / M							
	297: 297.21 - 301.20: THIN-MEDIUM BEDDED SERICITIC WACKE, TRANSITIONALLY GRADES FROM THIN-MED BEDDED GRADED QTZWACKE TO THIN BEDDED		garnet, bio-chlorite alteration; 297.72					M							
	298		298.39		M	M		M							

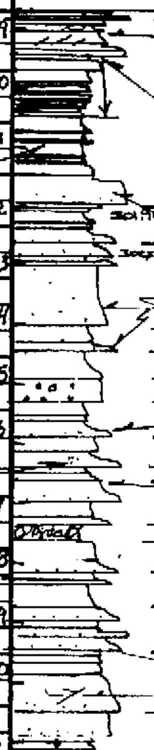
KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-Q3

angle to core axis	Description	
	(297.21-301.20) cont.	299
	SERICITIC SUBWACKE WITH LAMINAE BIOTITE-RICH TOPS.	
	BEDDING IS TYPICALLY PLANAR WITH LOCALIZED DEWATERING/	300
	SLUMP FEATURES (300.60m). ASYMMETRICAL RIPPLE MARKS	
	INCIPIENT TO BALL/PILLOW SOFT SEDIMENT DEFORMATION @ 300.10m.	301
	Fining downward interval 299.36-300.47	
65° BED.		
	clastic dikes	302
	301.20 - 304.40: MEDIUM-THICK BEDDED QTZ WACKE	
	WITH LESSER THIN BEDS GREY-GREEN	303
	SERICITIC SUBWACKE.	
	SECTION SHOWS WEAK-MODERATE CHLORITE/SERICITE	304
66° BED.	ALTERATION WITH CONFINED MODERATE ALBITIZATION ±	
	ACTINOLITE-BIOTITE-CHLORITE DEVELOPMENT.	305
	304.90-305.54: strong chloritic subangular fragmental clasts in	
	matrix-supported qtz wacke.	306
	304.40 - 307.43 thin-med bedded fn qtz wacke, interbed sericitic subwacke	
	coarse pyrite overlapping albitized-border clasts	
		307
UFL contacts 37°	307.25-307.63: Fault breccia, weak consolidation accompanied	
	by strong chloritic alteration grading to moderate	308
	albitization and calcsilicate (cal-act) veinlets at base.	
	Cement is predominantly calcite, carbonate-rich tot	309
	argillaceous bed to 2 cm near upper ct (secondary).	
	309.85 - 313.51: med-bedded graded light grey qtz wacke with	310
	sericitic subwacke uppers. Interval shows weak-	
	moderate sericitic alteration and localized albite-	
	chlorite longitudinal fractures (healed) selective to	311

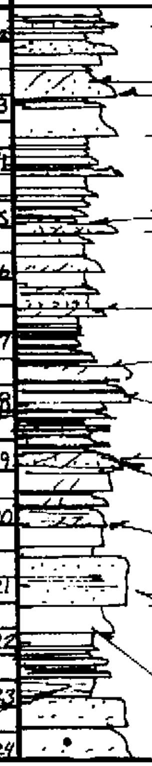
Graphic Log



Metre/Notes

- 298.79
- argillaceous load clasts within deformed beds wisps pyrrhotite.
- sericitic/bio-rich thin bed interval, clots pyrrhotite common at bio-rich bases.
- 301.90 pervasive sericite-albite alth.
- 302.?
- albite-biotite-garnet.
- 304.05
- 304.39
- 304.90 chloritic at base.
- 305.54
- 305.89 1-3mm garnet
- 306.35
- disseminated pyrrhotite at base.
- 307.63
- 308.22
- 308.71 BIOTITE-RICH BASE, COARSE TEX OF MUSCOVITE, PYRRHOTITE
- 309.43
- pale garnet.
- calcite veinlet
- 310.42

Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	M			W							
								T			
	M			M							
								W			
	M	M	M	M							
		W									
				?							
	M	W									
	M		W	M							
	W		W								
		W	W					W			
		M		W							
	W			M							
	M			W							
	M	W	W					W			
					S	M	M				
	M	M		M							
	M	W	W	M				W			
	M	W		M							
	M			W							
			W								
	M										
	M	W		M			W				

angle to core axis	Description	Graphic Log	Metre/Notes
	309.85-313.54 (cont):		311.62
	permeable qtzwacke beds, weak texture destruction of bedding contacts, overall hardness increase. locally garnet displays stretching lineation.		312.16 / carbonate veinlets / garnet lineation / 313.54
	313.54-318.69: SUBWACKE - QUARTZITIC WACKE.		314.21
	light gray-green thin-medium planar bedded subwacke (sericitic siltite) interbedded with thin-medium bedded dark gray v.fine grained biotite rich (5-8%) quartzwacke. Occasional laminae argillaceous (Bio-rich) pelagic sediment.		calcite veinlet / 315.27 / 315.38 / truncated recumbent isoclinal ripple marks / calcite veinlets, chlorite-lined frac.
	[illegible] ripple marks few, bedding is generally planar		317.56 / 317.79 / biotite-chlorite alteration.
	slumped bedding		calcite/qtz seam
55° Bed	318.69-321.34: QUARTZWACKE, LESSER SERICITIC SUBWACKE.		319.11
30° calcsilicate. oblique to bed.	medium-thick bedded medium gray fn-grain quartzwacke with minor thin bedded [illegible]. Commonly poorly sorted sericitic subwacke tops. Numerous sericite-albite oblique healed fractures (incipient to qtzwacke) overall pervasive sericite-albite-chlorite alteration		disaggregated poorly sorted subwacke / calcsilicate veinlets with coarse pyrrhotite. / 321.34
	321.34-322.89: SERICITIC SUBWACKE, light gray-green thin-med bedded with lesser [illegible] thin-bed qtz-wacke, generally biotite-poor, locally disaggregated		texture-destructive albite-sericite alteration of heterogenous lithology.
	qtzwacke nodule rimmed by laminae & [illegible]		rip-up clasts at base.
	323.00-325.65 oblique calcite veinlets, 2-4% by volume, locally [illegible]		

Metre marks in description column: 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324

Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
			W								
	M			M							
	M		M	M							
	W	W									
	M			M							
	W		M	W							
	M			M							
	W			W							
	W		W	W							
	W		V	M							
	M	≤M	M	M							
	W			W							
	M/W	W	M	≤M							
								W			
	M	M		W							
				M							
				M							
								W			

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Graphic Log	Metre/Notes
20° calc-silicate	322.89 - 329.03: QTZWACKE, LESSER SERICITIC SUBWACKE. medium gray medium-thick bedded fine-grain qtzwacke, minor 10-30mm intervals thin-bedded sericitic siltite w/occasional laminae argillite. These sections show soft sediment deformation, ball and pillow, disaggregated laminae, flame structures and poorly sorted uppers. Alteration consists of weak-moderate albite-sericite alteration to 325.62 accompanied by carbonate veinlets (2-3% by volume), local strong chlorite-pyrite fracture-controlled zone		324.52 — echelon pyrite chlorite-lined frac., 2-3cm offset. 326.52, 326.85 — albitic load-casts, flame-structure. 327.79 — SO07. 328.30 — frac-controlled albite alteration. 329.4 — dewatering structures
25° qtz vein, opposing	329.03 - 333.50: SERICITIC SUBWACKE, LESSER QTZWACKE light gray-green thin-med bedded (3-15mm) planar to locally undulatory sericitic siltite graded to medium gray uppers of similar lithology, minor thin interbeds qtzwacke		330.12 — synthetic $CaCO_3$ veinlets. 331.95. 333.04. 333.50
	333.50 - 353.10: QTZWACKE, INTERBEDDED SUBWACKE. medium gray medium-thick bedded qtzwacke commonly graded thin to upper sericitic poorly sorted subwacke, lesser interbeds laminae thin bedded med to poorly sorted sericitic subwacke. (gray-green siltite)		microbreccia. cg. pervasive chlorite wash in fn-grain qtzwacke

Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	S, M↓ W	S, M↓ W	S/M↓ W	M, W			M		W, W		
	M			W, W, M, W							
	W↓										
	M	M	M								
	M/W↓	M	W↓	M, W					T		
	W, W	M	↓	M							
	M	W	M	M							
	M, M	W	M	W, W, W							
	M, W↓	M↓	M↓	M			M	T			

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Metre	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
34° qtz vein	quartz vein, 4cm, cored by calcsilicate cemented breccia upper selvage. fine disseminated garnet 2-6mm. fine pyrrhotite clots, vesicules chlorite/biotite alteration.	337, 338	quartz vein; 336.82; 337.25		M; W; W; M	M	W; M	S; W							
	339.10 - 340.13: Broken. Fault breccia of calcsilicate brecciated fractures at U contact, calcareous selvage near base. Pyrite on fracture planes. Indistinct U&L ck	339, 340	339.09; 340.13							M	M ↓ M				
		341	locally intense albitization.		M; M			M; M							
35° qtz vein.	quartz vein cores. strong albitization (texture-destructive), bordered by garnet selvage. local clots pyrrhotite	342	qtz vein. 341.65; 342.53		S; M; W		M; M	W; L				W			
25-35° CO3, synthetic.	343.00-347.26: 30-50cm intervals (50% by volume) mod-strong albitization, diffuse to texture destructive U&L contacts, often cored by quartz veining strong garnet selvage development, mottled biotite-chlorite alteration at U&L borders, hi-angle fractures are calcite-lined; occasionally chlorite as fracture-filling intense albitized zones.	343, 344, 345, 346	qtz vein, garnet; 343.72; 344.24; 345.65; 346.08; mod chloritic dk-gray subwacke w/diss pyrrhotite.		S ↓; M; S	W ↓; M ↓	M ↓	S			W ↓	M ↓			
35° qtz vein.	qtz vein, 4 cm, cores albitized qtzwacke	347, 348, 349	347.27; 347.55; 349.00		M; M; W		M; M	M ↓; M; W							

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Metre	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fre	poo	pyy	gal	sph
			349.53		m		w	m							
		350			w			W							
15° alb-chl	numerous (15% by volume) albite-chlorite healed fractures.	351						W							
	mottled bio-chlorite-albite-garnet alteration. 1-3mm garnet.	352			M	M	M	M							
			352.52		M										
		353	353.10		W			W							
	353.10 – 357.64 : SERICITIC SUBWACKE, minor QTZWACKE light grey-green v.fn grained thin-med bedded sericitic siltite wacke, ~3% disseminated biotite, interbeds thin-bedded argillaceous subwacke. Minor occasional thin bedded v.fn-grain QTZWACKE.	354	broken, mod-strong chloritic, trace euhedral pyrite, numerous slickensides.			W / M							T		
		355	trace pyrr & py			W									
		356	355.47		M / W			M / W							
		357			W										
			357.64		M	W/M	M								
	357.64 – 398.89 : QTZWACKE; MINOR SUBWACKE	358	358.13 albitization of qtzwacke, minor subwacke.								M				
	light gray-green, variably dark gray med-thick bedded qtzwacke, fn-gr(ain), minor thin interbeds sericitic mod to strongly altered sericitic siltite subwacke.	359	lemnet-tex poo												
		360	albitite: v. strong alteration. 360.64.			M	M								
	357.64 – 360.64: pervasive albite-sericite alteration, numerous albite-chlorite-sericite fractures & late-stage carbonate fracs.	361	361.25 slumped bed		M						M				

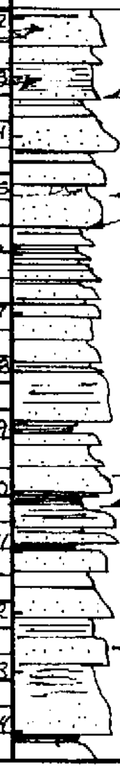
KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	m
	362.0-362.50: numerous albite-sericite healed fractures with ± 3cm alteration envelopes.	362
	362.70-363.36: 15-20% by volume argillaceous lamina with wisps/stratiform laminae pyrrhotite, trace chalcopyrite	363
		364
		365
70° BED		366
65° veinlet (opposing bed)	366.87: 1cm quartz veinlet, minor pyrrhotite	
		367
	367.04-372.86: overall hardness increase owing to weak-moderate albite-sericite alteration with mod-thick bedded greywacke dominant interval, associated increase @ 5-10% by volume fracturing mm to cm size calcite-lined fractures. Weak chlorite alteration, weak throughout. Biotite reduction, occasional coarse muscovite (≤1mm). Faint bedding, diffuse texture destruction.	368–371
		372
25° calcite veinlet	372.86-374.06: Transitional, dark grey argillaceous subwacke dominated by disrupted bedding to mod-sorted impure greywacke with mod silicification at coarse grained base.	373
60° BED.		374

Graphic Log:



Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
362.50		M		M								
		T		W	W							
Biotite-albite-garnet.		M		W	M				W-M			
364.30		M-S	W-M	W	M							
364.85 mild turbidite facies. 365.50		W		W	W							
366.55		M	W	M	W				T			
367.04		W / M	W	W								
369.13		M			M							
1-3cm ankerite/calcite veinlets.		M										
369.96 poorly sorted		M-S		M-S								
370.61 Sericitic subwacke/qtz wacke.		M / M		M	W / M							
		W		W	W							
372.20		M-S	M	M	W							
calcite veinlet 372.86		M-S	W / M	W-M	W					T		
		M		W-M	T					W		
374.05												

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

Angle to core axis: Oct 25°, Lct 45°

Description

374.70-375.00: 30cm quartz vein, strong albitization over 5cm at U contact, 1x3cm pink irregular medium net-textured garnet assemblage (patchwork) near U contact. Pyrite as "paint" near this contact on open fracture. Phaneritic muscovite 50cm to U contact.

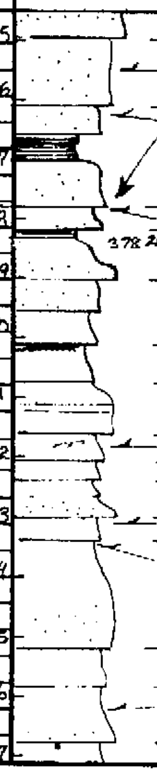
377-378.20: phaneritic muscovite, occasional euhedral pyrite, 2-5% by volume longitudinal carbonate mm veinlets within v.fn - fine grain [illegible].

375.00-398.89: Overall chloritic alteration with increased intensity leading to gabbro contact @ 398.89m, coincident increase in both oblique and bed-parallel 1-3mm calcite/ankerite/siderite veinlets, Fe-chlorite and euhedral/paint pyrite occasionally on fracture planes. Transitionally blocky to locally as rubble, compromise is brittle character (?) dominantly by conchoidal fractures with lesser occasional occurrences of slickensides.

[illegible]

385.88-386.20: disseminated irregular clasts pyrrhotite, sulphidization of argillaceous clasts in [illegible] wacke bed.

Graphic Log



Metre/Notes

- 375.00
- weak-moderate sericitic alteration
- 376.15 — broken, weakly chloritic, minor pyrite.
- 377.83 — calcite veinlets (micro)
- 378.20
- 379.02
- 380.18
- 380.77
- 381.34 — [illegible]
- 382.04
- 382.35
- 382.98 — 1x2cm pyrrhotite, trace chalcopyrite
- 383.42
- euhedral pyrite, carbonate veinlets.
- 385.21
- 385.78
- 2-4mm clots pyrrhotite
- 386.78

Column headings: Alteration (tou, alb, chl, ser, gar); Structure (con, fbx, fra); Mineralization (poo, pyy, gal, sph)

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97k-03

angle to core axis	Description	Metre
	388.0 – 398.27: Incompetent core, blocky on 5-15cm scale, locally rubble, no gouge but is observed below gabbro contact with strong carbonate veining. Brittle composite of quartzitic/quartz wacke with lesser occasional sericitic wacke/subwacke thin beds (5-10cm)	388, 389, 390
	note: well developed atypically large (.5-1.0cm) clastic dykes within this lithology, as at 392.70	391
	Pyrite, as platelets and euhedral crystals common on fracture planes, size is 2-5mm.	392
	Increased slickenside development, weak-moderate, locally occasionally strong.	393
		394, 395
55° 350		396, 397, 398
60° contact	398.89 – 403.25: GRANOPHYRE / GABBRO	399

Graphic Log

Metre/Notes

- 388.0
- 388.67
- 389.0
- 389.98
- broken/rubble quartzitic wacke
- clastic dykes
- 392.70
- 393.51
- 393.91
- broken/rubble
- 394.50
- 395.06
- load-casted slumped beds
- 396.51
- broken/rubble
- 398.89

Alteration

tou	alb	chl	ser	gar
	M, W↓, M/S, M, M, M-S, W, W, M/S, M	M ↓, W	M, M, W, W, M, M, M	M/W, M, W, W

Structure

con	fbx	fra
S		M, M, W, M, W, M

Mineralization

poo	pyy	gal	sph
M, W	W-M		

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Metre
45° calc-silicate	398.89 – 399.31: Transitional hybrid; weak granophyre texture with weak-moderate biotite hornfels at ∠ contact, actinolite/tremolite alteration, aphanitic, light green-brown, wisps pyrrhotite throughout (8.5% by volume).	400, 401, 402
	399.31 - 403.25: GABBRO, aphanitic, mesocratic, 10-15% med xtalline hnbld	403
30° CONTACT	403.25 - 411.93 ; QUARTZITIC WACKE (ALTERED) STRONG CHLORITIC ALTERATION WITH ASSOCIATED ANKERITE/CALCITE VEINING THROUGHOUT: LOCALLY INTENSE NEAR U & L CONTACTS. INTERVAL IS INCOMPETENT CHARACTERIZED BY FRIABLE, BROKEN TO RUBBLE SECTIONS IN WHICH SLICKENSIDES ARE POLISHED. CORE IS SOFT AT 3-4H. CARBONATE VEINLETS ARE LONGITUDINAL AND OCCUR AS WISPS WHERE SHEARED. Fe-CHLORITE DEVELOPMENT IS STRONG IN ASSOCIATION WITH ANKERITE VEINLETS. WEAK DISSEMINATED (<1%) IN CARBONATE INTERVALS.	404, 405, 406, 407, 408
10° carbonate veining		
20° U QTZ VEIN 15° L CONTACT	SERICITE ALTERATION INCREASES BELOW 408.0 m. PRODUCING INDISTINCT GNOMASS, PLATELET FORM, 3-4H.	409, 410
15° U+L CONTACT	FAULT: 403.25-408.80	411, 412
	411.93 - 412.38 : GABBRO: MESOCRATIC, MED-GRN, ACTINOLITE/TREM.	

Graphic Log:

Metre/Notes:
- .5cm net-tex pyrrhotite within calcsilicate veinlet, trace chalcopyrite.
- .5cm qtz veinlet with oxidized sphalerite, lesser pyrrhotite
- 403.25
- QTZ/CARBONATE VEINING TO 4cm
- rubble
- strong ankerite/calcite veining
- QTZ VEIN, ∠ contact w/ 3cm carbonate vein.
- QTZ VEINS, WITH LATE-STAGE CALCITE VEINLETS.
- 411.93
- 412.38

Alteration					Structure			Mineralization			
tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph

- chl: W! (400–403.25); S (403.25–408.8); M! (409–411); M-S (411–412)
- ser: M (403.25–408.8); M+S (409–412)
- con: M (403.25); S (412)
- fra: M (404); S (405); M (406–408.8); W (409); M (411); S (412)
- poo: W (400); W (411)
- pyy: trace (400.5); T (403.25–406.5)
- sph: W (400.5)

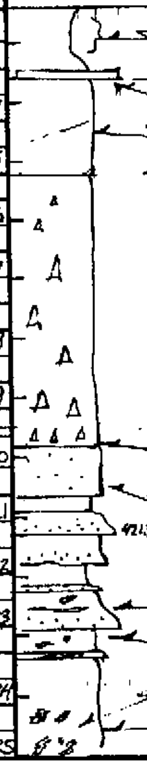
KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Metre
	412.38 - 415.23: QUARTZITIC WACKE (ALTERED)	413
	MOD-STRONG SERICITE - CARBONATE ALTERATION,	
35° QTZ VEIN.	FOLIATIVE, FRIABLE IN MEDIAL PORTION WITH STRONG	
	ANKERITE DEVELOPMENT	414
		415
	415.23 - 419.86 : GABBRO.	
	MEDIUM GREEN, PHANERITIC ; TRANSITIONAL	416
	TEXTURAL CHANGE TO APHANITIC IN LOWER	
	THIRD - INDISTINCT U/L CONTACTS,	417
	AMPHIBOLE ALTERATION TO ACTINOLITE/TREMO-	
	LITE, NOTABLE LACK OF BIOTITE, FELDSPAR(?)	
	DOMINANT (60%) ENDMASS, 5% ACCESSORY	418
	MAFICS, OCCASIONAL CALCITE (1-3MM)	
	VEINLETS NORMAL TO OBLIQUE TCA.	419
	419.86 - 463.00 : QUARTZITIC/QUARTZWACKE	420
	MEDIUM-THICK BEDDED LIGHT GRAY-GREEN	421
	QUARTZITIC WACKE WITH LESSER THIN-MEDIUM	
	BEDS MEDIUM-DARK GRAY QUARTZWACKE.	422
	QUARTZITIC WACKE/WACKE IS FINE GRAIN, SUBROUNDED,	
20° pyrrhotite vein	MOD-WELL SORTED - MARGINALLY SOFTER THAN QTZ.	423
	WACKE OWING TO ↑ FELDSPAR %, BEDDING IS PLANAR,	
	CONTACTS SHARP TO SLIGHTLY GRADATIONAL YET	
	VARIED FROM NORMAL TO OBLIQUE TCA.	424
	SECTION IS ATYPICAL OWING TO OCCURRENCE OF	
	CLASTIC DYKES AND DISAGGREGATE LENSOIDAL WISPS	425

Graphic Log



Metre/Notes:
- strong carbonate (ankerite, lesser calcite alteration)
- 413.64
- QTZ VEIN.
- carbonate veinlet.
- 415.23
- 419.86
- 2-5mm calcite veinlets.
- 420.65
- numerous albite-sericite healed fractures.
- 421.3(?)
- 422.23
- 4mm net-tex pyrrhotite
- 422.92
- .5cm pyrrhotite net-text.
- clastic dykes.
- calcite veinlet w/pyrite blob.

Alteration (tou, alb, chl, ser, gar): chl W, ser W-M (413–413.64); chl W, ser W-M (413.64–415.23); chl M, W; alb W-M, M-S; ser M; chl W; gar W

Structure (con, fbx, fra): fra M, W; con W

Mineralization (poo, pyy, gal, sph): [illegible]

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-08

angle to core axis	Description	m	Graphic Log	Metre/Notes
	OF QTZWACKE DETRITUS. TEXTURE IMPLIES REWORKING			3mm pyrrhotite; 425.77
	OF CONSOLIDATED BEDDING DUE TO PROXIMAL TURBIDITY	426		426.09
70° poo veinlet. (approx. ∥ bed)	ACTIVITY.			1cm pyrrhotite veinlet.
	PYRRHOTITE OCCURS THROUGHOUT AS OCCASIONAL BLEBS, WISPS			clastic dyke.
	AND RARELY AS NET-TEXTURED VEINLETS TO .5cm WIDE.	427		427.47
	NOTABLE LACK OF BIOTITE OWING TO CHLORITE ALTERATION.			
	~~427.60 – 428.48 – POSSIBLE FAULT~~	428		428.10
	427.50 – 477.60: PREDOMINANTLY BLOCKY, FRACTURE			428.40
	DENSITY INCREASE IN LOWER HALF,	429		
	BLOCK SIZE 5-10cm, LOCALLY RUBBLE,			429.60
	NO GOUGE SECTIONS, CONTINUATION OF	430		430.06
	PERVASIVE CHLORITIC WASH.			pyrrhotite-rich clast.
	→ PROBABLE LATE-STAGE FAULT ZONE, LIKELY			
	RECIPIENT OF PROXIMAL BROAD SCALE FAULTING	431		431.14
	OWING TO LACK OF SLICKENSIDES (RELATIVELY)			
	AND BRITTLE VS. CRUSHED TEXTURE.	432		432.90
65° Bed.	OCCASIONAL CALCITE VEINLETS AT 1-3mm SCALE,			
	COMMONLY LOW ANGLE OR BED-PARALLEL.	433		
	PYRITE IS COMMON AS 2-5mm PATCHES & MINERAL			.5cm pyrrhotite veinlets
	PYRITE ON FRACTURE PLANES; SULPHIDIZATION OWING	434		
35° poo veinlet	TO CHLORITE ALTERATION.			434.36
	BEDDING TEXTURES SHOW DISCONTINUOUS 1-5cm			434.58
	LENSES/PATCHES DARK GREY QTZWACKE REWORKED	435		435.24
	DISAGGREGATE BEDDING.			
	* 434.58 – 435.24: FRAGMENTAL; WEAKLY DEVELOPED, MATRIX	436		rubble
	SUPPORTED, SUB-ANGULAR TO SUB-ROUNDED			
	WEAKLY ALBITE-SERICITE CLASTS .5-2cm SIZE,	437		436.95
	TEXTURE SUGGESTS DISTAL EXPRESSION OR WEAK EXHALATION			strong chlorite, carbonate veining

Alteration					Structure			Mineralization			
tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	W	W	W						W		
		M					W				
	S	W	W	M					W		
		M	W-M				M		W		
									W		
									W		
							W				
	W										
		V	V								
		W	W								

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
						W	W								
	437.40 - 440.18: DISAGGREGATE BEDDING, INTERBEDDED DISHARMONIC & ELONGATE DISCONTINUOUS SILTWACKE WITHIN QUARTZITIC WACKE/ WACKE GROUNDMASS. → DECREASED CHLORITIC ALTERATION TO WEAK, LOCALLY MODERATE.		439.50 clasticdykes.			W ↓					M				
	440.18: BEDDING ATTAINING HOMOGENEITY, MINOR DISRUPTED TEXTURES, INCREASED BIOTITE AT 5-7%, BEDDING GENERALLY THICK, 1-2 m.														
30° (opposing bed)	441.42: 3CM QUARTZ VEIN WITH ALBITIC SELVAGE WHICH LOCALLY ENVELOPES COARSE BIOTITE.		441.42 stratiform pyrrhotite .5cm.									W			
	442.26 - 444.57: ALBITE-SERICITE LOCALLY PERVASIVE AND FRACTURE CONTROLLED AS .5-1.0cm ALTERATION ENVELOPES.		443.06 443.57		W-M W M	W									
	444.57 - 474.02: INTERVAL IS INCOMPETENT, MODERATE TO STRONGLY FRACTURED, BRITTLE DEFORMATION DISPLAYING BLUMORE-STYLE TEXTURE ON FRACTURE PLANES, SLICKENSIDES ARE UNCOMMON. SIMILAR TO FRACTURE STYLE SEEN 427.50 - 473.60. WEAK CHLORITIC 'WASH' THROUGHOUT ZONE, CARBONATE FILM AND SELVAGE COMMON FRACTURE PLANES, VIEWED AS CALCITE/ANKERITE. CARBONATE VEINLETS TYPICALLY SUB-PARALLEL TO BEDDING.		BLOCKY/RUBBLE			M	M				M		W		
						M					M		W		
			447.58 447.88		W	M	W				M		W		
			448.49 448.86												
	SLIGHT INCREASE IN DEGREE OF SERICITIC ALTERATION, OCCASIONALLY DEVELOPED AS MEDIUM-COARSE MUSCOVITE.					M					M				

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	446.5 - 474.02 (cont'd)					W	WT								
	PYRITE IS MINOR (RARE) IN STRINGER VST SLIGHTLY MORE ABUNDANT BELOW 453.0 IN WACKE/SURFACE SECTION.										M				
	BROKEN SECTIONS ARE ON 5-20cm JOINT, RUBBLE 2-5cm.		453.13		W-M						M				
			454.16		W		V								
							M				M				
												M	M		
456.3	2x4cm QUARTZITIC WACKE FOR ROUNDED CLAST RIMMED & INTERSTITIAL WITH CARBONATE/PYRITE, LOCALLY MASSIVE PYRITE AT BASE.		458.60		W										
											S				
					W										
460.3	ALBITE-FERRIC ALTERATION FRACTURE CONTROLLED, WEAKER AS PERVASIVE ALTERATION		461.28		W-M										
											M				

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Metre	Graphic Log	Metre/Notes
		463		SOFT, FRIABLE FISSILE.
	453.00 – 467.17 : QUARTZITIC WACKE / WACKE			
		464		BROKEN
	MEDIUM-DARK GRAY EXTREMELY FINE GRAIN WACKE,			
	UNDULATORY BEDFORM, DISSEMINATED TO FINE	465		
	WISPY PYRRHOTITE ENVELOPING CALCSILICATE			465.64
	IRREGULAR BED PARALLEL VEINLETS, FRIABLE/FISSILE,	466		
	MOD-STRONGLY CHLORITIC, SLICKENSIDES POLISHED.			466.30 coarse muscovite biotite, garnet.
	QUICK TRANSITION TO MEDIUM GRAY QUARTZITIC			
	WACKE AT 463.75. MINOR INTERBED QTZWACKE	467		soft sediment deformation, clastic dykes.
	AT 465.29 – 465.64. GRADATIONAL FROM QUARTZ-			
	ITIC WACKE TO QTZWACKE TO 466.30m, BELOW	468		marker style bedding
	THIS % ARGILLACEOUS SEDIMENT INCREASES to 467.17			
	467.17 – 474.10 : WACKE / SUBWACKE	469		
60°	MEDIUM-DARK GRAY, V-THIN–THIN BED WACKE			
	INTERBEDDED WITH LAMINAE DARK GRAY SUB-	470		470.00
	WACKE, PLANAR WITH RARE LOCALIZED SLUMP-			slumping, with net-text pyrrhotite in chloritic groundmass trace chalcopyrite
	ING, STRATIFORM PYRRHOTITE COMMON TO SUBWACKE	471		
	(OCCASIONAL OCCURRENCE), PYRITE AS EUHEDRAL			
	DEVELOPMENT IN PATCHES COMMON ON FRACTURE			
	PLANES	472		
				FRIABLE
		473		
	474.10 – 479.60 : FRAGMENTAL.			474.10 – FRAGMENTAL
	Matrix-supported concordant fragmental. Clast	474		
	size range from .5-2.5cm, subangular-subrounded			
	elongate clasts, smaller clasts tend to be rounded	475		
	indicative of milling and transport, largest clasts are			

Interval	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
463–464			S					S	W	W		
464–465			M	W-M				M				
465								S				
465.64		W-M						W				
466								M				
466.30		S			M			S	W			
470.5			M-S					W-S	M			
471.5		S	M-S	M	M							
472			W-M									
473.5								S				

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
72° frag lineation	474.10-479.61 (con't) Angular, fragmental, is matrix to clast heterolithic clasts in wacke within argillaceous quartzitic wacke matrix. Occasional sub-rounded clasts are pod-rich.		476.40; RUBBLE; 475.60		MEI	W / W	W				M / S				
	479.61 - QUARTZITIC WACKE, ARGR WACKE. Medium gray medium bedded quartzitic wacke with minor thin interbeds (poorly sorted) gray-green wacke. Bedding is generally planar but shows weak disaggregated bedding in small-medium subrounded clasts to 5 cm. Internally is crossed intermittently with later stage sericite-albite seams oblique to bedding.		479.61; 479.90		M / WM / M		W / M / M	W / W			M				
	485.20: MICROBRECCIA (1 cm) WITH WISPS PYRRHOTITE, TRACE CHALCOPYRITE WITH CHLORITIC ALTERATION @ U CONTACT		484.96; 485.60; 486.25; 486.67; 487.30		W	M		W				W			

Depth marks: 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description
	489.10 - 489.90: STRATIFORM .5-1.0cm BANDS (5% BY VOLUME) DISSEMINATED TO NET-TEXTURED SPHALERITE, PYRRHOTITE, LESSER GALENA, TRACE CHALCOPYRITE, WITHIN QUARTZITIC WACKE/WACKE
	491.97 - 493.77: NUMEROUS SEAMS (15-20% BY VOLUME) ALBITE-SERICITE ALTERATION, WHERE OVERALL GRAININESS INCREASE TO THICKLY BEDDED QUARTZITIC WACKE. QUARTZ WACKE DOMINANT AT BASE. Interval shows biotite-chlorite alteration
65° 350. 45° veinlet	495.90: 1cm net-text pyrrhotite veinlet with quartz selvage within strongly albitized garnetiferous quartz wacke.
	496.51: albite-biotite-garnet-pyrrhotite alteration assemblage.
	497.?? - 502.61: WACKE, MINOR QUARTZITIC WACKE medium-dark gray thin bedded quartzitic wacke interbedded with thin <3cm beds light gray mod-sorted wacke, occasional laminae dark-gray silty wacke. Minor intervals sinusoidal undulatory bedding

Graphic Log:

Metre/Notes: 488.61, 488.75, 489.08, 490.77, 491.97, 493.77, 494.84, 495.18, 495.53, 495.82, 496.16, 496.61, 497.20, 497.30 — wisp pyrrhotite; subwacke/argillite; 3mm pyrrhotite, minor sphalerite, trace galena, * disseminated poo + tr sph gal to 498.90

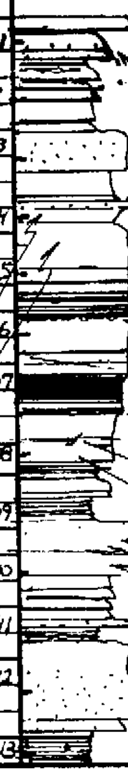
Depth marks in margin: 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500

Metre	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
488.61		W			W							
489.08		M			W				W		T-W	W
490.77		S	W		M							
491.97		W-M			M							
493.77		M-S		W	M							
494.84		M	W	W				W				
495.53		S	W	M	M							
496.61		M		W	M							
497.20		M	W	M	M							
497.30		W-M			W				M	T	T	T
									[illegible]			[illegible]
		W		W	T							
		M	W	W	W							

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description		Graphic Log	Metre/Notes
	502.20-502.61 (cont)	501		500.78 / 501.12
65° BED.	[illegible] slump textures (load-casts, flame structures)			501.60: chlorite-albite-muscovite sericite.
		502		
		503		strong albitization; 503.20
	* 502.61-504.80: QUARTZWACKE (PREDOMINANTLY ALBITIZED)			minor calcite veinlets; albitic.
	LIGHT GREY-BUFF, MODERATELY-STRONGLY	504		504.08; pervasive intermittent albite-sericite
	ALBITIZED QUARTZWACKE, LARGELY TEXTURE DESTRUCTIVE			sphalerite, 2mm
75°, 70°, 65° MINZD BAND	(REMNANT BEDDING), SUTURING OF GRAINS INDICATES	505		galena lesser sphalerite, 5cm.
	MEDIUM TO COARSE GRAIN HOMOGENEOUS QUARTZ-			sphalerite, minor galena pyrrhotite, 1cm, 2cm, .5cm.
	[illegible] [illegible], BIOTITE DESTROYED, OCCASIONAL COARSE MUSCOVITE	506		galena 1, .5, 1, .5cm.
60°, MINZD BAND	503.84 - 504.08: 4-1mm silicate veinlets, spotted sph, gal, tr. cpy,			506.70
	synthetic @ 75° TCA analogous stratiform, lowermost shift	507		massive sph.
	at 80°.			507.35
	504.08 - 504.48: strong texture-destructive albitization, occasional 2-3cm			sph-gal matrix supported breccia.
	[illegible] [illegible] with minor 1-2mm galena-sphalerite, [illegible] [illegible]	508		508.40
	garnet, 1cm medium [illegible] galena (replacement clast) and hairline veinlets			silicification of incipient fluidization (dewatering).
60° BED	* 504.48 - 504.80: banded albite/muscovite-actinolite-chlorite alteration, x-cutting	509		poo laminae/veinlets.
	gal, sph [illegible] veinlets, uppermost gal associated with [illegible] veinlets.			albite-sericite
	504.80 - 506.70: Strongly albitized - sericitized (albite-dominant)	510		qtz-albite
	quartz-pyritic wacke with 10 - .5 to 5cm stratiform & slightly			[illegible] garnet
	oblique minzd bands, sph-gal dominant upper to lowermost [illegible]. Po assoc. w/ sph.	511		510.99 pale tan, diss to net-text poo.
	506.70 - 507.35: massive sphalerite, trace gal, minor poo to 507.08, net-tex to 507.35			
	511.10 - 512.40: strongly albitized (pervasive) qtz wacke, numerous	512		strong albitization.
	calcite-[illegible] fractures (avg. 1mm avg.) occasionally			512.40
	hosting [illegible] pyrite, sericitic alteration, well			512.65
	[illegible], [illegible] [illegible], trace pyrrhotite	513		

Alteration / Structure / Mineralization (approx. 501–513 m, top to bottom)

Alteration: lou	Alteration: alb	Alteration: chl	Alteration: ser	Alteration: gar	Structure: con	Structure: fbx	Structure: fra	Mineralization: poo	Mineralization: pyy	Mineralization: gal	Mineralization: sph
		W-M	M	W							
	S	W	S	M							
		W-M	W-M								
	S	W	W-M	T-W							
	W	W	M								
	M-S		M-S							T	T-W
		W		M-S						W	T
	S		M-S							S	M-S
								M		S	S
	M										
	W	W									
	S		W-M	S				M	T		
	M	M									
	S	W	M-S								
	M	M	M				M	T	W		
		W									

Box 89, 1st marker 496.98 @ 84cm from top of box = 496.14, should be 495.71 so out by 43cm, too long short.

495.71 to VR 742194 (504.00), should be 8.29m, actual measured length is 9.10m (504.81) out by 81cm

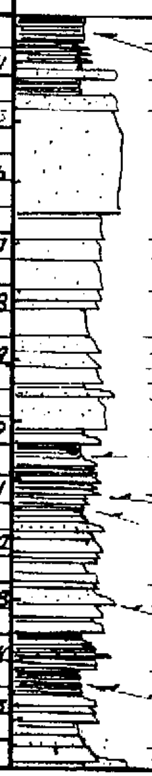
KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Metre
65° BED.	512.65 - 513.65: medium and dark gray interbedded subwacke, wacke, [illegible] pinar [illegible] [illegible]	514
	513.65 - 514.25: green-gray graded [illegible] wacke to wacke well sorted [illegible] to mod-sorted tops, [illegible]-rich tops w/ coarse subhedral flakes k-spar (?).	515, 516
	514.25 - 516.52: mod to strongly albitized quartzwacke, [illegible] wacke, coarse garnet developed (3-5mm) in strong albitic sections, a [illegible] locally bed-parallel pervasive, thin [illegible] veinlets at 5-10% by volume, locally [illegible] fractures sets indicative of late-stage activity	517, 518, 519
	516.52 - 519.37: medium gray thick bedded weakly graded quartzwacke, [illegible] albite-[illegible] alteration (1-3cm) weakly developed garnet (5-1mm) in quartzwacke beds.	520, 521
57° BED.	519.38 - 535.53 QUARTZWACKE WACKE	522
	medium - dark gray v. fine grain biotite (?) (3-7%) thin-medium bedded (5-15cm average) quartzwacke interbedded with thin gray-green mod-sorted [illegible] [illegible] wacke [illegible] laminae to thin beds subwacke [illegible] typically graded from biotite-rich base to mod-sorted [illegible] [illegible] [illegible] appears [illegible] is generally [illegible]	523, 524, 525

Graphic Log



Metre/Notes

- 513.65 — marker-style
- 514.25
- 514.78
- 516.98
- 517.32
- 517.68
- 517.99
- 518.60
- 518.91
- 519.10
- 519.38
- 519.62
- 520.12 — * 1mm band sphalerite, trace galena
- 521.25 — coarse biotite-garnet-muscovite. — minor slump.
- 522.74
- 523.05 — * wisps fine-grained to disseminated galena, lesser pyrrhotite.
- 524.15
- 524.58 — marker-style
- 525.71

Alteration / Structure / Mineralization

Metre	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
513.65			W-M					M		W		
514.25		M-S	M	M	M							
514.78		S	M	M	M							
		M-S	W-M	M	M							
					M							
516.98		W		W								
					W							
519.62		M			M							
520.12		M			M							
											–	W
521.25		W	M	M	M							
		M			M							
		M		W	M							
				M								
523.05		S		M-S					W	–	■	
		M		–	M							
525.71		M-S	M	M	M							

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	m	Graphic Log	Metre/Notes	Alteration (tou / alb / chl / ser / gar)	Structure (con / fbx / fra)	Mineralization (poo / pyy / gal / sph)
		526					
				526.74 / 526.96			
70° BED	527.40' FIBROUS, ZONATE, FIBROUS CUBIC CRYSTALS, WHITE, SOFT (2-3H), NON-CALCAREOUS: ZEOLITE, ANHYDRITE?? FIBROUS CARBONATE.	527		527.40	alb M-S, chl M, ser W-M, gar M		poo W
		528		527.84 ← BROKEN	alb M, chl W, ser W, gar W	fra M	poo W, pyy W
	527.84' CHLORITE-BIOTITE-PYRITE-ALBITE ALTERATION. COARSE EUHEDRAL PYRITE, PYRITE-LINED FRACTURES, MINOR GARNET, DISSEMINATED PYRRHOTITE @ 1-2% TO 528.40.	529		529.39	alb M-S, chl W, ser M, gar M	fra M	
	528.40-529.79: MODERATELY ALBITIZED QUARTZ WACKE, MINOR GARNET THROUGHOUT, NUMEROUS CALCITE LINED FRACTURES - INCREASE AT BASE, STRONGER ALBITE LOWER 70cm WITH COARSE MUSCOVITE @ 1%. MINOR FE-CHLORITE LINED FRACTURES.	530		529.87 / 530.01 / 530.30 ← 2-4mm GARNET	alb M, W; gar M, M, M	fra M	
		531		531.18 / 531.63		fra M	
		532		532.10 — garnet	chl W-M, gar M	fra M	
	532.90 - 535.53' MODERATE, LOCALLY STRONG CHLORITIC ALTERATION OF QUARTZITE WACKE, NUMEROUS CALCITE FRACTURES, SLICKENSIDES, BROKEN, DISSEMINATED PYRITE THROUGHOUT - % INCREASE TO FRACTURE PLANES, OVERALL GREEN-WASH TO INTERVAL. MINOR FAULT ZONE	533		532.90 / 533.43	alb W, gar W		
		534		← BROKEN, MOD-STRONG CHLORITE ALTERATION.	chl M-S	fra M-S	
		535					
	535.53-547.63 - QUARTZ WACKE / MINOR WACKE, SUBWACKE - MEDIUM-DARK GRAY MEDIUM-THICK BEDDED QTZ WACKE, TYPICALLY GRADED FROM BIOTITE-QUARTZ-RICH THIN-MEDIUM BASES TO MEDIUM GRAY-GREEN QUARTZITIC (>% FELDSPAR) WACKE MID & UPPER PORTIONS OF BEDS. MOD-WELL SORTED, PLANAR BEDDING, OCCASIONAL SEDIMENTARY	536		535.77 / 536.27	alb S, chl M, ser W-M, gar M		
		537		← ALBITIZED INTERVAL / 537.21	alb W-M, S; gar W, W		
		538		537.94			

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Metre
60° BED	STRUCTURES SUCH AS DEWATERING, OCCASIONAL DISAGGREGATED BEDDING.	539
		540
BED SHIFT ↓		541
	DISAGGREGATE BEDDING: MINOR WACKE RIP-UP CLASTS	
45° BED		542
	NOTE: 542.20 - 542.80: BEDDING ATTITUDE SHIFT, FROM 65-70° TO 45°	543
55° BED.	543.65-70: DISAGGREGATED PYRRHOTITE-RICH CLASTS	544
	543.71 - 544.53: SERICITIC (METAMORPHIC) WACKE, LOWERMOST AT 544.53 1-1mm SPHALERITE LAMINAE WITH COARSE MUSCOVITE/SERICITE (HYDROTHERMAL)	545
45° CALC-SILICATE	WITHIN 1/2 cm ALBITIZED BED-PARALLEL BAND	546
	546.0-547.50 [redacted] MINOR FAULT ZONE (OBSERVE BED SHIFT)	
	544.29: 1-3mm CLOTS (RARE) SPHALERITE, MINOR SERICITE/MUSCOVITE TO 545.?? m	547
	545.12: AS AT 544.97 AND ??? FINE ??? 2mm ???	548
	545.22 - 547.15: WEAK UPPER TO MODERATE LOWER CHLORITIC ALTERATION WITH ASSOCIATED FINE-MEDIUM GRAINED ??? PYRITE AND CARBONATE (CALCITE, SIDERITE, ANKERITE) DEVELOPMENT. PERVASIVE SERICITE	549
65° BED.	(MUSCOVITE) DEVELOPMENT, INCREASE IN LOWERMOST	550
	547.63 - 552.68: QUARTZWACKE, MINOR WACKE	551

Graphic Log

Metre/Notes:

- 538.92
- 539.36
- 540.48
- 541.12 Biotite-albite-garnet
- pyrrhotite-rich laminae
- 542.86
- 543.12 3mm pyrrhotite laminae.
- 543.71
- 544.49
- 1-2mm sphalerite.
- 545.39 Trace ???
- Pyrite, lesser sphalerite within 5cm opposing quartz veinlet.
- Siderite within opposing 1.0 cm quartz veinlet.
- Broken.
- x-cutting pyrrhotite veinlet 10cm
- 549.33
- 551.0

Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	W-M										
	W		W								
	M ↓ SV	W	M	W			M				
	M			M							
			W-M					W			
	W			W							
			W								
	M	W-M	M					W	W		W
				W			M				
	W		W								
	W		W								
	M	M		M							

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Metre	Metre/Notes
	547.63 - 552.68 (Con't): medium-light gray, well sorted, medium grain, medium-thick bedded (20-70cm) quartzwacke, minor thin beds quartzitic wacke/wacke, rare laminae (argillite).	552	551.43; 551.49; load-casts, clastic dykes in wacke, sericitic.
	552.68 - 555.42: QUARTZITIC WACKE/WACKE medium gray thin (5-10cm) bedded quartzitic wacke interbedded with v. thin (1-4cm) beds light gray wacke, typically planar, occasional lowe-style lensoidal discontinuous bedding, load structures	553, 554, 555	552.68; 5cm oblique veinlet minor poo, apy, gal, sph.; 553.81; 555.13; 555.42
	555.42 - 564.66: QUARTZWACKE, MINOR WACKE	556	556.21; 556.26
	medium gray medium-thick bedded planar graded quartzwacke, minor thin interbeds light gray-green mod-sorted wacke typically containing laminae subwacke/argillite. The beds typically display discontinuous lensoidal quartzwacke lenses which produce load casts, mini-scale clastic dykes and minor cross-stratification near the top of the turbidity sequence.	557, 558, 559, 560, 561	557.11; 557.68; 558.25; clastic dykes, slumping.; 559.66; 559.92; 560.60; 560.76
	* 5cm qtz veinlet incl. poo, minor apy, 33°	562	561.23
65° BED.	562.73 - 563.30: Strongly albitized matrix supported breccia. Contact pervasive with 1cm opposing qtz vein with patches poo, minor garnet	563	562.38; 562.73; 563.30

Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
			M								
	W-M		W	M							
								W		T	T
	M			W							
		W							T		
				M							
				W							
	M	M	W	W							
	M		M	W							
	W		W	W							
	W		W	T				M		T	T
	W		W	W							
				W							
	S	W	W-M					M			
	M		W	T							

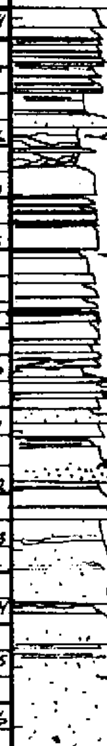
KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K03

angle to core axis	Description	Metre
		564
72° BED	564.66 - 570.05: QUARTZITIC WACKE/WACKE	565
SHIFT	Dark gray medium bedded (10-15cm) biotite-rich (after argillite) quartzitic wacke bound by thin (2-10cm) interbeds green-gray graded mod-sorted wacke. Bedding is consistently planar with occasional undulatory wacke tops caused by differential compaction of overlying quartzwacke. Biotite-rich with 3-5% po	566–568
	*565.77 - 565.85: Texture-destructive albitization, remnant thin beds with minor poo, tr sph + cpy. Po occurs stratiform and X-cutting, sph as stratiform.	569
	*570.05 - 583.85: QUARTZ WACKE, QUARTZITIC WACKE	570
71° BED	Medium gray, GRAY-GREEN AND MAGENTA COLORATION. Medium gray is medium-thick (15-50cm) bedded quartzwacke with thin-medium interbeds (2 to cm) pale green and magenta quartzitic wacke. Original lithology obscured mildly to pervasive albite-sericite alteration. Extensive muscovite development, hydrothermal flushing of iron-magnesium producing green colouration, lesser producing magenta (retention of biotite mineralogy?)	571–574
SHIFT		575
66° BED	573.00 - 583.85: Pervasive albite-sericite, moderate texture-destruction, coarse white muscovite disseminated throughout well sorted coarse grained quartzwacke host.	576

Graphic Log



Metre/Notes:

- 564.20
- 564.66
- 565.77
- 565.85
- draped, chloritic hi-angle poo vein (.5cm), tr cpy.
- 567.40
- 567.94
- trace sph, stratiform over 3cm, bound by x-cutting intraformational fault.
- 570.10
- 570.10
- stratiform garnet
- 571.82
- 572.28
- 572.51
- pervasive albitization weak disseminated garnet
- 573.97
- fe chlorite-lined longitudinal fracture.
- calc-silicate veinlet, 2cm.

Metre	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
565									T-W			
565.8		–	M-?	W	M				M / M			T-W
567.5									T-W			T-W
569		W			W							
570.1		W	W		W				M			
571		T-W		W	W							
571.8		M/W	W	W	M							
573		M		W	T-W							
575		M		M								

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Metre
		577
35° opposing qtz vein	albite-sericite alteration persists causing diffuse bed boundaries within quartzitic wacke dominant	
	lithology	578
	578.6-581.67: Biotite-rich (10-12%) uppermost	
	30cm transitionally grading to	580
	disaggregated argillaceous (biotite) elongate	
40° opposing qtz vein	clasts showing faint lineation to obscured	581
	overlying bedding	
		582
	581.87: 4cm qtz vein with net-textured pyrrhotite @ U	
	contact, within 20cm strongly altered interval	583
	582.21-583.21: Biotite-rich qtz wacke, accessional	
35° qtz w/ sph.	<2cm qtz veinlets - barren.	584
	583.85- QUARTZITIC WACKE / WACKE	
	medium-dark gray, biotite-rich, v fine grain	585
	medium-bedded (10-30cm) quartzitic wacke	
	which transitionally grades (over 2-3cm interval) to	586
	gray-green mod-sorted medium-coarse grain wacke	
	(with sericite matrix, sericite - metamorphic), accessional	587
	thick beds qtz wacke (30-50cm). Bedding	
	generally planar, tops of argillaceous beds/laminae	588
	occasionally display flame structure, load-casting,	
	rip-up clasts.	
		589
		590

Graphic Log:

Metre/Notes:
- 3cm quartz vein
- 4cm quartz vein net-textured pyrrhotite at U contact, minor coarse muscovite.
- calcsilicate vein
- 583.58
- 583.79
- 583.85
- x-cutting sph, cpy, poo
- 584.41
- 585.40
- 585.96
- garnet
- 586.80
- 587.67
- weak bed selective albite/sericite.
- 589.19

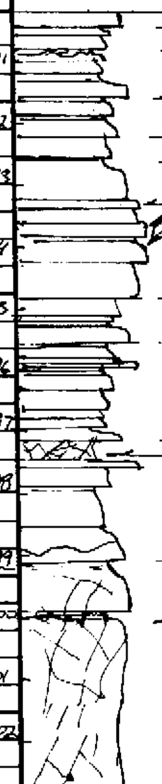
Interval	Alteration: lou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
577-578		M	W	M								
579-581.6		M		M								
~581.9		S							S			
583.58-583.79		S							W			
~584												W
584.41		M										
585.40-585.96		W							W			
586.80		W			M							
587.67					W							
588.5-589.19		W			W							
589.5-590		W										

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Graphic Log	Metre/Notes
			590.42 590.74
	591.30 - 592.75: increase in grain size & % of quartz grains as med-coarse supported grains within siltite matrix in uppermost (tops) of beds. (591) (592)		591.55 592.25 592.85
50° qtz vein opposing	* 592.85 - 594.85: Very strong albitization (albitite) (593) from 592.85 - 593.00 within coarse-grain arenitic wacke - albite replacement of siltite matrix, coarse biotite porphyroblasts 593.00 - 593.10 terminating (594) with strong albite-chlorite-sericite alteration at U contact of qtz vein at 593.22. Alteration to 595.85 is strongly (595) silicic, not albitic.		Quartz vein. (strong silicic alteration).
	Cotticule pink garnet - net-textured to massive (596) for 10 cm as U/L selvage to white quartz vein at 593.62 - 593 to 593.85 (garnet within of qtz (597) silicic alteration in lower 15 cm.		594.85 595.60
	Pattern repeated at 594.04 - 595.85 with (598) 20 cm biotite porphyroblasts at 594.04 - 594.15, 5-7 cm net-textured/patchwork cotticule pink garnet within silicic alteration terminating in chlorite-muscovite (599) sericite alteration at 594.40, moderate to strong albitization with coarse biotite, chlorite. Lower- (600) most 5 cm strong albitization		597.18 RUBBLE (BRITTLE, NO SLICKS) 598.62 599.A BROKEN
	(601) 599.90 - 612.50 QUARTZ WACKE / ARENITIC WACKE light-med gray medium bedded of graywacke, coarse con to biotite-rich beds. minor interbeds and short intervals (20-30 cm) wacke.		moderate pervasive albite-sericite alteration, broken interval, occasional coarse white muscovite.



Metre	lou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
590.42		M			W							
591.55–592.25		W			W							
592.85		V-S		M	S							
594.85		S		M								
595.60		S		W	W							
		M										
597.18		M			W			S				
		M	W									
599.A		M	W		W							
		M			M			M				
600–		M		W-M								

Andrew:
988-1042

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description
70°	
50° qtz vein opposing	604.21-604.77: Coarse grain quartzofeldspathic grains, sub-well rounded within sericitic groundmass, minor inter-beds subwacke, displaying slumping, bed casting.
	604.77-605.22: Strong albitization of bio-rich qtz wacke cored by qtz vein (1cm), underlain by x-cutting 15cm barren qtz vein, coarse biotite @ U contact, strong albitization @ lower contact for 5cm.
	608.96-615.88: Quartzwacke selective pervasive to locally bed bounded albitization. Wacke subwacke generally unaffected. Alteration mostly garnet development generally weak, minor coarse white muscovite to 610.50, increased at 1-3% to 612.50.
25° qtz veins	611.92-612.56: strong albitization upper and lowermost 5 and 25cm resp., cored by 1 and 4cm quartz veining, cottieule garnet (pink) within lowermost quartz vein. Coarse biotite at U&L contacts.
	612.56-614.00: wacke/subwacke, minor quartzitic wacke with 3-5% disseminated poo.

Graphic Log

Metre/Notes:
- 603.60
- 604.21
- coarse grain
- 604.77
- 605.22
- quartz vein
- 606.75
- 2-.5cm opposing pyrrhotite veinlets
- 608.31 pyrite on fractures
- 609.30
- clastic dykes
- pervasive albitization
- quartz vein
- 612.56
- quartzitic wacke with 3-5% disseminated poo.
- 614.00
- 614.39
- 614.67
- 615.14

Alteration (tou, alb, chl, ser, gar) / Structure (con, fbx, fra) / Mineralization (poo, pyy, gal, sph):
- alb: W-M, S, S, W-M, W-M, M-S, W-S, M, M, M, S, S, S, M-S, M-S, M-S, M-S
- chl: W
- ser: W, W, W, W, M, W, T-W
- gar: T, W, W, M, T, M, M, W, T
- poo: M

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description
	616
	to 615.83: moderate, locally strong pervasive albite-sericite alteration. Minor garnet associated with strong alteration. 617
	615.83 - 620.27: QUARTZWACKE
	618
	light-medium gray thick-bedded v.f-f-grain quartz-wacke, minor disseminated (<2%) with enrichment @ 620.27, moderate sericite development as white core 619
	muscovite throughout - possibly metamorphic, increase at base.
	616.30 - 617.72: MINOR FAULT, CHLORITIC (WEAK) SLICKENSIDES. 620
60° BED.	* 620.27 - 642.52 WACKE/SUBWACKE, MINOR QTZWACKE 621
	POSSIBLE LOWER/MIDDLE CONTACT
	622
	Facies change denoted by overall hardness decrease, thinner bed thickness and increase in number of argillaceous laminae and extent. 623
	Banded gray-green and dark gray. Gray-green is thin 624
	bedded (2-5cm) mod-sorted wacke commonly with weakly convolutory tops overlain by pyritic wacke (dark gray) beds. 625
	This lithology is either interbedded or shows transitional grading.
	Dominant lithology is inner wacke which interformationally 626
	contains wisps, lenses, load-casts and thin laminae of pyritic argillaceous-rich wacke.
	Interbeds of quartzwacke are uncommon, are 50-70cm thick 627
	and occur within 2-3m intervals of wacke/subwacke.
	3 - 2 to 4mm bands stratiform sphalerite/pyrrhotite 628.80-628.00m. 628

Graphic Log

Metre/Notes

- 615.83
- 616.30
- 617.72
- 620.27
- 621.35
- albite-sericite alteration of quartzitic wacke/wacke.
- "I" lam type.
- interformational synsedimentary breccia.
- 3cm quartz vein
- 625.35
- 626.55
- 626.87
- 627.43
- 627.96

Alteration (tou, alb, chl, ser, gar) / **Structure** (con, fbx, fra) / **Mineralization** (poo, pyy, gal, sph)

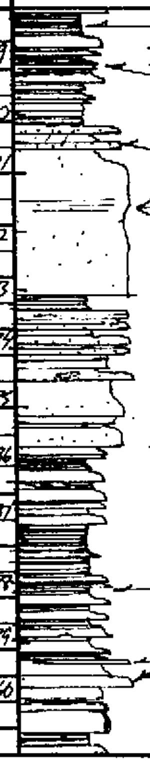
tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	M-S		M	M							
		M / W	M				M-S				
							M				
	M-S			W							
		M	M-S								
			W					W			W
	M			W							
	W			T							
				W							
	W-M		M								
	M-S		W								
	M-S		W	T							
	S			M							
	S			W							

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Graphic Log	Metre/Notes
	dark gray quartzitic biotite-rich bands consistently show fine disseminated pyrrhotite, to a lesser degree pyrrhotite is within the whole gray-green bands as well. 629 630		I-lam type. 628.76 629.11 minor poo, sph, trace gal within late stage calcite veinlets (high angle)
	630.11-635.64: Moderate to strong pervasive albite alteration, texture-destructive, appears lithology 631 selective as facing change to quartzwacke, lesser cracks, more argillaceous remnant thin beds/lamina. 632		numerous high angle albite healed fractures.
	633		633.04
	634		633.64
	635		
	636		635.64 636.27
	637		
65° BED.	638		5 cm poo/trace cpy veinlet.
	639.31-639.79: mod-strong silicification alteration 639 of wacke lamina and strong albitization lowermost cored by oblique 3 cm qtz vein; Strong 640 pink calcite garnet development as selvage and coarse white muscovite. Weak-moderate albitization to 640.54		3 cm qtz vein, oblique to bedding.
60° BED.			640.54



Alteration

tou	alb	chl	ser	gar
				W
	M / M-S			W / W
	S	W-M	M	
	M-S	W-M	W-M	
	S			M
	W			W
	S			M
	M-S			
	M-S			S
	W			W
	W			W
	W			W
	W			
	M-S		M	S
	W-M		W	W

Structure

con	fbx	fra
		W

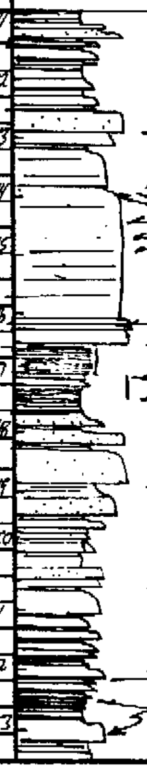
Mineralization

poo	pyy	gal	sph
		T	W
W			

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

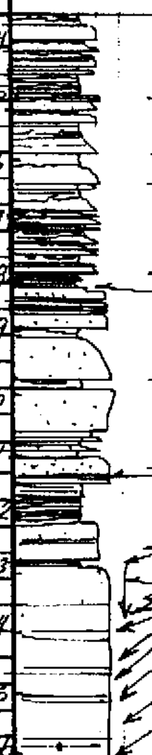
Hole No: 97K-03

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	641		641.19		M-S										
	642.52 - 646.64: QUARTZITIC WACKE/QUARTZWACKE														
	gray-green medium bedded moderately pervasively albitized quartzitic/quartz wacke, minor thin beds wacke. Texture-blastoclastic, weak to indistinct bed boundaries.		642.92		S / M		W	W							
			643.72		M		W-M					W			W
55° BEC. 50°, qtz vein, U & L contacts	643.72/644.65/644.72: 2-5mm clots Poo/Sph within 1-2cm elongate albitite alteration haloes.		Poo/Sph within "eyes"		M-S		W					W			W
	646.15 - 646.64: 2-4cm quartz veins, calcsilicate garnet U, net text sph L.		4cm qtz vein; 646.64		S / M			S / W				W / W			W / M
	646.64 - 658.08: WACKE, MINOR QUARTZITIC WACKE		stratiform disseminated sph.												W
	Facies similar to 620.27 - 642.52 with moderate increase in clastic quartz component typified by biotite-rich medium (20-30cm) quartzitic wacke beds. Disseminated sphalerite relatively more abundant.		648.22		M / S			W / M							
			648.83		S										
			649.42		M										
	650		650.22		W-M										
	651				M			T							
	652		trace ZnS in poo in qtz veinlet.									W			T
	653		trace sph.; 658.19										W		T

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description		Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
BED? 65° <15° qtz vein		654											T			
		655		654.93		W			W							
				655.94												
		656		656.42		W			W				W			
		657														
	658.08 – 665.75: QUARTZ/QUARTZITIC WACKE, MINOR WACKE	658		657.83					T							
	medium-gray, medium-thick bedded (15-50mm)	659		minor disseminated sph.		W-M		M	M / M							T
	quartz to quartzitic wacke, lesser thin beds					M-S			T							
	gray-green wacke, minor intervals on 50-500			659.62												
	scale wacke/siltstone.	660														
	Pervasive, bed selective, albitization-sericite			660.58		M										
	to coarse muscovite development, increased	661		wisp sph within calcsilicate-musc veinlet, = bedding.		W			T							
	occurrence flesh-colour garnet.															T
	Rare occasional disseminated sphalerite, stratiform	662		coarse muscovite in albite-sericite alteration												
	(662.91)					W			T / W							
65° BED.	663.69: irregular wisp sphalerite, minor galena in 1mm	663		diss sph, trace gal.												W
	quartz veinlet, opposing bedding, 25° CA: RE-															
	mobilized from stratiform sph/gal at U and	664				M-S		M-S								
	L contacts over 15cm length.															
	663.6 – 678.80: Stratiform sph and gal, occurring			stratiform sph and 'clots' gal within albitized muscovite-rich qtz wacke.											W	W
	on 50-100m scale as coarse disseminated	665														
	"grains" usually sph dominant and enriched in qtz wacke															
	beds at upper bed contacts. 1-2 maximum stratiform	666														

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph

667 / 668 / 669 / 670 / 671 / 672 / 673 / 674 / 675 / 676 / 677 / 678

666.75 – 666.98: - PLAGIOCLASE(?) WACKE/WACKE MINOR SUBWACKE dark grey thin-medium (5-10cm) ... [illegible] poo-rich [illegible] wacke as minor interbeds within grey-green wacke dominant interval consisting of [illegible] wispy to lenticular laminae (thin beds), minor argillite.

666.98 – 675.75: [illegible]WACKE, [illegible] WACKE, mod-strong albitization.

670.24 - 674.30: Pervasive albitization, moderate to locally strong, predominantly [illegible] destructive within quartz dominant beds, contacts with wacke beds generally sharp as albitization appears as bed selective. Where intense, noticeable increase in sulphide content - occurs as occasional to mottled sph (lesser gal) or gal without sph (trace) - obvious increase in lead sulphide approaching fragmental interval.

671.87 - 672.57: strong albitization with mottled 4-10mm "eyes" sph, lesser gal near [illegible] portion, weak [illegible] 2mm sph [illegible] contact within opposing qtz-carbonate-albite veinlet (1cm).

675.75 - 682.56: WACKE, SUBWACKE

Thin (5-10cm) grey bedded wacke with laminae to thin beds subwacke weakly sorted with laminae argillaceous tops. Occasional clasts to fragmental (Bed shift likely pre-lithification, owing to exhalative activity).

Angle to core axis: 72° Bed; [illegible]; 57° Bed

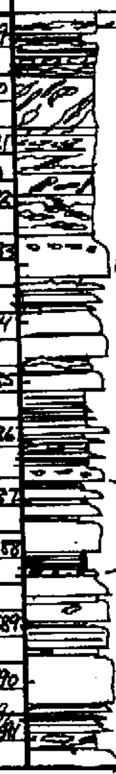
Metre/Notes:
- 666.60
- poo-rich argillaceous clasts.
- 668.98
- 669.50
- minor sph, gal
- 670.24
- mottled/wisp sph, lesser gal.
- 672.76
- 674.43
- albitized clast, minor garnet.
- clasts

Alteration / Mineralization entries:
- alb: W (≈667.5); S (≈669.5); M-S (≈670); S (≈671); M-S (≈673.5)
- ser: M-S (≈671)
- gal: W; sph: W (≈670)
- gal: W; sph: M (≈672.5)

KENNECOTT CANADA EXPLORATION INC.

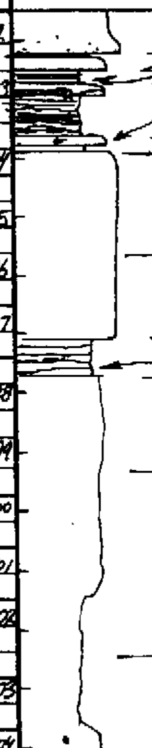
DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	679		wisp sph 678.81 679.41		W-M										W
20° FRAG-MENTAL LAMINATION	678.81 - 683.00 : pervasive weak albite alteration of medium-dark gray wacke, locally strongly albitized fragmental clasts 680		680.71		M-S		M								
	679.31 - 679.41 : Concordant matrix supported albitic fragmental 681		681.50												
	679.81 - 680.71 : DISCORDANT ALBITIZED FRAGMENTAL, 20° TCA contains occasional coarse muscovite. 682		681.89												
	680.71 - 681.50 : Dewatering structures, locally albite-sericite disaggregated bedding 683		682.56												
	681.50 - 681.89 : DISCORDANT ALB[illegible]ED CLAST FRAGMENTAL														
	681.89 - 682.56 : CONCORDANT AL[illegible]ED CLAST FRAGMENTAL Clast supported, contains [illegible] angular fragments and smaller sub-rounded clasts, successive reworking, appears proximal exhalation. 684 685		684.56 685.15		W		M								
	682.56 - 693.92 : QUARTZ-QUARTZITIC WACKE, LESSER WACKE/SUBWACKE. 686		685.74 686.60												
	med-bedded gray-maroon (altered) qtz wacke interbedded with thin-beds wacke which contain planar-to-undulatory laminae - v. thin beds subwacke/argillite, minor slumping. Coarse muscovite common disseminated throughout. 687 688		albitic clasts; weak fragmental texture. 688.28												
50° BGD.	688.86 : albitized clast with coarse biotite in disaggregated bedded quartzwacke "mottled" texture. 689		689.00									w			w
	689.04 : laminae poo/sph. 690		690.37												
	690.86 - 691.26 : Pinch and swell, load casted, lenticular bedding, disseminated poo blebs on elongate bedding. 691											M			

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Metre	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
		692		692.27		M		M								T
	692.53-692.71: weak disseminated sph (<1%) in both qtzwacke and wacke beds.	693		692.71 weak disseminated sph		S		W	T				W			T
	692.96 - 693.60: stratiform disseminated sph, weak to moderate, bu[illegible] @ 3-5% locally, concentrated within 'pillow'-texture qtzitic lithology	694		minor sph, trace gal. 693.60 693.92		W S		M					W-M		T	W-M W
	693.92 - 697.20: QUARTZWACKE MAJOR QUARTZ WACKE/WACKE. medium- and thick bedded maroon quartzwacke, albitized throughout, sericitic, coarse muscovite disseminations, white sericite late-stage fractures @ 20-30° TCA (15-20% by volume).	695 696 697		albitization, moderate to strong, of qtzwacke. 697.20		M-S										
55° sph veinlet.	697.20- 704.74: QUARTZITIC WACKE/WACKE, MINOR SUBWACKE	698		sph, minor poo 697.70 PY		S M										M
	med-gray, thin-medium bedded qtzitic wacke (10-30cm) interbedded with thin gray-green wacke beds, becomes argillaceous in lower two-thirds with interbedded wacke/subwacke with minor wisps and lamina arg illite.	699 700		BLOCKY FAULT		W-M	W					M				
	697.60: 1cm semi-massive sph, lesser poo, cpy, opposing	701														
	697.70 - 704.74: FAULT Broken, 10-20cm blocks to 701.50	702				S		S	S							
	701.50 - 703.77 as rubble with weak chloritic wash and hair-line calcite veinlets, assoc-iated with carbonate, moderate sericite alteration, weak slickenside development, rare coarse muscovite.	703 704		RUBBLE		W	W-M W	M				S M				

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	697.20 - 704.74 (con't)		704.74		W-M	W	M				M				
	~~724.20~~				S										
	704.74 - ~~724.20~~ ~~WACKE - SUBWACKE/ARGILLITE~~														
	~~724.20~~ QUARTZITIC WACKE / WACKE, MINOR SUBWACKE														
70° BED; 70° ETZ VEIN.	dark gray laminated-thin bedded poo-rich v.fine quartzitic wacke, planar and lensoidal to flaser-style discontinuous laminae, interbedded with medium gray wacke containing coarse, angular feldspar grains (white).		1cm quartz vein, abundant garnet. 707.55		S		M	–			W-M				
	Localized strong albitization-sericitization, produces mottled texture (possible actinolite). One locale assoc-iated with quartz veins and producing abundant garnet (flesh-pink) near L contact.		708.80		W-M										
			709.90 ~~contact~~		M										
			712.50		–										
			714.39												
65° BED.			716.94												

Depth marks along description column: 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description	Graphic Log	Metre/Notes
	(cont) 704.74 - 724.20 (cont)		717.27
	717.27: Stratiform 2cm net-textured pyrrhotite		717.81
	717.50 - 724.20: pervasive moderate albite-sericite alteration, preferential to quartzitic wacke beds, numerous anastomosing albite-sericite seams (fractures) at (?) 45-60° TCA. Coarse white book muscovite occurs intermittently, generally quartz-wacke, selectively associated with albite/sericite		719.85
70° BED			721.51
60° QTZ VEIN			722.20 QUARTZ-ALBITE 4cm VEIN, CONTIGUOUS GARNET AT L CONTACT, 60° TCA
	721.51 - 721.65: Biotite-po-rich subwacke / argillite, 40-60% biotite, 10-15% po.		massive po.
60° Upper contact.	722.94/723.05: 2.5cm mass po, minor gy. barite, 90° TCA		724.20
	724.20 - 729.83 : GABBRO		
	medium green mesocratic, subaphanitic to phaneritic, hornblende-actinolite-tremolite alteration, ...		
	Upper contact distinct @ 60° TCA		
	Lower contact distinct @ 90° TCA		

Depth marks: 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729

Alteration (tou, alb, chl, ser, gar) — alb: M, M; ser: M, M-S, W; gar: W. Structure (con, fbx, fra) — fra: W-M. Mineralization (poo, pyy, gal, sph) — poo: S, M-S, S.

angle to core axis	Description	Graphic Log	Metre/Notes
	724.20 - 729.83 (Con't)		729.83
	729.83 - 731.83: QUARTZWACKE, minor WACKE		wisp sph, trace cpy.
	Moderate - strongly albitic altered quartzwacke, minor thin beds wacke, mottled; biotite - muscovite - actinolite.		731.83
	731.83 - 743.28: QUARTZITIC WACKE / WACKE, MINOR SUBWACKE		
	Similar to 704.74 - 724.20		734.31 trace sph
	Medium - dark grey interbedded laminae - thin bedded quartzitic wacke and wacke. Minor laminae subwacke / argillite. Bedding is laminar and planar or where discontinuous formed by subrounded ball and pillow textures showing bed-scale loadcasting. Wacke beds are grey-green and feldspathic which are metamorphic altered sericitic beds		736.19
90° qtz vein	736.07 - 746.00: weak chloritic wash, likely attributed to underlying pattern.		2cm qtz vein minor poo; RUBBLE; 4cm qtz vein; 738.70
	Interval is blocky, locally to rubble		RUBBLE

Depth marks: 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742

Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	M-S		M				W-M				W
	M	W	M								T
	S										
	M		M				S	M			
	W		M				W				
	S		M								
	M	M	M								

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-03

angle to core axis	Description
	742.05 - 743.26: mm-size quartz veinlets, slightly oblique to bedding with frac-fill po, lesser cpy.
30° BED.	
30° qtz vein	
	744.10 - 753.42: QUARTZWACKE / QUARTZITIC WACKE
	Light grey-maroon moderately albitized, medium bedded (20-50cm) quartzwacke graded to thin-medium bedded quartzitic wacke ([illegible]), interval is quartz rich, planar bedded, well sorted. Bedding is remnant to destroyed owing to albite alteration. Coarse muscovite is disseminated at 2-3% throughout interval. Texture is mottled and locally crossed with multi-directional mm to cm size albite-sericite late-stage fracturing (healed). Qtz veining is uncommon (746.30, 749.95), 3-4 cm thick and essentially barren.
	753.42 - 762.00 GABBRO.
	Upper contact: 45° TCA [illegible]

Graphic Log:

Metre/Notes:
- po rich clasts, laminae
- trace cpy
- 743.81 2 cm quartz vein, trace poo, cpy.
- BROKEN
- RUBBLE
- BROKEN
- 753.42

Alteration:
- alb: M; M-S
- ser: M; M; M

Mineralization:
- poo: WM; M

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97k-03

angle to core axis	Description	Graphic Log	Metre/Notes
	753.42-762.00m (Con't)		
	light-medium green, massive(?), fine crystalline, subaphanitic to weakly phaneritic, groundmass is hornblende-actinolite-tremolite (chlorite dominant) altered.		
	Section contains fractures with oriented slickensides at 35° TCA, striations oriented same direction as fracture. Fractures occur on 1.5-2.00m scale (one every 1.5-2.00m).		
			762.00
	END OF HOLE		

Alteration					Structure			Mineralization			
tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Project: MOYIE : IRISHMAN
Mining Division: FT. STEELE
Purpose: Sulfide intercept.

Location:
UTM northing 5457720
UTM easting 567910m
Elevation: ~1840m
Drilling Contractor: Lone Ranger

Hole test

~~From~~ DATE	~~To~~ DEPTH	Azimuth	Dip
Oct 3/97	55.7m	200°	-46°
Nov 07/97	788.9m	211°	-41°
Nov 12/97	21.6m	172°	-54°
Nov 12/97	245.7m	181°	-51°
Nov 12/97	911.6m	206.5°	-38°

Hole No: 97K-04
Collar Azimuth: (165?) 172°
Collar Dip: -55°
Total Depth: 944.5m
% Recovery:
Logged By: T. Ryley
Start Date: Oct 20, 1997
Finish Date: Nov 12, 1997

Intensity Modifiers: T = trace/weak W = weak M = moderate S = strong

angle to core axis | Description . The graphic log portrays both primary and secondary features (depositional, syngenetic and alteration). Hardness increases are reflected by extension to the right in the graphic log and should be viewed in relation to the text and alteration column. | Graphic Log | Metre/Notes | Alteration: tou, alb, chl, ser, gar | Structure: con, fbx, fra | Mineralization: poo, pyy, gal, sph

0.00

0 - OVERBURDEN
CASING SET

6.?m - 14.68m: QUARTZWACKE

medium gray, medium - thick bedded (30-80cm) fine-med grain, mod-well sorted, weakly graded quartzwacke, bedding is planar, minor quartzitic wacke/arenite 60 thin (2-4cm) beds/tops. Section shows local moderate albitization on 2-10cm scale as albite-sericite higher angle ?? fractures and local pervasive alteration.
Occasional limonitic ??? dendritic MnO along ?? fractures.

Metre marks: 6, 7, 8, 9, 10, 11, 12
Metre/Notes: 10.77

Metre	alb	ser	gar
~8.2	NM	W	
~10.8	M		T
~12	W		M

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description		Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
		13														
		14		14.68												
54° BCA	14.68 - 16.52 : WACKE, minor QTZWACKE, s-wacke.	15														
	light medium grey, laminated-thin bedded					M										
	wacke with subwacke & argillaceous interbedded laminae.	16		*16.40-16.64: possible marker												
	minor 15-20cm moderately albitized qtzwacke.					M										
	16.52 - 25.27 : QUARTZWACKE, minor WACKE/SUBWACKE	17		*17.02-17.12 possible marker												
				17.77		M										
	medium grey, med-thick bedded (30-60cm)	18														
	planar qtzwacke; white-albite alteration common															
	at bases as moderate angle (opposing) 3-5mm	19		19.10		M										
	healed fractures (seams). Localized albite-pit-			19.77		M-S		W	W							
	tite porphyritic nodules with albite-dense	20										M				
	(nucleation). Lesser interbeds wacke, planar to															
	undulatory, occasional load casts, slumping.	21		20.92		W		W	W							
	Minor coarse muscovite within qtzwacke															
	related to weak-moderate albite-sericite					M										
	alteration	22		22.34		M										
		23				W		W	W							
				23.46		M-S		W								
		24		23.96		W		W								

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	m	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	25.27-37.75: QUARTZ WACKE [illegible], [illegible]	25	25.27		W		W	W							
			25.88												
	medium-dark grey medium bedded (10-30cm)	26													
	planar quartzitic wacke, commonly graded with														
56° BED.	thin greywacke bases grading to quartzitic wacke	27	27.03												
	with uppermost portion of bedding back to subwacke		27.60 → BETTER/STRONG ALBITIZATION.		M										
	as planar continuous and discontinuous thin	28			M										
	beds and laminae (mm to 1cm scale)														
45° dewater flow, tourmaline.	This is an active, continuous turbidite sequence	29													
	with sequence on 50cm-100m scale repetitively.)		29.48												
			→ dewatering flow, scalloped bed contact, minor tourmaline opposing bedding.	W											
	30.11-30.30: healed calcsilicate albitized breccia	30			M										
		31													
					W-M		W								
		32	31.68								M				
			→ opposing hi-angle calcite lined fractures.								W-M				
		33													
			33.68 * 33.68-33.75 possible marker												
		34	34.24		W		W								
			→ coarse pyrite on fracture, 34.9.										W		
		35													
		36	36.00		W										
55° BED.	36.73-37.18: fracture destructive stratification and		→ trace sph.		W										
35° [illegible]	fracture-opposing albite-sericite alteration, trace	37	37.18		S		W-S	T							
	sph in opposing silicate veinlet @ 35° TCA														

Graphic Log:

KENNECOTT CANADA EXPLORATION INC.

Page 4 of

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	38		37.85		W										
	39		38.71		W										
			rip-up clasts 39.32												
	40		39.75		W		M								
	39.75- 55.60 : QUARTZ/QUARTZITIC WACKE, LESSER WACKE		minor tourmaline at U contact of quartz vein	W											
	41 medium-dark gray med-thick bedded (30-70cm) qtz wacke, minor thin (2-4cm) quartzitic wacke/wacke tops,		dewatering, Fe-rich scalloped flow.		M			W							
	42 generally poorly sorted. Occasional 10-30cm intervals of "thin-bedded" wacke with [illegible] subwacke, argillite 43 tops. Slumped bedding, undulatory bases overly qtz wacke related to these sections.			W	W		W								
				W											
	44		44.11		W		m	W							
30° qtz vein			1cm quartz vein		WM		W	W							
60° [illegible]	40.75- 44.00: trace tourmaline 1% disseminated, 45 locally enriched overlying albitic alteration		45.80												
30° qtz vein	46		46.30		W		W	W							
	47							[illegible]							
30° qtz vein	47.60- 47.70: 4cm quartz cross-cutting strongly albitized 48 qtz wacke, coarse [illegible] garnet @ U contact. Qtz vein brittle, [illegible] rich, vein is dilational vs. offset (.5cm),		minor poo		M.s		m	M				W			
	49 coarse muscovite @ U contact.		49.03		M			W							
	50				M		M	W							

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description
	51
	51.47, 51.60: trace-minor sph within opposing albite-sericite alteration. 52
34° qtz vein	53
	53.37 - 55.60: Pervasive moderate to locally strong albitization, abundant garnet within strong alteration (albite-sericite) quartz vein with contact with trace-minor coarse galena, pyrrhotite, carrying strong albitic selvage with actinolite/tremolite. 54 55
	55.60 - 65.40: QUARTZITIC WACKE, WACKE 56
	Light-medium gray, medium bedded (15-25cm) quartzwacke bases grading to quartzitic wacke with interbeds thin (1-3cm) wacke, minor subwacke tops, generally poorly sorted. Intervals on 75cm-1.25m scale. 57 58 59
40° qtz vein	59.71: 1cm qtz vein, opposing, minor coarse pyrrhotite. 60
	61
	61.78: 1cm irregular quartz vein with coarse (5-10%) pyrrhotite, minor arsenopyrite. 62
	62.50: 2-3mm laminae tourmaline, acicular, 5-7% dravite

Graphic Log

Metre/Notes

- 50.77
- 51.23
- 51.57 — trace-minor sph.
- 53.02
- quartz vein, trace coarse gal
- hi-angle calcite veinlets
- 55.60
- 1cm poo-rich band and opposing mm veinlets.
- 57.33
- 58.04
- 59.20
- 59.76
- 60.26
- 60.63
- 61.00
- euhedral pyy fracture plane.
- 61.78
- 62.49

Depth (approx.)	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
51.23		M			W							
51.57		M		M								W
53.x		S		M	M						W	
54		M-S			M-S							
54.5		S / S			W							
55		M		M	M							
56									M			
57.33		M-S		M	M / M							
58.04		M / M		W / M	W / M							
60.63		S			M							
61.78									W	W		
62.49		W-M		M	M							
62.50	M	M										

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
50° qtz. vein.	63 63.07-63.19: quartz-albite vein with abundant (40%) gray-black fe-chlorite (4-5H). Minor weak net-texture poo @ L contact. 64		63.07		S W-M		M								
	65		64.65		M		M	S T							
18° U contact.	65.40 - 70.30: FAULT: 66 Strong stylolitic fe-chlorite/carbonate banded 67 alteration within altered quartzitic wacke/wacke matrix. Gouge to 66.80, fissile incompetent to 70.30. Carbonate veining subparallel 68 and 45° TCA Upper contact 18°TCA. Lower contact 15°TCA 69 70		65.40 FAULT								M-S				
15° L contact. 10° calcite veinlets.	70.30 - 74.38: QUARTZITIC WACKE, WACKE 71 med gray-maroon (altered) medium bedded (≤10cm) 72 graded quartz/quartzitic wacke, short transition (5-10cm) to patchy bleached wacke tops. Weak-moderate pervasive albitization, sericite alteration, texture 73 destructive and opposing bedding 74		70.30 71.17 calcite stockwork high angle calcite veinlets 72.70 poo minor coarse muscovite 73.63		M-S W M		M M	T W				W			
	74.38 - 77.50: WACKE/SUBWACKE, MINOR QUARTZITIC WACKE 75		74.38 75.00												

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description
	74.38-77.50 (con't): Predominantly thin ~~quartzitic~~ wacke/subwacke beds, graded to argillaceous tops, occasional lesser quartzitic wacke 10-20 cm bases. Bedding is planar.
55° BED.	77.50-84.53: QUARTZWACKE/QUARTZITIC WACKE, MINOR WACKE
	Medium-dark gray, medium-thick bedded (30-80 cm) qtzwacke, graded to medium bedded quartzitic wacke, tops thin, mod-poorly sorted wacke, minor subwacke/argillite.
	84.53-90.47: WACKE/SUBWACKE, LESSER QTZITIC WACKE.
	Laminated-thin bedded wacke interbedded with laminae subwacke/argillite, minor thin beds (3-8 cm) quartzitic wacke

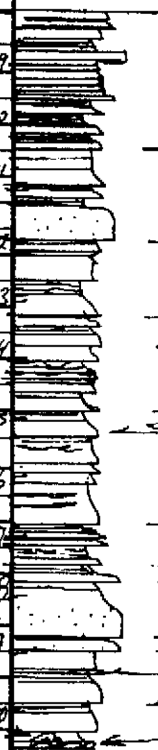
Graphic Log (76–88):

Metre/Notes	tou	alb	chl	ser	gar	con	fox	fra	poo	pyy	gal	sph
77.50												
78.48		M		W	S-M							
79.90		M		M	M							
80.33		M		S								
81.59		~~M~~			M							
83.98		W-M			W							
84.53		~~[illegible]~~			W							
wisps poo									W			

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97k-04

angle to core axis	Description	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	89				W-M			M							
	90														
	90.47 – 116.66 : QUARTZ-QUARTZITIC WACKE, WACKE. 91		90.47												
	Med-dark gray v.f.n grain quartz wacke, medium bedded (10-30cm) graded to quartzitic wacke with wacke tops. Tops are on 5-15cm scale, laminae - thin bedded as graded wacke to subwacke - argillaceous uppermost beds. 92 93		92.00		M		M	M							
			93.27												
	94		93.82												
55° Bdo.			94.94												
	95		hi-angle calcite veinlet minor pyy		M		W	M					W		
	96		96.85		W		?	M							
	97		97.45												
	97.70-97.76: Hi-angle calcsilicate-typed stress fractures within albite-sericite alteration 98		97.76		M		M								
	99		98.77 98.91		M		M	W							
			occasional coarse poo									W			
			99.93												
	100.52: recumbent isoclinal synsedimentary fraction halo 100		draped.												

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	101			M-S		S	S							
50° Bed.	102	calcsilicate veinlet, 45° TCA												
	103	102.91												
	103.95: 1.5 x .5 cm calcsilicate clast with purple mineral (fluorite?), minor sph at contact, appears stratiform. 104	minor sph. 103.95 flame-structure												W
	105	105.18			W									
	106	106.23		M		W	M							
		106.69		M		W	M							
	106.75-107.07: Incipient fluidization, dewatering, discordant flow, locally inversely graded, poorly sorted. 107			M		M	M							
	108	107.63 calcite veinlets, normal TCA. Minor coarse pyrite		M		W	M					W		
	107.58-107.63: albite-sericite brittle deformation, late-stage opposing fractures/healed @ 40° TCA 109			M		W-M	W-M							
	107.52-121.21: Pervasive moderate albite alteration imparts magenta coloration, texture destructive bed select ive to greywacke. Crossed by albite-sericite pale green late-stage seams which oppose bedding at approximately <45° TCA. Minor coarse muscovite within [illegible] 110	109.27 109.66		M		W-M	W-M							
45° qtz vein.	111	4cm qtz vein 110.85		M		M	S							
	112	111.44		M M		M M M	W							
	112.85: 4cm quartz vein, strong albitic selvage with [illegible] garnet at lower contact.	112.56		M			W							
	113			W		W								

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
			115.18					M				W			
			115.95		M		W	M							
			116.66												
	116.66 - 121.91: QUARTZ WACKE / QUARTZITE WACKE		117.15												
	Medium-grey and maroon (altered) interval,		118.23		M		W	M							
	often it's pebbly wacke, medium-thick bedded														
	(40-80cm) grading to medium-grey				M/S		M	M							
	quartzitic wacke. Quartzitic wacke is		119.65												
	moderate-poorly sorted in beds of similar														
	thickness. Minor subwacke (argillite laminae														
	at base, which are often discontinuous, un-				M		M	W-M							
	dulatory.		121.91												
	121.91 - 124.81: QUARTZITIC WACKE / WACKE, MINOR SUBWACKE				W										
	Medium-grey thin bedded graded quartzitic														
	wacke, predominantly wacke with laminae-														
	thin beds subwacke (argillite).		124.81		W										
	124.81 - 134.17: QUARTZ WACKE / QUARTZITIC WACKE		125.79		W										

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97-04

angle to core axis	Description
	124.81 - 134.17 (Con't)
	Interbedded quartzitic wacke and quartzwacke [illegible] uppermost to graded over major portion of interval. Quartzitic wacke generally poorly sorted with medium-coarse subrounded quartz grains and subhedral feldspar in medium 20-30cm beds. Qtz wacke forms bases, w 6m-gm well sorted with greater % metamorphic biotite. Subwacke/argillite minor component as laminae, thin beds, uppermost to tops.
	128.10 - 135.94: hi-angle calcite mm-size calcite veinlets on 5-15cm intervals every 1.0-1.5m
	134.17 - 138.25 : WACKE/SUBWACKE, MINOR QUARTZITIC WACKE
	Predominantly wacke as thin grey-green beds with laminae subwacke (argillite) as graded tops. 1.5m interval in upper portion which is quartz/quartzitic wacke
	138.25 - ~~[illegible]~~ 149.12 : QUARTZ/QUARTZITIC WACKE, MINOR S-WACKE

Depth marks beside description: 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138

Graphic Log:

Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
126.63		M-S		W	W							
		W-M		M	M							
127.82		M		M	T							
calcite veining												
10156 poo									M			
130.97 calcite veinlets		W		W	M							
		M-S		M	W-M							
132.75												
132.75		M-S		M	M							
		M-S		M	W							
134.17												
					W							
136.60		M		M	M							
		M		W-M	M							
138.25												
		M		M	M							

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	~~149.12~~ 138.25 (cont):	trace sph, gal.											/	/
	medium-gray & maroon (altered), medium bedded (15-80cm) qtz wacke graded to qtzitic wacke, quartzitic wacke occasionally coarse grain, submound-ed, poorly sorted. Much of interval is albitized and sericitic, hence texture is obliterated or remnant.	139.79		M-S		S	M							
		140.17		M		M	M							
		140.78		M		M	M							
				M		M	M							
		141.69		M			M							
		142.66												
	139.70: trace sph, gal within 50cm albitized interval, as associated with 3mm qtz veinlet.	143.12; coarse-grain wacke												
	143.40-149.10: pervasive texture-destructive albitization, moderate, locally strong, mottled biotite-actinolite and [illegible] development	mod to strong albitization - sericite alteration		M-S		S	W							
				M-S		M-S								
				M-S		M-S	W							
						M-S	W							
55° / 60.	149.12-151.18: QUARTZITIC WACKE/WACKE	149.12		M-S		M-S	M							
	Dark gray quartzitic wacke grading to wacke/sub-wacke, on 30-50cm scale, minor interbeds subwacke/arg.	151.18								W				
	151.18 - [illegible]: FAULT													

Depth marks down the right edge of the Description column: 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes
	151.18-161.41 : (con't)		
	FAULT: Blocky to rubble, no gouge. Brittle deformation, for k chlorite alteration, caused by thin calcite stringers (15-20% by volume) generally at 45° and normal TCA, medium crystalline euhedral pyrite common on fracture planes with chlorite selvage. Lithology consists of v. fine grained quartzwacke with occasional thin (5-10mm) intervals [illegible] subwacke. Weak-moderate albite alteration, atypical silicic alteration predominates as pervasive locally as quartz veining. Quartz and calcite veining is opposing at high angle, 20-30° TCA below 157.00m.		152.38; FAULT.
20° FRACTURE; 52° BED.; 30° calcite veining, synthetic			161.41
	161.41-173.42: QUARTZITIC WACKE, QUARTZWACKE		162.20
	Dark gray quartzwacke as thin bases (10-20cm) grading to quartzitic wacke with minor subwacke / wacke laminae uppermost. Scale 15 20-50cm)		163.27

Depth marks along the description column: 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164

Interval	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
151.18-152.38		W		W								
152.38-161.41								M-S				
								S				
								M				
								W				
								M				
161.41-162.20		M-S		M	T							
162.20-163.27		M		S	M							
163.27-		M		M	M							

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DIAMOND DRILL HOLE RECORD

Hole No: 97k-04

angle to core axis	Description	Graphic Log	Metre/Notes
	164.00: euhedral pyrite on fracture plane		164.30
	165		165.31
15°	165.80-166.90: numerous cross-cutting high angle calcsilicate veinlets (166)		166.48
	167.50 - 170.50: Intermittent sulphide mineralization (167)		trace PbS.
	167.52: 4cm quartz vein, opposing @ 45° TCA, minor net texture po, tr coarse gal, coarse muscovite as selvage. (168)		167.52
			168.03 minor sph gal
			168.45
	168.23: 1cm quartz veinlet, opposing @ 45° TCA with core of po, minor sph, gal. (169)		168.92
			169.28
85° min'n	168.87-168.92: Quartzcarbonate veinlets, 2-4mm, normal TCA, with discontinuous sph, gal, lesser po. (170)		minor sph
			tr-minor gal.
90° albitite breccia	169.57: Sph as cusps in qtz carbonate veinlet. (171)		coarse flake muscovite
	170.07: Trace coarse gal in strong albitite.		
	170.27-170.47: weak net-text gal in albite breccia which is bed parallel, ~50° TCA (172)		172.04
	172.04: coarse book muscovite. (173)		trace sph.
			173.42
	173.42 - 175.40: QUARTZITIC WACKE TO SUBWACKE. med-dark gray thin bedded quartzitic wacke/subwacke as interbeds, lower part transitional to thin interbedded wacke/subwacke. (174, 175)		175.40
	175.40 - 182.39: QUARTZITIC WACKE - WACKE. (176)		

Alteration (tou, alb, chl, ser, gar) / Structure (con, fbx, fra) / Mineralization (poo, pyy, gal, sph):

Metre	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
164.30		M		M	W					W		
165.31		W		M	M							
		M		M	M							
166.48		M		W								
		M		M	W							
167.52		W-M		M					W		T	
168.03				W					M		W	M
168.92		M		M					W		M	M
169.28									M		W	M
											W	W
		M		W						T		
172.04					W							
		T		W	m							T
173.42		T		M	T							
175.40		m		M	M							

angle to core axis	Description	Metre/Notes
	175.40-182.39 (con't)	
	med-dark grey thin-med bedded (5-20cm) quartzitic wacke interbedded with mod-poorly sorted wacke cs 5-10 cm beds, grains medium to coarse subrounded, imports slump, ball and pillow textures on underlying Qtzwacke	179.13 179.51 179.83
25° qtz veins	180.64/180.74: 2 synthetic (comp?) veins, 25° TCA opposing bedding, uppermost with trace coarse gal and pyrr (pyrrhotite) poo. Galena selective deposition to Qtzwacke altered band (bed).	180.74 stratiform wispy poo. 182.39
	182.39-193.45: Strongly albitized quartzwacke, quartzitic wacke. Locally very strong to "albitite", occasional quartz veins 3-6cm every 1.5-2.00m, numerous high angle and multidirectional mm size calcite veinlets. Section is extremely hard yet broken displaying 15-30cm blocks - late stage brittle de-formation contemporaneous with calcite emplacements.	182.42: coarse bleb sph, tr gal. 182.70: 4cm qtz vein
	Atypical amount of sulphide mineralization in the form of galena, sphalerite, pyrrhotite and chalcopyrite.	186.39-186.70 healed breccia, minor cpy. 187.48-187.54: minor poo
	Galena and sphalerite appear occasionally as v. weakly disseminated v. fine grains and fracture lining.	187.80-.95 hi-angle gal/cpy/po lined fractured 188.12: minor sph/gal

Depth scale (Graphic Log): 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189

tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	M		M	M							
	W		M	W							
	M		M								
	M		M								
	S		M					M		M	
								W			
								M			
	S									W	M
	M		W-M								
	S						M				
	M										
	S		W-M				S				
	M						M				
								W			
	S										
			W-M				S				
							M				

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Hole No: 97K-04

angle to core axis	Description	Metre
	182.39-193.45 (con't)	190
	Mineralization (visible)	
	182.42 : coarse bleb gal	
	187.48-187.54 : minor poo	191
	187.80-187.95 : hi-angle (15°TCA) frac-lined gal, cpy, poo.	192
	188.17 : minor sph, gal.	
	188.70-188.84 : frac-lined subparallel TCA gal.	193
	189.24-189.420 : subparallel TCA 1-3cm qtz-carbonate breccia with net-textured sph, lesser gal, poo	194
25° poo-frac.	189.88-190.03 : 38°TCA qtz-carbonate breccia with net-tex sph, poo, minor cpy, gal.	195
	* 190.20-191.24 : net-textured to semi-massive poo, sph, lesser gal, cpy, within heterolithologic strongly albitized breccia which displays exhalative texture denoted by milled, sub-rounded albitized clasts within a chloritic matrix. Locally angled at 20°TCA near U contact within sph dominant mineralogy, poo-rich appears facilitated by subparallel fracture	196, 197, 198, 199
35° frac. 50°		
	191.24-191.54 : Minor w/s sph gal	
	191.54-192.78 : Very strong albitized interval with 1-2% coarse disseminated galena locally, local net-tex gal, lesser cpy, poo, sph within qtz-carbonate breccia (1-3cm), late stage sph-lined microveinlets	200, 201
45° calc-silicate	193.62 : wavy .5cm veinlet poo, lesser sph.	202

Graphic Log

Metre/Notes

- 190.20-191.24 net-tex to semi-massive sph, poo, minor cpy, gal.
- 191.24-191.54 minor w/s gal, lesser sph.
- 191.54-192.78 minor gal, sph, lesser cpy, poo.
- 194.75
- 195.26
- poo lined fractures, minor cpy
- 198.50
- 199.94
- 200.05-200.25 minor sph, trace cpy.
- calcsilicate fractures.

Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	S		M				M				
	W-S						W	S		T	S
										W	W
	S		M					W		M	W-M
	M						M				
	M		M-S	M							
	W-M		W-M								
	S		M	S				W			
				M							
	M		W					W			
	W		W	M							
								W			W
	W-M		M								

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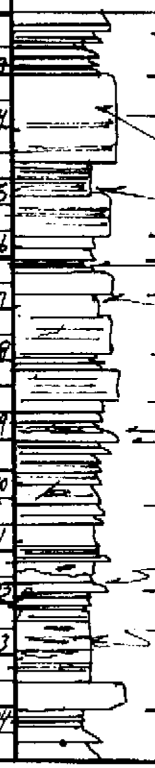
DIAMOND DRILL HOLE RECORD

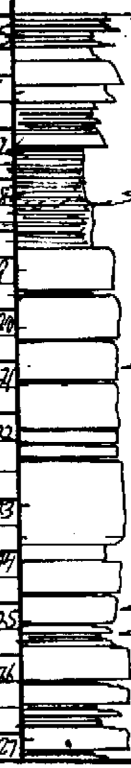
Hole No: 97K-04

angle to core axis	Description
	193.45-198.59: QUARTZITIC WACKE
35° sph-lined frac.	med grey medium-thick bedded quartzitic wacke, minor laminae-thin beds poorly sorted wacke. (203)
55° BEO.	198.59-203.10: QUARTZITIC WACKE/WACKE, MINOR SUBWACKE (204)
	med-dark gray v. fine grain thin-med bedded quartzitic wacke to thin-bed wacke, minor laminae subwacke (205)
	200.05-200.35: mm fracture-filled sph trace cpy veinlets. (206)
	203.10-210.46: Quartzwacke, Quartziticwacke
	(207)
	med-dark gray thin-med bedded graded quartzwacke to quartzitic wacke, planar, [illegible] (208)
	[illegible] sections pervasive albite alteration
45° poo/sph veinlets	203.38-203.68: mm-size calcite-lined fractures, synthetic (209) at 35° TCA with intermittent sph as fracture lining or mineralization halos on fracture selvage (210)
	204.87: 1cm poo/sph lined quartz-carbonate veinlet.
	209.0-209.40: 4-1cm massive poo/sph veins: 1 stratiform, 3 oblique @ 35° TCA (211)
	210.46- : QUARTZITIC WACKE, WACKE
	(212)
	(213)
	(214)

Graphic Log



Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
202.29		W			M							
203.10												M
albitic, texture destructive.		M-S		M-S								
203.38-203.68 frac-fill sph.					M							
sph/poo 204.87									M			M
		M-S		M-S	M							
205.75												
sph & poo									M			
206.81 siderite/ankerite band.		M-S		M-S	M							
		M		M	W							
207.80												
		W		M	W-M							
208.65												
semi-massive poo. coarse 3mm sph.									M			M
		W		W	W							
210.46												
hot-text .5cm sph		W		W	M							
211.25		M		M	M							M
occasional wisps poo												
213.31												
213.86		S		M	W							

angle to core axis	Description	Graphic Log	Metre/Notes
	215		214.90
	215.40 - 215.90: numerous (10-15% by volume) calcite veinlets, 20-45° TCA, minor dissem- 216 inated pyrite as selvage plane bound.		215.85
	217		216.93
	216.93 - 218.57: Wacke / Subwacke, lesser QUARTZITIC WACKE 218		calcite veinlets, PYY, trace sph
	Gray-Brown-Black thin interbedded wacke, subwacke, minor thin beds quartzitic wacke.		218.57
	218.57 - 230.48 219 QUARTZWACKE, QUARTZITIC WACKE 220		(altered to 236.0m)
	med-gray, medium-thick bedded (25-75cm) well sorted v. fn-grain quartzwacke dominant interval, 221 minor interbeds (thin 2-5cm) poorly sorted wacke 222		qtz vein (1cm) with net text sph selvage
	220.60: 1cm quartz veinlet with 3-4mm sph, lesser poo selvage, 40° TCA.		
	220.75: .5cm quartz/poo veinlet, minor sph, synthetic to 220.60. 223		
	223-226: 5-10% by volume longitudinal to 30° TCA mm-size calcite veinlets. 224		
50° qtz-gar-vein; 55° poo fracture	218.57-236.0: pervasive albite alteration, locally 225 mottled, texture destructive, associated with actinolite development. 226		10cm quartz/garnet assemblage; poo-lined fracture
	227		

Metre	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
214.90–215.85		M		M / W	M					W		
216.93–218.57		W	W	W						M		T
218.57–		M-S		M	M							M
~222.5		S		W								
~223		M			M							
~223.5		M-M			M							
~224.5				M	S							
~225.3		M-S										

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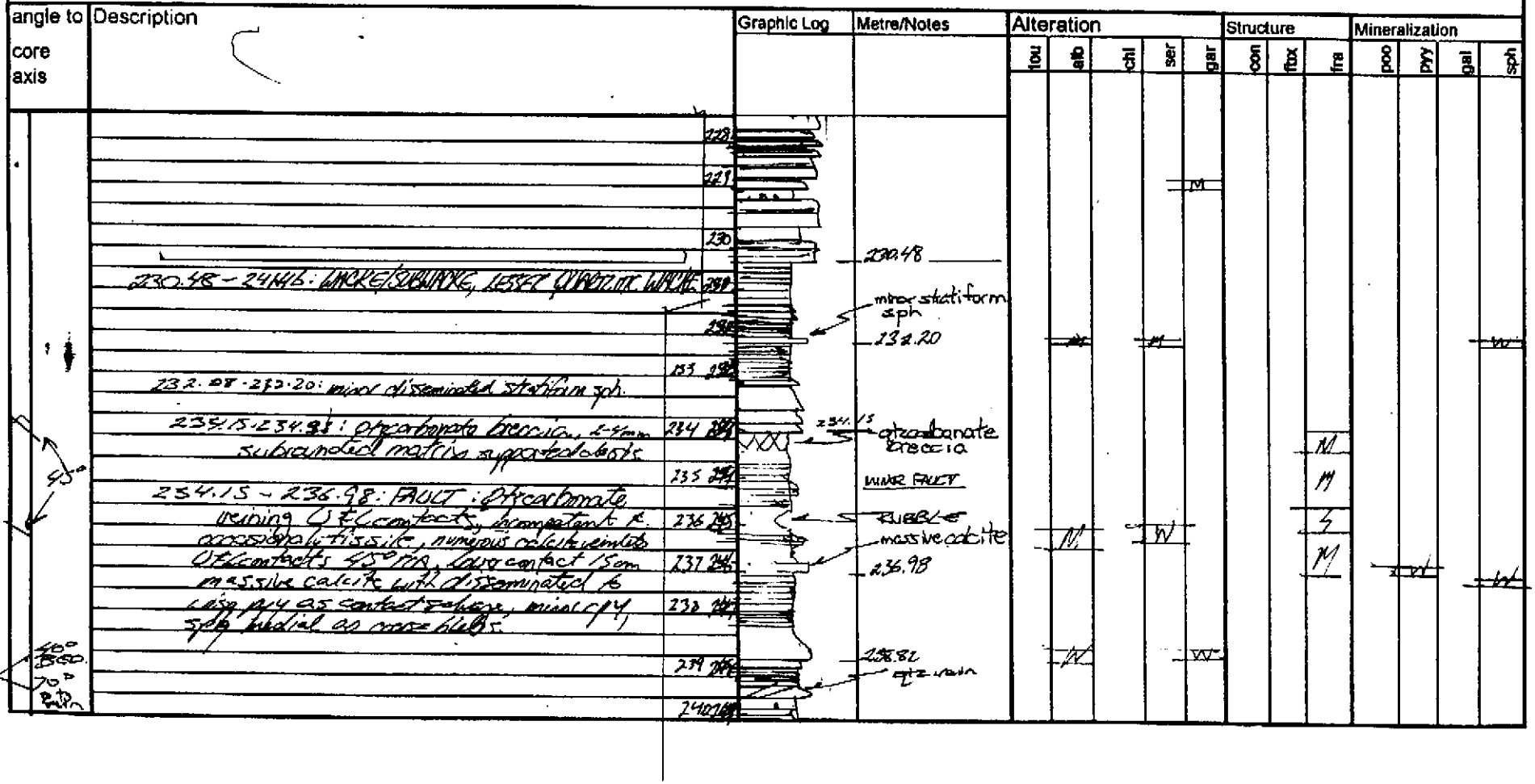
DIAMOND DRILL HOLE RECORD

Hole No: 97k-05



KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97k-04

angle to core axis	Description	Metre	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
poo veinlet 60°				5cm poo veinlet												
qtz vein 45°		241		241.07		M-S		M-S	T				W			
BED				241.46												
	241.48 - 251.11 : QUARTZWACKE, QUARTZITIC WACKE, MINOR WACKE.	242		241.97 RUBBLE.		M		M	M							
				Qtz-carbonate breccia.		M						S				
	Med-dark gray, thin-medium bedded qtz wacke, grading to thin bedded quartzitic wacke, quartzitic wacke, locally is well sorted and ankeritic, in contact with quartzwacke.	243		242.12		M	M-S					M	M-S	M-S		
		244		numerous calcite veinlets.												
50° gal/poo		245		244.66												
	242.66 - 247.00: Semi-competent, hi-angle calcite veinlets (15-20% by volume)	246		245.81: 1cm gal, poo vein.		M		M	W				M		M	
				245.99												
70° qtz vein	242.30 - 243.13 : Quartz-carbonate breccia, strong chloritic matrix, net-textured to semi-massive poo/pyy over 8.0cm of core of interval. Moderate-strong albite-sericite alteration at U&L contacts, bed-selective.	247		3-5cm qtz veins.		M-S	W-M	W-M	M							
		248											M	M		
	* 245.81: 1cm quartz veinlet, 80° TCA, 15-20% poo/gal within and on selvage. Boundary gal on Stratiform laminae, synthetic to bed-parallel calcite fractures.	249														
		250		poo veinlet												
		251		250.58 251.11		W-M		W	M							
	251.11 - 252.75 : QUARTZWACKE, QUARTZITIC WACKE															
		252		252.0		W-S		W	W							
	Medium gray-maroon (altered) medium-thick bedded															

KENNECOTT CANADA EXPLORATION INC.

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph

25411 - 262.75 (Ea4)

Quartzwacke, minor quartzitic wacke. Bedding is thick, planar, very well sorted and only locally shows disaggregated bedding and incipient foliation.
Material is pervasively altered showing Fe-mg thicker via albite-sericite alteration resulting in [illegible] green-gray coloration. Later-staged sericite brittle deformation [illegible] fractures are less common likely due to strong initial and pervasive hydrothermal alteration. Coincident to alteration is increased sulphide mineralization. Strong albitization is commonly [illegible] by thin quartz veinlets containing coarse disseminated to semi-massive pyrrhotite, lesser galena and minor sphalerite and chalcopyrite.
Sericite as fine-medium crystalline muscovite is [illegible] yet obliterated where albitization is strongly developed.

260.60 - 262.00 m: Strong sericite alteration upper 80 cm, [illegible] silicic alteration, garnet [illegible] within 2 cm quartz vein, underlain by strong albite alteration which has semi-massive (~2 cm) to [illegible] sphalerite on U&L contacts, oblique to bedding and fracture controlled, minor galena, chalcopyrite, pyrrhotite.

262.75 - 280.90 (2) [illegible] QUARTZITIC WACKE

Angle to core axis: 20°; 45° sph fracture; 40° BED.; 25° breccia cont.

Metre marks: 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265

Metre/Notes:
- 252.84
- 253.40
- 254.11
- 254.30
- calcsilicate vein.
- weak disaggregated bedding.
- coarse sph, lesser gal, tr cpy
- 262.75
- minor euhedral py
- calcsilicate [illegible]

Alteration / Mineralization marks:
- alb: M, M, M
- ser: W, M
- gar: M
- poo: M, W, W
- pyy: M
- gal: M, W
- sph: M, M

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

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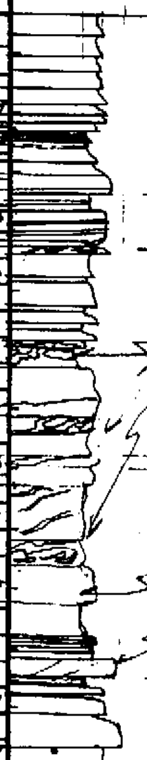
Hole No: 97K-04

angle to core axis	Description	Metre	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	262.75 – 280.90:														
	Quartzitic wacke comprises bulk of interval as gray-green	266					W								
55° bed.	medium-coarse grain medium bedded (15-30cm) graded beds.														
	Quartz wacke is thin bedded (5-15cm) dark gray to maroon	267													
	gray-buff, more arenaceous and commonly with light pink coarse garnets.	268													
			268.37		M		M	M							
	269.29 – 269.36: 3cm quartz vein with coarse disseminated	269			M		M	M							
	pyrrhotite crosscuts and dilates coarse grained		269.29									W			
	flame-structure quartzite/wacke bed	270													
20° ext/po vein.	271.10 – 271.34: hi angle coarse clastic incipient fluidization,	271	coarse clastic fluidization.												
	clastic dykes (≤ 2cm)											M			
20° sph/gal vein.	272.10 – 272.40: As at 271.10 – 271.34	272			M-S		M								
	272.70 – 2cm sph/poo, minor gal in fe-chlorite				M										
	qtz matrix @ 20° ca	273	272.70 / 272.80		M-S	W-S	M					M		W	M
	272.50: Semi-massive poo, 2-3cm @ 20° CA, tr cpy.														
	273.10: 15° TCA 10cm net-tex poo/sph within quartz carbonate veinlet.	274													
	274.62 – 275.27: silicic alteration, tourmaline with patch														
	(3x3cm) flesh-pink garnet within chlorite-biotite-	275	sph/poo/gal		M-S	M	M	S				M		W	M
30° sph/po veinlet.	albite alteration assemblage, minor poo, tr gal.														
		276	sph/poo.												
			276.45		S		M-S	M							
		277			M-S		M	M							
					W-S										
		278													

Graphic Log:



KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

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Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
25° garnet quartz veins	278.09: 1cm qtz vein 30° to CA with nebulous coarse garnet. Strong albitization alteration envelope		garnetiferous quartz veins		S		M-S	W-M				W, W			
	278-280.90: Mod-strong albitization, locally strong & commonly cored with garnetiferous quartz veins		280.90		M-S, M-S		M	M, M							
	280.90 - 289.24: QUARTZITIC WACKE/WACKE, MINOR SUBWACKE														
45° bdd	Med-dark gray interbedded quartzitic wacke and wacke, uppermost as thin-medium beds transitional to wacke/subwacke thin beds and laminae lowermost. Bedding generally planar, minor slumped and load casts in argillaceous sections. Laminae displays discontinuous lenticular structure and abundant increase in pyrrhotite content.		poo-rich clast in albitite; 284.86; pyy/poo veinlet.		W		W-M, W					W, W	W		
55° calcite veinlets	287.31: Chlorite mica ... within mm-qtz veinlets. 288.00-288.10: calcite veinlets oblique to bedding		287.00; 5mm calcite veinlets				W								
	288.55-288.70, 289.0-289.11: mod-strong albitization, sericite 1cm qtz vein with poo in latter oblique.				S, M		M, W								
	289.24 - 294.63: QUARTZ WACKE, QUARTZITIC WACKE		289.24; 289.73		M		M-S								
50° bdd.	Med gray-maroon (altered) medium bedded		semi-massive sph lesser poo, gal, cpy									M		M	S

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description		Graphic Log	Metre/Notes
	289.24-294.63 (cont) quartzwacke, thin quartzitic wacke	291		sph, minor poo/py/gal.
	*290.59-290.92: semi-massive sph, minor poo, py,			291.30
	gal. U contact @ 58° TCA, L contact 35°	292		minor gal, poo.
	TCA, medial portion longitudinal (subparallel			
	TCA)	293		
	293.40-293.75: Albitized qtz wacke, cut by late-stage			
	longitudinal calcite, abundant apparent garnet	294		293.78
				294.63
	294.63-300.15: Quartzitic wacke, wacke.	295		
35° poo	medium gray thin bedded (3-7cm) moderately	296		296.25
	sorted quartzitic wacke interbedded with very thin			
	beds and laminae, wacke & siltwacke. Laminae	297		
	are planar and generally moderately sorted uppermost			weak-moderate progressive albite-sericite alteration.
	as there is fine gradation upwards. Coarse white	298		
70° gal/poo	grain feldspar occurs in laminae			
	Alteration is albite-sericite weak to moderate, increasing	299		298.90 minor gal/poo in 3mm qtz vein.
	from 296.25-300.15.			
	Disseminated to semi-massive poo @ 293.27, 296.67-296.90 (3 veins)			
		300		
	300.15-328.82 Quartzitic wacke, wacke			
		301		moderate-strong albite-sericite alteration. 301.90
	medium gray medium bedded uppermost to thick			
	bedded lowermost, minor 5-20cm intervals	302		
	thin bedded wacke/siltwacke which are poor to			
	moderately sorted.			
	Interval is strongly albitic in upper 1.70m and	303		

Depth (approx.)	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
290.59-290.92									W-M		W	S
291.30		M		M	M							
291.6									W		T	
292-293.78		M		M	W-M							
293.78-294.3		M-S			M-S							
294.3-294.63		S		W	M-S							
296.25-297		M / W		W / M					S			
297									M			
297.3					M							
298-300.15			W									
298.90		M										
301.90-			W									

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	ger	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
35° qtz-carb veining	300.15 - 308.82 lower 2.00m at gabbro contact, and aphanitic in lower two-thirds accompanied by calcite veining (micro, mm-size). (304)		quartz carbonate veining			W-M									
	306.83 - 307.30 : Qtz-carbonate breccia, lower contact [illegible] poo, minor pyy (305, 306)		306.83 - 307.30 BRECCIA		M	M	M	W							
43° contact	(307, 308)				M		M								
	308.82 - 311.08 : GABBRO (309)		308.82												
	Contact 43°, sharp. Sub-aphanitic to 309.70, phaneritic medium crystalline mesocratic medium green gabbro, mafics display hornblende-actinolite-tremolite alteration. (310, 311)														
10° poo veinlet	312.07 [illegible]: 3cm semi-massive poo, minor to trace galena, sphalerite (312, 313)														
	Occasional quartz veins, predominantly barren, sulphides present occur in the majority on U/L contacts as coarse, sparse patches of poo and minor gal. (314, 315)														

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration					Structure			Mineralization			
				tou	alb	chl	ser	gar	con	fbx	fra	pod	pyy	gal	sph
	316	Δ													
	317	Δ													
	318	Δ													
	319	Δ													
	320														
	321	Δ													
	322	Δ													
	323														
	324	Δ													
	325														
	326	Δ													
	327	Δ													
	328	Δ													

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DIAMOND DRILL HOLE RECORD

Hole No: 97k-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration					Structure			Mineralization			
				tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
45° quartz vein.	329 330 331 332 333 334 335 336 337 338 339 340 341 331.83 - 331.92: Quartz vein, 45° to a, minor fracture filled coarse disseminated sphalerite, synthetic to a contact		minor disseminated sph. 331.82												

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration					Structure			Mineralization			
				fou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
35° qtz vein. 53° 55° qtz vein	342 343 342.58-353.84: Quartz vein, U contact @ 35° TCA, stockworked upper selvage, 344 Lower contact parallel, barren vein 345.40-345.45: Quartz vein, U contact 52° TCA, L contact 56° TCA, weak fracture controlled pyrrhotite medial 346 345.45-348.54: Broken, fracture controlled calcite veinlets, subparallel @ 50° TCA 347 348 349 350 351 352 353		qtz vein 342.84 345.40 345.45								W-M				

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DIAMOND DRILL HOLE RECORD

Hole No: 97k-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration					Structure			Mineralization			
				tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	354														
	355														
	356										W·M				
	357														
	358														
	359														
	360														
	361														
	362														
	363														
	364														
	365														
	366														

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DIAMOND DRILL HOLE RECORD

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Hole No: 97K-04

angle to core axis	Description	Depth	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
50°	366.90 - 367.0 : calcsilicate, gray/white laminae with boudinage textures enveloping quartzose & b-rounded clasts. 10cm late-stage offset with Fe-chlorite selvage, strong intercalated tremolite development, minor euhedral pyrite. Lower contact hummocky @ 50° TCA, synthetic Ch contact.	367	Δ	367.90												
		368	Δ													
		369	Δ													
		370	Δ													
65°	372.40 - 372.47 : 65° TCA BARREN QTZ VEIN.	371	Δ	372.47												
45°		372	Δ													
	373.13 - 373.21 : barren qtz vein	373	Δ	373.21												
		374	Δ													
		375	Δ													
		376														
		377	Δ													
		378	Δ													
		379	Δ													

KENNECOTT CANADA EXPLORATION INC.

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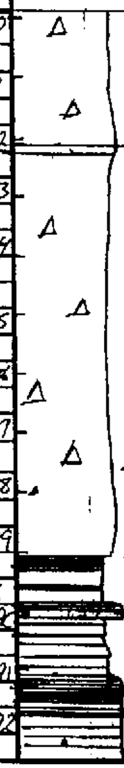
DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Depth	Graphic Log	Metre/Notes	tou	afb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
		380														
		381														
58°	382.06 - 382.18: Barren qtz vein, u & l contacts 58° TCA.	382		382.18												
		383														
		384														
		385														
		386														
		387														
		388		transitional hybrid, biotite rich.												
55° CONTACT		389		389.08												
	389.08 - 395.33 : QUARTZWACKE/QUARTZITIC WACKE, MINOR WACKE.			390.91												
34° BED.	Contact is transitional producing medium brown biotite hornfels from 387.72 to 389.08. Biotite displays foliation, parallel to underlying bedding ie. sill.	390				M-S		M					M			
		391				W		W								
				tourmaline bearing laminae		M-S		M								
	medium - dark gray quartzwacke, medium to thick	392			W											



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DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	beds, thin (5-10cm) interbeds quartzitic wacke, wacke. Occasional wacke 393	albite-sericite alteration.		M		M-S								
	Moderate-strong sericite alteration from contact to 393.77			S										
	393.80 - 394.21: laminae and weak disseminated felted acicular tour. 394	laminae/diss tourmaline.	W-M		W									
	394.50: coarse flake white muscovite.													
	395	395.33		S-M		S-M								
	395.33 - 400.63 QUARTZITIC WACKE / WACKE, MINOR QTZ WACKE													
	396			W		M								
	Gray-green and dark gray thin to medium interbedded quartzitic													
	wacke and wacke / quartzwacke section. Interval is pro- 397	396.84		M		M	W							
	gressively feldspathic lowermost, changing from planar sharp	397.48		M		M	m							
	bed contacts to undulatory and transitional, less													
46° BED.	distinct. Increase in argillite content as laminae in 15-20 398													
	cm intervals.													
	399													
	400.20 - 400.30: biotite-albite-garnet, garnet core alteration	399.73		M		W								
	400	400.33		M		M	M							
	400.63 - 407.32 : QUARTZWACKE, LESSER QUARTZITIC WACKE/WACKE	400.63												
	401			S		M								
	medium gray thick bedded quartzwacke on 50cm - 1.00m	sericite/albite alteration.		↓										
	scale in upper third, changing to even ratio medium 402			M										
	thick interbeds quartzwacke / quartzitic wacke. Siltwacke													
	and argillite is rare, occurring only at base of interval.	cored by quartz with coarse po/garnet		M		M								
	403			KS			M				M			
	Sericite alteration is pervasive over 80% of section, albitization	403.54		M		M								
	locally is very strong and commonly by thin quartz veins with 404			W		M								
	coarse patch pyrrhotite.			S		M								
	405.05 & 405.37 contains semi-massive sph/po @ 32°, tr gal. 405	404.52												

KENNECOTT CANADA EXPLORATION INC.

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

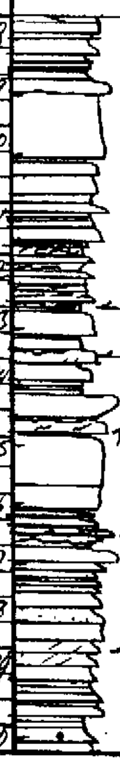
angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
32°, m/nch 45° 27 cm	405.35 and 405.37: 3 cm semi-massive/net-texture sph/poo, trace gal/cpy, crossing bedding. 405.73: 4 cm bed parallel quartz vein with poo as net-textured selvage and medial		semi-massive/net-texture sph/poo, trace gal/cpy.									M			
			clote clast breccia												
	408-409: thin interbeds very coarse sub-rounded to rounded quartz grains within silty matrix: proximal immature clastic debris		dewatering.		M		M				W-M				W
			fracture-controlled sph, weak.								M-S				
	409.40-411.25: Broken, core minor calcite fractures, minor pyrite, minor fault.						W	M							
					W		W-M	M/VN			M				
	413.81: 1 cm semi-massive poo, trace cpy														
			415.10				W								

406 407 408 409 410 411 412 413 414 415 416 417

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description		Graphic Log	Metre/Notes
35° poo min.	417.58 - 427.36 QUARTZWACKE, QUARTZITIC WACKE	418		
	medium gray medium - moderately thick	419		418.93
	quartzwacke, weakly graded to quartzitic			
	wacke which is generally thin bedded (3-5cm)	420		
50° 300	and consists of coarse (sub)rounded quartz grains			
	within a silty matrix. Argillaceous laminae are			
SHIFT	rare and occur occasionally within apparent	421		421.00
	cycle of turbidite activity sequence.			
30°	Alteration is preferential to quartzwacke at	422		
	base of sequence.			poo-nichdasts
	Disaggregated bedding is generally restricted	423		
	to wacke and associated with dewatering.			calsilicate poo-rich fractures
SHIFT	~~Sericite: Metamorphic~~ Sericite/muscovite as fine-medium	424		
	crystalline flake is disseminated throughout in association			disaggregated poo-rich dewater structures.
	with a weak chloritic 'wash' imparted to the strata. Pyrite	425		
	as euhedral form is common on fracture planes which exhibit			calsilicate sph-lined frac.
	greasy lustre and feel. Carbonate microveinlets and fracture	426		
38° 300	coating although intermittent, persist and appear to have a spatial			flame-structure.
	relationship with this secondary development.	427		
				427.36
	427.36 - 432.75 : WACKE, LESSER QUARTZITIC WACKE	428		
	Interbedded sequence from a medium ~~grade~~ bedded	429		3-5mm bands poo synthetic to bedding but offset.
	wacke and siltwacke with lesser thin beds quartzitic			
	wacke to a coarsening downward (anti-fining upwards)			
	assemblage of medium bedded quartzitic wacke and	430		

Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	W-S							W			
	W-M		M								
	W		M-S								
	S	W	M	W				W			
			W-M					W			
								W			
	M										
	M		M								
			W-M								T
	M										
	M-S		M								
			W-M								
			W					W			

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DIAMOND DRILL HOLE RECORD

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Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes
42° Bed.	427.96-432.75 (cont) lesser thin-medium intercalated wacke/subwacke. 431 Sericite/muscovite forms bulk of matrix. Bedding is planar with coarser clastics, lensoidal and undulatory with 432 pelagic (argillaceous) sediment. 433		432.75
	432.75-434.04 QUARTZWACKE, MINOR QUARTZITIC WACKE/WACKE. 434		mod-strong albite-sericite alteration of subarkose.
40° Bed.	Light-medium gray moderately thick bedded, moderate-well sorted quartzwacke. Bedding is 435 on 1.0-1.5m scale uppermost, changing to 20-50cm bed thickness with increased feldspathic content 436 downsection. Bedding is graded and becomes a quartzitic wacke, locally thin beds and laminae 437 subwacke and argillite occur, 15-70cm intervals. Biotite content increases with depth and is pervasive in all lithologies except where albite-sericite alteration 438 is developed well and texture destructive. 439		
	433.60-434.58: mod to strong texture destructive albite, silicic alteration of quartzwacke/subarkose 440 (high SiO_2 %) 441		discordant 2-4mm massive po veinlets (2).
	439.93-440.33: biotite-albite-silicic alteration. 441.33-.42, 441.79-442.13: biotite-actinolite-albite-silicic-garnet alteration. 442		see text.

Alteration (tou, alb, chl, ser, gar) — entries from top to bottom:
- alb: M-S; M-S; M; W; M; M-S
- chl: T-W; W-M
- ser: W, M; W-M; W-M; W; M-S
- gar: W; W; W; M; W

Structure (con, fbx, fra) — no entries

Mineralization (poo, pyy, gal, sph) — no entries

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DIAMOND DRILL HOLE RECORD

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Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	443				M		S	M							
	444		444.04		M		M	T							
	444.04 - 447.52: WACKE/SUBWACKE, LESSER QUARTZ-WACKE. 445				M		M	M							
	light gray wacke interbedded with laminae subwacke 446 progressively graded as qtz wacke - wacke - subwacke [illegible] section. Well developed flow structures such as asymmetrical ripple marks, minor cross-bed laminae, 447 pillow marks and load-casted argillite laminae.		447.52												
	448		448.19		M		W	M							
	447.52 - 457.30: QUARTZWACKE/QUARTZITIC WACKE, MINOR WACKE, SUBWACKE 449				W		M	W							
					W		W-M	W							
	medium gray medium bedded graded qtz- 450 wacke. Bedding generally 15-30cm and		mottled actinolite-albite-garnet		W-M		M-S	W							
	grades to quartzitic wacke. This lithology commonly 451 hosts v. thin beds and laminae poorly sorted and				M-S		M	M							
	moderately sorted wacke / subwacke. Argillaceous		strong sericite alteration		W		S	W							
	laminae breakabundant after ave. 30-50cm interval 452 where the lithology is [illegible] dominant. Bedding is generally				M-S		M-S	M							
	planar, being slumped at quartzitic / argillite [illegible] 453 interface.				M		M	M							
	454				S		S	M							
	455				M										

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DIAMOND DRILL HOLE RECORD

Hole No: 97k-04

angle to core axis	Description	m	Metre/Notes	Alteration: fou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
40° BED. 35° micro-breccia	455.53-455.77: Upper portion with mm-size qtz-lined fracture, have 2cm micro qtz-chert breccia @ 35°TCA approx bedding	456	qtz-clast micro-breccia.												
		457					W								
	[illegible] is weakly graded [illegible]		457.30												
22° gouge contact	457.30 - 462.99 QUARTZWACKE/QUARTZITIC WACKE, medium bedded graded qtz wacke to quartzitic wacke. Bedding & pervasively sericite-albite altered (weak-moderate)	458	gouge 22°TCA <85° offset to bedding.			fW					—	F-W	W		
		459			M		S	M							
20° albite-sericite fracture	459.70: fracture-controlled albite-sericite alteration, 20°TCA opposes bedding, 85° offset of bedding	460	fracture-controlled albite-sericite, 20°TCA, 85° offset to bedding.		M						W-M				
	459.70-460.10: Longitudinal calcite veinlets.		stratiform albite-sericite.		M		W	W							
		461	sericite-albite alteration.		W		M								
		462			M-S		M-S	W							
		463	462.99		M-S		M	M							
	462.99 - 464.95 [illegible] QUARTZITIC WACKE, WACKE, 462.99 ~5cm stratiform sph [illegible]		stratiform sph												xx
	Thin interbedded to laminae-rich wacke/argillite, uppermost 5 altered	464	albite-actinolite-garnet-sericite		W-M		M								
	464.95 - 466.12: QUARTZWACKE/QUARTZITIC WACKE, MINOR WACKE	465					W-M	W							
		466			W		W	W							
	Thin-medium bedded (5-50cm) graded quartzite to quartzite wacke - fining upward bed sequence terminates generally with wacke, with laminae subwacke/argillite. Sequence interval is on [illegible]	467			M		W-M	M							
					M		M	M							
		468			M-S		M-M	W							

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Metre
	464.95 - 486.12 (cont)	
25° qtz veinlet	to 60cm scale. Bedding is typical of turbidite deposition with undulatory to load casted lamine uppermost.	469
		470
	Fine flake white muscovite as weak - moderate disseminations occurs throughout interval which is pervasively altered.	471
		472
	469.50 - 474.20: pervasive albite-sericite alteration texturedestructive to argillaceous/greywacke lamine + thin beds.	473
		474
		475
		476
		477
		478
		479
		480

Metre/Notes:
- qtz-po-lined qtz veinlet
- pervasive sericite albite alteration

Approx. metre	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
468		M		W	M							
469.5		M-S		W-M	M				1			
470.5		M-S		M	W							
471		M-S		M	M							
472		M		S	[illegible]							
473		M-S		M	W							
478		W-M		W	M							
479.5		M		M	W							

angle to core axis	Description	Metre	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	481.39-486.12: Pervasive sericite-albite alteration of quartzofeldspathic wacke with thin (minor) interbeds wacke/siltwacke.	481														
		482				W-M		S	M							
		483		pervasive sericite-albite		M-S / W		M-S / W	W							
		484				M / S		M-S	W							
		485				S-M		S								
		486		486.12		M		M	W							
37° / 350.	486.12-489.78 - WACKE/SUBWACKE, MINOR QUARTZITIC WACKE	487				M-S		M								
	Light gray-green interbedded mod-poorly sorted wacke and subwacke with occasional argillite laminae; dense sections, coarsening down to quartzitic wacke/wacke.	488														
		489		RUBBLE / 489.78								M-S				
	489.78-489.52 : QUARTZWACKE/QUARTZITIC WACKE	490				S / M-S		M-S	W							
	medium-dark gray graded quartzwacke to quartzitic wacke, medium bedded (20-70cm) sequence; lesser interbeds thin-bedded wacke/subwacke.	491														
		492		felted tourmaline	S	M-S										
	Coarse muscovite common in quartzwacke as albite-sericite alteration persists through this section.	493														

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97L-04

angle to core axis	Description	Metre	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
				(P.A. sample)												
45° tourmaline bed. 55° opposing tourmaline/fe. 40° (?)	492.13 - 494.35: Felted tourmaline (chaulite?)			trace tourmaline.		M-S		S								
	overprinted by strong albitite. Contact wispy	494		494.23					M							
	to albitite / tourmaline. (Contact from															
	and bed parallel replacement), to contact opposing.	495														
	[illegible, struck out]	496		pervasive sericite-albite.		M		M-S								
		497				M-S			M							
		498							M							
		499				M-S										
	499.52 - 503.24 QUARTZITIC WACKE/QTZ WACKE, WACKE.	500		499.52												
				RUBBLE								S				
50° calcite veinlet (501.21)	Thin bedded, interbedded sequence of quartz-	501		19 cm massive tourmaline ?(P.A. Sample)	S											
	wacke, quartzitic wacke and wacke. Gradually															
	headward increase owing to sericite/albite develop-	502				W-M / S		S / M	M / M							
	ment, noticeable in permeable qtzitic															
	beds. 500.88-501.07: V. hard massive tourmaline ??															
		503		503.24												
	503.24 - 526.50: QUARTZ WACKE / QTZITIC WACKE															
		504		strong albite sericite		M-S		M-S								
	medium gray medium-moderately thick bedded															
	504.10: coarse poo, fracture fill, 40° TCA	505				W-M		M								

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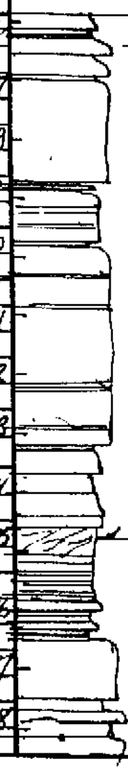
DIAMOND DRILL HOLE RECORD

Hole No: 97k-04

Angle to core axis	Description	Metre	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	503.24 – (cont)	506						M							
40°					M-S		S	M							
	quartz-wacke with occasional thin (3-8cm)	507													
	beds wacke. Primary bedding is altered,				M		M-S	W							
	pervasive sericite/albite alteration, imparting	508													
	green & maroon coloration to interval, persists														
	through to 512.09m. Garnet is more indicative	509													
	of strong alteration and essentially albitic w.		pervasive sericite-albite texture destruction												
	silicic which is the common association where	510													
	strongly developed as "coticule".				M-S		M-S								
	Alteration appears to be lessened at contact of														
	fault zone @ 526.19.	511													
	[illegible]	512													
	Coarse muscovite is sporadic, existing peripheral to														
	strongly pervasive sericite/albite alteration.	513													
		514					W								
25° Lat box.	514.60-515.03: calcsilicate cemented	515	strong calcite veining [illegible] late-stage			W				M					
	fault breccia, incompetent, late-stage.														
		516													
		517	albite-sericite		M		M-S								
		518						M							

Graphic Log:



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DIAMOND DRILL HOLE RECORD

Hole No: 97K-01

angle to core axis	Description
	519.51: 35° TCA sericite/albite alteration contact, opposing bedding. offset from bedding is ≈85°, consistent with observed fracture min ?? offsets. (519)
35° ?? vein.	519.60 - 521.07: Strong albite alteration within quartzwacke/subarkose which has ??-rich disaggregated small angular clasts (520, 521, 522)
35-40° fracture sets. (15° bed offset)	Core is incompetent beginning @ 522.18 with coincident increase in late-stage calcite veining. Fracture sets exhibit brittle deformation of strata post-alteration, and is static vs. dynamic (lack of slickensides, very minimal offset, no gouge). Competent, strongly altered rock, suggesting [illegible], suggestive of [illegible] rather than direct faulting. (523, 524, 525)
	Fault: 522.18 - (526)
	526.50 - 529.54 QUARTZITIC WACKE/WACKE (527)
	mod. dark grey thin to medium bedded quartzitic wacke with minor thin interbeds wacke with occasional laminae argillite and [illegible]. (528, 529)
	529.54 - 531.70 QUARTZWACKE, MINOR QUARTZITIC WACKE (530)
	medium bedded qtz wacke graded thin-bed qtzitic wacke (531)

Graphic Log:

Metre/Notes:

- strong albite sericite (to 521.07)
- pervasive alteration
- RUBBLE
- 526.50
- BROKEN
- 529.54

Depth (approx.)	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
519–520		M		M-S								
520–521		S		M- / W								
521–522		W		M								
522–523								M-S / W-M / M-S				
524–525		S / L		M				W				
525		M										
526				W-M				S				
528								M-S				
530–531								W				
531		S		S	M							

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

Angle to core axis	Description	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	5		531.70		M-S		S								
	532										W				
	531.70-539.54 : WACKE/SUBWACKE, LESSER QTZWACKE				M		S	M							
	533		RUBBLE								S				
	medium-bedded, med-dark gray graded wacke - lowermost bed portion of [illegible] (v.fine) 534 argillaceous wacke. Increased coarse clastic sediment downsection to medium interbedded [illegible] wacke/wacke. Bedding is [illegible] and undulatory in argillaceous uppermost section grading transitionally to planar lowermost. 535 536				W-M		S	M			W-M				
	537				W-M		M				M-W				
	538				M		S	W							
	539		RUBBLE; 539.54								S				
45° BRECCIA	539.54-578.82 QTZWACKE/QTZITIC WACKE 540										M				
			BRECCIA (Gouge)							S	S				
	med-gray medium bedded quartzwacke, graded with 541 thin bedded (3-5cm) qtzitic wacke to wacke tops. Interval is incompetent, broken and locally a 542 rubble down to 579.00m with occasional 1-2m sections of competent core. One to two metre occasional intervals wacke/subwacke 543				S/M		M				S-M				

angle to core axis	Description	Metre/Notes
35° 080	544	
	545	
	546	
	547	
35° 050	548	
	549	
	550	
	551.30 - 579.00: Fracture intensity strongest. blocky on 5-15cm scale to rubble. 50/50 rx, weakly cemented, fine brecciated, fracture selvage likely anhydrite reduction to [illegible], [illegible] non-calcareous 551	← rubble
	552	
	552.80: Boilbonis laminae and thin bed with elongate contorted clasts which show brecciation texture. This fault zone may be a growth fault - active during or pre-lithification stage. Clasts are bed-parallel. 553 554	
55° qtz vein	555	← quartz vein
	556	

Alteration / Structure / Mineralization (marks down the page, top to bottom):

tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	W-M		M	W							
	W		M	M			W-M				
	W		M	M							
	W		W-M								
	W		W-M	M			M				
							S				
	W		M			M					
	M		M	W			W				

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	557										M-S				
	558		BROKEN/ RUBBLE												
	559														
	560														
45° BED.	561.00-561.60: disaggregated bedding, weakly fragmented 561										M				
	562														
	563										M-S				
	564		BROKEN/ RUBBLE												
			breccia		W-M		M-S			S	S				
	565														
	566														
	567										M-S				
	568														

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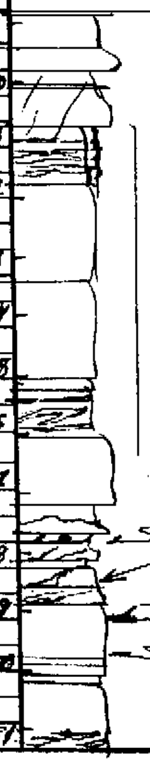
Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	569														
	569.45-569.72: Bed prallel albite-sericite alteration cut by late-stage Fe-chlorite micro 570 fracture in which weak disseminated altered sph appears to be fracture related. 571				M-S		M	W			W				T
30° BED					M		M	M			M				
15° BED	571.65 - 571.95: hi-angle lenticular tapered 572 thin-bedding 1mm-size clastic debris within argillaceous bands @ 15° TCA, coarser beds display disharmonic folds and pinch and swell 573 texture. this is pre-lithification dewatering expulsion attributed to turbidite activity, possibly 574 marginal to fault scarp 575										M-S				
24° BED	576										W				
	577				W		M	W							
16° BED.	577.50 - 578.60: clastic dyke within siltwacke. wacke matrix, base 578 shows disaggregated bedding. 579		clastic dyke								S W M				
60° qtz vein.	578.82-637.89: QUARTZWACKE, DISAGGREGATED WACKE, SUBWACKE 580		578.82 calcite veinlets; quartz vein, 1.0cm.					M			W M				
	med-gray moderately thick bedded v. fine grain qtzwacke intercalated with siltite 581														

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-09

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	intervals on 50cm-1.00m scale which host angular and disharmonic disaggregated bed lenses, clastic dykes are common, locally as swarms. 582 583														
	584														
85° qtz vein	585		← quartz vein												
	586														
30° BD	587.20-587.50: clastic dyke 'swarm', coarse clastic disharmonic dyke (3-8mm) within subwacke (siltite) matrix. 587 588 Clastic dykes are common within hetero-lithic interval. 589		← clastic dyke 'swarm'												
	590														
	591														
	592.24: Decreased activity, bedding attaining homogeneity, dewatering features less common. Lithology fine grained clastic quartzitic wacke. Disrupted bedding cycle resumes at 595.30. 592 593														

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97k-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
38° / 360	594														
	595.30-637.89: disaggregated quartzitic wacke bedding within siltolithic interval which consist of quartz wackes and lesser wacke. Twisting textures common throughout, occasionally crosscutting bedding within siltite sections. 595 596 597														
	Section is unaltered and generally competent, where fractured selvage consists of non-calcareous material which is likely a product of feldspar reduction (illite??). Fractures oppose bedding, are generally synthetic and positioned approximately 80-90° offset to bedding. 598 599 600 601														
40° / 360	602														
	603														
	604														
	605														
	606														

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration					Structure			Mineralization			
				tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
27° fracture set.	60						W	W							
	60														
	60														
	60														
	61														
30° BCA	62														
	63														
	513.40 - 515.55: Weak-moderate sericite alteration, locally strong 2-3cm bands @ 55° TCA 64 appearing bedding.														
	65						W+								
	66														
	67						W/M								
	68						W								

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97k-04

angle to core axis	Description	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	619														
	620														
	621														
	622														
	623														
34° bed.	624														
60° poo/sph	625														
45° BRECCIA	625.20: 3cm albitized band cored by 2mm wisp poo/sph. 50° TCA, appears bedding which is 37° TCA; offset = 90°		thin (5cm) breccia.		M		M					w			w
	626						w								
	627														
	628														
	629														
	630														
	631														

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
		637.89												
637.89 – : QUARTZITIC WACKE/QUARTZWACKE		trace sph. 637.94				W								T
medium grey, medium-thick bedded, v-fine-grained, well sorted impure quartzitic wacke and quartzwacke, 2-3% biotite, rare local thin tapered beds wacke, disaggregated sedimentary soft-sediment structures are common throughout at 2-4% by volume, relatively much less than above 637.89; interval is much more homogeneous independent of very fine quartzitic disaggregated bed.						W								
						W-M								
		641.78: sph/poo veinlet												M
		642.52: poo/pyy veinlet				M								
@ 638.94 trace sph in 1cm qtz breccia @ 45° TCA,		643.85 trace sph				M								T

Margin notes: 30° / 30°, 45°, poo/sph, 40°, poo/pyy

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Depth	Metre/Notes	Alteration (alb / chl / ser)	Mineralization (poo / pyy / sph)
		644		ser: M, W	
	638.94 (con't): opposes bedding offset by ≈50°, bedding @ 30°	645	645.09-645.17: 3cm sph/gal	alb: M; ser: M	poo: M, M; sph: M, M
	Bedding appears thick in sections yet has a faint ∅ succession of thin discontinuous & thin beds which are evenly fine grained quartzitic laminae.	646	645.47: sph/poo veinlet	ser: W-M	poo: M
	Sph are spurious locally.	647	quartz/poo veins (2) 1cm		
	This section has a weak sericitic & weak albitic alteration, locally moderate causing diffuse alteration bands.	648			
	Finely crystalline sericite/muscovite persists throughout and is interstitial in the matrix.	649			
	649.78: sph/poo veinlet, 45° TCA, 50° offset to bedding, bedding @ 30°	650			
	643.85: trace sph		poo-rich disaggregated bed clast.	ser: W-M	
32° / 350.	645.09-645.47: weakly albitic band with 3cm pet-textured to semi-massive sph/gal, minor poo, 1cm cut-cale garnet @ L contact. Bedding @ 31° TCA, vein opposing @ 32° TCA: 90° opposed; offset is minimal, ≈ 10°	652 / 653			
	645.47: 1cm sph/poo quartz vein, 40° TCA, opposes bedding, positioned as above vein.	654	2 parts vein 65° TCA.	chl: M	
	650.50-652.50: poo-rich disaggregated bed clasts.	655	fe-chlorite mm-size fractures. 90° TCA	chl: W	poo: W; pyy: W
	655.70: Longitudinal pyy/poo lined fracture.	656			

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: lou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
37° 35°0	654.70 - 660.0: fractures consist of fe-chlorite where mm-size and fe-chlorite and calcite as tension gash sets with fe-chlorite as main matrix. Disaggregated bed clasts are poo-rich. Albite/sericite alteration is strong from 658.50 to 660.00m. Alteration is coincident with sulphidization phase. Pyrite is common on fracture planes. Garnet is disseminated as 1-2mm subhedral xtal at 1%		tear/gash fractures. calcite fractures in fe-chlorite		W; W-M; W	W-M	S; W; M; S; M	W; W; W							
	661.30 - 661.97: calcite-cemented clast-supported breccia.		3385 LA			W	M; S; M			S					
	ALT 665.80 - 668.30: Broken, locally rubble, wacke to subwacke, numerous (5% by volume) pyrite-lined fractures, weakly chloritic, slickensides polished fracture sets generally @ 60° TCA synthetic sets		665.84			W-M	W-M				M-S; M; S-M		T; W		
	665.80 - 672.40: WACKE, QUARTZITIC WACKE														

657 658 659 660 661 662 663 664 665 666 667 668 669

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal
	665.80-672.40 (cont)													
	med-dark gray moderately thick bedded wacke, extremely fine grained, weakly disseminated fine angular feldspar (white ~2%), basal bed transition is subtle to quartzitic wacke. Interval contains faint very thin relatively coarsely fine grained quartzitic wacke - few of which are poo-rich. (670, 671, 672)		672.40										T W	
	(673)													
	672.40-682.80 : QUARTZITIC WACKE (674)		feldspar-chlorite fracture w/ poo.											
	medium gray fine grain moderately thick bedded quartzitic wacke, occasionally ... interlaminated with wacke in which dewatering structures occur. In general, faint discontinuous thin beds are rare. Interval is essentially homogenous quartzitic wacke. (675, 676)		poo-rich bedclasts. poo-rich qtzitic/wacke interface.									W		
	Sulphide is localized as pyrite in fractures associated with calcite veining, as at 677.50-678.60 (677, 678)		RUBBLE			W	W				W S	W	W	
	(679)													
45° py/po veinlet	679.84: ... po/py in ... selvage. (680)					W						M	M	
	(681)													

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DIAMOND DRILL HOLE RECORD

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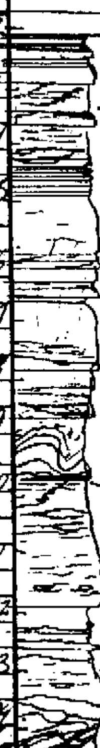
Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
48° BED.	681.56 - 682.0 : silicic quartzwacke calcite veinlets 682														
	contact weak calcite cement breccia		682.80												
50° BED.	at contact 683		← clastic dykes.												
	682.80 - 689.89 : QUARTZITIC WACKE/WACKE 684														
	Interbedded sequence, light gray wacke bearing 685														
	thin beds and medium gray quartzitic														
	wacke. Beds with varying from 1.5 cm to														
	3-4 cm. In general, this is a coarsening [illegible] 686														
	interval [illegible] coarse clastics dominate and														
	bedding planes have transitional yet somewhat 687													M				
	distinct boundaries. Finer part in uppermost														
	[illegible] of faint, discontinuous irregular bed 688		BROKEN								M-S				
	contacts suggestive of [illegible] in which														
75° vein	sediment reworked asymmetrically producing 689										M				
40° BED.	an inhomogeneous facies and irregular beds. Microscale														
	clastic dykes occur in this environment type. 690		689.89 ← coarse poo in calcite veinlet												
	689.89 - 691.80 : WACKE SUBWACKE LESSER														
	QUARTZITIC WACKE 691														
45° strata form quartz vein.	Soft-sediment deformation characterizes this interval 692											M			
	Deformed, thin subplanar arenitic beds occur intermittently											M			
	within wacke / subwacke (light gray-brown) 693											M			
20°	mass. This produced differential compaction causing														
	contorted beds (wacke) and synsedimentary 694											M-S			
	depositional breccias resulting from incipient fluidization														

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Metre
	This appears to be proximal to growth-fault activity	695
35° Bed	during deposition as bedding is conformable but yet Cobbles deposited on erosive surface. Intra-formational breccia occurred pre-lithification as o[illegible] sph.	696
29° Bed	bedding contains submatted clasts and dewatering structures which migrated along fault & boundaries.	697
		698
	691.80 – 704.0 m: Atypical amount and style of poo, poo occupies quartzitic beds at 10-15% by volume – either strongly disseminated or semi-massive. Especially concentrated in dewatering channels	699
70° 25° vein.		700
	692.50: net-textured poo within qtz vein bed-parallel	
	693.81 – 695.0: locally net-textured sub-parallel TCA poo	701
		702
	*note: possible correlation to 503.0 m in 97K-03 from 695.0 m in 97K-04, this may be Lower/Middle contact	703
25° Bed	704.80 – 706.50: occasional disseminated to [illegible] sph, often [illegible] to poo when disseminated	704
		705
50° Sph veinlet	706.20: mm-size sph veinlet opposite bedding 50° TCA, fracture [illegible] via [illegible] chlorite [illegible] fracture set.	706
		707

Graphic Log

Metre/Notes

- 695: poo-laminae 3-5%.
- 700: qtz-poo vein.
- 706: mm-veinlet sph.

Alteration					Structure			Mineralization			
tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	W-M		M					M			
		W						W-M			
							M				
								W			
		W									T-W

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DIAMOND DRILL HOLE RECORD

Hole No: 97-04

angle to core axis	Description	Metre	Graphic Log	Metre/Notes	lou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
		708		1-2% bed related to poo.			M						W			
70° 350	To 709.57 disseminated poo c. ≤ 5% common in quartzitic beds, as blebbing in medium to moderately thick poo & decreases significantly	709 710				M		M-S								
	711.02 - 711.15 : Thin competent clast supported fragmental, scrambled-angular mono-lithic - [illegible].	711 712		thin frag mental			W-M					M-S				
	711.20 - 712.90 : Broken, locally fissile, chloritic.			BROKEN RUBBLE												
	712.70 - 719.25 : QUARTZWACKE, [illegible] WACKE	713		712.70		W	W	M-S								
	Uppermost 1.5 m moderately thick bedded homogeneous quartzwacke, moderately - strongly sericitic. Bedding becomes discontinuous and weakly fragmental (i.e. [illegible]) with localized 0.5-30cm intervals quartzitic wacke as in thin [illegible] beds	714 715 716 717														
	717.0 - 724.0 m : Slight increase in chloritic wash and occurrence of pyy stringers	718										M				
		719		chloritic veinlets occ pyy-rich			W-M									

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes
27° 360	719.76 - 729.27 QUARTZ WACKE / WACKE		719.76 faint ball & pillow.
55° qtz vein.	Strongly disaggregated to interbedded locally graded wacke containing large [illegible] clasts, 15-30cm, occasional [illegible] coarse, angular feldspathic fragments within sericitic - locally albitic groundmass. This interval characterizes [illegible] activity which is proximal owing to [illegible] nature and % of [illegible] mineral fragments		
42° fracture.	720.90-721.30: most strong alteration, [illegible] contacts 2-3cm qtz veins, muscovite-albite-actinolite alteration, occasional [illegible], strong fe-chlorite @ contacts.		
	721.30 - 729.27: locally strong sericitic		angular feldspathic fragments
45° 360.			728.82
	728.82 - 736.20 FRAGMENTAL		
	Heterolithic, variable [illegible] size subrounded to subangular fragmental, uppermost 50cm is clast supported and variable in clast size from .5 - 7.0cm. Smaller fragments are		quartz vein 45° TCA

Metre marks: 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732

Alteration (tou, alb, chl, ser, gar); Structure (con, fbx, fra); Mineralization (poo, pyy, gal, sph):

- chl: W; W-M; W
- ser: W; M-S; W; M; W-M; M-S; M-S
- alb: M-S; M; M; W-M
- poo: W-M; W
- fra: WM
- pyy: W

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DIAMOND DRILL HOLE RECORD

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Hole No: 97K-04

angle to core axis	Description	Metre
	predominantly subrounded to elongate. Clast lithology	
	is 95% Siltite (wacke/siltwacke), remaining	733
	clasts are quartzitic wacke. few [illegible] diss py.	
	Fragmental shows weak lineation @ 55° TCA and	734
	appears opposing (or discordant) to bedding	
		735
	731.82: 15 cm qtz vein, contact @ 45° TCA, weakly diss-	
	eminated (<1%) pyy	
		736
38° 300	Below 734.11 nature of fragmental changes to [illegible]	
	breccia and [illegible] (? [illegible]), [illegible] bedding	737
	is remnant yet clasts exist within framework.	
		738
	735.26 - 744.70: Very blocky, broken, fractures	
	FAULT display slickensides and locally gouge.	
	Where competent, strata shows [illegible]	739
	faulting with ±2 cm offset. Chloritic	
	alteration is pervasive over 10 m,	740
	lessening with depth.	
		741
	@ 736.0 m: fracture @ 35° TCA, slickenside striations	
	@ 30° to long axis of fracture	742
25° carbonate breccia	736.20 - 744.90: WACKE DISAGGREGATED TO ABE	743
	[illegible]	744
	[illegible]	
	and cross-stratiform migration. [illegible]	

Metre/Notes: pyy-rich clasts; broken; FAULT; 736.20 carbonate breccia bands; BROKEN RUBBLE; ankerite/siderite rim/ox.; quartz healed breccia

	Alteration					Structure			Mineralization			
	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
								W		W		
								W				
			WM					S				
				M				M				
								S				

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	744.90 - 755.53 : WACKE (745)		carbonate wisps			M									
	med grey-green to med grey disaggregated, Strata-[illegible] interval. [illegible] [illegible] (746)														
	[illegible] to [illegible] from [illegible] [illegible] (747)										S				
	and slumped thin beds and laminae. Section is heterolithic, from wacke and sub-wacke with minor (748)														
	quartzitic wacke.														
25°	Pyrite is common as coarse disseminations related (749)												W		
	to quartz-carbonate veining and replacement of														
	[illegible] [illegible] fragments. (750)														
	Interval is incompetent and intensely to moderate-														
	ly fractured to contact with gabbro.														
	Section is moderate to weakly chloritic. (751)														
	(752)										M				
	753.47 - 755.53 : [illegible] wacke and sub-wacke (753)														
	minor argillite. 5-10% thin bands [illegible]														
	quartz by volume atypical & [illegible] [illegible] (754)														
	[illegible] and within quartzitic laminae.														
	(755)														
	755.53 - 842.82 GABBRO		755.53												
	[illegible] [illegible] contact (756)												T-W		
	755.53 - 756.98 : transitional hybrid '[illegible]'														
	med grey-green sub [illegible], fine crystalline (757)														
	gabbros with weak [illegible] to [illegible] occasional [illegible]														

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DIAMOND DRILL HOLE RECORD

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Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	756.98 - 842.82 : GABBRO : phaneritic [illegible] fractures. Pegmatitic interval contains weak disseminated (1-2%) pyy and rare arsenopyrite. Associated phaneritic hornblende gabbro which shows actinolite - tremolite hornblende alteration as metamorphic [illegible]. Occasional sections contain quartz veins which in the majority contain coarse to net-textured poo and fe-chalcite microfracture [illegible]	758 759 760 761 762 763 764 765 766													
52° qtz vein	766.95 - 767.45 : Contact 3 cm quartz vein @ 52° TCA minor pyy as coarse subhedral, rare coarse arsenopyrite, 10 cm discontinuous qtz vein @ 767.25, coarse crystalline arsenopyrite .5 x 1.0 cm (3 patches) vein controlled in qtz vein @ 35° TCA	767 768 769													
	795.84 - 796.34 : mafic [illegible] of quartz / poo / pyy trace [illegible]. Contact @ 38° TCA [illegible]	770													

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description		Graphic Log	Metre/Notes	Alteration					Structure			Mineralization			
					tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	770 - 782.5 : GABBRO (cont'd)	771														
		772														
		773														
		774														
		775														
		776														
	776.50 - 776.60 : gouge.	777		gouge												
		778														
		779														
		780														
		781														
		782														

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: lou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
	783														
	784														
	785														
	786														
	787														
	FAULT 787.89 - 791.64: BROKEN/RUBBLE, LOCALLY GOUGE. COARSE, INDISTINCT U/KC CONTACT.														
	788														
	789		RUBBLE/GOUGE!												
	790														
	791														
	792														
	793														
	794														
	795														

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97-04

angle to core axis	Description	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
24° 37° Qtz vein	795.84-796.34: mosaic texture of quartz/ poo/apy, trace cpy. Upper contact 24° TCA, Lower contact 37° TCA	796, 797	mosaic qtz/ poo/py.									M	M		
												M	M		
20° qtz vein	797.33: Qtz vein, 2cm, 20° TCA, w/ net-tex poo/apy	798													
		799													
	799.72-800.79: 40cm qtz vein @ Uct 35° TCA, weakly net-textured with poo/apy, tr. chlorite-chlorite selvage; local coarse patches (.5x1cm) arsenopyrite (1-2%) to 800.79	800, 801	quartz vein									M	M		
		802													
	802.25-802.60: 35cm qtz vein, tr poo @ Uct.	803													
		804													
		805													
		806													
		807													
		808													

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	810														
	811														
	812														
	813														
	814														
	815.49 - 818.39: Apparent assimilation of clastic sediments: remnant dragged bedding @ contact convoluted by undulatory fabric; medium-dark green, occasional coarse, dislocated blebs arseno-pyrite, quartz vein @ 816.40; UFC at 48° rag, mod-strong albitization @ 817.55 - 818.39. 815 816 817		qtz vein									W-M	W-M		
	818		mod-strong albitization		M		M								
	819														
	820														
	821														

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	821.87-827.02: Longitudinal quartz vein. Uppermost @25° to ca, lower selvage contact of 3-5cm wide poo, lesser pyy, occasional coarse blebs arsenopyrite, trace cpy; vein is often cut by net-textured poo. // lamina is sinuous as it is intermittent and occasionally crosscutting and containing 3-4% coarse disseminated pyy/poo, trace cpy. Lowermost vein is ... for 30cm, contains 3x5cm autolith gabbro and occasional wisps poo and trace cpy. contact ∠ @ 85° to ca		822–828; quartz vein									W; W/M	Tr-W		
	FAULT 829.60-838.20: BROKEN, LOCALLY RUBBLE AND GOUGE. STRONG FE-CHLORITE SELVAGE ON FRACTURE PLANES. SLICKENSIDES. LOWERMOST 80cm QUARTZ-CARBONATE BRECCIA.		829–834; BROKEN/RUBBLE								MS				

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
		835 – 838									M-S				
25°, 20° qtz vein.	838.48 – 838.62: 15cm quartz vein, U contact 25° TCA, L contact 20° TCA. Net-tex poo U cts, arbor cts poo.	839 – 840	qtz veins												
	840.10 – 840.30: 30° TCA U & L contacts weakly mineralized (w minor poo) qtz vein	840 – 842													
	842.82 – 843.80: ALBITIZED SEDIMENT. Text is destructive, remnant bed textures as disrupted clasts strongly altered, lower contact with 5cm quartz vein.	843 – 844	842.80 – 843.80		M-S		W-M								
	FAULT. 843.18 – 848.13: BROKEN / RUBBLE MINOR GOUGE, OCCASIONAL SLICKENSIDES, MINOR FAULT.	845 – 846									M				
	843.80 – 859.94: GABBRO AS ABOVE														

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	843.80 - 859.94 Gabbro Con't: 847														
	Gabbro as above 843.80 and lacks quartz veins, is calcite-bearing dominant where crossed with later stage veining. Sulphide mineralization is absent with exception to weak disseminated pyrite within calcite veined section. Arsenopyrite was not observed. 848 849 850										M				
	Primary fabric shows decrease in crystal size to subaphanitic aphanitic. 851														
	852 853 854 855		← BROKEN RUBBLE								M-S				
	856														
	856.20 - 857.75: 5-10% mm calcite veinlets c.70-80° TCA - weakly interconnected longitudinal TCA 857														
	858.0 - 859.94: transitional sub-aphanitic, light-medium green. 858 859														

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DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	lou	alb	chi	ser	gar	con	fbx	fra	poo	pyy	gal	sph
			859.64												
	857.94 - ~~[illegible]~~ 895.80 : QUARTZWACKE/QUARTZITIC WACKE 860					W									
	Contact upper ≈ 50°TCA														
	medium gray-green albite-sericite altered 861				W-M										
	quartzwacke, lesser quartzitic wacke, bedding														
	is moderately thick. Vast majority of bed 862														
	textures are obliterated.														
	Occasional quartz veins .5 - 3cm, predominantly														
	barren and exhibit narrow albitic alteration 863		fracture sets calcite-lined.		M-S		W-M								
	envelopes.														
	Interval contains dominant late-stage fracture 864														
57° quartz vein	set synthetic @ 35°TCA, well developed														
	within 7 metres of gabbro/bed contact. 865		quartz vein (barren)												
	Bedding is indistinct, observed only within less permeable														
45° 860	beds of [illegible] wacke (870.47)														
	866														
	866.72: 1cm quartz vein, 85°TCA, trace poo/arseno-		quartz vein trace arseno/poo.		M-S										
	pyrite. 867														
	Muscovite is weakly disseminated throughout as fine-														
	medium crystalline flakes except where albite alteration 868														
	is moderate to strongly developed. 869														
	Occasional thin SED (15-25cm) thin-bedded														
	wacke, atypically coarse-grained.														
51° 860.	870		870.47 [illegible]												
	870.47 - 870.77: weak cross-bed stratification within														
	a thin interbedded quartzitic wacke, wacke. 871				W-M										

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description	Metre/Notes	tou	alb	chl	ser	gar	con	fbx	fra	poo	pyy	gal	sph
	872	weak dissem-inated tourmaline		M										
	872.70: 3x3 cm patch of 3-5 h medium-brown tourma- 873				W-M	W-M				W-M				
	line needles probably dravite. distribution													
	appears related to fractures (banded). 874			W										
	875													
	876			S										
	877			M										
	878	tourmaline.		S										
	878.46-878.87: Dewatering channel: coarse	quartz vein.	M											
	grain. sandstone/feldspar grains [illegible] 879													
	wacke with tourmaline ca. .5cm [illegible]	tourmaline.	M-S	S										
	disseminated contacts, weakly disseminated	quartz vein												
	throughout. 880													
	879.38-879.57: Replacement and cross-cutting													
	tourmaline - alb. + banding: white to black 881			M-S										
	planar to wispy, [illegible], black bands tourmaline													
	[illegible]. 882	dewater flow.												
45° 880	883	tourmaline	M-S											
	883.07-883.20: B.[illegible] cream and black albite-													
	tourmaline thin-bed banding, tourmaline [illegible]													
	precursor graded [illegible] beds. 884	quartz vein												

Graphic Log:

KENNECOTT CANADA EXPLORATION INC.

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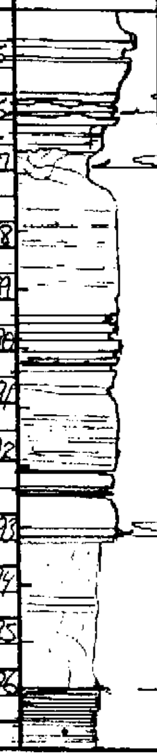
DIAMOND DRILL HOLE RECORD

Hole No: 97-04

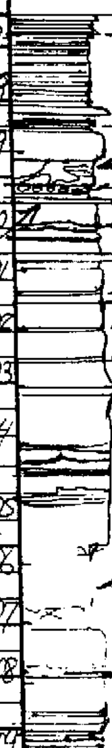
angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
35° BED	884.70: Quartz vein, longitudinal TCA,				S		W-								
45° Qtz vein	885.65 – 885.85: Quartzwacke / crs-grain quartzitic wacke thin interbedded albitic interval, coarse-clastic with disseminated tourmaline concentrated at interface of bedding.		TOURMALINE	M	M		M								
55° BED	886.70 – 887.20: FAULT: RUBBLE GOUGE		RUBBLE GOUGE		M-S						S				
35° BED	TOURMALINE: 3-5% ACICULAR DISSEMINATED NEEDLES, ≤5cm, @ 886.30, 886.36, 886.54, 887.50, 887.70, 888.0,										W				
	893.30 – 895.80: FAULT: RUBBLE		quartz vein								M-S				
	895.80 – 898.55: QUARTZITIC WACKE / WACKE		895.80	M	W		M								

Metre marks: 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

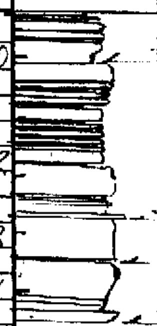
Hole No: 97K-04

angle to core axis	Description	Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
45° 360.	895.80-898.55 (cont) 897		quartz vein												
	Dark gray, light gray thin interbeds, dark-gray is acicular tourmaline replacement bedding. Light gray sericitic wacke and medium gray quartzitic wacke. 898			M	W-M		M								
	Tourmaline may be sericitized so boundary is [illegible] than normal. 899		898.55 dewater flow.	M-S	M										
40° tourmaline bed. fracture.	899.50: 1cm mottled nodular tourmalinite bed, sharp contact, diffuse contact, opposing bedding 900		tourmaline-mottled. tourmaline-rich bed, 3cm.	M, M, M-S, S-M	S							M-S			
	899.71: 5cm semi-massive poo within quartz-tourmaline-carbonate vein. 901		tourmaline	M	WM						M				
	900.28: 3cm massive felted tourmaline bed (not amorphous yields to blade): bed-replacement stratiform). 902 903		quartz vein	M, M	M-S, M-S		M								
	898.55 - 908.82 : QUARTZWACKE & ARGILLIC WACKE 904														
	med-gray medium-bed-thick quartz wacke beds, [illegible] / interbeds wacke and quartzitic wacke. 25% of wacke beds show tourmaline replacement. 905		tourmaline-rich beds	M, M, M, M	W, M										
	(904.08, 904.15, 904.66, 904.72, 907.70: Felted tourmaline-rich .5-1.0cm beds, sloppy flame struct. 906 ures, etc. of argillaceous bed epigenetic structures. 907		BROKEN / RUBBLE / GOUGE							F					
	905.85-907.09 : FAULT: RUBBLE GOUGE FAULT BRECCIA @ 906.66-906.80 908				M-S										
	908.82 - 914.40 QUARTZWACKE/WACKE. 909		908.82												

KENNECOTT CANADA EXPLORATION INC.

DIAMOND DRILL HOLE RECORD

Hole No: 97K-04

angle to core axis	Description		Graphic Log	Metre/Notes	Alteration: tou	alb	chl	ser	gar	Structure: con	fbx	fra	Mineralization: poo	pyy	gal	sph
40° bed.	908.82 - 914.40 (cont.)															
	Interbedded sequence: thin (0.5-3cm) beds	910		carbonate (ankerite) veining		W		M								
	med-coarse grain poorly sorted wacke - medium					M										
	brown interbedded with medium gray extremely	911				W										
	fine grain quartzwacke with mud & [illegible]% secondary															
	biotite	912														
	911.83 - 912.85: Silicic/albitic sericite alteration,					M-S		M-S								
42° bed.	moderate to strong	913		quartz vein												
65° qtz vein.	913.48: [illegible] bed, 1cm wide, with weak disseminated acicular	914		disseminated tourmaline (<1%)		M-S		M								
	tourmaline.			quartz vein		M-S										
	914.37: quartz vein, 4cm, 65° TCA, opposing bedding					?										
	END OF HOLE															