

NOTES FOR DDH-04-06

- The lithological units are defined mostly by alteration changes
- Pyrite is ubiquitous throughout the hole, and is therefore not put in the mineralization column. Pyrite is usually present in concentrations of 1% or more. Often there are higher percentages as aphanitic Py associated with green muscovite or chlorite bands.
- There is weak carbonate alteration throughout the hole except in quartzite zones or strongly silicified areas.
- In many parts of the top part of the hole chlorite flecks are noted. In several areas this may in fact be biotite. Thin section work will determine this.

Hole ID: DDH-04-0
Client: Ksl
Site: Ddh-04-06
Operator: Peter
Date: 31/8/00 2:55 pm
Declination: 26.0°
Planned Dip: -60.0°
Planned Azimuth: 0.0°
Collar North: 7092.00m
Collar East: 587.77m
Collar Elevation: 0.00m
Comment:
Length unit: m
Angle unit: °

HoleID	Depth	Easting	Northing	Elevat.	Dip	Azim.	MagnMag	DipMag
DDH-04-0	37.00	+589.29	+7108.93	-32.86	-62.7	+5.1	57857.9	-77.6
DDH-04-0	68.00	+590.13	+7122.74	-60.60	-64.3	+1.7	57875.4	-77.8
DDH-04-0	98.00	+590.53	+7135.55	-87.73	-65.1	+1.9	57874.2	-77.4
DDH-04-0	127.00	+590.63	+7147.52	-114.14	-66.1	+359.0	57840.5	-77.9
DDH-04-0	158.00	+590.34	+7159.86	-142.58	-67.0	+358.2	57806.4	-77.9
DDH-04-0	189.00	+589.91	+7171.86	-171.16	-67.4	+357.7	57862.9	-77.8
DDH-04-0	221.00	+589.77	+7183.95	-200.79	-68.2	+1.0	57855.7	-77.7
DDH-04-0	251.00	+589.73	+7194.33	-228.93	-71.3	+358.3	57902.8	-77.9
DDH-04-0	281.00	+589.24	+7203.77	-257.40	-71.9	+355.7	57970.0	-77.5

Hole ID: DDH-04-0

Date: 31/8/00 2:55 pm

Collar North: 7092.00m

Client: Ksl

Declination: 26.0°

Collar East: 587.77m

Site: Ddh-04-06

Planned Dip: -60.0°

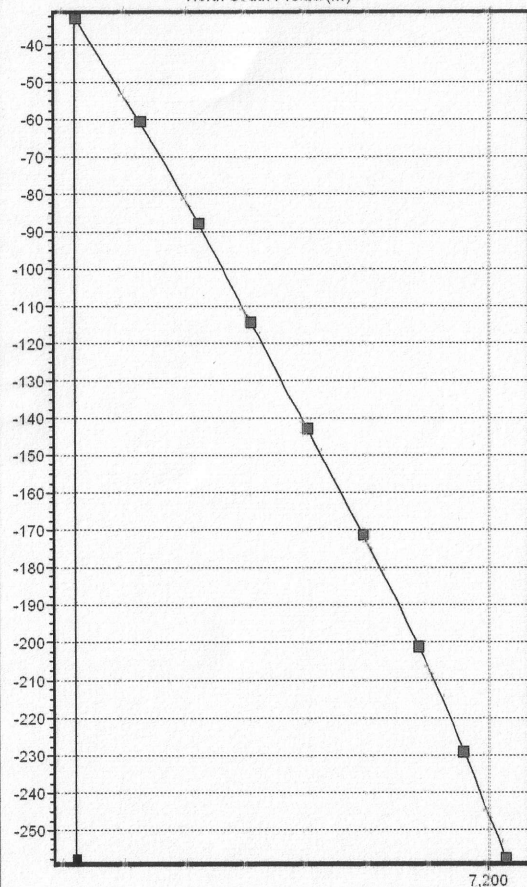
Collar Elevation: 0.00m

Operator: Peter

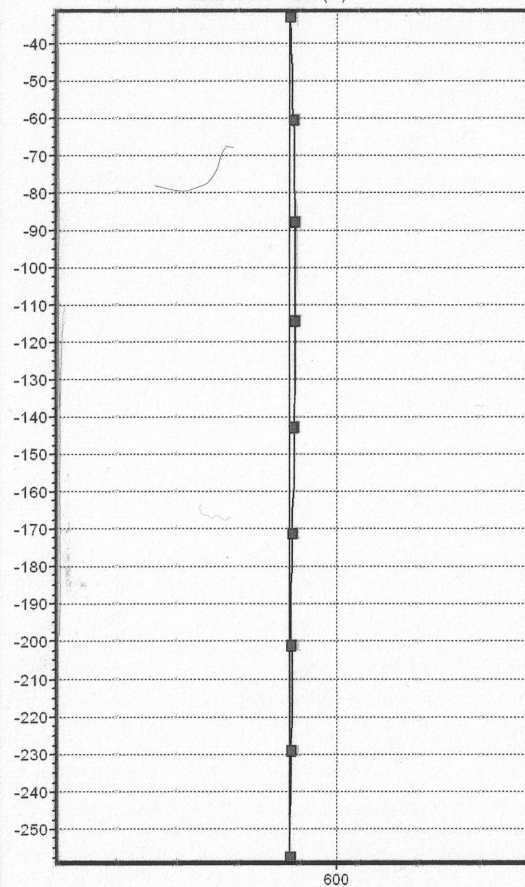
Planned Azimuth: 0.0°

Comment:

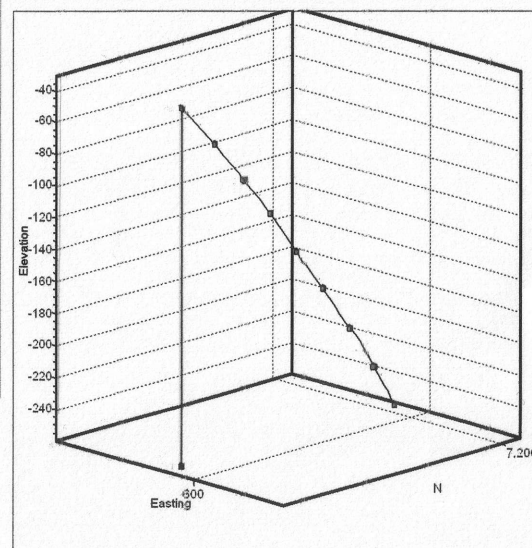
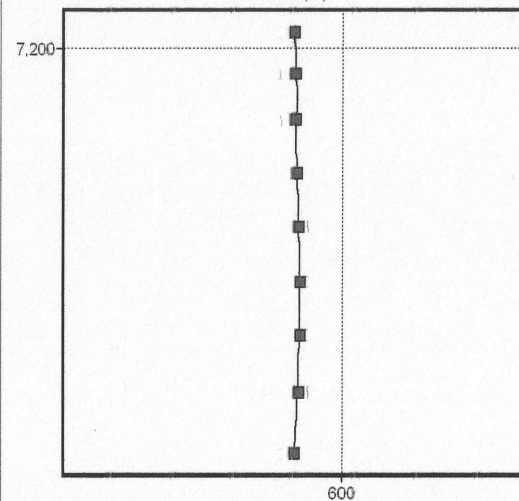
North-South Profile (m)



East-West Profile (m)



Plan Profile (m)



CORE LOGGING LEGEND (GRAPHICAL)

Lithology



Foliated gtz-muscovite schist with gtz/feldspar layers of possible porphyry origin



Contorted foliated gtz-sericite schist - frequent gtz augen foliation
remained by coarse sericite
actinolite & graphite
biotite

A
b



Chlorite schist



Metamorphic ('bull') gtz



Gneiss (sheared & lithified)



Pink brown gtz sericite-gtz schist



Gouge, shear, fracture zones

diabase dykes

Alteration

hematite clay \pm gtz veinlets

hematite spotting (after S=)

silicification (pervasive)

calcification (pervasive)

g = graphite-pyrite

sericite

litho unit

sub unit

unconformity

gradational contact

Mineralisation?

hematite clay \pm gtz veinlets

clay \pm gtz veinlets

clay \pm calcite veinlets

Schl Chlorite \pm gtz veinlets

py arsenopyrite

ap arsenopyrite

HOLE No. DDH.04-026

SHEET 1 of 15

LOGGED BY Peter Hedwidge

DATE 07/09/04

DEPTH (m)	RECOV. %	ROD	SAMPLE NO.	ASSAYS		LITHOLOGY	STRUCTURE	ALTN	MINERAL N	GEOLOGY NOTES	SUMMARY
				Au							
1										Note: There were no core orientations on this hole. All measurements are to CAX	
2										Core (core axis)	
3										No	
4											
5										3.60-4.18 Ground core	
6										Foliated qtzite w musc. v.f.g. Py diss throughout Local. ≤ 5 mm euh. Py 60% qtz	
7										Fol. 35 to 55 to CAX	
8										Light green w bands $\sim \leq 1$ cm of darker green (probably v.f.g. chlorite) - Random limonite stringers ≤ 1 mm	
9										Mod oxidized. limonitic Py blebs // fol.	
10										Est. Py = 2.3%	
11										C. 48 - Gray ≤ 3 mm qtz vein @ 40° to CAX w v.f.g. shiny Py? Possible v.f.g.	
12										7.84-8.84 - V. broken up. ~ 1 cm meta qtz // fol.	
13										8.84-11.20 - 1-2 cm meta qtz // fol. Weakly brecciated	
14										Micro frac. veins w limonite	
15										9.40-9.64 - 2 Bull. qtz veins 3 cm	
16										9.64-11.20 - Slightly more siliceous. lower cont. w dyke brecciated	
17											
18										11.20-12.40 - 13 Pulverized Dyke	
19										- Aphanitic dark gray-green groundmass	
20										W 10% euh. plag white feldspars lath + radiating	
										lath 2 cm brecciated at top chert margins at both ends	
										5-10 cm with euh. amphibole (blende?) ≤ 0.5 cm long	
										Dyke is weakly magnetic	
										12.40-13.0 - Gouged + brecciated white + talcy	
										13.0-20.60 - Qtz - sev schist	
										CAX 45-55 to CAX	
										light gray w light green bands // fol.	
										2.3% f.c. euh. diss Py	
										up to 2% f.g. to coarse grained Asp. Euhedral	
										xals - acicular needles, pseudorhombs + local (g)	
										cor. comb twinning. some	
										local meta qtz // fol. - barren	
										- minor qtz stringers + displace fol. +	
										meta qtz. These also carry	
										13.00-13.42 - Slightly sheared + microfractures	
										w pyroclite	
										14.80-14.85 - Gouged breccia	
										15.44-17.44 - Local surge + mod to strong brecciation	
										Gradational contact	

M 396277

HOLE No. DDH. 04-06

SHEET 2 of 15

LOGGED BY P. Lodwidge

DATE Sept 08/04

Depth Scale 1:100	DEPTH (m)	RECOV. %	ROD	SAMPLE NO.	ASSAYS		LITHOLOGY	STRUCTURE	ALTIN	MINERAL %	GEOLOGY NOTES	SUMMARY
					Au							
20.60	21			396 277 396 278						Pg Ap	20.60 - 24.70 Qtz - Ser schist fol @ 550 to CAX ± chlorite Med. grey-green w 5% black d.f.s. Pg/q. stringers (v.f.s. em. Pg.) Minor qtz/carb stringers. Gradational contact at 24.70 20.60 - 20.80 - Gouged upper contact 22.70 - 23.80 Gouge	
21.30	22											
	23											
23.70	24			396 277 396 278								
24.70	25											
	26										24.70 - 83.20 - Qtz - Musc schist w ch. fol. gradational lg intercalated w musc qtz/fold spar augen schist with no chlorite. QMS w ch is light to med. grey, aphanitic in secite rich areas. chl is f.g. Med. dark green/fol. Local variations w little or no chl. Some minor qtz/carb veining throughout. Meta bull qtz locally but qtz/carb & cuts these. Ave. w no chl. have stringers. Random Hto fol of aphanitic. v. digress chl? + ex. Pg. Fol. throughout is 60 - 70° to CAX Rock has ≤ 1% Pg. Much less than above unit. Fresh rocks - very few ex. fragments 27.23 - 28.65 - Med - strong ser. Meta qtz (w xcutting qtz/carb veinlet) vein has chlorite. Minor Pg. poss. v.f.s. Asp 26.3 - 28.65 - Med - strong ser 34.77 - 35.70 Meta qtz w xcutting qtz/carb bituminous stringers. Crenulation cleavage mixed w ductile d.f. on cm scale $\sqrt{\frac{1}{2}}/\frac{1}{2} \leq 1\%$ d.f. Pg 35.70 - 37.30 Strong schistite - bleached & slightly sheared. 37.30 - 40.82 - Sub-v. ill. Qtz Musc ser schist w ch. fol. & Hto stringers - possible minor graphitic inclusions schistosity: folia. Brittle deformation + minor folding. Meta qtz + qtz carb stringers ≤ 1% v.f.s. Pg 38.0 - 38.10 - Highly faulted.	
	27											
	28											
	29											
	30											
	31											
	32											
	33											
	34											
34.77	35			396 277 396 278								
35.70	36			396 277 396 278								
	37											
37.30	38											
38.20	39											
39.73	40											

1396284

HOLE No. DDH...04-06...

SHEET 3 of 15

LOGGED BY P. Lodi.../g.l

DATE Sept 09/04

Depth Scale 1:100	DEPTH (m)	RECOV. %	ROD	SAMPLE No.	ASSAYS		LITHOLOGY	STRUCTURE	ALTIN	MINERAL %	GEOLOGY NOTES	SUMMARY
					Au							
40.82	41			396 284					Cl		(5-10cm wide) Qtz carb stringers in Meta quartz. Have v.f.g. Asp & Py. Sample 283+84 have meta gte & qtz carb	
	42								Cl		40.82-44.23 - Mottled qtz for schist w minor chloritic stringers. No bio	
43.20	43			396 285					Cl		43.23 1cm qtz carb vein 1 ft. v.f.g. Py. $\leq 10\%$ poss v.f.g. Asp	
43.30	44											
44.25	45			396 286							44.25 45.10 - Beige gouge	
45.80	46			396 287						Ap?	45.10-46.62 - 10+20cm bull qtz vein w chloritic fragments - Micro qtz carb veinlets	
46.62	47								Cl	Ap?	w tr. v.f.g. Py. Poss. v.f.g. Asp	
	48								Cl		46.62-51.70. Back to QMS cl flects & v.f.g. cl stringers w Py	
	49								Cl			
	50								Cl			
	51								Cl			
51.70	52			396						Ap?	51.70-53.26 - Strongly brecciated w sericite	
52.54	53			288 396								
53.26	54			289							51.70 52.54 - several meta qtz vein $\leq 2cm$ w qtz carb stringers tr-1% Py (v.f.g.) + possibly v.f.g. Asp	
	55											
55.76	56			396 290								
56.90	57										55.76-58.0 - Qtz flooded w qtz carb stringers tr v.f.g. Py	
	58										56.0-58.0 local bull qtz, folded, $\leq 2cm$ minor qtz carb 55.76-58.0 slightly wavy & folded - minor shearing	
	59										59.50-59.74 - Gouge	
	60										58.0-62.05 - QMS as above but fol	

HOLE No. DDH. 04-00

SHEET 4 of 15

LOGGED BY J. L. L. L. L.

DATE 10 Sept/04

Depth Scale 1:100	DEPTH (m)	RECOV. %	ROD	SAMPLE NO.	ASSAYS		LITHOLOGY	STRUCTURE	ALTN	MINERAL TN	GEOLOGY NOTES	SUMMARY
					Au							
	61										is not wavy - Mod. grey/green. Qtz/carb chlorite py stringers.	
62-05	62											
	63								Cl		62.05 - 70.70 - 3-5% v.f.g. dark green Gradual appearance of augen schist w. qtz & feldspar augens - looks "intrusive". Grades in & out of these bands up to 30 cm. 3-5% diss v.f.g. ch. Py.	
64-30 64-60	64								Cl			
	65			396291					Cl		chl. musket augens. Augens actually present throughout but harder to see in chlo. Rocks	
	66								Cl		Brownish blue high rubio + high mod green aphanitic w. augens where rubio.	
67-30	67								Cl		64.30-64.60 - 1mm random qtz carb veinlets w. v.f.g. Py ± Asp (chl. poor band)	
68-30	68			396292					Cl		65.28-67.05 - Core strongly bedded & weathered.	
	69								Cl		67.30-70.70 - Representative sample of chl. rich rock.	
70-70	70								Cl		Note: Cl does not seem to be aligned w. foliation + is patchy (small chl. rich areas) (see sample 396293)	
	71			396293					Cl		70.70-72.75 Band of (Qz) - mod - strong sericite. Weakly sheared - several 2-5cm wide wavy qtz bands	
72-75	72								Cl			
	73								Cl			
	74								Cl			
	75								Cl			
	76								Cl			
	77								Cl			
	78								Cl			
	79								Cl			
	80								Cl			

DATE Sept 10/11

[illegible]

DATE Sept 13.....

[illegible]

HOLE No. DDH. 04-06

SHEET 7 of 13

LOGGED BY P. Hedwig

DATE Sept 11/04

Depth Scale 1:100	DEPTH (m)	RECOV. %	SAMPLE NO.	RCD	ASSAYS		LITHOLOGY	STRUCTURE	ALT N	MINERAL N	GEOLOGY NOTES	SUMMARY
					Au							
121.00	121											
	122		M-396303									
123.10	123											
	124										124.5 - 124.66. Mafic gouge (small mafic dyke?) 90% chlorite. re chlorite schist	
	125										124.66 - 127.71	
125.60	126		M-396304								Same augen schist but has some chlorite 11 fol. - wavy foliation at 125.60 - 126.40 w/ ≤ 2 cm mafic gtz	
126.40	127										Rock is greener & more foliated. at 120.0 gtz band one 11 CAR.	
127.71	128		M-396305								Lower contact is highly fractured.	
	129										127.71 - 132.0	
129.70	130		M-396306								Gouge zone - Beige/green gouge w/ pieces up to 20 cm long of augen schist	
	131										Talc w/ less gouge. Augen schist is competent. Recovery poor.	
	132											
	133										132.0 - 134.04 - Qtz musc schist w/ minor gtz/bd augen fol. @ 55° to CAR - Med gray/green	
	134										lower contact 132.04 - 132.04 - slightly. Sericitic.	
	135										134.04 - 141.43 -	
	136		M-396307								Qtz Musc schist w/ local meta gtz bands. 1-2 rods of Py. Qtz - flooded locally on cm to several dm scale -	
136.00	137									Gn	chlorite speck throughout core + larger blks in gtz veins/bands. Minor gtz	
137.40	138									Gn	carb. stringers	
	139		M-396308								136.00 - 137.40 - Qtz flooded (40% gtz)	
138.00	140										136.04 - 137.0 - w/ g. speck. Possibly Gn	
											138.80 - 141.3 - Qtz bands/veins - ≤ 2 cm.	
											100% veins/bands -	
0.0											140.65. ≤ 0.5 cm blk of sph. \pm Py. in 2cm gtz band.	

HOLE No. DDH. 04-06

SHEET 8 of

LOGGED BY R. L. Davidson

DATE Sept 13/04

GEOLOGY NOTES												SUMMARY
DEPTH (m)	RECOV. %	SAMPLE NO.	ASSAYS		LITHOLOGY	STRUCTURE	ALTIN	MINERAL IN	GEOLOGY NOTES	SUMMARY		
			Au									
141									lower contact unconformity chlorite stringer			
142		M396310							Unconformity 141.43-144.00 - Inter calated schist as 140.60 in bands of coarse grained rough stg. schist. whole unit is weakly shear and has weak sericite alt. Upper contact unconformity in zone			
143									Lower contact good 143.60-143.64 - 2cm qtz band w v.f.g. Asp?, Py, & press. Cng.			
144									144.00-147.45			
145									Qtz musc schist - light-moist green-gray. chlorite specks throughout Local qtz banding throughout. Some of the chlorite is starting to alter to amphiboles. Tr - 10% great pervasively carb alt. diss. Py. fol. ss-00° to CAX 144.60-144.90 - fol. 0° to CAX			
146									147.0-148.42. Meta qtz bands w chlorite & 10% ech. f.g. to mod. g. Py on edges or where chlorite blebs are. Press. v.f.g. Asp @ 148.0			
147		M396312							148.42 - 155.10 - V. little meta qtz			
148												
149												
150												
151												
152												
153									153.75-155.10 - Qtz carbonate blebs & stringers.			
154		M396313										
155												
156												
157												
158		M396314							157.45-158.20 - Fold fol // to CAX defined by qtz bands + 2% 0.5cm ech. mod. Py.			
159												
160												

HOLE No. DDH. 04-06

SHEET 9 of

LOGGED BY M. Ledwidge

DATE Sept 13/04

DEPTH (m)	RECOV. %	RCD	SAMPLE NO.	ASSAYS		LITHOLOGY	STRUCTURE	ALTIN	MINERALIN	GEOLOGY NOTES	SUMMARY
				Au							
161											
162											
163										163.85 - 1.5 cm vein w v.f.g. Asp (cr. pass. Gm)	
164										164.59 - 166.35 - Intermittent gouge zones of 5-20 cm. Rest of core is 'falc' + mod. broken up	
165			M396316								
166											
167											
168											
169											
170											
170.45										170.45 - 185.77	
171			M396317							Same unit as above (QMS w chlorite specks + stringers) less qtz carb. stringers. Mod. silicified. Silicification is	
172										gradually increasing at top → downwards. Occasional qtz + feldspar augers	
173										Local meta qtz bands. Many pieces > 50 cm. Core is more competent. Folded - fol. ranges from 0 to 75° to CAX	
174			M396318							Core is crenulated locally dm scale. Local qtz carbonates @ 10-20% to CAX w 5% feldspar + grey/red (v.f.g. sph?)	
175										170.45 - 171.77. Slightly more qtz rich + coarser grained is intrusive looking. Lower	
176										contact is mod sharp - outlined by thin clay / carb veinlet @ 100° to CAX	
177										173 - 179.0 - Fold (outlined by meta qtz beds + dark chlorite / py bands) // to fol	
178											
179											
180											

M396319

HOLE No. DDH...04-06

SHEET 10 of

LOGGED BY R. Edwards

DATE 14/02/04

DEPTH (m)	RECOV. %	ROD	SAMPLE No.	ASSAYS		LITHOLOGY	STRUCTURE	ALTIN	MINERALIN	GEOLOGY NOTES	SUMMARY
				Au							
181			316319							180-185.77 - Chlorite specks + veinlets increase.	
182											
183										183.50 - Silicification is weak & weakens to nothing at lower contact	
184											
185											
186			316320							185.77-269.42	
187										Qtz Musc schist w local metagtz bands. Schist has f.g. chlorite - some areas more than others. chlorite blots in gtz bands. Core is light to med grey/green. 10% diss Py. (possibly more v.f.g.) w/ly silicified. Changes within a few decimeters. Many comp. over 50cm Qtz carb veining throughout $\leq 1m$ + at 200 to 00 to CAX w occasional steeper veinlets.	
188											
189											
190											
191											
192											
193			316321								
194										185.77-186.32 - Brecciated contact - 5cm of breccia - 15 geyssed + 30cm qtz flooded band w chlorite at top of sample.	
195										191.72-197.45 - 10% chlorite speck/fol. fol at 55 to 75° to CAX	
196										v. little qtz bands.	
197											
198			316322							197.70 198.68 - Qtz flooded + qtz has qtz/carb stringers + blots + chlorite blots. $\sim 10\%$ Py + chlorite. Crenulated. 30-40% qtz.	
199											
200										197.70-209.35 - 10% qtz bands w chlorite + Py.	

Depth Scale 1:100

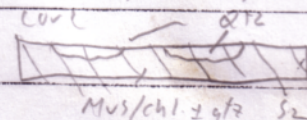
HOLE No. DDH. 04-06.

SHEET 11 of

LOGGED BY R. Hedwidge

DATE Sept. 19.11

DATE												SUMMARY
GEOLOGY NOTES												
DEPTH (m)	RECOV. %	ROD	SAMPLE NO.	ASSAYS		LITHOLOGY	STRUCTURE	ALTIN	MINERAL %			
				Au								
200.75												
202.75			M396323									
208.0			M396324									
210.0												
216.0			M396325									
218.0												



HOLE No. DDH. 04-06

SHEET 12 of

LOGGED BY P. Ledenberg

DATE Sept 15

DEPTH (m)	RECON. %	SAMPLE NO.	ASSAYS	LITHOLOGY	STRUCTURE	ALTN	MINERAL %	GEOLOGY NOTES	SUMMARY
220.90		M 3910326						219.30 - 240.00 Moderately to strongly silicified chlorite still present but lower percentage	
222.90								219.30 - 222.90 - very strong sil. Rock is light grey. 231.60 - Metagrt, folded, Qtz comb stringers x cut foliated metagrt	
228.90		M 3916327						228.90 - 229.50 - strongly silicified	
229.50								232.00 - 232.87 - strongly silicified last 50cm very broken up.	
235.90		M 3916328						235.90 - 236.95 strongly silicified.	
240.00									

Depth Scale 1:100

HOLE No. DDH. 04-06

SHEET 13 of

LOGGED BY

DATE Sept 15/04

DEPTH (m)	RECOV. %	ROD	SAMPLE NO.	ASSAYS		LITHOLOGY	STRUCTURE	ALTIN	MINERAL %	GEOLOGY NOTES	SUMMARY
				Au							
241										240.0 - 269.42	
242										Many meta gtz bands. These are folded + have chlorite blebs ± Py xct by gtz carb stringers.	
243										Rock is evidently toward silicified chlorite. Py xct by gtz carb stringers.	
244			M396329							fol 65° to CAX	
245											
245.06											
245.79			M396330							245.79 - 246.58	
246.58										Bracciated + weakly gneiss. Shear zone can see slickensides @ 15° anticlockwise from dip of fol. plane. Fol. plane @ 42° to CAX	
247											
248											
248.72			M396331							248.72. 0.5 cm gtz carb vein. Very straight does not look like folded meta gtz	
248.87										vein at 42° to CAX on edge of vein where carbonate is stronger + the are chlorite	
249.01										blends there is ref. to associated only w chlorite.	
249.59										Note 9 cm snake contains entire vein	
249.88											
251											
252											
253											
253.50										245.79 - 249.42 mud for severely silicified 10% gtz carb stringers at 500 to CAX	
254			M396334								
254.85										249.59 - 249.88. Contorted meta gtz band/vein w gtz carb stringers. Grey v.f.g. mineral. probably	
256										Gulena (if not the Asp. Pos. Cpy. 1 v.f.g. seen within clump of Gne (Asp.)). Gne (Asp.) is associated w chlorite blebs near carbonate stringers.	
257										254.10 - 254.30 - slightly bracciated + gtz carb stringers throughout	
258										253.50 - 254.85 stronger silicification. 10% meta gtz band/vein xct by gtz carb Py.	
258.00										258.0 - 258.77 - 40% folded meta gtz bands xct by gtz carb veins + stringers. 10% v.f.g. chlorite blebs.	
258.77											
260											

Note: M396335 + 336 accidentally got put in the same bag. There is no sample M396336.

HOLE No. DDH. 04-06

SHEET 14 of

LOGGED BY

DATE Sept 16/17

DEPTH (m)	RECOV. %	SAMPLE NO.	ROD	ASSAYS		LITHOLOGY	STRUCTURE	ALT N	MINERAL N	GEOLOGY NOTES	SUMMARY
				Au							
261.0										260.0-20cm grey/green gneiss	
261.98										261.98-263.10 heavily gneissed. weak shear zone. mostly sheared along chlorite/mg stringers.	
263.10											
264											
265											
266											
267											
267.92										267.92-269.42 slightly more silicified than qtz/each stringer + chlorite by veins.	
269.42										269.42-286.82	
271										269.42-286.82	
271.88										Muscovite qtz schist. Soft, light green w bands of melanocrate - weakly silicified. other than where specified. porous fine chlorite bbb. Chlorite in veins/bands. Fol. 30-70° to CAX	
273.20										271.88-273.20 shear zone 40cm bull qtz at top 10cm vein at bottom. Rest is fairly + sheared + almost gneissed. Qtz has only chlx by	
275.84										271.88-279.10 com is highly brecciated + strongly silicified. 12 stringers throughout weakly brecciated zone.	
276.80										275.84-276.70 - strongly brecciated drilling down dip of 2cm brecciated + stringers	
277.10										* In breccia zone only fragments silicified, not interstitial qtz/vein stringers. some are altered to white clay	
279.10										281.63-286.82 not silicified at all. very soft crystalline. Muscovite + folia	

DATE Sept 17.....

[illegible]