



# SAMPLING INFORMATION:

421082

From	To	Element/Isotopes Petrology/etc.	Sample	Method	Lab	Date
85	87	} Au  Cu Pb Zn Mn	Split Core	Fire (FAI)	Classic S.A.	July 1990
151	185			AAS 2		
191	193					
200	220					
243	251					
0	261	Down hole E.M.	-	EM 37	Geoterrax	July 1990

421083

## LOG SUMMARY BPD66

LOCALITY:- BURNS PEAK

DRILL HOLE NO:- BPD66

00.0	44.8	Rhyolitic Breccia, probably mass flow deposit.
44.8	55.0	Bedded sediments and reworked epiclastics with shale clasts.
55.0	75.0	Mixing zone between lava and sediments. Distorted shale clasts in a partly flow banded, acid lava breccia.
75.0	86.1	Intermediate lavas, flow banded.
86.1	148.9	?Acid lavas, flow banded.
148.9	157.3	Sediments and Lava Breccia, with mod-strong sericite alteration.
157.3	166.6	Grey bedded, siliceous shales. All mineralized (mostly pyrite as stringers, some chalcopryite stringers). <u>Main mineralization is from 158.9-163.9.</u> <u>10-50mm bands semi massive pyrite; stringers and veins of quartz, galena, chalcopryite, pyrite and sphalerite.</u>
166.6	201.0	Sharp boundary with shearing in sericitic zone from 166.5-166.6. Probably a fault boundary Polymict epiclastic.
201.0	204.2	Bedded fine-grained siltstone & shale. Very weak, fine grained pyrite mineralization in the shale.
204.2	204.3	Probable Fault Zone
204.3	216.6	Acid pumiceous & lithic tuffs with fragments of coarse quartz-feldspar porphyry. Highly sericitized.
216.6	243.8	Quartz Feldspar Porphyry
243.8	249.6	Acid Pumiceous and Lithic Tuffs. Intense sericite alteration.
249.6 End of Hole	261.0	Quartz Feldspar Porphyry

-1-  
 GEOPKO ROSEBERY \*\*DIAMOND DRILL CORE RECORD\*\* DETAILED DRILL LOG

LOCALITY:- BURNS PEAK

DRILL HOLE NUMBER:- BPD66

METERAGE FROM TO	ROCK DESCRIPTION	MINERALIZATION	SAMPLE NO.
0.0   2.5	Tricone Oxidised Rubble	0-16m red and black colour. Broken and lightly oxidised. Black col from MnO on nearly all fracture surfaces.	
2.5   44.8	Start HQ Core Green and pink breccia clasts sub-rounded - angular, 2-100mm, consist mostly of fine grained, pink siliceous quartz feldspar rhyolite. Clast boundaries are often jagged and sometimes diffuse. Matrix is green with feldspar phenocrysts and quite often, quartz phenocrysts. In places it is flow banded. (examples @ 17-18m @ 35" to core; 32.8-32.9 @ 55" to core; 39.7-39.9 @ 20" to core). The banding is high- lighted by siliceous bands which resembles the clasts and are sometimes indistinguishable from them. In places, the matrix and clasts blend into one another and the pink, siliceous rock surrounds the normal matrix rock. Probably an epiclastic rock derived from a debris flow of material of chiefly Rhyolitic composition.	16-44.8 FeO & minor MnO on fracture surfaces. Fspars => pk, prob haematitic albite. Sil zones commonly contain etched out vughs which prob contained cb. Much of the matrix is mod ser alt.	
44.8   46.3	Bedded, well sorted sand- stone. Flame structures @ 46.6m indicate up hole facing. cbs = 55" @ 44.8m = 40" @ 46.3m	PK, sil alt of some clastic material. Cericite thru matrix Minor cb alt.	

GEOPEKO ROSEBERY \*\*DIAMOND DRILL CORE RECORD\*\* DETAILED DRILL LOG

46.3	<p>54.6 Sedimentary sequence as follows:  46.3-46.9 coarse debris flow deposit. Rhyolite fragments.  46.9-49.1 Coarse sandstone, mostly rhyolite fragments. Possible some sedimentary clasts, also some abraded quartz crystals.  Pyrite clasts @ 48.7m.  Clay-filled fault @ 48.2m (angle to core = 85°)  Uphole grading.  49.1-54.2 Debris flow deposits, comprising sedimentary (shale) and volcanic (mostly rhyolite) clasts.  Appears to fine uphole clasts from &lt;1mm-80mm.  54.2-54.6 Bedded sandstones and shales cba 60°  Very broken. Microfaulted boundaries between sandstone and shale.</p>	<p>As above, with interser of some larger clasts.  Also albite (pk) alt of fspars phenos.</p>
54.6	<p>74.9 Peperite  ?Andesite lava, flow banded, banding disrupted and at various angles to the core (25-75°). Clasts of softly deformed cherty grey shale are spread through the rock.  This lithology seems to have resulted from lavas mixing with wet sediments</p>	<p>Fspars in the lava =&gt; cb &amp; minor ser.  Chl &amp; ser are concentrated in particular flow bands through the lava.  Py occurs in some of the cherty shale, especially round its margins.  Some bands of pk, sil alt also.</p>
74.9	<p>79.4 ?Intermediate lava (Uncertain of composition because of alteration)  Feldspar phenocrysts throughout.  Minor flowbanding (@ 25° to core at 75.4m). Very rare cherty, grey shale clasts.</p>	<p>Cb alt of fspars.  Bleached &amp; pk, with very wk ser alt &amp; stronger cb alt of matrix.  Stringers of qz/py/chl (1-2/m).</p>
79.4	<p>82.7 Faulted contact at 30° to core. Lava breccia</p>	<p>Sil thru't, contact marked by a qz vn</p>

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GEOPEKO ROSEBERY \*\*DIAMOND DRILL CORE RECORD\*\* DETAILED DRILL LOG

			As	As	Fe	Zn	Mn	From	To	
		with possible some sedimentary clasts (could be an alteration effect).								
		4mm wide at 30" to core. Int-mod ser alt & ubiquitous, wk cb.								
82.7	86.1	Flowbanded, ?intermediate lava. Flow banding 60" (@ 82.9m), 20" (@ 85.7m) to core.	601	48	50	110	1120	85	86	82253
		Mostly pk, sil alt. with patches of int chl. Py parallel to flow banding at 85.2m. Minor qz-cb stringers +/- chl (8/m)	40.01	26	26	220	1740	86	87	82254
86.1	148.9	Reduce to NQ Core at 86.2m. Porphyritic ?acid lava. Composition of lava unclear. Very fine-grained, siliceous matrix. ?feldspar phenocrysts throughout. Contact at 86.1m is a very irregular shape. There appears to be minor mixing of 2 lavas here. Flow banded as follows: 93.2-93.8 25" to core 112.7-113.3 12" 119.1-119.7 70" 124.8-125.4 45" 128.6-132.5 55" 133.4-146.5 30-40"  A zone of brecciation occurs from 96.8-107.2. Small patches of angular lava breccias occur, often with strong alteration of the matrix. There are also clasts of grey, cherty shale. Flow banding is disrupted 119.0-119.3 & 132.1-132.5. Angular breccia & disruption of flow banding.								
		Ser of fspars thru't Prob also sil, tho' this may be primary. 86.1-96.3 Buff col wk ser alt. 96.8-99.3 Broken grnd, silica & cb alt of matrix. Int ser alt 99.3-105. Mixture of pk alt with minor ser (or chl) & areas of stronger ser. 105-148.9 Increasing chl alt. down hole. 118-119.8 Siderite with some stringers of qz-cb.								
148.9	157.3	A mixture of sediments & lava breccia. Sedimentary clasts are rounded and increase down hole. Flow banding 155.3-155.5 at 45" to core.	40.01	36	15	130	1220	151	153	82255
		Brecciated texture exaggerated by alt. Some patches of very strong ser alt next to zones of pk sil. Also patches of strong chl.	40.01	11	135	165	2700	153	155	82256
			0.01	11	165	210	3900	155	157	82257



GEOPEKO ROSEBERY \*\*DIAMOND DRILL CORE RECORD\*\* DETAILED DRILL LOG

			Pb	Zn	Min	From	To	Sample No.		
	From 182.3-196.2m, it contains numerous feldspar clasts and looks in places, like a lava. From 196.2-201.0m Very coarse, some clasts rounded. Matrix fine & siliceous. Contains some shale clasts. Bottom contact at 25" to core. Flame structures indicate facing uphole.	dk grey-grn. 196.2-201.0 Grey with pk & grn clasts 180.9-182.8 Strong qz/cb v'n'g. Also strong ser alt around fract's & broken ground. Possible Fault. Main vein is 25m wide at 5" to core. Other vns are 10-35mm & @ 40-35" to core.	0-01	22	55	2350	191	193	82272	
201.1	204.2	Interbedded Black Shale and well sorted sandstone. Some rhyolite clasts visible in the sandstone. Cba @ 25" @ 201.1m; 45" @ 202.1. Sequence fining uphole from 202.1-201.1. Below that is massive shale and some coarse sandstone in broken ground.	20-01	7	120	280	970	200	202	82273
			20-01	12	175	230	1200	202	204	82274
			20-01	4	230	420	730	204	206	82275
			20-01	7	155	180	930	206	208	82276
			20-01	2	145	145	1060	208	210	82277
			20-01	2	24	54	910	210	212	82278
204.2	216.0	Faulted contact @ 80" to core (slicken sides visible) to Acid. Pumiceous and Lithic Tuff. Contains quartz-phyric rhyolite and porphyry fragments. These increase down hole. Other lithics are feldspar-phyric only. Some are rounded. Most of the rock is matrix, which is fine, but probable small pumice fragments are visible in places.	20-01	2	10	70	790	212	214	82279
			20-01	2	14	28	990	214	216	82280
			20-01	4	96	44	2250	216	218	82281
			20-01	2	42	240	1440	218	219	82282
216.0	243.8	Quartz Feldspar Porphyry Uphole contact @ 20" to core. Brecciation around contact zone with large clasts of porphyry in the buff.								
		216.0-220.1 Strong qz/cb v'n'g. Vns are barren. 2-5mm. avg 37m. 30-55" to core. 220.1-243.4 wk ser alt with minor pyrox v'n'g.								

GEOPEKO ROSEBERY \*\*DIAMOND DRILL CORE RECORD\*\* DETAILED DRILL LOG

				As	Ca	Pb	Zn	Mn	From	To	
243.8	249.6	Acid Pumiceous Lithic Tuff.	Very int. ser alt.	20.01	22	34	16	530	243	245	82283
		Same as 204.2-206.6, but more altered. Uphole contact at 30" to core. Distinct pink and green colouring.	Also concentric pk alt zone around rounded lithics. Traces of sp & galena in small stringers.	20.01	12	55	140	2250	245	247	82284
				0.02	40	185	840	1680	247	249	82285
				20.01	4	54	74	1820	249	251	82286
249.6	261.0	Quartz Feldspar Porphyry. Contact at 35" to core. Mild brecciation.	249.6-249.9 PK with some med int ser alt. 249.9-261.0 WR ser alt. Minor ch vn g.								

# Key to Graphic Logs.

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From	To	Graphic Grainsize <small>10<sup>0</sup> 5 2<sup>1</sup> 8 32</small>	Structure	Alt.	Cu Pb Zn	Pyrite	Rock Description.
1.	2.	3.	4.	5.	6.	7.	8.

1+2. - Meterage columns; down hole depth in meters.

3. - Graphic; width of column indicates grainsize, measured as the size of phenocrysts in volcanic rocks and the average clast size in clastic rocks. Occasional clasts discounted.

## Rock Type Legend;

### Intermediate + Acid Volcanics.

#### Intrusive

Quartz-feldspar porphyry

#### Lavas

Rhyolite or Dacite

Dacite where there are both.

Andesite

#### Volcaniclastics.

Pumiceous Tuff

coarse epiclastic

### Mafic Volcanics.

#### Intrusive

Mafic dyke

#### Lavas

Basalt

### Sediments.

Bedded shale

" cherty sed.

" sandstone or siltstone.

" conglomerate

Coarse epiclastic

### Textures shown here for Rhyolite)

Feldspar-phyric

peperite

vesicular/amygdaloidal

hyaloclastite

lava breccia

flow banded

### Alteration/deformation (shown for rhyolite)

Breccia (origin underneath)

Alteration (partially obscuring rock type)

Deformation (totally obscuring rock type)

Alteration + Deformation (totally obscuring rock type)

"Spotty" Alteration

### 4. Structure

angle of core bedding, cleavage etc. Staked in degrees. Parallel to core = 0°

### 5. Alteration

- Indicates type + intensity  
Type Intensity  
sil - Silica (sil) - Weak  
ser - sericite sil - Moderate  
cb - carbonat sil - intense  
chl - chlorite  
sid - siderite  
tour - tourmaline  
pmp - pumpellyite

### 6. Visible Mineralisation.

Gn - galena  
Sph - sphalerite  
cpy - chalcopyrite  
as - arsenopyrite

### 7. Percent pyrite

- visual estimate.

### 8. Full rock description - lithology, alteration + deformation.