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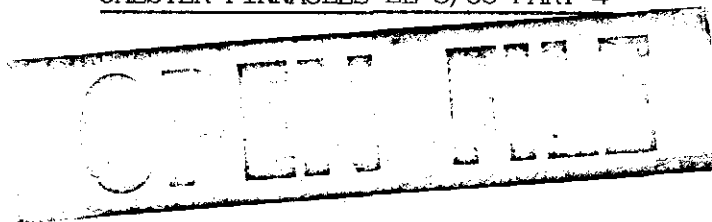
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FORM	A.O.	C.G.	EE
D. DIR.	MAY 1985		E&H
DEPT. OF MINES			
REF. No. 5658/85			

PROJECT NAME:

COMSTAFF PROPRIETARY LIMITED

TITLE:

INTERIM REPORT ON THE EAF 15-18 DRILLING PROGRAMMECHESTER PINNACLES EL 5/63 PART 4

Closed

AREA NAME/S, STATE 1:250,000 SHEET NO/S & COORDINATES: 1:250 000 Sheets K55-03 (Burnie)
1:250 000 Sheets K55-05 (Queenstown)

COMMODITY/IES: Sn, Cu, Pb, Zn, Ag, Au

TEXT PAGES NO: 3

PLAN NOS: See List of Plans

TABLE NOS: -

APPENDICES: 1

AUTHOR/S: C R MROCZEK

DATE: MARCH 1985

AUSTRALIAN ANGLO AMERICAN LIMITED

Incorporated in the State of Victoria

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COMSTAFF PROPRIETARY LIMITEDINTERIM REPORT ON THE EAF 15-18 DRILLING PROGRAMMECHESTER PINNACLES EL 5/63 PART 4**1. GENERAL**

A four hole diamond drilling programme was conducted at Chester Pinnacles between 17/1/85 - 6/2/85.

EAF 15 and 16 were drilled in the vicinity of Thomas's Tunnel (Plan TAS/2/3991) to test the possibility of a northerly plunge to the Pb/Zn/Ba rich mineralisation exposed in Thomas's Tunnel (EAF 15) and the "cherty" Au rich mineralisation of McGuinness' Workings (EAF 16).

EAF 17 and 18 were drilled in the Southern Trenches area (Plan TAS/2/3991). EAF 17 tested the possibility of a northerly plunge to the mineralisation exposed at Southern Trench 2. EAF 18 drilled beneath the trench to obtain a modern assay of the "ore" and to view the geology using NQ core as opposed to EZ's Ax and XRB sizes.

The programme was carried out by Longyear Australia Pty Ltd, using a Longyear 38 diamond drill rig. A total of 421.4m was drilled.

2. RESULTS

The detailed results of the drilling programme are presented in the drilllogs (Appendix 1) and drill sections (plans TAS/2/4246, 47, 48, 49).

2.1. Summary Drill Hole Geology

- 1) EAF 15 was drilled thirty metres to the north of Thomas's Tunnel, it collared in green porphyry and intersected host horizon cherts, volcaniclastics and shales between 25m and 49.70m. A Zn/Pb/Ba mineralised zone, similar to that in Thomas's Tunnel occurs from 28m-40m. The hole finished in epiclastics and lapilli tuffs.
- 2) EAF 16, drilled 70m north of Thomas's Tunnel collared in green porphyry, intersected host horizon cherts, volcaniclastics and shales from 23m to 63.30m and finished in lapilli tuffs. Two zones of exhalite occur between 47.10m - 52.50m and 59.00 - 63.3m. A massive sulphide zone is present between 49.40m - 49.80m. The mineralisation is reminiscent of Brown's style.
- 3) EAF 17, drilled 200m NE of Southern Trench 2, collared in silicified pyroclastic ash, which extended to a depth of 122.5m before going into felsic tuffs. Two very poorly developed zones of host horizon cherts and shales were intersected between 102.7m - 104.3m and 146.1m - 148.1m. Only minor stringer mineralisation was observed.

2.

- 4) EAF 18, sited 25m east of the mineralisation in Southern Trench 2 collared in pyroclastic ash, intersected host horizon silicified ashes, cherts and minor shales between 25m and 50.80m and finished in pyroclastic ash. Two zones of massive sulphide occur (39m - 40m and 43 - 44m).

2.2 Summary Geochemistry

A summary of the zones of interest and "pay" zones (\$53.00 cut off) are outlined below (NB all averages are length weighted).

	Interval(m)	Cu	Pb	Zn	Ag	Au	Ba
EAF 15	1) 25-33	331ppm	2.04%	3.21%	7ppm	0.026ppm	3.98%
	2) 37.5-43	21ppm	1.11%	4.19%	7ppm	0.019ppm	
"Pay Zone"	3) 38.70-40m	53ppm	2.93%	8.23%	18ppm	0.009ppm	
EAF 16	1) 28-37	111ppm	1.02%	1.39%	7ppm	0.023ppm	
	2) 47.16-52.50	1835ppm	0.69%	7.61%	14ppm	0.24ppm	
	3) 57.80-63.30	1622ppm	1050ppm	2.06%	9ppm	0.05ppm	
"Pay Zone"	4) 49.30-50.00	0.66%	3.40%	23.8%	44ppm	0.767ppm	

EAF 17 No Zones of interest

Cu	all values	<1300	ppm
Pb	" "	<4300	ppm
Zn	" "	<5200	ppm (1% between 18-21m)
Ag	" "	< 6	ppm
Au	" "	<0.008	ppm (0.19 value between 146m-147.3)

	Interval(m)	Cu	Pb	Zn	Ag	Au
EAF 18	1) 38-50.80	0.15%	1.08%	2.31%	9ppm	2.28ppm
"Pay Zone"	2) 39-40	0.74%	5.12%	8.11%	62ppm	0.07ppm
"Pay Zone"	3) 43-44	0.66%	3.59%	8.32%	24ppm	26.6 ppm

3. SUMMARY

The style of mineralisation in EAF 15 and the top part of EAF 16 from 28m-37m is similar to that exposed in Thomas's Tunnel, being Cu deficient and Pb, Zn, barite rich. Lower down EAF 16 the style changes to higher Cu and Zn relative to Pb, reminiscent of Brown's style of mineralisation. No McGuinness' high grade gold mineralisation was intersected.

3.

EAF 17 failed to intersect any significant mineralisation and only weak manifestations of the host horizon rocks were logged. The possibility of a northerly plunge to the mineralised systems was not substantiated.

EAF 18 achieved its objective of intersecting Southern Trench 2 style of mineralisation to give a modern assay and confirmed a high gold content.

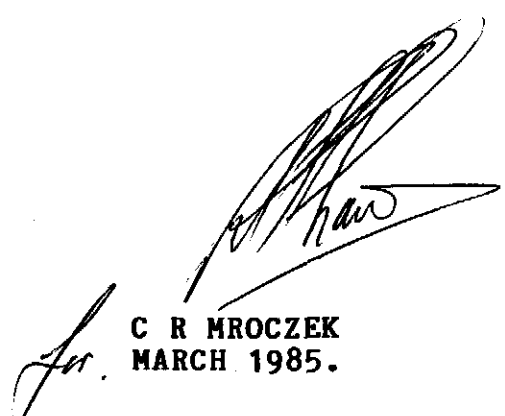
4.

RECOMMENDATIONS

Further drilling to the north to determine the extent of the Thomas's Tunnel style of mineralisation and its relationship to Brown's style of mineralisation.

Drilling to the south of Thomas's Tunnel is required to test the southern extension of the Pb/Zn mineralisation and its relationship to the McGuinness' mineralisation.

A definitive evaluation of the Southern Trench lode would require additional drilling to provide reliably accurate analytical data.



C R MROCEK
MARCH 1985.

A P P E N D I X 1

Summary Sheet

PROJECT PINNACLES EL 5/63 PT 4 AREA THOMAS' TUNNEL

DRILLHOLE TYPE	DDH

CO-ORDS 377482.70 E DEC^{LN} -45° AZIMUTH 090° M RL 427.7

DH
No. EAF 15

DATE COMMENCED	17/1/85	DATE COMPLETED	20/1/85	DRILLED BY	LONGYEAR	DRILL RIG	L/Y 38

Non Coring to: 4.4m HQ Core to: 390m NQ Core to: 85.7m BQ Core to: EOH 85.7m

SURVEY DATA

Instrument:

DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION		AZIMUTH
	Uncorr	Corr			Uncorr	Corr	
85.00		-44°	094° III				

LOG SUMMARY

[illegible]

Signature *C. R. Ahoye*

Date 20/2/85

Date

DRILLHOLE LOG

184009

Page 1
of 2

Summary Sheet

PROJECT PINNACLES EL 5/63 PT 4 AREA THOMAS' TUNNEL

DRILLHOLE TYPE
DDH

CO-ORDS 377515.76 E DEC LN -45° AZIMUTH 090°M RL 431.6
5384443.84 N

DH
No. EAF 16

DATE COMMENCED 21/1/85 DATE COMPLETED 24/1/85 DRILLED BY LONGYEAR DRILL RIG L/Y 38

Non Coring to: 0 HQ Core to: 32.30m NQ Core to: 84.50m BQ Core to: EOH 84.50m

SURVEY DATA

Instrument:

DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION		AZIMUTH
	Uncorr	Corr			Uncorr	Corr	
84m		-45°	091°m				

LOG SUMMARY

ROCK TYPE		MINERALIZATION		
		Style	Grade	Intersection width (Corr)
0 - 23.0	Green Porphyry (G-Pf)			
23.0-47.10	Alternating sequence of grey cherts, plus foliated & occasionally bedded green & grey volcanoclastic mudstones & sandstones (Ch/Vc-M/Vc-S (A:Si/Chl/Py))	: Fine grained dissem. Sph/gln/py & base metal blebs & stringers assoc with Qtz/Co ₃	5%	28.30-37m
		: Remainder-trace Sph & gln & py occurring as blebs & stringers		
		: Py occurs as localised massive patches		
47.10-52.50	Grey hard & fractured exhalitic cherts plus massive sulphide (Ex/MS)	: massive fine grained sulphide Sph, py + minor gln & cpy	>50%	49.40-49.80
		: Remainder - fine-grained disseminations, abundant veins & blebs of Sph, py ± gln, cpy	5-10%	
52.50-59.0	Grey/green to pale orange highly silicified & foliated pyroclastic ash (PCA(A:Si))	: veins & localised conc of Sph, py	≈ 5%	57.80-59.00
59.00-60.1	Grey hard exhalitic chert (Ex)	: Sph, py ± cpy stringer, streaks & blebs	1 - 5%	

Signature *Chaboye*

Date 12/1/85

1.

DRILLHOLE LOG

Summary Sheet

184011

Page 1
of 2

PROJECT PINNACLES EL 5/63 Pt 4 AREA SOUTHERN TRENCHES

DRILLHOLE TYPE
DDHCO-ORDS 377340.45 E DECLIN 60° AZIMUTH 270° M RL 445.23
53844001.04 N

DH No. EAF 17

DATE COMMENCED 25/1/85 DATE COMPLETED 2/2/85 DRILLED BY LONGYEAR DRILL RIG L/Y 38

Non Coring to: 6.80 HQ Core to: 21.00 NQ Core to: 176.20 BQ Core to: EOH 176.20

SURVEY DATA

Instrument:

DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION		AZIMUTH
	Uncorr	Corr			Uncorr	Corr	
91.6m		-56°	268° M				
175m		-52°	269° M				

LOG SUMMARY

ROCK TYPE	MINERALIZATION		
	Style	Grade	Intersection width (Corr)
0 - 6.80 NO CORE			
6.80-94.00m Pale greenish/white weakly foliated pyroclastic ash(PCA)	: stringers & blebs of sph, py ± gln, cpy	< 1/2 %	
	: Py occurs throughout	1/2-1%	
	as minor disseminations		
	& in rare massive patches		
94.0-97.30 Intensely clay alt. pyroclastic ash, development of two pug zones (PCA(A:Cl/Chl/Py))	: Trace Sph blebs	< 1/2%	
	: Py disseminations	< 1/2%	
97.30-102.7 Intensely clay, chlorite, Carbonate & pyrite altered. Pyroclastic Ash.	: Trace Sph/gln as blebs or veinlets	< 1/2 %	
	: Py disseminations	< 1/2 %	
102.7-104.3 Sequence of cherts, volcaniclastics & grey/brown shales (Ch/Vc/S) (A:Chl/Cl/Co ₃ ²⁷)	: Py present as disseminations	< 1/2 %	
104.3-122.50 Pale green weakly foliated pyroclastic ash (PCA(A:Si/Cl/Chl)	: Trace Sph/Gln as blebs & stringers	< 1/2%	
	assoc with Co ₃ ²⁻		
122.50-146.1 Lapilli sized volcaniclastic breccia -	: Rare Sph, gln, cpy	< 1/2%	
	as blebs or veinlets	with Co ₃ ²⁻	

Signature C. Rinkovsk.

Date 20/4/85

1

DRILLHOLE LOG

184013

Page 1
of 2

Summary Sheet

DRILLHOLE TYPE
DDH

PROJECT PINNACLES EL 5/63 PT 4 AREA SOUTHERN TRENCHES

CO-ORDS 377257.16 E DEC LN -60° AZIMUTH 270° M RL 431.27
5383862.71 N

DH No. EAF 18

DATE COMMENCED 2/2/85 DATE COMPLETED 6/2/85 DRILLED BY LONGYEAR DRILL RIG L/Y 38

Non Coring to: 2.80 HQ Core to: 36.60 NQ Core to: 75.00 BQ Core to: EOH 75.00

SURVEY DATA

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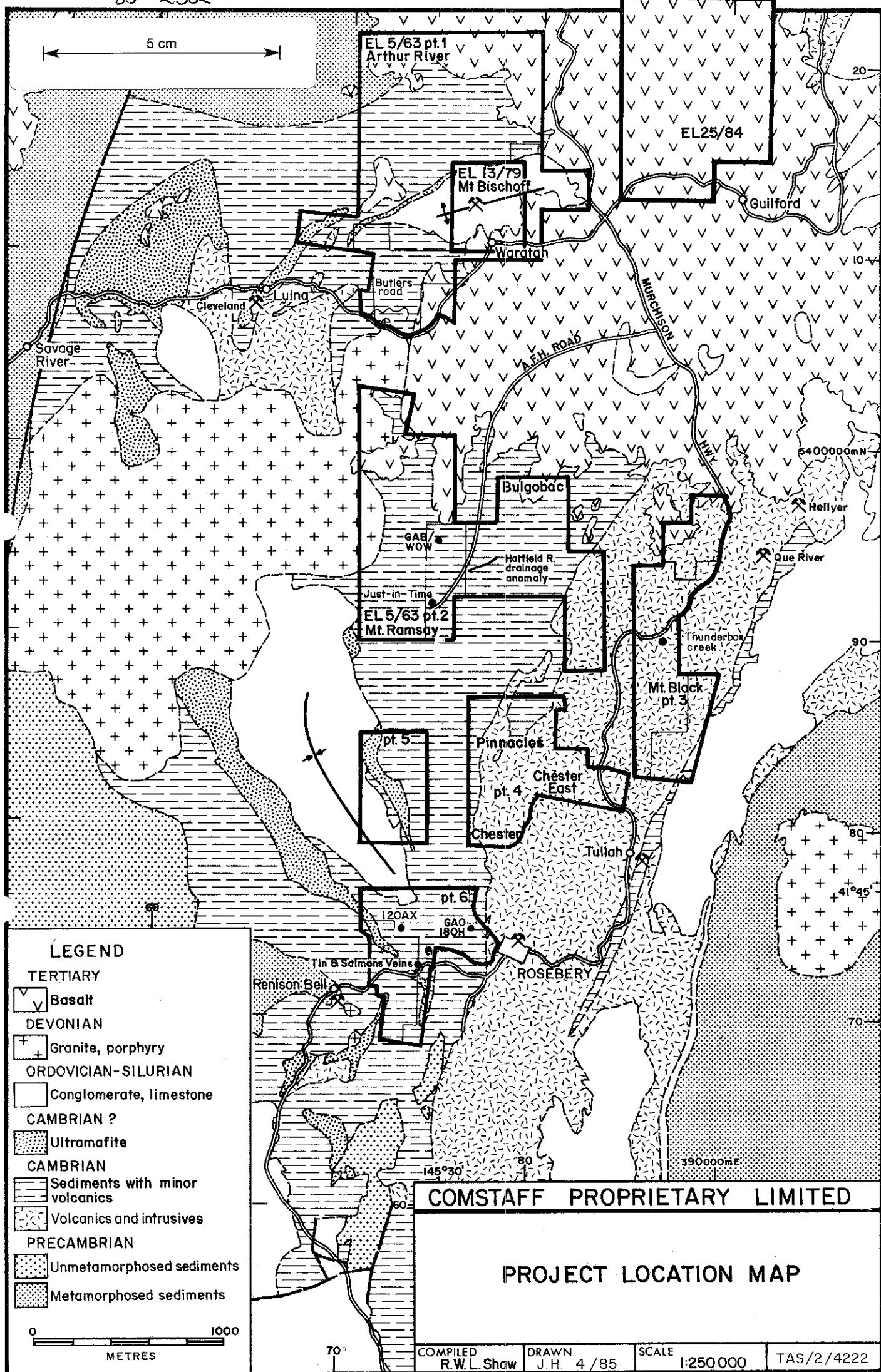
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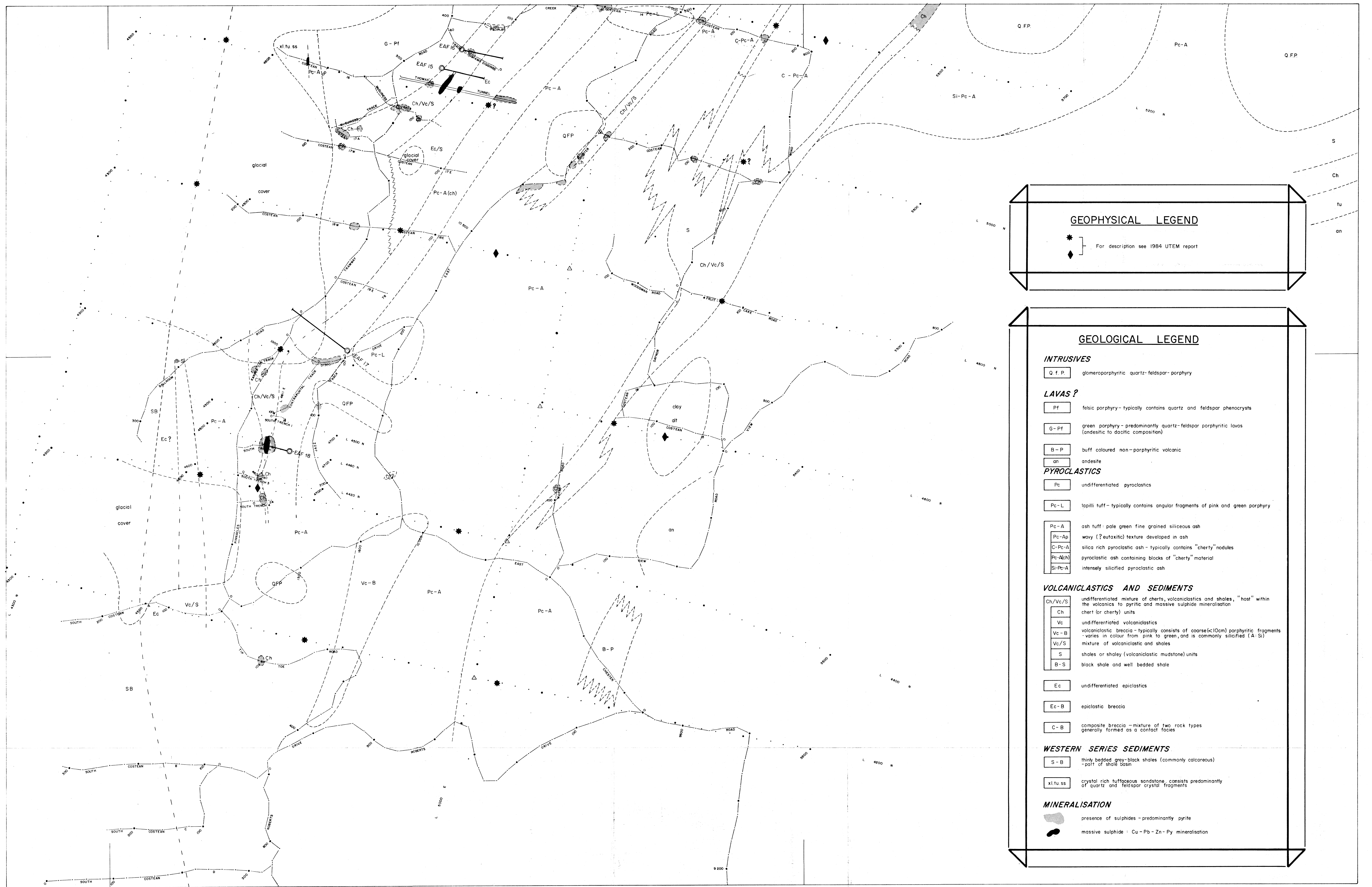
ROCK TYPE		MINERALIZATION		
		Style	Grade	Intersection width (Corr)
0 - 2.80m	NO CORE			
2.80-25.0m	Pale greenish/white, weakly foliated pyroclastic ash(PCA) core weathered & crusty to 19.50m	: Trace disseminated fine-grained pyrite cubes	<1%	16.00-25.0m
25.00-39.10	grey/white intensely silicified pyroclastic ash. No foliation evident - possible exhalitic component (PCA(A:Si)). Minor zones of intensive Chl/Py alt at 37.2m	: Minor base metal present in form of sph, py ± cpy, gln blebs, streaks & veinlets. Trace py cubes occur disseminated throughout	1%	
39.10-39.60	Fine grained massive sulphide assoc with silicification & chloritisation - Exhalite (Ex/M.S)	: Massive sulphide - sph, py & subordinate cpy & gln	>50%	
39.60-43.30	as for 25.00-39.10ie PCA(A:Si)	: Stringers & blebs of Sph, py, cpy, gln	1-2%	
43.30-46.60	Exhalitic zone, mix of grey cherts, massive sulphides & highly silicified black shales (Ex)	: Massive sulphides- fine grained sph, py & coarser gln, cpy Remainder - minor blebs & streaks of basemetal & py	>50%	43.50-43.72

Signature C. L. Hoyle Date 20/2/85

184015 014

85 - 2382





GEOLOGICAL LEGEND

For description see 1984 UTEM report

GEOLOGICAL LEGEND

INTRUSIVES

Q.F.P. glomeroporphyritic quartz-feldspar porphyry

LAVAS ?

Pf felsic porphyry - typically contains quartz and feldspar phenocrysts

G-Pf green porphyry - predominantly quartz-feldspar porphyritic lavas (andesitic to dacitic composition)

B-P buff coloured non-porphyritic volcanic

an andesite

PYROCLASTICS

Pc undifferentiated pyroclastics

Pc-L lapilli tuff - typically contains angular fragments of pink and green porphyry

Pc-A ash tuff - pale green fine grained siliceous ash

Pc-Ap waxy (? eutaxitic) texture developed in ash

C-Pc-A silica rich pyroclastic ash - typically contains "cherty" nodules

Pc-A(ch) pyroclastic ash containing blocks of "cherty" material

Si-Pc-A intensely silicified pyroclastic ash

VOLCANICLASTICS AND SEDIMENTS

Ch/Vc/S undifferentiated mixture of cherts, volcaniclastics and shales, "host" within the volcanics to pyritic and massive sulphide mineralisation

Ch chert (or cherty) units

Vc undifferentiated volcaniclastics

Vc-B volcaniclastic breccia - typically consists of coarse (<10cm) porphyritic fragments - varies in colour from pink to green, and is commonly silicified (A-Si)

Vc/S mixture of volcaniclastic and shales

S shales or shaley (volcaniclastic mudstone) units

B-S black shale and well bedded shale

Ec undifferentiated epiclastics

Ec-B epiclastic breccia

C-B composite breccia - mixture of two rock types generally formed as a contact facies

WESTERN SERIES SEDIMENTS

S-B thinly bedded grey-black shales (commonly calcareous) - part of shale basin

xl.tu.ss crystal rich tuffaceous sandstone, consists predominantly of quartz and feldspar crystal fragments

MINERALISATION

presence of sulphides - predominantly pyrite

massive sulphide : Cu - Pb - Zn - Py mineralisation

184016

COMSTAFF PROPRIETARY LIMITED

EL 5 / 63

AREA 4

AMENDMENTS

1 25/3/85

2 25/5/85

3 10/10/85

4 12/12/85

5 13/1/86

6 13/1/86

7 14/1/86

PINNACLES GRID - EAF 015

GEOLOGICAL INTERPRETATION PLAN

COMPILED R.H. ROBERTS

DRAWN J. HARDISTY

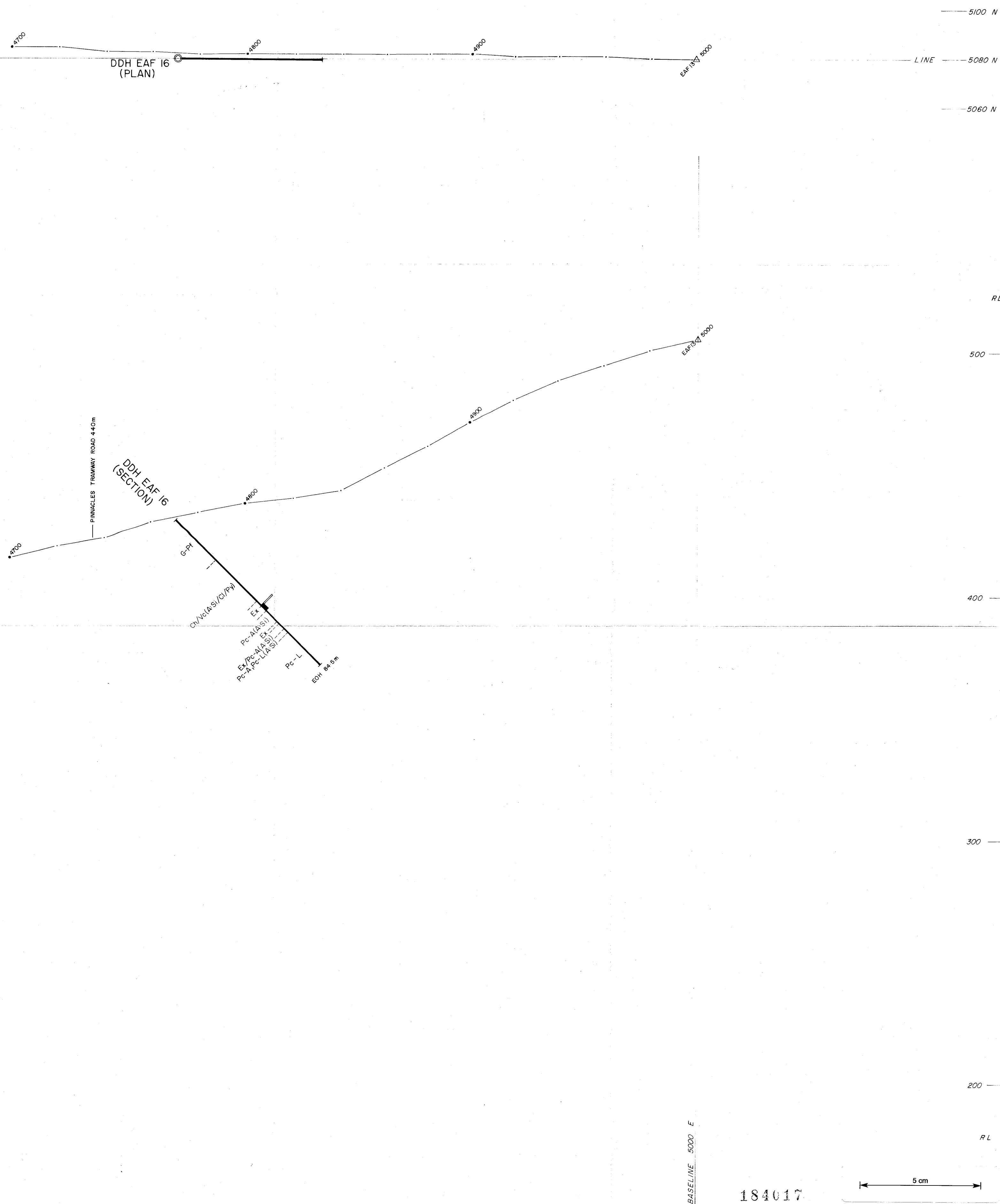
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REF. NO. TAS/2/3991

55-2352

SECTION ORIENTATION 270° MN



COMSTAFF PROPRIETARY LIMITED		
EL 5/63	PINNACLES GRID - EAF SECTION OF LINE 5080 N 016 DRILLHOLE GEOLOGY & GEOCHEMISTRY	DRW: R. H. ROBERTS
4		DRW: J. HARDISTY
		DATE: 24/5/85
		SCALE: 1:2500
		TAS/2/4246

SECTION ORIENTATION 270° MN

DDH EAF 15
(PLAN)

DDH EAF 15
(SECTION)

PINNACLES TRAMWAY ROAD 450m

EAST CHESTER ROAD 10000m

BASELINE 5000 E

184018

5 cm

COMSTAFF PROPRIETARY LIMITED

EL 5/63

4

1 8

2 9

3 10

4 11

5 12

6 13

7 14

PINNACLES GRID - EAF 017
SECTION OF LINE 5040 N

DRILLHOLE GEOLOGY & GEOCHEMISTRY

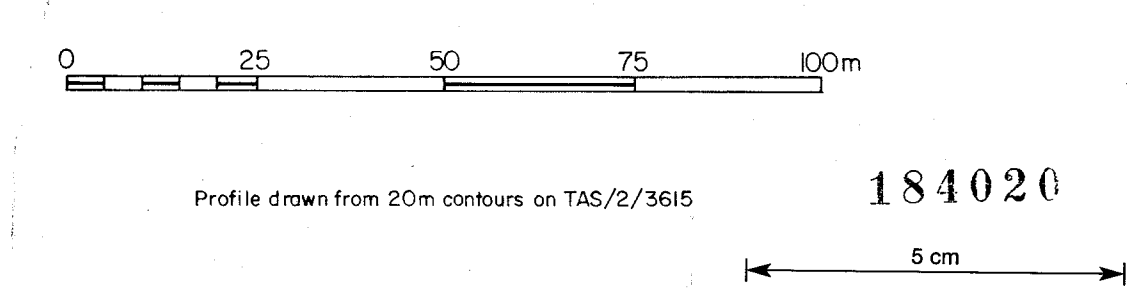
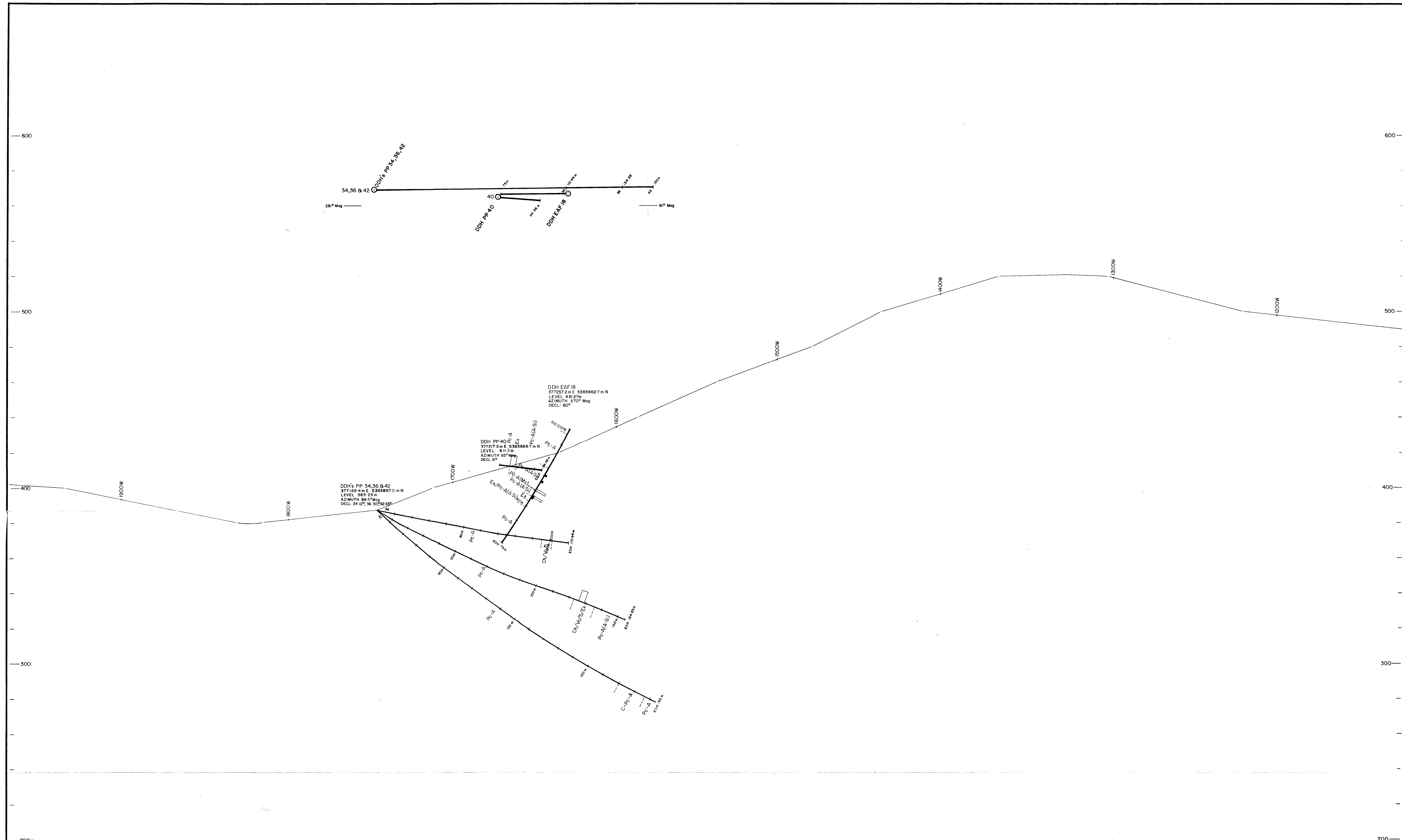
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DATE: 24/5/85

SCALE: 1 : 2500

REF. No. TAS/2/4247

85-2387



COMSTAFF PROPRIETARY LIMITED			
CHESTER - PINNACLES PROJECT		019	
EAA GRID - LINE 2200S		J. HARDISTY	
DDHs PP 34, 36, 40 & 42		24/5/85	
DRILLHOLE GEOLOGY & GEOCHEMISTRY		1:1000	
TAS/2/4249			

25 JUL 1985		FILE
DEPT. OF MINES		
FILE No.	7769	85

EAF DRILLING GEOCHEMISTRY

DDH EAF 1 - 18

SC - Split Core
CC - Chipped Core
SL - Sludge

DATA MATRIX

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EAF2SC	25	26	1	10	110	95	.2	.002	
EAF2SC	26	27	1	15	150	125	.2	.002	
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EAF2SC	32	33	1	10	135	95	.2	.002	
EAF2SC	33	34	1	15	230	180	.2	.002	
EAF2SC	34	35	1	15	515	730	.5	.002	
EAF2SC	35	36	1	10	195	350	.2	.002	
EAF2SC	36	37.4	1	10	175	740	.2	.002	
EAF2SC	37.4	38.8	1	10	240	265	.2	.002	
EAF2SC	38.8	40	1	10	95	185	.2	.002	
EAF2SC	40	41	1	10	1150	555	.2	.002	
EAF2SC	41	42	1	15	600	240	.2	.002	
EAF2SC	42	43	1	10	65	165	.2	.002	
EAF2SC	43	44	1	10	65	215	.2	.002	
EAF2SC	44	45.45	1	10	140	360	.2	.002	
EAF2SC	45.45								
		46	1	12	600	1225	1	.002	
EAF2SC	46	47	1	25	550	950	1	.03	
EAF2SC	47	48	1	50	1200	3100	8	.19	
EAF2SC	48	49	1	50	1075	2700	3	.07	
EAF2SC	49	50	1	25	1300	2700	2	.05	
EAF2SC	50	51	1	25	525	2525	1	.02	
EAF2SC	51	52.3	1	25	1100	6200	1	.05	
EAF2SC	52.3	53	1	50	275	1725	1	.01	
EAF2SC	53	54.56	1	25	125	2450	2	.002	
EAF2SC	54.56								
		55.56	1	50	1150	4325	3	.03	
EAF2SC	55.56								
		56.56	1	40	1700	8700	2	.02	
EAF2SC	56.56								
		57.56	1	100	1550	6500	1	.04	

EAF2SC 57.56

184024

58.56

EAF2SC	58.56		1	25	1100	6300	1	.002
		59.3	1	20	220	1100	2	.02
EAF2SC	59.3	60	1	50	1700	5150	2	.002
EAF2SC	60	61	1	25	600	2425	1	.002
EAF2SC	61	62	1	40	520	1500	10	.002
EAF2SC	62	63	1	25	450	2800	1	.002
EAF2SC	63	64	1	25	375	2150	1	.002
EAF2SC	64	65	1	25	375	1975	1	.002
EAF2SC	65	66	1	450	475	8600	1	.002
EAF2SC	66	67	1	1400	2200	32300		

023

							4	.02
EAF2SC	67	68	1	100	2475	7800	3	.04
EAF2SC	68	69	1	25	375	1750	1	.02
EAF2SC	69	70	1	25	600	2475	1	.01
EAF2SC	70	71	1	20	250	1100	1.5	.05
EAF2SC	71	72	1	25	200	1075	1	.03
EAF2SC	72	73	1	25	800	2125	1	.03
EAF2SC	73	74	1	12	475	1250	1	.01
EAF2SC	74	75	1	0	575	1025	1	.02
EAF2SC	75	76	1	25	375	1075	1	.02
EAF2SC	76	77	1	50	3700	8900	5	.06
EAF2SC	77	78	1	25	775	1850	1	.01
EAF2SC	78	79	1	50	725	3750	1	.02
EAF2SC	79	80	1	25	450	3625	1	.02
EAF2SC	80	81	1	50	775	3350	3	.03
EAF2SC	81	82	1	75	4150	9700	4	.01
EAF2SC	82	83	1	75	2175	2200	3	.002
EAF2SC	83	84	1	25	425	1475	1	.002
EAF2SC	84	85	1	25	375	450	1	.01
EAF2SC	85	86	1	15	180	1000	.5	.002
EAF2SC	86	87	1	25	450	1150	3	.01
EAF2SC	87	88	1	50	525	2175	3	.01
EAF2SC	88	89	1	75	1225	4250	3	.002
EAF2SC	89	90	1	50	1575	8100	3	.002
EAF2SC	90	91	1	75	975	4650	4	.01
EAF2SC	91	92	1	50	375	1225	3	.002
EAF2SC	92	93	1	75	1075	3075	3	.01
EAF2SC	93	94	1	50	575	2550	4	.02
EAF2SC	94	95	1	50	250	1050	2	.01
EAF2SC	95	96	1	25	125	625	1	.002
EAF2SC	96	97	1	20	490	860	1	.002
EAF2SC	97	98	1	20	400	330	1	.002
EAF2SC	98	99	1	15	95	1550	.5	.002
EAF2SC	99	100	1	15	75	85	.5	.002
EAF2SC	100	102	1	15	70	100	.5	.002
EAF2SC	102	104	1	10	75	225	.5	.002
EAF2SC	104	106.7						

EAF2SC	106.7		1	15	100	290	.2	.002

107.26

EAF2SC	107.26		1	15	115	820	.5	.002
		108	1	40	735	1300	2	.002
EAF2SC	108	110	1	35	745	2450	1	.03
EAF2SC	110	113	1	25	665	2150	1.5	.02
EAF2SC	113	114	1	15	135	295	.5	.002
EAF2SC	114	116	1	15	410	300	1.5	.002
EAF2SC	116	118	1	20	115	815	.5	.02
EAF2SC	118	120	1	15	130	630	1	.02

184025

024

EA2SC	120	122	1	20	65	170	.2	.002
EA2SC	122	124	1	20	60	150	.2	.002
EA2SC	124	126	1	20	80	135	.2	.002
EA2SC	126	128	1	25	110	315	.2	.002
EA2SC	128	130	1	20	290	625	1	.02
EA2SC	130	132.4						
			1	10	60	275	.2	.002
EA2SL	0	3	4	25	65	105	.2	.002
EA2SL	3	6	4	20	85	110	.2	.002
EA2SL	6	8.6						
			4	30	95	150	.2	.002
EA2SL	8.6							
		11.6	4	35	190	140	.2	.002
EA2SL	11.6	14.6	4	30	105	115	.2	.002
EA2SL	14.6	17.6	4	25	110	120	.2	.002
EA2SL	17.6	20.6	4	30	100	120	.2	.002
EA2SL	20.6	23.6	4	20	125	135	.2	.002
EA2SL	23.6	26.3	4	45	150	160	.2	.002
EA2SL	26.6	29.6	4	35	95	125	.2	.002
EA2SL	29.6	32.6	4	30	95	125	.2	.002
EA2SL	32.6	35.6	4	50	165	225	.2	.002
EA2SL	35.6	38.6	4	35	165	505	.2	.002
EA2SL	38.6	41.6	4	-1	-1	-1	-1	.002
EA2SL	41.6	44.6	4	-1	-1	-1	-1	.002
EA2SL	44.6	47.6	4	-1	-1	-1	-1	.002
EA2SL	47.6	50.6	4	-1	-1	-1	-1	0.09
EA2SL	50.6	53.6	4	-1	-1	-1	-1	.03
EA2SL	53.6	56.5	4	-1	-1	-1	-1	.01
EA2SL	56.5	59.6	4	-1	-1	-1	-1	.01
EA2SL	59.6	62.4	4	-1	-1	-1	-1	.02
EA2SL	62.4	65.4	4	-1	-1	-1	-1	.01
EA2SL	65.4	68.4	4	-1	-1	-1	-1	.02
EA2SL	68.4	71.4	4	-1	-1	-1	-1	.01

DATA MATRIX

025

FILENAME A:EAF3.DDH

	FROM	TO	METH	Cu	Pb	Zn	Ag	Au	CLASS
EAF3SC	1	2	1	25	150	200	1	.02	
EAF3SC	2	3.25	1	29	50	75	1	.02	
EAF3SC	3.25	4	1	900	1300	11600			
							8	.73	
EAF3SC	4	5	1	550	440	6200	5.5	.72	
EAF3SC	5	6	1	200	875	2675	4	.32	
EAF3SC	6	7	1	250	800	7200	4	.37	
EAF3SC	7	8	1	125	175	400	3	.12	
EAF3SC	8	8.35	1						
			1	150	250	675	3	.13	
EAF3SC	8.35								
		9.69							
			1	25	350	800	1	.04	
EAF3SC	9.69								
		10.69							
			1	125	300	950	3	.09	
EAF3SC	10.69								
		11.67							
			1	450	275	850	5	.07	
EAF3SC	11.67								
		12.4	1	75	1275	1450	3	.04	
EAF3SC	12.4	13	1	650	1000	1800	12	.36	
EAF3SC	13	14	1	25	675	575	1	.04	
EAF3SC	14	14.47							
			1	25	345	680	1	.03	
EAF3SC	14.47								
		15	1	15	230	285	.2	.04	
EAF3SC	15	16	1	30	285	625	.2	.04	
EAF3SC	16	17	1	100	680	1650	1	.04	
EAF3SC	17	18	1	35	340	385	1	.06	
EAF3SC	18	19	1	15	245	225	.2	.04	
EAF3SC	19	20	1	25	325	505	.2	.06	
EAF3SC	20	21	1	30	345	520	.5	.07	
EAF3SC	21	22	1	95	890	1800	2	.09	
EAF3SC	22	23.3	1	35	475	840	.2	.02	
EAF3SC	23.3	24.1	1	40	775	210	.2	.02	
EAF3SC	24.1	25.45							
			1	55	475	310	.2	.02	
EAF3SC	25.45								
		26.67							
			1	15	290	170	1.5	.04	
EAF3SC	26.67								
		28	1	25	275	150	1	.01	
EAF3SC	28	29	1	25	400	1375	2	.2	
EAF3SC	29	30	1	25	1150	6200	3	.03	
EAF3SC	30	31	1	650	1475	1675	6	.2	
EAF3SC	31	32	1	2750	1800	1975	15	.24	
EAF3SC	32	33	1	3200	4300	10000			
							20	.33	
EAF3SC	33	35.7	1	5400	6700	23700			
							19	.42	
EAF3SC	35.7	37	1	5600	2900	1200	20	28.7	
EAF3SC	37	38.5	1	23000					
					157000				
						252000			
							150	1.52	
EAF3SC	38.5	39.5	1	225	325	600	1	.03	
EAF3SC	39.5	40.59							
			1	150	1450	2300	1	.03	

EA33C	40.59							
		41.5	1	50	325	800	6	.12
EA33C	41.5	42.5	1	25	200	500	7	.07
EA33C	42.5	44.4	1	25	150	675	7	.06
EA33C	44.4	45.8	1	25	625	1225	10	.07
EA33C	45.8	47	1	25	75	325	1	.08
EA33C	47	48.1	1	25	150	550	1	.002
EA33C	48.1	49.1	1	1275	625	825	14	.21
EA33C	49.1	50.1	1	50	275	425	4	.11
EA33C	50.1	51.1	1	15	120	110	.2	.05
EA33C	51.1	52.1	1	15	95	90	.2	.02
EA33C	52.1	53	1	15	110	200	.2	.05
EA33C	53	54	1	15	85	180	.2	.03
EA33C	54	55	1	15	70	65	.2	.01
EA33C	55	56	1	10	70	45	.2	.03
EA33C	56	57	1	15	90	180	.2	.08
EA33C	57	58	1	10	90	265	.2	.002
EA33C	58	59	1	15	100	810	.2	.002
EA33C	59	60	1	15	175	235	.2	.01
EA33C	60	61	1	10	300	425	.2	.08
EA33C	61	62	1	15	170	310	.2	.01
EA33C	62	63	1	50	360	1350	.2	.01
EA33C	63	64	1	30	165	615	.2	.002
EA33C	64	65	1	20	170	685	6	.002
EA33C	65	66	1	20	110	615	4.5	.002
EA33C	66	67	1	20	145	685	.5	.002
EA33C	67	68	1	15	105	685	1.5	.002
EA33C	68	69	1	15	165	615	.2	.002
EA33C	69	70	1	15	165	255	.2	.002
EA33C	70	71	1	25	150	475	1	.02
EA33C	71	72	1	25	100	675	1	.02
EA33C	72	73	1	25	125	1325	1	.002
EA33C	73	74	1	25	175	1075	2	.04
EA33C	74	75	1	25	225	1350	3	.02
EA33C	75	76	1	150	475	2750	2	.01
EA33C	76	77	1	100	500	1850	2	.02
EA33C	77	78	1	1150	1450	5100	8	.02
EA33C	78	79	1	800	1600	4000	10	.07
EA33C	79	80	1	400	1025	3250	5	.04
EA33C	80	81	1	450	1275	3175	7	.02
EA33C	81	82	1	75	450	3750	1	.12
EA33C	82	83	1	1450	6500	10400	7	.17
EA33C	83	84	1	125	950	6100	2	.11
EA33C	84	85	1	150	1175	8300	2	.14
EA33C	85	86	1	50	225	1100	1	.02
EA33C	86	87	1	25	225	1175	1	.002
EA33C	87	88	1	25	175	1175	1	.002
EA33C	88	89	1	25	325	1950	1	.002
EA33C	89	90	1	25	425	6200	1	.002
EA33C	90	91	1	25	975	2925	1	.01
EA33C	91	91.7	1	150	800	3175	1	.01
EA33C	91.7	92.7	1	50	1175	3700	1	.002
EA33C	92.7	93.4	1	50	925	2750	1	.002
EA33C	93.4	94.2	1	50	950	3000	2	.002
EA33C	94.2	94.9	1	100	1550	2100	5	.14
EA33C	94.9	95.6	1	50	1400	1700	3	.02
EA33SL	0	3	4	30	200	315	.2	.002
EA33SL	3	6	4	450	385	3900	1.5	.86
EA33SL	6	9	4	245	420	2400	.5	.24
EA33SL	9	12	4	75	235	760	.2	.06
EA33SL	12	15	4	755	670	3150	.2	.08
EA33SL	15	18	4	840	685	1900	.2	.09
EA33SL	18	21	4	260	300	755	.2	.06

DATA MATRIX

027

FILENAME A: EAF4.DDH

	FROM	TO	METH	Cu	Pb	Zn	Ag	Au	CLASS
EAF4SC	3	2.3	1	50	825	1075	1	.025	
EAF4SC	2.3	3.65	1	50	325	325	1	.08	
EAF4SC	3.65	4.65	1	275	400	600	2	.65	
EAF4SC	4.65	5.6	1	250	550	7000	1	.62	
EAF4SC	5.6	6.6	1	100	575	1750	1	.3	
EAF4SC	6.6	7.6	1	500	925	8100	1	1.23	
EAF4SC	7.6	8.95	1	150	150	850	1	.17	
EAF4SC	8.95	9.9	1	75	100	425	1	.05	
EAF4SC	9.9	10.9	1	225	2675	7600	5	.12	
EAF4SC	10.9	11.9	1	175	775	4275	5	.08	
EAF4SC	11.9	13.23	1	125	1100	5900	3	.08	
EAF4SC	13.23	14.4	1	100	800	1900	11	.52	
EAF4SC	14.4	15	1	75	450	550	1	.06	
EAF4SC	15	16	1	25	325	350	1	.04	
EAF4SC	16	16.2	1	25	300	275	1	.1	
EAF4SC	16.2	18	1	25	250	350	1	.08	
EAF4SC	18	20	1	225	975	2425	1	.11	
EAF4SC	20	22	1	25	200	550	1	.06	
EAF4SC	22	24	1	25	475	700	0	.09	
EAF4SC	24	26	1	25	425	750	1	.03	
EAF4SC	26	28	1	25	475	425	1	.01	
EAF4SC	28	30.4	1	25	325	250	1	.04	
EAF4SC	30.4	31.4	1	25	550	225	1	.06	
EAF4SC	31.4	32.4	1	25	600	975	1	.1	
EAF4SC	32.4	33.4	1	200	700	1850	2	.002	
EAF4SC	33.4	34.4	1	3475	2225	9200	11	.16	
EAF4SC	34.4	35.4	1	11900	16400	44100	48	.37	
EAF4SC	35.4	36.4	1	5000	18600	37400	24	.21	
EAF4SC	36.4	37.4	1	2075	6300	4150	14	7.84	
EAF4SC	37.4	38.4	1	3000	2175	800	26	5.8	
EAF4SC	38.4	39.6	1	2475	1900	1350	20	6.5	
EAF4SC	39.6	39.7	1	4550	28300	95000	36	1.73	
EAF4SC	39.7	40.7	1	50	100	500	1	.02	
EAF4SC	40.7	41.28	1	50	8900	1175	6	.002	
EAF4SC	41.28	42.3	1	725	4475	19600	8	.37	
EAF4SC	42.3	43.3	1	850	1525	4550	7	.22	
EAF4SC	43.3	44.25	1	15300	17700	31200	45	.28	

EA4SC	44.25							
		44.9	1	13500				
					88900			
						155200		
							86	1.1
EA4SC	44.9	45.9	1	750	375	925	5	.01
EA4SC	45.9	46.9	1	50	150	525	1	.002
EA4SC	46.9	47.9	1	25	12	250	1	.02
EA4SC	47.9	48.9	1	25	12	300	1	.002
EA4SC	48.9	49.9	1	25	1125	275	3	.01
EA4SC	49.9	50.9	1	250	600	650	3	.002
EA4SC	50.9	51.9	1	6900	104900			
						279600		
							321	1.16
EA4SC	51.9	52.3	1	7000	68000			
						202600		
							131	1.44
EA4SC	52.3	53.3	1	50	550	1425	1	.03
EA4SC	53.3	54.3	1	75	3025	7400	9	.1
EA4SC	54.3	55.3	1	75	400	1800	2	.04
EA4SC	55.3	56.3	1	50	175	400	2	.002
EA4SC	56.3	57.3	1	25	175	350	2	.002
EA4SC	57.3	58.3	1	25	225	925	1	.002
EA4SC	58.3	59.3	1	25	25	475	1	.002
EA4SC	59.3	60.3	1	25	75	175	1	.002
EA4SC	60.3	61.3	1	25	275	300	1	.002
EA4SC	61.3	62.3	1	25	200	525	3	.04
EA4SC	62.3	63.3	1	50	775	1075	4	.15
EA4SC	63.3	64.3	1	75	400	725	7	.09
EA4SC	64.3	65.6	1	50	825	2975	3	.02
EA4SL	0	2.6	4	-1	-1	-1	-1	.02
EA4SL	2.6	6	4	-1	-1	-1	-1	.92
EA4SL	6	9	4	-1	-1	-1	-1	1.36
EA4SL	9	12	4	-1	-1	-1	-1	.21
EA4SL	12	15	4	-1	-1	-1	-1	.46
EA4SL	15	17	4	-1	-1	-1	-1	.16
EA4SL	17	20	4	-1	-1	-1	-1	.18
EA4SL	20	23	4	-1	-1	-1	-1	.32

DATA MATRIX

023

FILENAME A: EAF5.DDH

	FROM	TO	METH	Cu	Pb	Zn	Ag	Au	CLASS
EAF5SC	1.3	2	1	225	400	450	1	.002	
EAF5SC	2	3	1	150	350	200	1	.002	
EAF5SC	3	4	1	50	800	200	4	.002	
EAF5SC	4	5	1	0	800	200	4	.01	
EAF5SC	5	6	1	75	550	350	3	.002	
EAF5SC	6	7	1	50	325	300	2	.002	
EAF5SC	7	8	1	25	700	1125	3	.01	
EAF5SC	8	9	1	25	1800	3900	4	.01	
EAF5SC	9	9.8	1	50	1700	1150	5	.02	
EAF5SC	9.8	12	1	150	1475	2675	5	.02	
EAF5SC	12	14	1	75	1075	1475	5	.002	
EAF5SC	14	15.9	1	550	2275	2825	7	.19	
EAF5SC	15.9	18	1	100	825	450	1	.002	
EAF5SC	18	19.5	1	25	1225	525	1	.002	
EAF5SC	19.5	20.5	1	150	1625	2000	13	.15	
EAF5SC	20.5	21.5	1	225	1325	1500	12	.11	
EAF5SC	21.5	22.5	1	200	775	1825	7	.06	
EAF5SC	22.5	23.5	1	125	650	1050	7	.03	
EAF5SC	23.5	24.5	1	250	1950	3125	12	.08	
EAF5SC	24.5	25.5	1	150	1325	3950	9	.14	
EAF5SC	25.5	26.5	1	200	2025	6500	13	.17	
EAF5SC	26.5	28.1	1	350	1725	4700	13	.14	
EAF5CC	28.1	31.1	2	25	350	1250	3	.002	
EAF5CC	31.1	34.1	2	10	345	675	.2	.002	
EAF5CC	34.1	37.1	2	5	45	255	.2	.002	
EAF5CC	37.1	40.1	2	5	370	840	.2	.002	
EAF5CC	40.1	43.1	2	5	100	145	.2	.002	
EAF5CC	43.1	46.1	2	165	110	200	.2	.002	
EAF5CC	46.1	49.1	2	40	65	125	.2	.002	
EAF5SL	0	2.6	4	-1	-1	-1	-1	.88	
EAF5SL	2.6	5.6	4	-1	-1	-1	-1	3.38	
EAF5SL	5	8.6	4	-1	-1	-1	-1	2.42	
EAF5SL	8.6	11.6	4	-1	-1	-1	-1	2.19	
EAF5SL	11.6	14.6	4	-1	-1	-1	-1	.5	
EAF5SL	14.6	17.6	4	-1	-1	-1	-1	.57	
EAF5SL	17.6	20.6	4	-1	-1	-1	-1	.76	
EAF5SL	20.6	23.6	4	-1	-1	-1	-1	.3	
EAF5SL	23.6	26.6	4	-1	-1	-1	-1	.24	
EAF5CC	49.1	52.1	2	25	60	135	.2	.002	

EA66SC	63.4	64.4	1	1025	6700	22200			0.31
							9	.22	
EA66SC	64.4	65.4	1	1225	14100				
						15500			
							12	.51	
EA66SC	65.4	66.4	1	3800	31800				
						30300			
							17	.29	
EA66SC	66.4	67.4	1	3900	38200				
						55700			
							15	.18	
EA66SC	67.4	68.4	1	900	10300				
						25200			
							9	.09	
EA66SC	68.4	69.4	1	2450	14600				
						21300			
							16	.13	
EA66SC	69.4	70.4	1	2500	6900	12500			
							14	.87	
EA66SC	70.4	71.4	1	1475	3375	13300			
							13	.87	
EA66SC	71.4	72.4	1	950	3000	9000	6	.86	
EA66SC	72.4	73.4	1	1150	4200	6100	3	.84	
EA66SC	73.4	74.5	1	2100	775	2425	4	.81	
EA66SC	74.5	75.5	1	25	150	600	1	.804	
EA66SC	75.5	76.5	1	25	100	350	1	.804	
EA66SC	76.5	78.5	1	12	75	275	1	.804	
EA66SC	78.5	80.5	1	25	150	400	1	.804	
EA66SC	80.5	82.5	1	25	150	375	1	.804	
EA66SC	82.5	84.5	1	12	325	1400	1	.804	
EA66SC	84.5	86.5	1	12	125	325	1	.804	
EA66SC	86.5	88.5	1	12	125	575	1	.804	
EA66SC	88.5	90.5	1	12	175	275	1	.804	
EA66SC	90.5	92.5	1	25	150	275	1	.804	
EA66SC	92.5	94.5	1	12	725	250	1	.81	
EA66SC	94.5	96.5	1	12	125	125	1	.13	
EA66SC	96.5	98.5	1	25	200	225	1	.33	
EA66SC	98.5	100.5							
			1	12	200	200	1	.87	
EA66SC	100.5								
		102.4							
			1	12	150	200	1	1.11	
EA66CC	5.6	7.6	2	10	70	60	.2	.806	
EA66CC	7.6	9.6							
			2	5	75	40	.2	.806	
EA66CC	9.6								
		11.6	2	10	80	40	.2	.81	
EA66CC	11.6	13.6	2	10	95	50	.2	.81	
EA66CC	13.6	14.5	2	15	100	65	.2	.84	
EA66SL	0	2.6	4	-1	-1	-1	-1	2.3	
EA66SL	2.6	5.6	4	-1	-1	-1	-1	.84	
EA66SL	5.6	8.6							
			4	-1	-1	-1	-1	.12	
EA66SL	8.6								
		11.6	4	-1	-1	-1	-1	.806	
EA66SL	11.6	14.6	4	-1	-1	-1	-1	.806	
EA66SL	14.6	17.6	4	-1	-1	-1	-1	.81	
EA66SL	17.6	20.6	4	-1	-1	-1	-1	.13	
EA66SL	20.6	23.6	4	-1	-1	-1	-1	.83	
EA66SL	23.6	26.6	4	-1	-1	-1	-1	.82	
EA66SL	26.6	29.6	-1	-1	-1	-1	-1	.806	

EA6SL	29.6	32.6	-1	-1	-1	-1	-1	1.84033
EA6SL	32.6	35.6	-1	-1	-1	-1	-1	.02
EA6SL	35.6	38.6	-1	-1	-1	-1	-1	.02
EA6SL	38.6	41.6	4	-1	-1	-1	-1	.04
EA6SL	41.6	44.6	4	-1	-1	-1	-1	.006
EA6SL	44.6	47.6	4	-1	-1	-1	-1	.03
EA6SL	47.6	50.6	4	-1	-1	-1	-1	.21
EA6SL	50.6	53.6	4	-1	-1	-1	-1	.84
EA6SL	53.6	56.6	4	-1	-1	-1	-1	.33
EA6SL	56.6	59.6	4	-1	-1	-1	-1	6.69
EA6SL	59.6	62.6	4	-1	-1	-1	-1	11.1
EA6SL	62.4	65.4	4	-1	-1	-1	-1	5.53

DATA MATRIX

FILENAME A: EAF7.DDH

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	FROM	TO	METH	Cu	Pb	Zn	Ag	Au	CLASS
EAF7SC	67.8	67.9	1	125	410000	1975	430	.03	
EAF7SC	102.3	103.3							
			1	12	250	625	1	.004	
EAF7SC	103.3	104.3							
			1	12	3575	150	3	.004	
EAF7SC	104.3	105.3							
			1	50	875	1350	3	.05	
EAF7SC	105.3	106.3							
			1	100	825	3175	3	.01	
EAF7SC	106.3	107.3							
			1	125	700	1600	2	.004	
EAF7SC	107.3	108.3							
			1	50	1125	6700	3	.004	
EAF7SC	108.3	109.3							
			1	250	1325	6100	4	.06	
EAF7SC	109.3	110.3							
			1	150	1875	4675	7	.09	
EAF7SC	110.3	111.3							
			1	150	1650	4650	5	.05	
EAF7SC	111.3	112.3							
			1	200	1500	4425	3	.004	
EAF7SC	112.3	113.3							
			1	150	1050	4450	1	.004	
EAF7SC	113.3	114.3							
			1	175	1425	3050	3	.004	
EAF7SC	114.3	115.3							
			1	100	1350	7100	1	.07	
EAF7SC	115.3	116.3							
			1	25	575	2675	1	.02	
EAF7SC	116.3	117.8							
			1	50	375	450	1	.004	
EAF7SC	117.8	118.8							
			1	12	175	300	1	.004	
EAF7SC	118.8	119.8							
			1	12	125	75	1	.004	
EAF7SC	119.8	120.8							
			1	12	75	75	1	.004	

EA75C	120.8						
	121.8	1	25	100	100	1	.004
EA75C	121.8						
	122.8	1	12	175	100	1	.004
EA75C	122.8						
	124.35	1	12	175	575	1	.004
EA75C	124.35						
	125.4	1	25	350	950	1	.004
EA75C	125.4						
	126.4	1	50	375	1000	1	.004
EA75C	126.4						
	127.4	1	25	425	2200	1	.004
EA75C	127.4						
	128.4	1	25	725	2350	1	.004
EA75C	128.4						
	129.4	1	25	925	4000	3	.004
EA75C	129.4						
	130.82	1	50	750	3800	1	.004
EA75C	130.82						
	131.9	1	50	275	2025	1	.02
EA75C	131.9						
	132.9	1	100	2750	8100	1	.01
EA75C	132.9						
	134.45	1	50	225	2450	1	.02
EA75C	134.45						
	135.4	1	25	125	625	1	.004
EA75C	135.4						
	136.4	1	25	125	300	1	.004
EA75C	136.4						
	137.4	1	12	150	725	2	.02
EA75C	137.4						
	138.4	1	12	175	625	1	.004
EA75C	138.4						
	139.4	1	12	200	500	1	.004
EA75C	139.4						
	140.4	1	25	175	350	1	.004
EA75C	140.4						
	141.4	1	12	150	375	1	.004
EA75C	141.4						
	142.4	1	25	100	325	1	.004
EA75C	142.4						
	143.4	1	25	125	225	1	.004

EA77SC	143.4								
		144.4							
			1	50	200	700	1	.004	
EA77SC	144.4								
		145.4							
			1	50	25	125	1	.004	
EA77SC	145.4								
		146.4							
			1	50	50	75	1	.004	
EA77SC	146.4								
		148	1	25	75	175	1	.004	
EA77SC	148	149	1	25	550	1150	1	.004	
EA77SC	149	150	1	25	300	975	1	.004	
EA77SC	150	151	1	400	700	11300			
							3	.004	
EA77SC	151	152	1	525	350	9700	5	.004	
EA77SC	152	153	1	325	425	5600	3	.004	
EA77SC	153	154	1	375	425	350	12	.004	
EA77SC	154	155.3							
			1	450	400	700	7	.004	
EA77SC	155.3								
		156.4							
			1	100	1050	275	14	.009	
EA77SC	156.4								
		157.4							
			1	50	1150	1000	11	.07	
EA77SC	157.4								
		158.4							
			1	75	575	775	8	.02	
EA77SC	158.4								
		159.4							
			1	125	825	1175	9	.02	
EA77SC	159.4								
		160.4							
			1	500	3550	900	77	.23	
EA77SC	160.4								
		161.4							
			1	1825	2025	2250	30	.12	
EA77SC	161.4								
		162.4							
			1	1500	1175	1050	11	.05	
EA77SC	162.4								
		163.4							
			1	250	1175	1325	10	.04	
EA77SC	163.4								
		164.4							
			1	700	850	925	10	.02	
EA77SC	164.4								
		165.4							
			1	1800	1050	1325	10	.004	
EA77SC	165.4								
		166.8							
			1	1825	625	775	9	.03	
EA77SC	166.8								
		167.8							
			1	2025	1100	23500			
							7	.06	
EA77SC	167.8								
		168.8							
			1	175	975	5700	1	.004	

EA77SC	168.8							184037
		169.9						
			1	50	50	375	1	.004
EA77SC	169.9							036
		170.9						
			1	25	25	325	1	.004
EA77SC	170.9							
		171.9						
			1	25	25	225	1	.004
EA77SC	171.9							
		172.9						
			1	25	50	225	1	.004
EA77SC	172.9							
		173.9						
			1	25	50	225	1	.004
EA77SC	173.9							
		174.9						
			1	25	25	175	1	.004
EA77SC	174.9							
		175.9						
			1	125	125	200	1	.004
EA77SC	175.9							
		176.9						
			1	125	150	250	1	.004
EA77SC	176.9							
		177.9						
			1	100	25	275	1	.004
EA77SC	177.9							
		178.9						
			1	125	25	225	1	.004
EA77SC	178.9							
		179.9						
			1	75	25	175	1	.004
EA77SC	179.9							
		180.9						
			1	375	12	175	1	.004
EA77SC	180.9							
		181.9						
			1	350	25	225	1	.004
EA77SC	181.9							
		182.9						
			1	100	12	250	1	.004
EA77SC	182.9							
		183.9						
			1	100	25	600	1	.004
EA77SC	183.9							
		184.9						
			1	25	12	425	1	.004
EA77SC	184.9							
		185.9						
			1	25	25	225	1	.004
EA77SC	185.9							
		186.9						
			1	25	25	200	1	.004
EA77CC	1.3	4.1	2	5	55	50	.5	.006
EA77CC	4.1	7	2	15	25	60	.5	.006
EA77CC	7	9.						
			2	10	45	125	.2	.006
EA77CC	9.							
		13	2	10	885	940	1.5	.006
EA77CC	13	15.6	2	10	360	765	1	.006
EA77CC	15.6	18.9	2	5	300	600	1	.006
EA77CC	18.9	21.9	2	5	485	1650	1	.006

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EA77CC	21.9	24.9	2	10	450	1500	1	.006
EA77CC	24.9	28	2	60	960	2850	2.5	.006
EA77CC	28	31	2	15	535	2150	1.5	.006
EA77CC	31	33.95						
			2	10	560	1600	1	.006
EA77CC	33.95							
		37	2	5	40	265	.2	.006
EA77CC	37	40	2	5	5	175	.2	.006
EA77CC	40	43	2	5	15	250	.2	.006
EA77CC	43	46	2	2	10	100	.2	.006
EA77CC	46	49	2	5	5	95	.2	.006
EA77CC	49	52	2	10	10	105	.2	.006
EA77CC	52	53	2	10	20	100	.2	.006
EA77CC	53	56	2	10	2	90	.2	.006
EA77CC	56	59	2	15	5	85	.2	.006
EA77CC	59	62.2	2	70	10	65	.2	.006
EA77CC	62.2	65	2	20	15	110	.2	.006
EA77CC	65	67.8	2	30	45	450	.2	.006
EA77CC	67.9	71	2	25	230	145	.2	.006
EA77CC	71	74	2	20	20	90	.2	.006
EA77CC	74	77	2	10	10	70	.2	.006
EA77CC	77	80	2	10	15	45	.2	.006
EA77CC	80	83	2	5	5	65	.2	.006
EA77CC	83	86	2	10	5	105	.2	.006
EA77CC	86	89	2	15	10	80	.2	.04
EA77CC	89	92	2	10	2	70	.2	.006
EA77CC	92	95	2	45	15	100	.2	.006
EA77CC	95	98	2	10	10	70	.2	.006
EA77CC	98	101	2	15	10	105	.2	.006
EA77CC	101	102.3						
			2	15	35	130	.2	.006
EA77SL	0	2.6	4	125	255	1450	1.5	.64
EA77SL	2.6	5.6	4	100	215	890	1.5	.08
EA77SL	5.6	8.6						
			4	100	195	705	1.5	.24
EA77SL	8.6							
		11.6	4	20	220	465	1	.01
EA77SL	11.6	14.6	4	65	375	1200	2	.04
EA77SL	14.6	17.6	4	65	525	1750	2	.02
EA77SL	17.6	20.6	4	30	390	985	1.5	.03
EA77SL	20.6	23.6	4	30	365	1200	1	.006
EA77SL	23.6	26.6	4	25	325	995	1	.01
EA77SL	26.6	29.6	4	-1	-1	-1	-1	.04
EA77SL	29.6	32.6	4	-1	-1	-1	-1	.006
EA77SL	32.6	35.6	4	-1	-1	-1	-1	.006
EA77SL	38.6	41.6	4	-1	-1	-1	-1	.02
EA77SL	41.6	44.6	4	-1	-1	-1	-1	.01
EA77SL	50.6	53.4	4	-1	-1	-1	-1	.05
EA77SL	53.4	56.4	4	-1	-1	-1	-1	.06

DATA MATRIX

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FILENAME A: EAF8.DDH

	FROM	TO	METH	Cu	Pb	Zn	Ag	Au	CLASS
EAF8SC	24.6	25.6	1	12	425	100	1	.004	
EAF8SC	25.6	26.6	1	12	300	100	1	.004	
EAF8SC	26.6	27.6	1	12	375	125	1	.004	
EAF8SC	27.6	28.6	1	12	225	25	1	.015	
EAF8SC	28.6	29.6	1	12	200	25	1	.004	
EAF8SC	29.6	30.6	1	12	225	50	1	.004	
EAF8SC	30.6	31.6	1	12	225	50	1	.004	
EAF8SC	31.6	32.6	1	12	250	100	1	.004	
EAF8SC	32.6	33.6	1	12	25	150	1	.004	
EAF8SC	33.6	34.6	1	12	25	200	1	.004	
EAF8SC	34.6	35.6	1	12	12	150	1	.004	
EAF8SC	35.6	36.6	1	12	12	150	1	.004	
EAF8SC	36.6	37.6	1	12	12	150	1	.004	
EAF8SC	37.6	38.6	1	12	12	75	1	.004	
EAF8SC	38.6	39.6	1	12	12	125	1	.004	
EAF8SC	39.6	40.6	1	12	12	150	1	.004	
EAF8SC	40.6	41.6	1	12	12	150	1	.004	
EAF8SC	41.6	42.4	1	12	12	150	1	.004	
EAF8SC	42.4	42.9	1	12	1250	7600	1	.08	
EAF8SC	42.9	44	1	12	1325	4025	1	.06	
EAF8SC	44	45	1	12	1050	6600	1	.05	
EAF8SC	45	46	1	12	950	3050	1	.04	
EAF8SC	46	47	1	12	650	2125	1	.04	
EAF8SC	47	48	1	12	475	1675	1	.04	
EAF8SC	48	49	1	125	425	1650	1	.02	
EAF8SC	49	50	1	75	250	1300	1	.02	
EAF8SC	50	51	1	50	525	3450	1	.47	
EAF8SC	51	52	1	12	375	1900	2	.07	
EAF8SC	52	53.45							
			1	25	575	1350	1	.11	
EAF8SC	53.45								
		54.4	1	12	300	1125	1	.004	
EAF8SC	54.4	55.4	1	12	75	200	1	.004	
EAF8SC	55.4	56.4	1	75	50	250	1	.004	
EAF8SC	56.4	57.2	1	12	125	425	1	.004	
EAF8SC	57.2	57.6	1	100	375	875	2	.02	
EAF8SC	57.6	59.2	1	475	575	2025	1	.04	
EAF8SC	59.2	59.5	1	12	50	200	1	.004	
EAF8SC	59.5	60.4	1	12	100	175	1	.02	
EAF8SC	60.4	61.4	1	12	25	200	1	.004	
EAF8SC	61.4	62.4	1	12	25	275	1	.004	
EAF8SC	62.4	63.8	1	12	25	175	1	.004	
EAF8SC	63.8	64.8	1	175	25	125	1	.004	
EAF8SC	64.8	65.8	1	12	12	175	1	.004	
EAF8SC	65.8	66.8	1	12	25	200	1	.004	
EAF8SC	66.8	67.8	1	12	25	100	1	.004	
EAF8SC	67.8	68.8	1	12	25	125	1	.004	
EAF8SC	68.8	69.8	1	12	25	125	1	.004	
EAF8SC	69.8	70.8	1	12	12	75	1	.004	
EAF8SC	70.8	71.8	1	25	25	75	1	.004	
EAF8SC	71.8	72.8	1	150	25	125	1	.004	
EAF8SC	72.8	73.8	1	12	25	325	1	.004	
EAF8SC	73.8	74.8	1	25	525	800	1	.05	
EAF8SC	74.8	75.8	1	125	375	1100	1	.09	

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EA88SC	75.8	76.8	1	150	775	5600	2	.17
EA88SC	76.8	77.8	1	75	375	1475	1	.04
EA88SC	77.8	78.8	1	375	2275	7700	3	.19
EA88SC	78.8	79.8	1	625	1950	12400	5	.18
EA88SC	79.8	80.8	1	875	3200	15800	5	.54
EA88SC	80.8	81.8	1	2275	2675	28100	11	.1
EA88SC	81.8	82.8	1	1975	3200	33300	8	.12
EA88SC	82.8	83.8	1	775	2350	14900	7	.1
EA88SC	83.8	84.8	1	525	1150	14800	6	.37
EA88SC	84.8	85.8	1	1525	2200	15800	4	.21
EA88SC	85.8	86.8	1	750	6700	19400	6	.28
EA88SC	86.8	87.8	1	750	4275	15300	7	.47
EA88SC	87.8	88.8	1	900	2200	7400	9	.11
EA88SC	88.8	89.8	1	350	1225	2075	7	.25
EA88SC	89.8	90.8	1	25	375	1050	3	.04
EA88SC	90.8	91.8	1	275	975	4275	5	.1
EA88SC	91.8	92.8	1	100	750	1350	4	.15
EA88SC	92.8	93.8	1	12	275	1650	1	.03
EA88SC	93.8	94.8	1	25	25	200	3	.04
EA88SC	94.8	95.8	1	12	50	200	1	.004
EA88CC	1.5	4.5	2	10	15	45	.5	.006
EA88CC	4.5	7.5	2	5	5	30	.5	.01
EA88CC	7.5	10.5	2	5	10	30	.2	.006
EA88CC	10.5	13.5	2	10	40	45	.2	.006
EA88CC	13.5	16.5	2	10	110	60	.2	.006
EA88CC	16.5	19.5	2	15	195	85	.2	.006
EA88CC	19.5	22.5	2	15	260	85	.2	.01
EA88CC	22.5	24.6	2	10	235	65	.2	.01
EA88CC	95.8	97	2	10	80	375	.2	.01
EA88CC	97	99	2	20	100	305	.2	.006
EA88CC	99	101	2	25	110	140	.2	.006
EA88CC	101	102.1	2	20	745	170	.5	.006
EA88CC	102.1	105	2	10	40	75	.2	.006
EA88CC	105	106	2	5	30	120	.5	.006
EA88SL	0	2.6	4	-1	-1	-1	-1	.004
EA88SL	2.6	5.6	4	-1	-1	-1	-1	.004
EA88SL	5.6	8.6	4	-1	-1	-1	-1	.004
EA88SL	8.6	11.6	4	-1	-1	-1	-1	.004
EA88SL	11.6	14.6	4	-1	-1	-1	-1	.004
EA88SL	14.6	17.6	4	-1	-1	-1	-1	.004
EA88SL	17.6	20.6	4	-1	-1	-1	-1	.004
EA88SL	20.6	23.6	4	-1	-1	-1	-1	.004
EA88SL	23.6	26.6	4	-1	-1	-1	-1	.77
EA88SL	26.6	29.6	4	-1	-1	-1	-1	.02

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DATA MATRIX

040

FILENAME A: EAF9.DDH

	FROM	TO	METH	Cu	Pb	Zn	Ag	Au	CLASS
EAF9SC	97.2	99.2	1	12	25	50	1	.004	
EAF9SC	99.2	101.2							
			1	12	12	50	1	.004	
EAF9SC	101.2								
		103.7							
			1	12	25	100	1	.004	
EAF9SC	103.7								
		105.7							
			1	12	100	125	1	.004	
EAF9SC	105.7								
		107.7							
			1	12	125	250	1	.004	
EAF9SC	107.7								
		109.7							
			1	25	625	1250	1	.004	
EAF9SC	109.7								
		111.7							
			1	12	75	175	1	.004	
EAF9SC	111.7								
		113.7							
			1	12	425	875	1	.004	
EAF9SC	113.7								
		115.7							
			1	12	100	325	1	.004	
EAF9SC	115.7								
		117.7							
			1	12	150	525	1	.004	
EAF9SC	117.7								
		119.7							
			1	12	100	200	1	.004	
EAF9SC	119.7								
		121.7							
			1	12	50	200	1	.004	
EAF9SC	121.7								
		123.7							
			1	12	50	150	1	.004	
EAF9SC	123.7								
		125.7							
			1	12	12	25	1	.004	
EAF9SC	125.7								
		127.7							
			1	12	12	25	1	.004	
EAF9SC	127.7								
		129.7							
			1	12	12	75	1	.004	
EAF9SC	129.7								
		130.7							
			1	12	25	175	1	.004	
EAF9SC	130.7								
		131.7							
			1	12	200	650	1	.004	
EAF9SC	131.7								
		133	1	75	825	2000	4	.045	
EAF9SC	133	134	1	75	775	4475	2	.015	
EAF9SC	134	135	1	50	750	4075	2	.004	
EAF9SC	135	136	1	25	375	1575	1	.004	

EA99SC	169.6							
		170.6						
			1	1800	121500			
					303800			
						125	6.8	
EA99SC	170.6							
		171.6						
			1	17400				
					266600			
					330100			
						133	16.56	
EA99SC	171.6							
		173.1						
			1	17200				
					11200			
					47200			
						85	.82	
EA99SC	173.1							
		174.1						
			1	3900	1650	3075	32	.08
EA99SC	174.1							
		175.1						
			1	11900				
					2650	725	118	.11
EA99SC	175.1							
		176.1						
			1	3350	1275	700	65	.08
EA99SC	176.1							
		177.1						
			1	6200	1925	675	89	.05
EA99SC	177.1							
		178	1	6100	975	825	55	.03
EA99SC	178	178.95						
			1	5700	775	750	57	.03
EA99SC	178.95							
		179.95						
			1	5175	1600	900	106	.1
EA99SC	179.95							
		180.95						
			1	100	600	875	24	.04
EA99SC	180.95							
		181.82						
			1	9200	1100	1250	45	.04
EA99SC	181.82							
		182.82						
			1	5700	1000	2775	37	.03
EA99SC	182.82							
		183.82						
			1	6800	475	34900		
							19	.06
EA99SC	183.82							
		184.82						
			1	9000	500	101800		
							24	.11
EA99SC	184.82							
		185.82						
			1	9400	800	107000		
							32	.2
EA99SC	185.82							
		186.82						
			1	31000				
				1975	3025	60	.2	

EA99SC	186.82					
	187.82					
	1	3300	1150	19300	27	.09
EA99SC	187.82					
	188.82					
	1	7000	2100	46500	80	.11
EA99SC	188.82					
	190.12					
	1	2325	1025	19100	28	.06
EA99SC	190.12					
	191.02					
	1	1100	575	25300	16	.08
EA99SC	191.02					
	192.02					
	1	1350	725	63200	19	.13
EA99SC	192.02					
	193.02					
	1	1350	475	55000	16	.14
EA99SC	193.02					
	194.06					
	1	4250	1650	142000	30	.26
EA99SC	194.06					
	195.1					
	1	900	1700	44300	21	.11
EA99SC	195.1					
	196.2					
	1	475	825	27900	6	.16
EA99SC	196.2					
	197.3					
	1	2625	2075	66700	34	.11
EA99SC	197.3					
	198.3					
	1	8600	2475	84100	50	.07
EA99SC	198.3					
	199.3					
	1	1150	725	41800	5	.04
EA99SC	199.3					
	200.3					
	1	1350	850	41900	4	.04
EA99SC	200.3					
	201.35					
	1	1725	2150	31700	4	.08
EA99SC	201.35					
	201.9					
	1	600	1275	19100	6	.07

EA99SC	201.9									
	202.9									
		1	75	500	5400	1	.03	044		
EA99SC	202.9									
	203.9									
		1	250	200	12400					
						1	.004			
EA99SC	203.9									
	204.9									
		1	375	1025	5700	4	.07			
EA99SC	204.9									
	205.9									
		1	700	1050	5800	5	.004			
EA99SC	205.9									
	206.9									
		1	275	500	9900	1	.004			
EA99SC	206.9									
	207.9									
		1	525	425	18500					
						1	.02			
EA99SC	207.9									
	208.9									
		1	875	1250	36800					
						3	.06			
EA99SC	208.9									
	209.9									
		1	375	1125	23600					
						4	.06			
EA99SC	209.9									
	210.9									
		1	475	1000	10800					
						5	.02			
EA99SC	210.9									
	211.9									
		1	9300	2350	1600	40	.02			
EA99SC	211.9									
	212.9									
		1	725	275	350	6	.004			
EA99SC	212.9									
	213.9									
		1	1150	225	3625	5	.004			
EA99SC	213.9									
	214.9									
		1	1450	1350	8200	7	.02			
EA99SC	214.9									
	215.9									
		1	575	1025	11100					
						6	.02			
EA99SC	215.9									
	216.9									
		1	175	375	4700	3	.004			
EA99SC	216.9									
	217.9									
		1	25	175	525	2	.004			
EA99SC	217.9									
	218.9									
		1	200	175	1600	3	.004			
EA99SC	218.9									
	219.9									
		1	525	1550	3650	7	.01			
EA99SC	219.9									
	220.5									
		1	50	2625	1575	5	.004			

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045

EA99SC	220.5	221.5						
		1	525	2800	675	19	.02	
EA99SC	221.5	222.5						
		1	100	1200	300	4	.004	
EA99SC	222.5	223.5						
		1	50	125	175	1	.02	
EA99SC	223.5	224.5						
		1	25	75	200	1	.004	
EA99SC	224.5	225.5						
		1	25	100	150	2	.004	
EA99SC	225.5	226.5						
		1	24	50	125	1	.004	
EA99SC	226.5	227.5						
		1	25	200	200	1	.004	
EA99SC	227.5	228.5						
		1	20	90	75	1.5	.004	
EA99SC	228.5	229.5						
		1	20	170	255	1.5	.004	
EA99SC	229.5	230.5						
		1	25	150	480	1	.02	
EA99SC	230.5	231.5						
		1	30	60	160	1	.004	
EA99SC	231.5	232.5						
		1	45	55	280	1.5	.004	
EA99SC	232.5	233.5						
		1	15	35	125	1.5	.004	
EA99SC	233.5	234.5						
		1	65	75	375	1.5	.01	
EA99SC	234.5	235.5						
		1	45	75	585	1.5	.02	
EA99SC	235.5	236.5						
		1	100	360	545	2.5	.04	
EA99SC	236.5	237.5						
		1	40	1950	1300	4	.04	
EA99SC	237.5	238.5						
		1	35	2500	520	4.5	.05	
EA99SC	238.5	239.5						
		1	15	205	225	1	.01	
EA99SC	239.5	240.5						
		1	25	155	445	1.5	.02	
EA99SC	240.5	241.5						
		1	20	300	355	2	.06	

184047

046

EA99SC	241.5							
	242.5							
		1	25	340	500	2	.02	
EA99SC	242.5							
	243.5							
		1	30	210	220	1.5	.02	
EA99SC	243.5							
	244.5							
		1	20	95	285	.5	.004	
EA99SC	244.5							
	245.3							
		1	10	60	145	1	.004	
EA99SC	245.3							
	246.3							
		1	10	12	55	1	.004	
EA99SC	246.3							
	247.3							
		1	5	20	85	1	.004	
EA99SC	247.3							
	249	1	15	35	85	.5	.004	
EA99SC	249	251	1	12	12	65	1	.004
EA99SC	251	253	1	12	12	70	1	.004
EA99SC	253	255	1	5	45	90	1	.004
EA99SC	255	257	1	5	25	115	1	.29
EA99SC	257	259	1	5	40	85	1	.02
EA99SC	259	261	1	5	90	105	1	.02
EA99SC	261	262	1	5	105	130	1	.004
EA99CC	3	6.5	2	25	65	125	1	.006
EA99CC	6.5	12	2	5	65	55	1	.006
EA99CC	12	15	2	5	30	25	.5	.006
EA99CC	15	18	2	5	25	25	.5	.006
EA99CC	18	21	2	5	25	25	.2	.006
EA99CC	21	23	2	5	15	25	.2	.006
EA99CC	23	26	2	5	45	35	.5	.006
EA99CC	26	29	2	10	45	30	.05	.006
EA99CC	29	32	2	10	160	45	.5	.006
EA99CC	32	35	2	10	225	325	.5	.006
EA99CC	35	38	2	5	210	380	.2	.006
EA99CC	38	41	2	5	225	325	.5	.006
EA99CC	41	44	2	10	145	270	.5	.006
EA99CC	44	47	2	5	115	340	.5	.006
EA99CC	47	50	2	5	45	140	.2	.006
EA99CC	50	53	2	5	125	170	.5	.006
EA99CC	53	56	2	5	175	115	.5	.006
EA99CC	56	59	2	5	135	60	.2	.006
EA99CC	59	62	2	5	115	255	.2	.006
EA99CC	62	65.2	2	5	2	70	.2	.006
EA99CC	65.2	67	2	10	5	150	.2	.006
EA99CC	67	70	2	10	15	245	.2	.006
EA99CC	70	73	2	10	20	95	.5	.006
EA99CC	73	76	2	5	2	85	.2	.006
EA99CC	76	79	2	5	2	100	.5	.006
EA99CC	79	82	2	10	15	115	.5	.006
EA99CC	82	85	2	20	5	85	.2	.006
EA99CC	85	88	2	25	10	155	.2	.006
EA99CC	88	91	2	5	2	70	.2	.006
EA99CC	91	94	2	5	5	105	.2	.006
EA99SL	0	2.6	4	15	40	55	.2	.006
EA99SL	2.6	5.6	4	30	80	110	.2	.006
EA99SL	5.6	8.6						
			4	15	35	55	.2	.006

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EAF9SL

8.6

047

EAF9SL	11.6	14.6	4	10	35	45	.2	.006
EAF9SL	14.6	17.6	4	10	35	35	.2	.006
EAF9SL	17.6	20.6	4	30	30	50	.2	.006
EAF9SL	20.6	23.6	4	25	30	40	.2	.006
EAF9SL	23.6	26.6	4	10	20	25	.2	.006
EAF9SL	26.6	29.6	4	10	25	35	.2	.006
EAF9SL	29.6	32.6	4	10	40	30	.2	.006
EAF9SL	32.6	35.6	4	15	65	45	.2	.006
EAF9SL	35.6	41.6	4	20	95	60	.2	.006
EAF9SL	41.6	44.6	4	25	120	230	.2	.006
EAF9SL	44.6	50.6	4	25	145	385	.2	.006
EAF9CC	94	97.2	2	35	170	740	.2	.006
				35	10	95	.2	.01

DATA MATRIX

FILENAME A:EAF10.DDH

048

	FROM	TO	METH	Cu	Pb	Zn	Ag	Au	CLASS
EAF10SC	78	79	1	25	150	525	1	.004	
EAF10SC	79	80	1	25	225	300	1	.004	
EAF10SC	80	81	1	50	1300	1300	1	.004	
EAF10SC	81	82	1	25	325	675	1	.004	
EAF10SC	82	83	1	25	150	375	1	.004	
EAF10SC	83	84	1	25	200	775	1	.004	
EAF10SC	84	85	1	25	250	575	1	.004	
EAF10SC	85	86	1	25	175	350	1	.004	
EAF10SC	86	87	1	25	75	225	1	.004	
EAF10SC	87	88	1	75	250	550	1	.004	
EAF10SC	88	89	1	25	800	1700	1	.004	
EAF10SC	89	90	1	25	475	4300	1	.004	
EAF10SC	90	91	1	25	150	3250	1	.004	
EAF10SC	91	92	1	25	100	1425	1	.004	
EAF10SC	92	93	1	25	100	1200	1	.004	
EAF10SC	93	94	1	50	225	2850	1	.01	
EAF10SC	94	95	1	50	200	2150	1	.04	
EAF10SC	95	96	1	50	125	1425	1	.02	
EAF10SC	96	97	1	50	325	2250	1	.02	
EAF10SC	97	98	1	500	1375	7700	1	.14	
EAF10SC	98	99	1	40500					
					63900				
						357100			
							281	4.3	
EAF10SC	99	100	1	22400					
					81400				
						368200			
							200	1.63	
EAF10SC	100	101	1	1800	33600				
						65600			
							44	1.23	
EAF10SC	101	102	1	350	3125	6800	2	.07	
EAF10SC	102	103	1	1525	20800				
						36800			
							31	.66	
EAF10SC	103	104	1	1950	4775	15200			
							16	.18	
EAF10SC	104	105	1	925	1775	8700	10	.16	
EAF10SC	105	106	1	1800	8000	27100			
							26	.21	
EAF10SC	106	107	1	3475	8200	61100			
							37	.32	
EAF10SC	107	108	1	3650	1800	41900			
							23	.15	
EAF10SC	108	109	1	9000	725	67900			
							18	.17	
EAF10SC	109	110	1	3200	1600	26500			
							36	.73	
EAF10SC	110	111	1	3650	900	34100			
							31	.44	
EAF10SC	111	112	1	9400	850	14600			
							23	.12	
EAF10SC	112	113	1	17200					
					2550	71800			
							50	.47	

EAFL0SC	113	114	1	19000	1850	123900		
						45	.33	
EAFL0SC	114	115	1	14700	8000	122000		
						68	.43	
EAFL0SC	115	116	1	10500	3225	104500		
						37	.25	
EAFL0SC	116	117	1	75	150	950	1	.004
EAFL0SC	117	118	1	50	150	925	1	.004
EAFL0SC	118	119	1	25	100	525	1	.004
EAFL0SC	119	120	1	25	75	250	27	.004
EAFL0SC	120	121	1	25	50	250	1	.004
EAFL0SC	121	122	1	25	125	375	1	.004
EAFL0SC	122	123	1	25	125	800	1	.004
EAFL0SC	123	124	1	25	275	1900	1	.004
EAFL0SC	124	125	1	25	600	1450	1	.004
EAFL0SC	125	126	1	25	525	1050	1	.004
EAFL0SC	126	127	1	25	325	725	1	.004
EAFL0SC	127	128	1	25	400	925	1	.004
EAFL0SC	128	129	1	25	400	700	1	.04
EAFL0SC	129	130	1	25	225	725	1	.004
EAFL0SC	130	131	1	25	450	700	1	.004
EAFL0SC	131	132	1	25	200	825	1	.004
EAFL0SC	132	133	1	25	275	775	1	.004
EAFL0SC	133	134	1	25	275	1125	1	.01
EAFL0SC	134	135	1	50	1000	4450	1	.12
EAFL0SC	135	136	1	75	1325	3900	1	.04
EAFL0SC	136	137	1	650	1225	9200	1	.06
EAFL0SC	137	138	1	3425	525	50100	1	.08
EAFL0SC	138	139	1	9300	575	130500	5	.08
EAFL0SC	139	140	1	2600	1350	77600	7	.27
EAFL0SC	140	141	1	1700	8700	33800	8	.11
EAFL0SC	141	142	1	400	1275	3250	1	.04
EAFL0SC	142	143	1	200	1625	2150	1	.06
EAFL0SC	143	144	1	125	1525	2550	1	.09
EAFL0SC	144	145	1	450	1700	4225	1	.08
EAFL0SC	145	146	1	75	475	1275	1	.11
EAFL0SC	146	147	1	50	250	900	1	.03
EAFL0SC	147	148	1	50	225	1025	1	.004
EAFL0SC	148	149	1	25	100	600	1	.004
EAFL0SC	149	150	1	25	100	475	1	.004
EAFL0SC	150	151	1	25	100	550	1	.004
EAFL0SC	151	152	1	25	50	550	1	.004
EAFL0SC	152	153	1	25	125	700	1	.004
EAFL0SC	193	194.1	1	75	75	200	1	.01
EAFL0SC	194.1	195.1	1	100	675	2475	6	.09
EAFL0SC	195.1	197	1	100	1300	8100	8	.13
EAFL0SC	197	199	1	325	875	10400	4	.17
EAFL0SC	199	201	1	450	575	8400	3	.09

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EAFL0SC	201	203	1	425	250	1275	2	.07
EAFL0SC	203	205	1	2125	575	12200		
							6	.08
EAFL0SC	205	207	1	1075	175	3850	4	.07
EAFL0SC	207	209	1	125	125	3850	1	.05
EAFL0SC	209	211	1	100	400	3850	1	.06
EAFL0SC	211	213	1	300	850	4450	1	.05
EAFL0SC	213	215	1	275	1175	8300	1	.03
EAFL0SC	215	217	1	750	1625	6200	5	.05
EAFL0SC	217	219	1	775	1850	10200		
							7	.07
EAFL0SC	219	221	1	1000	2000	8700	18	.01
EAFL0SC	221	223	1	475	800	2750	5	.02
EAFL0SC	223	225	1	125	525	1050	1	.01
EAFL0SC	225	227	1	200	1250	5150	1	.05
EAFL0SC	227	229	1	475	3100	10100		
							1	.09
EAFL0SC	229	231	1	500	2700	6600	2	.04
EAFL0SC	231	233	1	400	1625	7500	3	.05
EAFL0SC	233	235	1	300	1000	8700	1	.03
EAFL0SC	235	236.7						
			1	275	525	6500	2	.01
EAFL0SC	236.7							
			238.7					
			1	150	400	1800	2	.06
EAFL0CC	0	6	2	5	25	35	.2	.006
EAFL0CC	6	12	2	5	30	55	.5	.01
EAFL0CC	12	18	2	5	50	80	.2	.01
EAFL0CC	18	21	2	5	65	75	.2	.006
EAFL0CC	21	24	2	10	60	75	.2	.006
EAFL0CC	24	27	2	5	110	85	.2	.006
EAFL0CC	27	30	2	5	130	65	.2	.006
EAFL0CC	30	33	2	10	110	70	.2	.006
EAFL0CC	33	36	2	5	105	75	.2	.006
EAFL0CC	36	39	2	5	105	100	.2	.006
EAFL0CC	39	42	2	10	45	165	.2	.01
EAFL0CC	42	45	2	5	15	190	.2	.01
EAFL0CC	45	48	2	5	50	150	.2	.006
EAFL0CC	48	51	2	20	165	150	.2	.006
EAFL0CC	51	54	2	15	20	100	.2	.006
EAFL0CC	54	57	2	10	20	100	.2	.006
EAFL0CC	57	60	2	35	25	120	.2	.006
EAFL0CC	60	63	2	5	35	150	.2	.006
EAFL0CC	63	66	2	5	90	130	.2	.006
EAFL0CC	66	69	2	5	220	300	.2	.006
EAFL0CC	69	72	2	10	50	100	.2	.006
EAFL0CC	72	75	2	5	15	85	.2	.006
EAFL0CC	75	78	2	5	25	120	.2	.006
EAFL0CC	153	156	2	15	55	130	.5	.006
EAFL0CC	156	159	2	15	20	80	.5	.006
EAFL0CC	159	162	2	15	30	100	.5	.006
EAFL0CC	162	165	2	35	40	115	.2	.006
EAFL0CC	165	168	2	80	45	250	.2	.006
EAFL0CC	168	171	2	25	40	105	.2	.006
EAFL0CC	171	174	2	20	15	55	.2	.006
EAFL0CC	174	177	2	10	10	45	.5	.006
EAFL0CC	177	180	2	5	15	160	.5	.006
EAFL0CC	180	183	2	5	15	65	.2	.006
EAFL0CC	183	186	2	5	15	75	.2	.01
EAFL0CC	186	189	2	5	95	210	.5	.006

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FAF10CC	189	192	2	40	35	70	.5	.006
FAF10CC	192	193	2	140	35	80	.5	-1
FAF10CC	238.7							
		241	2	35	160	330	.5	.02
FAF10CC	241	244	2	30	30	95	.5	.006
FAF10CC	244	247	2	20	50	95	.5	.006
FAF10CC	247	250	2	35	75	340	.5	.01
FAF10CC	250	253	2	15	45	170	.5	.006
FAF10CC	253	256	2	5	10	55	.2	.006
FAF10SL	0	3	4	5	5	15	.2	.03
FAF10SL	3	5.6	4	5	2	15	.2	.006
FAF10SL	5.6	8.6						
			4	20	20	50	.2	.006
FAF10SL	8.6							
		11.6	4	20	25	45	1	.006
FAF10SL	11.6	14.6	4	30	40	60	1	.006
FAF10SL	14.6	17.6	4	25	25	65	.5	.006
FAF10SL	17.6	20.6	4	25	30	70	.5	.006
FAF10SL	20.6	23.6	4	20	15	45	.5	.006
FAF10SL	23.6	26.6	4	25	45	70	.5	.006
FAF10SL	26.6	29.6	4	35	75	90	.5	.006
FAF10SL	29.6	32.6	4	40	75	100	.2	.006
FAF10SL	32.6	35.6	4	30	55	85	.2	.006
FAF10SL	39.6	41.6	4	35	45	95	.2	.006
FAF10SL	44.6	47.6	4	25	30	65	.5	.006
FAF10SL	47.6	50.6	4	35	65	160	.5	.006

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DATA MATRIX

FILENAME A: EAF11.DDH

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	FROM	TO	METH	Cu	Pb	Zn	Ag	Au	CLASS
EAF11SC	154	155	1	25	125	175	1	.004	
EAF11SC	155	156	1	25	125	375	1	.004	
EAF11SC	156	157	1	50	125	450	1	.004	
EAF11SC	157	158	1	25	100	375	1	.004	
EAF11SC	158	159	1	12	75	275	2	.004	
EAF11SC	159	160	1	12	50	100	1	.004	
EAF11SC	160	161	1	12	50	100	1	.004	
EAF11SC	161	162	1	12	50	150	1	.004	
EAF11SC	162	163	1	12	25	100	1	.004	
EAF11SC	163	164	1	12	50	175	1	.004	
EAF11SC	164	165	1	12	75	300	2	.004	
EAF11SC	165	166	1	12	25	100	3	.004	
EAF11SC	166	167	1	12	25	50	2	.004	
EAF11SC	167	168	1	12	150	225	2	.004	
EAF11SC	168	169	1	25	125	75	1	.004	
EAF11SC	169	170	1	50	25	75	2	.004	
EAF11SC	170	171	1	50	100	100	1	.004	
EAF11SC	171	172	1	50	75	75	1	.004	
EAF11SC	172	173	1	50	75	100	1	.004	
EAF11SC	198	199	1	12	175	150	2	.004	
EAF11SC	199	200	1	12	625	425	1	.004	
EAF11SC	200	201	1	12	725	425	2	.004	
EAF11SC	201	202	1	12	575	575	3	.004	
EAF11SC	202	203	1	25	575	1075	1	.004	
EAF11SC	203	204	1	25	1750	4225	6	.004	
EAF11SC	204	205	1	50	3650	8000	6	.02	
EAF11SC	205	206	1	50	7000	11900			
							9	.03	
EAF11SC	206	207	1	50	1325	7600	2	.004	
EAF11SC	207	208	1	25	775	7900	1	.004	
EAF11SC	208	209	1	25	1525	2850	2	.004	
EAF11SC	209	210	1	25	1175	3625	3	.004	
EAF11SC	210	211	1	50	425	4300	5	.004	
EAF11SC	211	212	1	50	375	10100			
							4	.01	
EAF11SC	212	213	1	200	475	2650	5	.01	
EAF11SC	213	214	1	400	1600	7900	9	.14	
EAF11SC	214	215	1	50	1125	4400	4	.17	
EAF11SC	215	216	1	100	2475	12300			
							2	.04	
EAF11SC	216	217	1	125	4050	12400			
							4	.02	
EAF11SC	217	218	1	6100	69100				
						57700			
							26	.03	
EAF11SC	218	219	1	6100	61800				
						61000			
							21	.03	
EAF11SC	219	220	1	600	10000				
						11500			
							17	.07	
EAF11SC	220	221	1	350	3475	7200	6	.03	
EAF11SC	221	222	1	50	1150	1825	2	.03	
EAF11SC	222	223	1	250	2850	6500	3	.03	
EAF11SC	223	224	1	50	400	1650	1	.004	
EAF11SC	224	225	1	25	300	325	1	.004	
EAF11SC	225	226	1	25	1225	2975	1	.004	
EAF11SC	226	227	1	12	200	375	1	.004	
EAF11SC	227	228	1	25	100	675	1	.004	

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EA111SC	228	229	1	25	125	450	1	.004
EA111SC	229	230	1	12	75	100	1	.004
EA111SC	230	231	1	25	75	225	1	.004
EA111SC	231	232	1	75	100	150	1	.004
EA111SC	232	233	1	50	100	75	1	.004
EA111SC	233	234	1	25	50	175	1	.04
EA111SC	234	235	1	75	50	175	2	.01
EA111SC	235	237	1	50	50	125	1	.004
EA111SC	237	239	1	25	75	275	1	.004
EA111SC	239	241	1	25	75	200	1	.01
EA111SC	241	243	1	12	25	250	1	.004
EA111SC	243	245	1	12	50	200	1	.004
EA111SC	245	247.33						
			1	25	12	275	1	.004
EA111SC	279.6							
		280.6						
			1	12	75	475	1	.004
EA111SC	280.6							
		281.6						
			1	12	100	650	1	.01
EA111SC	281.6							
		282.6						
			1	12	100	450	1	.004
EA111SC	282.6							
		283.6						
			1	12	75	475	1	.004
EA111SC	283.6							
		284.6						
			1	25	75	300	1	.004
EA111SC	284.6							
		285.6						
			1	12	250	350	1	.004
EA111SC	285.6							
		286.6						
			1	12	200	150	1	.004
EA111SC	286.6							
		287.6						
			1	12	525	400	1	.004
EA111SC	287.6							
		288.6						
			1	12	275	300	1	.004
EA111CC	55	58	2	5	20	260	.2	.006
EA111CC	58	61	2	5	80	335	1	.006
EA111CC	61	64	2	5	75	800	.5	.006
EA111CC	64	67	2	5	120	475	.5	.02
EA111CC	67	70	2	5	100	175	.2	.006
EA111CC	70	73	2	5	75	205	.5	.006
EA111CC	73	76	2	5	35	165	.5	.006
EA111CC	76	79	2	50	230	455	.5	.01
EA111CC	79	82	2	5	85	175	.5	.006
EA111CC	82	85	2	5	125	675	.2	.006
EA111CC	85	88	2	5	150	350	1	.01
EA111CC	88	91	2	2	50	150	.2	.006
EA111CC	247.33							
		250.33						
			2	85	395	290	.5	.006
EA111CC	250.33							
		253.33						
			2	5	240	150	.5	.006
EA111CC	253.33							
		256.33						
			2	5	125	160	.5	.006

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EA111CC	256.33						
	259.33	2	25	115	390	.5	.006
EA111CC	259.33						
	262.33	2	2	125	150	.5	.006
EA111CC	262.33						
	265.33	2	25	40	450	.5	.006
EA111SC	288.6						
	289.6	1	25	12	100	1	.02
EA111SC	289.6						
	290.6	1	75	12	925	1	.004
EA111SC	290.6						
	291.6	1	12	25	125	1	.004
EA111SC	291.6						
	292.6	1	12	12	125	1	.02
EA111SC	292.6						
	293.6	1	12	25	425	1	.004
EA111SC	293.6						
	294.6	1	12	225	900	1	.01
EA111SC	294.6						
	295.6	1	12	75	200	1	.02
EA111SC	295.6						
	296.6	1	12	12	600	1	.02
EA111SC	296.6						
	297.6	1	12	600	4425	1	.004
EA111SC	297.6						
	298.6	1	12	675	4350	1	.004
EA111SC	298.6						
	299.6	1	215	50	100	1	.01
EA111SC	299.6						
	302.6	1	15	145	195	1	.01
EA111SC	302.6						
	305.6	1	25	65	200	.5	.004
EA111SC	305.6						
	308.6	1	240	10	250	1	.03
EA111SC	308.6						
	311.6	1	15	10	75	1	.004
EA111SC	311.6						
	313.6	1	10	12	50	1	.004

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184056

DATA MATRIX

055

FILENAME A:EAF12.DDH

	FROM	TO	METH	Cu	Pb	Zn	Ag	Au	CLASS
EAF12SC	47.7	48.7	1	15	185	55	.2	.004	
EAF12SC	48.7	49.7	1	20	120	50	.2	.01	
EAF12SC	49.7	50.7	1	180	235	155	6	.04	
EAF12SC	50.7	51.7	1	225	420	110	1	.01	
EAF12SC	51.7	52.7	1	20	575	190	.2	.004	
EAF12SC	52.7	53.7	1	60	1275	600	5	.06	
EAF12SC	53.7	54.7	1	60	980	320	4	.02	
EAF12SC	54.7	55.7	1	50	895	85	.2	.004	
EAF12SC	55.7	56.7	1	20	950	80	.2	.01	
EAF12SC	56.7	57.7	1	10	175	85	.2	.01	
EAF12SC	57.7	58.7	1	10	635	575	.2	.02	
EAF12SC	140.5	142.5							
			1	15	180	320	.5	.01	
EAF12SC	142.5	144.5							
			1	20	150	625	1.5	.01	
EAF12SC	144.5	146.5							
			1	15	85	170	.2	.01	
EAF12SC	146.5	148.5							
			1	10	80	145	.2	.02	
EAF12SC	148.5	150.5							
			1	20	155	1600	.2	.11	
EAF12SC	150.5	152.5							
			1	35	250	1000	.2	.11	
EAF12SC	152.5	154.5							
			1	15	190	335	.2	.03	
EAF12SC	154.5	156.4							
			1	10	105	210	.2	.004	
EAF12SC	156.4	157.4							
			1	650	395	575	4	.04	
EAF12SC	157.4	158.4							
			1	1300	1950	7800	15.5	.23	
EAF12SC	158.4	159.4							
			1	35	350	605	4	.08	
EAF12SC	159.4	160.4							
			1	40	305	160	4	.06	
EAF12SC	160.4	161.4							
			1	35	365	1450	3.5	.04	
EAF12SC	161.4	162.4							
			1	180	1250	2450	4.5	.16	
EAF12SC	162.4	163.4							
			1	290	1575	6000	8.5	.22	
EAF12SC	163.4	164.4							
			1	25	370	400	2	.14	

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EA12SC	164.4								
	165.4	1	15	145	245	.2	.06	056	
EA12SC	165.4								
	167.2	1	15	140	440	.2	.02		
EA12SC	208.85								
	209.85	1	15	90	340	.2	.004		
EA12SC	209.85								
	210.85	1	10	25	235	.2	.004		
EA12SC	210.85								
	211.85	1	15	105	1000	.2	.004		
EA12SC	211.85								
	212.85	1	20	310	1800	1.5	.004		
EA12SC	212.85								
	213.85	1	20	330	990	3	.01		
EA12SC	213.85								
	214.85	1	75	320	575	5	.09		
EA12SC	214.85								
	215.85	1	30	85	840	1.5	.03		
EA12SC	215.85								
	216.85	1	40	145	3250	1	.01		
EA12SC	216.85								
	217.85	1	310	445	6400	1	.004		
EA12SC	217.85								
	218.85	1	175	120	6700	1	.01		
EA12SC	218.85								
	219.85	1	35	50	3000	1	.004		
EA12SC	219.85								
	220.85	1	35	100	50	4	.11		
EA12SC	220.85								
	221.85	1	30	200	255	5.5	.14		
EA12SC	221.85								
	222.85	1	90	565	2950	7.5	.23		
EA12SC	222.85								
	223.85	1	75	75	2650	2.5	.05		
EA12SC	223.85								
	224.85	1	70	95	2750	2.5	.09		
EA12SC	224.85								
	225.85	1	300	800	6300	5	.03		
EA12SC	225.85								
	226.85	1	15	160	1050	.2	.004		

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EA12SC	226.85						
	227.85						
	1	10	170	1200	.2	.03	
EA12SC	227.85						
	228.85						
	1	10	100	840	.2	.02	
EA12SC	228.85						
	229.85						
	1	30	465	3750	2.5	.05	
EA12SC	229.85						
	230.85						
	1	30	1050	3100	3	.05	
EA12SC	230.85						
	231.85						
	1	40	550	3000	3.5	.05	
EA12SC	231.85						
	232.85						
	1	25	1450	4150	2	.01	
EA12SC	232.85						
	233.85						
	1	10	125	435	.2	.03	
EA12SC	233.85						
	234.85						
	1	10	90	255	.2	.01	
EA12SC	263.8						
	264.8						
	1	5	30	135	.2	.004	
EA12SC	264.8						
	266.8						
	1	30	225	590	.2	.02	
EA12SC	266.8						
	268.8						
	1	10	170	470	1.5	.13	
EA12SC	268.8						
	270.8						
	1	10	125	180	.5	.07	

057

184059

DATA MATRIX

058

	FROM	TO	METH	Cu	Pb	Zn	Ag	Au	CLASS
EAFF13SC	33.6	34.6	1	12	1400	1050	4	.004	
EAFF13SC	34.6	35.6	1	25	925	3100	6	.004	
EAFF13SC	35.6	36.6	1	25	250	325	2	.004	
EAFF13SC	65.8	67.8	1	25	375	200	1	.004	
EAFF13SC	67.8	69.8	1	200	1275	4425	6	.07	
EAFF13SC	69.8	71.8	1	75	6200	11800			
							7	.05	
EAFF13SC	71.8	73.8	1	50	2075	4500	3	.04	
EAFF13SC	73.8	75.8	1	75	2050	7100	4	.05	
EAFF13SC	75.8	77.8	1	75	750	3800	4	.03	
EAFF13SC	77.8	79.8	1	900	350	28300			
							4	.05	
EAFF13SC	79.8	81.8	1	300	650	13000			
							7	.06	
EAFF13SC	81.8	83.8	1	50	400	7000	3	.01	
EAFF13SC	83.8	85.8	1	100	850	5800	4	.01	
EAFF13SC	85.8	87.8	1	100	225	8400	5	.004	
EAFF13SC	87.8	89.8	1	100	275	3100	5	.02	
EAFF13SC	89.8	91.8	1	100	300	9900	3	.01	
EAFF13SC	91.8	93.8	1	475	425	48700			
							6	.05	
EAFF13SC	93.8	95.8	1	600	500	16900			
							4	.05	
EAFF13SC	95.8	97.8	1	75	600	11400			
							6	.04	
EAFF13SC	97.8	99.8	1	75	850	2375	2	.02	
EAFF13SC	99.8	101.8							
			1	25	1900	4175	4	.01	
EAFF13SC	101.8								
		103.8							
			1	100	550	4325	2	.02	
EAFF13SC	103.8								
		105.8							
			1	250	3850	15600			
							5	.04	
EAFF13SC	105.8								
		107.8							
			1	100	1250	4400	3	.02	
EAFF13SC	107.8								
		109.8							
			1	75	1500	2450	4	.01	
EAFF13SC	110	112.6							
			1	275	350	6200	1	.004	
EAFF13SC	112.6								
		114	1	350	300	11100			
							2	.004	
EAFF13SC	114	116	1	150	300	8700	2	.017	
EAFF13SC	116	118	1	525	1300	38200			
							6	.05	
EAFF13SC	118	120	1	900	1150	33900			
							8	.117	
EAFF13SC	120	122	1	1825	850	6100	7	.032	
EAFF13SC	122	124	1	3250	1175	5500	21	.05	
EAFF13SC	124	126	1	175	225	1300	1	.004	
EAFF13SC	126	128	1	125	200	1125	2	.004	
EAFF13SC	128	130	1	1150	425	5300	4	.004	

Model	Year	Price	MPG	Weight	Engine	Transmission	Drivetrain	Options	Notes
FAF 13SC	130	132	1	75	725	7500	5	.767	
FAF 13SC	132	134	1	25	975	7000	3	.567	
FAF 13SC	134	135	1	150	750	12700			
							6	.032	
FAF 13SC	135	136	1	2875	1550	19200			
							29	.1	
FAF 13SC	136	137	1	2500	1075	1300	23	.342	
FAF 13SC	137	138	1	10100					
					1325	3300	30	.217	
FAF 13SC	138	139	1	3900	1000	350	28	.133	
FAF 13SC	139	140	1	4950	2900	4000	77	.117	
FAF 13SC	140	141	1	1350	5500	16500			
							35	.1	
FAF 13SC	141	142	1	10900					
					8700	15700			
							86	.032	
FAF 13SC	142	143	1	850	2875	5300	29	.008	
FAF 13SC	143	144	1	75	2150	3000	2	.025	
FAF 13SC	144	146	1	15	145	1400	1	.13	
FAF 13SC	146	148	1	250	1275	3950	4.5	.03	
FAF 13SC	148	150	1	30	2100	1950	3	.04	
FAF 13SC	150	152	1	55	965	4250	3	.03	
FAF 13SC	152	154	1	20	175	615	1	.02	
FAF 13SC	154	156	1	75	375	1200	2	.006	
FAF 13SC	156	158	1	30	275	915	1	.02	
FAF 13SC	158	160	1	45	1300	2200	1.5	.02	
FAF 13SC	160	162	1	55	200	955	1.5	.02	
FAF 13SC	164	166	1	20	420	700	1.5	.05	
FAF 13SC	176.7								
		178.7							
			1	5	80	465	.2	.01	
FAF 13SC	178.7								
		181.7							
			1	15	390	1350	1.5	.02	
FAF 13SC	181.7								
		183.4							
			1	20	550	1800	2	.05	
FAF 13SC	183.4								
		184	1	45	440	4150	1	.01	
FAF 13SC	184	187	1	15	225	1500	.5	.006	
FAF 13SC	187	190	1	60	395	1150	1.5	.02	
FAF 13SC	190	193	1	175	500	1700	3.5	.04	
FAF 13SC	193	196	1	30	365	1350	2	.05	
FAF 13SC	196	199	1	360	225	4100	2.5	.006	
FAF 13SC	199	202.55							
			1	125	170	2300	2.5	.01	
FAF 13SC	202.55								
		205.55							
			1	40	75	805	1	.01	

184061

EA113SC 212.9

214.6

1

30

200

720

.5

.006

060

EA113SC 214.6

216.6

1

20

290

525

1

.03

EA113SC 216.6

218.6

1

10

225

735

.5

.01

EA113CC 166

169

2

10

65

285

.2

.006

EA113CC 169

172

2

15

50

290

.5

.02

EA113CC 172

175

2

15

75

495

.5

.01

EA113CC 175

176.7

2

5

55

270

.5

.03

184062

DATA MATRIX

061

FILENAME A: EAF14.DDH

	FROM	TO	METH	Cu	Pb	Zn	Ag	Au	CLASS
EAF14SC	112.3	113.2							
			1	10	10	50	.2	.006	
EAF14SC	113.2	116	1	10	195	180	.5	.01	
EAF14SC	116	119	1	10	135	195	.2	.006	
EAF14SC	119	122	1	10	75	170	.2	.01	
EAF14SC	122	125	1	25	565	2150	2	.01	
EAF14SC	125	128	1	40	515	6000	1.5	.006	
EAF14SC	128	131	1	85	1300	3350	2.5	.006	
EAF14SC	131	134	1	130	760	2350	2.5	.006	
EAF14SC	134	137	1	115	1000	3200	2.5	.006	
EAF14SC	137	139.4							
			1	150	1800	4300	3	.01	
EAF14SC	139.4	142	1	25	220	1400	.5	.006	
EAF14SC	142	145	1	15	55	275	.2	.006	
EAF14SC	145	146.7							
			1	10	15	120	.2	.006	
EAF14SC	179.6	181.6							
			1	30	20	150	.2	.006	
EAF14SC	181.6	184.6							
			1	20	185	425	.2	.006	
EAF14SC	184.6	187	1	50	125	550	.2	.006	
EAF14SC	187	190	1	20	160	480	.5	.01	
EAF14SC	190	192	1	40	310	1250	1.5	.02	
EAF14SC	192	194	1	30	470	1850	3	.03	
EAF14SC	194	196	1	75	555	2300	2.5	.02	
EAF14SC	196	197.2							
			1	85	565	2100	5.5	.03	
EAF14SC	197.2	198	1	125	1750	5100	7	.033	
EAF14SC	198	199	1	12100					
					300	1000	17	.05	
EAF14SC	199	200	1	4275	100	6300	16	.017	
EAF14SC	200	201	1	25	12	100	4	.017	
EAF14SC	201	202	1	50	50	575	4	.008	
EAF14SC	202	203	1	50	50	275	5	.025	
EAF14SC	203	204	1	50	12	175	5	.033	
EAF14SC	204	205	1	25	25	175	4	.05	
EAF14SC	205	206	1	450	50	100	5	.033	
EAF14SC	206	207	1	25	75	200	6	.033	
EAF14SC	207	207.9							
			1	50	12	1475	4	.008	
EAF14SC	207.9	209	1	100	100	725	6	.033	
EAF14SC	209	210	1	25	50	75	5	.017	
EAF14SC	210	211	1	12	100	150	6	.017	
EAF14SC	211	212	1	25	100	375	8	.017	
EAF14SC	212	213	1	50	400	300	5	.032	
EAF14SC	213	214	1	275	750	225	13	.017	
EAF14SC	214	215	1	100	2450	400	49	.032	
EAF14SC	215	216	1	50	550	75	5	.017	
EAF14SC	216	217	1	575	425	450	5	.05	

EAFL4SC	217	218	1	3350	1750	700	28	.067
EAFL4SC	218	219	1	350	4575	10200		
							2	.033
EAFL4SC	219	220	1	1100	1175	3425	6	.117
EAFL4SC	220	221	1	1000	1125	2550	13	.017
EAFL4SC	221	222	1	200	15100			
						6300	5	.042
EAFL4SC	222	223	1	50	1450	1150	1	.008
EAFL4SC	223	224	1	4375	1050	1700	20	.058
EAFL4SC	224	225	1	15100				
					750	525	35	.222
EAFL4SC	225	226	1	8900	1675	1000	66	.292
EAFL4SC	226	227	1	1675	775	175	31	.025
EAFL4SC	227	228.6						
			1	1925	600	700	18	.017
EAFL4SC	228.6							
		229.6						
			1	50	75	125	1	.004
EAFL4SC	229.6							
		231	1	75	50	125	1	.004
EAFL4SC	231	233	1	200	25	325	1	.004
EAFL4SC	233	235	1	725	50	350	1	.004
EAFL4SC	235	237	1	100	100	475	1	.004
EAFL4SC	237	239.6						
			1	75	75	150	1	.004
EAFL4SC	239.6							
		241	1	400	250	300	7	.05
EAFL4SC	241	243	1	3725	250	750	20	.058
EAFL4SC	243	245	1	375	250	550	1	.017
EAFL4SC	245	247	1	6600	500	650	26	.017
EAFL4SC	247	248.2						
			1	8500	575	375	41	.025
EAFL4SC	248.2							
		250	1	550	4525	7500	4	.05
EAFL4SC	250	252	1	300	14900			
						5500	6	.367
EAFL4SC	252	254	1	200	11200			
						2475	5	.25
EAFL4SC	254	256	1	1750	4600	32600		
							6	.05
EAFL4SC	256	258	1	300	6400	4225	1	.15
EAFL4SC	258	260	1	125	9900	2975	1	.092
EAFL4SC	260	262	1	100	8800	3225	1	.042
EAFL4SC	262	264	1	100	7600	3625	1	.032
EAFL4SC	264	266	1	475	12400			
						3650	5	.017
EAFL4SC	266	268	1	550	12900			
						5900	13	.017
EAFL4SC	268	270	1	50	11500			
						29100		
							1	.117
EAFL4SC	270	272.5						
			1	425	6800	13200		
							11	.017
EAFL4SC	272.5							
		274.5						
			1	725	1625	2750	4	.017
EAFL4SC	274.5							
		277	1	300	1650	1850	2.5	.01
EAFL4SC	277	280	1	85	490	1200	1.5	.02

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125	2850	2250	5	.02
1	282.7	283.7	1	
20	75	60	.2	.006
1	287.6	290.6	1	
115	2500	1300	5	.04
1	290.6	293.6	1	
90	4650	7450	2	.01
1	293.6	296.6	1	
85	6400	3300	2	.02
1	296.6	299.6	1	
75	1150	4300	1	.02
1	299.6	300.9	1	
180	420	955	1	.006
1	300.9	302.9	1	
175	3250	13500	2	.09
1	302.9	306	1	
100	745	940	4.5	.02
1	306	309	1	
50	1300	370	.2	.03
1	309	312	1	
55	930	605	.5	.09
1	312	315	1	
55	185	705	.5	.01
1	315	318	1	
40	175	2550	.5	.02
1	318	321	1	
30	150	2250	.2	.01
1	321	324	1	
45	105	2600	.5	.09
1	324	327	1	
10	20	210	.5	.02
1	327	329	1	
10	15	145	.2	.07
1	329	330	1	
10	15	175	.2	.006
1	330	330.7	1	
25	15	235	.5	.006
1	330.7	331.7	1	
10	5	45	.2	.006

DATA MATRIX

064

FILENAME A:EAF15.DDH

	FROM	TO	METH	Cu	Pb	Zn	Ag	Au	CLASS
EAF15SC	18.5	20.5	1	550	3250	875	1	.025	
EAF15SC	20.5	22.5	1	1750	4500	1500	6	.032	
EAF15SC	22.5	25	1	325	5800	2950	2	.083	
EAF15SC	25	26	1	1250	1475	83000			
							16	.025	
EAF15SC	26	27	1	425	11900				
						62700			
							5	.042	
EAF15SC	27	28	1	275	18300				
						33300			
							6	.032	
EAF15SC	28	29	1	225	28700				
						28500			
							9	.05	
EAF15SC	29	30	1	100	15000				
						7500	3	.032	
EAF15SC	30	31	1	125	31800				
						13600			
							7	.017	
EAF15SC	31	32	1	175	49000				
						7600	10	.008	
EAF15SC	32	33	1	75	7500	21300			
							3	.008	
EAF15SC	33	34.5	1	25	14500				
						15700			
							4	.004	
EAF15SC	34.5	35.5	1	12	1100	9600	3	.004	
EAF15SC	35.5	36.5	1	12	625	10600			
							1	.004	
EAF15SC	36.5	37.5	1	12	900	13700			
							1	.004	
EAF15SC	37.5	38.7	1	12	2200	25600			
							1	.004	
EAF15SC	38.7	39	1	150	24100				
						89500			
							41	.004	
EAF15SC	39	40	1	25	38900				
						80300			
							12	.008	
EAF15SC	40	41	1	12	7100	39100			
							5	.025	
EAF15SC	41	42	1	12	8800	26500			
							4	.042	
EAF15SC	42	43	1	12	4925	27300			
							3	.025	
EAF15SC	43	44	1	12	4975	13300			
							3	.042	
EAF15SC	44	45	1	25	6100	10300			
							4	.067	
EAF15SC	45	46	1	12	850	1650	2	.004	
EAF15SC	46	47	1	12	1850	3350	1	.017	
EAF15SC	47	48	1	12	6500	7200	5	.008	
EAF15SC	48	49	1	12	325	1250	1	.017	
EAF15SC	49	50	1	25	775	1700	2	.008	

EAF15SC	50	51	1	12	50	325	1	.004
EAF15SC	51	52	1	50	12	200	1	.004
EAF15SC	52	53	1	75	25	675	1	.004
EAF15SC	53	54	1	25	25	750	3	.004
EAF15SC	54	55	1	50	50	1075	1	.004
EAF15SC	55	56	1	25	125	3550	4	.004
EAF15SC	56	57	1	25	225	3850	4	.004
EAF15SC	57	58	1	225	6100	6100	11	.004
EAF15SC	58	59	1	25	3350	275	3	.004
EAF15SC	59	60	1	12	4375	450	3	.004
EAF15SC	60	61	1	12	250	525	1	.004
EAF15SC	61	62	1	12	100	725	1	.004
EAF15SC	62	63	1	12	750	300	2	.004
EAF15SC	63.4	64.4	1	12	12	350	1	.004
EAF15SC	64.4	66	1	5	75	545	.2	0
EAF15SC	66	68	1	10	115	285	.5	0
EAF15SC	68	70	1	5	210	240	.5	0
EAF15SC	70	72	1	10	260	1200	.5	0
EAF15SC	72	73	1	10	75	180	.5	0

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DATA MATRIX

066

FILENAME A: EAF16.DDH

	FROM	TO	METH	Cu	Pb	Zn	Ag	Au	CLASS
EAF16	21.7	22.7	1	25	12	700	2	.032	
EAF16	22.7	24	1	50	200	1400	3	.05	
EAF16	24	25	1	50	875	3500	6	.025	
EAF16	25	26	1	75	2175	4225	6	.017	
EAF16	26	27	1	75	1700	2650	5	.017	
EAF16	27	28	1	50	2300	2475	4	.017	
EAF16	28	29	1	75	28300				
						23600			
							16	.017	
EAF16	29	30	1	50	8900	9900	4	.017	
EAF16	30	31	1	75	6000	13300			
							4	.017	
EAF16	31	32.3	1	50	5900	17100			
							4	.017	
EAF16	32.3	33	1	50	7100	22600			
							4	.017	
EAF16	33	34	1	125	12400				
						13800			
							10	.008	
EAF16	34	35.3	1	300	7100	11700			
							9	.05	
EAF16	35.3	36	1	75	8200	6600	7	.025	
EAF16	36	37	1	200	8800	8300	10	.04	
EAF16	37	38	1	150	975	4275	4	.017	
EAF16	38	39	1	100	1150	4575	7	.025	
EAF16	39	40	1	200	4175	8100	8	.017	
EAF16	40	41	1	375	1750	14400			
							8	.008	
EAF16	41	42	1	200	850	8800	5	.017	
EAF16	42	43	1	50	625	2100	4	.025	
EAF16	43	44	1	125	1900	8000	4	.025	
EAF16	44	45	1	50	2275	5100	5	.032	
EAF16	45	46	1	100	875	9700	6	.04	
EAF16	46	47.1	1	50	250	2825	1	.017	
EAF16	47.16								
		47.9	1	175	1850	12400			
							5	.058	
EAF16	47.9	49.3	1	1125	2550	44900			
							11	.117	
EAF16	49.3	50	1	6600	34000				
						238100			
							44	.767	
EAF16	50	51	1	575	3150	83600			
							7	.258	
EAF16	51	52	1	2775	4500	77400			
							16	.217	
EAF16	52	52.5	1	250	1200	13500			
							4	.158	
EAF16	52.5	53	1	75	250	5900	1	.017	
EAF16	53	54	1	50	275	4100	1	.017	
EAF16	54	55	1	25	200	2900	1	.008	
EAF16	55	56	1	25	225	2250	1	.008	
EAF16	56	57	1	50	175	3775	2	.008	
EAF16	57	57.8	1	50	150	2000	1	.008	

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EA16	57.8	58	1	550	2100	80700.	21	.025
EA16	58	59	1	150	1750	13900	7	.025
EA16	59	60	1	2750	1300	44800	9	.133
EA16	60	61	1	2150	675	13100	8	.04
EA16	61	62	1	2400	625	12400	9	.017
EA16	62	63.3	1	1050	775	10200	10	.032
EA16	63.3	64.3	1	75	200	200	1	.017
EA16	64.3	66.3	1	50	125	200	1	.017
EA16	66.3	68.3	1	50	250	700	1	.004

DATA MATRIX

068

FILENAME A: EAF17.DDH

	FROM	TO	METH	Cu	Pb	Zn	Ag	Au	CLASS
EAF17SC	6.8	9	1	275	650	175	1	.02	
EAF17SC	9	12	1	150	1800	250	1	.01	
EAF17SC	12	15	1	200	3050	2250	3	.03	
EAF17SC	15	18	1	350	4225	4500	2	.05	
EAF17SC	18	21	1	975	2600	10000			
							3	.08	
EAF17SC	21	25	1	75	1025	1000	1	.03	
EAF17SC	25	28	1	25	525	150	1	.01	
EAF17SC	28	31	1	50	675	350	1	.004	
EAF17SC	31	34	1	25	450	100	1	.004	
EAF17SC	34	37	1	75	1625	150	1	.004	
EAF17SC	37	40	1	25	350	125	1	.004	
EAF17SC	40	43	1	25	550	125	1	.004	
EAF17SC	43	46	1	25	550	150	1	.004	
EAF17SC	46	49	1	25	3350	775	1	.004	
EAF17SC	49	52	1	25	700	175	1	.004	
EAF17SC	52	55	1	25	550	125	1	.004	
EAF17SC	55	58	1	25	725	200	1	.004	
EAF17SC	58	61	1	50	1150	675	1	.004	
EAF17SC	61	64	1	75	625	600	1	.004	
EAF17SC	64	67	1	175	950	600	5	.004	
EAF17SC	67	70	1	150	225	200	1	.004	
EAF17SC	70	73	1	125	175	125	1	.004	
EAF17SC	73	76	1	100	100	750	1	.004	
EAF17SC	76	79	1	250	300	1050	1	.004	
EAF17SC	79	82	1	25	175	525	1	.004	
EAF17SC	82	85	1	50	550	225	1	.004	
EAF17SC	85	88	1	125	1750	4200	2	.004	
EAF17SC	88	91	1	50	675	525	1	.004	
EAF17SC	91	93.5	1	125	400	400	1	.004	
EAF17SC	93.5	96	1	50	350	4350	1	.01	
EAF17SC	96	99	1	12	275	2850	1	.004	
EAF17SC	99	102.6							
			1	12	800	5100	1	.01	
EAF17SC	102.6								
		104.1							
			1	12	375	2500	1	.004	
EAF17SC	104.1								
		107	1	25	675	2275	1	.02	
EAF17SC	107	110	1	12	100	950	1	.01	
EAF17SC	110	113	1	12	25	1075	1	.004	
EAF17SC	113	116	1	12	25	1450	1	.004	
EAF17SC	116	119	1	12	50	425	1	.004	
EAF17SC	119	122.4							
			1	12	675	1000	1	.004	
EAF17SC	122.4								
		125	1	12	100	125	1	.004	
EAF17SC	125	128	1	12	100	75	1	.004	
EAF17SC	128	131	1	12	50	50	1	.004	
EAF17SC	131	134	1	175	50	50	1	.004	
EAF17SC	134	137	1	150	25	50	1	.004	
EAF17SC	137	140	1	1275	200	1050	1	.03	
EAF17SC	140	143.92							
			1	50	175	425	1	.05	
EAF17SC	143.92								
		145	1	25	125	150	1	.03	
EAF17SC	145	146	1	25	12	125	1	.004	
EAF17SC	146	147.43							
			1	50	250	300	1	.19	

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EA17SC 147.43

	150	1	12	25	125	1	.02	069
EA17SC	150	154	1	12	25	525	1	

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DATA MATRIX

070

FILENAME A: EAF18.DDH

	FROM	TO	METH	Cu	Pb	Zn	Ag	Au	CLASS
EAF18SC	2.5	5	1	75	275	12	1	.004	
EAF18SC	5	7	1	175	400	25	1	.004	
EAF18SC	7	9	1	50	200	50	1	.004	
EAF18SC	9	11	1	25	475	50	1	.004	
EAF18SC	11	13	1	25	350	75	1	.004	
EAF18SC	13	15	1	25	275	100	1	.004	
EAF18SC	15	17	1	25	300	125	1	.004	
EAF18SC	17	19	1	25	100	100	1	.004	
EAF18SC	19	21	1	25	12	125	1	.004	
EAF18SC	21	23	1	25	12	150	1	.004	
EAF18SC	23	24	1	75	50	525	1	.004	
EAF18SC	24	25	1	25	100	300	1	.004	
EAF18SC	25	26	1	800	525	6000	1	.004	
EAF18SC	26	27	1	825	675	7500	1	.01	
EAF18SC	27	28	1	400	2275	4375	1	.03	
EAF18SC	28	29	1	375	2400	5900	1	.03	
EAF18SC	29	30	1	775	2400	12200			
							1	.14	
EAF18SC	30	31	1	775	7000	7600	1	.07	
EAF18SC	31	32	1	175	1125	2325	1	.02	
EAF18SC	32	33	1	225	4350	3000	1	.01	
EAF18SC	33	34	1	5800	2750	2675	16	.23	
EAF18SC	34	35	1	500	1050	275	1	.004	
EAF18SC	35	36	1	300	4350	1700	1	.004	
EAF18SC	36	37	1	250	2125	425	1	.05	
EAF18SC	37	38	1	50	1050	375	1	.03	
EAF18SC	38	39	1	1125	2100	2650	9	.01	
EAF18SC	39	40	1	7400	51200				
						81100			
							62	.07	
EAF18SC	40	41	1	925	2375	8200	1	.03	
EAF18SC	41	42	1	1325	6000	12400			
							1	.09	
EAF18SC	42	43	1	450	650	7000	1	.07	
EAF18SC	43	44	1	6600	35900				
						83200			
							24	26.6	
EAF18SC	44	45	1	375	1325	3925	1	.17	
EAF18SC	45	46	1	575	1225	6200	1	.07	
EAF18SC	46	47	1	450	4225	5900	1	.08	
EAF18SC	47	48	1	175	1100	1675	1	.06	
EAF18SC	48	49	1	75	1350	2225	1	.05	
EAF18SC	49	50.8	1	75	15500				
						44800			
							8	.06	
EAF18SC	50.8	51.8	1	225	575	2650	1	.03	
EAF18SC	51.8	54	1	150	150	25	1	.01	
EAF18SC	54	56	1	25	200	50	1	.03	
EAF18SC	56	58	1	50	100	25	1	.04	
EAF18SC	58	60	1	12	12	25	1	.004	
EAF18SC	60	62	1	75	75	300	1	.004	
EAF18SC	62	64	1	75	325	2075	1	.004	
EAF18SC	64	66	1	50	75	275	1	.004	
EAF18SC	66	68	1	25	25	12	1	.01	
EAF18SC	68	70	1	600	425	2950	3	.02	
EAF18SC	70	72	1	250	725	2925	3	.01	
EAF18SC	72	74	1	225	2250	3625	1	.01	
EAF18SC	74	75	1	25	50	25	1	.004	

072

DRILL ADVANCE				LITHOLOGY							
LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
						_____ EAF - 1					

SCALE 1:100 (1cm = 1m)

5 cm

184073

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DRILLHOLE LOG FOR DDH EAF-1LOGGED BY R.H. ROBERTS FROM _____ TO _____DATE 20/7/84

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DRILL ADVANCE				LITHOLOGY						184074	VISUAL PERCENTAGE MINERALISATION
DEPTN	DRILL ADVANCE (INTERVAL)	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION		
0	5.6	0.4	7.14%	0-9m	NO CORE						
4.6	2.7	0.45	16.66%	9-14.6	Shaley rubble - some qtz vein fragments						
17.3	1.3	0	0	17.3	Broken core of fissile thinly bedded black shale						
18.6	1.5	0.1	6.66%	18.6	NO CORE						
20.1	1.5	0.5	33.33%	20.1	Rubby pieces of shale						
21.8				21.8	Broken core of volcanoclastic Breccia z fragments predominantly of coarse pale green volc (? lava) with distinct quartz phenocrysts						
21.60	1.5	0.2	13.33%								
23.10	1.5	1.3	86.66%	23.10	Shaley (mushy) material						
				23.10	Fine-grained Epiclastic Breccia.						
24.60	1.5	1.2	80.00%		- V Angular fragments - med → poorly sorted FRAG TYPES - contains abundant white sil volc. frags with quartz phenocrysts. (some frags z qtz veins) - Cream greenish sil. volc. frags z much finer-grained phenos						
26.10	0.5	0.45	90.00%								

SCALE 1:100 (1cm = 1m)

5 cm

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DRILLHOLE LOG FOR DDH EAF-1

LOGGED BY RH ROBERTS FROM TO

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074

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
26.60	1.0	0.85	85.00%		fragment - types CONT - soft green frags(chlorite) Some z phenos - black shale frags			Possible fabric in parts CAVEs 045→055°	- minor pyrite dusting - can concentrate into small clusters - also occasional lenses of sph.
27.60	1.5	0.6	40.00%		- grainsize varies from <1mm→1cm in typical material but get some v large shale (rip-up) frags - typically > 6cm				
29.10	1.5	0.6	40.00%	29.7	Crumbly Core/mud				
30.60	1.5	0	0	30.6	NO CORE				
32.10	1.2	0.6	50.00%	32.10	Finer grained epiclastic than above ie Coarse volcaniclastic Sandstone - Some shale fragments up to cm in length				
33.30	0.6	0.35	58.33%						
33.90	1.2	0.65	54.16%						
35.10	1.5	1.05	70.00%	34.1	* marked change in rock due to alteration * - Some Epiclastic rock as noted from 23.1 - 29.7	qtz-sericite ± chlorite alteration (minor? pyrite)		34.2 - Qtz/Feld VEIN.	

5 cm

184073

5 cm

SCALE 1:100 (1cm = 1m)

184075

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DRILLHOLE LOG FOR DDH EAF-1

LOGGED BY R.H. ROBERTS FROM TO

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075

DRILL ADVANCE				LITHOLOGY					
DEPT	DRILL ADVANCE	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
					With alteration get pink fragments in a greenish/grey matrix. (i.e. grey siliceous matrix & stringer veins of sericite)	ALT. CONT. Sil. Volc frags + FELD XI frags alt → sericite (or/yel colour) - General silicification of finer grained matrix material - Abundant shear veinlets of sericite Anastomose through rock			
36.60	1.4	1.15	82.14%	37.55					
					Gray Siliceous Chert - veined by qtz - Parts show v.fine (.2mm) bedding of light & dark sil layers				
38.00	1.0	0.85	85.00%	38.3	Altered Volcaniclastic Breccia (as from 34.1 → 37.55)	qtz - SER			

5 cm

5 cm

184076

SCALE 1:100 (1cm = 1 m)

5 cm

5 cm

184076

39.0 0.50 0.40 80.0%
SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-1

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DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
39.50	1.6	1.7	106.25	39.65	Pyroclastic Breccia with Lapilli-sized fragments (? Ignimbrite) - Angular xl's of subeuhedral nature (F&O) (few mm wide) in a fine grained matrix - Generally a grey-green sil matrix (silicified) - Patches of white subeuhedral xl's (lithic) frags in bright green (chlorite-sericite) matrix within sil. matrix (ie variable att.) - faint remains of greyer patches which again have angular white fragments. - Contains large (commonly range from 1cm → 6cm) pink sil. fragments with white feld phenocrysts - distinctly angular fragments in siliceous matrix	QTZ-SER-CHI alteration - in parts quite strong alteration though angular fragments are always discernible			
41.10	1.5	1.15	100.0%						
42.60	1.5	1.46	92.33%						

SCALE 1:100 (1cm = 1m)

5 cm

5 cm

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DRILLHOLE LOG FOR DDH EAF-1

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DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
				43.0	Pyroclastic Breccia (? ignimbrite) Much darker grey colour than above (? less altered or less sericitic alteration and increased silicification)	Intense silicification plus extremely fine-grained sulphide dusting			fine sulphide alteration throughout.
44.10	0.80	0.90	112.5%						
45.0	0.40	0.30	75%		Contains dark fragments & feld phenocrysts - angular and appear to vary in size from a few mm to over a couple of centimetres.				
45.40	1.5	1.53	102%						
46.90	1.5	1.55	103.33%		also contain coarse (typically 1cm to 5cm) pink sil. fragments often with no phenocrysts but others with few coarse xls				
48.40	1.5	1.4	93.33%			get qtz/co ₃ veins cutting across fragments			
49.90	0.90	0.90	100%			vein often totally within pink sil. frags but others are seen to cut through			
50.80	0.60	0.55	91.66%						
51.40	1.5	1.7	113.33%			NB LATE Sulphide dusting → dark patches which form across earlier qtz/co ₃ veining			

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DRILLHOLE LOG FOR DDH EAF-1

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DRILL ADVANCE					LITHOLOGY				
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
						Some patches rich in sericite (greenish) alteration			
52.90	1.5	1.6	100.66%	52.8	V. sil. whitay CHERT Z green chloritic veins V broken & poor core recovery.				
54.40	1.5	1.7	133.33%	53.3	(Back to) DK grey-silicified feldspathic pyroclastic (? Ignim) - appear to be abundant v. angular dk phenocryst- rich fragments in grey sil. matrix. * But fragmented appearance may be due to alteration.	Silicified			
				55.7		? increase in pinkish silicification.			
55.90	1.5	1.56	104.00%	57.9					

SCALE 1:100 (1cm = 1m)

184079

5 cm

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DRILLHOLE LOG FOR DDH EAF-1

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DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
57.40	1.5	1.7	113.33%	57.90	Cream-pink siliceous cherty rock. varies to a whitish chert.	Intense silicification Qtz/Co ₃ + chlorite veining chlorite often as selvages to Qtz/Co ₃ in veining Qtz/Co ₃ possibly later than chlorite				
				58.65	58.6: Coarse Qtz/Co ₃ vein.					
58.90	1.5	1.43	95.33%		Grey/Pink silicified FELD Pyroclastic (? Ignimbrite) - Qtz/Co ₃ veining	Varying degrees of sil ⁿ a - sericitisation			Minor CPY + SPH in Qtz/Co ₃ veins	
60.40	1.5	1.53	102.00%		- Coarse Pink sil frags evident					
				61.4	Green Feld. Pyrocl. Strong Ser? CHL alteration Gradually decreases					
61.90	1.5	1.52	101.33%							
				62.8	Grey → pinkish silicified FELD Pyrocl.	Varying degrees of sil ⁿ				
63.40	1.5	1.55	103.33%							
64.90	1.5	1.51	100.67%	65.6	Less silicified FELD Pyrocl.	Siln. patchy				
66.40	1.5	1.51	103.33%							

SCALE 1:100 (1cm = 1m)

5 cm

184080

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DRILLHOLE LOG FOR DDH EAF-1

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0.80

5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
				67.7	Less silicified (texture apparent) more sericitised Ig.	Increased Ser ? CHL alt.			
67.90	1.5	1.46	97.33%	68.00					
69.40	.90	1.02	113.33%		Dk Grey Feld Pyrocl.	Decrease in alteration to very minor			
70.30	1.5	1.5	100.00%		- Dk grey angular fragments & phenocrysts				
71.80	1.6	1.69	105.63%		In a pale grey matrix & feld xls	- few qtz veins			
73.40	1.5	1.56	104.00%	74.60	Fragments range from a few mm to several cm.				
74.90	1.6	1.66	103.75%						
76.50	1.5	1.41	94.00%						
78.00	1.6	1.57	98.13%						
79.60	1.6	1.56	97.50%						
81.20	1.7	1.59	93.53%						
82.90	1.5	1.47	98.00%						
				83.70	(less welded Ig base?) - minor chert material included				
				84.3	Greenish Cherty rock & syn pyrite			Layering/CA = 85°	Pyrite-rich layers & thin SPH veins
				84.4	E.O.H.				

184081

10 20

5 cm

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAE-1

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DRILLHOLE LOG

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Summary Sheet

PROJECT EL 5/63 Pt 4		AREA PINNACLES		DRILLHOLE TYPE DDH
CO-ORDS	377679.81 5384531.73	DECLIN -45°	AZIMUTH 270°	RL 465.53
DATE COMMENCED	29/6/84	DATE COMPLETED	8/7/84	DRILLED BY LONGYEAR
Non Coring to: 6m		HQ Core to: 57m	HQ Core to: 132.4m	BQ Core to: EOH132.4m

SURVEY DATA					Instrument:		
DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION		AZIMUTH
	Uncorr	Corr			Uncorr	Corr	
0		270	-45				
132.4		268.5	-46				

LOG SUMMARY

ROCK TYPE		MINERALIZATION	
0 - 6	No Core		
6-20.6	Epiclastic Breccia (Ec-B)		
20.6-32	Fragments of green porphyry in a sludge		
32-39	Volcaniclastic Breccia (Vc-B)		
39-45.5	Siliceous Lapilli tuff (Pc-L)		
45.5-64.4	Cherts, volcaniclastics and shales (Ch/Vc/S)	47.7-47.8	Massive Pyrite
		47.8-47.9	Semi-massive Py-Sph
		48.5-64.4	Dissem. Py and minor Sph/Gal<1%
64.4-82	Composite breccia of chert and porphyry (G-PfC)	65. -70	Syngenetic Py-rich patches (↑30%)
82.-85.7	Green porphyry (G-Pf) - chert veins		
85.7-92.5	Cherts and volcaniclastics (Ch/Vc)		
92.5-95.5	Composite breccia of chert and porphyry (G-PfC)		
95.5-107.2	Green porphyry (G-Pf)- finegrained and dark green		
107.2-113	Mixture of fine-grained volcaniclastics and shales (Vc/S)		
113-127.8	Green porphyry-fractured appearance with Co ₃ , sericite, pyrite and silica alteration (G-Pf;A:Co ₃ , Se; Py, Si)		
127.8-128.6	Volcaniclastics and shales (Vc/S)		
128.6-132.4	Green porphyry (G-Pf)		

Signature

Date 23/7/84

082

DRILL ADVANCE				LITHOLOGY					
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
					NO CORE				
6.00 m	1.5	0.60	40.9%	6m	Soft orange mud z Predom. Pale-green/cream sil. volc. frags z oxidised veins				
7.5 m	1.1	.90	81.81%	7.5 m	Fine-grained breccia (epiclastic) - various frags - characteristic coarse (>1cm) angular shale frags - Becomes finer grained (+ tuff sandstone)	orange oxidisation		Fractured + cut by anastomosing chlorite- filled veins	
8.6 m	1.4	1.2	85.71%	8.3: 9.2:	Few large dk green porphyritic frags Very oxidised - apparent oxidised breccia	"			
10.00 m	1.6	0.60	37.50%	broken core	9.8-10: 2 core frags well bedded shales + tuff-syn pyrite in dark shale. some distinct qtz-porphyrus frags				
11.60	1.5	1.6	106.66%	11.9	Fine grained epiclastic breccia - chlorite frags common - general oxidised orange col. z green + white frags distinct	chlorite veining ↓ oxidised.		12.1 - Fol./CA = 40°	
13.10	1.5	1.4	93.33%						
14.60	1.5	1.45	96.66%	14.7	14.7 Abrupt coarsening of frag size				

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-2

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DATE 23/7/84

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083

DRILL ADVANCE				LITHOLOGY						5 cm	
DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	5 cm	
16.10m	1.5	1.20	80.9%		general fining sequence to -	-15.5 Decrease in oxidation				184084	
17.60	1.5	1.13	75.33%		18.1 - Abrupt coarsening to fine-grained breccia	- chlorite veining		↓ Fining sequence			
19.10	1.5	1.37	91.33%	18.4 broken core	19.4 Increase in angular dk-green porphyritic frags	chlorite veining					
				19.4	- generally grey, white, dk green & shale frags						
20.60	1.5	0.70	46.66%	20.6	Soft Pug orange/yell colour					184084	
22.10	1.5	1.2	80.9%		20.9 - grey/green colour recognisable frags of grey feld, porphyry, & white qtz porphyry.						
					23.5 - Frags 1/2 feld porphyry, 1/2 sil nodules (? radiolarian) in a grey rock & pyrite						
23.60	1.2	0.57	47.5%	23.6	Angular to sub-angular dk green feld porphyritic frags in a white silica matrix			23.6 - ? layering / CA = 66°			
24.60	1.5	1.12	74.66%	24	Soft Puggy green/grey porphyry & some frags like (23.6 → 24)					184084	
				25	Grey green porphyry						
26.30	1.6	1.1	68.75%		- Sub euhedral feld - white typically 5mm in size						

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-2

LOGGED BY R.H. ROBERTS FROM ... TO ...

DATE 23/7/84

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DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
26.90	1.7	0.07m	4.11%	26.9	Green/grey chips of feld porphyry Soft				
29.60	1.5	0.14	4.23%		Grey Sil soft rock poor layering features	strongly altered to soft mud			
32.0	1.60	0.40	66.66%	32.0 32.23	RTZ RUBBLE Rhyolitic Pyroclastic Breccia (lapilli tuff) - Predominance of Lapilli sized flow-banded rhyolite frags - angular in xl rich grey/gm matrix	Sil Hard			
32.60	1.20	0.80	66.66%						
33.80	1.50	0.90	60%	33.7	DK Grey/Green porphyry ? non welded base	Soft			
				34.5	Grey Sil. shale 35.2: 1st shale/slts.				
35.30	1.5	0.60	40%	35.2	Volcaniclastic Breccia Probably epiclastic, but v little reworking - v angular frags of DK-green porphyry (feld) + pale-green porphyry (feld) (? pumice) + white qtz porphyry - Parts quite silicified - Shale rip-up frags ? very angular + disturbed edges from - 38.2 → 39				
36.80	1.60	0.65	108.33%						
37.40	1.0	0.80	80%						
38.40	1.6	1.46	91.25%						

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF 2

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085

DRILL ADVANCE				LITHOLOGY					5 cm	
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	ASIA PERCENTAGE MINERALISATION
39.00	1.50	1.50	100%	39.0	Siliceous Pyroclastic - now massive + competent + very siliceous - fragments still obvious - fractured by later chlorite veining + later still qtz veining.	Silicified ? deuteric		40.2	40.2 Coarse qtz vein (cm) with splashes of GAL + SPH.	184086
40.00	1.50	1.50	100%							
41.60	1.50	1.50	100%							
43.10	1.50	1.50	100%							
44.60	1.50	1.50	100%							
45.45	1.50	1.50	100%	45.45	Intermixed chert nodules (few mm + couple cms) with tuff debris + shale.	Chlorite veining abundant.		fol/CA = 45-50°		46
46.10	1.00	1.00	100%	46	Shale dominant component Tuffaceous shale mixing of dk-grey + pale green/gray components			47.5 fol/CA = 45°	- Minor Pyrite 47.6 - Pyrite rich shale	
47.10	1.00	1.00	100%							
47.60	1.50	1.50	100%	47.7	ALT. Py MIN - SULPHIDE RICH SHALE	WHITE CLAY ALT.			47.7 - massive Pyrite + clay ALT. -2.3cm SULPHIDE RICH SHALES Py, SPH. (NEAR MASSIVE)	
47.9	1.50	1.50	100%	47.9	SHALES + TUFFACEOUS SHALES 48.1: CHERT LAYER (3cm wide) 48.3: Well bedded shale 48.5: Chert nodule (2cm x 1/2 cm)			48.3: bedding/CA = 60° 48.5: elong. TEXT. fol/CA = 52°	48.5: Vein + dissem Pyrite.	

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMIT
LOGGED BY R.H. ROBERTS

5 cm

HOLE LOG FOR DDH EAF-2
DATE 23/7/84
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DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
					48.6 - 48.7 chert nodules in shale 48.8 lt. coloured layer (increasing chert since 48.6)				Dissem Py SPH in fractures within lt. col. layer
				48.8	Grey sintery CHERT & splashes of sulphides - fractures filled & sulphide + qtz				Splashes + veins of SPH
49.10	1.5	1.42	94.66%						
				49.3	Well bedded shales	Anastomosing veining - ? late veining & assoc. SPH/GAL Sulphides	Ser/chl	49.3: b/CA = 78° fol at low angle to bedding ↓ 49.7 fol/CA = 64 50: b/CA = 71 fol/CA = 55 51.6: b/CA = 65	Vein controlled SPH/GAL & white ALT (Pyrite lenses (< 1cm) // & bedding-disrupted by late veining)
50.60	1.5	1.45	96.66%						
52.10	1.5	1.48	98.66%						
				52.3	v fine-grained epiclastic - tuffaceous Siltstone				Minor dissem pyrite + layers (cubic py)
					52.9: Coarse angular shale + porphyritic volc. frags in tuffaceous sandstone			52.9: fol/CA 50° bedding in shale frags // to fol.	
53.60	1.5	1.55	103.34%		53.6: Fine grained tuffaceous breccia Coarsening downwards to tuffaceous breccia	lapilli frags		Pyrite grains 1 → 3mm in size Size increases downwards.	

5 cm

184087

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-2

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184087

087

184088

5 cm

DRILL ADVANCE				LITHOLOGY						5 cm	
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	5 cm	
				54.56	Well-bedded SHALES			CONTACT - SHARP/CA = 40°			
55.10	3.0	2.80	93.33%					55 m bedd/CA = 40° 55.3 b/CA = 45° fine structure TOP is up	blabs + veinlets of SPH		
58.10	1.3	1.47	113.07%					58.2 b/CA = 43°			
				58.56	Pale green/grey TUFF z Syn. Pyrite			59.6 - b/CA - 50°	Syn layers (lenses) + colloform Pyrite		
				59.35	Bedded Pyritic SHALES			59.65 - CHANGE 59.7 - b/CA - 35°			
59.40	1.5	1.90	126.67%					60 m b/CA - 29°			
				60.0	CHERTY HORIZON Cherty material increases initially z shale + chlorite/ser rich patches.	Sericite-rich					
60.90	1.5	1.40	93.33%		60.3 Pred Bl/Gy chert z Pyrite Veins + layers of sericite						
62.40	1.5	1.40	93.33%		62.2 ALT. Sil. Volc. 62.4 sil. shales (grey) tuffaceous Shales + ser + chl + some porphyritic volc (? frags) - some chert nodules present	62.2 ALT. Sil. Volc. 62.4 sil. shales (grey) tuffaceous Shales + ser + chl + some porphyritic volc (? frags) - some chert nodules present		Grey/gm/grey contact/CA 63.8 fol/CA = 25	Minor Pyrite		
63.90	1.5	1.40	93.33%								
				64.4	BRECCIATED CHERT						
				65.4	between angular patches of green porphyry	Green porphyry appears altered v. little.					

5 cm

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-2

LOGGED BY RH ROBERTS FROM TO

DATE 23/7/84

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080

DRILL ADVANCE				LITHOLOGY						5 cm	
FROM DEPTH	TO DEPTH	CORE ADVANCE INTERVAL	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VEINIAL CENTAL MINERALISAT.	
65.40	66.90	1.5	100%		Bracciated chert & greenish chylser between chert				Minor splashes of SPH.		
				65.7	lensoidal rock elongate grey (? porphyritic) frags and green porphyritic frags - infilled by grey/green silica & pyrite	Ser. alt. of frags		65.8 fol/CA: 40°			
				66.1	Intense alteration & sulphide mineralisation. Rich in creamy/white frags-infilled with silica and pyrite other parts infilled with base sulphides - Sintery appearance.	Ser. alt. Intense			Patches sphalerite rich plus galena	?5	
				66.6	Pyrite & chert.				Pyrite rich	30	
66.90	68.40	1.35	90%	66.9	Green Porphyritic Volc? Patches rich in pyrite & alteration. 66.9 → 70.1 = 67.7 → 67.8 - Grey sil. alteration Sericitic stringers.	Pyrite/Silica Alteration.			Pyrite-rich patches 66.9 - 70.1 - anastomosing pyrite in chert 5% 67.7 - 67.8 80%		
68.40	69.90	1.60	106.67%		Predominantly gm porphyry	69.2-69.9: Pale-yell Ser. alteration			Pyrite veins.		
69.9	71.4	1.45	96.67%		Blue/Grey chert & angular frags of dk/gm porphyry						

5 cm

5 cm

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-2

LOGGED BY RH. ROBERTS FROM TO

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5 cm

DRILL ADVANCE				LITHOLOGY						
FROM	TO	DRILL ADVANCE	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
71.4	72.9	1.40	93.33%			"				
72.9	74.4	1.40	93.33%			"	Ser alt + wetted out boxwork Al - ox			
74.4	76.9	1.25	83.33%			"				
76.9	77.4	1.10	73.33%			"				
77.4	78.9	1.20	80%			"				
78.9	79.9	55	55%			"				
79.9	81.2	1.05	80.76%			"				
81.2	82.7	1.00	93.75%			"				
						Fine-grained grn porphyry - white fragments (2-3mm) in a fine-grained gm matrix - mixed & patches of chert with pyrite.				
82.7	84.3	1.55	96.87%			"				
84.3	85.9	1.48	123.33%			"				
					85.7	dk-gm (porphyritic) ash/LAVA				
85.9	87.5	1.50	43.79%			"				SPH blebs + veins
87.5	89.1	1.30	81.24%			Grey chert				

5 cm

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-2

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5 cm

DRILL ADVANCE				LITHOLOGY						
FROM DEPTH	TO DEPTH	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
89.1	90.7	1.40	87.9		89.55 : Mixed chert and angular pieces of fine-grained grn porphyry 90.5 } cherty epiclastic 90.6 } Grey/Grn volcaniclastic SS.					
90.7	92.2	2.0	133.3%		Grey/Green volcaniclastic SS - cherty pieces and green chloritic pieces Chert/volcaniclastic SS mix					
92.2	92.6	0.7	57.14%		Mixture of chert with pieces of grn porphyry					
92.9	93.6	0.70	100%							
93.6	95.5	1.50	78.95%							
95.5	96.4	1.15	127.78%	95.5	Fine-grained dk green (→ lime green) porphyry (ASH/LAVA) - 1-2mm fragments of chlorite(?) previous mafic phenocrysts) and white frags (sil. phens)					
96.4	97.9	1.40	93.33%							
97.9	99.4	1.50	100%							

5 cm

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-2

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DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
99.4	100.9	1.90	126.67%		"				
100.9	102.4	1.25	83.33%		"				
102.4	103.9	1.55	103.34%		"				
103.9	105.4	1.45	96.70%		"				
105.4	106.9	1.40	96.67%		"				
				106.7	Mixed Porphyry + Shale				
106.9	108.4	1.40	93.33%						
				107.2	Gray shale mixed with minor fine-grained volcanoclastics - irregular contact features between shales + volcanoclastics (ie soft sediment mixing)			107.6 - Bedding - irregular across core - Sed structures grading + flame structures WAY UP IS TO TOP	
108.4	109.9	1.60	106.67%		"				
109.9	111.4	1.50	100%		"				
111.4	112.9	1.50	100%		"				
112.9	114.4	1.50	100%		"				
				113.0	dk-grn ash tuff/lava ? fine-grained porphyritic texture				

SCALE 1:100 (1 cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-2

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DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
114.4	115.9	1.60	106.67%		dk-grn fine-grained porphyry - ? ash tuff/Lava				
115.9	117.4	1.48	96.20%		"				
117.4	118.9	1.50	100.00%		" parts appear quite fragmented 2 grn volc. frags surrounded by grey siliceous material				
118.9	120.4	1.50	100.00%		Mixed grn-porphyry and more cherty rock				
120.4	121.9	1.70	113.34%		" Thin v angular porphyritic frags in siliceous rock				
121.9	123.4	1.50	100.00%		"				
				122.4	Pale-grey siliceous pyroclastic (ash lapilli-tuff) - angular fragments of v. dk. porphyritic frags (~2 cm) - white frag (? x1 feld) - cherty frags				
123.4	124.9	1.60	150.00%		"				
				124	Pale-grn pyroclastic ash tuff lava				

SCALE 1:100 (1 cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-2

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DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
129.4	126.4	1.55	77.5%		"				
				125.9	Siliceous pyroclastic with lapilli - sized frags of grn porphyry.				
					Pale-grn fine-grained porphyritic ash tuff/lava				
126.4	127.9	1.60	106.67%		"				
				127.4	Grey siliceous pyroclastic & angular fragments of porphyry				
127.9	129.4	1.40	93.33%		Grey/black shale - some layered + soft sed deformation				
				128.62	Cream col. pyroclastic				
				129.1	P. Grey sil. Pyroclastic				
129.4	130.9	1.65	106.00%		"				
130.9	132.4	1.35	90%		Dk grey fine-grained porphyritic tuff/lava				
					130.3 - 130.7: Mixed grey sil pyroclastic + dk grey tuff/lava (as large frags) - irregular contact				
					Dk grey fine-grained porphyritic tuff/lava.				
E.O.H.									

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF- 2

LOGGED BY RH ROBERTS FROM TO

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AUSTRALIAN ANGLO AMERICAN LIMITED

DRILLHOLE LOG

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of 1

Summary Sheet

PROJECT EL 5/63 Pt 4	AREA PINNACLES	DRILLHOLE TYPE DDH
CO-ORDS 377717.79 5384606.63	DECLIN -45°	AZIMUTH 270° RL 471.25
DATE COMMENCED 10/7/84	DATE COMPLETED 23/7/84	DRILLED BY LONGYEAR
		DRILL RIG L/Y 38
Non Coring to: 1m	HQ Core to: 23	NQ Core to: 95.6
		BQ Core to: EOH 95.6

SURVEY DATA				Instrument:			
DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION		AZIMUTH
	Uncorr	Corr			Uncorr	Corr	
0		-45	270° MN				

LOG SUMMARY

ROCK TYPE		MINERALIZATION	
0 - 1	No Core		
1-3.25	Pyroclastic ash (Pc-Ap)		
3.25-15.2	Blue-grey chert and chert with volcaniclastics (Ex)	3.25-8.3	Minor Py-Sph
	11.67-15.2: Volcaniclastic breccia	9.69-11.6	" " "
	with pyrite fragments	11.6-13.1	Py lenses and fragments = 1%
15.2-29.5	Grey volcaniclastic mudstone (Vc-M)		
	26.2-29.5: increased silicification		
29.5-37	Grey chert with sulphides (Ex)	29.5-37	Veins and patches of Py-Sph = 1%
37-38.5	Massive sulphide (Ex-MS)	37-38.5	Massive sulphide:
	- coarse grained (>1mm) and layered		Py/Sph/Gal/Cpy (>60%)
38.5-40.6	Fine-grained buff-coloured volcanic (B-P)-silicification and Fe oxide staining.		
40.6-45.8	Green volcaniclastic sandstone (G-Pc)	40.6-45.8	Pervasive Py < 1%
	Contains chert and green porphyry fragments	41.8-41.9	Massive Py with Co ₃
45.8-48.1	Buff-coloured fine-grained volcanic (B-P)		
48.1-75	Green volcaniclastic (to porphyry-chert mix) (G-Pc)		
75-84.9	Mixture of cherts and volcaniclastics (Ch/Vc/S)	75-84.9	Minor Py-Sph
84.9-88.7	Green volcaniclastic (G-Pc)		
	87-88.7: grades into a composite breccia		
88.7-95.6	Chert and volcaniclastics (Ch/Vc/S)		

HOLE ABANDONED

Signature *RM Roberts*

Date 17/10/84

024

184095

184096

025

5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
				0-1	NO CORE				
1	2.6	1.5	95.75%		yellow - gm chat, volcanic - clastic mixture - nodules of chat in sheared volcanic fabric	SER - ALT			
2.6	4.1	1.76	117.33%	3-2.5	Blue-grey chat				- Disseminated and layered pyrite - veins of Py-sph
4.1	5.6	1.50	100%		"				"
5.6	7.0	1.3	92.85%		"				"
7.0	8.6	1.55	96.87%	8-3.5	Volcaniclastic & chat nodules				"
8.6	9.8	0.50	41.66%	9-6.9	Blue-grey chat				Minor sulphides
9.8	10.4	0.65	108.33%		"				"
10.4	11.6	1.00	83.33%		"				"

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH 3

LOGGED BY R.H. ROBERTS

FROM

TO

DATE 24/7/84

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006

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
11.6	14.6			11.67	Volcaniclastic with cherty fragments	yellow alteration			Pyrite lenses
				12.40	Volcaniclastic Breccia - clast predominantly grey chert (typically >1cm) - Elongate to sub-rounded massive pyrite fragments (typically >1cm)			13.1: Falni/CA = 42°	Pyrite fragments - 11.1 (clast of pyrite)
14.6	16.1	1.56	104.70	15.2	Volcaniclastic ash - v. fine-grained massive grey unit				Minor sulphide veins
16.1	17.6	1.10	73.35%		"				
17.6	18.1	0.65	130.70		"				
18.1	20.6	2.10	84.90		"				
20.6	21.2	0.60	100.70		"				
21.2	21.8	0.50	88.33%		"				
21.8	23.3	1.48	98.66%		"				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH 3

LOGGED BY _____ FROM _____ TO _____

DATE 1/1/

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184098

097

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
23.3	25.0	1.37	80.56%		24.1 - 24.8: yellow oxidised zone	yellow alt.				
25.0	25.9	0.90	100%		grey massive pyroclastic ash					
25.9	28.0	2.26	107.61%		26.2 ↓ increase in silicification	silicified				
28.0	30.0	1.95	97.5%		"	"			Minor splashes of Sph + Gal	
				29.5	grey chert				Minor veins of Sph/Gal < 1%	
30.0	32.1	1.70	80.95%		"				"	
				30.3	Volcaniclastic chert + gm. volc. frags				Pyrite patches + veins (granular > 1mm)	
				31.5	grey massive chert ± veins of sulphides				Sph - Py veins	
32.1	32.7	0.45	75%		grey chert				Pyrite ≈ 1%	
32.7	35.7	1.70	56.66%		"				Veins & layers of coarse Pyrite (> 1mm) - lesser Sph + cpy	
				35.6	Porous - textured grey chert					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH 3

LOGGED BY _____ FROM _____ TO _____

DATE ____/____/____

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DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
35.7	37	0.50	23.07%		Broken core fragments - Pock-marked, porous textured grey chert (white spots) - qtz fragments				Pockets + veins of (+disseminated) pyrite - Cpy - Sph - Gal.
37	38.3	0.52	40%	37	Coarsened - grained poorly-layered massive sulphide - layers of Pyrite (cubes) Sph/Gal Sph/Gal/Cpy				Massive Sulphide Py/Sph/Gal/Cpy
38.3	39.6	1.17	90%		"				"
				38.5	Fine-grained cream-coloured volcanic - qtz + chlorite(?) veins	? sericite alt. to give yellow - cream colour			
39.6	40.6	1	100%		" some distinct volcanoclastic texture	"			
				40.55	green volcanoclastic sandstone				
40.6	41.4	2.3	100%		lgn. volcanoclastic sandstone with lath qtz porphyritic and chert fragments	Py-ALT			Pervasive fine-grained Py 1-2%
41.4	44.4				"	Thick patches of orange/yellow (SGH/40M) alteration (Fe)			

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH 3

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099

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
					"	Py - CO ₃ ALT (Nodular CO ₃)			" 41.8 → 41.95: Nodular CO ₃ (Nodules 1-3 mm) with massive Pyrite
44.4	45.6	0.50	41.66%		Grey Chert (Poor Core)				
45.6	46.4	0.90	112.50%		"				
				45.8	Intensely altered volcanic/ volcaniclastic - apparent fragments with fine-grained porphyritic texture flooded by silica - Red-orange alteration coating - anastomosing veins with alteration products yell-orange alteration often most intense around veins	Si-Se-We(Fe) alteration of varying degrees			
46.4	47.4	1.08	108.90%		"	"			
					fine-grained porphyritic texture	"			
47.4	48.9	1.46	97.33%		"	"			
				48.1	Volcaniclastic-chert + Pyrophyry frags	Py-Si ALT			Perovskite Pyrite

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH 3

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DATE / /

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100

DRILL ADVANCE				LITHOLOGY						
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
					-48.5 Predominantly Chert lpm Porphyry Misc					
48.9	50.4	1.45	96.66%		Chert - lpm Porphyry Misc	Py-Si ALT			Pervasive Pyrite 20-30%	
				-49.5	lpm Volcaniclastic & Chert Porphyry rich as distinct frags					
50.4	51.8	1.45	103.57%		Chert - lpm Porphyry Misc - Volcaniclastic appearance - distinct chert grains (? 6-8 cm) range from 1mm → 7cm - gm porphyry frags strung out				Fine-grained pervasive pyrite 2-3%	
51.8	53.4	1.54	96.25%		"				Minor disseminated pyrite	
53.4	54.9	1.58	105.33%		"				Rare disseminated Pyrite	
54.9	56.4	1.51	100.66%		"				"	
56.4	57.9	1.48	98.66%		"				"	
57.9	59.4	1.52	101.33%		"					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR

DDH 3

LOGGED BY

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VEIN PERCENT MINERALISATION
59.4	60.4				"					
60.4	62.4				"					
62.4	63.6	1.24	103.33%		lgn Porphyry - Chert Msi - Very irregular angular shaped porphyry frags. in grey silica matrix. Chert fragments clearly discernible (white colour) in grey silica matrix. - Volcaniclastic nature (G.P&C₃)					
63.6	65.2	1.61	100.62%		"					
65.2	66.8	1.53	95.62%		"					
66.8	68.3	1.51	100.66%		"					
68.3	69.9	1.53	95.62%		"					
69.9	71.4	1.71	114.70%		"					

5 cm

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH 3

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102

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VEIN PERCENTAGE MINERALISATION
71.4	72.9	1.4	93.33%							
72.9	74.4	1.56	104.9%							
74.4	75.9	1.65	110.9%							
				75	grey chert - fractured - CO ₂ veins + fine-grained volcanoclastics (ash).					
75.9	77.4	1.5	100.9%		grey chert + volcanoclastic ash				- Minor sph-bearing veins	
77.4	79.5				grey chert ± minor green volcanoclastics (frag)				Minor sph-Py veins	
79.5	80.4	0.93	103.3%	79.8	Volcanoclastic siltstone (? ash).					
80.4	81.9	1.58	105.33%							
81.9	83.1	1.2	100.9%		Mixed chert (grey) and green porphyry 82.4-82.6: Vuggy grey chert				- sph-Py veins in chert 82.6-82.8 sph-Py rich patches < 1%.	

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH 3

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103

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
83.1	83.7	0.34	56.6%		lygrey-white chert				Pyrite nugs 41%	
83.7	84.9	1.80	150%		Siliceous volcanoclastic + grey chert				Minor disseminated pyrite splashes of sph	
84.9	86.4	1.46	97.3%	84.9	Chert - lym Porphyry Mica - Angular porphyry frags in grey siliceous matrix					
86.4	87.9	1.60	106.6%		"					
87.9	89.4	1.47	98%		"					
				88.7	Predominantly grey chert ± anastomosing qtz/CO ₂ veins					
89.4	90.2	0.56	70%		"					
90.2	90.8	0.35	58.3%		Broken chips of grey sil shale					
90.8	91.4	0.66	110%		"					
91.4	91.7	0.06	20%		lygrey siliceous volcanoclastic					
91.7	92.7	0.60	60%		Chert + volcanoclastic M/S					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH 3

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104

5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
92.7	93.4	0.18	25.7%		"				
93.4	94.2	0.85	106.25%		"				
94.2	94.9	0.80	114.2%		" Core fragments				
94.9	95.6	1.4	200.7%		Core fragments				
					<u>HOLE ABANDONED</u>				

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH 3

LOGGED BY FROM TO

DATE 1/1/

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of

Summary Sheet

PROJECT	5/63 Pt 4	AREA	PINNACLES	DRILLHOLE TYPE	DDH
CO-ORDS	377718.18 5384606.50	DECLIN	-47 °	AZIMUTH	269 ° RL 471.25
				DH No.	EAF-4
DATE COMMENCED	23/7/84	DATE COMPLETED	27/7/84	DRILLED BY	LONGYEAR
				DRILL RIG	L/Y 38
Non Coring to:	1.3m	HQ Core to:	65.6	HQ Core to:	BQ Core to:
					EOH 65.6

SURVEY DATA

Instrument:

[illegible]

LOG SUMMARY

[illegible]

Signature

Date 17/10/84

184107

106

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	PERCENTAGE MINERALISATION
1.3	2.0	0.8	114%		Yellow - gm chat - volcanoclastic mixture - nodules of chat in volcanic fabric					
2.0	3.0	0.7	70%		"					
3.0	3.4	0.28	70%		"					
3.4	4.9	1.10	73%	3.65	Blue - grey chat & minor volcanoclastics	- oxidised limonite veins & surrounding alteration			Minor Py - Sph in veins	
4.9	5.6	0.5	71%		"					
5.6	6.9	1.28	93%		"					
6.9	8.6				"					
8.6	10.10			8.95	Pale yellow - gm volcanoclastic & chat fol. fabric					
10.10	11.3				Blue - grey chat				Minor Pyrite in veins	
11.3	13.0			12.8	Fine - grained volcanoclastic chat nodules				"	

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH 4

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DATE ____/____/____

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DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	PERCENT MINERALISATION
13.0	14.4	1.6	114%	13.2	Volcaniclastic Breccia - Frags <1mm → > 2cm Dominated by chert and pyrite fragments 14.1 + sack of pyrite frags				13.2 Pyrite (> 2cm) ↓ 14.1 fragments	
14.4	16	1.56	91%		Volcaniclastic Breccia - Mixture of chert + volcanic fragments Distinctive large chert frags (some layered) are common (↑ 10%).					
16	17.1	1.0	90%	16.2	Fine-grained volcaniclastic sandstone - poor layering. 16.4: Volcaniclastic ms (? Pyroclastic Ash) some evidence of layering is present					
17.1	18.5	1.3	93%		"					
18.5	20.0	1.26	84%		"					

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH 4

LOGGED BY FROM TO

DATE / /

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184109

108

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	PERCENT MINERALISATION
20.0	21.6	1.5	94.0%		Volcaniclastic Ash				V. Minor sulphide in veinlets	
21.6	23	1.2	85.0%		"					
23	24.3	1.05	81.0%		Fine-grained volcaniclastic sandstone					
24.3	24.9	0.25	42.0%		"					
24.9	25.7	0.8	100.0%		Grey Volcaniclastic ms (Ash)					
25.7	26.6	0.90	100.0%		"					
26.6	28.1	1.5	100.0%		"					
28.1	29.6	1.5	100.0%		"					
29.6	30.4	0.77	96.0%		Volcaniclastic ms becoming more silicified (cherty)					
30.4	31.5	0.85	77.0%		Grey cherty volcaniclastic ms (ash) - poor layering in parts					
31.5	32.1	0.4	67.0%		GREY CHEST - layered with major volcaniclastic material			lygradational boundary	Minor pyrite in veins	
32.1	33	0.76	84.0%	32.5	" Volcaniclastic with chert & porphyry fragments				pyrite layer = 17	

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH 4

LOGGED BY _____ FROM _____ TO _____

DATE 1/1/

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184110

109

DRILL ADVANCE				LITHOLOGY					
DEPTM	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
				32.8	Porous grey chert ± sulphides				veins ± Py-sph ± 1%
33	33.7	0.6	26%		Volcaniclastic chert - coarse (>2cm) lumps of massive chert				Veins with sulphides Py-sph-Cpy ± 1%
33.7	34.9	0.95	79%		Grey chert - fragmental textures - porous texture where sulphides have weathered out				Veins rich in Py-Cpy + lesser Sph 34.5: Coarse vein (2-3cm wide) of coarse-grained sph-Cpy
34.9	35.6	0.60	86%		Grey-white chert with wide sulphide-rich veins				Wide veins Py-sph-Cpy 1-2%
35.6	37.1	0.55	37%		"				Py-sph-Cpy-Gal veins ↑ ½ cm wide 1-2%
37.1	38.1	0.65	65%		Porous grey chert - open spaces developed from weathered out sulphides - Distinctive white spotting (similar to EAF-3 35.6-37)				Sulphide veins Py-Cpy-lesser sph-Gal <1%

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH 4

LOGGED BY

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DRILL ADVANCE				LITHOLOGY						
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
					N.B. white spotting possibly is a translucent affect near holes (of porous texture)					
38.1	39.6	1.05	70%		Grey Chert with sulphide veins - white spot porous texture				Py-Cpy veins L.I.	
39.6	41.1	1.25	83%		Massive Sulphide - Coarse grained (1-3mm) - broadly banded Almost monomineralic layers of Gal, Py, Sph				39.6 Massive Sulphide ↓: Py-Sph-Gal 39.7	
				39.7	Yellow - orange altered unit? Volcanic, Volcanoclastic or cherty - fractured in parts - white spot texture in parts thin anastomosing veins? chlorite bearing - some coarse patches (? veins) with box-work texture	Fe-?Se ALT				
41.1	42.6	1.20	94%		Highly altered siliceous rock	Fe ALT			Gal-rich patch	

41.3
SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH 4

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DATE ____/____/____

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DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
				41.3	41.3-41.4: Coarse-grained massive sulphide lgrey Chert ± sulphides				41.3 Massive sulphide 41.3 - Py rich broad layers of sph Veins & Patches of Py - closer sph < 1%
42.6	44.2	1.50	94.9%		lgrey Chert ± sulphides				Thin veins of Py-sph Cpy - also few wide vein (> 2cm) of Py-sph-Gal-Cpy = 2% TOTAL
44.2	45.2	1.3	130.9%	44.25	Virtually Massive sulphide with minor grey chert - Coarse grained to finer- grained well-layered sulphide - ? chert blocks in massive sulphide ? similar to STEVEN TRENCH-2				Predominantly Massive sulphide Py-Cpy-Gal-Sph - shaly layered sulphide is Gal-rich
				44.9	Fragmented fine-grained porphyry	Si-Se-Fe ALT			

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH 4

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184113

112

5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
45.2	47.3	1.35	64%		Buff-green fine-grained porphyry - siliceous - chlorite-CO ₂ veining				
47.3	48.7	1.5	107%		"				
48.7	50.3	1.46	91%		"				
50.3	51.8	1.45	97%		Fragmented buff porphyry minor chert + volcanoclastic				
				50.9	Massive sulphide - Coarse grained (1-7 mm) - broadly banded - bands rich in pyrite " sph-Gal " Sph-Py minor Cpy usually with Sph		51: banding/CA = 41 513: banding/CA = 36	Massive sulphide Py-Sph-Gal minor Cpy	
51.8	53	1.10	92%		"			52: banding/CA = 47°	"
				52.3	Mixed lpm Porphyry + Chert				
53	53.6	0.56	93%		- Angular gm porphyry frags in grey chert (G-PfC ₁ (a3))				

SCALE 1:100 (cm = 1 m)

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DRILLHOLE LOG FOR DDH 4

LOGGED BY _____ FROM _____ TO _____

DATE ____/____/____

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DRILL ADVANCE				LITHOLOGY							5 cm	
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VIEW PERCENT MINERALISATION		
53.6	55.1	1.40	93%		lpm Porphyry - Chert Mix - Swirly angular qm-P - chert frags in grey chert - chert frags also evident				Pervasive fine-grained pyrite in parts			
55.1	56.6	1.5	100%		"				"			
56.6	58.1	1.53	102%		"				"			
58.1	59.6	1.35	90%		"							
59.6	61.1	1.40	93%		"							
61.1	62.6	1.45	97%		"				61.6-62.6: Pervasive Pyrite			
62.6	64.1	1.30	87%		"				62.6-62.9: "			
64.1	65.3	0.80	67%		"							
65.3	65.6 E.O.H.	0.30	100%		"							

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH 4

LOGGED BY FROM TO

DATE .../.../...

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DRILLHOLE TYPE
DDH

DH
No. EAF-5

LY 38

LY 38

EOH 52.1m

DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION		AZIMUTH
	Uncorr	Corr			Uncorr	Corr	
collar		-45	90°				
50.6		-45	88.5°				

[illegible]

Date 2/8/84

DRILL ADVANCE					LITHOLOGY				
DEPTN	DEPTH FROM TO	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
0	1.3		-		NO CORE				
1.3	2.6		92		DK green volc. porphyry. White feld phenocrysts. Abundant clots and lenses of chlorite	Intense chlorite/Py silica alteration		2m chlorite clots // to CA	Fine disseminated Pyrite
2.6	4.1	1.4	93		As above patches of increased silica - 3.2m	"		"	"
4.1	5.6	1.45	97		4.8m EAF-11 - PET	"		change in fol. dir. 4.7: fol/CA = 50°	"
5.6	7.1	1.4	93		" 6.85 chert nodules elongate // fol	" 6.1 - Increased S:1/Py ALT.		5.7: fol/CA = 50° 6.85: fol/CA = 45°	" 6.9: Salena vein
7.1	8.2	0.85	77		Quite cherty	"			"
8.2	9.7	1.4	93					9.3 fol/CA = 50°	8.6-8.6 - thin sph. veins
9.7	10.8	0.9	82		DK green volc. Minor Porphyritic text.	chlorite/Py/Sil ALT		9.75 fol/CA = 55°	Minor dissem Pyrite
				9.8	(Extremely Broken Core) - Fragments of gray- + cream-coloured sil. shale to chert				
10.8	11.2	0.35	87		" (? redrilled)				
				10.9	Broken frags of DK green vol c chlorite alteration (AS: 0 → 9.8 m)	chlorite			
11.2	12.3	0.25	23		Massive Grey Shale				
12.3	13.1		75		Massive Grey Shale				

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-5LOGGED BY R.H. ROBERTS FROM 0 TO DATE 31/7/84PAGE 1 OF 8

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116

5 cm

DRILL ADVANCE

LITHOLOGY

LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
	13.1	13.7	0.5	83		Shale					
			Chips + broken Core								
					13.2	Grey chert (?) with pyrite - nodular fractured appearance	chlorite/Ser veining		fol / CA = 20°	Disseminated Pyrite	1%
	13.7	14.1		62		Greyish nodular chert (?) shale 2 SPH veins				Thin SPH veins	
	14.1	14.9	1.2	6.2	14.1	Well layered rock fol // LAY SER - rich layers and more sil - rich layers	Sericite / ? chl		LAY-fol / CA = 30°	syn colloform Pyrite in more sil layers	5%
			Chips + broken Core								
					14.6	(knife edge contact between Pyrite rich rock +) Grey cherty rock + frags of sil. shale			CONTACT: / CA = 35°	minor dissem Pyrite	
	14.9	15.8		55		Mixture of grey sil (cherty) shale to Blue/grey chert to fol. etz/Ser. Volc.	Sericite/Sil		15.2 layering / CA = 70° 15.6 fol / CA = 45° (ETZ/SER)	15.2 SPH / Py / CPY thin layers 15.7 SPH / Py layers	
	15.8	17.0		46	15.8-17	Grey (cherty) shale Cream - Grn sil. Volc some pack marked text. - green chlorite veins	?		Massive		
	17.0	17.6		67		"			"		
	17.6	18.7		59		"			"		
	18.7	19.4		75		"			"		

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-5

LOGGED BY RH. ROBERTS FROM TO

DATE 31/7/84

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTM	FROM	TO	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
19.4	19.4	19.9			19.5	(Sharp Contact) Grey Sil. Shale & large cherty frags ? breccia & pyrite frags (1-5mm)	chlorite on fractures		19.6 fol (lay) / CA = 43°	Pyrite frags	
19.9	20.6	20.6		57		Breccia & pyrite and chert fragments			20.2 fol (lay) / CA = 48°	Pyrite frags - minor galena veins cut pyrite	
20.6	21.2	21.2		38		Breccia & large (Bl/Gy) chert (containing pyrite) frags				Pyrite frags	
					20.7	? 20.7 Contact to chert-rich section - predom chert & pyrite veins				Pyrite-rich veins	
21.2	22.1	22.1		89		"				"	
					21.4	21.4 layered light & dark chert cherty layered material			21.4: layering / bedding / CA = 30°	Pyrite grains (+ lcn)	
					21.8	21.8 layered pale green/cream rock (in lcnar shaped lenses) & grey cherty material - pyrite grains (+ lcn) ? layered Breccia			flame structures? facing downwards		
									21.9 lay / CA = 45°	splashes of SPH	
22.1	22.8	22.8		86	22.2	Dk blue/grey chert			Massive	Minor Pyrite veining	
22.8	23.6	23.6		106		"			"	"	

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-5

LOGGED BY R.H. ROBERTS FROM TO

DATE / /

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184119

1.18

DRILL ADVANCE				LITHOLOGY						
FROM DEPTH	TO DEPTH	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
23.6	24.2				"					
				23.8	layered Pyrite / chert				Pyrite layers	20%
24.2	25.1		73	24.3	Bl / Gy chert			24.2 lay / CA = 45°	Thin Pyrite veining	
25.1	26.6		87		"				"	
				25.6-25.63	Veins (?) of colloform Pyrite layer			Contact of Pyrite layer / chert / CA = 55°	+ splashes of sph + Galena	
					Blue / Grey chert				25.6 → 25.63 - Massive pyrite layer	
				25.9	thinly layered pyrite + pale grn tuff				Pyrite layers	
				26.35	Bl / Grey chert - poor layering				lenses + veins Pyrite + layers (?)	
26.6	28.1		27		"				"	
					? 1m missing (ie 27.1)					
28.1	29		76	28.1	Porphyritic (?) Green Volc & open-space Qtz				- thin veins of sph + gal.	
				28.3	Green Porphyry (?) (feld) - white frags (?) alt. feld xl's or lithic frags) soft, ? Brecciated or Fragmented Volc <u>VOLCANICLASTIC BRECCIA</u>	Ser / chl alt. (pale-yell colour)				

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-5

LOGGED BY R.H. ROBERTS FROM TO

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184120

1.19

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPT	FROM	TO	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
29	29.6		58		Epilastic Breccia	pale-yell colour		fining downwards (ie top down hole)		
				29.2	Pale yell-grn sil. volc	"		Contact/CA = 42° Massive		
29.6	30.5		50		"	"		"		
30.5	31.1		58		Pale yell sil volc - quite cherty 30.9 → 31.1 - Grey cherty frags in volc	"		Massive		
31.1	32.1		74	31.1	pale-green yell brecciated volc (alt. white frags → porphyritic appearance) Volcaniclastic breccia (probably epilastic) some chert frags - distinct shale frags	"				
				31.6	Mixed volcaniclastic Breccia + Grey shale	"				
32.1	33.2		100	32.1	Lime-coloured Pyroclastic (Ig) - angular white frags (1-5m) in lime green groundmass - has distinct pink colouration ? silicification or very large frags - qtz layering + veining in pink sections	Pink Silicification.				

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-5

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DATE / /

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184121

120

5 cm

DRILL ADVANCE				LITHOLOGY					
FROM DEPTH	TO DEPTH	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC (LOG)	STRUCTURE	MINERALISATION
					32.6 Predominantly lime-grn pyroclastic - 2 angular white frags.	sheared by thin ser. veins		Shearing / CA = 50°	
33.2	34.7		83		coarsely (frag up to 2.3cm) fragmented Pyroclastic (- Lapilli Tuff) - apparent pink sil. frags, green chloritic frags				
				34.2	Much greyer colour ? less silicified { - white frags dk porphyritic frags grey chert frags some large pink sil. frags (typically fractured by qtz) veins Welded Ignimbrite	Sil "			
34.7	36.2		77		" varying degrees of Sil "	Sil "			
36.2	37.7		97		"				
				37.5	Grey sil. shale 2 some green volcanoclastic breccia				

SCALE 1:100 (cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-5

LOGGED BY R.H. ROBERTS FROM TO

DATE / /

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DRILL ADVANCE				LITHOLOGY							5 cm	
LOST CORE	FROM TO		PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION		
	DEPTH	DRILL ADVANCE										
	57.7	38.6	50		"							
	38.6	39.2	92		Volcaniclastic Breccia (probably pyro-clastic) with coarse pink sil frags (1-4 cm) + large (+6cm) angular grey sil shale (→ chert) frags.							
	39.2	40.1	78		"							
	40.1	41.6	87	40.2	Increase in silicification? + hardness - Increased Welding - Competent, massive Pyroclastic (Ig) - Lapilli Tuff - Angular frags (1-4 cm) - Pink frags - porphyritic ? related { ok grey frags - porphyritic { lime green frags - " lesser lt. grey chert frags - in a grey sil. fine grained matrix	NS 41.6 still contains large (+6cm) grey sil (cherty) frags						
	41.6	43.1	93		"							
					- Varying degrees of pink + green colour.							

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-5

LOGGED BY FROM TO

DATE / /

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DRILL ADVANCE FROM TO					LITHOLOGY					5 cm		VISUAL PERCENTAGE MINERALISATION
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION			
					42.8	"	42.8	Coarse Co_3 veins cut core				
								general pale-grey alteration assoc. Co_3 (Co_3/Qtz) veining				
43.1	44.6		93		"	"						
44.6	45.9		88		"	"						
					45.1 - 1 } large grey sil. frags common	"						
					45.4 } 45.6 } Coarse Co_3 veining + Co_3 alteration							
45.9	47.5		96		Siliceous Pyroclastic (Ig) Intense pink colouration.							
47.5	49		93		Siliceous Pyroclastic (Ig) 47.7 Coarse Ca/Co_3 veins ↓ : 48.3							
49	50.5		93		Ig varying in appearance from lime green to pink to green/grey colour							
50.5	52.1		90		Green Ignimbrite Massive: Porphyritic-like texture of frags in groundmass - Some large pink frags.							
EOH												

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-5

LOGGED BY RH ROBERTS FROM TO 52.1

DATE 2 / 8 / 84

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AUSTRALIAN ANGLO AMERICAN LIMITED

DRILLHOLE LOG

Summary Sheet

184124

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PROJECT	5/63 Pt 4	AREA	PINNACLES	DRILLHOLE TYPE	DDH
CO-ORDS	377744.63 5384638.69	DECLIN	-45°	AZIMUTH	270°
DATE COMMENCED	1/8/84	DATE COMPLETED	9/8/84	DRILLED BY	LONGYEAR
Non Coring to:	1.3m	HQ Core to:	62.6	HQ Core to:	102.4
RL	478.7	DRILL RIG	LY 38	EOH	102.4

SURVEY DATA				Instrument:			
DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION		AZIMUTH
	Uncorr	Corr			Uncorr	Corr	
Collar		-45	270° MN				
100.9		-45.5	265° MN				

LOG SUMMARY

ROCK TYPE		MINERALIZATION	
0-1.3	No Core		
1-3-8.0	Rubble and poor core of quartz-bearing pyroclastic ash (Pc-Aq)		
8.0-14.5	Epiclastic Breccia (Ec-B)		
14.5-28.8	Volcaniclastic sandstone to breccia (Ec) - chert fragments	14.5-28.8	Sub-rounded frags of Py
28.8-42.2	Fine-grained pale green pyroclastic ash (Pc-A) - eutaxitic texture		
42.2-50.3	Cherts, volcaniclastics and shales varying into grey chert with sulphide (Ex)	45-50.2	Minor Py. Sph in veins
		50.2-50.3	Massive sulphide pod - Sph/Gal
50.3-52	Dark green porphyritic pyroclastic (G-Pc) with chert component		
52-59	Blue-grey chert with sulphides (Ex) - sections of broken massive sulphide	52-59	Veins and patches of Py-Sph - lesser Cpy Gal: up to 10%
		56.6-57.5	Sections of massive sulphide
		58.4-59	
59-59.6	Green porphyritic pyroclastic (G-Pc)		
59.6-74.5	Blue-grey chert with sulphides (Ex)	59.6-74.5	Thick veins of coarse grained Sph-Py: 1-5%
74.5-102.4	Green porphyry-patches of cream coloured alteration (G-Pf, A:Si, Fe)		

Signature *MS/ches*

Date 12/8/84

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTM	TO LOSS INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
0	1.3				NO CORE					
1.3	2.1	0.15	19%		GLACIAL Boulders					
2.1	2.6	.25	50%		Broken fragments of glacials and porphyritic volcanic					
2.6	4.1	0	0%		NO CORE					
4.1	5.6	.08	5%		Broken chips of glacials (?) and volcanics					
5.6	6.2	.40	67%		White Pug					
6.2	6.8	.35	55%		Broken core - pieces of pale green/gray sil.volc. & porphyritic texture in parts					
6.8	7.8	.30	30%		Poor core - 10-2 cm piece of core: Pale green/gray fine- grained siliceous volcanic - contains angular white frags ? xl's or lithics					
7.8	8.6	.70	87%	8.0	Broken frags of grey sil.volc. ? porphyritic Epistlastic Breccia - Coarse (1-3.4 cm) angular fragments in grey matrix - typically cream/white col. frags showing porphyritic texture. Qtz phenocrysts common in frags					184125

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-6

LOGGED BY R.H. ROBERTS FROM TO

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5 cm

DRILL ADVANCE				LITHOLOGY						VISUAL PERCENTAGE MINERALISATION	
DEPTH	TO DRILL ADVANCE (m)	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION		
8.6	9.5	.40	44%		"						
9.5	10.5	.46	46%	9.7	Gray thinly bedded tuff? ? ash fall						
				10.0	Epiclastic Breccia						
10.5	11.6	.5	45%		"						
				11.0	Gray thinly bedded sil. unit ? tuff						
				11.2	Epiclastic Breccia						
11.6	12.4	.70	87%		" contains gray frags						
12.4	14.6	.80	56%		"						
				14.5	Predom. cream col. sil. volc. - still c frags						
14.6	15.1	.05	10%		" range of green gray frags						
15.1	16.60	.0	0%		NO CORE						
16.60	17.60	.35	35%		Cream coloured → volcanoclastic Breccia - range of angular frags in a sil. cream-col. matrix						
				16.7	Cream/pale green sil volc & wavy texture contains small (<1cm) chert lenses						
17.6	18.2	.1	17%		cream col. sil. volc. contains oxidised lenses & veins						
					V. Broken core						
18.2	19.6	1.15	82%		cream col. sil. volcanoclastic - gray lensoidal frags - flattened lensoidal frags ? pumice - ? Ignimbrite			layering/CA = 35°			

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-6

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DRILL ADVANCE				LITHOLOGY							5 cm		VISUAL PERCENTAGE MINERALISATION
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION				
					NB: Cream colour is due to oxidisation along π limonite-rich veins - lenses + patches of grey un-oxidised material remain in the core - grey volcanoclastic: consistency of grey, grey/green, white cherty frags (<1 cm) - distinct lensoidal texture - pyrite frags + slugs abundant	OX		18.5 m lay/CA = 30° 19 m lay/CA = 35°	ubiquitous packets of pyrite 1-2 % - 19 m - large 3 cm slugs of pyrite				
19.6	20.6	.85	85%		oxidised volcanoclastic sandstone to breccia	OX							
20.6	22.1	1.43	95%										
				20.8	much finer-grained volcanoclastic - occasional coarser (>1 cm) chert frags - oxidised - still rounded pyrite patches where not so oxidised	OX			Pyrite packets where not oxidised				
				21.9	Porphyritic texture: qtz phenocrysts in fine matrix - oxidised - where not oxidised get packets of Pyrite (? porphyritic texture is quartz-infilling after pyrite ox. out)	OX			"				
22.1	23.6	1.35	90%		"								

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-16

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DRILL ADVANCE				LITHOLOGY					
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
25.6	25.1	1.42	95%		Pyroclastic (Ignimbrite) - some classic shard (and pumice) shapes - not intense welding	- parts oxidised			- abundance of sub-rounded pyrite frags
25.1	26.1	.76	76%		"	Decrease in degree of oxidation much greyer colour			"
26.1	27.3	.80	67%		Volcaniclastic (pyroclastic) sandstone → breccia - sub-angular cherty frags				"
27.3	28.2	.80	89%		"				"
28.2	29.6	1.20	86%		Coarser volcaniclastic (most frags > 1cm)				"
				28.8	Pale-green volcanic - wispy wavy texture - ? white phenocrysts (? x1 frags) - pyrite grains 30: strong pyrite layering - layers up to 1/2 cm wide Porphyritic like texture z poor layering			28.8 layering/CA = 53° 30 layering/CA = 50°	sub-rounded pyrite pockets
29.6	30.4	.58	72%		Pale-green porphyritic volc (volcaniclastic)				- Grains + splashes of pyrite
30.4	32	.45	28%		"				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-6

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
32	32.6	.62	103%		"					
32.6	34	.83	59%	32.7	Fine grained volcanoclastic chert frags (up to 1cm) Pyrite frags				Pyrite frags (>1cm)	
				33.1	v Fine grained volcanoclastic				- Minor Py. frags	
34	35.3	.84	65%		v Fine grained ? volcanoclastic 34.3 - PET SAMPLE				Abundant small (few mm) pyrite grains	
35.3	35.9	.33	55%		"				"	
35.9	36.5	.51	85%		"				Increase in pyrite content	
36.5	37.1	.43	72%		"				Pyrite lense	
37.1	38.4	1.10	85%		Fine-grained pale-green pyroclastic - excellent shard + pumice frag texture - Ignimbrite chert + pyrite frags - General layering of frag + shards			lay / CA 37.9 = 53°	- Some pyrite lense > 7 cm wide + long frags + splashes of pyrite	
					- 38.3: abundance of chert + pyrite fragments all grey chert colour					
38.4	39.3	.43	48%		"					
39.3	40.6	1.17	90%		"					
40.6	41.6	.30	30%		" 41.2 - 41.6 = Greyer colour					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-6

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5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
41.6	42.2	.35	58%		Green-Gray volcanoclastic				
42.2	42.4	.05	15%	42.2	Thinly layered grey chert				
42.4	43.7	.55	42%		Grey Shale				
	Extremely broken core			43.2	Pale green sil volc (? shale) - v. fine-grained				
43.7	44.6	0	0		NO CORE				
44.6	44.8	.1	50%		Fine grained grey/green siliceous rock (cherty) in sil. shale				
44.8	46.3	1.42	95%		Broken sil. shale frags				
			45	45	Volcanic Breccia - Fragments typically 1-5 cm in size - some much larger than - later healed by a white qtz. - Frags: Blue-grey chert Sil. green frags (lg) Gray white chert - Pyrite - between frags as disting. stringers - Coarse clusters (remol) as discrete sub-rounded grains Varies to grey/white chert				Pyrite = 1% minor sphalerite in veins & slugs
46.3	46.5	.40	80%		Pale green sil. rock & blue/grey chert				Minor Pyrite and sphalerite in veins
46.8	47.3	.20	40%		Blue/grey chert with qtz/ser Pale-green material				"

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-6

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
47.3	48.1	.40	50%		Broken core of grey shale to chert.					
48.1	49.1	.90	90%		Brecciated white-grey chert - fractures filled w/ chlorite + pyrite + sphalerite				Veins + patches SPH + PY	
49.1	50.1	.40	40%		"				Thin veins of sulphide Py, SPH, gal - disseminated pyrite 49.4 } Sulphide-rich 49.5 } mainly pyrite	15%
50.1	50.6	.55	110%	50.2	Fol. CHL/SER/Py material Massive sulphide Pod faint layering	CHL/SER ALT		Sulphide layering/CA = 35°	50.2 - 50.3 Rich in Pyrite/SPH thin veins of GAL and minor cpy	750%
				50.3	Chlorite-rich patch dk-green rock	CHL/SER ALT				
				50.5	Grey shale + qtz/ser alteration	"				
50.6	51.3	.32	46%		"					
51.3	52.6	1.15	88%		Ser/chlorite/pyrite alteration dk-green col. rock	SER/Py/CHL			Pyrite-rich	10%
				52	BLUE GREY CHERT - brecciated and infilled with chlorite and sulphides				Pyrite-sphalerite rich 10-20%	

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-6

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VEINIA PERCENTAGE MINERALISATION
52.6	53.6	.80	80%		Blue/Grey chert & sulphides				Py/GAL/SPH lesser CPY 5-10%	
53.6	55.1	.43	29%		Blue/Grey chert - Sintering appearance				Dissminated Pyrite < 2%	
55.1	55.5	.10	25%		Rounded frags of Blue and white chert.				Pyrite patches	
55.5	58.6	.10	100%		"				"	
55.6	55.7	.14	140%		Blue/Grey chert with sulphides				Py - SPH rich lesser CPY & GAL 5-10%	
55.7	56.6	.50	55%		"				"	
56.6	57.5	.			Sludge & broken frags of massive sulphide				massive sulphide 750%	
57.5	58.4	.63	.33%		Fragments of sulphides and chert with sulphides				Py/CPY/SPH rich then GAL veins 1-20%	
					58- Broken core: Gray/Blue chert with sulphides - some parts very rich in sulphide → massive					
58.4	59.9				Massive Sulphide a chert & abundant Sulphide				SPH rich & Py/CPY lesser GAL Sulphides & some chert } 760% 30-40%	
				59	Fol. CHL/SER sulphide (Py/GAL) assemblage with some chert	CHL/SER/Py/SIL		FOL/LAY - CA = 40°	Sulphides 2-3%	
				59.6 59.63	2-3 cm band of massive sulphide				SPH/Py/CPY > 60%	

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-6

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
				59.63	Massive Grey/white chert v thin SPH filled vein minor disseminated pyrite				- Thin vein of SPH + GAL - v minor disseminated pyrite	
59.9	61.0				"					
61.0	61.6	.60	100%		"				"	
									61.5 - vein containing coarse (>1mm) grained SPH - coarse patches	
61.6	62.4	94	.05%	61.7	More Blue/Grey chert 2 coarse sulphide veins					
					62.1 - 62.3 Very coarse patches of SPH/CPY SPH > 1.5 cm patches CPY > 1 cm "				Coarse veining of Sulphides SPH/cry prominent 2 lesser GAL. + fine-grained pyrite	
									62.1 - 62.3 - coarse SPH/cry	
62.4	63.4	100	100%		Blue/grey chert				Minor disseminated pyrite + some veins	
63.4	64.5	.85	80%		Darker Blue/grey chert				Py- SPH 5% in patches	
								64.4 Pyrite banding Banding/CA = 68°		
64.5	65.5	.63	79%		Blue/grey chert 2 pyritic sulphide layers				Pyrite < 1%	
					64.8 - 65 - fragmented					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-6

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
65.3	66.8	1.40	95%		Blue/grey chert with vein + dissem. sulphide			65.6 - Apparent bedding in chert bedding/CA = 55°		
				66.1		CO ₂ veins			Richly disseminated pyrite + veinlets of SPH/GAL Some CPY	
66.8	68.4	1.40	87%	67.5	Blue/grey chert ± sulphide					
					"				Veins + splashes of Py + SPH minor CPY <1%	
68.4	69.9	1.35	90%		"				"	
69.9	71.4				"				"	
71.4	72.3	57	63%		"				"	
72.3	72.9	10	17%		Broken cherty frags of core					
					Broken rounded(?) core					
72.9	75.5	55	92%	72.8	Gray-white silicified rock ± splashes of sulphides ± qtz-filled wgs				splashes of SPH and CPY <1% - open spaced qtz-filled wgs ± CPY/SPH/GAL	
					Broken core frags of white + grey white chert.				wgs of SPH	

SCALE 1:100 (1cm = 1m)

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5 cm

DRILL ADVANCE				LITHOLOGY							
LOST CORE	DEPTH	DRILL ADVANCE (INTERVAL)	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
	73.5	74.4	.40	44%		chert & splashes of sulphide				Py-SPH-CFY	<1%
	74.4	74.5				"				"	
	74.5	75.1			74.5	Sharp contact to a pale-grn porphyritic volcanic - white phenos				Minor SPH/Gal veins	
	75.1	76.3	.70	58%		"					
	76.3	77.4	.30	27%		"					
	77.4	78	.10	17%		"					
	78	79.3	1.10	85%		white frags distinct - probably alt feldspar 79.1 - Bl/grey patch					
	79.3	80.4	.90	82%		Bl/grey cherty material fragmenting green porphyry - Bl/gry also fragmented cream-grn porphyritic volc.	cream colour of volc - alt. assoc & Bl/gry silica				
	80.4	81.4	.40	40%		Cream-porph. volc & grey spots	"				
	81.4	82.7	.85	65%		Cream-porph. volc-grey silica filled fractures & grey/blue halos	"				
	82.7	83.7	.80	80%		Fractured cream volc - infilled by blue/grey silica	"			Minor SPH veins + dissem pyrite	
	83.7	85.2	1.45	97%		Cream volc - fractured + infilled by blue/grey silica	"			Minor pyrite & Silica	
	85.2	86.4	1.20	100%		Cream/white silica flooding of porphyry patches of gm porphyritic volc remain					

5 cm

SCALE 1:100 (1cm = 1 m)

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-6

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5 cm

DRILL ADVANCE

LITHOLOGY

LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
	86.4	87.9	1.40	93%		Green porphyritic frags in a cream sil rock - patches of blue colouration - Some blue/grey patches fragmented					
	87.9	89.4	1.30	87%		Mixture of angular green porphyritic patches and cream/pink siliceous material - Siliceous parts also porphyritic					
	89.4	90.9	1.45	97%		"					
	90.9	91.9	.60	60%		"					
	91.9	93.5	1.30	81%		"					
	93.5	94.5	.80	80%		Predominantly green porphyry					
	94.5	95.4	.62	62%		"					
						95- Cream colour sil alteration					
	95.4	96.9	1.40	95%		95.6 Predominantly pale/green porphyry - white phenocrysts	- oxidised fractures				
	96.9	98.4	1.22	81%		"					
	98.4	99.9	1.30	87%		"					
	99.9	102.4	1.37	55%		"					
	EOH										

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-6

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AUSTRALIAN ANGLO AMERICAN LIMITED

DRILLHOLE LOG

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Summary Sheet

DRILLHOLE TYPE
DDH

PROJECT PINNACLES

AREA

5/63 Pt 4

CO-ORDS 377760.82E
5384595.85N DECLIN -45 AZIMUTH 270° MN RL 477.74DH
No. EAF-7

DATE COMMENCED 12/8/84 DATE COMPLETED 23/8/84 DRILLED BY LONGYEAR DRILL RIG L/Y 38

Non Coring to: 1.5 HQ Core to: 53 NQ Core to: 186.9 BQ Core to: EOH 186.9

SURVEY DATA

Instruments:

DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION		AZIMUTH
	Uncorr	Corr			Uncorr	Corr	
85.4		-43	271° MN				

LOG SUMMARY

ROCK TYPE		MINERALIZATION	
0 - 1.5	No Core		
1.5-9.9	Quartz Feldspar porphyry (QFP)		
9.9-11.6	Steel grey pug		
11.6-31.9	Epiclastic breccia (Ec-B) with patches of well bedded shales		
31.9-44.3	Pyroclastic ash to lapilli tuff (Pc-L)		
44.3-62.2	Grey siliceous porphyry (Gy-P)		
62.2-105.3	Lapilli tuff (Pc-L)		
105.3-117.8	Black shale (B-S)	105.3-117.8	Minor dissem. blebs and veins of sulphide
117.8-130.8	Volcaniclastics and shales (Vc/S)		
	124.5-130.8: Composite breccia of green porphyry fragments and black shale (G-Pfs)		
130.8-134.5	Composite breccia of porphyry and chert (G-PfC)		
134.5-142.6	Green feldspathic porphyry (G-Pf)		
142.6-144.1	Volcaniclastic sandstone to breccia (Vc) with pyrite grains		
144.1-148.6	Cream-coloured volcanic, highly fractured (B-P)		
148.6-154.3	Green volcaniclastic mudstones to breccias (Vc)	148.6-154.3	Minor Py, Sph. Cpy: dissem. veins & lenses
154.3-165.8	Grey chert with pyrite (Ex)	154.3-165.8	Py 5-50%
165.8-168.3	Green volcaniclastic mudstone to breccia (Vc)	165.8-168.3	Minor Py

Signature *AMR*

Date

Date

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
1.5	2.6	.08	7%		Cream Volc. - qtz phenocrysts					
2.6	4.1	.02	1.3%		NO CORE					
4.1	4.7	.30	50%		Cream/green mud					
4.7	5.6	.35	39%		Cream coloured qtz. porphyry					
5.6	6.6	.55	55%		"					
6.6	7.6	.20	20%		"					
7.6	8.6	.28	28%		"					
8.6	9.9	.23	38%		"					
9.9	11.1	.15	21%	9.9	NO CORE					
11.1	11.6	.23	46%		Grey (steel) mud					
11.6	12.2	.05	8%		Rubble					
12.2	13	.15	49%		"					
13	13.8	.15	19%		Rubble and grey mud					
13.8	15.6	.55	31%		Poor Core (gravel) Fine-grained Epidiastic frags					
15.6	17.6	.25	13%		"					
17.6	18.3	.10	14%		"					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-7

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VEINIAL PERCENTAGE MINERALISATION
18.3	18.9	.40	67%		"					
18.9	19.6	.15	21%		"					
19.6	20.6	.37	37%		(some large grey shale frags) Epilastic Breccia - frags (↑ 1cm)					
20.6	21.2	.40	67%		"					
21.2	22.1	.30	33%							
				22.0	Grey/green shale					
22.1	22.8	.55	78%							
				22.2	Epilastic Breccia					
22.8	23.6	.25	31%		"					
23.6	24.2	.07	12%		Fine-grained epilastic breccia					
24.2	25	.25	31%		"					
25	26.1	.80	73%							
				25.3	Fine grained epilastic breccia					
26.1	26.6	.30	60%		"					
26.6	27.5	.90	100%		"					
27.5	28.2	.45	64%		"					
28.2	29.6	1.17	84%		Coarse epilastic breccia Frags 1-4 cm					

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-7

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140

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
					29.2-29.4 Well layered black shales			fol/CA = 42-46°	
29.6	30.3	.60	86%						
30.3	30.8	.40	60%		Coarse grained epiclastic				
30.8	31.3	.25	50%		"				
31.3	31.9	.40	67%	31	Fine epiclastic (2 dk frags) & minor pyrite				
31.9	32.5	.30	50%		Gray shale fragments				
				31.9	Feldspathic Ignimbrite - Feldspar crystals up to 1/2 cm Pale yellow-green colour				
32.5	34.0	.40	27%		"				
34.0	34.4	.40	100%		32.2 } Siliceous section 32.4 }				
34.4	35.4	.70	70%		"				
35.4	36.2	.65	81%		"				
36.2	37.7	1.35	90%		"			36.7 wavy texture fol/CA = 10°	
37.7	38.6	.45	50%		"				
38.6	39.8	.95	79%		"				

SCALE 1:100 (1cm = 1m)

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141

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
39.8	41.4	1.25	78%		"				
41.4	42.6	1.00	83%		"				
42.6	44.1	1.45	97%		"				
44.1	45.6	1.30	87%	44.3	Gray siliceous pyroclastic (Ig)? - white (? feld) phenocrysts & dk streaks faint layering 45.2 - cream col sil section 45.6			Sharp but irregular contact across core 44.5 lay/CA = 55°	
45.6	47.1	1.45	97%		Gray siliceous pyroclastic - thin dk layers & white layers + frags			47: lay/CA = 50°	
47.1	48.4	1.20	92%		"			48.3: lay/CA = 54°	
48.4	48.9	.37	74%		"				
48.9	50.2	1.27	98%		"				
50.2	51.8	1.16	72%		" (more massive)				
51.8	52.3	.55	110%		"				
52.3	53	.60	86%		"				
53	53.4	HB↑ BA↓ .30	75%		"				

SCALE 1:100 (1cm = 1m)

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
53.4	54.4	.95	95%		"					
54.4	55.3	.60	67%		55.3 - 55.65 - Qtz vein					
55.3	56.4	.95	86%		"					
56.4	57.9	1.60	107%		"					
57.9	59.2	1.20	92%		"					
59.2	60.1	.85	94%		"					
60.1	61.2	1.25	114%		"			60.85: lay/cA = 50°		
61.2	62.2	.25	25%		"					
62.2	63.8	1.45	97%	62.2	Green/yell feldspathic (ignimbrite?) pyroclastic 30-40% feld x1 frags					
63.8	65.4	1.45	91%		Almost green/blue colour to pyroclastic & patches of pink					
65.4	66.9	1.40	93%		Dk-grn feldspathic pyroclastic rich in feldspar Xls (Ig?) 66.5: Distinct dk-grn porphyritic frags. evident					
66.9	67.8	.60	67%		"					
					67.6-67.8 - Ser. alteration - Pale grn altered rock	Ser. alt.				
67.8	69.3	1.35	90%		67.8-67.9 Qtz vein & GALENA 67.9-68.05 Pale-grn Ser. alt. Dk grn siliceous pyroclastic - Dk grn = white frags	Ser. alt.			GALENA-rich Qtz vein	

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-7

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISIBLE PERCENTAGE MINERALISATION
69.3	71.4	1.20	57%		dk-gm siliceous pyroclastic with lapilli sized fragments Characteristic frags- angular dk gm porphyritic frags (white angular phenocrysts in dk gm fine-grained matrix) Surrounded by a white siliceous "cherty" matrix - white siliceous matrix can contain feld. crystals and may consist of fragmented material - contains some distinct white cherty fragments - also some faint layered whitish siliceous frags					
71.4	72.9	1.50	100%		"					
72.9	74.4	1.50	100%		"					
74.4	75.9	1.50	100%		"					
75.9	77.4	1.45	97%		"					
77.4	78.9	1.50	100%		"					
78.9	80.4				"					
80.4	81.9				"					
81.9	83.4	1.50	100%		"					
83.4	84.9	1.51	101%		"					
84.9	86.4	1.50	100%		"					
86.4	87.9	1.54	103%							

SCALE 1:100 (1cm = 1m)

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
87.9	89.4	1.43	99%		"				
89.4	90.9	1.51	101%		"				
90.9	92.4	1.50	100%		"				
92.4	93.9	1.60	101%		"				
93.9	95.4	1.43	95%		"				
95.4	96.9	1.50	100%		"				
96.9	98.4	1.40	93%		"				
98.4	99.9	1.56	104%		"				
99.9	101.4	1.43	95%		"				
101.4	102.9	1.53	102%		101.6: layered sil. shale frag				
102.9	104.4	1.50	100%		"				
					103.7: 8cm of lime-grn sericite fol. rock - appearance of some shale frags ↑ 3 cm long 104.1: Pale-grn sil. volc. frag increasing no. of sil shale frags				
104.4	105.9	1.50	100%	104.5	Fragmented mixture of sil. cherty frags, shale frags, pale-grn sil frags [? Base of pyroclastic flow, flowing over old landscape picks up mixture of frags]			104.8 Crude layering lay/CA = 58°	Pyrite grains 1-2mm disseminated amongst frags
				105.3	Black carbonaceous shale - faint layering			-v. sharp contact break across core	layered lenses of pyrite - blebs of sphalerite
105.9	107.4	1.32	88%		"			106.4 Pyrite layering lay/CA = 25°	Pyrite + sphalerite in veins

SCALE 1:100 (1cm = 1m)

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5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
107.4	108.9	1.60	107%		Carbonaceous black shale Sulphide + Co ₂ veining				SPH + Py in veins + Co ₂ in veins
108.9	110.4	1.55	98%		"				"
									109.2 SPH/Py/cpy rich patch
110.4	111.9	1.55	103%		"				Minor SPH/Py in veins
111.9	113.4	1.54	97%		"				"
113.4	114.9	1.48	98%		"				Minor SPH/Py in blebs + veins
					Gradual increase in pale-green tuff, silt around black shale				
114.9	116.4	1.30	87%		"				114.9-115: Broken frags of pyrite SPH in veins
					115.2-115.4: Mainly pale-grn. tuff, silt				
					115.4: Coarse clastic patch with dk-grn porphyritic material				"
					115.48-116: Black shale				
					mixture of black shale, green porphyritic volc + cream pink qtz-feld porphyry frags				
116.4	117.9	1.60	107%						
				117.8	Fine grained volcaniclastic				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-7

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146

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
117.9	119.4	1.45	97%		"					
				118.8	Green Pyroclastic - containing distinctive dk-grn + lime-grn porphyritic frags - surrounded by lighter-col. Sil material with or without crystal frags					
119.4	120.9	1.63	100%		"					
120.9	122.4	1.36	91%		"					
122.4	123.9	1.50	100%		" 123-10cm of volcaniclastic with sil. shale → cherty frags (up to 2 cm) 123.1 - Fine grained lime-green unit - generally fine grained porphyritic material with sericite stringers and some distinct sil (rounded) frags ≥ 1 cm				V. minor sph + Py blebs	
123.9	125.4	1.40	93%		grades into a mixture of volc. + shale					
				124.4	Predominantly grey/black shale + extremely stringy out angular frags of lime-grn porphyry					
125.4	126.9	1.45	97%							

SCALE 1:100 (1cm = 1 m)

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
126.9	128.4	1.30	87%		"					
128.4	129.8	1.35	8%		128.7 Marked layering is developed in volcanoclastic & shale material			128.8: b/CA = 66° 129: b/CA = 67° 129-129.1 delicate bedding & interfingering textures 129.35 b/CA = 64°		
129.8	131.3	1.46	97%		"				Slugs of SPH in CO ₂ veins	
					130.7: Pyrite rich layers				130.7-130.76 Pyrite	
				130.76	Gray chert-mixed with lime-green feld. porphyry - edges of porphyry are very angular & wispy				Splashes of sphalerite & minor galena	
131.3	132.9	1.44	90%		"				"	
132.9	134.4	1.37	8%		"				"	
134.4	135.9	1.60	107%		"				"	
				134.45	Green Porphyry - Patchy light & dark Colouration				occasional slugs of sph	

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-7

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5 cm

DRILL ADVANCE

LITHOLOGY

LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VEINIAL PERCENTAGE MINERALISATION
	135.9	137.4	1.46	97%		"					
	137.4	138.7	1.10	95%		"					
	138.7	140.4	1.45	85%		"					
					140.3-140.4	Cherty frags					
	140.4	141.9	1.43	109%		141: chert frag z pyrite					
						"					
	141.9	143.2	1.20	92%		"					
					142.6	Volcaniclastic breccia z tuff to lapilli-sized fragments - Range of angular fragments varying size from 1-2mm to 7.5 cm				Minor Pyrite	
	143.2	144.7	1.45	97%							
					144.12	cream-coloured volcanic - contains qtz phenocrysts (1-3mm) and chlorite-rich green (? lithic) fragments (1-3mm) (Green fragments may be porphyritic) - Highly fractured					
	144.7	146.3	1.55	97%		"					

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-7

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149

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
146.3	147.9	1.60	100%		"					
147.9	149.4	1.50	100%	148.55	148-148.55 mixed zone of above below Dk-green volcanoclastic ss : fragments range from ash to fine-grained lapilli size					
				149	Finer-grained, rich in chlorite stringers and fragments, & ↓ pyrite rich				Fine-grained patches → layers of pyrite	
149.4	150.9	1.55	103%		Dk grey/green volcanoclastic sandstone					
				150.2	Volcanoclastic mudstone Pale-gm fine-grained massive rock & dk-gm chlorite stringers & pyrite showing layering			Contact & layering in m/s = $Lay/CA = 43^\circ$ 149.78 $Lay/CA = 44^\circ$	Thin pyrite layers & clusters 149.78 2cm wide SPH-rich band	
150.9	152.4	1.35	90%		"					
				151.5	Increasing lime-grn volcanic component.					
				151.9-152.1	Chert & intermixed angular patches of lime-grn volc.			151.8 - Pyrite layering $Lay/CA = 39^\circ$	Stringers, lenses & veins of Py and SPH/CPY.	
152.4	153.9	1.23	82%		Mixed volcanic mudstone, grey chert and coarse pale yellow/green pyroclastic fragments				Disseminated pyrite patches & stringers of pyrite- blebs of SPH/CPY all esp. with chert.	

SCALE 1:100 (1cm = 1m)

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150

5 cm

DRILL ADVANCE

LITHOLOGY

DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
153.9	155.4	1.53	102%		"					
				154.3	Predominantly gray chert Z patches + stringers of pyrite				Patches + stringers of Pyrite - Pyrite grain size varies from <1 + 2mm Pyrite ↑ 10%	
155.4	156.9	1.50	100%		"				"	
				156.3 - 156.6	Pyrite rich "				156.3 - 156.6 Pyrite = 50% Pyrite up to 5mm	
156.9	158.4	1.43	95%		"				Pyrite up to 50% in some sections 157.25 Pyrite 71cm	
158.4	159.9	1.60	107%		"				Pyrite varies from <1% → 30%	
159.9	161.4	1.45	97%		"				Pyrite 5-10% 160.9 - 161.4 CPY also present in veins	
161.4	162.9	1.42	95%		"				Py 5-10% CPY in some veins few slugs of SPH.	

SCALE 1:100 (1cm = 1m)

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
162.9	164.1	1.05	87%		"				Pyrite < 5% Minor CPY	
164.1	165.7	1.43	89%		"				Pyrite < 2% Minor CPY	
165.7	166.8	.75	68%		"				Pyrite 2-3%	
				165.8	DK-grm volcanoclastic M/S with varying amounts of gm- porphyry components and cherty material - Porphyritic material commonly as lapilli-sized frags in finer grained material					
166.8	167.4	.60	100%		"				Pyrite < 1%	
					167.3-167.4: Cherty- Py/CPY rich				167.3-167.4. Py/CPY rich	
167.4	168.9	1.50	100%		DK-grm volcanoclastic M/S (Mixture of porphyry volc material & cherty material)				Minor dissemin. Pyrite	
				168.3	Predominantly green Porphyry Fine-grained dk-grm matrix - with white angular frags (1-3mm) - appear to be mainly xl grains (phenocrysts) - feldspar Contains an abundance of pale. yellow lithic fragments ranging in size from < 1mm → > 4cm					

SCALE 1:100 (1cm = 1m)

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENT MINERALISATION
					These fragments contain qtz-grains + angular green chlorite frags - they also have flow(?eudascitic) texture - ie ? ignimbrite frags - these frags can consist of up to 10% of the rock - although the lithic fragments can have pointy edges they commonly have sub-rounded edges (? included fragments of a qtz/feld ignimbrite in a dacitic/andesitic porphyritic lava → pyroclastic)					
168.9	170.4	1.50	100%		"					
					[170.3: PET-EAF-7/1]					
170.4	171.9	1.57	105%		Varying degrees of alteration vary the colour from dk-grn to cream (with exactly the same textures + features)	Varying deuteric alteration				

SCALE 1:100 (1cm = 1 m)

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
174.9	176.4	1.50	100 %		"	"				
176.4	177.9	1.58	105 %		"	"				
177.9	179.4	1.45	95 %		Less acidic (light-col) fragments - more fragmented appearance to dk-green porphyry					
179.4	180.9	1.50	100 %		" (cream colour)	Deuteric alteration				
180.9	182.4	1.46	97 %		" 181.7 Qtz/CO ₂ veining present ↓	Variable alteration				
182.4	183.9	1.60	107 %		Dk-grn porphyry ± Qtz/CO ₂ veining					
183.9	185.4	1.40	93 %		"					
185.4	186.9	1.40	93 %		185.7 coarsely fragmented texture - large (↑ 6cm) porphyritic (dk grn) frags in a lighter coloured dk-grn fragmented matrix More pyroclastic phase of Dk-grn porphyry above					

E.O.H.

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-7

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PROJECT	PINNACLES	AREA	5/63 Pt 4	DDH
CO-ORDS	377769.10E 5384673.7IN	DEC LN -45	AZIMUTH 271	RL 488.74
DATE COMMENCED	24/8/84	DATE COMPLETED	30/8/84	DRILLED BY LONGYEAR
Non Coring to:	1.5	HQ Core to:	63.8	HQ Core to:
		HQ Core to:	106	HQ Core to:
				EOH 106

Instrument:

LOG SUMMARY

Signature *[Signature]*

Date 23/9/84

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	
0	1.5				NO CORE					
1.5	2.6	0.05	4%		Rounded pebbles of cream siliceous porphyry (? porphyritic)					
2.6	3.1	.37	74%		Cream siliceous porphyry with angular grn fragments ($\uparrow \frac{1}{2}$ cm)					
3.1	5.6	.36	14%		Pale green/cream siliceous volc.					
5.6	7.1	.19	13%		siliceous volcanic contains some angular fragments (< cm)					
7.1	7.9	.15	19%		Fragments of white/cream sil. volc.					
7.9	8.6	.18	26%		Pebbles of sil. volcanic - fragments withd out					
8.6	9.1	-	-		NO CORE					
9.1	11.6	.71	28%		Blotchy green/white volcanic breccia - angular dk green porphyritic fragments + white sil. frags ($\frac{1}{2}$ cm - 2-3 cm)					
11.6	13.1	.24	16%		"					
13.1	14.6	.35	14%		? frag. $\geq$ 6cm					

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-8

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5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
14.6	15.6	.59	59%		Volcanic breccia with distinct dk-gm fragments (typically < 3cm) ± porphyritic texture				
15.6	17.1	.56	37%		White volcanic/pyroclastic - distinct angular frags (< 1cm)				
				16	Blotchy gm/white col. breccia volc. Breccia				
17.1	17.6	.37	74%		"				
17.6	18.9	1.13	87%		"				
				18.5	White qtz porphyry (? v. large frag)				
				18.8					
18.9	20.6				Volcanic Breccia Blocks > 6 cm Large gm porphyritic blocks Layered gm and white blocks Pink siliceous blocks				
20.6	21.2				"				
21.2	22.7	1.55	103%		Some v. large angular pink/green siliceous blocks 76cm - qtz grains in pink layers and ? flow textures - distinct angular gm frags ± porphyritic texture				

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-8

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DRILL ADVANCE				LITHOLOGY						5 cm		VISUAL PERCENTAGE MINERALISATION
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION			
22.70	24.5				"							
24.5	25.7	.93	77%		"							
25.7	26.6	.61	68%		"							
26.6	27.30	.75	107%	26.6	Pale-grn ash tuff. with grey/ blue chert fragments 27-27.3 Coarse Bl/gy patches of chert							
27.3	27.9	.60	100%		Pale-grn ash tuff and chert							27.5-27.6 - Minor slugs of pyrite <1%
27.9	28.6	.25	36%		"							
28.6	29.3	.65	93%		Predominantly Pale-grn ash tuff							
29.3	30.10	.50	62%		" Parts appear porphyritic - also probable eutaxitic (wavy) texture							
30.1	30.6	.40	80%		"							
30.6	31.2	.25	42%		Slightly more blue/gray colour							
31.2	32.4	1.03	87%		Pale-grn ash tuff - apparent stringers defining an eutaxitic texture						31.9 Fol/CA = 57°	

SCALE 1:100 (km = 1 m)

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DRILLHOLE LOG FOR DDH EAF-8

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LITHOLOGY

**VISUAL
PERCENTAGE
MINERALISATION**

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
				32.25	bl/grey chert				
32.4	33.9	1.40	93.7%		pale-green pumiceous ash tuff (lignimbrite) - autaxitic texture				
33.9	35.4	1.40	93.7%		"				
35.4	36.9	1.40	93.7%		" extremely well developed autaxitic texture - large pumice fragments - also large cream col. frags with qtz (? pumice also)				
36.9	37.7	.73	91%		Pumiceous ash tuff (pale-green)				
37.7	38.6	.80	89%		"				
38.6	40.1	1.25	83%		"				
40.1	41.6	1.20	80%		" - some large-elongated chlorite fragments? pumice a broken up cream coloured frags			4.2: fol/CA = 70°	
41.6	42.5	.60	84.7%		"				
				42.4	Black Shale			42.9 CA/LAY = 65°	SPH veins

SCALE 1:100 (1cm = 1 m)

DRILLHOLE LOG FOR DDH EAF-8

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
42.5	43.6	.95	85%		"				"	
43.6	45.1	1.40	93%		"				"	
45.1	46.9	.65	56%		with bedded gm. volcanics				"	
46.9	47.5	.60	100%		"			47.2 LAY/CA = 53°	"	
47.5	49.1	1.40	87%		"				"	
49.1	49.7	.50	83%	49.1	Predominantly volcaniclastic sandstone to breccia - 2 large shale frags					
49.7	50.6	.80	89%		"					
50.6	51.6	.40	40%		"					
51.6	52.7	.90	82%		"					
52.7	53.6	.65	72%		"					
				53.45	cream-coloured (? Dacitic) Volcanic - Fine-grained porphyritic texture - intense stringers					
53.6	55.1	1.40	93%							

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-8

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5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
55.1	56.5	1.00	71%		Gray massive fine-grained porphyritic volcanic - contains white phenocrysts (? feld xl's) = 1 mm + dark-grn porphyritic lithic frags. 1-3 mm size				
56.5	(? 58)	.86			"				
				57.2	Pale grey/green → yellow colour Bedded cherty unit			Bedding/CA: 72°	57.3: Thin layer of sulphide
? 58	? 59.6	.50			"				
59.6	60.4	.40	50%		"				
				59.1	Pale yellow green porphyritic volcanic	chlorite veins			
60.4	61.5	.90	82%		"	"			
61.5	62.6	1.05	95%		"				
				61.7	streaked or layered Pink/yellow to green fine-grained porphyry			layering broadly // to CA	
62.6	63.8	1.20	100%		"				

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-8

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
63.8	64.5	.60	86%		Pale yell (cream) volcanic	Green-chlorite veining				
64.5	65	.35	70%		"					
65	66.5	1.50	100%		Pink + green layered volcanic - fine-g phenocrysts			lay/CA: 59°		
66.5	68	1.55	103%		"					
				66.8	Pale green/cream Porphyry White phenocrysts are coarser - typically 2-3 mm - massive	occasional chlorite stringers				
68	69.5	1.40	93%		"					
69.5	71.2	1.50	88%		"					
71.2	72.7	1.45	97%		"					
72.7	74.1	1.15	82%		"					
				74	Faint layering in Porphyry					
74.1	75.6	1.20	80%		"					
				74.2	Gm-grey chert - distinct sub-rounded frags of chert = 1-3 cm					

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-8

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5 cm

LOST CORE	DRILL ADVANCE				LITHOLOGY						VISUAL PERCENTAGE MINERALISATION
	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	
	75.6	77.10	1.30	91%		"					
	77.1	78.6	1.40	93%		"					
	78.6	79.6	.90	90%		Grey chert frags less apparent					
	79.6	81.9	1.90	83%		Grey chert				Thin veins & splashes of SPH - minor CPY	
	81.9	83.4	1.40	93%		" qtz veins & sulphides				SPH - CPY in veins < 1%	
	83.4	84.4	.80	80%		"				"	
	84.4	85.9	1.40	93%		"				minor SPH in veins	
	85.9	86.7	.60	84%		"				"	
	86.7	88.2	1.40	93%						"	
	88.2	89	.60	75%		" Some greenish colouration coming in.					
	89	90.6	1.30	82%		chert & increasing grn porphyry content				Pyrite clusters	
	90.6	91.5	.70	78%		Mixed unit of chert and green porphyry					

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-8

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5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
91.5	92.4	.90	100%		"				
92.4	93.9	1.50	86%		"				
				92.8	Fine - yell green porphyry with blue/grey patches				
93.9	95.3	1.20	84%		Predominantly grn porphyry - white frags 2-6 mm				
95.3	96.3	.80	80%		"				
96.3	97.8	1.20	80%		Variable patches of pink silicification in green porphyry				
97.8	99.3	1.10	73%		"				
99.3	100.3	.60	60%		"				
100.3	101.4	1.00	90%		"				
101.4	102.9	1.20	80%		"				
102.9	104.4	1.30	84%		"				
104.4	106 EOH	1.30	82%		"				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-8

LOGGED BY R.H. ROBERTS FROM TO

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AUSTRALIAN ANGLO AMERICAN LIMITED

DRILLHOLE LOG

Summary Sheet

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PROJECT EL 5/63	AREA PINNACLES	DRILLHOLE TYPE DDH
CO-ORDS 377793.78 5384633.22	DECLIN -45°	AZIMUTH 270° MN RL 490.07
DATE COMMENCED 31/8/84	DATE COMPLETED 18/9/84	DRILLED BY LONGYEAR
Non Coring to: 3		DRILL RIG L/Y 38
HQ Core to: 65.2	NQ Core to: 262	BQ Core to: EOH 262

SURVEY DATA				Instrument:		
DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION	
	Uncorr	Corr			Uncorr	Corr
100		-46	268			
150		-45.5	269.5			
200		-44.25	270			
262		-41.25	272			

LOG SUMMARY

ROCK TYPE		MINERALIZATION	
0 - 3	No Core		
3 - 29	Pyroclastic ash with quartz phenocrysts (Pc-Ag): poor core and rubble		
29-45.9	Epiclastic breccia (Ec-B)	29-45.9	slugs of Py
45.9-48.6	Volcaniclastic breccia (Vc-B)		
48.6-54	Grey siliceous porphyry (Gy-P)		
54 - 60	Volcaniclastic breccia (Vc-B)		
60-101.2	Lapilli tuff (Pc-L)		
101.2-131.7	Lapilli tuff with large (1-10cm) black shale fragments		
131.7-149	Volcaniclastics and shales (Vc/S)	131.7-149	Minor Py, Sph
149-161.3	Silicified volcaniclastic (Vc, A:Si)	149-161.3	Minor Py, Sph, Cpy-Gal
161.3-163.5	Chert and massive sulphide (Ex)	162.5-163	Py-Sph 3-5%
		163-163.5	Massive sulphide (Sph/Gal)
163.5-165.6	Green Volcaniclastic (Vc)		
165.6-171.8	Minor sulphide (Ex-MS)	165.6-171.8	Sph-Gal-Cpy-Py
171.8-175.6	Chert and sulphide (Ex)	171.8-173.6	Sph-Cpy-Py 740%
		173.6-175.6	Py 730%
175.6-183.3	Intense pyrite -chlorite (black) alteration of green porphyry (G-Pf, A:Py-Cl)	175.6-183.3	Py 725%
183.3-201.9	Chert-sphalerite veins within green porphyry. Intense chlorite- sericite alteration associated with veining (G-Pf, A: S-Z)	183.3-210.9	Thick veins and patches of sulphide (Sph, Py, Cpy)

Signature

M. M. M. M.

Date

DRILLHOLE TYPE

AREA

DEC LN

AZIMUTH

RL

DH EAF - 9
No.

DATE COMMENCED

DATE COMPLETED

**DRILLED
BY**

DRILL RIG

Men Coming to:

HQ Core to:

NQ Core to:

BQ Core to:

EOH

Instrument:[illegible]**ROCK TYPE**

MINERALIZATION

ROCK TYPE			
			sulphide ranges
			from 5-10% up to
185.4-187.1:	Chalcopyrite-pyrite veining within the green porphyry. Intense chlorite (black)-pyrite alteration associated with veining (G-Pf, A; Py-Cl-Cpy)	50%	
201.9-220.5	Green porphyry with minor chert- sphalerite veining (G-Pf, A; minor S-Z)	201.9-220.5	Minor Sph/Py ~1%
220.5-228.5	Volcaniclastic with patches of sericite- nodular carbonate alteration (Vc, A: Se-Co ₃)		
228.5-243.7	Volcaniclastic breccia with patches of sericite-carbonate alteration. Some coarse fragments altered to sericite, carbonate and fuchsite (D-Vc-B, A: Se-Co ₃ -Fu)		
243.7-254.3	Pale-cream volcanic with sericite, carbonate and fuchsite alteration (D-P-, A: Co ₃ -Fu)		
154.3-262	Green porphyry		

Signature

Date _____

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LITHOLOGY

LOST COME

DEPTH

**DRILL
ADVANCE
INTERVAL**

CORE RECOVERY

PERCENT RECOVERY

INTERVAL

DESCRIPTION

ALTERATION

GRAPHIC
(LOG)

STRUCTURE

MINERALISATION

**VERBA
PUNCTATA
MINERALISATIO**

EAF- 9

SCALE 1:100 (1cm = 1 m)

DRILLHOLE LOG FOR

DDH

LOGGED BY

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TO

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5 cm

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LITHOLOGY	DRILL ADVANCE				INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY							
	0	3.5	0.15	30%		30 cm Piece of core - Porphyry					
	3.5	5	0.15	30%		Rubble					
	5	6.5	0.02	1.3%		"					
	6.5	8.6	0.01	0.5%		"					
	8.6	9.2	0	0		"					
	9.2	10.1	0.01	1.1%		"					
	10.1	11.6	0.10	7%		"					
	11.6	12.9	1.00	77%		Cream/Pale-grn qtz porphyry Sludge/Core					
	12.9	14.3	0.85	61%		"					
	14.5	15.8	0.55	37%		Pale-green siliceous volcanic - apparent qtz (white) throughout ? phenocrysts					
	15.8	16.5	0.07	10%		"					
	16.5	17.6	0.15	14%		Rubble "					
	17.6	19.1	0.70	47%		Rubble + broken core					
	19.1	20.4	0.27	21%		Rubble					
	20.4	21.8	0.30	21%		Pale green siliceous qtz porphyry					
	21.8	22.9	0.50	45%		"					
	22.9	23.6	0.10	14%		"					

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-9

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTM	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
23.6	25.1	0.60	40%		Coarse qtz porphyry -yellow-green colour					
25.1	26.6	0.65	43%		Quartz Porphyry					
26.6	29				"					
29	29.6	0.10	17%	29	Mud (Sludge)					
29.6	31.10	0.25	17%		Gravel & rounded pale-green frags + dk grey sil (hard) shale (?) frags					
31.1	32.6	0	0		"					
32.6	33.1	0.30	20%		"					
33.1	34.1	0.30	30%		"					
34.1	34.3	0.15	75%		Frgs of Breccia -pieces of grey and pale-green rock					
34.3	35.1	0.45	56%		Volcaniclastic Breccia (?Fc) V angular frags - Pale-grn sil. volc. - lighter col. volc. - dk grey sil shale (cherty) - Cherty frags - Grain size typically < 2cm - dk grey frags range up to 4-5cm					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-9

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5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
35.1	36.7	1.00	62%		"				26.5 1 1/2 cm slug of pyrite
36.7	37.5	0.30	37%		Rounded pebbles of shale & volc frags				
37.5	38.3	0.40	50%		Volcaniclastic Breccia				
38.3	39.1	0.65	81%		"				
39.1	40.1	0.50	50%		"				40.0 slug of pyrite
40.1	41.3	0.65	54%		"				41.2 "
41.3	42.5	0.75	62%		"				
42.5	43.3	0.35	44%		"				
43.3	44	0.40	51%		"				43.3 slug of SPH
44	44.6	0.65	108%		"				
44.6	45.9	0.50	38%		Pebbles of " components				
45.9	47.4	0.80	53%	45.9	? Brecciated - Consists predominantly of cream col. quartz porphyry fragments. - minor greenish feldspathic component (? frags)				
47.4	48.6	0.40	33%		Pale-grn sil. volcanic rubble & core fragments				
48.6	50.1	0.50	33%		Broken core fragments of grey sil volcanic				

SCALE 1:100 (1cm = 1m)

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
50.1	51	0.75	83%		Gray Sil. volc. - Parts show gray/white layering - parts show fine-grained porphyritic texture					
51	52.2	1.15	96%		"					
52.2	53.2	0.90	90%		"					
53.2	54	0.60	75%		"					
54	55	0.55	55%	54	Rubble = core fragments Pale-cream col. sil volc.					
55	56.3	0.80	61%		Cream/yell sil. volc. rubble					
56.3	57.1	0.80	100%		Volcaniclastic breccia with gray cherty frags (up to 10cm) and frags of yell. green volcanic					
57.1	58.1	0.60	60%		Pink/white siliceous breccia (core fragments)					
58.1	59.1	1.00	100%		Pale-coloured volcaniclastic breccia. 58.3: some distinct angular pale-green frags (7cm)					
59.1	60.3	1.20	100%		Pale-coloured pink/white volcaniclastic breccia					
				60	Frags of core & darker green colouration = porphyritic frags					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-9

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
60.3	61.8	1.50	100%		"				
				60.7	Beginning of solid core recovery Pyroclastic Breccia - Lapilli-sized fragments of dark-green porphyry (lithic Lapilli Tuff)				
61.8	63.2	1.40	100%		"				
					- Pale-green porphyritic frags - also coarse (<2mm) xl frags - siliceous frags - high sil content - but dk green in general colour				
63.2	65.2				"	64.7-64.9 Intense sil alteration - Pink/white			
65.2	67	1.75	97%		"	66.6-67 Intense sil alteration (deuteric!) - Sil white rock with pink porphyritic frags			
				66.6 → 67 - ALT →					
67	70	2.80	93%		Pyroclastic breccia - Massive Lapilli Tuff- - distinctive angular dk-green porphyritic frags ranging from a few mm → several cm - large fragments lie within a fine-grained fragmented matrix of small lithic fragments of porphyritic + sil volc and white xl frags. - variable dk-green to pink colouration because of alteration.	- varying degrees of white/pink siliceous alteration.			

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-9

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5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
70	73	2.95	98%		"				
73	76	3.15	105%		"				
76	79	3.00	100%		"				
79	82	2.90	97%		Appear to get distinct pink fragments & dk-grn frags - both show identical porphyritic texture with white X's, typically a few mm wide & with sub-euhedral shape				
82	85	3.00	100%		"				
85	88	2.80	93%		- 87.9 CO ₃ vein	Siliceous alteration			
88	91	3.05	102%		99.7 - Large frag (8cm) of gray sil porphyry - Large pink-massive sil volc frags common				
91	93.7	2.60	96%		Contains distinctive white (sil rhyolite?) volc frags which contain small (1-2mm) patches of white alteration and pyrite				

SCALE 1:100 (1cm = 1m)

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DRILL ADVANCE				LITHOLOGY					
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
93.7	96.7	2.90	97%		Pyroclastic breccia (lapilli) both - dk-grm porphyritic frags and white sil porphyritic frags				
96.7	99.8	3.00	98%		" - Coarse CO_3 veins	intense silification			
99.8	102.8	3.05	102%		Pyroclastic Lapilli Breccia	"			
				101.2	First evidence of a black shale fragment. - frags 2-4cm wide + angular - also fragments of epiclastic & pyrite grains (ie Ecpry)	"			
102.8	105.9	3.00	97%		Pyroclastic Lapilli Breccia - 104.6: Black shale frag 2 minor pyrite - 105.3: Grey chert frag (1 1/2 cm) - 105.4: Excellent frag showing contact between shaley (Py) epiclastic and pyroclastic ash within Pyroclastic	Varying degrees of siln.			
105.9	109	2.80	90%		"				
					107.5 Increase in density and size of black shale frags - shal frags show well developed sed structures				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-9

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
					108.4 108.7 Dominantly black shale with qtz veins bearing sphalerite				- V minor sph in veins cutting black shales	
109	112	2.90	97%		Pyroclastic Lapilli → Blocky Breccia - Most frags < 2-3cm but shale frags up to 10-15 cm. - Co ₃ veining common.					
112	115	2.95	98%		" 114.9 Bedded shale frag with Py in darker layers					
115	118	2.90	97%		" Large included fragments more like layered chert than shale - typical pale grey/white and light grey layers					
118	121	2.90	97%		" 118.3 - Coarse patch of Co ₃ 119.6 - Large (10 cm) black shale frag - thin sph veins + Py grain (patch) 2mm					
121	124	2.75	92%		"					

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EA9-9

LOGGED BY RH ROBERTS FROM TO

DATE / /84

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184176

175

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE (INTERVAL)	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
124	127	2.95	98%		(124-7) predominantly Pyroclastic Lapilli Breccia Both dark and pink fragments - some v. large pink blocks with white frags					
127	130	3.05	102%		" Some distinct lime gm porphyry frags	Strong silica alteration				
130	133	2.80	93%	130-7	" Mixture of Pyroclastic frags - mainly lime-gm porphyry frags - with black - shale component. - fragments quite angular and up to 4-5 cm 131.4 - Finer grained volcaniclastic mixture of shale and pyroclastic frags 131.7					
				131.7	BLACK SHALE - well bedded with grey, cherts and greenish volc layers 132.2-132.6 - chert/pyrite rich patch			131.9 = $B/CA = 54^\circ$ 132.7 = $B/CA = 43^\circ$	Disseminated Pyrite < 1% 132.2-132.6 Pyrite rich = 1%	
133	136	3.00	100%		Black shale - atz/co ₃ veining? two phases 1) atz/co ₃ 2) co ₃ - minor green porphyritic frags			Bedding quite variable and at lines // to LA eg - 135.6		

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-9

LOGGED BY RH ROBERTS FROM TO

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176

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
136	137.9	1.70	59%		Black shale			135.6 B/A = 27° NB Bedding abruptly cut off (fault)	
137.9	139	1.10	100%		"				
139	141.8	2.70	96%		" parts quite cherty in appearance				
				140.3	Volcaniclastic sandstone mixture of grey siliceous (cherty) component and green porphyry lenses				
				141.2	Black shale				Thin CO ₂ veins - 2 minor SPH
141.8	144.8	3.00	100%		Black shale - some cherty sections			142.9 b/cA = 64°	"
144.8	146.8	1.85	92%		Black Shale/volcaniclastic Mixture				
				145.6	Black Shale				
				146.3	z Brecciated CO ₂ vein				
				146.3	Mixed chert and Green Porphyritic Volc				
146.8	149.9	2.95	95%		Mixed grey chert z Pyrite and stringers of green porphyry				Pyrite < 1%

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-9

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5 cm

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DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
149.9	152.4	2.35	94%		Green/grey Feldspathic Porphyry - white phenocrysts 1-2 mm					
152.4	154.1	1.30	76%		Green Porphyritic fragments in a grey siliceous matrix					
154.1	155.8	1.80	88%		"				CO ₃ veins with coarse (Some 75mm) Sphalerite Sphalerite is a v. brown	
155.8	156.3	0.10	20%		Rubble of above					
156.3	157.1	0.50	62%		"					
157.1	160.	2.60	90%	156.5	Coarse white Qtz 2 dk green angular frags & CO ₃ pieces					
					Mixed chert of green volcanic material					
				157.8	Coarse white Qtz - fragmented by CO ₃ veins - mixed with green volc. 158.6-159.6: Fine grained green volc & Qtz veins 159.6-159.8: White Qtz vein.				158.1: Large Pyrite slug 2cm across in Qtz. 158.3: cpy bits in Qtz 158.4-158.5: Vein of Py/cpy/SPH/Gal (layered band of Sulphide) 158.5-158.6: cpy Py in Qtz.	

Sulphide Band/CA
= 35°

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-9

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178

5 cm

DRILL ADVANCE				LITHOLOGY						
LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
						159.8-160: Fine-grained green porphyry				
	160	163	2.80	93%						
					161.3	Grey chert with fragments of green porphyry (angular frags (= 1-2cm)) - Increasing chert/sulphide content down core				Fine disseminated Pyrite ± some massive Py sulphide patches
					162.5	Blue/Grey chert rich in Sulphides				162.5 - 163.8 Pyrite rich 3-5%
						163.0-163.2: MASSIVE SULPHIDE 163.2-163.5: Sulphide-rich SPH/GAL/PY CHERT				162.8 - 163: Py/SPH = 3%
					163.5	Green Porphyritic Vblc - Dk-grn porphyry frags in pale-grn/cream matrix			Extremely sharp contact Contact/CA = 44°	163-163.2 GAL/SPH/ >60° - 40% SULPHIDE
	163	166	2.80	93%	165.6	Massive Sulphide				Galena-rich with brown-yell sphalerite - lesser chalcopyrite

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-9

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179

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	PERCENT MINERALISATION
166	169	2.90	97%		"				"	
				168.8	Lighter - coloured Sulphide rich Py/SPH/GAL with yellow/white alteration - chert material common				30% Sulphide Py/SPH/GAL	
169	172	3.00	100%		"				"	
				169.35 171 PET. 2	Massive Sulphide			170.6: Lay/CA = 37° 45° 171: Lay/CA = 38°	Galena rich + Galena-sph layering - Plus cpy layering 760%	
				171.8	Chert Blocks & massive Sulphide				cpy-rich & layers of SPH/GAL = 50%	
172	175	3.00	100%		"				cpy/SPH/Py Sulphides 40-50%	
					173.3-173.6: chert dominates					
					Intense sulphide/chert alteration (?) or primary deposition. - Possible dk-gm relict patches of volcanic				Pyrite 30-40%	

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-9

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180

5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
175	178	2.95	93%		11				
				175.6	Lime-gm volcanic(? porphyry) with v dk gm (almost black)	? chlorite/pyrite alteration			Pyrite varies from fine-grained dissemination to coarser (1-2m) clusters Pyrite < 5%
				176.6	? chlorite/pyrite alteration				
				PET.3					
				177.1	Pyrite-rich section ± chalcopyrite bands				Pyrite = 30% • chalcopyrite rich bands
178	181	3.00	100%		Intensely altered green volcanic - some relict fragments(?) one porphyritic in texture	? chlorite/pyrite			20-25% Pyrite
181	183.6	2.45	94%		11 Porphyritic material more common - large green porphyry frags in a black chlorite/pyrite material	11			Pyrite = 5%
				183.3	Fragmented Green Porphyry - white xl's.(?) 1-2mm - Fragments in a grey siliceous/pyrite matrix with coarse patches of sphalerite				Pyrite 2-3% Sph = 1%

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-9

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
183.6	186.6	3.10	103%		Fine grained Green Porphyry with veins, slugs and disseminations of SPH (coarse), CPY, ? GAL and some CO ₃				Sulphides 5-10% SPH, CPY, GAL	
				185.9	Altered Porphyritic Volc	Chlorite/Pyrite			Pyrite + 30-40% Some CPY	
186.6	189.7	2.90	93%		"	"			"	
				187	187-187.2 Gm Porphyritic frags in a cherty matrix Fine-grained altered rock (? Porphyry) Now fine-grained grey silica and pyrite with fine-grained (clmm) green fragments disseminated within the rock.				Pyrite 10-15% Coarse veins & patches of SPH/PY/CPY 1-2%	
				189.3	Fine-grained gm porphyry - sheared				- veins of SPH/PY silica	
189.7	192.7	2.30	77%		"				"	
				190.5	Green Porphyry - veined by SPH/PY/Silica/CO ₃ - Parts pervasive in PY/Silica				SPH/Pyrite 5-10%	

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-9

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VEIN MINERALISATION
192.7	195.8	3.05	98%	193 PET 4	Gnn Porphyry fragments mixed with a porcellanous-like chert a coarse veins of sulphide - get grey siliceous/pyrite alteration around coarse veins (of porphyry) - plus porcellanous chert and CO ₃ in coarse veins with sulphide - Plus pale-yellow coloured patches of alteration - commonly void	Pyrite/silica? a Patches of clay/sericite? alteration			Coarse veins and patches of SPH (typical orange/brown) Py, a lesser CPY, Sulphides = 20%	
195.8	198.8	3.00	100%	193.8 PET. 5	Varies to Chert/Sulphide mixtures with patches of intensely altered volc. To Angular Gnn Porphyritic frags in Grey Chert				Sulphides vary up to 50% Coarse veins & patches of SPH (orange/bm) CPY, & Py.	
198.8	201.9	3.00	97%		Mixture of Porcellanous Chert (v. Angular fragments) - Gnn Porphyry Frags (ALT) a Sulphide Veining				" Sulphides 5-10%	
201.9	205	2.95	95%	201.9	Predominantly Pale-green volc Porphyry mixed with lenses & frags of blue/grey chert	Some clay alteration of gnn porphyry			"	

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-9

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
205	208	2.80	93%		Fine-grained Green Porphyry Minor cherty veins & lenses - minor CO ₂ veins				Minor SPH/CPY mineralisation & siliceous material = 1%	
208	210.7	2.80	104%		Green Porphyry - Grey Siliceous patches & veins with sulphide - later CO ₂ veining				Patches of sphalerite & disseminated pyrite Sulphide = 1%	
210.7	213.8	2.80	90%		Predominantly grn. porphyry				- Minor disseminated Pyrite < 1%	
213.8	216.7	2.95	102%		Grn Porphyry with patches of mixed chert & Porphyry				Minor patches of silica/SPH, Py < 1%	
216.7	219.8	2.95	95%		Grn Porphyry				Minor sulphide veins	
219.8	222.1	1.75	76%		"				"	
				220.5	Highly fractured Grn Porphyry with patches of grey silica and pyrite CO ₂ veins pervade rock				Patches of disseminated Pyrite and galena GAL in thin CO ₂ vein	
222.1	225.2	2.95	95%		Mixture of Chert and altered grn volcanic material - abundant CO ₂ veins	Intense CH/SBR (?) ALT of volc component		222.4 Log/CA = 53°	Pyrite slugs - Minor SPH & GAL in CO ₂ veins	

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-9

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COST CONE

LITHOLOGY

**VOLUME
PERCENTAGE
MINERALIZATION**

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
228.2	331.3	2.90	93.9		Volcaniclastic Breccia - dominantly by green volcanic with shear foliation - sub-rounded spots of CO_3 up to 1 cm? pseudomorphing feldspar	CO_3 spots			- Minor Pyrite	
				228.45	Volcaniclastic Breccia with coarse gray chert frags - Pale-grn porphyritic frags varying from $< \frac{1}{2}$ cm - 10 cm - Extremely angular edges in a finer-grained volcaniclastic matrix rich in chert frags 228.9 - 229.0: Patch-probably large fragment of sub-rounded CO_3 grains separated by minor green material CO_3 spots up to 1 cm	228.8 - Pale grn frag - full of FUCHSITE (1-2%)			Minor Pyrite with chert frags	
				PET 6 229.8	229.2 - 229.6: Thick clusters of CO_3 nodules Volcaniclastic Breccia contr. Pale-grn frags with distinctive dk-grn pheno's	Small splashes of FUCHSITE in pale-grn frags.				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-9

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5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
231.3	234.4	3.05	98%		Volcaniclastic Breccia with coarse Pale-grn angular frags. in finer-grained cherty to matrix	FUCHSITE - CO ₃ veins			Slugs of Pyrite
					333.6 - 333.8: Well bedded Volcaniclastics				
234.4	257.6	3.00	94%		"	"			"
				336.5	Darker grey-grn volcaniclastic breccia - generally finer grained - contains coarse >10cm grn frag chert fragments (blocks)	FUCHSITE IN occasional Pale-			
257.6	240.6	2.80	93%		" Patches of angular dk-green porphyry in chert				Some pyrite lenses
240.6	243.4	2.55	91%		Grey Volcaniclastic Breccia - Coarse dk-grn frags 242.5 - 243.2: Grey Chert Section with CO ₃ veins				Minor Pyrite in chert
243.4	246.4	2.95	98%	244.8 PET 7	Mixed zone of grey volcaniclastic and Green/Buf coloured lava				Minor Pyrite grains

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-9

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5 cm

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
				246.7	Buff/green coloured lava - v. fine-grained porphyritic texture - contains small patches of grey chert.	Distinctive splashes of RICHSITE throughout.			
				248.5	Gnn - Feldspathic Porphyry - sub-euhedral white (feld) xl fragments (1-5mm) in fine-grained green matrix - plus distinctive rounded qtz grains typically 1-2mm	Thin CO ₃ veins - Some CO ₃ replacement of feld.		V-sharp, but slightly irregular contact CONTACT/CA = 54°	
246.4	249.5	3.15	102%		"				
249.5	252.7	3.05	95%		"				
252.7	255.8	3.15	102%		"				
255.8	258.9	3.10	100%		"				
258.9	262	3.05	98%	PET 8 260.5	"				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-9

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AUSTRALIAN ANGLO AMERICAN LIMITED DRILLHOLE LOG

Summary Sheet

Page 1
of 1

PROJECT	5/63 Pt 4	AREA	PINNACLES	DRILLHOLE TYPE	DDH
CO-ORDS	DECL^N	AZIMUTH	RL	DH No.	EAF-10
DATE COMMENCED	21/9/84	DATE COMPLETED	9/10/84	DRILLED BY	LONGYEAR
				DRILL RIG	L/Y 38
Non Coring to:	3m	HQ Core to:	53.3m	HQ Core to:	256m
		BQ Core to:		EOH	256m

SURVEY DATA

Instrument:

DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION		AZIMUTH
	Uncorr	Corr			Uncorr	Corr	
Collar		-45°	270° MN				
100							
150							
200							
250							

LOG SUMMARY

ROCK TYPE		MINERALIZATION	
0-12.9	No Core		
12.9-79	Coarse-grained lapilli tuff (Pc-L)		
79-98.1	Mixture of volcanoclastic shales sandstones and breccias (Ch/Vc/S)	97.9-98.1	Py : 1-2%
98.1-100.4	Coarse-grained massive sulphide (Ex-MS)	98.1-100.4	Massive sulphide Gal/Sph (coarse patches of Sph (orange brown) and Cpy)
100.4-116	Dark grey chert with sulphides (Ex), minor volcanoclastics	100.4-100.9	Minor Py: <1%
		100.9-102.8	Py : 1-5%
		102.8-103.1	Massive Py
		103.1-112	Veining of Py-Sph-Gal-Cpy : 1-5%
		112-116	Veins and patches of Py-Sph-Gal-minor Cpy : 10-60%
116-136	Composite breccia of chert and green porphyry varying to green porphyritic volcanoclastic with major chert (G-PfC/G-Pc)	116-136	Py stringers
136-147.4	Chert and cherty volcanoclastics (Ex) 137.6-139.5: Co ₃ alteration	136-137.6	Py and minor Sph, Gal : 1-2%
		137.6-139.5	Sph (red) -Py-Gal

Signature

M. Hobbs

Date 12/10/84

DRILLHOLE TYPE

DH EAF-10
No.

EOH

Instrument:

AZIMUTH

ROCK TYPE

MINERALIZATION

Coarse grained:

5-10%

139.5-	Py-minor Sph, Cpy

147.4	:1-2%

147.4-194.1	Green porphyry with silicification and iron staining (G-Pf, A: Fe, Si)

194.1-240.2	Green Porphyry with chert-sphalerite veins and stringers (G-Pf, A: S-Z)

194.1-	Massive sulphides
240.2	with chert veins:
	Py-Sph-Gal : <1%

240.2-256 Green porphyry

Signature

Date

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LITHOLOGY

SCALE 1:100 (1cm = 1 m)

DRILLHOLE LOG FOR DDH _____

LOGGED BY _____ FROM _____ TO _____ DATE ____/____/____ PAGE ____ OF ____

5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
0	3.4	0.27	79%		CORE SLUDGE				
3.4	4	0.30	50%		"				
4	5.6	0.25	15.6%		"				
5.6	7.1	0.33	22%		" Cream/orange Colour				
7.1	8.6	0.29	19.3%		"				
8.6	11	0.45	18.7%		" with pebbles of Blue/green Porphyry (from Volc Breccia)				
11	12.4	0.66	47.1%		"				
12.4	12.9	0	0		Plug of soft grey volcanic				
12.9	14.6	0.22	12.9%		Whitish Volc with green veining				
14.6	16.1	0.26	17.3%		Volcanic Breccia Green and white frags				
16.1	17.6	0.31	20.6%		Volc Breccia - Pale Colour - green porphyritic frags - white frags (white euhedral X's in dk green frags)				
17.6	19.1	0.22	14.6%		"				
19.1	20.6	0.38	25.3%		"				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-10

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE (INTERVAL)	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VOL% PERCENTAGE MINERALISATION
20.6	22.1	0.56	37.3%		"					
22.1	22.9	0.34	42.5%		"					
22.9	23.6	0.45	64.3%		"					
23.6	26.1	0.75			BETTER CORE Volcanic Breccia : Lapilli Tuff - Frags of dk-green Porphyry a Pink Sil Frags - General Green/white Blotchy appearance					
26.1	27.6	0.72	48%		Distinct "Green Porphyritic frags & large 6 cm frags					
27.6	28.2	0.20	33.3%		"					
28.2	29.8	0.15	9.4%		Rubble					
29.8	31	0.40	33.3%		Volcanic Breccia (as above)					
31	32.6	0.70	43.7%		"					
32.6	34	1.00	71.4%		" some quite coarse white angular frags with dk-green frags					
34	35	0.50	50%		"					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-10

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
35	35.6	0.20	33.3%		"					
35.6	36.2	0.20	33.3%		"					
36.2	37.4	0.80	66.6%		"					
37.4	38.1	0.60	85.7%		"					
38.1	39.6	1.35	90%		" (poor lamina texture)					
39.6	41.1	1.30	86.6%		"					
41.1	42.8	1.45	85.3%		Lapilli Tuff - Abundance of dk-green porphyritic frags.					
42.8	44.1	1.15	88.5%		"					
44.1	45.3	1.10	91.6%		"					
					44.5 - Coarse grey volcaniclastic frag.					
45.3	46.6	0.85	65.4%		"	orange/cream alt (? ox)				
46.6	47.6	0.75	75%		" Greater predominance of siliceous frags + green chlorite stringers - Grey/Green porphyritic frags with orange/pink phenos	"				
47.6	48.7	0.80	72.7%		"	"				
					Flow textures in some sil frags qtz grains in some frags kf(?) xls					

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-10

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5 cm

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DRILL ADVANCE				LITHOLOGY					
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
48.7	50.2	1.10	73.3%		Volcanic Breccia - Mixture of white-sil frags-irregular edges → rounded edges + dk-grn porphyritic frags				
50.2	51.8	1.40	87.5%		"				
51.8	53.3	1.40	93.3%		White chert frags + green porphyritic frags dominate				
		HGT							
53.3	54.1	NQ + 0.40	50%		"				
54.1	55	0.80	88.8%		"				
55	56.3	0.90	69.3%		"				
56.3	58	1.15	67.6%		"				
58	58.8	0.70	87.5%		"				
58.8	60	1.00	83.3%		"				
60	61.1	0.80	72.7%		"				
61.1	62.8	1.30	76.5%		"				
62.8	63.5	0.55	78.6%		Volcanic Breccia with predominance of sil, orange frags containing Qtz phenocrysts				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-10

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
63.5	64.8	1.00	76.9%		"				
64.8	67	1.50	68.2%	64.8	Fine-grained volcanoclastic breccia - frags 1-3 cm Mixture of green porphyritic frags and grey chert frags - few coarse grey/black cherty shale frags				
67	69	1.50	75%		"			68.6 Fabric of CA-SI ⁹	
69	69.5	0.50	100%	69.2	Lapilli Tuff with predominance of xl rich porphyritic frags (dk. gm)				
69.5	69.7	0	0		"				
69.7	69.9	0.09	45%		"				
69.9	71.6	1.35	79.4%		"				
71.6	74	2.00	83.3%		"				
74	74.4	0.24	60%		"				
74.4	76.2	1.60	88.8%		" Pink sil qtz-bearing frags + dk-gm porphyritic frags common				
76.2	77.8	1.20	75%		"				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-10

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5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
77.8	79.9	0.90	75%		"				
				78.10	Fine-grained (<1mm) grey siliceous ash.				
79.9	80.7				Well-bedded tuffaceous silts & shales			Variable bedding/CA values - some // some 45°	
80.7	81.4	0.52	74.3%		"				
81.4	82.9			82.8	Volcaniclastic Sandstone to fine-grained breccia fragments range from <1mm to 1cm (typically 2-4mm) - angular fragments (xl + lithic) of variable nature				
82.9	83.4	0.40	80%		"				
83.4	84.7	0.80	61.5%		"				
84.7	86.6	1.70	89.5%		"				
86.6	88	1.20	85.7%		Apparent grading in volcaniclastic			86.7 bedding(?) CA = 53°	
				87.6	Fine-grained pale-green siliceous volcanic - pyroclastic ash with some coarser frags				
88	90.4				"				
				88.7	Siliceous shale				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-10

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
					Green Pyroclastic ash - intense stringer veining - XI(?) from 1-2 mm amongst sheared fabric					
90.4	93.5	2.95	95.2%		Green Pyroclastic ash with sheared fabric 90.2: 2 grey siliceous-pyritic slugs					
93.5	94.6				"					
94.6	95.6				"					
95.6	97.9	2.10	91.3%		"					
				97.4	Grey tuffaceous shales and pyroclastic ash					
97.9	99	0.82	74.5%		Cherty shale				Pyrite 1-2%	
				98.1	MASSIVE SULPHIDE - Banded/Layered SPH/ GAL/CPY 98.5-98.7 V CPY RICH (40%)			98.6 Bonding/CA = 35°	MASSIVE GAL/SPH/CPY Orange/brown SPH Coarse sph(?) and thin CPY strings in a dark gal/sph matrix	
99	100.5	1.05	70%	99.2	MASSIVE SULPHIDE 99-99.1 - BARITE RICH PATCH with other CO ₃ (? calcite)				"	

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-10

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5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
					100.2-100.4 Porous massive Sulphide				Massive Sulphide
				100.4	Volcaniclastic chert frags green sil. frags (2 mm → 2 cm) - Plus Pyrite grains (Vc(Py))				Minor Pyrite grains < 1%
100.5	103	2.06	82.4%		"				
				100.9	Gray chert Fragmented Texture				Stringers & disseminated Pyrite cubes - 1-5%
				102.8	Massive Sulphide (mainly Pyrite)				Massive Pyrite
103	105.7	1.98	73.3%		"				"
				103.1	DK grey chert with Pyrite				- Disseminated Pyrite - cubes 1-3 mm - Massive Pyrite veins (1/2 cm) wide of clusters of Pyrite cubes - Some pyrite veins contain sphalerite & minor galena - Minor SPH veins Overall Sulphide 1-3%

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-10

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199

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
105.7	105.8	0.13	130%		"					
105.8	109	3.20	100%		Gray chert with sulphide veining				Pyrite/SPH/CAL/CPY Veining 1-5%	
109	112	2.85	95%		"				"	
112	115	2.90	96.6%		Gray chert rich in sulphides				Coarse Veins & Patches of Sulphides Coarse Pyrite, Sph lesser CPY, GAL 10-40%	
115	116.8	1.43	79.4%		Virtually massive sulphide with minor grey chert 115.35-115.5 - Pyrite alteration				Coarse Massive Sulphide Py/SPH/GAL - Frags of fine pyrite as well as pyrite cubes	
				115.5	Cherty rock with pyrite				Disseminated Pyrite 21%	
				116	Dk green Fine-grained Chert - Green Porphyry Mix					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-10

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184201

200

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
					Distinctive Pale-green porphyritic fragments within a dk-green (almost black) matrix of mixed porphyry & chert material (G-Pfc.1 similar to top EAF-5 & bottom EAF-3)					
116.8	118	1.05	82.5%		"					
					116.95-117.5: Band of extremely fine grained dark-grey ash Mixed chert/porphyry (as above)					
118	121	2.93	97.6%		"					
121	124	2.92	97.3%		"					
				121.5	Grades into a Grey/Blue chert dominated mixture of chert and Porphyry with v angular frags & stringers of green porphyry in chert (G-Pfc.2)					
				123.6	Back to dk-green porphyry dominated mixture (G-Pfc.1)					Pyrite rich — ↑ 10%

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-10

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
124	127	2.93	97.6%		Variable mixture of Grn Porphyry and blue/grey chert (ie mixed G-Pfc.1 & G-Pfc.2)					
127	130	2.83	94.3%		"					
130	133	2.95	98.3%		"					
133	136	2.96	98.6%		"					
					134.2-136 - chert dominant				134.2-136 Pyrite stringers Common T. 2%	
136	139	3.00	100%	136 (dy/v/s)	Green Pyroclastic ash - fol. fabric		136.2 fol/CA = 37°		136.4-136.7 Fine-grained disseminated pyrite - slugs of py sph with lesser cpy & GAL 1-2%	
					136.4 Grey ash with minor sulphides & CO ₂ veining				136.7-137.9 v minor Pyrite minor SPH in CO ₂ veins	
					136.6 CO ₂ vein (patch) rich in sulphides				137.6-137.7 CO ₂ patch rich in sph-py-CPY - red colour to SPH 5%	
					136.6-137.9 Grey ash - minor CO ₂ veins					
					137.6-137.7 CO ₂ veining (patchy ALT) with coarse slugs of sulphide	CO ₂ ALT				
				137.9	Grey Ash (?) - SULPHIDE RICH - CO ₂ patches and veins	CO ₂ ALT				
				138	- with coarse Sulphides	Fine-grained CO ₂ patches & coarser veins				
				PET. 2						
									Coarse-grained slugs of SPH (RED) - finer patches of GAL and cubic Py (also coarse Py in veins)	

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-10

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DRILL ADVANCE				LITHOLOGY							5 cm		VISUAL PERCENTAGE MINERALISATION
LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION			
	139	142	2.70	90%		Fine-grained greenish-grey ash with sulphides 139.5 More Cherty material in with volcanoclastic component 140.1-140.6 Volcanoclastic ss to breccia with cherty frags Grey Volcanoclastic M/S → Siltstone (?ASH)	Co ₃ ALT			Slugs + patches of SPH - Py (RED) 5% 139.5 Py-SPH-Minor CPY in veins and patches 1-2% 140.1-140.6 Disseminated SPH-Py Minor Sulphides 141.9 bedding/ta = 13°			
	142	144.6	2.40	66.6%		Fine-grained chert to volcanoclastic mudstone 143.2 Volcanoclastic breccia - lapilli-sized frags of chert and green volc. 144 Grey sil, shale to chert.				Disseminated + Stringer Pyrite < 2% (minor SPH)			
	144.6	147.7	2.77	89.3%		Cherty volcanoclastic to Grey chert (= bluey grey sil. shale.)				Minor strings + clumps of Pyrite < 1%			
					147.4	Greenish/Cream Volc Has white frags in a greenish matrix							

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-10

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5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
					Possibly green porphyry mixed with siliceous material - altered to creamy colour with feld → clays + micas(?)	CLAY? ALT			
147.7	148.7	0.85	85%		Green porphyritic unit with grey silica - alt. white frags + veins + patches of boxwork alteration	" - alt. QTZ/CHLORITE veins to boxwork texture (?)			
148.7	151	2.30	100%		"	"			
151	153.4	2.40	100%		152 m - Much harder unit - Identical to previous but lens altered and less silica mix component : Greenish/Pink porphyritic rock - both white sub euhedral frags + qtz grains evident in finer matrix X1 - rich fragments appear to occur within core	- Red/Pink alteration ? Si deuteric alt.			

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-10

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VEIN PERCENTAGE MINERALISATION
153.4	156.4	3.00	100%		Pyroclastic-Lapilli Tuff Lithology dominated by angular fragments of green porphyry. Lapilli-sized fragments in a finer-grained as matrix of similar comp. (Pyroclastic phase of Green Porphyry)	Red(? Silica-Fe) alteration of porphyry - Many fragments have a distinct red colour				
156.4	159.7	2.60	78.8%		"	"				
159.7	162.3	2.97	114.2%		" Pyroclastic texture less evident	"				
162.3	165.4	3.10	100%		" 162.8-163.5: Intensely altered. (? oxidised) zone with Mn vein.	"				
165.4	168.5	3.03	97.7%		" Distinct sub-rounded frags ↑ 6 cm of reddish(? alt) porphyry in dk-gm porphyry	"				
168.5	171.7	3.05	95.3%		"	"				
171.7	174.8	3.01	97%		"	"				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-10

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205

5 cm

DRILL ADVANCE

LITHOLOGY

DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
174.8	177.9	3.05	98.4%		"	"				
177.9	181.0	3.10	100%		"	"				
181.0	184.0	3.00	100%		Green Porphyry sub-Angular white frags (X1+ lithic) in green matrix + distinctive quartz grains	"				
184.0	187	2.85	95%		"	"				
187	190	2.87	95.6%		"					
190	193	2.90	96.6%	190	More massive appearance to green porphyry - Pale-green/cream colour - finer-grained phenocrysts (1-2mm) of sub-euhedral white Xls and dk-green blebs (actual lithic frags of green porphyry) (ie pyroclastic ash derived from green porphyry lava magma)					
193	196	2.90	96.6%		"					
				197.1	Blue/grey chert mixed with fine-grained green porphyry.			v. Irregular contact though sharp - across core		

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-10

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DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
					Chert often has porcelain-like appearance Amt of chert to porphyry varies - Chert envelopes grn-porphyry frags chert is also often fractured with greenish material & sulphides surrounding fragments & occurring in fractures - Predominantly remobilised sulphides Py & SPA in chert fractures Do get chert nodules (frags) in porphyritic mixture (NB few good cases of frags of chert surrounded by green porphyry) - more like chert frags in chert/grn porphyry mixture or fractured chert with some porphyry filling & sulphide remobilisation ? Chert the pervader	Patches of (ser) alteration within grn porphyry			- Fine-grained clusters of pyrite intimately associated with chert * aligning boundaries between chert and green porphyry 1-3%

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-10

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DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
196	199	3.00	100%		"				Pyrite and sphalerite clusters veins & lenses 1-2%	
199	202	2.92	97.3%		Green Porphyry - chert Mixture 199-199.8: Mainly Porphyry	- Apparent alteration to edge of Porphyry frags in chert			SPH - Py - minor CPY = 1%	
202	205	2.98	99.3%		"	"			SPH - GAL - CPY - P = 1%	
205	208	2.90	96.6%		"	"			Minor Sulphides	
208	211	3.04	101.3%		" Predominantly fine- grained Pyroclastic Porphyry - small green frags - veins of chert				Minor Sulphides	
211	214	2.90	96.6%		"				"	
				212.9	Angular grn porphyritic frags in grey chert. Cream/green altered remains of porphyry frags in chert.	- edges of more distinct frags altered yellow				

SCALE 1:100 (1cm = 1m)

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DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
214	217	2.89	96.3%		"				
217	220	2.87	95.6%		Predominantly Porphyry but faint "cherty" alteration throughout- producing ghost porphyry fragments in greyish cherty material & greyish alteration splitting up porphyry into frags with alteration beginning from a fracture-vein				Minor Sulphides SPH/GAL
220	223	2.73	91.9%		"				"
				221	Chert- Porphyry mix - vein-like chert				
223	226	2.97	99.9%		Mixed Porphyry-chert -excellent textures of Porphyry frags totally immersed in grey/white porcellan-like chert- but mainly porphyry (ie Porphyry shattered & chert has infilled)				Minor Sulphides

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-10

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184210

209

5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
226	229	3.03	101%		Mixed chert- Porphyry				
229	232	2.99	99.6%		"				Minor disseminated Sulphides
				231.6	Porphyry with dk-gm/black colouration	dk-gm/black chlorite alt?			
232	235				"				
				236	Mixed chert- Porphyry Predominantly Porphyry with cherty ghosting				234-3: SPH/GAL rich patch
235	236.1	4.10	92.7%		lime-green fine-grained porphyry - minor siliceous material Co ₃ veins				
236.1	238				Fine-grained gm porphyry minor chert lenses	dk-gm chlorite alt.			
				236.7	Creamy coloured fine-grained green porphyry - chert veins				Pyritic cubes with chert - minor
238	241	3.00	100%		Fine-grained green porphyry with green frags - thin chert veins x cut porphyry				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-10

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210

5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
241	244	2.92	97.3%		Grn- Porphyry Pyroclastic appearance 242.6↓ massive fine-grained grn porphyry				
244	247	2.98	99.3%		"				
247	250	3.07	102.3%		" 247.3 - 248.6 - Fragmented appearance Classic Grn Porphyry - sub-euhedral white frags - qtz- sub rounded phenos				
250	253	2.90	96.6%		"				
253	256	3.00	100%		"				
					EOH.				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-10

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DRILLHOLE LOG

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Summary Sheet

PROJECT 5/63 Pt 4	AREA PINNACLES	DRILLHOLE TYPE DDH
CO-ORDS	DECLIN -60° . AZIMUTH 90.5° MNRL	DH No.EAF-11
DATE COMMENCED 11/10/84	DATE COMPLETED 29/10/84	DRILLED BY LONGYEAR
		DRILL RIG L/Y 38
Non Coring to: 1.5m	HQ Core to: 44.6m	HQ Core to: 313.6m
	BQ Core to:	EOH 313.6m

SURVEY DATA

Instrument:

DEPTH	DECLINATION Uncorr	Corr	AZIMUTH	DEPTH	DECLINATION Uncorr	Corr	AZIMUTH
0		-60°	90.5° mag	300		59.25°	98° mag
100		-61.5°	92.5° mag				
150		-60.75°	93° mag				
200		-60.5°	95° mag				
250		-59.75°	96.5° mag				

LOG SUMMARY

ROCK TYPE	MINERALIZATION
0 - 1.5: NO CORE	
1.5- 58: Green Porphyry (G-Pf)	
- weathered out pitted texture	
58 - 88: Mixed Green Porphyry and Chert (G-PfC)	58-77.6 Disseminated << 1%
- angular green porphyritic fragments in grey chert	Py
88-149.3: Green Porphyry (G-Pf)	
149.3-154.8: Porphyry (G-Pf) - altered to a pink-red colour by Si Fe alteration (A: Si, Fe)	
154.8-168.2: Altered and fragmented green Porphyry (G-Pf, A: Py, Si). Grey silica matrix around porphyry - 163-166: pale cream-green spots (? fragments) in porphyry which can contain fuchsite (A: Si, Fe, Fu)	Py Minor
168.2-176.5: Green Porphyry (G-Pf) - pink colouration (A: Si, Fe)	
176.5-199.4: Green Porphyry (G-Pf)	
199.4-222.6: Volcaniclastic sandstones, siltstones and mudstones. Vary to cherts and shales. (Ch/Vc/S)	203.2-217.2 Minor Sph-Gal in veins Diss. Py
208.7-209.9: Volcaniclastic mudstone with rounded Co ₃ spots (A: Co ₃)	217.2-222.6 Minor blebs of Py-Cpy-Sph
	217.6-218.5: Vein 1-2cm wide with coarse grained sulphides

Signature

M. H. K. Lat

Date 1/11/84

DRILLHOLE LOG 184213

Summary Sheet

DRILLHOLE TYPE	DDH
DH No.	EAF-11

PROJECT		AREA		DRILLHOLE TYPE
				DDH
CO-ORDS	DECLIN	AZIMUTH	RL	DH No. EAF-11
DATE COMMENCED	DATE COMPLETED	DRILLED BY	DRILL RIG	
Non Coring to:	NQ Core to:	NQ Core to:	BQ Core to:	EOH

[illegible]

LOG SUMMARY

[illegible]

Signature *R. Holes*

Date 1/11/84

184214

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DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
	1.9	.31	16.3%		Weathered (cream colour) Porphyry	limonite				
1.9	3.2	.37	28.5%		Pale-gm volcanic - ? some grey fragments	limonite				
3.2	4.7	.77	51.3%		Pale-gm volcanic - fairly massive	"				
4.7	6.2				Massive pale-gm volcanic - limonite-filled fractures	"				
6.2	7		90%		"	"				
7	8	.62	62.9%		"	"				
8	9.2	.90	75.0%		"	"				
9.2	10	.78	97.5%		Pale-gm volcanic - limonite - filled fractures - few small (1-3mm) dk-gm (? porphyritic) fragments	"				
10	11.4	1.16	82.8%		Pale-gm volcanic - distinguishable angular dk-gm frags - white frags + ? cherty frags	"				

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-11

LOGGED BY R.H. ROBERTS FROM TO

DATE 18/10/84

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184215

214

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
11.4	12.2	.73	91.0%		"	limonite - filled fractures				
12.2	13.4	.99	82.5%		"	"				
13.4	13.9	.35	70.0%		"	"				
13.9	14.5	.42	70.0%		" Distinct lime-green frags (≤ 5 mm) in fine-grained pale-green volcanic	"				
14.5	15.2	.39	55.7%		" Intensely fractured and veined	"				
15.2	15.9	.76	108.6%		Pale-gm volcanic (fresher material) - dk-gm frags (≤ 2 mm) POCK-MARK TEXTURE	" less marked ↓				
15.9	16.5	.56	93.3%		"	"				
16.5	17.9	1.31	93.5%		" weathered-out frags give a pock-mark texture (open-holed texture)	"				
17.9	18.4	.36	72.0%		"	"				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-11

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DRILL ADVANCE				LITHOLOGY						
DEPT	DRILL ADVANCE	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
18.4	19.3	.62	68.2%		Pale-gm porphyry - open-foiled texture (pitted)	"				
19.3	20.6	1.50	115.4%		pitted texture some fragmented nature - possible pink-green layering	minor limonite alteration				
20.6	21.2	.54	90.7%		Pale-gm porphyry pitted texture	"				
21.2	22.2	.90	90.7%		"	"				
22.2	23.4	1.19	99.2%		"	"				
23.4	24.2	.70	87.5%		"	"				
24.2	25.5	1.14	87.7%		"	"				
25.5	27.2	1.40	82.4%		"	"				
27.2	28.2	.93	93.7%		"	"				
28.2	28.9	.54	77.1%		"	"				
28.9	30.2	1.14	87.7%		"	"				
30.2	31.5	1.20	76.9%		"	"				
31.5	32.3	.79	98.8%		"	"				

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-II

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184217

216

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
32.3	33.2	.78	86.7%		"	"				
33.2	34.6	1.30	86.7%		Porphyry texture more in tact - White x1 fragments less empty pitted texture	"				
34.6	35.4	.81	101.2%		"	"				
35.4	36.2	.70	87.5%		"	"				
36.2	37.2	.81	81.0%		"	"				
37.2	38.4	.94	78.3%		"	"				
38.4	38.9	.28	56.0%		"	"				
38.9	40.1	1.10	91.7%	38.9	Fragmented texture - Predom. qm porphyry frags					
40.1	40.7	.45	75.0%		- few pink sil. frags - & white frags Lapilli Breccia					
				40.65	Pale pink - qm porphyry - pitted texture			CONTACT/CA = 49°		
40.7	42.2	1.61	107.3%		Pink sil porphyry → V. coarse Volcanic Breccia & pink frags					

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-11

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184218

217

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE (INTERVAL)	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
					containing qtz phenocryst + gm porphyritic frags - frags range up to 6cm in size (some frags >10cm) Coarse Sapilli Breccia - Probably all same frags with varying pink silty alteration Coarsely fragmented unit of green porphyry					
42.2	44.6	2.37	98.7%		"					
44.6	45.8	NO 1.08	90.0%		green - pink porphyry - white phenocrystic frags - patches look fragmental					
45.8	49.0	3.02	94.4%		"					
49	51.6	2.60	100%		"					
51.6	54.5	2.67	92%		"					
54.5	58.6				"					
				57	Phy frags in a clastic texture					

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-11

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DATE .../.../...

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184219

218

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
				58	Angular green porphyritic fragments in (with) a grey siliceous pyrite-bearing material				Disseminated pyrite in grey siliceous material	
58.6	61.6	3.00	100%		"				"	
61.6	63.6	2.10	70%		"				"	
63.6	65.5	1.90	100%		"				"	
65.5	68.6	2.95	95.2%		green porphyry with minor grey siliceous material				"	
68.6	71.7	2.10	67.8%		green porphyry (? fractured) in a grey siliceous matrix				"	
71.7	73.6	2.80	147.4%		"				"	
73.6	76.6	3.00	100%		"				"	
76.6	80.6	3.77	94.2%		"					
				77.6	green Porphyry					
80.6	83.7	3.03	97.7%		green Porphyry minor grey/white silicification					
				93.2	V. Angular long Porphyry frags in grey chert					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-11

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184220

219

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
83.7	86.0	2.14	93.7%		v. Angular dk. green porphyritic fragments in grey silica (chert) - Fragments range from 76cm to 41mm					
				85.5	Vein-like patches of fractured green porphyry in chert - cutting through grn porphyry					
86	87	.78	78.9%		lyon Porphyry with thin chert-bearing fractures	limonite-rich fractures				
87	90.1	2.98	96.1%		"	"				
				88	Classic Lyon Porphyry : sub-angular white frags (1mm → 1cm) in green matrix					
90.1	91.1	.91	91.0%		"					
91.1	93.8	2.48	91.8%		lyon Porphyry - more massive appearance					
93.8	95.2	1.32	94.2%		"					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-11

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220

5 cm

DRILL ADVANCE

LITHOLOGY

DRILL ADVANCE	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
95.2	96.4	.88	73.3%		"					
96.4	99.5	3.30	106.4%		Coarse, porphyritic green porphyry					
99.5	101.9	2.16	90.7%		"					
101.9	103.6	1.69	99.4%		"					
103.6	106.6	2.89	96.3%		"					
106.6	109.6	2.99	99.6%		"					
109.6	112.6	2.53	84.3%		"					
112.6	115.6	2.89	96.3%		"					
115.6	118.6	2.90	96.6%		"					
118.6	120.4	1.70	94.4%		"					
120.4	121.4	.97	97.7%		"					
121.4	122.5	2.95	95.1%	121.9	Fragmented lpm Porphyry					
124.5	126.8	1.96	85.2%		"					
126.8	129.4	2.13	76.7%		"					
129.4	130.3	.79	87.7%		silicified matrix around fragment				129.8: Sph. blb.	

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-II

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184222

221

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE (m)	CORE RECOVERY (%)	PERCENT RECOVERY (%)	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION (%)
130.3	131	0.41	58.6%		lym Porphyry	silicified				
131	131.9	0.72	80%		" white fragments often pitted out, and rounded qtz phenocrysts					
131.9	133.7	1.69	93.8%		"					
133.7	136.3	2.30	88.5%		"					
136.3	137.1	0.74	92.5%		"					
137.1	139.3	2.06	93.6%		"	CO ₃ /QTZ veins				
139.3	142.4	2.30	74.2%		"	"				
142.4	144.9	2.50	100%		"	"				
144.9	146.5	1.58	43.8%		"	"				
146.5	148.5	1.94	97%		"					
148.5	151.6	3.10	100%	149.3	" Pink colouration pervades porphyry - Fragmented texture more prominent - apparent flow textures in some fragments	Pink-Fe-silica alteration				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-11

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222

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
151.6	154.6	2.95	98.3%		Variable pink alteration of fragmented green porphyry	"				
154.6	157.6	3.00	100%	155.1	Angular fragments of porphyry (both dark green and pink altered frags. - in some fragments only half has pink alteration) in a grey silica matrix	"			V. Minor pockets of pyrite	
157.6	160.6	3.00	100%		N.B. less distinct texture of porphyry fragments in a silica matrix - large porphyry fragments of varying size encompassed within grey/white siliceous matrix - texture is commonly seen in the green porphyry when described as fragmented green porphyry. Pink frags enhance feature.	"				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-11

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223

5 cm

DRILL ADVANCE				LITHOLOGY							
LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
	160.6	163.6	2.90	96.6%		11	"				
					161.5	Presence of pale-green fragments amongst darker grn - porphyry fragment - very fragmented texture	"				
					163	lpm Porphyry fragments in a dk. grey silica - pyrite matrix. Fine-grained pyrite gives dk. grey to black colour. - Distinctive Pale-green round, lenticular & angular-shaped fragments (?) in core - typically 2mm to 2cm in size - Occur as spots in green porphyry and are commonly associated with fuchsite. These spots can have both sharp edges & diffuse boundaries with surrounding porphyry. Textures suggest that these pale spots, would be alteration feature of the porphyry	Fuchsite-Si-Fe Alteration			Pyrite disseminated in matrix 21%	

5 cm

SCALE 1:100 (1cm = 1m)

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-11

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
					(? associated with Si-Py) flooding in matrix & consequently fuchsite is a residual product from such alteration.	"				
163.6	166.6	3.10	103.3%	164.2 PET-1	"	"				
				166	Fragmented Porphyry with pink alteration	Si- alteration				
166.6	169.6	2.87	95.6%	168.4	Porphyry fragment in grey silica matrix	"				
					Predominantly Porphyry & Pink silica alteration	"				
169.6	172.6	3.06	102.9%		Green porphyry - & Pink colouration - patches of purple/red colouration	Pink Si alteration				
172.6	175.6	2.94	98%		Fragmented porphyry in grey siliceous matrix					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-11

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5 cm

225

DRILL ADVANCE				LITHOLOGY						
DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
175.6	178.6	2.90	96.6%	176.5	" - green Porphyry - patches of red/purple - Co veins colouration					
178.6	181.6	2.94	98%		green Porphyry - varying colourations from green → pink → pale green → red/purple all with distinctive porphyry texture of sub-cathedral white fragments and round quartz phenocrysts					
181.6	184.6	2.98	99.3%		" RTZ/Co veins					
184.6	187.6	3.00	100%		"					
187.6	190.6	2.98	99.3%		"					
190.6	193.6	2.92	97.3%		"					
193.6	196.6	3.15	105%		"					
196.6	199.6	2.95	98.3%		"					
				199.4	Volcaniclastic mixture					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-11

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226

5 cm

DRILL ADVANCE				LITHOLOGY							
LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
	199.6	201.4	2.85	101.8%		Mixed porphyry, volcanoclastic and chert					
	202.4	205.4	2.90	96.6%		"					
					203.2	Volcanoclastic sandstones, siltstones and mudstones with massive grey shales. - qtz/Co ₂ veins				Minor slugs of Sph - Gal in Qtz- Co ₂ veins	
	205.4	207	1.35	84.4%		"				"	
	207	208.9	1.74	91.6%		Shale and volcanoclastic ash with chert				"	
					208.7	Volcanoclastic ash ± Co ₂ spots	Co ₂ alteration				
	208.9	211.6	2.65	98.1%		"	"				
					209.9	Cherty unit with minor volcanic component - Co ₂ veining					
					210.7	Green volcanoclastic ash ± minor patches of grey silica + sulphides				Minor blebs or disseminations of Py-Sph	

SCALE 1:100 (1cm = 1m)

5 cm

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-11

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184228

227

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
211.6	214.5	2.25	77.6%		green volcanoclastic mudstone (ash)				- Patches of disseminated Py Minor Sph-Gal in veins	
				213.2	Volcanoclastic breccia with angular chert fragments					
				213.6	Silicified shale → chert				Minor sulphide-bearing zones	
214.5	216.9	.15	37.5%		"				"	
215.9	218.9	2.22	88.8%		Large (2-3cm) chert fragment in volcanoclastic (fine-grained)					
				217.2	Thinly bedded chert			CA/BANDING = 64°	Thin purple layers // to banding - X-cutting veins ± Sph-Cpy	
				217.6	Chert & Coarse-grained veined sulphides - major vein plus associated stringers				- Vein (1-2cm wide) cuts at a slight angle across core - V. Coarse-grained sulphides Sph-Gal-Cpy-Py (Sph grains up to 1cm)	
				218.5						

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-11

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228

5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
					218.5 grey chert ± Co ₃ veins				Sph blebs in Co ₃
218.9	221.5	3.80	122.6%	219.1	Fine-grained volcanoclastic sandstone bedded with chert layers (up to 1cm wide)			Bedding/CA ≈ 90°	
				219.5	Mixed Porphyry & Chert (Contact Zone) Porphyry Fragments in chert have white altered edges - sulphides (Py-Sph) associated with alteration				clugs of sph-py-cpy assoc. ± chert ← li.
221.5	224.7	3.20	100%		"				"
				222.6	Predominantly green Porphyry Co ₃ -CHLORITE veins				Minor sulphides Sph-Py-Gal assoc ± veining
224.7	227.1	2.47	102.9%		green Porphyry white and green fragments	226.6-227.1: sh. green chlorite alb. ± Co ₃ patches			Minor Sph-Gal in veins
227.1	230.2	2.69	86.7%	227.2: PET-2	gaseous brittle textures in green porphyry			BUBBLE ORIE/CA = 42°	

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-11

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229

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
					Green Porphyry with patches of dark-green colouration					
230.2	233.3	3.05	98.4%		"					
233.3	236.4	2.68	81.2%		Darker colour to green porphyry - Co ₃ patches & veins				234.3 - Py-vein // core axis	
236.4	239.5	3.05	98.4%		"				236.1 - 236.3: "	
239.5	242.6	3.20	103.2%		"					
242.6	245.7	3.07	99%		"				243.2 - Py-vein	
245.7	248.9	2.97	92.8%		"					
248.9	250.6	1.71	100.6%		247-247.9- Pale colour dk-gm Porphyry - gm frags & gas bubbles	hil. alteration				
250.6	253.6	2.97	99%		"					
					253↓ Pale cream colour	alteration to pale colour				
253.6	256.6	2.83	94.3%		"	"				
256.6	259.6	2.99	99.6%		dk-gm Porphyry Co ₃ patches				257.7-257.8 Py vein	
259.6	262.6	2.94	98%		"					

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-11

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230

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
262.6	265.6	2.89	96.3%		"					
265.6	268.6	2.87	95.6%		"					
268.6	271.6	3.00	100%		"					
271.6	274.8	3.24	101.2%		"					
274.8	277.6	2.71	96.8%		"					
277.6	280.6	2.95	98.3%		Pale cream-green colour to Porphyry					
280.6	283.4	2.56	91.4%	280.6	lygreen volcanoclastic & shearing fabric			FABRIC/CA = 37°		
				280.7	Pale-grey shale			CONTACT D/CA = 37°		
				280.8	Quartz - lym volcanic ash mixture fol fabric - grades into a qm porphyritic ash with white fragment			281.5: FABRIC/CA = 40°		
								282.5: FABRIC/CA = 40°		
				282.7	Dark green volcanoclastic mixed with pale-green volcanoclastic - parts almost porphyry in appearance					

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-11

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231

5 cm

DRILL ADVANCE

LITHOLOGY

DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
283.4	284.5	2.85	91.9%		Foliated (shear) green volcanoclastic			285.5 FOL/CA = 30°		
				285.7	Epilastic (?) volcanoclastic sandstone: Varied assortment of angular fragments < 4 mm (most 2 mm or less) grey-green colour with green, pink, grey, white fragments - thin chlorite veins				lyal. speck in Co ₃ vein.	
286.5	289.6	2.87	92.6%		"				"	
				288.7	Volcanoclastic Breccia - large (> 5 cm) fragments of coarsely porphyritic green porphyry - also, pink fragment + rich in xl fragment - late chlorite veins - late qtz/Co ₃ veins (Parts similar to Pc-h)					

SCALE 1:100 (1 cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-11

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
289.6	292.6	2.90	96.6%		Breccia (as above) - wide (↑ 2cm) late veining of QTZ-CO ₃ -Sph-CHLORITE				Minor Sph in CHL-CO ₃ -QTZ veins	
292.6	294.7	1.84	87.6%		"					
				293.5	grey-green pyroclastic ash. (=volcaniclastic mudstone)	intense chlorite veining - some QTZ/CO ₃ /CHI veins		Faulted contact - slickensides	Minor Sph in CHI veins	
294.7	297.9	2.88	90.7%		"				"	
				296.2	Epilastic sandstone to siltstone - bedding features evident				"	
								296.2: bedd/CA = 34°		
								296.6: b/CA = 53°		
				297.2	Black Shale	QTZ/CO ₃ /CHI veining			297.2: Co Pyrite trace Sph in veining ↑ 1%	
297.9	299.7	1.77	98.3%		"	"			"	

SCALE 1:100 (1cm = 1m)

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5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
				298.4	2cm wide Co_3 vein 2 phases of Co_3 growth - 10cm wide QTZ - vein			25 vein ? denotes - fault contact	
				298.55	Quartz - Feldspar - Porphyry (QFP) - Coarse (typically 2-5mm) Quartz and Feldspar phenocrysts - some white (feldspar) fragment (xls) show sub-euhedral shape - qtz phenos typically rounded - Quartz grains commonly glomerular-porphyratic	Cream - buff alteration colour			
299.7	300.1	.31	77.5%		" Paler-green colour				
300.1	304.4				"				
				302	" green-grey colour				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-11

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AUSTRALIAN ANGLO AMERICAN LIMITED

DRILLHOLE LOG

Summary Sheet

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PROJECT	EL 5/63 Pt 4	AREA	PINNACLES	DRILLHOLE TYPE	DDH
CO-ORDS	DECLIN	-60°	AZIMUTH	90: MN	RL
DATE COMMENCED	30/10/84	DATE COMPLETED	13/11/84	DRILLED BY	LONGYEAR
				DRILL RIG	L/Y 38
Non Coring to:	3m	HQ Core to:	53.8	HQ Core to:	285.4
		BQ Core to:		BQ Core to:	EOH 285.4

SURVEY DATA				Instrument:			
DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION		AZIMUTH
	Uncorr	Corr			Uncorr	Corr	
0		-60	90°	285.4		-57.75	95
100		-60.75	93				
150		-59.25	96.5				
200		-59.0	95				
250		-58.0	94.5				

LOG SUMMARY

ROCK TYPE		MINERALIZATION	
0 - 3	No Core		
3 -37.1	Weathered green porphyry (G-Pf)		
37.1-41	Sericite altered green porphyry (G-Pf, A: Se)		
41-49.7	Green porphyry with pink colouration (G-Pf, A: Fe, Si)		
49.7-54.3	Altered green porphyry. Fragmented appearance resulting from pyrite-silica alteration (G-Pf, A: Py, Si)	49.7-54.3	Py 5 10%
54.3-77.3	Green porphyry (G-Pf, A: Fe, Si)		
77.3-86.3	Composite breccia of chert and porphyry resulting from pyrite-silica alteration (G-PfC, A: Py, Si)	77.3-86.3	Minor Py
86.3-97	Altered green porphyry (G-Pf, A: Py, Si)		
97-106.8	Composite breccia (G-PfC, A: Py, Si)		
106.8-121.5	Green porphyry with buff alteration (G-Pf, A: Fe, Si)		
121.5-141.5	Green porphyry with buff-chlorite alteration (G-Pf, A: Fe, Si, Cl)		
141.5-152.5	Composite breccia of chert and porphyry (G-PfC, A: Py, Si)	141-152.7	Minor Py
152.5-157.4	Green pyroclastic (G-Pc)		
157.4-166.2	Volcaniclastics with a cherty component (Ch/Vc/S)	157.4-160	Minor Py-Cpy
		160-166.2	Pyrite fragments 1%
			Sph blebs 1%
166.2-211.85	Green Porphyry (G-Pf)	199.2-211.85	Minor Py in veins

Signature *RH Roberts*

Date 19/11/84

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of 2

Summary Sheet

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	FROM ADVANCE INTERVAL	To Actual CAVE VERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
3	4.7	.92	54.1%		Weathered Pitted Porphyry					
4.7	6.2	.35	25.3%		"					
6.2	7.5	.85	66.4%		"					
7.5	9.2	.50	29.4%		"					
9.2	10.6	.80	57.1%		"					
10.6	12.2	.86	53.7%		"					
12.2	13.7	.44	29.3%		"					
13.7	15.2	.70	46.6%		"					
15.2	16.7	.80	53.3%		"					
16.7	18.0	.75	57.7%		"					
18.0	19.6	.74	46.2%		"					
19.6	20.6	.93	93.0%		"					
20.6	22.1	1.22	81.3%		" 1CM WIDE MN-LIMONITE VEIN			VEIN to CA		
22.1	23.4	1.23	68.3%		"					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-12

LOGGED BY R.H. ROBERTS

FROM TO

DATE 7/11/84

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5 cm

DRILL ADVANCE				LITHOLOGY							
LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	Actual PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VOLUME PERCENTAGE MINERALISATION	
	23.9	25.4	.97	64.6%		Pitted Pale-green porphyry					
	25.4	26.7	.85	65.4%		"					
	26.7	27.5	.40	50.7%		"					
	27.5	29.0	.97	64.6%		"					
	29.0	31.7				"					
	31.7	33.5	1.08	60.7%		"					
	33.5	34.8	.96	75.8%		"					
	34.8	36.0	.85	70.8%		" Mn - limonite vein parallel to CA. (1cm wide)					
	36.0	37.3	.75	57.7%	37.1	" Pale-green siliceous fine to medium grained volcaniclastic - some grey clastic bits and fragments (few mm) - parts quite fragmental					
	37.3	38.5	.44	36.6%		- dk green lenses of soft mineral ESP 34.5 - 39.6					
	38.5	39.2	.56	80%		"					
	39.2	40.7	1.35	90%	39.6 PPT-1	"					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-12

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
40.7	41.6	0.60	66.6%		"					
				41	Volcaniclastic Breccia - Dominated by large (1-15cm) fragments of green porphyry ? Fragmented green porphyry	N.B. Fragmented texture is possibly related to siliceous alteration				
41.6	43.7	0.50			"	"				
43.7	45.2	1.30	86.6%		? Altered green porphyry green fragments present in a pink-white altered core	Fe-Si alteration				
45.2	46.7	1.37	91.5%		"	"				
46.7	48.2	1.32	88%		"	"				
48.2	49.7	1.44	96%		"	"				
49.7	51.2	1.22	81.3%	49.7	Mix of Chert - Pyrite and Green Porphyry - coarse-grained pyrite - silica surrounds porphyry frags which are altered to a pale colour	Pyrite - silica alteration - intense (Intense Fe (limonite)) (Si alteration of Porph.) next to Pyrite			49.9-50.1 30-40% Py 50.2: Py/CA = 29'	

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-12

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5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
				50.2	Intense silica alteration of Porphyry	Fe(Pyrite)-Si - intense			- Pockets of porous - looking pyrite 5%
51.2	52.7	1.43	46.3%	52	grey silica flooding with pyrite in green Porphyry	Silica - Pyrite			Pyrite 2-1%
52.7	53.8	1.97	88.2%		Green Porphyry with Silica - Pyrite (- Border on mixed chert porphyry)	"			Pyrite - 5-10%
53.8	55.6	HQ NQ 1.64	41.1%	54.3	Altered green porphyry Red - cream (white) alteration of porphyry - thin lenses, veins and patches of grey chert with pyrite	Fe-Si alteration			Pyrite 2-1%

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-12

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
55.6	58.6	2.78	92.6%		"	"			"	
58.6	61.6	2.82	94.7%	58.6	green Porphyry with minor cherty patches - also reddish mangan patches	" minor				
61.6	64	1.22	50.8%		"	" minor				
					62.5 ↓ v. Broken Core					
64	66.7	2.15	79.6%		65.5 ↑ Altered green Porphyry - grey cherty patches + reddish patches 66 ↓ Minor siliceous alteration of green porphyry	65.5 Fe-Si alteration				
66.7	67.7	.89	89%		green porphyry	v. Minor Altered Si				
67.7	70.6	2.62	90.3%		"	"				
70.6	73	2.25	93.7%		green Porphyry	few limonite fractures				

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-12

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPT	DRILL ADVANCE INTERVAL	Actual CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
73	75.1	1.80	85.7%		lygreen Porphyry with (?) faint Si flooding to give a fragmented appearance	Minor Si alteration				
75.1	77.5	1.75	72.9%		"	"				
				77.3	lygreen silica (cherty) matrix with minor pyrite surrounding angular fragments of green porphyry - Produces Mixed lygreen Porphyry / Chert rock (GPGC) - some fragments altered to a cream-pink colour others still dark green	Intense Si flooding			V. Minor Pyrite	
77.5	79.6	2.27	108.1%		"	"				
79.6	82.6	2.81	95.6%		"	"				
82.6	85.6	3.00	100%	82.6	lygreen Porphyry - lygray-green silica matrix preserves core	Si alteration			V. Minor Pyrite in open space vein	

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR

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5 cm

DRILL ADVANCE					LITHOLOGY						
LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
	85.6	88.6	2.86	95.3%		Green Porphyry - grey-green matrix varies to a blue-grey patchy material	Minor Si alt.				
	88.6	91.6	2.81	93.6%		Green Porphyry - general fragmented appearance ? partly due to alteration partly pyroclastic texture - some pink fragments	Minor Si alt.				
	91.6	94.6	2.97	99.0%		"	"				
	94.6	97.6			97	Green Porphyry - grey-pink prevailing matrix Blue-grey matrix surrounding green porphyry fragments (broadly G-PfC)	Si alt. Si flooding				
	97.6	100.4	3.00			"	"				
	100.4	103.6	2.90	90.6%		"	"				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-12

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
103.6	106.6	2.98	99.3%		"	"				
106.6	109.6	2.96	98.6%	106.8	Buff - Coloured Porphyry	Buff - colour probably related to Si-Fe alteration				
109.6	112.6	2.85	95.7%		"	"				
112.6	115.6	2.83	94.3%		"	"				
115.6	118.6	2.93	97.6%		"	"				
118.6	121.6	2.86	95.3%		"	"				
121.6	124.6	3.00	100%	122.2	Buff - coloured alteration of green porphyry - Porphyritic fragments(?) remaining in core have v. dk green colour characteristic of chlorite alteration - some large fragments are pink & striped with dk green layers	Chlorite alteration of green porphyry fragments as well as buff (Si-Fe) alteration of whole rock				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-12

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
					" Affectionately known as TIGER ROCK - RWLS - " or layered chlorite altered buff porphyry	"				
124.6	127.6	2.96	98.6%		"	"				
127.6	130.6	2.90	96.6%		"	"				
130.6	133.6	3.03	101.7%		"	"		layer/CA = 57°		
133.6	136.6	3.01	100.3%		"	"				
136.6	139.6	2.93	97.6%		"	"				
139.6	142.6	2.96	98.6%		Altered Porphyry Pale-green colour dominates - patches of dk. green & silicified pink sections	"				
				141.5	Grey Chert - Porphyry Misc - Pyrite with grey chert - Altered porphyry fragments	Pyrite - Si. alt. typical of Porphyry-Chert Misc			Pyrite 1-2%	

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-12

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
142.6	145.6	2.93	97.6%		Shades of Chert - Porphyry Misc				Pyrite $\approx 1\%$	
145.6	148.6	2.94	98.9%		Miscellaneous of altered porphyry and chert - porphyry				Minor dissemin. pyrite	
148.6	151.6	2.96	98.6%		"				"	
151.6	154.6	2.95	98.3%		"	Co ₃ - ATZ veins (some 6m wide)				
				152.7	Chert - Porphyry Misc predominantly porphyry with grey silica streaking - also contains distinctive angular chert fragments - has possible fragmented texture (similar to G-PfC (Vc))	"		154.3 Fabric/CA = 36°		
154.6	157.6	2.90	96.6%							
				157.4	Volcaniclastic Breccia Porphyry fragments and Cherty fragments (Contact Facies)				Dissem. Pyrite $< 1\%$ Minor CPY.	

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-12

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
157.6	160	2.24	95.37		Mixture of grey cherty fragments - Pyrophy, & massive sulphide 158.6 ↓ Fine-grained Volcanic units. Vary from breccia to mudstone 159.2 ↓ Predominantly green volcanoclastic - grey siliceous lenses & patches	Co3 veins with sphalerite 158.5-158.6: Co3 spotty alt.			Patches (? frags) rich in py-cpy	
160	163.1	2.87	92.67		Fine-grained Volcanoclastic Breccia - Mixture of Chert - Pyrophy and Sulphide fragments - also fine-grained volcanoclastic frags - Co3 frags - = sphalerite (red) 161 ↓ Volcanoclastic breccias to siltstones & mudstones			160.2: Fabric/CA = 38° 162.6 Bedd/CA = 54°	Red sphalerite in Co3 frags < 1% Py frags = 1% 161 ↓ Py fragments & } < 1% Minor Spl }	

SCALE 1:100 (1cm = 1 m)

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5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
163.1	166	2.60	83.8%		Volcaniclastic silts and sandstones 165.7-166: green Volcaniclastic ash - shear fabric			164.4: Bedd/CA = 48° lygraded bedding gives facing to top of hole - 165.8: Fabric/CA = 46°	
166	169.1	3.01	97.1%		Chat - ash mix				Pyrite frags.
				166.2	GREEN PORPHYRY White + green fragments	Minor qtz/CO ₂ veining			
169.1	172.2	3.01	97.0%		Green Porphyry - Massive + homogeneous (ie lava-like) - Varies from pale green to dark green colour	Veining with QZ/CO ₂ /Chlorite			
172.2	175.4	3.06	95.6%		//				
					//			174.3: Fabric/CA = 43°	
175.4	177.5	2.10	100%		//				
177.5	180.7	3.10	96.8%		dk-green Porphyry siliceous + mafic phenocryst				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-12

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
180.7	183.8	2.97	95.8%		"					
183.8	186.9	3.04	98.0%		"	Minor CO_3/QTZ veins				
186.9	189.9	2.97	99.0%		"	"				
189.9	193.0	3.08	99.3%		"	"				
193	196.1	3.10	100%		"	"			195.0: Py (CHI) patch 2 cm x 1 cm	
196.1	199.2	3.10	100%		"					
199.2	202.2	2.63	87.6%		200.7 - 101.7: few silica (chert) veins (± pyrite) cut porphyry. Associated slight buff colouration of core			Veins/KA = 30-35°	V. Minor Pyrite & Cherty veins	
202.2	205.3	2.92	94.1%		Dk - grn porphyry - massive & homogeneous with phenocrysts. - 202.7: 1 cm cherty vein 202.7-203.0: CO_3 -QTZ veining associated with CHI clumps & pockets of Pyrite				202.7-203: Minor Py	

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-12

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
205.3	208.3	3.00	100%		dk-green unaltered porphyry					
208.3	211.4	2.95	95.17%		209.4 - 210.1: CO ₃ -CHLORITE - PYRITE VEIN 1cm wide			vein = parallel to core	Pyrite in CO ₃ vein	
211.4	214.4	3.00	100%		lygreen Porphyry Minor chlorite - Pyrite veining				Minor Py in veins	
				211.85	lygrey - Black shale grading into a fine-grained siltstone			SHARP CONTACT CONT/CA = 33°	Minor Sph-Py in veins	
				213.4	lygreen Volcaniclastic sandstone - some small (≈ 1cm) chert fragments(?) surrounded by pyrite				Minor Pyrite	
					Volcaniclastic rock in chert and pyrite				Pyrite ≈ 1% as coarse grains (1-3mm) and coarsely layered patches	
214.4	217.5	2.90	95.57%		"			Layering of Pyrite / CA = 30°	Layered Pyrite ≈ 5%	

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-12

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5 cm

DRILL ADVANCE					LITHOLOGY					
LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
					214.6	Cherty green Volcaniclastic - Porphyritic texture in dk green patches (dominate rock) - greyer cherty patches (sometimes distinct fragments) occur throughout - green Porphyritic parts commonly greyer and silicified			Broad pervasive foliation 215.8 fol/CA = 30°	Minor Py and sph occur with cherty portions
	217.5	220.6	3.10	100%		11			218.8 fol/CA = 37° 219.4 fol/CA = 36°	layers of Pyrite + Sphalerite 21% - X-cutting Qtz/CO3 veins with sph 219.9-220.5: Pyrite rich section 30-40% Py. syngenetic layered appearance

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH, EAF 12

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
220.6	223.6	2.95	98.5%		"				Pyrite-rich patches 2 layers ≈ 10% 222.7 Minor Py and blebs of Sph	
223.6	226.6	2.93	97.6%		"				"	
				225.2	Paler green cherty Volcaniclastic	225.2 → 225.5: Spotted CO ₃ Alteration - Alteration causes paler colour to Volcaniclastic ? Si-CO ₃ ALT.		Well developed fabric 226.0m: fol/CA = 30°	225.2-225.3: Large (2-3cm) blebs of Sph-CO ₃	
226.6	229.6	2.68	89.3%		"	" CO ₃ veins & patches			Pockets of Sph	
				229.0	Mixed pale-green volcaniclastic and grey sil. shale					
229.6	232.6	2.80	95.3%	229.6	Grey sil. shale			Contact/CA = 14°		
				230.3	Mixed green volcaniclastic and grey sil. shale					

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SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-12

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253

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
				232	Coarse Volcanic Breccia - Fragments typically > 6cm - Dk-green Porphyritic Frags with predominance of sub-euhedral xl frags. - Pink Porphyritic Frags Pink fragments appear to be rich in quartz phenos but still contain feld xfs. (green frags do have minor qtz phenos) Large fragments occur with a finer-grained clastic matrix					
232.6	235.6	2.90	96.6%		"					
				235	Fine-grained siliceous section					
235.6	237.8	2.20	100%		"					
				236.4	As above volcanic breccia but lapilli-sized fragments - Dk green & pink porphyritic fragments (Pc-L)					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-12

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254

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
237.8	241	3.40	106.2%		"					
241	244.4	2.84	83.5%		Volcanic Breccia (lapilli Tuff)	Pink siliceous - CO ₃ /QTZ/CHI veins > 1cm wide				
244.4	247.4	3.10	103.3%		"	" veining				
				246.3	Fairly massive dk-green porphyritic volcanoclastic(?)	"				
247.4	250.6	3.00	100%		"	"				
				247.8	Grey-green siliceous Porphyry Predominantly lava like but patches more volcanoclastic	"				
250.6	253.6	2.92	97.3%		"					
				254.7	" altered + coarse qtz/CO ₃ veins	Pale yellow-green alteration				250.9 Minor Sph in vein
253.6	256.6	2.90	96.6%		"	"				
					dk grey-green siliceous Porphyry	lt. coloured alt. patches & coarse qtz/CO ₃ veins				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG

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DOH EAF-12

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255

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
256.6	259.6	3.08	102.6%	256.9	Sapilli Tuff - Breccia	Pink alteration Qtz/Chl/CO ₃ veins				
259.6	262.3	2.60	96.2%		"	"				
262.3	265.2	2.72	93.7%		"	"				
				264.6	Mixture of Volcanic Breccia and fine-grained layered volcaniclastics					
265.2	266.1	.54	60%		Fine-grained volcaniclastic sandstone with layers of volcaniclastic mudstone (ash) lensoidal shapes in mudstone			lay / CA = 36°		
266.1	268.6	2.38	95.2%		Fine-grained grey volcan. mudstone → shale					
268.6	271.6	2.76	92.0%		"					
				269.6	Quartz - Feldspar Porphyry - Coarse phenocrysts (1-7mm) in fine-grained green matrix Both coarse feldspar & quartz phenocrysts	270.8-271.6: Pale-alteration				

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-12

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256

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
271.6	274.6	2.99	99.6%		Quartz - Feldspar Porphyry - some quartz phenocrysts up to 1cm - glomeroporphyritic	271.6 → 272.5: Pale - alteration				
274.6	277.6	2.86	95.3%						Minor Py & Cpy in thin (few mm) veins	
277.6	280.6	2.92	97.3%		 280.0 7mm wide vein of CO ₂ - GAL 280.0 - 280.06: quartz vein 280.06 - 280.30: silicification 280.3 - 280.6 Quartz - Feldspar Porphyry	Pale - alteration Chl/CO ₂ /Qtz veins Silicification around quartz vein			280.0 Galenite-rich vein	
280.6	283.6	2.86	95.3%		Quartz - Feldspar Porphyry	Patchy Pale colouration ↓ 283.4				
283.6	285.4	1.81	100.5%		 E.O.H.					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-12

LOGGED BY R.H. ROBERTS FROM TO

DATE 15/11/84

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DRILLHOLE LOG

Summary Sheet

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PROJECT 5/63 PT 4

AREA PINNACLES

DRILLHOLE TYPE
DDH

CO-ORDS

DECLIN -59° AZIMUTH 090° MN RL

DH
No. EAF-13

DATE COMMENCED 14/11/84

DATE COMPLETED 24/11/84

DRILLED BY LONGYEAR

DRILL RIG L/Y - 38

Non Coring to:

3m

HQ Core to:

41m

NQ Core to:

240.0m

BQ Core to:

EOH 240.0m

SURVEY DATA

Instrument:

DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION		AZIMUTH
	Uncorr	Corr			Uncorr	Corr	
0		090	-59				
100		89	-60.75				
150		090	-60.5				
200		091	-60.5				
238		092	-60.0				

LOG SUMMARY

ROCK TYPE	MINERALIZATION		
0 - 3 : NO CORE			
3 - 34.5: Weathered green porphyry (G-Pf)			
34.5- 35.2: Silica flooded green porphyry (G-PfC) Sph blebs			= 1%
35.2- 43.6: Green porphyry (G-Pf)			
43.6- 50.3: Green porphyry with silica alteration (G-Pf, A: Py, Si)			
50.3- 59.6: Green porphyry (G-Pf)			
59.6- 64.3: Buff-coloured porphyry (G-Pf, A: Buff)			
64.3- 67.8: Green porphyry (G-Pf)			
67.8-69.4: Volcaniclastic mudstone (Vc/S)	Sph/Py		Minor
69.4-129: Varies from fragments of green porphyry in grey chert to predom, green porphyry with thin veins of grey chert (G-Pf, A: S-Z)	Pockets of Sph/Py and lesser Gal with chert		= 1%
129-135.6: Intense chlorite-carbonate-minor pyrite alteration of green porphyry (almost black colour) (G-Pf/A: Cl, Co ₃ Py)	Sph/Py with Co ₃		<1%
135.6-142.9: Grey chert with sulphides and minor fragments of green porphyry (Ex)	135.6-138.3 Py:		3-5%
		Cpy:	=1%
	138.3-143.9 Py:		=30%
		Cpy:	=1%
142.9-143.1: ? Fracture Zone: nodular silicified volcanic - Top contact 33°/CA			
143.1-145.3: Silicified Volcanicl. (Vc/A: Si)			
145.3-162.2: Well bedded siliceous shales and pale green volcaniclastics (Vc/S)			

Signature M. Robert

Date 30/11/84

DRILLHOLE LOG

Summary Sheet

[illegible]

Signature

Date 30/11/84

184260

259

5 cm

DRILL ADVANCE

LITHOLOGY

DEPT	DRILL ADVANCE	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
0	3				NO CORE	Simonite				
3	4.6	50	31.2%		Weathered Porphyry	"				
4.6	6.2	1.03	64.4%		"	"				
6.2	7.7	1.02	68.0%		"	"				
7.7	8.2	.47	94.0%		"	"				
8.2	9.7	.83	55.5%		"	"				
9.7	11.2	1.24	82.6%		"	"				
11.2	12.7	1.15	76.6%		"	"				
12.7	14.2	.96	64.0%		"	"				
14.2	15.7	1.37	91.3%		"	"				
15.7	17.2	1.37	91.3%		"	"				
17.2	18.7	1.46	97.5%		"	"				
18.7	20.2	1.36	90.6%		"	"				
20.2	21.7	1.34	89.3%		"	"				
21.7	23.2	1.21	80.6%		"	"				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-13

LOGGED BY *R.R. Robert* FROM TO

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200

5 cm

DRILL ADVANCE

LITHOLOGY

LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
	23.2	24.7	1.20	80.9%		"	"				
	24.7	26.2	1.36	90.6%		"	"				
	26.2	27.7	1.52	88.9%		Fresher appearance - greenish colour	"				
	27.7	29.2	1.34	89.3%		Pale-green porphyry	Similitic veining				
	29.2	30.7	1.45	96.6%		" pitted texture	" Minor grey Si veins				
	30.7	32.2	1.35	90.0%		"	"				
	32.2	33.7	1.58	105.3%		" Pale-coloured banding	"				
	33.7	35.2	1.54	102.6%		"					
					34.5	- Silica flooding to produce mixed chert and altered porphyry (G-PfC) - Porous (weathered-out) texture - limonite filled	Silica/sulphide alteration			Coarse-grained (1-5mm) sphalerite in pockets ≈ 1%	
	35.2	36.7	1.65	110.0%	35.2	Pale-green porphyry - colour banding - ? fragmented texture due to minor silica introduction	Minor Si alteration				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-13

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261

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENT MINERALISATION
36.7	38.2	1.37	91.3%		Pale-green Porphyry					
38.2	39.7	1.60	106.6%		"					
39.7	41.1	1.32 HQ	94.3%		"					
41.1	43.6	NQ 1.34	89.3%		"					
43.6	45.1	1.43	95.3%	43.6	Pale-green Porphyry - grey silica veins (thin 1-2m) and patches Si - surrounds porphyry pieces giving fragmental appearance in places.	Various forms of Si flooding alteration (A: Si)				
45.1	48.3	3.17	102.2%		"	"				
48.3	51.3	3.00	107.1%		"	"				
				50.3	Green Porphyry - lava like: white subhedral xls around qtz grains					
51.3	54.4	3.14	101.3%		Homogeneous texture					
54.4	57.5	3.02	97.4%		"					
57.5	60.6	3.00	96.7%		"					
				59.6	Buff colouration to identical Porphyry Texture (A-P)	Buff-colour alteration				

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-13

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5 cm

DRILL ADVANCE

LITHOLOGY

DRILL ADVANCE	DRILL ADVANCE	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
60.6	62.7	2.07	98.6%		"	"				
62.7	65.9	3.06	98.7%	64.3	Dk. green Porphyry	"				
65.9	67.6	1.72	101.1%		"					
67.6	69.8	2.12	96.4%	67.8	Mixed contact zone - of Dk. green porphyry, pale grey volcanoclastic mudstone + of white quartz veins				Sph - Py with quartz = 1%	
				68.2	Fine-grained well layered volcanoclastic mudstone (→ shale)			68.6: bedd/CA = 51° 68.8: bedd/CA = 35° 69.3: bedding /CA = 35°	Minor pyrite layers.	
				69.4	Mixed Chert and Porphyry Angular lenses and fragments of dk. green porphyry in grey chert				Minor Sph.	
69.8	71.8	1.90	95%		Mixed Chert - Porphyry - Porphyry fragments altered to pale-green yellow colour G-Pf (sd)				- Porous pockets rich in sulphide within chert Gal - Py - Sph 2-3%	

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-13

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253

5 cm

DRILL ADVANCE

LITHOLOGY

DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
71.8	74.9	3.10	100.0%		Mixed Chert - Porphyry - Porphyry has alteration spots - some pale, some dark with pyrite? chlorite - in parts chert look vein like (eg 73.4)	←			Minor Sph-Py in veins and pockets	
74.9	78.0	2.97	95.8%		Mixed Chert - Porphyry - Porcellan appearance to some of chert	←			Minor pockets of Sph-Py	
78.0	81.1	3.05	98.4%		Mixed Chert - Porphyry	←			Coarse-grained Sph in parts of grey chert Ar ≈ 1%	
81.1	84.1	2.94	98.0%		Predominantly Porphyry - with thin cherty sulphide veins - appear like cracks through porphyry	←			Sph in cherty veins ≈ 1%	
84.1	87.2	3.07	95.9%			Dark ameboid-shaped alteration spots: Py-alt			Sph << 1% Fine disseminated Py in alt. spots	

SCALE 1:100 (1cm = 1 m)

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DRILLHOLE LOG FOR DDH EAF-13

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264

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VEIN MINERALISATION
87.2	89.9	1.76	103.5%		Predominantly fine-grained green porphyry Thin cherty sulphide-bearing veins				Sph in cherty veins ~1%	
89.9	91.6	2.81	104.9%		"				"	
91.6	94.6	2.91	97.0%		" Increase in cherty (porcellan) veins + sulphides				- Coarse-grained Sph in veins Av ~ 1%	
94.6	97.0	2.46	102.5%		"				Coarse-grained Sph-Py in veins Av ~ 1%	
97.0	98.8	1.77	98.3%		Coarsely mixed Chert - Porphyry				Minor sulphides	
98.8	102	3.20	100.9%		"				"	
				100	Mixed silica - porphyry : cream silica matrix porphyry frags. rather than grey chert				Patches of blue-grey sulphides ~1%	
102	103.6	1.65	103.1%		"				"	
				103.3	Mixed Chert - Porphyry					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-13

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
103.6	106.6	2.98	99.3%		Mixed Chert - Porphyry 103.9-104.1: 2cm wide calcite - qtz vein (blebs of CPY & vein)				Pockets of Py-Sph in grey chert	
106.6	107.4	.73	91.2%		"				"	
107.4	107.6	.26	130%		"					
107.6	109.5	1.93	101.6%		"				Minor blebs of Sph 109.4: gyal-rich vein	
109.5	110	.54	108%		Predominantly green porphyry - thin (5mm) veins of grey chert.				Sph - Py in veins <1%	
110	112.6	.38	14.6%		Mixed Chert - Porphyry NB - BROKEN CORE (30% RECOVERY)				Sph. blebs in veins <1%	
112.6	115.6	3.06	102%		Grey chert veins and patches in pale-coloured (altered) porphyry				Sph in chert <<1%	
115.6	117.1	1.28	85.3%		Grey chert veins in porphyry	Cream alteration of porphyry			"	
117.1	120.2	3.09	99.7%		Chert veins in altered porphyry - Distinctly altered patches - Cherty veins cut through alteration patches	Patches of yellow and orange alteration of the phenocryst component (feld) in the porphyry			PySph + minor CPY in veins - some coarsely veined patches of Py-Sph 1-2% sulphides	

SCALE 1:100 (1cm = 1m)
 - (0.3 veins (0.03/0.12?) cut earlier veins and contain coarse sulphides)

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DRILLHOLE LOG FOR DDH EAF-13

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DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
120.2	123.3	3.15	101.6%		Fine-grained altered porphyry minor sulphide-chert veining	Patchy yellow alteration			Py - Sph - Cpy in veins <1%	
123.3	126.4	3.20	103.2%		Light green Porphyry - Pale colour Minor cherty sulphide veining	Minor alteration - minor pyrite alteration			blebs of pyrite (? alteration) Minor pyrite in cherty veining	
126.4	128.4	1.91	95.5%		Patchy-coloured green porphyry - Minor chert - pyrite veining	- Minor pyrite alteration chert			- Minor pyrite and blebs of Sph.	
128.4	129.8	1.46	104.3%		Patchy - coloured porphyry				Pyritic layering <1%	
				129	V. Dk. green → black (chlorite?) alteration (G-Pf A: Co ₃ -Ch/Py) - patches of green porphyry remain Co ₃ (dolomite) patches and veins Minor sulphide veining	← CHL-Py-Co ₃ alteration			Minor Sph - Py - Cpy in veins & Co ₃	
129.8	132.9	3.18	102.6%		Dk green → black alteration - some porphyritic texture remains & white pyrites Co ₃ veining later than pyrite mineralisation (ECH)	"			Py - chlorite veining and patches - also remobilised Pyrite - Sph & Co ₃ <1%	

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-13

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207

5 cm

DRILL ADVANCE

LITHOLOGY

DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
					Definitely a vein system of pyrite - chlorite and ? CO_3 with a late phase of CO_3 veining (? causing remobilisation)	131.8: Black alt. apparently assoc. with pyrite veining			
132.4	135.3	2.28	95%		Sh-green-black chlorite alteration CO_3 altering patches and spots throughout core - Minor CO_3 (dolomite) veins	CHL- CO_3 minor Py alt			Minor Pyrite
135.3	138.3	3.10	103.3%		"				
				135.6	Grey chert with minor amounts of green propylitic fragments				
				136.5	Sulphide-rich cherty zone - Darker fragments still evident but altered intensely by silica and pyrite (softer sulphides). (Actually G-PyC = sulphides) ? Exhalitic				
							135.7 Sulphide layers/CA = 28° 135.9: Py logs/CA = 27° CPY bleb/CA = 50° (70000) 136.4 Py layering/CA = 31° blebs of CPY occur at 136.5 to Py layering CPY lens/CA = 36°		Py-sph minor CPY in veins and layers, and disseminated small green frags. + grey chert Broad Pyrite layering - CPY occurs in lenses aligned at $\approx 12^\circ$ to Pyrite layering CPY appears to be later Py = 3-5% CPY = 1%

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-13

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VEINIAL PERCENTAGE MINERALISATION
138.3	141.3	2.86	95.3%		11			141: $P_y/CA = 38^\circ$ $CPY/CA = 37^\circ$ (E & 4 P_y)	P_y 10-20% $CPY \approx 1\%$	
141.3	143.9	2.50	96.1%		Sulphide-rich silicified (cherty) core - Still dk. green colour of altered porphyry but now predominantly sulphide and chert			141.7: P_y-CPY layer/CA = 32°	Disseminated Pyrite $\approx 30\%-40\%$ Distinct P_y-CPY layers $CPY = 1\%$	
				142.9	20cm on sulphide side of contact less sulphide-rich greenish siliceous rock. Fragmented nodules. - occur between two distinct fractures i.e. 142.9 & 143.1 →			142.9: Fracture/CA = 33° 143.1: Contact/CA = 45°		
				143.1	Pale colored - v. siliceous rock - apparent porphyry texture - some relict green frags (v. silicified G. P.F.)	CO_3 veining - limonite vein fine CO_3 vein network and some CO_3 spots				
				143.7	Clastic mixture of cherty fragments and green volcanic					
143.9	144.9	1.06	106%		Cherty (silicified) green porphyry	Thin CO_3 veining				

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-13

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209

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC (LOG)	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
144.9	145.9	0.90	90.7%		"	"				
				145.3	Grey siliceous shale	Co ₃ spots				
145.9	148.6	2.80	103.7%		Well bedded grey shales ± volcanoclastic siltstones and mudstones	Thin Co ₃ veins		146.1: bedd/CA = 55° 147.3: bedd/CA = 51° 148.1 bedd/CA = 48°	V. Minor Sph in Co ₃ veins	
148.6	151.6	2.76	92.7%		"	Co ₃ spots				
				149	Frequent green volcanoclastic mudstone - bedded	Thin Co ₃ veins + spots - Co ₃ nodules // bedding		149.6: bedd/CA = 43°		
				150.5	dk-grey bedded shales	Thin Co ₃ veins		151: bedd/CA = 52°	V. Minor Sph in Co ₃ veins	
151.6	154.5	3.07	105.9%		"	"			"	
				152.1	Pale-green volcanoclastics - sandstones to siltstones			Possibly grading - fining up hole		
				154.2	grey shale					
154.5	157.6	3.16	101.9%		"					
					Pale-green volcanoclastic sands and silts					

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-13

LOGGED BY _____ FROM _____ TO _____

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270

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
157.6	160.6	3.10	105.3%		Pale-gm coarse-grained volcanoclastic sandstone			159 - Fabric/CA = 40°	
				159.4	Coarse-grained volcanoclastic breccia (fragments 1-6 cm) or larger - Green Porphyry frags. - Cherty frags. - Grey frags. (some appear to be sulphide rich) surrounding pale grey chert ? fragments			? Coarsening downhole	Pyrite frags (11cm) - Sph blebs between fragments some Gal-Sph blebs
160.6	163.6	3.00	100%		"			"	"
				162.2	Contact Facies to porphyry - Mixture of green porphyry fragments and chert			-	V.V. minor Sph blebs
163.6	166.6	2.96	98.6%		"				Minor Pyrite coats edges of Porphyry fragments
				164.7	Predominantly green Porphyry - minor chert veins. Massive homogeneous sub-euhedral white X1 phenos.				Pyrite in cherty veins

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-13

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271

5 cm

DRILL ADVANCE

LITHOLOGY

VISUAL
PERCENTAGE
MINERALISATION

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC (LOG)	STRUCTURE	MINERALISATION
166.6	169.1	2.48	99.2%		Porphyry - white and lime green phenocrysts - CO ₂ veins				
169.1	172.2	3.00	96.8%		"				
172.2	175.3	3.40	109.8%		"				
175.3	178.5	3.20	100%		" white phenocrysts both feldspar + qtz				Minor Pyrite with CO ₂ veins
178.5	181.6	3.10	100%	178.7	gray volcanoclastic mudstone → siltstone				
181.6	184.6	3.04	101.3%		"				Minor Sph in CO ₂ veins
				183.4	Pale green-cream coloured v. fine-grained volcanic (D-P) - two phases of veining 1) CO ₂ - Pyrite later 2) Coarser veins of CO ₂ with Sph Charadrioides Tschiste	Tschiste - CO ₂		Gradational contacts	Minor Py & Sph in veins
				184	gray volcanoclastic siltstone streaked with CO ₂ green cherty Volcanoclastic	CO ₂		shear fabric	V. Minor Sph in CO ₂ veinlets

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-13

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272

5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
184.6	187.6	2.96	98.6%		"				
				185.6	Pale grey-green siliceous (cherty) unit - silicified volcanoclastic grey and green patches - relicts of fragments	Silicification			
187.6	190.6	3.00	100%		" - CO ₃ veins	"			
190.6	193.6	3.05	101.6%		"	"			191.2: scraggly vein of Sph-Cpy 191.8-192.0 Sph blebs.
				192	green volcanoclastic - 2 distinctive coarse (1-2cm) CO ₃ spots - fine grained (? ash), but with semi porphyritic texture (pseudo) because of CO ₃ alteration - ragged sulphide (gal-sph) pieces associated w. coarse CO ₃ spots.	Strong CO ₃ alteration			Clots of massive sulphide (1-2cm) 1-2% with CO ₃ alteration
193.6	196.6	3.09	103%						

SCALE 1:100 (1cm = 1m) 194.4

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-13

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273

5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
					greenish silicified volcaniclastic	Si minor Co ₃			Disseminated pyrite ≈ 1%
					196 Paler colour - Strong Co ₃ alteration as spots	Strong Co ₃ alt.			Clots of fine-grained gal-sph ≈ 1%
196.6	199.6	3.10	103.30%		Fine-grained cream-green volcaniclastic	" Coarse Co ₃ spots (↑ 3cm wide)			Clots of fine-grained Gal-Sph - loose Cpy ± Co ₃ 1-2% 198: Example of above 3-4cm wide - coarse-grained (1-5mm) Sph-Py in Co ₃
199.6	202.6	2.81	93.60%		" 201.5-202.5: greenish silicified volcaniclastic with less Co ₃ alteration (and minor sph clots) 202.5-202.6: as above ± Co ₃ alt.	"			"
202.6	205.6	3.02	100.60%		Pale yellow-green volcaniclastic - chl-ser. shear fabric - spotted Co ₃ alteration	Co ₃ - alt 204.05: ? Fuchsite speck		204.6 fabric/CA = 40°	small clots of Py ± + zoned Co ₃ ≈ 1%
205.6	208.6	2.89	96.30%		"	Co ₃ alt		"	"
208.6	211.6	2.95	98.30%		"	" reddish colouration		"	"

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-13

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5 cm

VISUAL
PERCENTAGE
MINERALISATION

DRILL ADVANCE				LITHOLOGY					
DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
				211-2	Broad rock type is still fine-grained yellow-green volcaniclastic (?Pc-A) - high proportion of CO_3 and sulphides	CO_3 - spots and blebs associated with sulphides			Blebs and lenses of sulphide (galena-sphalerite - pyrite) with CO_3 alteration $\approx 20\%$ sulphides
211.6	214.6	2.95	98.3%		"	"			"
				212.9	Pale yellow-green fine-grained volcaniclastic (Pc-A) - stringy fabric	CO_3 spot alteration			
214.6	217.5	2.75	94.8%						
				216	grey shale				- Pyrite (1-5m) streaks
				216.6	EPICLASTIC Medium to fine-grained Angular mixture of fragments Cherty, Volcanic and shale frag. - Shale fragments largest				V. Minor sph blebs in CO_3 veins

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-13

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
217.5	220.6	2.94	101.40%		Coarse-grained epiclastic v. large (>10cm) sil. shale fragments				"	
220.6	223.6	2.99	99.69%		Mixture of epiclastic/pyroclastic material in a siliceous grey unit - fractured.				"	
				222	Lapilli Tuff. - Volcaniclastic Breccia with lapilli-sized fragments dominating - dk grey and pink fragments - distinctive green porphyry fragments (xl rich) - typical grey siliceous looking matrix (fine-grained clastic mixture)					
223.6	225.2	1.47	91.87%		"					
225.2	227.6	2.57	107.90%		"					

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-13

LOGGED BY _____ FROM _____ TO _____

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276

5 cm

DRILL ADVANCE

LITHOLOGY

DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
227.6	230.7	3.06	98.7%		"					
230.7	233.9	2.96	92.5%		"					
				232.6	Predominantly green porphyry fragments grey siliceous porphyry - displays layering - Parts shattered and obviously fragmental					
233.9	237	2.78	89.6%							
				236.3	Mixture of lapilli tuff and layered grey siliceous porphyry					
237	240	2.60	86.6%		"					

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-13

LOGGED BY M.H. Robert

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DATE 29/11/84PAGE 18 OF 18

DRILLHOLE LOG

Summary Sheet

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of 1

PROJECT	PINNACLES	AREA	5/63 Pt 4	DRILLHOLE TYPE	DDH
CO-ORDS	5384595.34N 377761.90E	DECLIN	-54°	AZIMUTH	270°
				R477.84	
DATE COMMENCED	27/11/84	DATE COMPLETED	17/12/84	DRILLED BY	LONGYEAR
				DRILL RIG	L/Y 38
Non Coring to:	3m	HQ Core to:	48	HQ Core to:	334.5
				BQ Core to:	EOH 334.5

SURVEY DATA

Instrument:

DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION		AZIMUTH
	Uncorr	Corr			Uncorr	Corr	
100		-54	271				
150		-53.25	?				
200		-50.25	273.5				
250		-50.25	274				

LOG SUMMARY

ROCK TYPE	MINERALIZATION		
0 - 3	NO CORE		
3 - 22.7:	Glomeroporphyrific quartz		
	feldspar porphyry (QFP)		
22.7-38.9:	Volcaniclastic Breccia (Vc-B)		
38.9-48:	Siliceous Lapilli tuff (Pc-L)		
48-52:	?Fault zone		
52- 67.8:	Grey-green siliceous porphyry (P)		
67.8-113.7:	Lapilli tuff (Pc-L)		
113.7-139.4:	Sequence of cherts, volcaniclastics	113.7-139.4:	Minor blebs
	and laminated black to grey-black		and layers
	shales (Ch/Vc/S)		of Py + Sph
	128.6-133.8: Calcareous shales		
139.4-181.7:	Green Porphyry (G-Pf)		
181.7-198.2:	Mixture of volcaniclastics siltstones		
	and breccias with cherts (Ch/Vc)		
198.2-207.9:	Intense pyrite-chlorite	198.2-207.9:	Coarse-grained
	alteration (A: Py-Cl) (? G-Pf)		Py cubes:
			disseminated, veined
			(1-2%) and in massive
			patches.
			198.5-198.7: semi-
			massive Py (.50%)
			Cpy veins
207.9-216:	Angular fragments of green		
	porphyry in chert (G-PfC, A:Py, Si, Cl)		
216-223.85:	Cherts and Volcaniclastics (Ch/Vc)	216-222.9	Disseminated
			Pyrite (minor-5%)
	(222.9-223.85: Intense pyrite-chlorite)		Minor Sph-Gal
	alteration		

Signature

RHRober

Date

20/12/84

AUSTRALIAN ANGLO AMERICAN LIMITED

DRILLHOLE LOG

Summary Sheet

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of 2[illegible]

184280

279

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
0	3				NO CORE					
3	6.2	.24	7.5%		Rubble Core fragment of quartz- feldspar porphyry - large phenocrysts 1-3 mm					
6.2	7.7	.06	4%		2 _{1/2} rubble - chlorite with qtz					
7.7	9.2	.17	11.3%		Quartz - Feldspar Porphyry (Q.F.P)					
9.2	10.7	.78	52%		"					
10.7	12.2	.09	6%		"					
12.2	13.7	.10	6.6%		"					
13.7	15.2	.67	44.6%		"					
15.2	16.7	.37	24.6%		"					
16.7	18.2	.43	28.6%		" 17.8-18.2 layering in porphyry - qtz phenocrysts prominent			lay/CA = 50°		
18.2	19.7	.87	58%		"				Minor disseminated Py grains	
19.7	21.2	.28	18.6%		"					

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-14

LOGGED BY R.H. ROBERTS

FROM TO

DATE 7/12/84

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280

5 cm

DRILL ADVANCE				LITHOLOGY							
LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
	21.2	22.7	1.57	58%		"					
	22.7	24.2	1.52	58%		Volcaniclastic Breccia - fragment a few mm's to greater than several cm's - Pale-coloured siliceous frags. dk-green porphyritic fragments - qtz porphyry fragments or patches Thin quartz & chlorite veins				rare sph bleb in veins	
	24.2	25.7	1.50	86.6%		"					
	25.7	27.2	1.02	68%		"					
	27.2	28.7	1.34	89.3%		" - some coarse qtz-chlorite veins - typically chlorite occur at edges (selvedges) of coarse quartz veins 					

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-14

LOGGED BY _____ FROM _____ TO _____

DATE / /

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DRILL ADVANCE				LITHOLOGY					5 cm	
DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
					grey tuffaceous sandstone/ breccia			- fractures at a slight angle to CA: covered with slicken- sides. 32.1: fracture/CA = 13°-15° 32.8 fracture/CA = 24°-26°		
33.2	34.7	.57	38.7%		grey volcanoclastic breccia with ? shaley component					
34.7	36.2	.40	26.6%		Volcanoclastic Breccia					
36.2	36.5	.20	66.6%		Broken core - tuffaceous sandstone - slight layering with thin siliceous lenses.					
				36.4 -	Volcanoclastic Breccia					
36.5	37	.28	56.7%		Volcanoclastic Breccia - orange-green-yellow colour - siliceous volcanic frags - green volc. frags - Distinctive breccia appearance				37: Pyrite (1-2cm) nodule (frag)	
37	37.6	.47	78.3%		Volcanoclastic Breccia ± layered cherty sections					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-14

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282

5 cm

DRILL ADVANCE					LITHOLOGY				
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
37.6	38.7	.87	79.1%		Volcaniclastic Breccia 38-38.3: grey (?) layered chert				
38.7	39.2	.34	68%	38.9	Volcaniclastic Breccia Siliceous volcaniclastic → pyroclastic breccia Xl and lithic fragments - dk-green porphyry frags (Pc-L)				
39.2	40.7	1.04	69.3%		Volcanic Breccia Pc-L				
40.7	41.8	.87	79.1%		"				
41.8	43.3	1.17	78%		" Quartz - Chlorite veining (Quartz in centre of veins)				
43.3	44.9	1.26	78.5%		"				
44.9	46.1	1.16	96.6%		(Pc-L) "				
46.1	48.0	1.05 HQ	55.3%		Volcanic Breccia				
48.0	53.1	NQ	4.29%		Broken Core - White Quartz fragments of Core ? Fault				

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-14

LOGGED BY FROM TO

DATE .../.../...

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
				52	grey-green siliceous porphyry - faint layering - thin chlorite and quartz veining					
53.1	54.7	1.06	66.2%		"			53.4: layering / CA = 55°		
54.7	56.3	1.05	65.6%		"					
56.3	57.7	0.56	44.0%		"					
57.7	58.6	1.59	176.6%		"					
58.6	61.6	1.30	43.3%		"					
61.6	64.6	2.74	91.3%		"					
64.6	67.6	2.22	74.0%		"					
67.6	69.1	1.12	74.6%		"					
				67.8	Medium-grained volcanic breccia - typically lapilli-sized fragments - dark porphyritic frags. with angular shapes abundant - Classic Pc-h					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-14

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284

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
69.1	70.6	1.46	97.3		" - some qtz - lcz veining					
70.6	73.6	2.93	97.6%		- Excellent example of Pc-L (i.e.) Volcaniclastic breccia - lapilli-sized fragments - general pyroclastic flow appearance (lapilli tuff) - qtz / lcz veining					
73.6	76.6	2.88	96%		"					
76.6	79.0	2.16	90%		"					
				78.8	- white silica flooding within Pc-L					
79.0	79.9	.91	101.1%		"					
79.9	82.6	2.63	97.4%		Patchy silica flooding with predominantly Pc-L					
82.6	85.6	2.95	98.3%		Dark-green lapilli tuff (Pc-L)					
85.6	88.6	2.72	90.6%		"					
88.6	91.6	2.95	98.3%		"					

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EAF-14

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DRILL ADVANCE				LITHOLOGY						
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
91.6	94.6	2.78	92.6%							
94.6	96.4	1.26	70%		 - some open-space textures in core - broken core					
96.4	99.5	2.64	85.2%							
				97.5	Pc-L					
99.5	102.6	2.95	95.2%							
102.6	105.6	3.00	100%		 104.7 - 105.2: quartz - flooding					
105.6	107.9	2.06	89.6%		Pc-L					
107.9	109.6	1.49	87.6%							
109.6	112.6	2.70	90%							
112.6	115.6	2.73	91%							
				113.7	113.4 - 113.7: slightly mixed zone Layered chert and fine-grained volcanoclastics - unit of volcanoclastic sandstone			Contact/CA = 60°		
115.6	118.6	2.68	89.3%		Broadly layered chert, volcanoclastics and shale units			118.2 layered in shale bedd/CA = 34°		

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-14

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286

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
118.6	119.9	102	78.5%		Chert and volcanoclastics					
119.9	122.4	86.4	34.7%	121.7	Mixture of P ₂ -L with chert and shale fragment Volcanoclastics					
122.4	125.0	92.3	20%	123.2	Black Shale - Shattered with thin CO ₂ /RTZ veins - Bedding strongly disjointed causing rapid changes in orientation				- Minor disseminated pyrite + nodules <1cm of pyrite - Minor blks of sph in a network of thin qtz/CO ₂ veining. Veining is late than pyrite	
				124.1	Bedded black shales and green volcanoclastics				"	
125	127.6	250	96.17%		Black shales - laminated - some thin units (≈1-2cm) of volcanoclastic and more cherty lithology - thin qtz/CO ₂ veining		127.2: bedd/CA = 50°		Some thin pyritic layers + elongate nodules <1% - blks of sph in ATZ/CO ₂ veining ≈1%	

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-14

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
127.6	130.0	2.32	96.6%		Well layered (laminated) grey-black shales with thin calcareous layers. Calcareous - Pale white lenses occur within the layering. - Fine layers pass through the lenses, i.e. calcareous nodules post layering? Diagenetic Calcareous nodules may develop outward from thin calcareous veins. - Deformation post formation of calcareous lenses as layering bends around lenses as well as going through (i.e. deflected)				Fine-grained (41mm) Sph-Py occurs in calcareous layers. Thin pyrite lenses some apparent pyrite replacement of calcareous nodules	
130.0	133.1	2.98	96.1%				129.8: bedd/CA = 47°			
133.1	135.5	2.02	84.2%				131.5: bedd/CA = 59° 132.5: bedd/CA = 57°		Pyrite shugs	
135.5	138.8	2.02	84.2%							

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR

DDH EAF-14

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5 cm

DRILL ADVANCE

LITHOLOGY

LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
						Increasing volcanoclastic component with shales. Varying to a clastic breccia with large > 6cm shale & pyrite fragments				Pyrite shugs	
					135	Thinly bedded shales, (Calc.) siltstones and muds(?) volcanoclastic)					
	135.5	138.6	2.85	91.9%		Thinly bedded black & grey shales - light coloured layers with calcareous material - not quite pyritic.			136.3: bedd/CA = 58°	Pyrite shugs & pyritic black shales < 1%.	
	138.6	141.6	2.97	99%		Shales and cherty sediment				Pyrite layers & patches 4-2%.	
					139.2-139.4	Pyrite - chert rich				139.2-139.4: ~ 10-20%	
					139.4	Dark lime-green porphyry - Coarse CO ₂ veining	Chlorite - Sericite - CO ₂ alteration		- some fine shear fabric	Blebs of Sph in CO ₂	
	141.6	144.7	3.10	100%		"	"			Blebs of Sph in CO ₂ Minor Py in veins	
	144.7	147.8	2.93	94.5%		Paler - coloured green porphyry Phenocrysts of quartz and mafic grains					

SCALE 1:100 (1cm = 1m)

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
147.8	150.9	2.63	86.4%		I					
150.9	154.1	3.07	95.9%		II					
154.1	157.2	3.00	96.8%		II					
157.2	160.2	3.00	100%		II					
160.2	163.4	3.13	97.8%		II					
163.4	166.5	3.03	97.7%		II	Chl-Co ₂ veining				
166.5	169.6	3.00	96.7%		II	"				
169.6	172.6	2.90	96.6%		II	"				
172.6	175.6	2.80	93.3%		II	"				
175.6	178.6	2.90	96.6%		II	"				
178.6	181.6	2.84	94.6%		II	"				
				180.4	Abundant Co ₂ veining in porphyry (as above) - wide (5cm) patches/veins of fractured Co ₂ and chlorite					
181.6	184.6	2.78	92.6%		181.6-181.7: Fractured Co ₂ with interstitial chlorite					

SCALE 1:100 (1cm = 1 m)

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DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
				181.7	Mixture of green volcanoclastic and porcellan-like cherty fragments (0-2 cm).					
				182	182 Extremely coarse Volcanoclastic Breccia Fragment typically > 6 cm. - Coarse porphyry frags + pale coloured frags - generally angular edges. Grey cherty fragments - Pyrite fragments (1mm-1cm)				Minor pyrite cubes - fragments	
184.6	187.6	2.94	95%		"				"	
187.6	190.6	2.83	94.3%		"					
190.6	193.6	2.58	96%		Fine-grained volcanoclastic siltstone with bands of volcanoclastic breccia. Minor bands of cherty material (? Siliceous ash)					
				193.55	Porcellanous-cherty material					
193.6	195.4	1.58	68.7%		Porcellanous chert mixed with green volcanoclastics (siltstones → breccias)				Minor disseminated pyrite	

SCALE 1:100 (1cm = 1 m)

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DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
					194.2-194.4: Thinly bedded/ bedded porcellaneous chert with green/grey volcanoclastic material (Echalite horizon ? $\approx$ Ietsuseikee, Japan).			194.3: longening/CA: 74°	V. Minor Py-Sph
				195.1	194.4-195.1: Clastic mixture of porcellaneous chert and volcanoclastic material				
					Dygreen-grey tuffaceous siltstone - shale				
195.9	198.7	2.91	103.97%		Volcanoclastic breccia consisting mainly of tuffaceous shales and siltstones - parts of core appear to consist of all mud (tuff. shale), but ? large blocks			196.6: Facing is down- hole but ? block in breccia.	
				197.9	Pale-green fine-grained volcanoclastic - shear fabric (Pc-A).				
				198.2	198.2-198.5: Intensely altered fine-grained Porphyry - BLACK COLOUR.	Intense Chl-Py alteration			Coarse-grained pyrite in veins, clots & grains in black-altered rock PASSIVE CPY VEINS.

SCALE 1:100 (1cm = 1m)

NB: 198.45-198.5 -

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DRILL ADVANCE					LITHOLOGY				
DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
					198.5 - 198.7 Semi-Massive Pyrite + chlorite	Intense Py-Chl alteration			Semi-Massive Pyrite 50-60%
198.7	201.9	2.98	93.17%		Intensely altered green porphyry	"			Patches of disseminated pyrite ≈ 1%. Dk green - black patches of chlorite- - Pyrite + Cpy. Cpy < 1%.
201.9	205	2.98	97.17%		Strongly altered green porphyry mixed with grey (partly porcellanous) chert Chert < 25%. - Chert can surround porphyry fragments, but elsewhere it appears to be veining porphyry. Coarse-grained recrystallised pyrite occurs in X-cutting veins, appears to be later than a silica phase surrounding porphyry fragments	Intense Py-Chl Alteration Pyrite-Chl veins. Typically chlorite centre with coarse pyrite edges. - Also get chert/Py veins, coarse Py. cubes in chert			Pyrite disseminated as cubes in porphyry 1-2%. Pyrite also occurs as thin X-cutting veins. Coarse-grained pyrite also occurs in veins with chlorite

SCALE 1:100 (1cm = 1 m)

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5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
205	208.1	2.9%	96.17%		"	? alligthin associated with veining			"
				207.9	V. Angular fragments of green porphyry (mafic & feldspar phenocrysts) surrounded by chert (porcellaneous?) (G-P&C)				Sph slug
208.1	211.1	2.9%	99.37%		"				
				208.8	3cm wide vein - Coarse (>1-2mm) grained pyrite Centre pyrite recrystallised fractured & infilled with chlorite - further fractured down middle & infilled with quartz containing slugs of sphalerite and minor cpy Green fragments around vein altered to dark-grn colour & pyrite-chl alt. ie alligthin associated with veining.	Py-chl alteration Py Py-chl alteration	VEIN		Wide sulphide-bearing vein (see general description)

SCALE 1:100 (1cm = 1m)

FOR DISCUSSION

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
					<u>DISCUSSION</u> Typically pyrite veins pyrite (cemented by chlorite) veins quartz & pyrite cubes <u>Paragenesis</u> Veining ① Pyrite } ? Py-Chl ② Chlorite } associated Py-Chl alteration in surrounding host ③ Qtz containing coarse grained Sph-Cpy + recrystallised Py Degree of veining and consequent alteration could be related to host rock composition & competence (ie ? porphyry appears to contain more veining and alteration than G-PfC which is rich in fine grained Si component ? prior to late veining)					

SCALE 1:100 (1cm = 1m)

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VALUE PERCENTAGE MINERALISATK
(208.1	211.1	CONT.)			Mixed Chert - Porphyry - cherty component not sulphide bearing - cherty component does appear to be classic in appearance	210.1 Porphyry fragments altered to grey colour by Pyrite alteration			Pyrite = L 17.	
211.1	214.2	3.00	96.7%		"	"			"	
214.2	217.3	2.77	89.3%		"	"			"	
				216	Mixed semi-layered Chert and volcanoclastics			Sharp Contact Contact/CA = 45°	Pyrite disseminated in cherty component = 5-10% - Minor slugs of CPY	
217.3	219.7	2.00	100%		Cherts and Volcanoclastic (green) mudstones			Broad layering emphasised by Pyrite layers 219.2 layer/CA = 60° 217.9 CPY lenses/CA = 34° = right angles to broad layering	Disseminated Py slugs & 2 cm of Py (irregularly shaped) layers of Py - slugs & patches of CPY-sph Sph in irregular vein & Co ₃ veins CPY in thin lenses typically at a high angle to general layering	

SCALE 1:100 (1cm = 1m)

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5 cm

DRILL ADVANCE				LITHOLOGY						5 cm	
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VEIN MINERALISATION	
219.7	221.2	1.25	83.3%		lgreen volcanoclastic Pale coloured with dark green bands	Minor Py alteration			Minor L.L.I. disseminated Py - occasional slugs of sph.		
221.2	223.9	2.42	89.6%		"				Minor disseminated Py		
				222.9-223.85	Intensely altered green volcanoclastic sections. of major alteration as circular patches > 10cm in diameter: V.D. gm - black rock (chlorite alt.) containing cubes (1-4mm) of Pyrite. Rimmed by intense sericite alteration (cream-yellow) also thick streaks and patches of sericite alteration through core without chlorite or only mildly associated with chlorite	222.9 Intense Py alteration with patches of extremely intense Py-chl alteration to a black rock & coarse Py cubes. - Associated intense sericite alteration commonly rimming chl-Py			221.8: Vein of coarse Py-Gal 222.9 Py = 10-20% Disseminated - also as v. coarse cubes assoc. & spots of strong alt. - part semi-massive pyrite		
				223.85	Grey chert - massive with sulphide stringers and patches (Ex)				Py-Cpy stringers 5%		

SCALE 1:100 (1cm = 1 m)

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
223.9	224.9	0.86	86.7%		Grey chert with sulphides wide sections of pyrite - chalcopyrite				Py - 30-40% CPY - 2-3%	
224.9	228	3.00	96.7%	227	Intensely altered unit dark-green with grey cherty parts - Apparent are angular dark green porphyry fragment in grey cherty patches which have been altered to Py-Chl - fine disseminated pyrite in grey chert (? G-P&C - A: Py-chl)	Intense Py-chl alteration			Py - 10-20% CPY - 41% Pyrite 10-20%	
228	231.1	3.04	98.1%	228.6	green Volcaniclastic - patches of dk-gm Chl-Py	Py-chl alt.				
				230.2	White quartz nodules in green volcaniclastic patches of dk-gm Py-chl	Py-chl alt				

SCALE 1:100 (1cm = 1m)

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
				230.9	Dk-green altered unit ? altered dk-green frags. in a paler-grey-green material (? G-P&C-A:Chl-Py) (? 4m Cherty Vc A:Chl-Py)	Py-CHI ALT			Minor Pyrite	
231.1	234.1	2.67	89.7%		"	"			"	
234.1	235.2	.88	80%		"	"			Pyrite 41%	
235.2	235.9	.77	110%		"	"			Minor Pyrite	
235.9	238.6	2.68	99.2%		"	"			"	
				236.4	Striped lime-gm / dk-gm unit. Strong alteration ? fine-grained pale-green volcanoclastic (Pc-A) with patches of dk-green/black alteration (Chl). 236.8 - black Chl-Py band	"			"	
				238.2	lygreen cherty volcanoclastic	Minor Chl-Py alteration of green parts				
238.6	241.6	2.80	93.3%		"					
				239.8	Chert with Pyrite (Kc)					

SCALE 1:100 (1cm = 1m)

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTM	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
					Intensely altered green volcanoclastic - Appears to have been a coarsely mixed cherty volcanoclastic - Now dk-gm altered cherty volcanoclastic (?) Breccia	Py-Chl Alt Intense - stringers of coarse pyrite remaining previous chert frags.			Pyrite 5-10% CPY - Minor	
241.6	244.6	2.93	97.6%		Cherty Volcanoclastic Breccia - large cherty blocks separated by green volcanic material - sulphide also between chert				Pyrite 5-10% CPY - =1%	
				243	Intensely altered Volcanoclastic - dk-gm black material = coarse cubipyrite within dk-gm fine-grained surrounds = fine-grained disseminated pyrite	Intense Py-Chl Alt			Py - 1-5%	
				244.35	Green Cherty Volcanoclastic Breccia	"			Disseminated Pyrite 2-1%	
244.6	246.6	1.76	88%		Variation from Cherty volcanoclastic with patches of dk-gm black Py-Chl to all black-green Py-Chl Alt.	"			Py - 5-10% CPY = 1%	

SCALE 1:100 (1cm = 1m)

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300

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
246.6	248.2	1.45	85.3%							
248.2	250.6	2.28	95%	248.2	Intensely altered green volcanoclastic - light coloured patches amongst green volcanic - associated base-metal sulphide	Strong spotty (nodular) CO ₃ alteration 30% of rock 249.8 CO ₃ alt more widespread less spotty			Py-Sph-Gal ~ 1%	
250.6	253.6	2.92	97.3%			CO ₃ alteration varies from disseminated to spotty			Py-Sph-Gal - blue-grey colouration varies? ↑ 2-3%	
253.6	256.6	3.00	100%	253.6	Cherty Volcanoclastic Predominantly Si - chert - faded greenish patches - chert stringers & patches of sulphides	CO ₃ stringers			Py-Sph-Gal 1-2% - two coarse (1-2cm) veins containing coarse-grained Sph-Gal-Cpy-Py	
				255.4	CO ₃ Rock	? Intense CO ₃ - Base-metal Alteration			Gal-Cpy < 1%	
256.6	259.2	2.30	88.5%		Intensely altered volcanoclastic - bands of less altered fine-grained volcanic	Intense CO ₃ Alt.			Minor base metals Extremely fine-grained bluish patches 2-3%	

SCALE 1:100 (1cm = 1m)

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301

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
259.2	262.2	2.85	95.7%		Intensely altered volcanoclastic greenish lenses within a blue-grey alteration with white CO ₃ spots 261.6-262.2: CO ₃ -sericite rock	CO ₃ -base-metal alteration - spotty CO ₃ alt. - 261.6-262.2: 20-30% CO ₃ spots			Blue-grey base metal alteration 2-3% 261.6-262.2: 2-3% Sph-Gal	
262.2	262.6	.28	70%		CO ₃ -sericite ? altered volcanoclastic	see description			"	
262.6	264.8	2.05	93.2%		CO ₃ -sericite Nodular CO ₃	"			Gal-Sph disseminated patches 2-3%	
264.8	265.6	.66	82.6%		CO ₃ -sericite - Coarse clumps of green sericite - less CO ₃ spotting - blue-grey base-metal rich patches	"			Sulphide colouration ~1%	
265.6	268.6	2.80	93.3%		lime-green sericite rock (volcanoclastic) - with disseminated CO ₃ - blue-grey colouration of sulphides	"			Sulphides 3-4%	
				269.1	Increased cherty component (grey) with sericite-CO ₃	"			Sph-Gal 1-2%	

SCALE 1:100 (1cm = 1m)

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
268.6	270.7	1.86	88.6%		V. Pale - yellow green silicified unit - mixture of cherty material and sericite	see description			Patches and veins of sph-Gal (with CO ₂) = 1% - 2%	
270.7	271.6	1.69	76.6%		"	"			"	
271.6	274.4	2.70	96.4%		"	"			"	
				271.7-9					will layered disseminated sulphides ± sericite	
				272.5	lime-green cherty volcaniclastic: grey cherty fragments surrounded by green? sericite (volcanic material).				Minor sulphide (Gal-sph) ± CO ₂ in thin (1-2mm) wide) veins < 1%	
274.4	277.5	2.94	94.8%		"				"	
277.5	280.6	2.98	96.1%		Distinct fragments - sub-rounded fragments of cherty material				"	
280.6	283.6	2.88	96%		"				"	
				282.6	Green Porphyry, sub-enchthral field. frags (1-3mm) - small quartz rounded grains					

SCALE 1:100 (1cm = 1m)

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5 cm

DRILL ADVANCE					LITHOLOGY				
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
283.6	286.6	2.90	96.6%		"				
286.6	289.3	2.36	87.4%		"				
				287.6	Mixture of green volcanics and cherty shales				
289.3	292.4	2.82	91%		green cherty volcanics: White/grey cherty nodules surrounded by green ash fabric - shear texture in green fabric (? Cherty P _c -A) - Coarse pink CO ₂ veins			293: fabric/CA = 40°	
292.4	295.4	2.83	94.3%		"				
295.4	298.6	2.75	85.9%		green Cherty volcanics with patches of CO ₂	CO ₂ spots to which clusters of CO ₂ nodules			
298.6	301.4	2.84	101.4%		"	"			
				301.2	Sulphide vein with grey chert	301-301.5: Increased CO ₂ Alteration above ± sulphide vein		301.2: vein/CA = 26°	301.2: Vein of coarse grained Sph-Py - ? Gal with chert - lenses of Gal + Py ± CO ₂ around vein

SCALE 1:100 (1cm = 1m)

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
301.4	303.6	2.06	93.6%		lyn. Cherty Volcaniclastic - cherty nodules in a green ash fabric - increased silica Coarse White Cherty Patches/ fragments - riddled by thin parallel CO_3 veins - disseminated and veined sulphides are intimately associated with cherty sections, but clearly later as cross cuts chert frags & assoc CO_3 veins - sulphides assoc with white chert (see) possibly reflects more brittle nature of silica - rich patches	Increased silica content - possibly siliceous alteration			Sulphides - with more cherty patches 301.4 - 302.4: = 2.3%	
303.6	304.6	1.02	102%		lyn. Cherty Volcaniclastic - large cherty fragments (cm's wide) - CO_3 veining - some quite pink	Patches of white nodular CO_3				

SCALE 1:100 (1cm = 1m)

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DRILL ADVANCE				LITHOLOGY					
DEPT	DRILL ADVANCE	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
					Pink Cos for 10m reactive to acid (10HCl) than white				
304.6	307.6	2.92	97.3%		"	"			
				306.9	Pale-green yellow ash (Pc-Ap) strong fabric - Dk-green chlorite patches	Intense Ser-CHI alteration (NB. all green volcanoclastics above probably sericite altered)			
307.6	310.6	3.09	103%		"	"			
						310.2-310.6: Cos spot		308.4: fabric/CA = 38° 309.4: fabric/CA = 39°	
310.6	313.1	2.54	101.6%		"	some Cos-bearing patches		312.7: fabric/CA = 42°	
313.1	315.2	1.87	89%		" more silicified (cherty) sections				
315.2	317.9	2.43	90%		"			316.6: fabric/CA = 50°	
317.9	320.9	3.00	100%		"				
				318.9	? Darker-green coarser-grained Volcanoclastics (Pyroclastic)	Spotty Cos alt.			

SCALE 1:100 (1cm = 1m)

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DRILL ADVANCE					LITHOLOGY						
LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
					320.4	dk-green lenses ? frags (lithic) or pumice. Intensely altered fine-grained volcanoclastic (Pc-A). - waxy texture of alteration in core	" Strong Ser-Chl alteration				
	320.9	323.5	2.38	91.5%	322.7	" Volcanoclastic siltstone	"			321-321.1 - Sph pocket	
	323.5	326.6	2.88	92.9%		Coarser-grained volcanoclastic - fragments 1mm-1cm Yellow-green → dk-green colouration	Ser-Chl. alt				
	326.6	329.6	2.69	89.6%		Fine-grained volcanoclastic	"				
	329.6	332.5	2.80	96.5%		" Green Porphyry - general buff-green colour - euhedral phenocrysts 1-3mm - small rounded qtz phenos. - thin chlorite veins	"			330.5 Foliation/CA = 35°	

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-14

LOGGED BY FROM TO

DATE / /

PAGE 28 OF 29

184308

307

5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
322.5	334.5	1.33	91.67		Buff coloured porphyry - abundant CO ₂ veining				
	E.O.H								

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF-14

LOGGED BY R.H. ROBERTS FROM TO

DATE 19/12/84

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Page 1
of 2

PROJECT PINNACLES EL 5/63 PT 4 AREA THOMAS' TUNNEL

DRILLHOLE TYPE
DDH

CO-ORDS 377482.70 E DEC^{LN} -45° AZIMUTH 090° M RL 427.7
5384410.14 N

DH
No. EAF 15

DATE COMMENCED	17/1/85	DATE COMPLETED	20/1/85	DRILLED BY	LONGYEAR	DRILL RIG	L/Y 38

Non Coring to: 4.4m HQ Core to: 390m NQ Core to: 85.7m SQ Core to: EOH 85.7m

SURVEY DATA

Instrument:

[illegible]

LOG SUMMARY

[illegible]

Signature *C. L. Abbott*

Date 20/2/85

Page 2
of 2

[illegible]

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
0	4.40				NO CORE					
4.40	6.00	1.28	80%		Crumbly and weathered porphyritic textured rock. Weathered white feldspar phenocrysts and quartz phenocrysts in pale green (chloritic) groundmass	Weathered				
6.00	7.30	1.00	76.9%		As above, unit in place can have blocky appearance.	"				
7.30	8.60	.90	69.2%		As above	"				
8.60	10.30	1.15	67.6%		As above	"				
10.30	12.00 13.40	.65	38.2%		As above, fine scale qtz veining common.	"				
13.40	15.00	.87	54.4%		As above, core becoming slightly more competent	"				
15.00	17.00	.92	46%		As above	"				
17.00	18.50	.63	42%		As above. (unweathered section at 18.30 see below for description).	"				Pg present in veins & disseminations
18.50	20.10	1.32	82.5%		Good core - out of weathered zone at 18.65m. Grey/green silicified rock. Greenish/white phenocrysts w/ qtz phenocrysts set in a pale grey groundmass - porphyritic texture. Qtz veining common. Very fine grained py gives spotted appearance	Chl/Si/Py				Pg present as disseminations at in qtz veins.
20.10	22.00	1.06	62.3%		As above	"				"

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 15

LOGGED BY C.R. MROZEC

FROM 0m TO 21.90m

DATE 23/1/84

PAGE 1 OF 9

184312

311

5 cm

DRILL ADVANCE				LITHOLOGY					
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
21.80	23.20 22.57	.95	65.7%		As before	"			"
22.57	23.20				Mixed zone of soft crumbly greenish rock, showing porphyritic textures (white phenos in green matrix) and ductile textures (white & green clots in greenish matrix) - Very similar to previous sections of core.	cl/chl/py			Small py crystals disseminated throughout - no gls concentrations.
23.20	24.00	.50	62.5%		"	"			" (for base until observed)
24.00	25.00	.90	90%		"	"			"
25.00	26.20	.97	80.8%		Altered and mineralized volcanoclastic. Fragments not evident, probably a volcanoclastic mudstone (use of mudstone only in a size sense). Predominantly grey in colour with green chloritic sheaths. Silicified in places. Minor foliation.	chl/cl ± Si			py occurs disseminated throughout, and is localized in blackened zones. Rare cpy assoc with py. Minor gls clots present.
26.20	27.90	.93	58.1%		Essentially as before, foliation now definite, core very heavy and more deeper grey in colour - due to combination of fine sulphides and Barite?	"		Foliation to core - 30°	"
27.90	29.40	1.37	85.6%		As before. Minor qtz/CO ₃ ²⁻ veining. White gelling poss. CO ₃ ²⁻ alt.	chl/cl/CO ₃ ²⁻		Foliation to core - 25°	Abundant fine grained sulphides present, causing deep grey coloration in rock.

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 15

LOGGED BY C.R. MAOZZEK

FROM 21.80m TO 29.40m

DATE 23/1/85

PAGE 2 OF 9

184313

312

5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
29.40	30.80	.90	64.3%		As before	"			"
30.80	32.20	.94	67.1%		Still in altered & mineralised volcanics. From 30.80 - 31.00 same as before. From 31.00 - 31.40 chlorite streaks very minor, core predominantly grey/black & very heavy - blinding still evident - streaks present, filled with soft pinkish/white material - Ooids? 31.40 - 32.20 - pale grey volcanics, silicified in places containing dark grey sulphide patches.	chl/ci.		Foliation to core - 25°	abundant fine grained sulphides disseminated throughout (And more)
32.20	33.50	.92	83.6%		32.20 - 32.70 as for 31.40 - 32.20 32.70 - 33.30 - grey/green blinding altered & mineralised volcanics. white spotted texture throughout - prob. CO ₃ ²⁻	"			"
33.30	34.10	.58	72.5%		33.30 - 33.50 - as above 33.50 - 34.10 - pale grey/green uniform textured volcanics - minor laminations, silicified in places	chl/ci ± Si			py, gls disseminations & localized concentrations

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 15

LOGGED BY C. R. MROZKE

FROM 29.40 TO 34.10

DATE 23/1/95

PAGE 3 OF 9

184314

313

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VEIN MINERALISATION
34.10	34.50	.46	76.6%		As before	"			"	
34.5	34.70				Green porphyritic textured ~~volcanic~~ volcanoclastic. Presumably have white feldspar crystals (mm) set in green matrix. The white crystals highlight the lineation. Also present, ^{at lower degree} are subangular clasts of grey volcanoclastic mudstone (taken size) containing pyrite (loc). clasts of ~~fine~~ fine grained pyrite present as well. Minor qtz/cr_2 veins containing ~~fine~~ gls + sph.	cl/chl		Contact to core - 50° Lineation to core 40°	pyrite clasts, and tr sph/gls in qtz/cr_2 veins. (very minor).	
34.70	35.50	.53	75.7%		As before	"		"	"	
35.80	37.00	1.56	97.5%		As before	"		"	"	
37.00	38.50	1.46	93.3%		As before, from 38.30m gls / sph stringers common	"			gls / sph stringers.	
38.50	38.70				As before	"			"	
					ALTERATION CONTACT					

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EBF 15

LOGGED BY C.R. MARRIOTT

FROM 34.10 TO 38.70

DATE 23/1/85

PAGE 4 OF 5

184315

5 cm

314

DRILL ADVANCE					LITHOLOGY				
DEPT. No	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
3870	34.0	0.39	78%		Alteration contact at 38.70m - still in same rock type as before (Raynolds present) but tends to be more altered, giving a pale green colour, more blinched and mineralised with abundant gls/ph. stringers. Veining is random	chl / cl / CO ₂ ²⁻		contact to core / 50° Foliation to core / 45°	py clasts throughout, abundant gls / sph stringers - some veins up to 0.5cm in width
39.00	41.70	2.22	82.2%		Same rock type to 40.10m, with gls/ph stringers becoming less common after 39.50m. 40.10m - 40.30 - grey uniform textured volcanoclastic mudstone (poss. large clast) bedded - interbedded by qtz/calc veins. 40.30 - 41.20 - same rock type as to 40.10m i.e. pale green blinched porphyritic textured volcanoclastic - contains minor gls/sph stringers - localized conc. of gls/ph.	" CONTACT 40.10 cl / CO ₂ ²⁻			gls/ph stringers + localized conc. of sph/gln
41.20	41.70				Very coloured volcanoclastic mudstone, rare fine scale laminations - finely veined, veins contain qtz, CO ₂ ²⁻ , rare sph/gln.	chl / cl			Pore 1 vein sph/gln py occurs in localized concentrations.

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 15

LOGGED BY C.R. MROZEX FROM 3870 TO

DATE 23/1/85

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184316

315

5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
41.70	42.40	0.45	64.3%		As before	"			
42.40	43.30	2.21	96.1%		pk green & black porphyritic textured volcaniclastic rock - fragments abundant gls veins & blebs common	chl/ci		bluish to core 40°	gls/sph veins py clots.
43.30	44.70				Contact with grey volcaniclastic mudstone (fines and) weathered - fine fractures filled with qtz, gls, sph, py (sph more dominant), fine laminations	chl/ci		contact to core 25°	minor gls/sph/py veins & bedded concs.
44.70	47.80	2.70	87.1%		44.70-45.77 as above 45.77-47.80 - Poorly bedded mix of green volcaniclastics with sil. tuff volcaniclastic mudstone compact, py and staining bedded distribution - later stage fine veining with 1/2 (65%) sph/gls	chl/ci, ± si		bedding to core 30°	py common as beds. rare gls/sph in fine veins
47.80	49.70	1.77	93.1%		As above, bedded mix of green volcaniclastics, ~~sil. tuff~~ sil. volcaniclastic mudstone, & py clots.	chl/ci/s		bedding to core 35°	

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAP 15

LOGGED BY C.R. M. B. Zet

FROM 41.70 TO 49.70

DATE 23/1/85

PAGE 6 OF 9

184317

316

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
49.70	51.10	1.03	73.6%		Silicified dark green/grey finely laminated volcanoclastic mudstone - variably ch/ky altered (PCA). Even textured & foliated in places	ch/ky/si/cl			fine sph associated with late stage veining - py lineated & disseminated
51.10	53.40	2.74	97.8%		"	"			"
53.40	55.80	1.71	90%		"	"			"
55.80	57.00	.94	73.3%		" (oxidation from pin core opening)	"		tiltation to core - 30°	"
57.00	57.80	.52	65%		Mixed zone - alternating between as above & grey silicified volcanoclastic mudstone, coarse sph	ch/ky/si			beds of sph.
57.80	54.20	1.14	81.4%		Alternating sequence of grey/brown finely laminated silicified volcanoclastic mudstone & pale green silicified clastic rock with grit sized fragments - probably epiclastic, bedded distribution of fragments obvious, fragments rounded, & possible graded bedding present.	ch/cl/si		mudstone band to core - 40° epiclastic bedding to core 40°	minor string & beds of sph lgh/ky

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EBF 19

LOGGED BY C.R. WILKES

FROM 49.70 TO 54.20

DATE 23/1/85

PAGE 7 OF 9

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
59.20	60.80	1.34	83.7%		As before - later stage fine veining - dark sandy lithified - clots of silicified mudstone, gtz bluffs (w/ls) + volcanic lithics.	"				
60.80	62.30	1.26	84.7%		"	"			Tr sph ²	
62.30	63.10	.46	57.5%		red. grey/white laminated silicified volcaniclastic mudstone.	chl/si				
63.10	64.90 66.10	2.50	85.3%		Volcanic derived clastic rock. Clasts even sized - grit sized not relatively rounded - reddish-green mass' graded bedding - probably an epiclastic unit - dark white fragment, orange/red volcanic fragments - quartz white - can have in plus variation from sub sized fragment to + grit sized to silicified.	chl/c/si		bedding to core is 45°	very minor fine strings of sph/gln assoc with CO ₂ - sinter beds.	
64.90	66.10				"	"		"	"	
66.10	67.70	.79	87.8%		"	"			No min obs	
67.70	68.10	.32	80.9%		"	"			"	
68.10	69.30	1.01	84.2%		"	"			"	
69.30	70.50	.88	97.8%						"	

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH BAF 15

LOGGED BY C.R. M. Rowell FROM 59.20 TO 70.20

DATE 18/1/85

PAGE 8 OF 9

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
70.20	71.60	1.11	79.3%		As before	"			No obs.
71.60	72.00				As before	"			"
	74.70	3.00	96.8%						
72.00	74.70				Randomly mixed pinkish/green silicified (white) volcanoclastic with generally subangular lapilli sized fragments. - size range from 1mm - 10cm - Volcanic white fragments - silicified volcanoclastic matrix - qtz phenocrysts. (Pc-L)	chl / Si - Late stage CO ₃ ²⁻ veining + qtz veining			Very fine qtz veins @ Tm.
	75.40								
74.70	76.50	.60	85.7%		"	"			No obs.
76.50	74.50	2.80	98.3%		"	"			"
74.50	81.20	2.48	90.7%		"	"			"
81.20	84.20	1.71	85.5%		"	"			"
84.20	95.70	1.31	87.3%		C.O.H.				"

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG

FOR DDH BAP 15

LOGGED BY C. R. M. L. 254

FROM 70.20 TO 85.70

DATE 23/1/85

PAGE 9 OF 9.

DRILLHOLE LOG

184320

Page 1
of 2

Summary Sheet

PROJECT PINNACLES EL 5/63 PT 4 AREA THOMAS' TUNNEL

DRILLHOLE TYPE
DDHCO-ORDS 377515.76 E
5384443.84 N DEC^{LN} -45° AZIMUTH 090°M RL 431.6DH
No. EAF 16

DATE COMMENCED 21/1/85 DATE COMPLETED 24/1/85 DRILLED BY LONGYEAR DRILL RIG L/Y 38

Non Coring to: 0 HQ Core to: 32.30m NQ Core to: 84.50m RQ Core to: EOH 84.50m

SURVEY DATA

Instrument:

DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION		AZIMUTH
	Uncorr	Corr			Uncorr	Corr	
84m		-45°	091°m				

LOG SUMMARY

ROCK TYPE	MINERALIZATION		
	Style	Grade	Intersection width (Corr)
0 - 23.0 Green Porphyry (G-Pf)			
23.0-47.10 Alternating sequence of grey cherts, plus foliated & occasionally bedded green & grey volcaniclastic mudstones & sandstones (Ch/Vc-M/Vc-S(A:Si/Chl/Py))	: Fine grained dissem. 5% Sph/gln/py & base metal blebs & stringers assoc with Qtz/Co ₃ ²⁻		28.30-37m
	: Remainder-trace Sph <1% & gln & py occurring as blebs & stringers		
	: Py occurs as localised & massive patches		
47.10-52.50 Grey hard & fractured exhalitic cherts plus massive sulphide (Ex/MS)	: massive fine grained sulphide Sph, py + minor gln & cpy	>50%	49.40-49.80
	: Remainder - fine-grained disseminations, abundant veins & blebs of Sph, py ± gln, cpy	5-10%	
52.50-59.0 Grey/green to pale orange highly silicified & foliated pyroclastic ash (PCA(A:Si))	: veins & localised conc of Sph, py	~ 5%	57.80-59.00
59.00-60.1 Grey hard exhalitic chert (Ex)	: Sph, py ± cpy stringer, streaks & blebs	1 - 5%	

Signature *Chabryk*

Date 12/2/85

184321

Summary Sheet

Page 2
of 2b.

184322

321

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
0	5.50	1.15	20.9%		yellow/orange crumbly, weathered porphyritic textured rock.					
5.50	7.00	1.55	108.5%		"					
7.00	8.50	1.12	74.6%		Less oxidised, core tends to be more white/pale green in colour. Porphyritic texture more clearly observed - difficult to tell nature of rock as to weathered.					
8.50	4.50	0.94	94%		Green weathered porphyritic volcanic rock - white weathered phenocrysts in greenish groundmass.					
9.50	4.00	1.10	78.3%		"					
11.00	12.20	1.00	23.3%		"					
12.20	13.20	0.80	80%		Still in above porphyritic volcanic rock - alteration by c/chl gives spotted appearance - white & green patches - minor qtz veining	c/chl				
13.20	14.50	1.30	1.00%		Same as before - core becoming more competent. - (in place rock has dark appearance?) but one phenocryst clearly visible	"				
14.50	16.00	0.90	60%		"	"				
16.00	17.50	1.24	82.6%		"	"				
17.50	14.00	1.00	66.6%		"	"				

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 16

LOGGED BY C.R. WILKINSON

FROM 0m TO 19.00

DATE 31/1/95

PAGE 1 OF 11

184323

322

5 cm

DRILL ADVANCE				LITHOLOGY						VISUAL PERCENTAGE MINERALISATION
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	
19.00	20.90	1.40	95.3%		"	"				
20.90	21.10	0.80	85.3%		"	"				
21.10	22.70	1.60	100%		"	"				
22.70	23.00									
23.00	23.60	.75	86.6%		CONTACT. shaded volcaniclastic - grey volcanic matrix fragments, grey cherty fragments, white xstals, set in greenish groundmass (Size range 1/16" - 1/8" size) Some evidence of foliation.	Chi/C/Si			Py disseminated throughout + occurring as localized concentrations	
23.60	25.20	1.10	68.7%		As above - later stage minor qtz/cryst veins. 24.00 - 25.20 - pred grey uniform textured volcaniclastic mudstone.	Chi/Ci			Py - occurs disseminated + in localized zones - rare sph assoc with py in shales + in veins	C/S
25.20	26.50	1.20	92.5%		As above - interesting zone between 25.30 - 26.00 - well blined greenish volcaniclastic consisting of white qz crystals, cherty fragments in green matrix, that show graded bedding? - In places there has been intense py/chal alteration - dark black zones seen in matrix - late stage Fe/Cr/Si vein observed with minor py - rare fine grained base metal 26.00 - 26.50 grey volcanic mudstone composed of...	Chi/Ci/Py		Foliation to core 45°	Py - dissem - layered rare sph/gh? assoc with Cr/Si/Qtz veins	C/S

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH RAF 16

LOGGED BY C.R. MROZKE

FROM 14.00 TO 26.50

DATE 31/1/85

PAGE 2 OF 11

184324

5 cm

323

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
26.50	28.10	1.50	95.79		Foliated Volcaniclastic. Consists of grey volcaniclastic mudstone fragments, in a porphyritic textured gangue.	chi/ci		Foliation down - 35°	Py occurs as disseminations, beyond a localized conc. - some base metal associated line veining.	
28.10	29.50	1.50	107.17		28.10-28.30 - Good evidence of soft sediment deformation in volcaniclastic mix - evidence of silica input + minor line grade base metal & py.	chi/ci/si				
					28.30 Attention contact. Still in mixed volcaniclastic zone, but have gone into a more uniform altered fine grained volcaniclastic - altered by silica input and metal input. (Euhedral component) Bases metals (sph/gln) & py occur as very fine disseminations which impart a blue coloration to the core or as small (up to 1mm) blebs associated with CO_3^{2-} - blebs give whole rock porphyrite appearance - concentration of these "dissem" varies - remobilized later remobilisation has resulted in fractures being filled with sph & gln/jgg.	chi/ci/si/metal			Abundant very fine grade base metal (sph/gln) & py disseminated throughout & blebs present mainly containing sph/gln, but also veins of sph/gln sph & gln, py.	

SCALE 1:100 (1cm = 1m) - Most min' between 28.50 & 28.60

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 16

LOGGED BY C.R. WILKINSON

FROM 26.50 TO 29.50

DATE 31/1/85

PAGE 3 OF 11

184325

5 cm

324

Hq to 32.30

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
29.50	31.10	1.50	95.7%		"	"			"	
31.10	32.30	1.20	100%		"	"		Reliction to core 45°	"	
32.30	36.30	2.30	76.6%		32.30-32.40 same as previously 32.40 → grey uniform textured volcanic moderate, still have evidence of a little compacted - and Si, the point large of py + base metal plus bits of fine ground base metal (sph/py) stays a between 34.70-35.30 (very porous many) large piece of grey clay mineral impregnated with sph, py + minor gls - dried later stage veining (crystalline) of py/sph consistently a impure metal along the fine ground boundary of the volcanic material	Chl/Ci = Si		Reliction to core 30°	see description.	
35.30	36.20	0.80	88.8%		Still in fine grained volcaniclastic material - but very pale green in colour + softer - contains some chlorite fragments (K-feldspar) + such to be coarser in place	Chl/Ci			slabs of sph & py common, plus late stage sph/py associated with 2/3" veining.	
36.20	37.00	0.63	78.7%		"	"			"	
37.00	37.20	0.60	75%		37.00-37.20 - as above					

SCALE 1:100 (1 cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 16

LOGGED BY ~~3250~~ C.R. Woodcock FROM 29.50 TO 37.20

DATE 31/1/85

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184326

325

5 cm

DRILL ADVANCE				LITHOLOGY						
LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
						3720-3780 - Coarser, up to lapilli sized, ^{bluish} volcanics - composed of grey cherty basalt, ^{bluish} siltstone & silt. a green chloritic basalt.	Chl/Cs		Bluish to core 40°	py disseminated throughout, py veins & coarse metal veins.
	3780	3840	0.94	85.4%		"	"		"	"
	3840	3960	0.50	71.4%		fine grained greenish/brown volcanic mudstone - (2800-3100 - grey cherty compact).	Chl/Cs - Fe staining			sph / py + py common in stringers & as localised veins.
	3960	4060	0.60	75%		"	"			"
	4060	4270	1.20	52.2%		Similar to above - alternating sequence of coarser ^{bluish} volcanics (with chert basalt etc) & small zones of siliceous grey volcanic mudstone.	Chl/Cs/Si		Bluish to core 40°	fine grained py disseminated throughout - minor veins contain base metal (sph).
	4270	4390	1.20	100%		grey uniform bedded volcanic mudstone with minor veins containing sph/py	Chl/Cs			see description.
	4390	4510	1.16	96.6%		Similar to before - tends to be coarser towards 4510. Disseminated py more common, veins of base metal present (sph) - localised zones of siliceous.	Chl/Cs/py/Si			see description.

SCALE 1:100 (1cm = 1m)

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DRILLHOLE LOG FOR DDH EDC 16

LOGGED BY G.B. MROCKEN

FROM 3720 TO 4510

DATE 31/1/95

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184327

326

5 cm

DRILL ADVANCE				LITHOLOGY						VISUAL PERCENTAGE MINERALISATION	
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION		
45.10	46.30	1.20	100%		Betty into zone of silicified volcanic mudstone - bluish pale orange & green in colouration, odd fragments avoided	ch/si/m			py dissemin common, occasional large concs of py, minor veins & localized concs of base metal.		
46.30	47.10	.52	65%		As before continues At 47.10m	"					
47.10	47.40	.72	90%		In to hard grey cherts - echalitic - original rock completely obscured by intense silicified & metal impregnated	Si			py veins, dissemin, localized concentrations - minor sph/gln & cpy (and) veins, & blebs		
47.40	48.30	.35	25%		" Extremely poor core recovery 25%	"			"		
48.30	49.50	.20	100%		" Base metal content increases closer to 49.50 - @ 49.40 into massive sulphide				49.40 - 49.50 massive sulphide		
49.50	50.10	.48	80%		49.50 - 49.80 - Fine grained massive sulphide - pred sph, py + minor gln & cpy 49.80 - 50.10 - py cherty echalitic with abundant stringers & streaks of base metal				See Description		

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH BAF 18

LOGGED BY C.R. MASON

FROM 45.10 TO 50.10

DATE 31/1/95

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184328

327

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
50.10	51.20	.91	82.7%		"	"			"	
51.20	51.80	.45	80.7%		"	"			"	
51.80	52.60	.60	85.7%		"	"			"	
52.40	54.50	1.83	91.5%		Contact @ 52.50m Rock into green/grey to pale orange highly silicified, foliated fine grained volcaniclastic material (Ash) - similar to rock type just below going into ashfall zone - contains some cherty fragments & old vials	ch/c/si			contains minor chert of sph/py	
54.50	57.00	2.30	92.0%		Very similar to above - cherty silicified composed not so evident - have minor zones where silicification is intense & one zone (150cm) of dark black/green chert alteration	ch/si			"	
57.00	57.80	.66	82.5%		" No Si component	ch/c			"	
57.80	58.60	.53	66.2%		57.80-58.10 same as above - sph abundant - FeO enriched by Fe & sulph.					

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH BAF 16

LOGGED BY C.R. MORGAN

FROM 50.10 TO 58.10

DATE 31/1/95

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184329

328

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
					58.10-58.60 - Si compound increasing, with base metal mineralisation (sph red) becoming common.	ch/ci/si			see sample.	
58.60	60.00	1.21	90.7%		58.60-59.00 - as above but more silicified	.			base metal dots in above.	
					Contact @ 59.00~. Grey hard mineralized clast - Epidote	Si			abundant sph, py + cpy shinglers, dots & streaks.	
60.00	62.50	2.20	88%		60.00-60.10 still in clast - then start grading back into a highly silicified fine grained volcanics - still have epidotic character i.e. silica & abundant metal input. - rock pale green/white	Si/ch			Reasonable development of shingler cpy, py - some sph - sph tends to occur more as blebs.	
62.50	63.30	.73	91.2%		"	"			"	
63.30	64.10	.70	87.5%		medium grained silicified pale greyish brown volcanics - rounded lithic & metal fragments - could be epidotic in origin? - still some epidotic influence	Si/ch/ci			Rare base metal clab.	

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG

FOR DDH 132F 16

LOGGED BY C. R. MROCK

FROM 58.10 TO 64.10

DATE 31/1/95

PAGE 2 OF 11

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
6440	65.70	1.34	83.7%		mixed zone of lapilli sized gran/gray volcaniclastic rock containing cherty fragments, lithic + stl fragments + grey uniform textural volcaniclastic mudstone containing coarse volcaniclastic mudstone fragments S. l. to 65.4m - tends to decrease in intensity down 65.4m + into more cherty alt.	Si/Chl/Cl			Rare blebs of pygph, asph	
					Note a true contact at 65.4m - but tend to be out of mixed zone + into more lapilli sized volcanic fragments - fractured + veins filled with chl	chl/Cl			No min. obs.	
6570	67.00	1.10	84.6%		As above - greenish in colour + consistency of lithic fragments + stls No cherty component - fragments tend to be subangular to rounded. - chl vein crosscutting - 66.30-67.00 - fragments is orange in colour tend to be silicified, orange colour prob due to Fe - qtz veins cross- cutting randomly	chl/Cl Si			minor rounded veins of gln/sph.	

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAE 16

LOGGED BY C.R. MROZAK FROM 6440 TO 6700

DATE 31/1/85

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184331

5 cm

330

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
6700	6740	.32	53.3 %		"				No min	
6760	6920	1.40	87.5 %		As above - colour varies from orange - green	chl/c/si			No min.	
6920	7040	1.57	92.5 %		"	"			"	
7040	7210	.96	80 %		"	"			"	
7210	7340	.97	74.6 %		"	"			"	
7340	7410	.63	90 %		(73.40 - 73.60 - chert/massive sulphide lumps - core in from ore zone doing bit change). 73.60 - 74.10 - dark grey even textured moderate silicified fine grained volcanics, with occasional more obvious dark zones & porphyre textured zone. - Qtz/cos ² veining present. - chl veining.	chl/si				
7410	7510	.74	74 %		"	"			"	
7510	7650	.52	65 %		"	"			"	
7650	7810	1.26	78.7 %		more chertic - fractured grey volcanoclastic brecciated.					

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 16

LOGGED BY C.R. MURPHY

FROM 6700 TO 7810

DATE 2/1/85

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184332

331

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
78.10	78.70	.60	100%		As before	"				
78.70	80.20	1.18	78.6%		"	"				
80.20	80.80	.35	58.3%		pale green pink colored lapilli sized fragments	ch/s/c				
80.80	81.80	.89	89%		" - wide range of lithic fragments	"				
81.80	84.10									
84.10	84.50	2.34	86.6%		Into grey silicified uniform textured volcanoclastic mudstone					

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH GAF 17

LOGGED BY C.R. WOODS

FROM 78.10 TO 84.50

DATE 31/1/84

PAGE 11 OF 11

DRILLHOLE LOG

Summary Sheet

184333

Page 1
of 2

PROJECT PINNACLES EL 5/63 Pt 4 AREA SOUTHERN TRENCHES

DRILLHOLE TYPE
DDHCO-ORDS 377340.45 E DECLIN 60° AZIMUTH 270° M RL 445.23
53844001 04 N

DH No. EAF 17

DATE COMMENCED 25/1/85

DATE COMPLETED 2/2/85

DRILLED BY

LONGYEAR

DRILL RIG

L/Y 38

Non Coring to: 6.80 HQ Core to: 21.00 NQ Core to: 176.20 BQ Core to: EOH 176.20

SURVEY DATA

Instrument:

DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION		AZIMUTH
	Uncorr	Corr			Uncorr	Corr	
91.6m		-56°	268° M				
175m		-52°	269° M				

LOG SUMMARY

ROCK TYPE	MINERALIZATION		
	Style	Grade	Intersection width (Corr)
0 - 6.80 NO CORE			
6.80-94.00m Pale greenish/white weakly foliated pyroclastic ash(PCA)	: stringers & blebs of sph, py ± gln, cpy	< 1/2 %	
	: Py occurs throughout	1/2-1%	
	as minor disseminations		
	& in rare massive patches		
94.0-97.30 Intensely clay alt. pyroclastic ash, development of two pug zones (PCA(A:Cl/Chl/Py))	: Trace Sph blebs	< 1/2 %	
	: Py disseminations	< 1/2 %	
97.30-102.7 Intensely clay, chlorite, Carbonate & pyrite altered. Pyroclastic Ash.	: Trace Sph/gln as blebs or veinlets	< 1/2 %	
	in assoc with Co ₃ ²⁻		
	: Py disseminations	< 1/2 %	
102.7-104.3 Sequence of cherts, volcanoclastics & grey/brown shales (Ch/Vc/S) (A:Chl/Cl/Co ₃ ²⁷)	: Py present as disseminations	< 1/2 %	
104.3-122.50 Pale green weakly foliated pyroclastic ash (PCA(A:Si/Cl/Chl))	: Trace Sph/Gln as blebs & stringers	< 1/2 %	
	assoc with Co ₃ ²⁻		
122.50-146.1 Lapilli sized volcanoclastic breccia -	: Rare Sph, gln, cpy as blebs or veinlets	< 1/2 %	
	with Co ₃ ²⁻		

Signature C. R. Longyear

Date 25/4/85

184334

DRILLHOLE TYPE	
DDH	
DH No.	EAF 17

Figure 1 is a line graph illustrating the percentage of the total sample for various age groups over time, from 1980 to 2100. The y-axis represents the percentage of the total sample, ranging from 0 to 100. The x-axis represents the year, with labels every 5 years from 1980 to 2100. The age groups are represented by different line styles: 0-14 (solid line), 15-24 (dashed line), 25-34 (dotted line), 35-44 (dash-dot line), 45-54 (long dashed line), 55-64 (short dashed line), 65-74 (solid line with dots), and 75+ (solid line with crosses). The graph shows a significant shift in the age distribution over time. The 0-14 age group starts at approximately 25% in 1980 and decreases steadily, reaching near 0% by 2050. The 15-24 age group starts at approximately 20% in 1980 and decreases to approximately 10% by 2050. The 25-34 age group starts at approximately 15% in 1980 and increases to approximately 25% by 2050. The 35-44 age group starts at approximately 10% in 1980 and increases to approximately 20% by 2050. The 45-54 age group starts at approximately 5% in 1980 and increases to approximately 15% by 2050. The 55-64 age group starts at approximately 5% in 1980 and increases to approximately 10% by 2050. The 65-74 age group starts at approximately 15% in 1980 and increases to approximately 35% by 2050. The 75+ age group starts at approximately 5% in 1980 and increases to approximately 10% by 2050.

OH

Instrument:

AZIMUTH

[illegible]

Date _____

184335

5 cm

334

DRILL ADVANCE					LITHOLOGY						
LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
	0	6-80				No Core					
	6-80	8-00				Competent core. Pale greenish/white silicified fine grained volcanoclastic mudstone - would come under the cherty PCA label - (Pyroclastic Ash) - rare ^{grey} cherty fragments present - green clots (fragments?) common throughout - could be Ser/chl altered collapsed pumice fragments. (diam = 1.5cm x 1cm) - very weak foliation present [N.B. The above rock type is ^{present} common right to 97.30m - ^{minor variations} & slight difference will ^{also} be mentioned in the subsequent descriptions]	Si/cl/ ~~ser~~ /Py			Pore py present as disseminations, blebs & fine later stage veins [N.B. Base metal mineralisation i.e. Zn, Pb & Ag is present throughout this PCA unit but not in substantial quantities overall - not more than 1%] [Py is present in all sections to 97.30m - fine grained when in assoc with core unit]	
	8-00	8-50	.33	66%		As above - small intense grey patches probably due to the presence of fine grained sulphide	"				
	8-50	9-00	.18	36%		" - PCA	"				
	9-00	9-60	.42	70%		" - PCA	"				
	9-60	10-20	1.26	78.7%		" - PCA	"				
	10-20	12-50	1.12	86.1%		" - PCA	"				
	12-50	13-10	.48	80%		" - PCA	"				

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 17

LOGGED BY C.R. MROCEK

FROM 0m TO

DATE 5/2/85

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184336

335

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
13.10	14.50	1.12	80.9%		" - PCA +1320 - Good ex of positive elongated & altered pyroxene fragments - obvious 2cm wide late stage qtz veins present, said to have a dark grey halo extending up to 1cm - dark grey colour could be due to fine grained sulphides.	S/C/P			Py present like before, but more bits of gln, sph & cpy starting to occur in well as fine veins containing the above minerals.	
14.50	15.40	1.40	100%		" - PCA - some sericitised fragments (2cm x 1cm) also altered by min (sph/gln) - Weathered out texture present in places - due to dissolution of clasts & veins of sulphide.	" + base metal			Base metal mineralisation more evident - in places have good slugs of (Sph + gln) - fine veins of sph + gln common - cpy present by ext rare.	
15.40	17.50	1.42	88.7%		" - PCA	"			minor bits & veins of sph + gln (py is common throughout)	
17.50	19.00	1.37	91.3%		" - PCA	"			"	
19.00	20.10	.87	79.1%		" - PCA	"			minor cpy coming in	
20.10	20.70	.46	76.6%		" - PCA	"			minor bits & veins (pyroxene) common	
20.70	22.50	1.77	98.3%		" - PCA	"			mineralisation not common.	
22.50	25.60	2.54	84.6%		" - PCA - grey chunky fragments present.				odd bits & stringers of gln + sph.	

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 17

LOGGED BY C.R. MROZEEK

FROM 13.10 TO 25.60m.

DATE / /

PAGE 2 OF 12

184337

5 cm

336

DRILL ADVANCE				LITHOLOGY							VISUAL PERCENTAGE MINERALISATION
LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	
	26.60	26.70	1.20	100%		" PCA	Si/Cl/py			"	
	26.70	30.20	.53	82.5%		" - PCA	"			"	
	30.20	31.40	1.26	105%		" - PCA Fine grained pyritic fragment present + localized yellowish green concentrations of yellow green spots - some attack effect - clay?	"			"	
	31.40	34.20	2.64	94.6%		" - PCA All spots not present	"			"	
	34.20	36.00	1.48	82.2%		" - PCA - Weathered out vein texture present	"			Minor gln/cph veins + veinlets present.	
	36.00	36.80	.55	68.7%		" - PCA	"			"	
	36.80	37.50	.50	71.4%		" - PCA	"			"	
	37.50	39.90	2.02	84.2%		" - PCA - now (2cm x 5cm) green fragment has been intensely etched by fine grained py giving a lapped effect.	"			"	
	39.90	40.70	.63	78.7%		" - PCA - Weathered out texture present	"			"	
	40.70	43.20	2.16	86.4%		" - PCA " " " "	"			Minor gln/cph veinlets - very small scale.	
	43.20	44.10	.73	81.1%		" - PCA	"			Very rare base metal veinlets.	
	44.10	45.70	1.36	123.6%		" - PCA From 44.10m into strongly clay altered zone - original rock is still situated in places - green fragments have been weathered & weathered out from rock a post-mineral appearance Attraction imparts a yellowish/green colour.	Cl/Si/py			No base metal obs. Minor shugs & dissemination of py present.	

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH E0F 17

LOGGED BY C. R. MRODZIK

FROM 25.60 TO 45.70m

DATE / /

PAGE 5 OF 12

184338

333

5 cm

DRILL ADVANCE					LITHOLOGY						
LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	PERCENT MINERALISATION
	45.70	46.80	1.00	62.5%		Cl AH PCA - as before.	cl/sil/py			As before	
	46.80	47.50 48.90	.57	81.4%		Cl AH PCA - as before	"			"	
	47.50	48.00	1.05	75.7%		"	"			"	
	48.00	48.90				"	"		Foliation is ~~very~~ tight develop but is not very pronounced Foliation to CA - 50°	"	
	48.90	50.30	1.22	87.1%		"	"			"	
	50.30	52.10	1.37	76.1%		" - old sandy bryozoan cement	"			"	
	52.10	53.50	1.26	90.9%		"	"			"	
	53.50	54.80	1.08	83.1%		"	"			"	
	54.80	55.60	.72	90.9%		"	"			"	
	55.60	55.80	.08	40.9%		"	"			brecciated " - fine grained py in places imparts the grey colour.	
	55.80	57.10	1.14	87.7%		"	"			minor clings + disseminations of py present	
	57.10	58.10	.93	93.9%		"	"			"	
	58.10	60.50	2.10	95.4%		Out of pockmarked clay altered zone at base into silicified PCA as present prior to lithom.	Si/cl/py			Rare Xels of sph.	
	60.50	62.60	2.18	94.8%		" - PCA - minor late stage calc veins present.	"			Rare Xels of sph (minor - (py still present unaltered))	
	62.60	65.70	3.03	97.7%		"	"			"	

SCALE 1:100 (cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 17

LOGGED BY C. MROUZEK

FROM 45.70 TO 65.70

DATE / /

PAGE 4 OF 12

184339

338

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
65.70	70.50				- " PCA - slight increase in amount of pyritised fragments + localised areas of py dissemination - late stage qtz/CO ₂ veinlets present	Si/Al/Py			Rare sph/gln assoc' with Rare qtz/CO ₂ veinlets.	
70.50	73.40	2.81	96.9%		PCA "	"			"	
73.40	76.50	2.97	95.8%		PCA "	"			Rare sph/cpy streaks.	
76.50	79.50	3.00	1.00%		PCA "	"			"	
79.50	82.50	2.95	98.3%		"	"			Basal exp sph becoming more common but still present in only minor amount.	
82.50	85.50	2.92	97.3%		PCA "	"			"	
85.50	86.80	1.20	92.3%		PCA " Green dots becoming less common	"			Sph + gln occur in thin + in veins - more common at 2.9	
86.80	87.40	.42	70%		" - PCA	"			"	
87.40	88.10	.30	71.4%		" - PCA	"			"	
88.10	88.80	.44	62.8%		" - PCA	"			"	
88.80	90.10	1.00	76.9%		" - PCA	"			"	
90.10	91.10	.52	52%		" - PCA - NO green dots present	"			Trace amounts of sph and as thin veins.	
91.10	94.90	.63	78.7%		" - PCA - colour becoming more whitish grey.	"			"	
91.10	93.50	1.26	78.7%		" - PCA "	"			"	
93.50	94.10	1.20	100%		" - PCA to 44.0% then into intensely clay altered zone has changed rock to blue/brown pug	Si/Al/Py Cl/Py		Py zone could be either altered or fault zone - more clay pug. alt. as no evidence of intense folding	No thin obs.	

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 17

LOGGED BY C.R. NROZEK

FROM 65.70 TO 94.10

DATE / /

PAGE 5 OF 12

184340

339

5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
94.10	94.70				From 94.10 - 94.28 intensely cl/ty altered PCA - rock has been altered to a brownish bluish silt. - 94.28-94.70 - PCA more compact but still altered cl altered - has dark greenish appearance with white spots.	cl/py			rare sph vls present.
94.70	95.60	1.62	88.6%		grading back into less ^{cl} altered greenish volcanoclastic mudstone (PCA) similar to ~~alter~~ rock with sil as intensely silicified. - probably silicification in this ~~rock is darker~~ occurred prior to the clay alteration	cl/si/py			minor vls of sph/gln & minor sph in ~~veinlet~~
95.60	97.30	1.65	86.8%		greenish altered PCA - essentially as above. - silicified in place but overall clay alteration becomes more intense pervasive.	cl/si/py			"
97.30	99.00	1.46	85.9%		Alteration Contact. Intensely ~~cl~~ /ch/ CO_3^{2-} altered volcanoclastic mudstone (alteration of above rock) - alteration gives white spotted appearance at here	cl ser./ch/ CO_3^{2-} +py			minor sph occurs in the CO_3^{2-} shays & veinlets

SCALE 1:100 (1cm = 1m)

(970)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 17

LOGGED BY C. R. MEOUSEK

FROM

94.10m

TO

99.00

DATE

/ /

PAGE 6 OF 12

184341

340

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	PERCENT MINERALISATION
97.30	99.00				chl alteration intense rock has a dark black/green colour - colour varies from orange/brown to black to green (green colouration due to remnants of sulphidated PCA) CO_3^{2-} - occurs as stringers, veins & is the cause of the white spotting					
99.00	101.80	2.60	92.8%		As above - intensity of alteration esp. chl varying slightly	a/chl/ CO_3^{2-} +py			Trace base metal associated with CO_3^{2-}	
101.8	102.7	2.30	92.9%		~~As above~~ Alteration of PCA back to intense chl/a/ CO_3^{2-} - rock has a very dark green/black colouration, CO_3^{2-} occurs as white spots - late stage fine veining of qtz/ CO_3^{2-} common.	a/chl/ CO_3^{2-} +py		Weak blinitic foliation to CA-30°	"	
102.7	104.3				Contact with grey/brown ~~ca~~ Ca/CO_3^{2-} altered volcanic derived sediments - grey fine grained shales (were being observed), provide clarity interval, ~~quite~~ ~~altered~~ grey/white units present - all these are to be ~~handled~~ ~~mixed~~ & alternating.	a/ CO_3^{2-} /chl +py			No base metal	

SCALE 1:100 (1cm = 1 m)

CONTACT

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH 20817LOGGED BY C.R. MROULEV FROM 97.30 TO 104.3DATE .../.../...PAGE 7 OF 12

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5 cm

DRILL ADVANCE				LITHOLOGY						
LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
	104.3	107.4	3.10	100.0%		Back into pale/darkish green, slightly ~~un~~ foliated Ser/CO ₃ ²⁻ altered volcaniclastic mudstone - PCA CO ₃ ²⁻ /qtz veins present.	ai/ci/CO ₃ ²⁻ /py/cu			Minor base metals ~~py~~ sphragh present as shag ~~in~~ in assoc with CO ₃ ²⁻
	107.40	109.50	2.07	98.6%		As before - PCA - alteration becoming less extensive silicification more common.	ci/CO ₃ ²⁻ /py/Si			"
	109.50	112.30	2.97	99.0%		As before - PCA	"			"
	112.30	115.50	2.93	97.6%		As before - PCA - slight increase in alteration esp chl, pinkish white spotting also present.	cu/ci/CO ₃ ²⁻ /py/Si			"
	115.50	117.20	1.33	78.2%		- PCA - sandy back into pale green heavily foliated silicified volcaniclastic. - base metals definitely assoc with CO ₃ ²⁻	si/ci/py/CO ₃ ²⁻			"
	117.20	119.70	2.32	92.8%		" PCA	"			"
	119.70	122.10	2.22	92.5%		" PCA - tending to be more silicified	"			"
	122.10	122.50	3.06	98.7%		" PCA - " " " "	"			"
						Contact with lapilli sized sand volcaniclastic breccia. Very hard & silicified. Fragments tend to be rounded possibly	Si/py/cu		Contact to ca 25°	-ly present as disseminations. No base metal min observed.

SCALE 1:100 (1cm = 1m)

(PTD)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 17

LOGGED BY E.R. WROZEVFROM 104.3 TO 122.50DATE / / PAGE 8 OF 12

184343

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
122.50	125.10				Suggesting a epidolitic origin - uniformity of frequent composition tho, (fine grained chloritic bogs, odd lithic bogs) tends to suggest more pyroclastic origin - spread to a resorted occurrence - could be a pyroclastic surge or flow ~~Fragment, massive mass~~ To 124m core as orange colouration not due to R staining from 124m onward red colouration gives way to a green granular with frequent still retaining a slightly red/bay colour. Late stage Qtz/CO ₂ vein present.					
125.10	128.30	3.10	100.9%		= 1 Volcanic Breccia (V.B)	"			"	
128.30	131.4	2.98	96.1%		- J.B. - pink/orange colour from 124m onward - lot of broken stuff by 2nd set.	"			"	
131.4	133.70	2.15	93.5%		" - V.B colour change back to pred green @ 131.5 - chi/py alt becomes more intense giving the greenish colour Late stage Qtz/CO ₂ vein still present	si / chi / py.			only Py present as fine grain also disseminated clayband.	

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG

FOR

DDH 2017.

LOGGED BY CDR R. J. B. L.

FROM 122.50 TO 133.70

DATE / /

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184344

343

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VOLUME PERCENTAGE MINERALISATION
133.70	135.40	2.07	94.1%		UB "	"			"	No Banded
135.40	139.00	3.10	100%		UB - definite dark green zones of chl/py alt. Microzones of fine grained volcanoclastic mudstone (PCA) alternating with the volcanoclastic breccia.	"			"	"
139.00	142.10	3.08	99.3%		As above UB + VM (PCA)	"			Rare base metals, sph/jln observed assoc' with CO_3^{2-} in chls & veinlets - Rare py assoc' with py in chl alt zones.	
142.10	145.20	3.10	100%		142.10-143.60 - as before, rare base metal veins still present 143.60-145.20 - dark green intensifying chl alted volcanoclastic mudstone (limpact in the UB) with grey cherty zones, fine grained py assoc' with chert Late stage CO_3^{2-} veining present.	Si/chl/py chl/py/Si			see Description.	
145.20	146.1	1.26	96.9%		" As above	"			"	
					CONTACT				CONTACT TO CR-30	

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EDP 17

LOGGED BY C.R. MROCEK FROM 133.70 TO 146.1

DATE / /

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184345

344

5 cm

DRILL ADVANCE

LITHOLOGY

DEPT CODE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
	146.1	146.50				Very slightly fragmented volcanite mudstone showing calcitic chert - bordering on being a chert - No base metals present except py which is present in disseminations, veins & brecciated conc.	Si			No base metal.	
	145.50	148.1				As above	"			"	
	146.50 148.1	149.6	3.07	99.9%		Hard dark green very fine grained volcanitic breccia - late stage qtz/cos^2 veins.	Chl/py/Si			No base metal - only py present.	
	149.6	152.7	3.07	99.9%		VB - dark green - tends to be very fine grained in places probably as in some earlier rocks have mix of volcanite breccia & volcanite mudstone.	"			"	
	152.7	155.90	3.10	96.9%		VB - " - less intensely chert altered than 152.03 - overall green colour becomes less idiosyncratic - late stage qtz/cos^2 present.	"			"	
	155.90	159.00	3.10	100%		As above - VB/VB mix - large breccia (2-3cm) filled with qtz/cos^2	"			"	

SCALE 1:100 (1cm = 1m) & angular logs of VB

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 17

LOGGED BY E.R. MROZSK.

FROM 146.1 TO 159.00

DATE / /

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184346

345

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
159.00	162.10	3.10	100.0%		As before	"			NO Min.	
162.10	165.30	3.10	96.9%		As above - UB. qtz veins in places have altered surrounding rocks giving a yellowish coloration.	"			"	
165.30	168.40	3.05	98.4%		"	"			"	
168.40	169.80	1.36	97.1%		As before (UB) to 168.50 then into a much lighter coloured (white/green) silicified volcanoclastic breccia.	Si/Chl			"	
169.80	172.60	2.50	89.3%		"	"			"	
172.60	174.10	1.50	100.0%		"	"			"	
174.10	176.20	2.04	97.1%		"	"			"	

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG

FOR DDH EAF 17

LOGGED BY C. R. MROZAK

FROM 159.00 TO 176.20 EOH DATE 7/2/85

PAGE 12. OF 12

AUSTRALIAN ANGLO AMERICAN LIMITED DRILLHOLE LOG

Page 1
of 2

Summary Sheet

PROJECT PINNACLES EL 5/63 PT 4 AREA SOUTHERN TRENCHES				DRILLHOLE TYPE DDH	
CO-ORDS 377257.16 E DEC LN -60° AZIMUTH 270° M RL 431.27 5383862.71 N				DH EAF 18 No.	
DATE COMMENCED 2/2/85		DATE COMPLETED 6/2/85		DRILLED BY LONGYEAR DRILL RIG L/Y 38	
Non Coring to: 2.80 HQ Core to:		36.60 NQ Core to: 75.00		BQ Core to: EOH 75.00	

SURVEY DATA

Instrument:

DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION		AZIMUTH
	Uncorr	Corr			Uncorr	Corr	
74.6m		-58°	266° m				

LOG SUMMARY

ROCK TYPE		MINERALIZATION		
		Style	Grade	Intersection width (Corr)
0 - 2.80m	NO CORE			
2.80-25.0m	Pale greenish/white, weakly foliated pyroclastic ash(PCA) core weathered & crusty to 19.50m	: Trace disseminated fine-grained pyrite cubes	<1%	16.00-25.0m
25.00-39.10	grey/white intensely silicified pyroclastic ash. No foliation evident - possible exhalitic component (PCA(A:Si)). Minor zones of intensive Chl/Py alt at 37.2m	: Minor base metal present in form of sph, py ± cpy, gln blebs, streaks & veinlets. : Trace py cubes occur disseminated throughout	1%	
39.10-39.60	Fine grained massive sulphide assoc with silicification & chloritisation - Exhalite (Ex/M.S)	: Massive sulphide - sph, py & subordinate cpy & gln	>50%	
39.60-43.30	as for 25.00-39.10ie PCA(A:Si)	: Stringers & blebs of Sph, py, cpy, gln	1-2%	
43.30-46.60	Exhalitic zone, mix of grey cherts, massive sulphides & highly silicified black shales (Ex)	: Massive sulphides - fine grained sph, py & coarser gln, cpy : Remainder - minor blebs & streaks of basemetal & py	>50%	43.50-43.72

Signature *C. L. Hooper* Date 20/2/85

184347

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Summary Sheet

PROJECT		AREA		DRILLHOLE TYPE DDH
CO-ORDS	DEC ^{LN}	AZIMUTH	RL	DH No. EAF 18
DATE COMMENCED	DATE COMPLETED	DRILLED BY	DRILL RIG	
Non Coring to:	HQ Core to:	NQ Core to:	BQ Core to:	EOH

[illegible]

LOG SUMMARY

[illegible]

Signature

Date:

184349

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5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
0	2.80				No Core					
2.80	3.60	.67	83.75		Core crumbly & weathered, enough pieces to identify rock as metabasite (grey silicified volcanoclastic mudstone (sub PCA?) - weak streaky foliation (subarkic?) - green fagnet peat (streak out) - flame? - highly & weathered white spots present - (Weathered PCA - fagnet ash - subarkic?)	Wh'd			No mineralisation present.	
3.60	4.30	.48	68.57		PCA "				"	
4.30	5.20	.62	68.88		PCA Essentially as above, core seems to be dark grey in patches - could be original colour of a chd after some time weathering has imparted a lighter brown coloration	Wh'd			"	
5.20	6.10	.66	73.33		PCA " - (subarkic texture common, flame present).	Wh'd			"	
6.10	6.90	.78	77.5		PCA As above - core pred light brown (green in colour). - core very broken	Wh'd			"	
6.90	8.00	.64	58.18		- PCA - crumbly & broken core	Wh'd		Location of subarkic texture 45° to CA.	"	
8.00	9.10	.45	80.36		PCA "	"			"	

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 18

LOGGED BY C.R. MROZKEK

FROM 0 TO 9.10m

DATE 11/2/85

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184350

349

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VEINIAL PERCENTAGE MINERALISATION
9.10	9.40	52	65.00		Still in zone of weathering - are reasonably competent in places - highly weathered & broken in places - greenish / grey siliceous volcanite weathered to - some dentures as before i.e. white spotting - aubite texture - fiamme (green lycopods) weak foliation.	solid			No min.	
9.40	10.40	76	50.60		" - coarsely weathered greenish white PCA	"				
11.40	12.30	66	73.33		" - PCA	"				
12.30	13.60	62	47.69		" - PCA	"				
13.60	14.60	50	55.55		" - PCA	"				
14.60	15.80	43	61.42		" - PCA	"				
15.80	17.10	66	73.33		Slightly more competent greenish weathered PCA - strong aubite texture	"			Rare disseminated py cubes present.	
17.10	17.40	44	51.25		- PCA "	"				
17.40	18.30	73	81.11		- PCA "	"				
18.30	19.50	46	65.71		- PCA "	"				

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF18

LOGGED BY C.R. PROJEK

FROM 9.10 TO 19.50

DATE / /

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184351

350

5 cm

DRILL ADVANCE				LITHOLOGY					
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
19.50	19.80	.28	93.33		Core starts to become less weathered - still in PCA	wh'd			Minor Disse Py
19.80	20.70	.76	86.44		Out of zone of weathering - same rock type as before but competent PCA i.e. - greenish/white volcanoclastic mudstone - white alteration spots - streaked (Eutectic nature) - green, streaked out a Bahlbaysands - known? - Bahlbaysands can in place rock (Eutectic)	Si/Cl/Py			Minor Disse Py (very fine grained).
20.70	21.40	1.10	91.66		As above - PCA minor grey zones present - due to concentrations of disseminated fine grained pyrite. - later stage qtz veining obs.	"			"
21.40	22.40	.42	92.00		" - PCA (weathering out of white Bahlbaysands & Cl/Ch - gives more noticeable appearance).	"			"
22.40	24.30	1.25	89.28		- PCA "	"			"
24.30	25.00	.20	28.57		- PCA "	"			"
Alteration Contact.									

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 18

LOGGED BY C.R. MORGAN FROM 19.50 TO 25.00

DATE / /

PAGE 3 OF 9

184352

351

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPT	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
25.00	25.20	.15	75.00		see below for description	see below			see below.	
25.20	25.60	.28	70.00		Alteration contact at 25.00 m is very distinct - still in a volcanoclastic mudstone - but not in uniform grey colour & intensely silicified (Fe-stained) - no bluish tint, no auriferous texture - only rare green fragments present - ^{not common} - PCA clearly has a <u>catclitic</u> component - silicification in this case is due to a hydrothermal system - previous silicification is clearly diagenetic. (above sample refers to at 25.20 m)	Si / py			minor py dissemination. Minor base metal mineralisation present i.e. ^{thin} veinlets & blebs of ^{<1} sph ± cpq + py	
25.60	26.10	.52	100.00		PCA (A:Si) "	"			"	
26.10	27.00	.81	90.00		PCA (A:Si) "	"			"	
27.00	27.40	.24	96.66		PCA (A:Si) " - weak bluish, green frags present.	"			"	
27.40	28.80	1.50	100		PCA (A:Si) "	"			" - glt obs coarse with sph + py.	
28.80	30.00	1.16	96.66		PCA (A:Si) " - colour darker grey - ^{concentric} silicification gives a mottled appearance to the PCA.	"			"	

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 18

LOGGED BY C.R. MROZSEK

FROM 25.00 TO 30.00

DATE / /

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35.10 - 35.60

62

1246

- PCA(A:Si)

184353

352

5 cm

DRILL ADVANCE

LITHOLOGY

DEPTH	DRILL ADVANCE (m)	CORE RECOVERY (%)	PERCENT RECOVERY (%)	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION (%)
30.00	31.00	95	95.00		As before PCA (A:Si)	Si/Pg			"	
31.00	32.60	1.48	92.50		"	"			"	
32.60	34.20	1.60	100		"	"			"	
34.20	35.80	.90	100		"	"			"	
35.80	36.40	.52	88.6		"	"			"	
36.40	37.20	1.00	100.0		"	"			"	
37.20	37.30	1.00	100		"	"			"	
37.30	38.20	.83	75.45		From 37.20 to 38.20 core has a deep gran colouration - is slightly softer - have a zone of obvious cherty alteration overlying the silicification pyrites - quite coarse (mineral).	Si/Ch/Pg			mineralisation as before veins & beds of bandol.	
38.20	39.10	.76	45.00		- As previous PCA (A:Si)	Si/Pg			"	
39.10	40.50	1.40	100		From 39.10m - 39.60m massive sulphide zone - Eschelite (fine' clasts still not fully formed). colouration is well as - silicified assoc with mineralisation. 39.60-40.50 back into grey/white silicified PCA - Poorly blished & shelled.	Si/Ch/banded Si/Pg/Ch			massive fine grained Pg sph = gh, pyg. Shrines, streaks & beds of base metal. sph, py, gh, py	1-2%

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 18

LOGGED BY A.R. WROZEX

FROM 30.00 TO 40.50

DATE / /

PAGE 5 OF 9

184354

353

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VEINAL PERCENTAGE MINERALISATION
40.50	43.50	3.00	100		To 43.30 as before, 43.30 into true dark grey silicified chert.	Si			shells & blebs of base metal	1-2%
43.50	45.20	1.65	47.05		43.50-43.72 massive sulphides with some intermixed chert fragments for 1st 5cm. - No layering or body obs. 43.72-44.00 - grey cherts slightly fragmental - core bedding From 44.00-44.47 - dark grey very fine grained silicified & pyritic shales - disrupted bedding present, highlighted by fine grained py along along bedding planes @ 44.47m-45.20 back into grey slightly fragment cherts.	metab. Si/Pg Si		bedding to CA - 30° bedding to CA varies from 30° to 55°	massive fine grained sphky = quartzpy thinner base metal blebs & streaks. - pg common in this zone - - only py True base metal occurs in sh & shingles	750% 21% 21%
45.20	46.60	1.34	45.71		As above - Exchite cherts.	"			"	
					shited zone.					

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH RAF 18

LOGGED BY C.R. meuser

FROM 40.50 TO 46.60

DATE / /

PAGE 6 OF 9

5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
46.60	44.50	2.87	98.96		altered chert, volcanoclastic mudstone mix. i.e. PCA (pyrite) chert that has suffered a large degree of alteration by a chloritic component - Core has a pearly grey & green appearance. - grey due to chert & large amount of most probably Mg. - green pyrite common	Si / ch / ca			minor fine grained sulphides.	
49.50	50.40	.87	62.14		TO 50.70m as above, from 50.50- 50.70m string of abundant (ca 30%) fine grained sph. ± cpq, gln, py. From 50.70m, more clearly in pale green (white) silicified & clay altered highly foliated volcanoclastic mudstone (i.e. PCA) - green pyrite & cherty pyrite common.	Si / ch / ca			see description	
50.40	51.50	.35	21.97			"			"	No base metal only py
51.50	52.10	.69	115.00			"			"	No base metal only py

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH ENF 18

LOGGED BY C.B. MCGEE

FROM 46.60 TO 52.10

DATE / /

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184356

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
52.10	53.40	1.04	97.64		As before. chly PCA	Si/cw/u/py.			Norm low metal min, qtz for py dissemination.	
53.40	54.20	.66	82.60		"	"			"	
54.20	55.30	.97	88.00		"	"			"	
55.30	57.10	1.79	99.44		"	"			"	
					- chly fragments becoming less common.	"			"	
57.10	58.40	1.80	100		- sh in PCA - chly fragments absent - weak blinon (centric) texture - white alkali spots becoming common. Spill is filling on surface of core hole at 25m.	"			"	
58.40	59.90	.68	68.00		Bole into podiform siliceous PCA without green (white vesky blinon PCA (essentially as above) - identical to PCA at beginning of hole - probably out of influence of hydrothermal system - green fragments present.	"			Pore py shays, py disseminated clumped.	
59.90	61.30	1.40	100		"	"			"	
61.30	62.40	1.10	100		"	"			"	
					"	"			- one of veins (4)	
62.40	63.70	1.32	101.5		"	"			only py assem.	

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH GAF 18

LOGGED BY C. L. MROZEX FROM 52.10 TO 63.70

DATE / /

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184357

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5 cm

DRILL ADVANCE				LITHOLOGY						
DEPTN	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
63.70	66.80	3.04	98.06		PCA to below - minor zones (4-5 cm in width) of dark shaly chrl/cr/py alteration	"			"	
66.80	69.40	3.20	103.2		PCA - " - 17 cm thick in size (1.0 m).	Y			- have fine veins of py ± sph + cpy	42%
69.40	72.50	2.57	98.84		PCA " - py with coarse disseminated although generally localized within green fragments - some dark grey pockets of disseminated sulphides (most py, py).	"			As above	42%
72.50	75.00	2.50	100		PCA " Last 70 cm - locky + infilling by CO_3^{2-} .	" Si/cr/chl/py (+ CO_3^{2-})			As above	43%

SCALE 1:100 (1 cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH EAF 18

LOGGED BY C. R. WROZEL

FROM 63.70 TO 75.00

DATE 13/2/85

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