

LOCATION Mt. Black E.L. 1/62 Colebrook Hill Grid
OBJECTIVE To test coincident V.L.F., magnetic, and soil geochemical anomalies & to continue beneath old workings.
RESULT Minor Cu mineralisation intersected. No Sn mineralisation encountered.

Metre	Direction	Dip.	Metre	Direction	Dip.

COLLAR DIP. -60°
DIRECTION 90° AMG
R.L. 496.8m
COORDINATES 5,371,717.0mN
(AMG) 374,997.2mE

TOTAL DEPTH 233.7m
HOLE SIZE HQ 3.4; NQ 9.1; BQ
COMMENCED 1.4.81
COMPLETED 15.4.81
LOGGED BY A. Morrison

FROM	TO	ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA							CORE REC'D				
								Sample Length	Pb%	Zn%	Cu%	Ag-g/t	Au-g/t	Fe%	RUN	SHORT			
0	233.7	Dark brown & Grey to green-grey hornfelsed siltst and volcanic wackes															0		
		Bedding is generally weakly developed. Siltstone and volcanic wackes are occasionally well laminated e.g. at:- 13.80 77.9-82.0 117.0-117.5 Sharply interbedded pale grey-brown volcanic wackes. 124.7 181.6 184.4-187.4 192.0-193.3 229.2 Graded Bedding also occurs e.g. 9.7 Mg volcanic wacke grades finer up hole 129.0-133.4 A number of graded beds show coarsening down hole. i.e. West (up holes) facing. 193-193.1 Two small (20mm) graded beds give up-hole facing. Core angles of bedding 13.8 35° 77.9 45° 117-117.5 48° 125.7 35° 182.3 55° 193 55° 229.2 35°															1.4	0.1	
																		2.2	-
																		3.4	0.1
																		3.7	-
																		4.4	-
																		5.3	-
																		11	-
																		13.8	-
																		16.9	-
																		20	-
																		23	-
																		26	-
																		27	-
																		29	-
																		33.3	-
																		34.5	-
																		37.2	-
																		38	-
																		40.6	-
																		41	-
																		44	-
																		47	-
																		48.8	-
																		51.2	-
																		53.2	-
																		54.5	-
																		56	-
																		59	-
																		62	-
																		65	-
																		68	-
																		71	-
																		74	-
																		75.9	-
																		76.2	-
																		78.1	-
																		81.2	-
																		83	-
																		88.3	-
0	11.5	Uncommon & only weak alteration where it occurs.	D-38.6 Tr pyrrhotite, arsenopyrite, chalcopyrite & possibly oxidised pyrite as generally fine veins assoc with qtz																
11.5	23.0	Nearly continuous ble green alteration of moderate strength. Alteration appears to be assoc with the more common coarser wackes Siltstone lamellae are usually not altered e.g. at 13.9 and 19.5m approx 80% of core has been altered.	Larger veins occur at:- 3.3m Quartz vein 23.2m Partially oxidised po, cpy & asp 27.0m Po, Cpy, Asp & Py in qtz																

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FOOTAGE		ROCK DESCRIPTION	MINERALISATION	Sample No	from	To	Core Rec'd	Sample Length	Pb	Zn	Assay Data per ppm						CORE REC'D	
FROM	TO										Lu	As	Mn	Fe%	As	Sn	RUN	SHORT
			28-6m Oxidised Po & Cpy														91.4	-
23.0	37.7	Weak poorly defined chlorite - hornblende alteration occurs in about 20% of the core volume. There is no apparent association between lithology and alteration, however the unit is fairly evenly fine grained.		46001	0.0	3.0	2.9	3.0	.40	250	120	X	650	7.0	9	2	96.2	-
				002	3.0	6.0	2.9	3.0	25	170	225	X	510	5.1	5	X	99.2	-
				003	6.0	9.0	3.0	3.0	20	290	150	X	795	6.1	21	X	102.2	-
				004	9.0	12.0	3.0	3.0	10	220	425	X	575	6.0	20	4	103	-
				005	12.0	15.0	3.0	3.0	15	155	45	X	725	4.9	23	X	104.2	-
				006	15.0	18.0	3.0	3.0	15	160	85	X	660	6.7	11	X	105.8	-
				007	18.0	21.0	3.0	3.0	15	185	105	X	750	6.7	13	X	111.8	-
				008	21.0	24.0	3.0	3.0	10	115	180	X	885	6.3	220	X	114.4	-
				009	24.0	27.0	3.0	3.0	10	125	55	X	815	6.7	33	X	118.4	-
37.7	61.8	Alteration to chlorite and hornblende is irregular with bands from 30mm to 0.6m. Silicification occurs throughout with quartz veins and minor carbonate. The chlorite hornblende alteration occurs in about 50% of the core and is moderate.	38.6-39.2 Approx 20% Po + trace cpy as alteration and/or breccia replacement.	46010	27.0	30.0	3.0	3.0	10	150	225	X	500	4.9	400	4	114.4	-
				011	30.0	33.0	3.0	3.0	15	125	35	X	690	6.1	58	2	120.6	-
				012	33.0	36.0	3.0	3.0	15	155	85	X	635	5.0	50	2	123.7	-
				013	36.0	37.6	1.6	1.6	15	140	35	X	685	7.7	38	12	126.8	-
			39.2-40.3 Trace Po + Cpy as veins	014*	37.6	38.6	1.0	1.0	45	175	3000	0.5	1600	14.0	4	4	128.9	-
				015*	38.6	39.2	0.6	0.6	40	215	180	X	885	5.2	74	8	131	-
				016*	39.2	40.1	0.9	0.9	40	145	50	0.5	430	4.2	63	18	134	-
				017*	40.1	40.7	0.6	0.6	295	745	1400	1.5	1700	6.6	26	X	137	-
				018*	40.7	41.7	1.0	1.0	80	215	380	0.5	705	3.8	40	X	140	-
				019	41.7	44.7	3.0	3.0	10	165	460	X	725	7.1	39	4	143	-
		38-41 Minor carbonate		46020	44.7	47.7	3.0	3.0	15	110	40	X	740	5.1	77	14	146	-
		40.6 Sample No. 42402, Thin & polished sections	40.7-50.6 Trace Po + Cpy as veins	021	47.7	49.6	1.9	1.9	15	135	125	X	770	4.2	65	X	149	-
		44-44.2 Quartz veins		022*	49.6	50.6	1.0	1.0	45	125	120	X	425	5.0	57	X	152	-
		44.7 Quartz veins		023*	50.6	51.6	1.0	1.0	25	65	890	X	570	7.3	20	X	158	-
		50.5-51.8 Minor carbonate	50.6-55 5% Po + trace Cpy as veins and alteration	024*	51.6	52.6	1.0	1.0	35	165	1150	X	455	7.7	32	X	161	-
		51.5 Sample No. 42403. Thin & polished sections	replacements. Trace asp as veins	025*	52.6	53.6	1.0	1.0	25	70	410	X	510	4.4	29	X	164	-
				026*	53.6	54.3	1.0	1.0	25	175	2950	X	1600	4.1	93	X	167	-
				027*	54.3	55.0	0.7	0.7	35	225	5500	1.5	430	9.0	100	6	170	-
				028*	55.0	56.0	1.0	1.0	10	75	240	X	450	5.1	56	10	173	-
				029*	56.0	56.7	0.7	0.7	135	315	320	0.5	565	5.0	53	X	175.3	-
				46030*	56.7	57.6	0.6	0.6	10	140	2050	0.5	390	4.8	100	12	178	-
				031*	57.3	58.3	1.0	1.0	10	80	30	X	405	6.3	100	X	182	-
				032	58.3	59.9	1.6	1.6	15	130	365	X	355	6.9	200	14	184.4	-
				033	59.9	61.8	1.9	1.9	45	285	2600	X	520	4.6	9300	X	186.8	-
				034	61.8	63.3	1.5	1.5	10	130	1550	X	240	6.2	670	4	189.2	-
				035*	63.3	64.3	1.0	1.0	20	45	615	X	270	4.0	100	X	191	-
				036*	64.3	65.0	0.7	0.7	20	145	3500	X	475	7.6	1500	X	192.9	-
				037*	65.0	66.0	1.0	1.0	15	95	315	X	430	6.6	700	4	194.1	-
				038	66.0	69.0	3.0	3.0	10	160	250	X	390	6.7	370	X	196.4	-
				039	69.0	72.0	3.0	3.0	20	140	170	X	415	5.0	2400	X	200.4	-
				46040	72.0	75.0	3.0	3.0	15	105	295	X	465	5.9	260	X	201.8	-
				041	75.0	78.0	3.0	3.0	10	100	60	X	465	6.1	240	2	204.6	-
				042	78.0	81.0	3.0	3.0	15	120	170	X	590	7.3	800	X	207.7	-
				043	81.0	84.0	3.0	3.0	15	100	90	X	610	6.6	70	2	210.8	-
				044	84.0	87.0	3.0	3.0	20	115	125	X	620	7.4	190	X	211.2	-
				045	87.0	90.0	3.0	3.0	5	105	1450	X	525	7.6	2200	X	212.8	-
				046	90.0	93.0	3.0	3.0	10	120	3400	X	565	6.5	1300	X		
				047	93.0	95.0	3.0	3.0	10	85	360	X	435	6.8	150	X		
				048	95.0	99.0	3.0	3.0	10	140	560	X	375	4.6	53	4		
				049	99.0	102.0	3.0	3.0	15	135	405	X	595	7.9	25	X		
61.8	163	Chlorite-hornblende alteration is in irregular vague bands upto 1m long. About 20% of the core is altered. Recrystallised hornblende, in veins, within the altered bands occurs occasionally throughout the unit. The recrystallisation is commonly associated with quartz veining and leaching of the surrounding chlorite-hornblende alteration	61.8-64.3 Trace Po & Cpy veins														200.4	-
			64.3-65 Minor Po and trace Cpy as veins associated with quartz.														201.8	-
			65-163 Trace Po & Cpy occur in veins of quartz and also hornblende.														204.6	-
																	207.7	-
																	210.8	-
																	211.2	-
																	212.8	-
		Recrystallised hornblende veins at:- 72.0, 79.6, 101.2, 103.2, 115.1, 115.4, 118.4, 119.4, 119.7, 123.2, 125.2 and 125.3m 127.5 Sample No 42404 Thin Section																

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DIAMOND DRILL CORE RECORD

FOOTAGE		ROCK DESCRIPTION	MINERALISATION	Sample No	From	To	Core Rec'd	Sample Length	Pb	Zn	Assay Data per ppm						CORE REC'D	
FROM	TO										Cu	As	Mn	Fe%	As	Sn	RUN	SHORT
163	195.20	Recrystallised hornblende veins as: 128.0, 132.1, 132.3, 138.9, 147.6, 149.6, 152.9, 155.5, 155.7, 156.7, 158.8 & 159.0m. Strong chlorite-hornblende alteration per- vades this unit. Axinite & associated horn- blende recrystallisation occurs in bands Minor carbonate occurs in patches between 163 and 184. Silicification is commonly associated with the alteration. 165.4-165.8 Axinite-hornblende recryst- allisation 167.5 Sample 42405, Thin & polished sections. 168.7-169 Axinite-hornblende recrystal- lisation 170-170.4 Unaltered sediment	160.0 20mm wide Po + Cpy vein 163-164.7 Po, cpy & asp as alteration replacement Po forms upto 50% of the core volume, averaging 10% 164.7-165.3 Semi-massive Po with minor cpy as a net- work replacement. 165.3-165.9 Minor Po and trace cpy as veins and alteration replacements average 10% Po 165.9-166.8 Trace Po as veins 166.8-168.7 Po as semi-massive interbed replacements upto 10cm wide, with cpy forming discrete replacement bands sep- arate from po. Sulphides are parallel to bedding. Po upto 70% volume averaging 10% 168.7-186 Trace Po, py and cpy and rare asp as fine veins. Less than 1% total sulph- ides. 186-195.2 Minor po & cpy as veins upto 2cm wide 2% total core volume. 195.2-233.7 Trace Po, cpy & py; Larger veins occur at 216.10m and 220.90m	46050	102.0	105.0	3.0	3.0	35	85	135	X	465	6.4	1200	X	213.8	0.1
				051	105.0	108.0	3.0	3.0	5	95	130	X	410	7.0	58	2	215.1	0.1
				052	108.0	111.0	3.0	3.0	5	75	35	X	470	6.6	25	X	217.6	-
				053	111.0	114.0	3.0	3.0	10	160	1600	X	445	7.6	22	2	218.1	-
				054	114.0	117.0	3.0	3.0	15	170	80	X	500	4.6	34	2	221.1	-
				055	117.0	120.0	3.0	3.0	10	125	540	X	415	4.7	220	X	222.4	-
				056	120.0	123.0	3.0	3.0	10	140	135	X	315	4.6	51	6	226.1	-
				057	123.0	126.0	3.0	3.0	20	150	1750	X	345	4.3	1600	X	229.2	-
				058	126.0	129.0	3.0	3.0	35	250	2700	X	345	4.2	39	4	231.3	-
				059	129.0	132.0	3.0	3.0	20	110	400	X	390	5.0	370	X	232	-
195.2	233.7	Axinite-hornblende recrystallisation at:- 171.9, 172.1, 172.3, 173.4-173.5, 174.3, 174.9 and 175.6-181.1m, in patches which are strongest at 181.0m Unaltered sediments 181.7-182 & 182.4-183.1 187.7-188, 190-190.4, 191.1-192.1m Small bands of chlorite-hornblende alter- ation upto 30cm wide occur occasionally through this unit. Silicification is commonly associated with the alteration. Sample No's 42402, 42403, 42404 and 41405 Refer to John Gilfillan and Assoc petro- logical report No. E3/81/60	46060	132.0	135.0	3.0	3.0	10	360	6450	3.5	495	6.3	95	6	233.7	-	
				061	135.0	138.0	3.0	3.0	10	85	30	X	350	5.5	190	4		
				062	138.0	141.0	3.0	3.0	10	75	80	0.5	420	5.2	69	X		
				063	141.0	144.0	3.0	3.0	10	95	30	X	410	4.8	60	2	EDH	
				064	144.0	147.0	3.0	3.0	15	115	590	X	380	6.1	210	X		
				065	147.0	150.0	3.0	3.0	10	100	185	0.5	410	5.7	630	10		
				066	150.0	153.0	3.0	3.0	10	100	110	X	420	5.9	600	2		
				067	153.0	156.0	3.0	3.0	10	95	110	X	405	5.1	85	2		
				068	156.0	159.0	3.0	3.0	10	95	125	X	430	5.1	290	10		
				069	159.0	162.0	3.0	3.0	10	95	295	X	415	5.8	100	6		
195.2	233.7	Small bands of chlorite-hornblende alter- ation upto 30cm wide occur occasionally through this unit. Silicification is commonly associated with the alteration. Sample No's 42402, 42403, 42404 and 41405 Refer to John Gilfillan and Assoc petro- logical report No. E3/81/60	46070*	162.0	163.0	1.0	1.0	15	140	910	X	850	6.4	500	6			
				071*	163.0	163.9	0.9	0.9	40	380	5650	3.5	2500	10.5	4400	X		
				072*	163.9	164.7	0.8	0.8	15	340	50	3.0	1050	14.0	900	4		
				073*	164.7	165.3	0.6	0.6	15	110	7400	1.5	230	25.0	100	X		
				074*	165.3	165.9	0.6	0.6	20	150	1650	0.5	5050	7.0	400	6		
				075*	165.9	166.8	0.9	0.9	10	245	3450	2.0	2850	5.0	600	16		
				076*	166.8	167.8	1.0	1.0	15	550	1.15%	8.0	1950	16.0	500	10		
				077*	167.8	168.7	0.9	0.9	15	330	7100	5.0	1950	12.0	100	6		
				078*	168.7	169.7	1.0	1.0	40	235	145	X	3800	5.0	100	24		
				079	169.7	172.0	2.3	2.3	35	165	50	0.5	3250	6.0	100	24		
195.2	233.7	Small bands of chlorite-hornblende alter- ation upto 30cm wide occur occasionally through this unit. Silicification is commonly associated with the alteration. Sample No's 42402, 42403, 42404 and 41405 Refer to John Gilfillan and Assoc petro- logical report No. E3/81/60	46080	172.0	175.0	3.0	3.0	15	155	25	X	4100	5.1	310	20			
				081	175.0	178.0	3.0	3.0	10	155	20	X	6500	4.9	400	36		
				082	178.0	179.9	1.9	1.9	15	130	50	0.5	5200	4.3	120	24		
				083	179.9	181.2	1.3	1.3	15	185	285	X	7450	3.9	170	20		
				084	181.2	184.1	2.9	2.9	25	150	265	X	2400	5.1	720	10		
				085	184.1	186.0	1.9	1.9	30	140	770	0.5	680	6.6	96	X		
				086	186.0	189.0	3.0	3.0	35	165	1000	0.5	1000	6.5	110	2		
				087	189.0	192.0	3.0	3.0	20	120	360	0.5	615	4.4	100	6		
				088	192.0	195.2	3.2	3.2	20	150	340	X	595	5.1	150	8		
				089	195.2	198.0	2.8	2.8	10	95	25	X	465	6.0	61	15		
195.2	233.7	Small bands of chlorite-hornblende alter- ation upto 30cm wide occur occasionally through this unit. Silicification is commonly associated with the alteration. Sample No's 42402, 42403, 42404 and 41405 Refer to John Gilfillan and Assoc petro- logical report No. E3/81/60	46090	198.0	201.0	3.0	3.0	15	125	200	X	480	6.0	390	4			
				091	201.0	204.0	3.0	3.0	15	100	50	X	495	5.9	79	6		
				092	204.0	207.0	3.0	3.0	10	95	100	X	485	6.2	87	4		
				093	207.0	210.0	3.0	3.0	15	100	250	X	485	6.8	200	14		
				094	210.0	213.0	3.0	3.0	10	95	50	0.5	500	6.6	95	12		
				095	213.0	216.0	2.8	2.8	20	145	735	X	600	7.1	70	24		
				096	216.0	219.0	3.0	3.0	20	100	125	0.5	455	6.4	96	6		
				097	219.0	222.0	3.0	3.0	10	130	1350	0.5	480	7.7	270	12		
				098	222.0	225.0	3.0	3.0	15	95	290	X	410	6.7	56	20		
				099	225.0	228.0	3.0	3.0	10	110	185	X	440	3.5	94	30		
195.2	233.7	Small bands of chlorite-hornblende alter- ation upto 30cm wide occur occasionally through this unit. Silicification is commonly associated with the alteration. Sample No's 42402, 42403, 42404 and 41405 Refer to John Gilfillan and Assoc petro- logical report No. E3/81/60	45100	228.0	231.0	3.0	3.0	10	80	555	X	350	5.8	39	4			
				42401	231.0	233.7	2.7	2.7	15	90	135	X	460	6.4	60	6		

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