DIAMOND DRILL REPORT

ON THE

PURPLE GROUP

Cariboo Mining Division

93 B/9W

(Latitude 52 53', Longitude 122 19')

OWNER AND OPERATOR

GIBRALTAR MINES LIMITED

McLEESE LAKE, B.C.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,452

AUTHOR: G. D. Bysouth

Submitted: June 06, 1984

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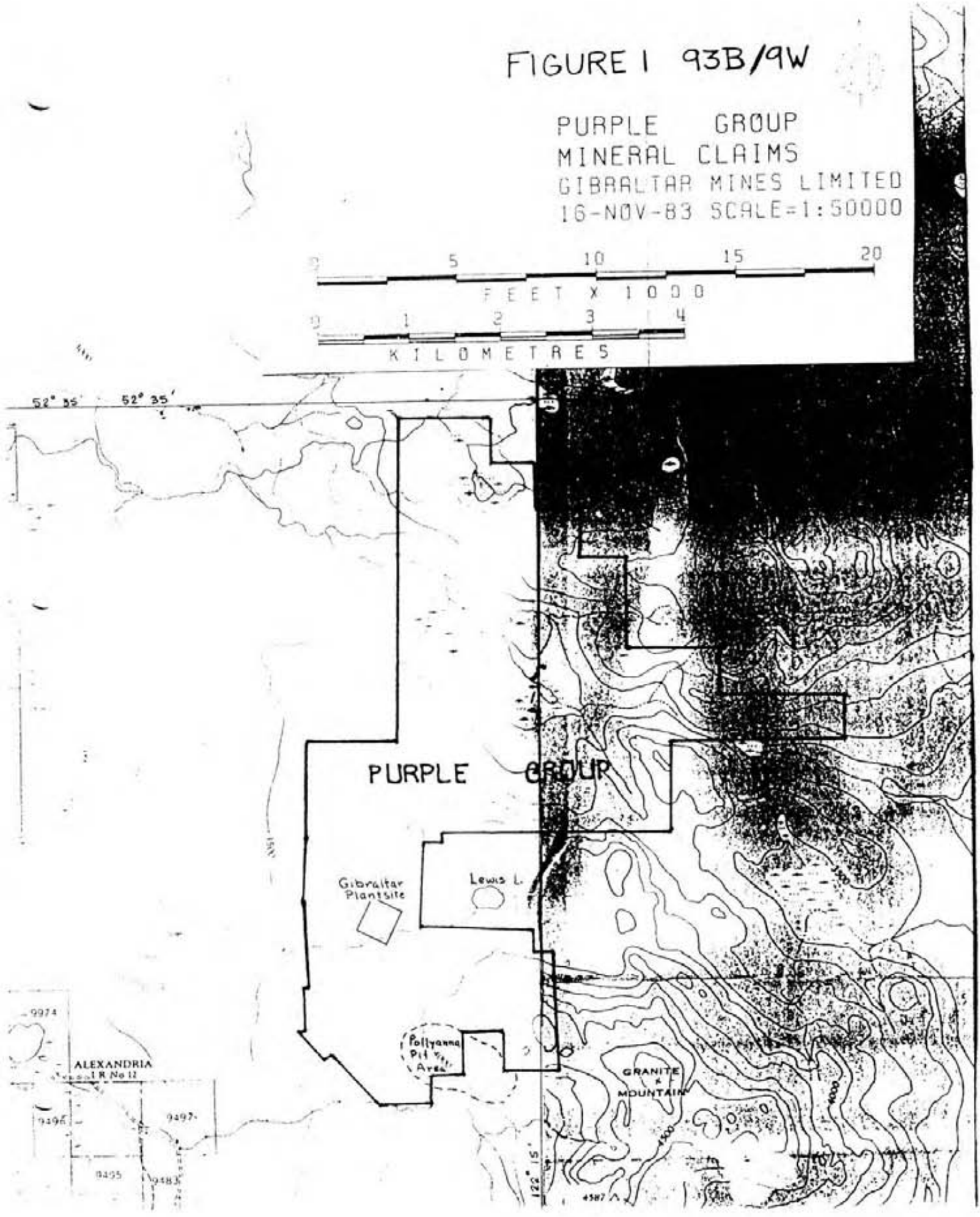
1.0 INTRODUCTION

The Purple Group forms part of the Gibraltar Mines permanent property and includes a large portion of the tailings pond. The general location of the group in shown in Figure 1.

This report is concerned with the southern end of the Group which extends into the Pollyanna orebody. Here, four vertical N.Q. diamond drill holes were drilled during the period May 17 - May 29, 1984. Two of the holes were located west of the Pollyanna pit in order to test for a westward continuation of the main ore zone. The other two were located within the pit in order to test the grade and continuity of ore below the present pit. A total 1894 - feet (577.29 m) of drilling was completed. The contractor was G. & D. Drilling of 5425 Dallas Drive, Kamloops, B.C. Core is stored at the Gibraltar Mines plant site.

FIGURE 1 93B/9W



2.0 MINERAL CLAIMS

Claims and leases of the Purple Group are shown in Figure 2. All of the claims belong to Gibraltar Mines Limited. Pertinent information is tabulated below.

GIBRALTAR MINES LIMITED
14-NOV-83

CLAIM GROUPS

PURPLE GROUP MINERAL CLAIMS

NAME	RECORDED DDMMYY	RECORD NUMBER	UNITS	MINERAL LEASE
MY 5	120678	01710	10	
MY 6	010578	30675	4	
MY 7	010578	30676	5	
MY 12	100680	01669	14	
MY 13	100680	01670	6	
MY 14	100680	01671	7	
MY 15	100680	01672	6	
MY 16	100680	01673	4	
MY 17	100680	01674	2	
MY 18	241100	03025	1	
MY 19	240381	03240	2	
GG #85	250855	30669	1	3598 M36
GG 40	280864	28881	1	3598 M36
GG 80	220465	29747	1	3598 M36
GG 82	220465	29749	1	3598 M36
GG 86A FR	091266	39653	1	3598 M36
GIB #8	200571	62411	1	3598 M36
GG # 2	281064	29234	1	3599 M37
GG # 4	281064	29236	1	3599 M37
GG # 6	281064	29238	1	3599 M37
GG # 5	281064	29237	1	3600 M38
GG # 7	281064	29239	1	3600 M38
GG # 8	281064	29240	1	3600 M38
GG #16	281064	29248	1	3600 M38
GG # 1	281064	29233	1	4136 M55
GG # 3	281064	29235	1	4136 M55
GG 30	280864	28871	1	4136 M55
GG 41	280864	28882	1	4136 M55
GG #11	281064	29243	1	4137 M56
GG #12	281064	29244	1	4137 M56
GG #13	281064	29245	1	4137 M56
GG #14	281064	29246	1	4137 M56
GG #21	281064	29253	1	4137 M56
GG #24	281064	29256	1	4137 M56
GG 31	280864	28872	1	4137 M56
RUM #41 FR	200470	57295	1	4137 M56
GG #23	281064	29255	1	4138 M57
GG #25	281064	29257	1	4138 M57
GG #26	281064	29258	1	4138 M57
GG #27	281064	29259	1	4138 M57
GG #28	281064	29260	1	4138 M57

TOTAL UNITS 89

3.0 DRILL PROGRAM

3.1 OBJECTIVE

The purpose of this drill holes 84-07 and 84-08 was to test for a westerly continuation of the main Pollyanna ore zone which is presently exposed in the Pollyanna pit to the east. The purpose of drill holes 84-09 and 84-10 was to test deep projections of the main ore beneath the present pit.

3.2 RESULTS AND INTERPRETATION

Drill hole locations are shown in Figure 2. In all holes, the main host rock was the Mine Phase Quartz Diorite which consisted of about 45% pale green saussaritized plagioclase, 15% dark green chloritized mafics, and 30% medium grey quartz. In holes 84-09 and 84-10, the Granite Mtn. Phase contact was intersected. This rock type, which is interpreted to be a Trondhjemite, is the principle phase of the Granite Mtn. pluton and is believed to underlie the Mine Phase close to all the Gibraltar ore zones. It consists of about 45% quartz, 10% chloritized mafics and 40% saussaritized plagioclase. Leucocratic zones were noted in all holes - these rocks usually consist only of quartz and pale grey feldspar but in these holes, the leucocratic zones also included hybrid - like material resembling either Mine Phase, or more commonly, Granite Mtn. Phase. Mineralization encountered was pyrite, chalcopyrite and minor molybdenite, associated with various quartz-chlorite-sericite-epidote alteration assemblages in a complex system of veins, shears and shear zones.

Hole 84-07 was cased to 12-feet. From 12-feet to 40-feet a barren leach cap was intersected consisting of vuggy limonite-stained core. From 40- to 200-feet a limonite zone was recognized by an abundance of limonite, minor malachite and partially leached sulfides. A zone of primary mineralization was noted from 200-feet to the end of the hole at 480-feet. No significant zones of ore grade mineralization were recognized, and at this time the core has not been assayed. Of interest is the large amount of leucocratic material insected in this hole and the complex hybrid-like nature of this rock from 330- to 406-feet.

Hole 84-08 was cased to 12-feet. From 12- to 145-feet a leach cap similiar to that of 84-07 was intersected and from 145- to 200-feet, a limonite zone, also similiar to 84-07, was encountered. A low sulfide primary zone occurred from 200-feet to the end of the hole at 401-feet, and contained .32% Cu and .15% MoS2 over 100-feet from 320- to 420-feet; this was the only significant ore intersection in the hole. Molybdenite values appear anomalously high relative to copper below 90-feet. The very high molybdenite assays from 330- to 350-feet were due to a single steep quartz-molybdenite vein. The Mine Phase host rock below 145-feet appears to be finer grained and higher in quartz than normal - it could be a different rock type, possibly related to the Granite Mtn. Phase.

Hole 84-09 was collared on the 3815 Bench of the Pollyanna pit and cased to 40-feet. Mineralization was essentially primary. From 40- to 200-feet a pyrite zone was intersected below which the concentration of chalcopyrite appearedto show a significant increase. No assays are available at this time but visual estimates, which usually tend to be conservative, suggest that an ore zone has been intersected from about

3.2 RESULTS AND INTERPRETATION (continued)

190-feet to 350-feet. The Granite Mtn. Phase contact was intersected at 425-feet. A three-foot leucocratic zone occurred at the contact.

Hole 84-10 intersected similiar mineralogy and geology as that of 84-09. It was collared on blasted rock of the 3815 Bench and cased to 64-feet. The mineralization was primary. A weak pyrite zone was intersected from 64-feet to 240-feet and below this, the copper grade appeared to increase. Available assays indicate the pyrite contains mainly waste. The ore zone according to visual estimates appears to start at 240-feet and extend to about 390-feet. The Granite Mtn. Phase Quartz Diorite was intersected at 363-feet. The contact zone appeared to be marked by a ten-foot zone of leucocratic material containing abundant clots of epidote.

4.0 STATEMENT OF EXPENDITURES

May 1984 Diamond Drilling, Purple Group

(a) Drilling costs

84-07	480' @ $13.50/ft.	$6480.00	
84-08	461' @ $13.50/ft.	$6223.50	
84-09	450' @ $13.50/ft.	$6075.00	
81-10	505 @ $13.50/ft.	$6790.50	

			$25569.00

(b) Vehicle

4X4 1980 Suburban, May 4, 17-19,23-29 11 days @ $20/day	$ 220.00

(c) Assay Costs

45 Cu - MoS2 assays @ 4.40/assay	$ 198.00

(d) Supplies

Core boxes, tags, bags, logs etc. 95 boxes @ $6/box = 570 + 60	$ 630.00

(e) Personnel Costs

(1) Core Logging and Supervision
G. Bysouth May 23-25, 28-30
June 1, 4,6
80 hrs @ $31.25 $2500.00

(2) Field Work and Sample Preparation
E. Oliver May 4, 17-18, 22-25, 29-31
June 1, 4-6
112 hrs @ 20.00 $2240.00

$ 4740.00

TOTAL DRILLING COST $31,357.00

JOB

5.0 CONCLUSIONS

Drill holes 84-07 and 84-08 did not intersect any westerly extensions of the main Pollyanna ore zone but rather, have raised the the possibility of another plutonic rock type being present west of Pollyanna. Hole 84-08 suggests this environment might also contain more molybdenite than normal for the mine area. More drilling is required.

Drill holes 84-09 and 84-10 both intersected a significant chalcopyrite zone directly beneath a weak to moderate pyrite zone. This sulfide mineralization appears to overlie the Granite Mtn. Phase contact zone. More drilling is required to delineate this contact and investigate its relationship to sulfide zoning and grade distribution.

Submitted by,

G. D. Bysouth

G. D. Bysouth
Senior Geologist

GIBRALTAR MINES LIMITED

APPENDIX I

STATEMENT OF QUALIFICATIONS

I, Garry D. Bysouth, of Gibraltar Mines Limited, McLeese Lake, British Columbia, do certify that:

1. I am a geologist.

2. I am a graduate of the University of British Columbia, with a B.Sc. degree in geology in 1966.

3. From 1966 to the present I have been engaged in mining and exploration geology in British Columbia.

4. I personally supervised this drill program, logged the core and assessed the results.

Garry D. Bysouth

Garry D. Bysouth

APPENDIX II

ABBREVIATIONS USED IN DRILL LOGS

cal.....calcite

carb.....carbonate

chl.....chlorite

cp.....chalcopyrite

cren.....crenulated

dissem.....disseminated

ep.....epidote

foln.....foliation

grn.....grained

lim.....limonite

mal.....malachite

mag.....magnetite

py.....pyrite

QSP.....quartz-sericite-py

qtz.....quartz

rx.....rock

ser.....sericite

str.....strong

stkwk.....stockwork

wk.....weak

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-8
SHEET No. 1 of 8

LOCATION Pollyanna - West Wall | BEARING — | LATITUDE 50096.48 | CORE SIZE N.Q.W | LOGGED BY G.D.B
DATE COLLARED May 23, 1984 | LENGTH 461' | DEPARTURE 50165.23 | SCALE OF LOG 1" = 10' | DATE May 25, 1984
DATE COMPLETED May 25, 1984 | DIP -90° | ELEVATION 3910.01' | REMARKS zones of intense hematite staining, assays throughout hole (Cred' plag.?)

BOTTOM DEPTHS: LEACH CAP 14.5' | LIM. ZONE 200' | SUPERGENE —

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Structures	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Footage Distance	Estimated Core Recovery	R Q D	ASSAY RESULTS: Sample	%	%		Estimated Grade
Casing To 12'																		
12'											12							
MINE PHASE QUARTZ	Bo WK	20		50 x 2 +60 45 x 2 + 60 + 30 x 2 60 x 3 50 x 5	1/8 + 1/10 x 2 1/10 x 5 1" + 2" x 2 1/8 - 1/10 x 5	qtz-chl-lim qtz-chl-lim qtz-chl-lim (mal) x 3 qtz-chl-lim x 5		<.5		17	10	27	33601	.17 .14ox	.020		.05
DIORITE 30% qtz 45% sauss plag. 20% chl. sl. finer grn.	80 WK	30		5-10 70 + 45 x 5 45 x 3 45-5 45	1/2 1/5 x 3 1/8 x 2 2" 1/10	qtz-lim qtz-lim + qtz-chl-lim x 3 qtz-lim x 2 qtz-chl-vug (mal) qtz		<.5		24 29½	95 95	33	33602	.16 .13ox	.006		.08
than normal but still med grn ∴ sauss alt'n phase (12' - 124')	NO	40		70 5? 30 45 60 35 + 30 70	7" 6" 1/10 1/4 1/8 1/8 x 2 1/4	qtz-chl (ser) ep zone qtz-chl-ep (vug) qtz-lim qtz-lim qtz-chl (mal) qtz-lim x 2 qtz-lim-mal		<.5		33 37 41	80 80 90	27	33603	.14 .12ox	.006		.12
	NO	50		60 70 x 2 45 + 25 x 5 60 45 30	2" 1/10 x 2 blebs 1/2 1/8	qtz-chl qtz-chl-ep-mal lim x 2 qtz-lim chl qtz-chl-lim		<.5		46½ 50	85 80	10	33604	.16 .13ox	.006		.10

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GIBRALTAR MINES LTD.

HOLE No. 34-8
SHEET No. 2 of 3

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration / Geology / Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Footage Blocks	Estimated Core Recovery %	P O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Colloidal Gold Grade
	ND	60	20 45 45 5	20" ½ 1/10 12"	qq-hem-lim qt3 qz-lim qz-bx-lim		<.5		55 63	30 35	18	33605	.06 .04ox	.004		.05
	ND	70	70+5 5-45	1/8 ± 7'	qz-bx-lim-last core		<.5		58	35	2	33606	.10 .08ox	.004		.10
	ND	80	30 10 45 10-30 80 20	10" 1/10 1/8 3' 2" 10"	qq-bx-lim qq-lim (mal) qt3 qq-bx-lim-hem (mal) qt3 (mal) qq-bx-lim		<.5		71½ 74 79	35 45 30	7	33607	.11 .10ox	.005		.12
Fault zone {	ND	90	?	6"	qt3-M+O2 (mal)		<.5		83½ 87	50 50	10	33608	.15 .14ox	.012		.12
- the gouge broken zones above this fault do not appear to be a single large fault, but rather a series of steep joints and small faults. Fault {	ND	100	? 45 70 10-30 x 5 45 60	5½' 2" ¼ hlex5 2" 2"	"solid" qq (mal) qq-qt3-lim-mal qt3-lim lim-mal x 5 qtz-chl-mal qtz-chl-xug-mal		<.5		96	45	20	33609	.40 .59	.018		.13
	NB	110	60 45+2+10 45+5 60-60 x 8 20? 45?	2½ ½ox5 hlex5 hlex8 5' 12"	qt3-lim-mal qt3-lim-mal x 3 lim-mal x 8 lim x 8 bx-qq-lim-hem qtz-ser-lim zone		<.5		106 109½	95 90	33	33610	.16 .11	.020		.12

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-3
SHEET No. 3 of 9

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation, Alteration, Footage, Silicates	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Direct	Estimated Core Recovery %	POD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	30 WK	120	80 45-80 x12 60 20 x 3 45x3 45x35 50 80x3	1/10 1/20-1/10x12 1/2 hlex3 1/10x3 1/4-1/2 1/3 1/20x3	qtz-limt qtz-chl-ep-lim x12 qtz-chl-lim lim x3 qtz-chl-lim x3 qtz-chl-lim x2 qtz-lim lim x3		<.5		112 123	93 95	10	33611	.06 .03ox	.020		.10
125 LEUCOCRATIC ZONE	30 WK	130	5-40 60 50 70 5 40 40-60 x 8	1/3-1/4 1/20 1/5 1/2 2" 1/2 " 1/20-1/10x8	qtz-chl-limx2 qtz-cp qtz-chl-vug. qtz-lim qtz-lim qtz-lim qtz-chl-lim		<.5		123 130	90 95	50	33612	.12 .07ox	.022		.05
(124'-145') hybrid-type contact zone and inclusions of hybrid rx - that is, contacts appears to be a mixing of the two rx. Types 145 MINE PHASE	80 WK 80 Mod	140 150	50 60 x6 70 70-60 x 10 5 70 60 5 20x3 90 60x50x45 70 45 40 5x2+45x2	2½ 1/20-1/4x6 1/4 1/20-1/10x10 1" 1/8 1/4 2" hlex3 1/4 1/10x3 1/2 1/2 1/5 hlex4	qtz-mal-lim qtz-chl-lim x6 qtz-ser-lim qtz-lim x 10 qtz-chl-lim qtz-lim qtz-chl-lim qtz-chl-lim lim x3 qtz-chl-lim qtz-chl-lim-py(cp)x3 qtz-chl-lim-mal qtz-chl-lim-mal qtz-chl-ser-lim-mal lim x4		<.5		137 147	85 93	33	33613 33614	.09 .06ox .22 .12ox	.026 .038		.08 .18
(145 - 309') not a typical mine phase - tends to be finer grn and more "compact" or hard than normal. - hematite staining of plag. common throughout	80 Mod	160 170	70+45x50 30 35x3 10 60 80x9 95 40 50 10 50x2 70x3 80x20 80 5 5+60	1/10x2 1/8 1/20x3 6" 1/10 hlex4 1/8 1/10 1/5 5 1/10x2 hlex4 1/4x2 1/4 1/4 1/20x2	qtz-mal x3 qtz-chl-(cp) mal-MnO2-gg x3 qtz-ser-lim qtz-cp malx4 qtz-chl-py qtz qtz-chl-lim-cp qtz-chl-ser-lim qtz-chl-(cp) x2 lim x5 qtz-lim x2 qtz-chl qtz-lim-py lim x 2	decrease in the amount of lim. staining from 145' to base of lim. zone	<.5		151 157 167	90 95 90	33	33615 33616	.15 .09ox .11 .04ox	.020 .624		.15 .12

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GIBRALTAR MINES LTD.

HOLE No. 84-8
SHEET No. 4 of 8

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Footage Drilled	Estimated Core Recovery %	P Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	70 WK		180		20 30 40 50+30 30	1" 1/10 1/8 1/8 x2 1/2	q t3 - carb - mal ((cp)) Mo Ox q t3 - cp - py q t3 - cp q t3 ((mal)) a t2 - cp - lim		<.5		77	98	53	33617	.10 .03 ox	.022		.10
	ND		190		70 45 5 10	1/2 1" 2" 1"	q t3 - cer - lim q t3 a3 - ox - hem qq - ox - hem		<.5		134	95	17	33619	.07 .01 ox	.026		.06
rx change ??	ND		200		20 70 70 60 x 3	1" 1/8 1/10 1/10 x 3	qq - hem q t3 - cp q t3 - chl (cp) q t3 - chl - cp x 3		<.5		137	95	60	33619	.16 .01 ox	.032		.12
host rock tends to be finer grn than normal - slight reduction in mafics (to 20%) and sl.	ND		210		5 70 45 30 70 80	1/4 hle 1/2 1/3 1/10 1/8 + 1/4	qq cp q t3 - chl (cp) q t3 - chl (cp) q t3 - chl (py) q t3 - (py)(cp) x 2		<.5		207	98	33	33620	.17 < .01 ox	.039		.18
incr. in q t3 (to 40%) - the rx is def. harder and more compact than normal.	ND		220		40 70 + 60 x 2 70 + 30 30 30 5	1" 1/10 + 1/8 x 2 1/10 x 2 1/8 1/10 1/10	q t3 - Mo q t3 - chl - cp x 3 q t3 - chl - cp x 2 q t3 - chl - cp q t3 - chl - cp q t3 - chl - cp		<.5		210 1/2 217	98	53	33621	.12 < .01 ox	.038		.20
(200 - 260')	ND		230		80 x 2 20 60 60 x 2 30 x 2 10 40 x 2 40 - 50	1/2 + 1/10 1/8 1/8 1/8 x 2 1/4 + 1/10 1/4 1/8 x 2 1/8 x 2	q t3 - chl - cp x 2 q t3 - chl - cp q t3 - chl - cp q t3 - chl (cp) x 2 q t3 - chl - cp x 2 q t3 - chl - py - cp q t3 - chl - cp - py x 2 q t3 - chl - cp x 2		<.5		237	98	57	33622	.20 < .01 ox	.030		.30

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-8
SHEET No. 5 of 9

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Direct.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
leucocratic zone	ND.	240	45 30 45+40 50+40 70+40	1/8 1/10 1/10x2 1/10x2 1/10x2	qtz-chl-cp qtz-chl-(cp) qtz-chl-(cp)x2 qtz-chl(cp)x2 qtz-chl-(cp)x2		<1.5		237	90 95	33	33623	.10 <.01ox	.028		.15
red hem stained section	N.D	250	40+80 40 60 30 40 x2 70 40 10	1/10 x2 12° 10° 1/4 1/8x2 1" 1/10x2 1"	qtz-chl-(py)(cp) x2 qtz-chl-ser-(cp) zone qtz-chl-ser-carb ((cp)) zone qtz-chl-py (cp) qtz-chl-(cp) x2 qtz qtz-chl-cp x2 qtz		<1.5		244 247	85	33	33624	.16 <.01ox	.024		.18
	ND	260	45 45+30 30-40 x2 5 30 20	1/4 hle x2 1/10 x3 1/10 20° 12°	qtz-chl(cp) hem x2 qtz-chl-(py)(cp) x3 chl-cp qtz-ser-carb-py ((cp)) zone qtz-ser-carb-py((cp)) zone		5.0		257	85	23	33625	.20 <.01ox	.028		.25
leucocratic zone	ND	270	5 45x3 40x2 45 45+40 45	1/4 1/10 x3 1/10x2 1/4 1/8+1/4 1/2	qtz-chl(py) qtz-chl-py x3 qtz-chl-py x2 qtz-chl qtz-chl-py-cp x2 qtz-chl		.5		263½ 269	80 90	30	33626	.13 <.01ox	.024		.15
	ND	280	20 45 5 20 60+85	1/20 1/10 1/10 1/8 1/10x2	hem qtz-chl-py hem-qtz qtz-py-cp qtz-chl-py(cp)x2		.5		274½	90 90	23	33627	.07 <.01ox	.020		.15
	ND	290	15+40+30 5+40 40x2	1/10x3 1/4+1/2 1/10x2	qtz-chl-py x3 (qtz)-chl-cp qtz-chl (py) x2		<.5		281 287	95	10	33628	.14 <.01ox	.022		.12

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GIBRALTAR MINES LTD.

HOLE No. 84-8
SHEET No. 6 of 8

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — REMARKS	Footage Blocks	Estimated Core Recovery %	P O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	70 WIK		340		70 20 30 40 5 5 10 + 40	10" 1/8 1/4 1/2 hle hle 1/8	qt3-ser qt3-chl-py qt3-chl-carb qt3-chl qt3-chl-cp hem + 16" of broken rx hem + 24" of broken rx qt3-chl (cp) x 2		4.5		315 325 335	95 75	27	33629	.14 <.010X	.022		.10
309'	70 WK		342		5 + 50 15 5 40 + 60	1/10 x 3 1/8-1/2 1/10. 1/10 x 2	qt3-chl (py) qt3-chl (vug) qq-hem qt3-chl (py) x 2		<1.5		305	95 75	30	33630	.14 <.010X	.022		.04
LEUCOCRATIC ZONE (309-326) aquigranular - similar tex. as mine phase but lacking mafics - contact at 309' is sharp with no gradational phase. Contact at 326' is masked by intense ep. alt'n. 316'	ND		320		15-20 x 6 20 5	1/20-1/10 x 6 1/8 1/10	qt3-chl (py) x 6 qt3-chl-carb (py) hem-qq		<1.5		315 325	95	50	33631	.06 <.010X	.024		.06
MINE PHASE (326-461) still not a typical mine phase	ND		330 340		15 x 2 + 5 40 45 35 x 2 40 + 45 45 + 40 70 + 40 5 x 5	1/10 x 5 1/8 1/10 1/10 + 1/8 1/10 x 2 1/8 + 1/10 1/4 + 1/10 1/10 x 3	qq-hem x 3 qt3-chl-(py) qt3-chl-ep qt3-chl-(py) x 2 qt3-chl-py x 2 qt3-chl-cp x 2 qt3-chl-py-cp x 2 qt3-chl-cp x 3		1.0		325 330	93 85	40 20	33632 33633	.12 <.010X .77 <.010X	.024 .110		.08 .35
			350		5 5	4' 1/2	qt3- No (cp) qt3- Mo-cp	broken and lost core - probably not a fault	.5		340 350	80 45	0	33634	.86 .010X	1.210		.25 (.20 MoS_2)

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-8
SHEET No. 7 of 8

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration Footage Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Blocks	Estimated Core Recovery %	P O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	ND	360	60 30? 15 35 x 4	3" ¼ 1/10 filled	qz-hem qtz-chl-cp qtz-chl-cp qtz-chl-(py) x 5		.5	356 360	65 60	30	33635	.15 <.01 ox	.048		.15
	ND Mod	376	80 x 3 25 x 2 5 30 30 x 2 30	2" + 6" + 8" 1/10 x 2 1/8 2" ¼ + ⅛ 3"	qtz-chl-ep zone x 3 qtz-chl-py (cp) x 2 qtz-chl-py (cp) qtz-chl-py qtz-carb-hem x 2 qq		.5	368	15 10	33	33636	.18 <.01 ox	.030		.09
	ND	380	30 x 4 5 + 20 x 3 30 2 x 2 25 5 + 20 20 x 2 30 x 3	1/10 x 4 1/10 - 1/10 x 3 ¼ ⅛ x 2 2" ¼ + ⅛ 1/10 x 2 1/20 - 1/10 + ¼	qtz-chl-py (cp) x 4 carb-hem x 3 qtz-chl (py) hem qtz-chl-cp x 2 qtz-chl-carb-py (cp) qtz-chl-py x 2 qtz-chl-py (cp) x 2 qtz-chl-py x 3		1.5	371 376 379	18 38	17	33637	.18 <.01 ox	.022		.15
	ND	390	15 + 30 30 x 2 + 40 25 + 15 x 2 35 70 30	1/10 x 2 1/10 x 3 1/10 x 3 1/10 6" 1/20	hem-carb x 2 qtz-chl-py (cp) x 3 qtz-chl-py (cp) x 2 hem-carb qp (chl) (qtz) qtz-chl-py		1.0	384 387	85 95 90	37	33638	.10 <.01 ox	.020		.10
	ND	400	5 + 35 + 30 5 + 35 35 + 30 + 30 35 + 40 25 x 3 70 + 5 25 x 2	1/20 x 3 1/10 + 1" 1/10 x 3 1/10 + ¼ 1/10 x 3 1/10 x 2 1/10 x 2	qtz-chl-py x 3 hem-carb qtz-chl-py x 3 qtz-chl-py x 3 qtz-chl-py x 3 qtz-chl-py x 2 qtz-chl-py-cp x 2 qtz-chl-py (cp) x 2		1.5	392 396	100	67	33639	.10 <.01 ox	.022		.10
Leucocratic zone	ND	410	5 45 40 x 2 5	1" 4" 1/10 x 2 ¼ 12"	qtz-chl-carb-hem qtz-chl-cp-Mo qtz-chl-py x 2 hem-carb-qq qq		.5	406 409 ½	95 90	10	33640	.36 <.01 ox	.030		.25

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 33-3
SHEET No. 3 of 3

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation, Alteration, Footage, Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Blocks	Estimated Core Recovery %	P O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	ND		40	2'	qq-bx (hem)		.5	428	70	13	33641	.38 / <.01 OA	.010		.30
			15 ± 70	1/4 ≤ 2	qtz-chl-py-cp ×2			432	35						
			5	1/16	hem-qq			437	30						
		420	60	3"	qtz-cp				75						
			15	1/4"	qtz-cp										
					qtz-cp										
	ND		45 ± 40	1/16 ≤ 2	hem-carb ×2		1.0	447	35	37	33642	.12 / <.01 OA	.004		.20
			15	1/4	qtz-chl-py-cp										
			40-45 ± 10	1/20 × 10	hem-carb ×10			457							
			5	1/16	qtz-chl-py (cp)										
		480	40+60+30+30	1/8 ≤ 4	qtz-chl-py (cp) ×4				75						
			40	2"	qq-bx										
	ND		35 ± 2	1/16 × 2	qtz-chl-(py)(cp)(Mo) ×2		.5	463	30	23	33643	.08 / <.01 OA	.034		.15
			10	1/4	hem-carb										
			20	1/4	qtz-py (cp)(Mo)			476							
			20	1/2	qtz-(py)((cp))((Mo))				90						
laucocratic zone			45	1/4	qq-hem										
		440	45	1/10	qq-hem			440							
	ND		20	1/10	qtz-chl-cp		2.5		30	23	33644	.18 / <.01 OA	.006		.18
			35	1/8	hem (carb)										
			20	1/10	qtz-chl-cp			446							
			35 ± 2	1/20 × 2	qtz-chl-cp ×2										
			60	12"	qq-bx										
		450	25	1/4	qtz-chl (vug)				75						
	ND		10 ± 3	1/8 + 1/10 × 2	qtz-chl-carb (vug) (cp) ×3		2.5	452		0	33645	.25 / .01 OA	.008		.10
			45 ± 4	1/10 × 4	hem-qq-carb				60						
			80	1/2	qtz			456							
MAJOR FAULT ZONE 3			10?	5½'	qq-bx-hem				65						
		460						461							

B.D. Bysouth

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-7
SHEET No. 1 of 9

LOCATION Pollyanna-West Wall | BEARING — | LATITUDE 50640.41 | CORE SIZE N.Q.-W. | LOGGED BY G.D.B
DATE COLLARED May 17, 1984 | LENGTH 480' | DEPARTURE 50212.05 | SCALE OF LOG 1" = 10' | DATE May 23, 1984
DATE COMPLETED May 23, 1984 | DIP -90° | ELEVATION 3951.78 | REMARKS higher oxidate zone than normal - even in leucocratic zones

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP 40' / LIM. ZONE 200' / SUPERGENE — / REMARKS	Footage Blocks	Estimated Gold Assay	Silver	ASSAY RESULTS: Sample	% Cu	% Mo	Au	Estimated
Casing To 12'																		
12' MINE PHASE QUARTZ	ND?		20		10-20 x 30	¼"-thicker	lim - MnO2 (coll) x 30		<.5	limonite not strong - often MnO2 > lim - this may be due to	12 / 16	60 / 45	7					.10
DIORITE 30% qtz 25% chl 40% saus. plag med grn - sl. finer grn than normal. Saus. altn phase (12' - 251') Fault Zone	ND?		30 / 40	15 x 3	5?	10' / ¼" + ½" x 3	broken, hem stained core, minor lim + MnO2 / qtz-chl-lim-MnO2 x 2		<.5	overall low sulfide core	21 / 27 / 32 / 37	40 / 40 / 55	0 / 3					.10 / .12
	60 WH		50	20 x 3 / 7-15 x 6	5? / 20 x 3	6' / ½ - ¾ x 5 / ½ - ¾ x 2 blex 6	qq - bx - lost core (≈ 3' qq) / MnO2 (mal) x 5 / qtz-lim (cp) x 3 / lim - mal x 6		<.5		43 / 47	20 / 65	7					.15

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GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-7
SHEET No. 2 of 9

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Footage	GRAPHIC LOG: Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Discs	Estimated Core Recovery %	R.Q.D.	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	60 Mod	60	3×6 5×3 70 10	hle×6 1/32×3 1/32 1/4	lim×6 qtz-py-lim×3 qtz-py-lim qtz-ser-lim	0-90	<.5		53	75 70	40					.10
	50 Mod	70	? 15 3 20 20 15-55×3	1" 1/10 1/4 1/2" " 1" " 2"×3"×2"	qtz-chl-ep 3ax qtz-chl-MnO2-mal qtz-ser-lim qtz-ep (Mn02) zone qtz-ser-MnO2 zone qtz-ep zones×3	0-90	<.5		63 1/2 63 66 1/2	70 75 80	50					.10
	50 Wk	80	25 10×2 40? 60-70 80 80 80	1" 2"×2 hle×2 1"-1/2 3" 3" 6"	qtz-ser-ep (co)(mal) qtz-chl (vug) ×2 MnO2-mal ×2 qtz-cp ×2 qtz-cal(vug) (py(?)) qtz-ep qtz-chl-ep zone	0-90	<.5		73	85 80	30					.25
	?	90	80×2 ? 30?-20"×3	2"×2 6' 1/2×?	qtz-ep + ytz qtz-chl-ep zone 1/2-2" dia round ep clots in swirled qtz-chl. matrix (qtz)-ep zones	0-90	<.5		81 87	90 70	43					.10
	?	100	? 5×2	8' hle×2	qtz-chl-ep zone MnO2-mal ×2	0-90	<.5		93 99	80	43					.10
	50 Mod.	110	? 20-10×4 20+3× 10 40+5×	12" hle×4 1/10×2 1" 1/10×2	(qtz) ep zone MnO2-qtz-(mal) ×4 qtz-chl (lim)×2 qtz-chl-py-lim qtz-lim-mal×2	0-90	<.5		102 107	85 95	30					.12

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-7
SHEET No. 3 of 7

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration Footage Structure	Vein ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Digest	Estimated Core Recovery %	P Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Calculated Grade
	50 Mod.	120	15 10 10 5×3	½0 ½0 ½0 ½0-½0×3	qt3-chl-lim qt3-lim-mal qt3-py-lim qt3-lim-mal×3	0 10 20 30 40 50 60 70 80 90	<.5		117		97					.13
	50 Mod	130	75 35 35 5×2 20 5	1"×2" 1" ½0 ½0"-½0 1" ½0	qt3×2 qt3-chl-lim-cp-mal qt3-chl-lim Mn02-mal ×2 qg-Mn02 (mal) qt3-chl-cp (mal)	0 10 20 30 40 50 60 70 80 90	<.5				27					.12
	85 Str.	140	45×2 10 35 30×2 40 5	½0+⅛ 12" 2" ¼×2 ½0 ½	qt3-chl qt3-ser-l-m-(mal) qt3 qt3-chl-(cp)(mal) ×2 chl-mal qt3-chl-qg-MnO2	0 10 20 30 40 50 60 70 80 90	<.5		134 139	53 57	27					.14
	40 Mod.	150	30×3 5×2 5×10 45 40 45×3	½0×3 ½0×4 ½×2 ½ ¼ ½×3	qt3-chl-lim-(cp)(mal)×3 qg-MnO2-mal×4 qt3-ser-lim (py)×2 qt3-lim-mal qt3-chl-cp-lim-mal MnO2-mal ×3	0 10 20 30 40 50 60 70 80 90	<.5		144 147 150	55 55	24					.30
	45 Mod	160	5×2 45×30 5 10×3 40	½0×2 ½×2 ½0 ½0×3 ½0	qt3-chl-py-mal×2 ½MnO2-mal×2 qt3(py)(cp) qt3-lim-py×3 qt3-chl-cp	0 10 20 30 40 50 60 70 80 90	<.5		155 160	50 98	50					.14
approaching a Granite Mtn Phase re. type (ie incr. qt3-decrease chl)	45 we-Mod	170	15 20 25 30×3 30×3	½ 1" ½0 ½0×3 ½0×3	qt3-chl (py) qt3-chl-py qt3-py qt3-py-lim ×3 qt3×3	0 10 20 30 40 50 60 70 80 90	<.5		167	98 90	50					.08

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-7
SHEET No. 4 of 9

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation/Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Core Recovery %	RQD	ASSAY RESULTS: Sample number	% Cu	% Mo		Estimated Grade
	45 Mod		120		45 ×2 60 2" 30 × 70 40 45	½ in × 2 ¼ × 2 ¼ 4	qtz-cp ×2 py-sec qtz ×2 qtz-chl-(py)(cp) qtz-chl-(py)	0 10 20 30 40 50 60 70 80 90	<.5			100	57					.12
	40 Mod		190		25×3 10-20 × 5 45 × 50 45 50-70 × 3	½ in × 3 ⅛ in - ¼ in × 3 ½ - ¾ ½ in ⅛ × 3	qtz-chl-lim-py × 3 qtz-chl-lim (mal) × 5 qtz-chl-lim (py) (mal) × 2 qtz-chl-lim-mal lim × 3	0 10 20 30 40 50 60 70 80 90	<.5			100						.10
	?		200		5 5 × 5 5 × 10 4	¼ ⅛ in - ½ in × 5 ½ in × 10 6"	qtz (py) - lim - mal lim - mal × 5 lim × 10 py	0 10 20 30 40 50 60 70 80 90	<.5	broken + lost core	110 120 129	33 50	10					.20
	60 Mod		210		40-50 × 3 50 40 70	⅛ in × 3 ½ ⅛ ½	qtz-py × 3 qtz-cp qtz-chl (cp) qtz-cp	0 10 20 30 40 50 60 70 80 90	<.5		220	95	60					.12
	50 wk		220		60 50 × 2 50	2½ 3" ±1" ⅛	qtz-chl (py) × 2 qtz-cp	0 10 20 30 40 50 60 70 80 90	<.5		230	75	40					.08
	45 Mod		230		60 5 50 × 3 60 45 90	1" ½ ¼ + ⅛ + 1/20 4" 1" ⅛"	qtz-chl qtz-chl (py) (cp) qtz-chl-py × 3 qtz-cp qtz (cp) qtz-chl (cp)	0 10 20 30 40 50 60 70 80 90	<.5		234 240	90 95	53					.10

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 68-7
SHEET No. 5 of 9

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	P O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	60 wk-mod	250	45 x2 5 30 ?	1/16 2" 1/8 3'	py-chl-cp x2 py-chl (vug)-cp py-chl-(ser)(cp) Qv (py)	0 10 20 30 40 50 60 70 80 90	<.5		240	80 90	83					.15
	70 wk-Mod	260	90 45 45 x2 60	3" 1/10 1/8-1/4 2'	py-cp py-chl (cp) py x2 py-cp zone	0 10 20 30 40 50 60 70 80 90	<.5		260	60	67					.05
251'	LEUCOCRATIC ZONE (251'-330') med grn. equigran. rx = ~50 a/o	60 wk	60 60 x3 50 60+50 45 x3	1/4 1/10-1/20 x2 1/4 1/10 1/4+1/10 x2	py-cp + 1" py-ser (vein). py-py-ser x3 py-(cp)(Mo) py-ser-py py-ser-py-cp	0 10 20 30 40 50 60 70 80 90	.5		290	70	40					.12
	py, 30 a/o sous olpg ~10-15 a/o K'spar and < 2 a/o chl. - in places, very high cp content and rx is	60 wk	50 x5 60 60 60	1/20-1/10 x5 1/4 1/15 1/10	py (ser) py-cp x5 py-(ser) py (cp)(Mo) py-ser-py py-ser-py	0 10 20 30 40 50 60 70 80 90	.5		297	70	70					.10
	predom. epidote green rather than the normal pale grey. —	60 wk	60 x2 60 x2 50	1/4+1/10 1/10 x2 1/4	py-ser-py x2 py-py x2 py-chl-py	0 10 20 30 40 50 60 70 80 90	<.5		277	93	83					.08
	some "patches" of Mine Phase		60 x2 70 70	3/8+1/10 1/4 1/10	py-chl-py x2 py py-ser-py	0 10 20 30 40 50 60 70 80 90	<.5		287	95	77					.05

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 247
SHEET No. 6 of 9

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation / Alteration / Geology / Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Diesels	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	60 WK	320	60 45 45 45×7 50	3/8" 1/8 1/8 1/20-1/10×7 1/8	qt3-pyrite chl qt3-py×7 qt3 (chl)	0 10 20 30 40 50 60 70 80 90	.5		327	98	43					.05
hybrid rx - between [illegible] phase and [illegible]	30 WK	310	60×12 60 60 70	1/20-1/10×12 1/4 1/10 1/4	qt3-chl-py×12 qt3 ((Mo)) qt3-chl-py qt3 (Cap)	0 10 20 30 40 50 60 70 80 90	.5		317		20					.05
hybrid rx - as above	45 WK-Mod	320	45 40 45×2 45×4 45-40	1½" 1/8 1/5-1/4 1/20-1/16×4 1/2-1/8	qt3-ser-py qt3-ser-py qt3-ser-py×2 qt3-chl-ep-py×4 qt3-ser-py×2	0 10 20 30 40 50 60 70 80 90	1.0		310	95	43					.05
839'	ND	330	50×3 40 45×3 10	1/20-1/20×3 1/4 1/20×3 1½	qt3-chl-py qt3-py qt3-ser-py×2 qt3-chl (vug)	0 10 20 30 40 50 60 70 80 90	<.5		322 327	75	10					.05
MIXED ROCK PHASE (330'-466') resembles a hybrid phase - complex	ND	340	35 45 60 40+70 40	1/4 1/10 1/20 1/4×2 1"	qt3 (vug) chl-py qt3-chl-py qt3-ep×3 qt3-ep	0 10 20 30 40 50 60 70 80 90	<.5		337	90	33					.05
mixture of leucocratic rx and Mine Phase plus a Transitional type (~10% chl.) resembling Granite Mtn Phase, but fine - med grn.	ND	350	? 45 60×3 50+60	8" 1/10 1/4+1/8×2 1/4+1/10	qt3-ep qt3-py qt3-ser-py qt3-ser-py	0 10 20 30 40 50 60 70 80 90	1.0		344 348	85 80	50					.05

GRID _____ GIBRALTAR MINES LTD. HOLE No. 82-1
SHEET No. 2 of 9

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Sketch	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Direct	Estimated Core Recovery %	P O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	ND		340		35 45 70 70	1/10 1/4 1/20 1/10	qt_3-chl (py) qt_3-chl (py) qt_3-chl (py) qt_2-chl-py-cp	0 10 20 30 40 50 60 70 80 90	<.5		340+	95	50						.05
	MD		370		45 +20 5+15 70	1/8 - 1/4 1/4 ± 1/10"	qt_3-chl-cp + qt_3 qt_3-cal qt_3-chl-py	0 10 20 30 40 50 60 70 80 90	<.5				47						.10
	70 WK		380		70 35 70 40	1/16 1/8 2" 3'	qt_3-chl-py qt_3 qt_3-chl-carb-py qt_3-ser-(chl) ((py))	0 10 20 30 40 50 60 70 80 90	.5		377	70	48						.04
	ND-60 WK-Str.		390		50 70 80 x 5 65 60	1/8 1/10 hle x 5 3" 6" 6"	qt_3-py qt_3-chl-py qr_3-chl-py x 5 qt_3-cp qg-br qt_3-chl (cp) zone	0 10 20 30 40 50 60 70 80 90	.5		388 389	80 55	30						.06
	60-70 WK		400		60 x 4 70+80 5" 70 x 2 80	1/8 x 4 1/10 x 2 1" 1/8 x 2 1/4	qt_3-ser-py x 4 qt_3-chl-py x 2 qt_3-chl-vug qt_3-ser-py qt_3 (cp)	0 10 20 30 40 50 60 70 80 90	1.0		400	70 70	40						.03
	60-70 Sl. Cren Str.		410		60-70 70 x 3	7' 1/2" & 1/10 x 2	qt_3-ser-chl-carb-py-(cp)((mol)) zone qt_3-ser-py-cp x 3	0 10 20 30 40 50 60 70 80 90	2.0		405±	80 90	27						.25

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 34-7
SHEET No. 3 of 9

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration, Fractures, Stringers	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Drilled	Estimated Core Recovery %	R.Q.D.	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	? weakly Folded (?)	420	5° 90 45×2 5 70 30&90	1/8 1/4 1/10×2 2" 1/2 1"×2	qtz-cp (Mo) qtz-ser-py qtz-chl-cp ×2 qtz-chl-carb-py-cp qtz-chl-ser-carb-cp qtz-chl-vug ×2	0 10 20 30 40 50 60 70 80 90	1.0				33					.25
	ND	430	15 40 40 70+80 5 80	10" 1/20 1/4 1"+2" 1/10-1/4 2"	qtz-chl-ser (py)(cp) zone qtz-cp qtz-py qtz-cp ×2 qtz-carb-hem-gg-py qtz-cp	0 10 20 30 40 50 60 70 80 90	.5			427	45	43					.12
	ND	440	45 45 70? 80	1/10 2½ 3' 2"	qtz-py qtz-cp qtz-cp-leucocratic zone qtz-cp zone	0 10 20 30 40 50 60 70 80 90	<.5			438	85	47					.05
	ND	450	70 45 5? 50 40 <	2" 1/8 6" 1" 1/2 1/10	qtz-cp zone qtz-ser-py gg-bx gg gg gg-hem	0 10 20 30 40 50 60 70 80 90	<.5			445	80	25					.05
	ND	460	25 45 25 5? 70 30-50×5 80	1/4 1/8 2" 2" 1/4 1/10×3 1/4	qtz-chl-carb py qtz-py-cp qtz-chl (vug) qtz-chl (vug) qtz-vug qtz-chl-py ×5 qtz-vug	0 10 20 30 40 50 60 70 80 90	.5			451 457	90	47					.05
466	ND		70 40 35+70	1/8 1/4" 1/10 ×2	qtz qtz-cp(Mo) qtz-chl (py)(cp) ×2	0 10 20 30 40 50 60 70 80 90	.5			462 463½	95 75	7					.15
	?	470	?	4'	gg-bx-lost core					470	20					

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-7
SHEET No. 9 of 9

ROCK TYPES & ALTERATION			∠ to Core Foliation	GRAPHIC LOG: Foliation, Alteration, Footage, Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE; REMARKS	Footage Blocks	Estimated Core Recovery %	POD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Calculated Grade
		MAJOR FAULT ZONE (466-480) EOH 480'		480	?	10'	qq-br-lost core	0 10 20 30 40 50 60 70 80 90	?		480	30	0					?
		G. D. Bysouth						0 10 20 30 40 50 60 70 80 90										
								0 10 20 30 40 50 60 70 80 90										
								0 10 20 30 40 50 60 70 80 90										
								0 10 20 30 40 50 60 70 80 90										
								0 10 20 30 40 50 60 70 80 90										

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-09
SHEET No. 1 of 3

LOCATION Pollyanna West | BEARING — | LATITUDE 50094.00 N | CORE SIZE N.Q.W. | LOGGED BY G.D.B.
DATE COLLARED May 25, 1984 | LENGTH +50' | DEPARTURE 51842.00 E | SCALE OF LOG 1" = 10' | DATE June 4, 1984
DATE COMPLETED May 27, 1984 | DIP -90° | ELEVATION 3811.00' | REMARKS This hole intersects the Granite Mtn. Contact.

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP — / LOW. ZONE 88 (weak) / SUPERGENE —	REMARKS	Footage Blocks	Core Recovery %	GEOLOGICAL BRANCH ASSAY RESULTS: Sample Number	% Cu	% Mo	PPB Au	Estimated Au
Casing To 40'			40									40						
MINE PHASE QUARTZ DIORITE (40' - 79') typical Mine Phase	ND		50	40 ± 2 ± 45 40 ± 10 45-50 × 2 4 × 2	1/10 + 1/4 - 1/8 hle × 2 1/10 × 3 1/10 × 2	qtz-chl-py × 3 lim × 2 qtz-chl-py × 3 qtz-chl-py × 2		1.5			43 47	60 85	50	33701				.10
- 30% qtz - 15% chl. - 45% saus plag - meg grn.	ND		60	5 60 × 3 70 55 60-70 × 2 8 ± 20	hle × 2 1/10 1/4 × 3 1/10 × 2 1/10 hle-1/10 × 4 1/20 × 2	lim × 2 qtz-chl-ser-py (cp) × 4 qtz-ser-py × 2 qtz-chl-py qtz-chl-py × 4 qtz-chl-py × 2		2.0			52½ 57	95 95	33	33702				.12
leucocratic zone with gradational contacts.	70 str		70	80 5 × 2 45 45 40	1/10 1/20 × 2 1/10 1/10 1/10	qtz-chl-py green qq × 2 qtz-chl-py qtz-chl-py vuggy corr and alt'n chl-py (cp)		1.0			63 67	90 80 85	17	33703				.10
75	75 str		80	70 Bm	1/8 × ∞	qtz-py qtz broken, lim stained vuggy core		5			72½ 78	60 90	10	33704				.08

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GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-09
SHEET No. 2 of 3

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation, Alteration, Fracture, Stringers	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	P Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
QUARTZ-CARB-SERICITE ZONE (79'-92')	5-80 Str. foland & Gren.	90	5-80	12'	qt3-carb-ser-py zone lim stained vuggy zone - py mainly confined to several large shears.		3.0		81.2 85 92	85 75	43	33705				.12
DARK ALT'N PHASE 95 MINE PHASE QUARTZ DIORITE	80 Str.	100	70 x 2 40 30 40 30+20	1/8 x 2 1/8 1/16 1" 1/4 + 1/8	qt3-chl-py ((cc)) x 2 qt3-carb-py qt3-chl-py green qq qt3-py (cc) x 2		2.0		100		47	33706				.14
(95 - 201') . typical Mine P. sous. alt'n except where noted.	ND	110	20 x 2 60 x 3 15 x 2 20 x 2 60 x 2 5 40 40 x 3	1/4 + 1/10 1/10 x 3 1/8 + 1/4 1/10 x 2 3" + 1/4 1/16 5" 1/10 x 2 + 1/4	qt3-chl-py x 2 qt3-chl-py x 3 qt3-chl-py x 2 qt3-chl-py x 2 qt3-ser-py (cp) x 2 qt3-chl-py qt3-ser-carb (chl)-py (cp) qt3-ser-py x 3		4.0		107	95	27	33707				.16
dk alt'n	ND	120	45 x 2 20 x 2 60 40 x 6 60+50 30 45	1/10 x 2 1/8 x 2 1/4 1/4 - 1/10 x 6 1/2 x 2 6" 10"	qt3-chl-carb-vug-py x 2 qt3-chl-py x 2 qt3-chl-carb-py qt3-chl-carb-vug-py x 6 qt3 x 2 qt3 (chl) qt3-ser-carb-py		3.0		112 117 120	75 98 90	37	33708				.12
	ND	130	40 x 2 45 x 2 30 40	1/10 x 2 1/4 x 2 2" 1/10	qt3-chl-carb (py) x 2 qt3 (chl)-carb-py x 2 qt3-vug. qt3-chl-py		1.0		124 129	78 90	27	33709				.08
dk alt'n		140	30 45 70	1/4 45°	qt3-chl-py chl-ep qt3 (chl)-py		.5		137	85	27	33710				.04

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-01
SHEET No. 3 of 3

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE; REMARKS	Footage Discrete	Estimated Core Recovery %	P O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	NB	150	90 5 10x2 10 70 70x3 15	1/8 1/4 1/10x2 1/10 2" 1/20x3 1/4	qtz-py qtz-chl-carb-py qtz-chl-py (cp) x2 qtz-carb-py (cp) qq qtz-chl-py x3 qtz-chl-carb-py		2.0		42 147	95 50	17	33711				10
	70 WR	160	30? 30+60 5? 50 45+40+50	24"? 1/10+1" 6" 2" 1/10x3	qtz-ser-chl-py(cp) zone qtz-chl-py (cp) x2 qtz-chl-vug. qtz-chl-(py) vug. qtz-chl-py x3		1.0		192 197	85	50	33712				08
	70 WR	170	60+50x3 60+20+30 60x2 20 30 45x3+5 60x2+3	1/10+1/8x3 1/8x2+1/10 1/4 1" 1/4 1/10x4 1/10x3	qtz-chl-py x4 qtz-chl-py x3 qtz-ser-py qtz-chl-py (cp) qtz-chl-cp qtz-chl-py (cp) x4 qtz-chl-py x3		2.5		195	95	33	33713				.12
	ND	180	45x2+30+40 60+20x2 35x4 60 45 20 20	1/10x4 1/4+1/10x2 1/20-1/8x4 1/5 2 1/8" 2" 1/4	qtz-chl-py x4 qtz-chl-py x3 qtz-chl-py x4 qtz-(chl)-py qtz-chl-ser-py qtz-py qtz-chl-py-cp		2.5		175½	95 95	27	33714				.15
		190	60+70+80 20 40 30 45x8 20x2 45x3	1/10+1/8x2 12" 1/4 1/8x2 1/5-1/4x8 1/10x2 1/4+1/8x2	qtz-chl-ser-carb-py x3 qtz-ser-py qtz-carb-(chl)-py qtz-chl-py (cp) x2 qtz-ser-py qtz-chl-py qtz-chl-ser-py (cp) x3		4.5		182 187	95	13	33715				.14
Fault		200	30x2+20x2 40 80 ?	1/10x4 1/8 6" ?	qtz-chl-py (cp) x4 qtz-py (cp) (chl) qtz-cp-py qq-bx-10% carb qtz-chl-cp (py) 30% @ chl-carb (cp) 30% @		1.5		193 197	50 30 90	10	33716				40

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-09
SHEET No. 4 of 3

ROCK TYPES & ALTERATION			∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	GRAPHIC LOG: Fracture	GRAPHIC LOG: Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	R.Q.D.	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
		201'					70-80	½ x 2	qt3 x 2											
		LEUCOCRATIC ZONE (201'-219') zones of typical leucocratic rx. alternating with	ND				45	⅕	qt3-chl-py-cp		.5		205		20	33717				15
							70	2"	qt3					60						
						210	45	⅕	qt3-ser-cp				229							
		hybrid mine phase and rx. resembling the gen Granite Mtn. Phase.	ND				45	1/20	qt3-chl-cp		.5		215	30	13	33718				.20
							40 x 2	1/20 x 2	qt3-chl-py(cp) x 2											
							35	1/10	qt3-chl-cp											
		219'					50	¼"	qt3-(cp)(Mo)					55						
							40	¼	qt3-chl-(Mo)(cp)				219							
						220	45	1"	qt3-chl-cp (Mo)											
		MINE PHASE QUARTZ DIORITE (219'-284')	ND				70	⅕	qt3-chl-cp (Mo)											
							45 x 3	1/10 x 3	qt3-chl-cp x 3					95						
							5	1/10	qt3-chl-py (cp)		.5				37	33719				.25
							45 x 2	⅛ + 1/10	qt3-chl-cp x 2				227							
							30	⅛	qt3-chl-cp											
						230	40+45+60	1/20 x 3	qt3-chl-py x 3											
							40?	12"	qt3-ser-(cp)					75						
		Typical Mine Phase					4 x	¼	qt3-chl-cp				233							
			ND				70 x 2	⅕	qt3-chl (veg) x 2		<.5				23	33720				.18
							60	⅕	qt3-ser-cp					70						
							5	1/10	qt3-chl-cp				239							
						240	40 x 2	1/20 x 2	qt3-chl (cp) x 2											
							20?	24"	qt3 - ser3 (chl) (cp) zone					50						
							45 x 3	1/10 x 3	qt3-chl-cp x 3				242							
			ND				60 x 2	½ + ⅛	qt3-ser-chl-py-cp x 2		<.5			30	20	33721				.30
							?	3"	qt3-cp-Mo											
							?	1/10	qt3-chl-cp				247							
								4'	bx - lost core											
							60 x 2	½ + 1"	qt3-chl (cp) zone x 2											
						250	?	~4"	qt3-chl-cp					50						
							60 x 2	V to A?	qt3-ser-py-cp				253							
							?	⅛	qt3-chl-py											
							45	¼	qt3-chl-cp											
							5 - 45 + 50	1/10 + ¼ - 1/10	qt3-chl-py-cp x 3		1.5			40	7	33722				.25
							30 x 2	1/10 x 3	qt3-chl-py-cp x 3				257							
							35 x 3	1/20 - 1/10 x 3	qt3-chl-py-cp x 3											
						260	?	1/10	qt3-ser + py (cp)											

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 33-29
SHEET No. 5 of 7

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Alteration	GRAPHIC LOG Footage	GRAPHIC LOG Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Blocks	Estimated Core Recovery %	P O D	ASSAY RESULTS Sample Number	% Cu	% Mo		Estimated Grade
	70 to 70 Str.		270		35±3 60±3 5 45 70-80	1/16±3 1/20±3 1/40 1/8 40"	qtz-chl-cp ±3 qtz-chl (cp) ±3 qtz-chl (cp) qtz-ser-cp qtz carb-(ser) vnt	0 10 20 30 40 50 60 70 80 90	.5	275	60 70	17	33723				.15
	70 Str.		280		45±60 5±2 35±2±60 5 45 30±5 30±60	1/10±1/4 1"±1/2 1/4±1/10±1/4 1/2 1/2 1/4 ±2 1/10±1/4	qtz-chl-cp ±2 qtz-cp ± qtz-chl-cp qtz-chl-cp ±3 qtz-chl-cp qtz-cp (mo) qtz-chl-carb-cp ±2 qtz-chl-cp ±2	0 10 20 30 40 50 60 70 80 90	<.5	280	75	17	33724				.40
284					55 75	1/2 1/2	qtz-chl-cp qtz-cp (mo)	0 10 20 30			85						
	80 Str	LEUCOCRATIC ZONE (284'-309')	290		80 70±2 40±3	1/2± 1/2±2 1/10 ±3	chl-py qtz±2 qtz-py-cp	40 50 60 70 80 90	.5	286	95	30	33725				.18
	80 WK	Similar to that of 201-214'.	300		20 ±3 10 70 60 20 5	1/10±3 1/2 1/5 2" 2" 6"	qtz-ser-py ±3 qtz-carb-py qtz-cp (vug) qtz qtz (cp) qtz	0 10 20 30 40 50 60 70 80 90	<.5	293 295 299	78 90	47	33726				.18
309	70 WK		310		75±2 45 45 70 ? 70	1/16±2 1/2 1/10 3" 1/2 10"	qtz±2 qtz qtz-chl-cp qtz (cp) qtz qtz	0 10 20 30 40 50 60 70 80 90	<.5	307	45	53	33727				.14
	70 WK	MINE PHASE (309'-341') typical vx	320		45±2 40±30 20 60±2 70±2 35±2	1/16±2 1/20±2 2" 1/10±1/16±2 1/4±1/16±2 1/10±1/16±2	qtz-chl-py ±2 qtz-chl-cp ±2 qtz-chl-py ±2 qtz-chl-py ±2 qtz-chl-py (cp) ±2 qtz-chl-py ± chl-cp ±2	0 10 20 30 40 50 60 70 80 90	1.0	311½ 315 319	85 95 98	17	33728				.15

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-89
SHEET No. 6 of 8

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Alteration	GRAPHIC LOG: Fracture	GRAPHIC LOG: Siliceous	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Distance	Estimated Core Recovery %	P O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	ND				60±20 30±2 45±5 40±4 40±33 80? 45±35	¼±1½ ¼±1/10 1/10-1/20±5 1/10-1/4±1/20±2 1/10±2 24° ⅛±1/10	qtz-chl (cp)±2 qtz-chl-cp±2 qtz-chl-py (cp)±3 qtz-chl-py (cp)±4 qtz-chl-py±2 qtz-ser-carb-py-cp zone qtz-chl-py (cp)		1.5	325 332 339	35 70 65	13	33729				.25
	ND				35±3 50 35±3+45±2 45 5-10±2 30?	⅛-¼±2 ¼ 1/10-¼±4 ¼ 1/10±2 8"	qtz-chl-py-cp±3 qtz-chl-cp qtz-chl-py-cp±5 qtz-chl-cp qtz-chl-carb-py-cp±2 qq		1.5	332.5 339	15 85	3	33730				.25
341 LEUCOCRATIC ZONE (341-392') - grades from typical leucocratic rx to seriate type rx. with 5-10% chl. - generally equigran. med. grn. but finer grn than Rhine Phase	ND				60±2 40 30 60 60+30 10 5852 20 40 35-60±4 60 " 35 40 35±3 20 40±2 35 60 60±40	⅛±2 ⅛ ½ ½ ¼±1" 1/10 30" ¼±2 1/10 12" ¼-1/10±4 ⅛ 2" 1" ⅛ ⅛ ¼±2 3" 1/16±2 1"±2 1/10 1" ⅛±2±1/10±2	qtz-(chl) (cp)) ±2 qtz-cp qtz-cp qtz (cp) qtz±2 qtz-chl-py (qq)-bx (hem) qtz-chl-carb-cp±2 qtz-chl-py bx (qq)-hem qq±4 qtz-py qtz-cp qtz-chl-cp qtz-chl-cp (cp) qtz-carb qtz-chl-py±2 qtz-cp zone qtz-chl (cp)±2 qtz-cp + qtz (cp)) qtz-chl-cp qtz (cp) qtz (cp)-cp±2		2.5 .5 .5 .5	Very poor structure - just several large veins	345 347 353 355½ 360 367 373½ 377	90 15 90 50 80 90 95 95	17 20 20 20	33731 33732 33753 33734				.30 .15 .14 .25

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-09
SHEET No. 7 of 8

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Blocks	Estimated Core Recovery %	RQD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	70 Str		395		80 ± 4 70 ± 9 ? ? 70	1/20 x 4 1/20 x 9 12" 2" 1/2	qt3-chl-py-cp ± 4 qt3-chl-cp ± 4 qt3-(ser)-(Mo)((py)) qt3-ser (Mo) qt3-carb		.5	384 395.5	78 40 95	23	33735				.15
392'					45 70 x 4	1/2 1/10 x 3	qt3-cp qt3-chl-cp x 3			391							
MINE PHASE (392'-425')	60 Mod		400		30 45 50 70 60	1/2 1/8 1/10 1/20 1/3	qt3-carb (cp) qt3-chl-cp qt3-py qt3-chl-cp qt3-chl (vug)		.5	398 401	75 90	17	33736				.18
	70 Wk		410		45 x 2 60 x 2 50 x 3 45 70 65	1/10 + 1/8 1/4 + 1/10 1/20 - 1/10 1/2 2" 2"	qt3-chl-cp x 2 qt3-chl-py-cp x 2 qt3-chl-py-cp x 2 qt3-chl-cp qt3-py qt3-ser-py		1.0	407 410	90 95	17	33737				.20
	70 Mod		420		80-60 80 70 55 70	1/4 x 2 1/2 1" 1" 6"	qt3-chl-cp x 2 qt3-chl ((cp)) qt3-chl-carb-cp qt3-cp ((Mo)) qt3-chl-ser-carb ((Mo)) x 30%		.5	413 419	95 85	23	33738				.15
					70 x 3 50 x 2	1/4 + 1/10 x 2 1/10 x 2	qt3-chl-(py) x 3 qt3-chl-cp x 2			425	98						
GRANITE MTN PHASE QUARTZ			440		50 x 3 60	1/20 x 3 1/4	qt3-chl-py-cp x 3 qt3-ser-carb-cp		.5		90	13	33739				.15
DIORITE (425-450') med. grn. with some coarse grn phases 45%-50% qt3 1-10% chl.					65 30 ? 30	1/8 1/2" 2" 2"	qt3-ser-py qt3-chl (vug) qt3-chl (vug) (cp) qt3-(Mo)(cp)		<1%	431 437	80 60	7	33740				.12

veins are often indistinct - pass. silicification

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 44-21
SHEET No. 3 of 3

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	GRAPHIC LOG: Fractures	GRAPHIC LOG: Stringers	Values ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	P O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
- very conspicuous qt3 - 3' leucocratic zone at contact	ND			450	60± 45 45	1/4-1/10 1/20 1/10	qt3 (chl.) cp +s qt3-cp qt3-cp		<.5	drillers report fault at 444½ which caused the rods to tighten up preventing further drilling	441 444½ 450	95 13	43	33741				.14
EOH 450' G.D. Bysouth																		

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-10
SHEET No. 1 of 8

LOCATION Pollyanna West | BEARING — | LATITUDE 500 35.00 N. | CORE SIZE N.Q.W. | LOGGED BY G.D.B.
DATE COLLARED May 27, 1984 | LENGTH 503' | DEPARTURE 516 11.00 E. | SCALE OF LOG 1" = 10' | DATE May 29, 1984
DATE COMPLETED May 29, 1984 | DIP -90° | ELEVATION 3819' | REMARKS This hole intersects the Granite Mtn. contact.

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP — / LIM. ZONE — / SUPERGENE / REMARKS	Footage Distance	Estimated % Sulphides	Sample Number	% Cu	% Zn	% Pb	Estimated Au oz/T
Casing To 64' hole was collared on blasted ore in pit 64'																	
MINE PHASE QUARTZ DIORITE	70 Wk-Mod		70	15 45×2+35×3 50 25×3	1/10 1/10×2+1/20×3 8" 1/4+1/8×2		qt3-chl-py qt3-chl-py×3 qt3-ser-py(cp) qq×3		1.0		64 67	95	33651	.08	<.002		.12
(64-187) 16' leucocratic zone 25% qt3 25% chl 45% sauss. plag. med grn.	70 Wk		80	40×2 30×2 45 5 50+60 15-20×4 5	1/10×2 1/10×2 1/10+1/20 1/4 1/10+1/5 1/20×4 1/8		qt3-chl-py×2 qt3-chl-py×2 qt3-chl-py-cp×2 qt3-ser-carb-py(cp) qt2-chl-py(cp)×2 qt3-chl-py×4 qt3-chl-py		1.5		72 77	90 80	33	33652	.16	<.002		.15
Sauss. alt'n phase	60 Wk		90	15×2+30 60+60 15×3 20×2 30+45 45+30 2×2 5×2+20 20-	1/10×2+1/8 1/4+1/10 1/10×3 1/10×2 1/8+1/4 1/10+1/4 1/4+1/10+1/4 1/20		qt3-chl-py(cp)×3 qt3-chl-py(cp)×2 qt3-chl-py(cp)×3 qt3-chl-py(cp)×2 qt3-chl-py-cpx2 qt3-chl-py-cpx2 qt3-chl-py-cpx2 qt3-chl-py-cpx3 qt3-chl-py-cp		2.0		83 87	95 85 95	60	33653	.34	.002		.35
	60 Wk		100	30+45+20 5+70 15×2 60 40-45×3 30+45+20	1/2+1/4+1/8×2 1/10+1/8 1/4+1/8×2 1/10 1/10×3 1/20×3		qt3-ser-py×3 qt2-ser-py qt3-ser-py(cp)×2 qt3-ser-cp(cp) qt3-chl-py×2 qt3-chl-py×2		2.0		90½ 97	95 85	27	33654	.11	.006	.18 3725	.15

GEOLOGICAL BRANCH ASSESSMENT REPORT
12,452

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-10
SHEET No. 2 of 3

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration Footage Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	P Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	N.D.	120	35×2 40 30+35×2 5×2 45×4 45×2 60+20+60 15×2	½+⅒ ½ 1°+¼×2 ⅛+⅛ 1/10×4 1/10×2 ¼+1/10+½ 1/10×2	qt3-ser-py ×2 qt3-ser-py (cp) qt3-ser-py ((cp)) ×3 qt3-chl-py qt3-chl-py ×4 qt3-chl-py×2 qt3-chl-py ×3 qt3-chl-py ×2		2.0		101 123	35	13	33635	.14	.009		.15
	N.D	120	90 25 45+35×6 60×3 35×2 55+70 20×2 40×2	2° ⅛ ⅛+1/20×6 1/20×3 ⅛×2 ⅛×2 1/20° 1/10×2	qt3-ser (py) qt3-ser-py qt3-chl-py (cp) ×6 qt3-chl-py×3 qt3-chl-py (cp)×2 qt3-ser-py ×2 qt3-chl-py qt3-chl (py) ×2		2.0		115½	35	13	33636	.13	.009		.15
	N.D	130	20×4 45-35×6 70 90 ×2 35+5+35 50+45×2 35	1/10×2 1/20-⅛×6 ⅛ 1/10×2 1/10+¼+1/10 1/10×4 ⅛	qt3-chl-py ×4 qt3-chl-py (cp)×6 qt3 qt3-chl-py×2 qt3-chl-py (cp)×3 qt3-chl-py qt3-py		1.5		125 130	95 95	37	33657	.10	.002		.12
	N.D	140	20×3 20×6 15 10-5×4	¼+¼+⅛ ⅛-1/10×6 1° ¼-1/10×4	qt3-chl-py×3 qt3-chl-py×6 qt3-ser-py(cp) qt3-chl-ser-py ×4		2.0		137	95	50	33658	.10	.009	.12 3680	.12
	N.D	150	5 10 10×3 5-10×6 5-10 15×5	¼ ⅕ 1/10×3 1/10 A6 ½ ⅛+1/100	qt3-(chl)-py qt3-py (cp) qt3-chl-py(cp)×3 qt3-chl-py ×6 qt3-ser qt3-chl-py (cp)×2		2.5		142 150½	98	50	33659	.16	.002		.15
	N.D	160	5 20 60 40 5	5° 1° 1½° 1½° 1/10	qq-bx qt3(vein) qt3-ser-carb-py qt3-chl (carb) cp zone qq		1.0		157	95	50	33660	.11	.002		.10

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-10
SHEET No. 3 of 9

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Drilled	Estimated Core Recovery %	P O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
187'	N.D.		110	5-10 x 2 5-15 x 3 45 x 2	1/10 x 2 1/8 - 1/10 x 2 1/10 x 2			1.0		30	33661	.09	.002		.12
LEUCOCRATIC ZONE (169-187) generally a med. gra. equigranular rx some inclusions of host rock. 187'	N.D		130	80 45 35 5+3 = 20 40	3" 1/4 1/2 1/10 x 3 1/2	qtz qtz-py qtz-chl-py qtz x 3 qtz-chl-py		.5		37	33662	.07	.002		.08
	ND			40 35 x 2 60 ? 60+50+75	1/8 1/4 - 1/2 1/2 8" 1/10 x 3	qtz-py (vug) qtz-chl-py x 2 qtz-chl-ser-py qtz-py (cp) (Mo) qtz-chl-py (cp) x 3		1.0		37	33663	.09	.020	3635	.10
MINE PHASE (187-285 Sour Alt'n.	ND		190	45 x 2 60 20 15 60 45 70 x 2	1/10 x 2 1" 1/4 1/2" 2" 1" 1/5 1/4 x 2	qtz-chl-py x 2 qtz qtz-cp qtz-cp-Mo qtz-cp-chl-cp qtz (cp) qtz-chl-py (cp) qtz-chl-(cp) x 2		.5		43	33664	.27	.029		.25
	ND		200	25 25 35 x 2 60 5 60 60 5 10	1/2 2" 1/8 - 1/10 2" 1/10 1/2 2" 1/4 1/4	qtz-chl (cp) ep-(qtz) qtz-chl-py-cp x 2 qtz ((cp)) qtz-chl-py qtz ((cp)) qtz qtz-chl-carb-py (cp) qtz-chl-carb-py-cp		1.5		43	33665	.11	.004		.20
	ND		280	60 60 ? 60 x 3 40	1/8 1 1/2 1/10 1/2 x 1" x 2 1/10 - 1/8 x 3	qtz qtz-chl qtz ((cp)) x 2 qq-carb		<.5		30	33666	.07	.004		.08

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 74-13
SHEET No. 4 of 8

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation/Alteration	GRAPHIC LOG Footage	GRAPHIC LOG Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Distance	Estimated Core Recovery %	P O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	ND		230		30 60 10-20 x 4 35 x 3 40 40 x 5	30" :" ¼-⅒ x 4 1/20 x 3 ⅛ ⅛ - ⅛	qg-bx qt3-chl (vug) (cp) qt3-chl-cp x 4 qt3-chl-cp x 3 qt3-chl-cp qt3-py + qt3-chl-py		1.0		235 237	95	13	33667	.22	.008	.16 3590	.18
Fault	ND		240		35 x 2 40 x 3 35 ?	1/10 + ½ 1/10 x 3 ¼ - ⅓ 14" 41"	qt3-chl-py-cp qt3-chl-py x 3 qt3-chl-(py)(cp) x 2 qg qg-bx		1.0		239	75 10	27	33668	.16	.009		.15
	ND		250		90 50+5+15 50 35 20 5 ?	1" ¼+⅛+¼ ⅓ 6" ½ ¼ 6"	qt3-cp (Mo) qt3-chl-cp x 3 qt3-(chl)-(py)-cp ((Mo)) qt3-cp qt3-chl-py-cp qt3-chl-cp cp-qt3 zone		.5		241 246	15 90	28	33669	.35	.006		.25
	ND		260		70 50 25+3+ ? 40	1" ¼ + ⅒ ⅒ x 2 12" ⅒	py-(cp) (Mo) qt3-chl-(cp) x 2 qt3-chl (cp) x 2 qt3-chl-carb (cp) zone qt3-chl-cp		.5		251 257	95	23	33670	.18	.004		.20
	ND		270		20 15 60 30 40 55 45	⅛ ¾ ⅒ 1/12 ⅛ 1"	qt3-chl-cp (pv) qt3-cp qt3-chl-cp qt3 (cp) qt3 (chl) cp ((Mo)) qt3-chl-cp qt3-chl-cp		4.5		263	98 96	27	33671	.43	.018	.28	.40
Fault zone 275-285'	ND		280		45 15 x 2 60 ?	24" ⅒ x 3 ⅓ 5'	qt3-ser (cp) zone qg as carb" qg-bx		2		273 278	90	13	33672			3575	?

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-10
SHEET No. 5 of 8

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation, Alteration, Footage, Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE; REMARKS	Footage Blocks	Estimated Core Recovery %	P O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
285 CHLORITE ZONE	ND	285	?	5'	bx (qtz)		<.5		285	5%	3	33673				.12
			45	¼	chl											
		290	50	3'	chl-carb (qtz) (cp) zone											
(295'-308') some of shearing and chlorite alt'n - numerous ⅛"-½" dia. "eyes" or lenses of qtz-carb (cp)	80 Mod-Str	360	80	10'	cal-carb (qtz) ((cp)) zone - cp mainly in qtz-carb lenses		<.5		295	75%	23	33674				.13
- small zones of Mine Phase are converted to dark alt'n phase. 308	80 str		80	3'	chl-carb (qtz) ((cp)) zone - cp disseminated in qtz-carb. lenses		<.5		308	75	13	33675				.25
		310	80 <2	1"x2	qtz-chl-cp <2											
MINE PHASE (308 - 340) Sauss. Alt'n but strong chl. alt'n and vugg.-type mineralization	ND		80	30"	qtz-chl-(carb)(cp) zone		1.0		316½	35	30	33676			3500	.30
			60+70	¼+⅕	qtz-chl-cp x2											
			10x3	⅒x3	qtz-chl-py-cp x3											
			60	⅛	qtz-chl-cp-py											
			70+60x2	⅒x3	qtz-chl-cp x3											
		320	50+40	⅒x2	qtz-chl-cp x2											
	ND		5-20x3	⅒x3	qtz-chl-cp x3		.5	~1" solid cp	327	90	23	33677				.70
			45?	3"	qtz-ser-carb-cp zone											
			60x6	⅒-1/20x6	qtz-chl-py-cp x6											
			60+3	⅒x2	qtz-chl-cp x2											
			40	1"	qtz-ser-cp											
			45	3"	qtz (ser)-cp											
		330	45	"	qtz (chl)-cp											
	ND		45	⅒	qtz-chl-cp		.5		329	95	13	33678				.20
			45 x2	⅒x2	qtz-chl-cp x2											
			60	1/8"	qtz-chl-cp (py) (cp) zone				338	90						
		340														

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-13
SHEET No. 6 of 8

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE | REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation, Alteration, Footage, Structure	Vein ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Footage Disposal	Estimated Core Recovery %	ROD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
QUARTZ CHLORITE ALT'N ZONE (340-358) sl. sheared, vuggy no sulf., sli.	ND	350	60×2+5 25 60×3 40 60-70×4 70	1/10×3 1/4 1/20-1/10×3 1/8 1/10×4 2"	qt3-chl-cp <5 qt3-chl-cp qt3-chl-cp×3 qt3-chl-cp qt3-chl-cp×4 qt3-chl-cp (Mo)		<.5		344 348	30 70	10	33679				±0
brecciated, original texture obscured				20"	qt3-chl-ser (cp) zone				350	30						
QUARTZ-EPIDOTE ALT'N ZONE (353-363) 1-3" dia clots of cp in leucocratic matrix	ND	360	45 40	2" 1/4	qt3 (ser)-cp (Mo) qt3 (chl)-cp		<.5	1/2" cp	356 358½	50 50	7	33680				.25
			50×2	1/10×2	qt3-chl-cp×2					80						
GRANITE MTN. PHASE QUARTZ DIORITE (363-503) - 45% qt3 - 10% chl - 40% sauss. plag. med grn. equigranular	ND	370	70×3 70×5	1/20-1/10×3 1/10-1/4×5	qt3-chl-cp×3 qt3-chl ×5		<.5		364 369	95	43	33681			3455	.15
		380	35×3 50×3 40	1/8+1/4+1/10 1/10×3 2'	qt3-chl-cp×3 qt3-chl-cp×3 qt3-chl-ep zone		<.5		376 378	75 50	33	33682				.12
- occassional patches of typical coarse grn. Granite Mtn. Phase rx.	N.D.	390	70 80 ? 45 40	1/4 1/4 6" 1/4 1"	qt3-chl (cp) qt3 (cp) qq-bx qt3-cp (Mo) qt3-chl-cp		<.5		385½ 389	98 60	20	33683				.20
	ND	400	70 60×4 50× 45½ 45×3	2" 1/2-1/10×4 1/10×3 1/4-1/8 1/20×3	qt3-chl-cp (Mo) qt3-ser-py ×4 qq-bx qt3-(chl)-cp (Mo) ×2 qt3-chl-py ×3		<.5		393 397	90 80 85	40	33684				.15

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 34-3
SHEET No. 7 of 3

ROCK TYPES & ALTERATION			∠ to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — REMARKS	Footage Diamd.	Estimated Core Recovery %	P O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
					40	2"	qtz-ser-cp				401							
			ND		45 x 2 40 5	1/8 x 2 1/4 1/4	qtz-chl (py)(cp) qtz qq-hem		.5		403½	15	30	33685				.12
				410								75						
			ND		70 45 45 20 x 2	4" 1/4 1/10 x 2 1" x 2	qtz-cp qtz-cp qtz-chl-cp qtz x 2		<.5		415	25 75	30	33686				.14
				420														
			N.D.		5 35 55 5-30 x 3	1/5 1/5 2" 1/10 x 2 + 1/2	qq-hem qtz-cp qtz-cp qq x 3		<.5		421 426	18 90	29	33687				.25
				430														
					60 35 30 5	1/4 1/4 1/10 1/2"	qtz-cp qtz-cp qtz-chl-cp qq		<.5		431½ 435	95 95	17	33688				.20
				440														
					5 70 40 x 2 60	1/4" 1/4 1/8 x 2 2" 8"	qq qtz-(cp)(mo) qtz-chl-py x 2 qtz-ser (cp) qq-bx		<.5		442 447	90	20	33689				.12
				450														
					60 30 40 45 45 x 3	1" 2" 6" 1/10 1/4 x 2"	qtz qtz qtz (chl)(cp) cp ((mo)) qtz-chl (cp) cp (qtz)				455	95 50	23	33690			3365	.28
				460														

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 74-10
SHEET No. 3 of 3

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation / Alteration / Fracture / Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	P.O.D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	ND	470	45×2 60 45×3+80×2	1/16×2 6" 1/16+1/20×4	qtz-chl-py ×2 qtz qtz-chl ×5		<.5	Tube did not look.	467½	98	23	33691				.05
	ND	480	45 60 35 50 45 45	1/2 1/10 1/10 1/8 " 1/4 " 1"	qtz-cp qtz-cp qtz-chl (py) qq-hem qtz (chl) (py) qtz-qq		<.5		479		57	33692				.12
	ND	490	45×3 40 50×2	1/16×3 1/10 1/16×2	qtz-chl (py)×3 qtz-cp qtz-chl (py)×2		<.5		483	90	57	33693				10
	ND	500	45 60	1/2 2"	qtz-chl qtz-chl (vug)		<.5		494	98	70	33694			3326	.05
E.O.H 503'			15 45×8	2" 1/16×5	qtz-ser-cp qtz-chl (py)(cp) ×8				503							

L.D. Bywater

50000 55000 60000 65000

75000 70000 65000 60000 55000 50000

LEWIS LAKE

PLANT SITE

84-07 84-08 84-09 84-10

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,452

PURPLE GROUP
MINERAL CLAIMS
GIBRALTAR MINES LIMITED
23-NOV-83 SCALE=1:12000

0 1 2 3 4
FEET X 1000
0 500 1000 1500
METRES

FIGURE 2