DIAMOND DRILL REPORT

ON THE

PURPLE GROUP

Cariboo Mining Division
93 B / 9E & 9W

(Latitude 52° 30', Longitude 122° 16')

OWNER AND OPERATOR

GIBRALTAR MINES LIMITED

McLEESE LAKE, B.C.

Author: Madeline R. Thon

Submitted: October 24, 1990

Table of Contents

1. Introduction

The Purple Group of mineral claims forms part of the Gibraltar Mines permanent property and includes a large portion of the tailings pond. It also includes the northeastern corner of the Gibraltar East Pit and the northwestern and northeastern corners of the Pollyanna Pit. Access to the group is via the main haul road to the Pollyanna pit. The general location of the group is shown in Figure 1.

"The early history of this claim area is somewhat sketchy. It was first described as the Rainbow Group in 1918. A 1925 B.C. Ministry of Mines Report states the "T.H. Jackson holds or held 40 claims in this region, either under option or in virtue of ownership by himself and associates."

In 1925 the area was staked by the Hill brothers as the Pollyanna claims. A 60-foot wide shear system in "granodiorite", showing malachite and azurite mineralization, was exposed by a series of open cuts. An eight foot deep trench exposed a quartz vein 15 feet wide striking N 60° W (magnetic). A grab sample from the dump of this material assayed: gold - trace, silver - trace, copper - 3.5%. Copper mineralization was in the form of azurite, malachite, and chalcopyrite.

The 1928 report indicates five claims being held by F. Conway, Mrs. Conway, T. Thompson, H. B. Hill, and H. F. Hill. The shear system was expanded to a 75-foot width and given a strike and dip of N 55° W (magnetic) / 45°NE. A trench 15 feet deep and 20 feet long was dug to expose a quartz vein 15 feet wide with a flat dip to the northeast. Mineralization consisted of azurite, malachite and chalcopyrite. A vertical shaft was sunk to a depth of 33 feet. Copper stains and chalcopyrite were visible above the level of the water in the shaft and the top three feet showed 2.00% copper, but no gold or silver. Minor cuprite was noted.

In 1949 the claims were relocated by C. E. Johnson and R. R. Moffat as the Copper King claims. Copper mineralization was reported in irregularly placed quartz lenses between shear planes oriented at N 30° W/ 45° E and on noses of folds in a 170-foot wide zone of sheared "granodiorite".

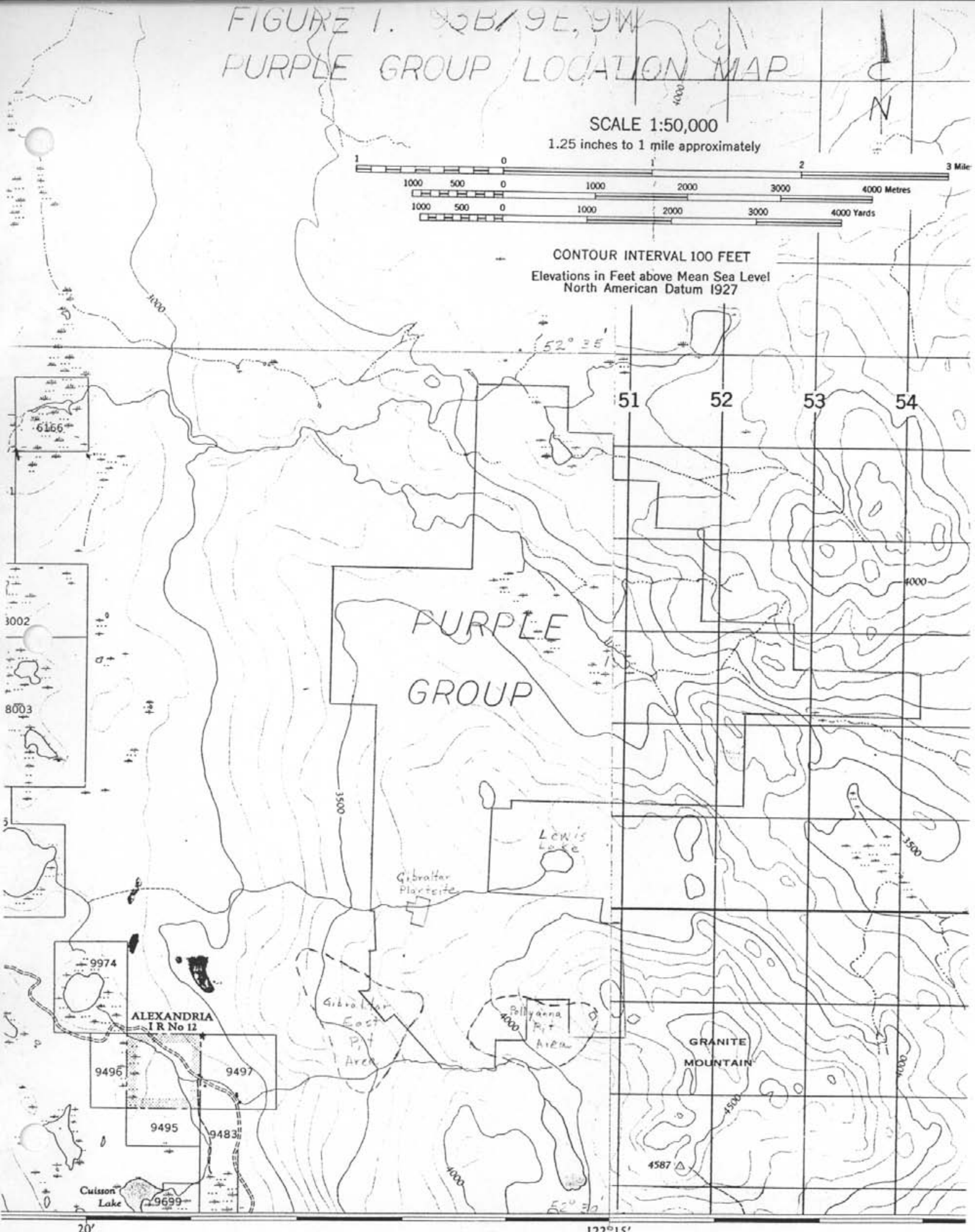
The 1950 report states that three shafts had been sunk previously along a north-south line. These were 25-feet apart. The northern-most one was 10 feet deep and showed no mineralization. The middle shaft showed good mineralization and in 1949 was drained and mined. Half a ton of ore averaging 10.5% copper was shipped to Tacoma, Washington. A grab sample from their dump assayed: gold - nil, silver - 0.1 oz. per ton, copper - 3.3%. The southern-most shaft was filled with water but dump material showed malachite staining.

In 1949 an attempt was made at trenching thirty feet north of the north shaft to cross-cut the shear zone. This, however, was abandoned because the overburden was too deep.

In 1950 they sank a 28-foot deep shaft 120 feet south of the most southerly shaft.

FIGURE 1. 92B/9E, 9W

PURPLE GROUP LOCATION MAP



It exposed a light malachite staining on sheared "granodiorite" and a small amount of crushed barren quartz. A grab sample from the dump assayed: gold- trace, silver - nil, copper - 0.3%.

From 1954 to 1956 the claims were staked as the Pollyanna claims by Kimaclo Mines Ltd. They reported the same orientation for the shear system and expanded its width to 230 feet. Mineralization in the form of malachite - azurite - chalcopyrite and traces of cuprite occurred in small and irregular quartz veins which run approximately parallel to the shearing. Another grab sample from the Copper King dump mentioned above assayed 0.6% copper.

Kimaclo Mines Ltd. allowed their claims to lapse and the property was staked by Mr. Robert Glen in early 1963. Keevil Mining Co. held an option on this property in 1963 during which time they performed geochemical and induced polarization surveys and drilled two holes. In 1964, Duval Corporation optioned the property from R. Glen and partially defined 10 to 30 million tons of low grade copper mineralization in the area of the current Pollyanna Pit.

In 1967 the area was restaked as the GG claims by Canex Aerial Exploration Ltd. and Duval Corporation. They describe the mineralized system differently, giving it an orientation of N 35° W/50 to 70° SW. They described the system as a central vein zone, two to five feet thick, flanked by quartz-muscovite schist grading into a foliated quartz-diorite. Streaks and bands of pyrite and chalcopyrite exist in the schist zone.

Stripping of overburden exposed 30 feet of schist and 30 feet of bleached, schistose quartz-diorite. A hand trench 100 feet northeast of the stripping exposed rubble of vein quartz and quartz-muscovite schist. The Copper King shaft was covered by the bulldozing.

The 1969 report give the reserves as 60,000,000 tons at .36% copper. 44,105 feet of N.Q. diamond drilling was done in 81 holes and 200 feet of 5 7/8' diameter rotary drilling was done in two holes.

In 1970 a topo-mapping survey was completed. Stripping was done to clear the millsite and 32 diamond drill holes, totalling 1,174', were drilled on the GG claims.

By 1971 the Canex Aerial claims were transferred to Gibraltar Mines Limited." (from "Diamond Drill Report on the Purple Group", 20 April, 1981.

Since the commencement of mining by Gibraltar Mines Limited in 1972, two stage pits have been mined from the Pollyanna area. Another stage is currently being mined farther to the east. One of the drill holes covered by this report was situated in the operating pit to further define ore structures at depth. Four more holes were situated to the west of the Pollyanna Stage 2 Pit and northeast of the Gib-East Pit. These were designed to further define mineralized zones known in the area.

One hole, 264' deep (80.5 m), was drilled within the Stage 3 pit. Four holes were

drilled west of the Stage 2 pit totalling 1,901 feet (579.4 m). Drilling was carried out by L. D. S. Diamond Drilling Ltd. of Site 5, Comp. 13, R.R.#2, Kamloops, British Columbia during the period June 27 to July 19, 1990. All drilling was N.Q. wireline core drilling. All of the core was sent to the assay lab, crushed and assayed, and waste material discarded. Assay pulps are stored at the plant site for a period of one year.

2. Mineral Claims

Claims and leases of the Purple Group are shown in Figure 2. All of the claims belong to Gibraltar Mines Limited. The Group is bounded to the south by Gibraltar's Red Group and to the west by Gibraltar's Grey Group. The group adjoins claims held by Keevil to the east. Pertinent information on the group is listed below.

GIBRALTAR MINES LIMITED
PURPLE GROUP MINERAL CLAIMS — Grouped on 151286

Name	Recorded ddmmyy	Record#	Units	Mineral Lease
HY 5	120680	01710	10	
HY 6	100578	00675	4	
HY 7	100578	00676	3	
HY 11	100680	01668	9	
HY 12	100680	01669	14	
HY 13	100680	01670	6	
HY 14	100680	01671	7	
HY 15	100680	01672	6	
HY 16	100680	01673	4	
HY 17	100680	01674	2	
HY 18	241180	03025	1	
HY 19	240381	03246	2	
GG 85	250865	30669	1	3598 M61
GG 40	280864	28881	1	3598 M61
GG 80	220465	29747	1	3598 M61
GG 82	220465	29749	1	3598 M61
GG 86AFr	091266	39653	1	3598 M61
GIB #8	200571	62411	1	3598 M61
GG # 2	281064	29234	1	3599 M62
GG # 4	281064	29236	1	3599 M62
GG # 6	281064	29238	1	3599 M62
GG # 5	281064	29237	1	3600 M63
GG # 7	281064	29239	1	3600 M63
GG # 8	281064	29240	1	3600 M63
GG # 16	281064	29248	1	3600 M63
GG # 1	281064	29233	1	4136 M79
GG # 3	281064	29235	1	4136 M79
GG 30	280864	28871	1	4136 M79
GG 41	280864	28882	1	4136 M79
GG # 11	281064	29243	1	4137 M80
GG # 12	281064	29244	1	4137 M80
GG # 13	281064	29245	1	4137 M80
GG # 14	281064	29246	1	4137 M80
GG # 21	281064	28253	1	4137 M80

50000E

60000E

70000N

60000N

50000N

HY 11

HY 12

HY 13

HY 14

HY 15

HY 16

HY 17

HY 18

HY 19

HY 5

HY 6

HY 7

GG 80

GG 40

GG 41

GG 30

RUM #41 FR

GG 31

GG #21

GG 82

GG # 2

GG # 1

GG #12

GG #11

GG #24

GG #23

GIB #8

GG # 4

GG # 3

GG #14

GG #13

GG #26

GG #25

GG #85

GG 86A FR

GG # 6

GG # 5

GG #16

GG #28

GG #27

GG # 8

GG # 7

N

FIGURE 2.

PURPLE GROUP MINERAL CLAIMS
GIBRALTAR MINES LIMITED
15-DEC-86 SCALE=1: 24000

0 2 4 6
FEET X 1000

0 1 2
KILOMETERS

GG # 24	281064	29256	1	4137 M80
GG 31	280864	28872	1	4137 M80
RUM #41Fr	200470	57295	1	4137 M80
GG # 23	281064	29255	1	4138 M81
GG # 25	281064	29257	1	4138 M81
GG # 26	281064	29258	1	4138 M81
GG # 27	281064	29259	1	4138 M81
GG # 28	281064	29260	1	4138 M81
		Total Units	98	

3. Drill Program

3.1 Objectives

The drill hole drilled within the Stage 3 Pit area was designed to add definition to an ore system near the north wall, and to check for the footwall of the system. Holes west of the Pollyanna Stage 2 were designed to test the orientation and continuity of ore systems previously drilled between the Pollyanna and Gib-East Pits.

3.2 Results

The drill hole locations are shown in Figures 3 and 4. Drill sites were established and resurveyed after drilling with a Geodimeter 422 Total Station Survey Instrument.

Drill logs are included in the pocket of this report. Total copper assays are available for all drill core, and oxide copper assays are provided for selected samples only. All molybdenum reported is MoS_2.

Core is sampled in 10-foot (3.048m.) sections, crushed and passed through a Jones Splitter. The product is pulverized to minus 100 mesh and rolled. A 1/2 gram sample is weighed out and digested in a mixture of Potassium Chlorate, Nitric Acid, and Sulphuric Acid for a period of 30 minutes. Following digestion, each sample is bulked to 10% HCl and assayed in a Perkin Elmer 3030 Atomic Absorption Sectrophotometer.

Normal Mine Phase Quartz Diorite is the main host rock in this area, consisting of about 50% pale green saussuritized plagioclase, 20% dark green chloritized mafics, and 30% medium grey quartz. A variety of alteration phases exist displaying various combinations of quartz, sericite, chlorite, epidote, and calcite. Textures are generally medium grained, equi-granular, but rock can be highly altered and sheared in places.

White Quartz Diorite or Leucocratic Phase is a light colored medium grained, equi-granular to seriate textured rock with abundant quartz and white plagioclase feldspar, with only about 5 to 10% chloritized mafics. In a few areas, this rock occurs as dykes with chilled margins. In other areas the rock is quite massive and displays gradational contacts with surrounding rocks.

Granite Mountain Phase is considered the inner phase of the segregated Granite Mountain Pluton. It consists of about 40 to 45% quartz, 40% plagioclase, and 15%

chloritized mafics. It is generally coarse grained and barren.

Stage 3 Pit Area.

90-04, in the northwest corner of the Stage 3 pit, was collared at 3960' (1207 m) and drilled to a depth of 264'(80.5 m). The hole was drilled through 50 feet (15 m) of blasted material, with coring starting at 30-feet (9 m). Mine Phase Quartz Diorite was intersected from 50-feet to 106-feet (15 m to 32 m), and from 148-feet to 264-feet (45 m to 80.5 m). A zone of Leucocratic Phase rock was intersected from 106 to 148-feet (32 m to 45 m). This was a fine grained rock composed mostly of quartz and white feldspar, with only 5 to 10% chlorite. The contacts with the Mine Phase rocks were fault contacts. The mineralized zone started at 70-feet (21 m) within the Mine Phase, spanned the Leucocratic Zone, and ended at 200' (61 m) in the lower Mine Phase intersection. The ore zone totalled 130 feet (39.6 m) of .35% copper, .019% MoS_2.

West of Pollyanna Stage 2 Pit.

90-17 was drilled directly to the west of the Stage 2 Pit. It was collared at 3907-feet (1191 m), cased to 33-feet (10 m), and drilled to 487-feet (148.4 m). Mine Phase Quartz Diorite was intersected to 384-feet (117 m), Leucocratic Phase to 483-feet (147.2 m), and Mine Phase to the end of the hole. Leach cap extended to 120-feet (36.6 m) and an oxide zone continued to 253-feet (77 m) characterized by weak to strong limonite staining, and some malachite. No supergene was noted. A weak ore zone was encountered from 150- to 370-feet (45.7 m to 112.8 m), yielding 220-feet (67 m) of .24% copper, .006% MoS_2. The upper portion of this zone was within the oxide zone. Though drill spacing is not adequate here to fully define the zone, intersections indicate a narrow zone striking 315-degrees. The deep leach cap and oxide zones produce a fairly high strip ratio for this ore.

90-18 was drilled along the main haul road to Pollyanna. It was collared at 3841-feet (1170.7 m), cased to 52-feet (15.8 m), and drilled to 507-feet (154.5 m). Narrow zones of White Quartz Diorite are interspersed with Mine Phase Quartz Diorite down to 330-feet (100.5 m). Next, a Leucocratic zone continues to 445-feet (135.6 m) where it is in fault contact with an altered zone of Mine Phase rocks. This rock type then contacts with Granite Mountain Phase and Leucocratic rocks at 479-feet (146 m). Oxidation extends to a depth of 260-feet (79.2 m). Several fault systems were encountered. Two ore zones exist, one beginning at the top of the hole and extending to 200-feet (60.96 m). It is highly oxidized, containing limonite, malachite and a green copper-rich clay. The zone produces 110-feet (33.5 m) of .65% total copper, .47% oxide copper, and .004% MoS_2. The second zone extends from 380 to 500-feet (115.8 to 152.4 m) for 120-feet (36.6 m) of .31% total copper, .033% MoS_2. The upper zone is part of a northerly trending zone following the overburden contact in this area. The lower zone appears to be part of a second zone striking at about 315-degrees. The waste between the two zones will serve to limit ore projections in the Gib-East area.

90-19 was drilled north of the Pollyanna haul road and was designed to test the extent of ore intersected with hole P54. It was collared at 3864-feet (1177.7 m), cased to

32-feet (9.8 m), and drilled to 500-feet (152.4 m). From the top of the hole down to 355-feet (108.2 m) the rock was predominately Mine Phase Quartz Diorite; a leucocratic rock extended down to 418-feet (127.4 m) where it contacted Granite Mountain Phase rocks to the bottom of the hole. Leach cap extended to 85-feet (25.9 m) and the oxide zone to 200-feet (60.96 m). No supergene zone was noted. A narrow, oxidized ore zone was encountered from 190-feet to 240-feet (57.9 to 73.2 m) , giving 50-feet (15.2 m) of .62% total copper, .07% oxide copper, and .012% MoS_2. This zone is on strike with mineralization intersected in 90-17, P3, and P54, but the oxidized nature of the ore must be taken into account before the two zones are joined. The ore in this hole may be an isolated pod associated with a northerly trending fault system. A second zone from 440-feet to 460-feet (134.1 to 140.2 m) yielded 20-feet (6 m) of .7% copper, .026% MoS_2. This was centered around a shear zone and contained several significant mineralized quartz veins.

90-20 was drilled north of the haul road near hole P54 in an area of questionable ore projection. It was collared at 3854-feet (1174.7 m), cased to 32-feet (9.8 m), and drilled to 407-feet (124 m). Rock was variably altered Mine Phase Quartz Diorite down to 134-feet (40.8 m), then Leucocratic Phase to 354-feet (107.9 m). A narrow zone of Mine Phase was encountered down to 292-feet (89 m), then Granite Mountain Phase and Leucocratic Phase from there to the bottom of the hole. A major fault system was encountered from the base of the overburden at 32-feet (9.8 m), down to 87-feet (26.5 m). Leach cap extended to 70-feet (21.3 m) and the oxide zone to 77-feet (23.5 m). There was no supergene enrichment. No ore was intersected in the hole and it will serve to limit the optimistic projection from P54.

3.3 Interpretation

There is some potential for a low tonnage ore body in this area. The upper oxidized zone appears to be excellent leaching ore that could be mined and treated in Gibraltar's SX-EW plant. The deeper ore forms two weakly connected ore systems striking at 315-degrees. Little work has been done here on the interpretation of fault patterns and these could alter the ore picture. As well, a complex mixture of rock types exists in this area. More drilling is required to define the systems reliably.

4. Statement of Expenditures

June, July 1990 Diamond Drilling, Purple Group

1. Site Preparation Costs
   D8 Cat Bulldozer, 6 hrs. x $55.00 per hr. $330.00

2. Diamond Drilling Costs

Direct Footage Charges

Hole#	Footage	Charge/ft	Cost
90-04	264	$11.50	$3,036.00
90-17	487	11.00	$5,357.00

90-18	507	11.00	$5,577.00		
90-19	500	11.00	$5,500.00		
90-20	407	11.00	$4,477.00		
	2165		$23,947.00	$23,947.00	

Man Hours
14 man hours @ $24.00/hour 336.00

Mud Charges
12 pails @ $203.50/pail 2,442.00

Lost Equipment
1-NQ Coring Bit 440.00

Total Drilling Charges 27,165.00

3. Vehicle Costs
4x4, 1980 Suburban, June 27 to July 19
11 days at $20.00/day 220.00

4. Assay Costs
200 Copper/Moly Assays @ $5.00/assay 1,000.00

5. Supplies
100 coreboxes @ $6.17 617.00

6. Personnel Costs
6.1 Field Work and Core Splitting
C. Trudeau, Jun. 26 to Jul. 19, 1990
34 hrs. x $20.76 per hr. 705.84
C. Rudy, Sept. 12 to Oct. 6, 1989
40 hrs. x $20.40 per hr. 816.00

6.2 Supervision, Core Logging, Report
G. Bysouth, Jul. 3, 1990
8 hrs. x $37.00 per hr. 296.00
M. Thon, Jun. 29 to Oct. 22, 1990
50 hrs. x $26.16 per hr. 1,308.00

1,817.84 1,817.84

TOTAL 31,149.84

5. Conclusions

This drill program has added to the potential of this area, but further drilling is required to substantiate the continuity of the systems outlined. More information of fault displacements and rock type changes could create changes in the geological picture.

Madeline R. Thon

Madeline R. Thon
Mine Geologist

APPENDICES

APPENDIX 1. Statement of Qualifications

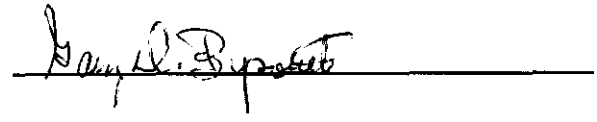
I, Garry D. Bysouth, of Gibraltar Mines Limited, McLeese Lake, British Columbia, do certify that:

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 logged some of the core of this drill program.



Garry D. Bysouth

APPENDIX 1. Statement of Qualifications

I, Madeline R. Thon, 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 Geological Science in 1978.

3. From 1978 to the present I have been engaged in mining and exploration geology in British Columbia.

4. I personally logged most of the core and assessed the results of this drill program.

Madeline R. Thon

Madeline R. Thon

APPENDIX II. List of Abbreviations

azur	azurite
bo	bornite
cal	calcite
carb	carbonate
chl	chlorite
cp	chalcopyrite
dissem	disseminated
ep	epidote
foln	foliation
gg	gouge
grn	grained
hem	hematite
lim	limonite
mal	malachite
mag	magnetite
N.M.P.Q.D.	Normal Mine Phase Quartz Diorite
py	pyrite
qtz	quartz
rx	rock
ser	sericite
str	strong
stkwk	stockwork
wk	weak
Wt. Q.D.	White Quartz Diorite = Leucocratic Phase

APPENDIX III. Assay Sheets.

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION

Date 30 Aug. 19 78

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	90-17		
60217		.31	.003	360-370		
18		.16	.006			
19		.14	.005			
20		.21	.002			
21		.12	.003			
22		.17	.003			
23		.26	.008			
24		.19	.004			
25		.14	.004			
26		.17	.008			
27		.15	.008			
28		.08	.001			
29		.18	.001	480-487		
60254		.26	.001	90-18	290-300	
60255		.08	.001			
56		.22	.005			
57		.15	.001			
58		.16	.005			
59		.22	.003			
60		.14	.003			
61		.19	.003			
62		.16	.010			
63		.22	.009			
64		.42	.017			
65		.41	.016			
66		.22	.003			70
67		.27	.012			
68		.29	.012			
69		.22	.250			
70		.31	.020			
71		.41	.010			
72		.42	.035			
73		.33	.004			
74		.22	.003			
75		.14	.002	500-507		

cc: Assay Lab

Assayer Connie/CL

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Check Exploration

Date Aug 29, 19 90

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2			
60135		.06	.001	.05	.002	10 - 20 150 - 160
36		.06	.001	.05	.001	
37		.04	.001	.05	.001	
38		.05	.001	.05	.001	
39		.02	.001	.01	.002	
40		.04	.002	.05	.003	200 - 210
60093		.80	.019	.74	.018	70 - 79 200 - 210
94		1.04	.004	1.02	.008	
95		.40	.001	.37	.002	
96		.51	.004	.52	.004	
97		.20	.025	.18	.026	200 - 210
60276		.04	.001	.02	.007	70 - 90 310 - 320
77		.02	.001	.01	.006	
78		.02	.001	.02	.003	
79		.03	.001	.01	.005	340 - 350

cc: Assay Lab.

Assayer

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION

Date 28 August, 19 90

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2			
60230	* .57	.72	.002	90-18	52-60	
31	* .29	.40	.003			
32	* .34	.52	.002			
33	* .47	.64	.002			
34	* .31	.45	.002			
35	* .43	.60	.002			
36	* .17	.24	.003			
37	* .22	.22	.002			
38	* .43	.61	.003			
39	* .28	.37	.004			
40	* .19	.30	.002			
41	* .27	.43	.002			
42	* .27	.38	.002			
43	* .60	.82	.007			
44	* .30	.40	.001			
45	* .14	.16	.002			
46	* .10	.14	.002			
47	* .06	.14	.002			
48	* .04	.20	.004			
49	* <.01	.45	.003			
50	* <.01	.13	.022			
51		.19	.008			
52		.12	.002			
53		.09	.002	90-18	280-290	
60184	* .09	.13	.002	90-17	38-40	
85	* .19	.19	.003		50	
86	* .14	.15	.003			
87	* .21	.24	.006	96		
88	* .07	.12	.002			
89	* .05	.12	.001			
90	* .01	.10	.002			
91	* .01	.14	.004			
92	* <.01	.04	.004		110-120	

cc: Assay Lab.

Assayer Connie

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION

Date 28 aug. 19 90

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2			
60193	* <.01	.08	.004	90-17	120-130	
94	* .13	.16	.003			
95	* .13	.19	.002			
96	* .22	.27	.004			
97	* .29	.40	.004			
98	* .02	.07	.003			
99	* .19	.23	.005			
60200	* .02	.10	.002			
01	* .07	.18	.005			
02	* <.01	.25	.008			
03	* <.01	.19	.011			
04	* <.01	.15	.002			
05	* <.01	.31	.012			
06	* <.01	.16	.007			
07		.31	.020		260-270	

44

cc: Assay Lab.

Assayer Connie

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION

Date 28 Aug. , 19 90

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	90-19		
60100		.11	017 —	270-280		
01		.05	.003 —			
02		.13	.004 —			
03		.05	.003 —			
04		.06	.003 —			
05		.07	.003 —			
06		.05	.003 —			
07		.08	.002 —			
08		.03	.002 —			
09		.26	.006 —			
10		.08	.002 —			
11		.06	.003 —			
12		.04	.004 —			
13		.04	.003 —			
14		.12	.016 —			
15		.06	.002 —			
16		.04	.002 —			
17		* .90	.049 —			
18		* .50	.003 —			
19		.19	.015 —			
20		.08	.004 —			
21		.14	.003 —			
22		.05	.002 —	490-500		Re check 90-19
60151		.29	.011	.28	.013	150-160
52		.25	.006	.25	.006	
53		.17	006	.16	.008	66
54		.33	008	.33	.007	
55		.19	005	.19	.009	
56		.22	026	.22	.029	
57		* .47	.008	.45	.013	
58		* .45	.018	.50	.024	
59		* .34	.019	.30	.009	
60		* .60	.010	.55	.015	

cc: Assay Lab.

Assayer Connie

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION

Date 28 Aug. 19 90

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	Kelleys		90-10
60161		* 1.00	.016		.019	250-260
62		* .75	.033	.82	.034	
63		* .35	.006	.33	.009	
64		* .48	.013	.47	.019	
65		* .33	.020	.32	.025	
66		* .39	.004	.37	.007	
67		* .54	.011	.51	.014	
68		* .60	.004	.71	.005	
69		.20	.008	.22	.010	
70		.15	.003	.12	.004	
71		.24	.010	.24	.014	
72		.29	.011	.26	.013	
73		.23	.001	.19	.003	
74		.27	.007	.22	.011	400-410
60208		.22	.004 —	90-17	270-280	
09		.28	.006 —			
10		.39	.010 —			
11		.39	.017 —			
12		.21	.001 —			
13		.24	.001 —			
14		.16	.011 —			
15		.20	.001 —			
16		.20	.001 —		350-360	

cc: Assay Lab.

Assayer Connie

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration Repeats

Date Aug 28 19 90

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2			
~~48~~		~~.80~~ 1.24				
		Cores		Wash		
60452	90-68 180-190	.16	.005	16	005	
53		.124	.006	25	007	
54		.13	.004	14	004	
55		.13	.008	13	009	
56		.10	.003	09	006	
57		.15	.009	14	012	
58		.12	.005	- 12	006	
59	250-260	.13	.008	13	012	
		90-19				
60093	.13	200-210				
94	.16	220				
95	.04	230				
96	.05	240				
97	.01	250				

cc: Assay Lab.

Assayer

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION

Date 27 Aug., 19 90

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2			
60076	* .01	.02	.001	90-19	22-40	
77	* .01	.01	.002		50	
78	* .01	.01	.003			
79	* .01	.03	.005			
80	* .01	.02	.002			
81	* .01	.02	.001			
82	* .02	.05	.006			
83	* .02	.03	.005			
84	* .02	.09	.004			
85	* .02	.06	.003			
86	* .02	.04	.005			
87	* .03	.03	.003			
88	* .05	.07	.007			
89	* .02	.05	.002			
90	* .05	.10	.002			
91	* .06	.06	.004			
92	* .05	.46	.029			
93		* .74	.018			
94		* 1.02	.008			
95		.37	.002			
96		.52	.004			
97		.18	.026			
98		.07	.005			
99		07	.004	90-19	260-270	
60276		.02	.007	90-20	310-320	
77		01	.006			
78		.02	003			
79		.04	.005			
80		.04	.003			
81		.02	.002			
82		.06	.003			
83		.10	.012			
84		.04	.008		340-400	
85		.22	.005		400-407	

cc: Assay Lab.

Assayer Connie

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION

Date 27 Aug 19 90

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	90-20		
60123	* .03	.04	.002	32-40		
24	* .03	.05	.002			
25	* .05	.09	.007			
26	* .06	.16	.008			
27	* .03	.20	.005			
28		.04	.002			
29		.04	.001			
30		.03	.002			
31		.06	.002			
32		.08	.005			
33		.13	.003			
34		.07	.001			
35		.05	.002			
36		.05	.001			
37		.05	.001			
38		.05	.001			
39		.04	.002			
40		.05	.003			
41		.03	.003			
42		.06	.003			
43		.02	.003			
44		.02	.002			
45		.05	.003			
46		.01	.001			
47		.01	.001			
48		.04	.002			
49		.01	.002			
50		.02	.001	300-310		
~~51~~	~~—~~	~~—~~	~~.001~~			
52	—	—	—			
53	—	—	—			
54	—	—	—			

cc: Assay Lab.

Assayer Connie

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION (PIT Definition drilling) Date ..... 6. JULY ..., 19.90.

Sample No.	% Ox. Cu.	Total Cu.	% MoS2			
				90-04		
80133		.43	.037	100-110		
34		.34	.019			
35		.60	.081			
36		.36	.009			
37		.35	.012			
38		.29	.022			
39		.70	.010			
40		.21	.009			
41		.20	.008			
42		.27	.009			
43		.06	.002			
44		.07	.002			
45		.08	.003			
46		.07	.003			
47		.08	.005			
48		.06	.003	250-264'		
				90-03		
46351		.24	.008	90-100		
52		.41	.015			
53		.35	.011			
54		.43	.013			
55		.38	.022			
56		.29	.012			
57		.23	.007			
58		.23	.007			
59		.13	.006			
60		.21	.009			
61		.22	.007			
62		.32	.015			
63		.39	.013			
64		.26	.012	220-230		

cc: Assay Lab.

Assayer .....

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

XPLORATION

Date .....5. JULY..., 1990..

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2			
				90-02		
46278		.12	.006	80-90		
79		.14	.005			
80		.21	.003			
81		.58	.040			
82		.37	.016			
83		.39	.115			
84		.18	.008			
85		.10	.005			
86		.17	.025			
87		.21	.008			
88		.19	.002			
89		.13	.003	190-200		
				90-04		
1126		.04	.002	30-90		
27		.04	.003			
28		.08	.001			
29		.09	.002			
30		.26	.007			
31		.20	.007			
32		.37	.018	90-100		

cc: Assay Lab.

Assayer ..D..A..W.....

GIBRALTAR MINES LIMITED

20435

HOLE NO. 90-17
SHEET NO. 6 OF 8

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0				5°	2"	Qtz Vn-chl-carb-gauge		(hem)		92%					.31	
			70° NW		20+40	1/16 x2	qtz-chl-cp x2									3590	
					5	1/20	carb gg - hem	0%		317		52%	60212	.21	.001		.17%
					40+60	1/2 x2	qtz-chl-cp x2										
3.05	10			320	5°	1/8	Qtz Vn - chl-cp					320					
					50	4/10	Qtz Vn-chl-cp										
		A few narrow zones of whitening			30 x3	(1/10 x2)+1/8	qtz-chl-cp x3				97%						
			ND		10	1/10	qtz-chl-carb-cp-(py)	<.1%		327		57%	60213	.24	.001		.25%
					60+20+10	V 10 x3	qtz-chl-cp										
6.10	20			330	20	1/8	qtz-chl-epid-cp					330					
					80	1/4	qtz-chl-cp-carb				92%						
			ND		20 x4	1/16 x4	carb-gg-hem	0%	hem stain.	337		42%	60214	.16	.011		.08%
					30	1/4	qtz-chl-carb-cp-hem.										
9.14	30			340	5°	1/10	qtz-chl-cp-cp					340					
					20	1/10	Qtz Vn (chl-cp)										
			ND		30 x3	1/20 x3	qtz-chl-cp x3	0%			96%						
					20 x4	1/10 x4	qtz-chl-carb-cp x4		Circular chloritic fragment.	347		67%	60215	.20	.001		.13%
12.19	40			350	20 x 10	1/20 x 10	qtz-chl-carb-cp-cp x10					350					
					5 x3	1/20 x3	qtz-chl-cp-carb-cp										
					30	6"	qtz-ser-chl-carb-cp				95%						
			ND		10	3"	Qtz Vn-chl-carb-cp-(mo)	0%		357		59%	60216	.20	.001	.20	.25%
					5 x4	(1/4 x2)+(1/2 x2)	qtz-chl-carb-cp									3545	
15.24	50			360	10°	1/8	Qtz Vn (chl-ser-carb-cp)					360					
					5 x3	1/20 x3	qtz-chl-cp-cp x3										
			NP		5° x2	1/10 x2	qtz-chl-carb-vugp-cp x2				100%						
					5°	1/8	qtz-chl-cp-cp	0%		367		92%	60217	.31	.003		.14%
					30° x2	1/8 x2	qtz-chl-cp-q x2										
18.29	60			370	10 x2	1/10 x2	qtz-chl-cp-carb-cp x2					370					

GIBRALTAR MINES LIMITED

20435

HOLE NO. 90-17
SHEET NO. 7 OF 8

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0				5 X2	1/8 X2	qtz-chl-ep-carb-cpy/X2										
					5X2	1/20 X2	qtz-chl-cp X2										
			ND		20+10	1/16 X2	chl-carb gg-hm X2				98%						
					20X3	1/8 X3	qtz-chl-ser-cp X3	4.1%	epidote segregation	377		62%	60218	.16	.006		.20%
3.05	10			380	30	1/8	Qtz-chl-carb-cp					380					
					10 X4	1/8 X4	qtz-chl-carb-py-cp X4										
			NP		10	1/8	qtz-ser(chl)-vugs-cp				100%						
		384-483'	to		60X2	1/8 X2	qtz-ser-cp	.3%		387		80%	60219	.14	.005		.12%
		Leucocratic Phase	60°		5X2	.1/10 + 1/16	qtz Vn-ser-py-cp X2										
6.10	20	Mainly sericite textured	WK.	390	30X2	1/20 X2	qtz-ser-chl-carb-cp X2					390					
		w/ narrow zones of			20	1/8	qtz-ser-chl-carb-cp		Gouge								
		Sericitic shearing.			30	1/10											
			60°		30+5	1/20 X2	qtz-ser-chl-cp X2				93%						
			V.WK.		10X2	1/10 X2	qtz-chl-carb-cp X2	0%		397		40%	60220	.21	.002		.26%
					10	1/8 + 2" env	Qtz-carb-cp w/ qtz-chl-cp(cp) envel.										
9.14	30			400	20X2	1/16 X2	qtz-chl-carb-cp X2					400					
					10X2	1/20 X2	qtz-ser-cp X2								.19		
					20	blebby	qtz-ser-MoS2				99%				3500		
			ND		5+10	1/20 + 1/16	qtz-chl-ser-(cp) X2	0%		407		50%	60221	.12	.003		.15%
					20 X2	1/10 + 1/16	qtz-chl-ser-cp X2										+ MoS2
12.19	40			410								410					
		Fault Zone			30X3	1/4 + (1/16 X2)	qtz-ser-chl-carb-cp X3										
		~10% gg			50	1/4	Carb-gouge				71%						
		90% bkn core	ND					0%		417		10%	60222	.17	.003		.13%
			to		30	2 1/2"	Qtz Vn-chl-carb										
			70°		10	1/10	qtz-chl-ser-carb-cp										
15.24	50		WK.	420	30X3	1/8 X3	qtz-ser-chl-cp X3					420					
					10	1/10	qtz-chl-carb-cp										
					45+60	1/10 X 2	qtz-chl-ser-cp X2				96%						
			ND.		10	2"	qtz-ser-chl-carb-(cp)	0%		427		48%	60223	.26	.008		.12%
					10	4"	Qtz-Chl-carb-(cp)										
18.29	60			430	20	1/16	qtz-chl-carb					430					

GIBRALTAR MINES LIMITED

20435

HOLE NO. 90-17
SHEET NO. 8 OF 8

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
			70° Wk.	440	20	1/2	qtz-chl-ser-cp-py	<1%			100%						
					6°	1/4	qtz-chl-carb-cp										
					30x4	1/2 x4	qtz-chl-carb-ser-(cp) x4										
					6°	1	qtz-chl-carb-cp.			437		57%	60224	.19	.004		.14%
					30	1/4	qtz-chl-carb										
3.05	10				5°	1/10	qtz-ser-chl-cp					490					
					10	Lle	Carb gg										
					60	1/4	qtz-chl-ser-cp										
			80° WK to N.D.	460	30	1/8	carb gg-hem	0%		447	100%	62%	60225	.14	.004	.18	.11%
					3x2)+5	1/16 x3	qtz-chl-ser-cp x3									3455	
					40x3	1x2	Qtz-chl-carb x2										
6.10	20				45x3	1/8+(1/4x2)	qtz-ser-cp x3					450					
					45	1/2	qtz-chl-ser-cp										
					30°	1/2	qtz-chl-cp-(cp)										
			ND		50° x2	1/2 x2	Qtz-chl-carb x2	0%		457	100%	73%	60226	.17	.008		.09?
					10 x3	1/20 x3	qtz-chl-ser-cp x3										
					60	2	Qtz Vn-carb.										
9.14	30			460	20	1/8	Qtz Vn-cp-ser					460					
					30x4	1/16 x 4	qtz-chl-cp x4										
					80	4"	carb-chl. gouge										
		Fault Zone ~20% gg ~80% Bkn core	ND		20	1/20	carb gg-hem	<1%		467	90%	36%	60227	.15	.008		.11%
					30	1/10	qtz-chl-cp-cp										
					30	1/4	qtz-chl-ser-carb-cp-py										
12.19	40			470	45x2	1/20 x2	qtz-chl-cp-cp x2					470					
					60x4	1/20 x4	qtz-chl-ep-(cp) x4										
					45x3	(1/8 x2)+1/16	qtz-chl-ep-(cp) x3										
			ND		45	1/6	qtz-chl-py	<1%		477	98%	89%	60228	.08	.001		.03%
					45 x4	1/32 x4	qtz-chl-ser-cp x4										
				480	30 x 3	48 x 3	qtz-ser-chl-cp-cp x3										
					70	1 1/2	Qtz-chl-carb-cp										
					30°	1/8	qtz-chl-carb-cp.										
		183-487'	ND		30 x 10	1/16 x 10	qtz-chl-ep-carb(cp) x10	0%			100%						
		Nm PQD		487	45 + 60	1/10 x 2	qtz-chl-ep-cp x2			487		94%	60229	.18	.001	.14	.18%
18.29	60	E.O.H. @ 487'					M.R. Jessop					487					

GIBRALTAR MINES LIMITED 20435

HOLE NO. 90-4
SHEET NO. 1 OF 5

LOCATION Pollyanna East | BEARING — | LATITUDE 50,115.30N | CORE SIZE N.Q.W. | LOGGED BY G.D. Bysouth
DATE COLLARED 30-June-1990 | LENGTH 264' | LONGITUDE 54,173.86E | SCALE OF LOG 1"=10' | DATE July 3, 1990
DATE COMPLETED 30-June-1990 | DIP -90° | ELEVATION 3960.12 | REMARKS drilled from blasted bench floor

BOTTOM DEPTHS: LEACH CAP —; LIM. ZONE —; SUPERGENE —

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
		Casing To 30'								30							
3.05	10			30													
		Blasted Area 30' - ~50 rock in this zone has been dislocated by blasting - however,	ND		5	1/8	qtz-chl-py	0.5	no limonite	37	70	13	80126	.04	.002		.05
6.10	20			40	80×3	1/20×3	qtz-chl-py×3										
		it will be logged as normal - vein angles are not reliable.	ND		20×2	1/10×2	qtz-chl-py×2	1.0		47	81	7	80127	.04	.003		.05
9.14	30			50	30+80×2	1/10+1/20×2	qtz-chl-py×3										
					5+70×2	1/10-1/20×3	qtz-chl-py×3										
		MINE PHASE QUARTZ DIORITE (50'-166') typical rock type: ~30% qtz ~20% chl	ND		5	6"	gg-bx	2.0	} 2' silicified zone	57	62	10	80128	.00	.001	.09 3905	.08
						1/8	qtz-carb-py (cp)										
						3'	broken zone with minor gg		poss. small fossils								
12.19	40			60	?	1"	massive py										
						1'	broken zone - minor gg										
		45% same as above grn size 1/20-1/8 - prob avg. ~1/10 texture sl. seriate grns anhedral to subhedral	ND		50×3	1/10×3	qtz-chl-py×3	1.5		57	~~	~~	80129	.09	.002		.10
					30+70	1/4+1/10	qtz-chl-py×2										
					25×2	1/10×2	qtz-chl-py×2										
					45	1/3	qtz										
					?	3"	ep-pied zone										
15.24	50			70	50	6"	qtz-ser-ep (py) (cp)										

GIBRALTAR MINES LIMITED

20435 HOLE NO. 90-4
SHEET NO. 2 OF 5

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
			ND		65×2	½₂₀ ×2	qt₃-py ×2										
					30+20	⅓+¼	qt₃-chl-py-cp×2										
					60+40×2	½+½₀×2	qt₃-chl-cp + qt₃-chl-py										
					40	2"	gg	1.5			98						
					40-60×30	½₀-½₀ ×3	qt₃-chl-py×3			77		57	80130	.26	.007		.18
					?	6"	qt₃-cp qt₃-chl-cp×4										
3.05	10			80	60	¾	qt₃-chl-mag-cp										
					50×2+5	½₀-⅛×3	qt₃-chl-py(cp) ×3										
					10	1"	qt₃-chl-py-cp										
			ND		10	½	qt₃-chl (py)(cp)	1.0			98						
					20×2	½₂₀×2	qt₃-chl-py×2			87		77	80131	.20	.007		.12
6.10	20			90	20	½₀	chl-py-cp										
					60+50	1"+½₀	qt₃-chl-cp×2										
					40	¼	qt₃-chl-cp										
			50 WK		35+40	⅓+⅛	qt₃-chl-cp×2				97						
					45	⅓	qt₃-chl-cp	0.5									
					60	½₀	qt₃-chl-cp			97		47	80132	.37	.018	.21	.35
					40	½	qt₃-chl-py(cp)									3860	
9.14	30			100		1½	gg-bx - small fault.										
					60	⅛	qt₃-chl-cp										
					60	⅛	chl-cp										
						3½	gg-bx				84						
			60 WK		50+70	1"+2"	qt₃-chl-cp + qt₃-mag-cp	0.5									
		LEUCOCRATIC ZONE (106' – 148')								107		7	80133	.43	.037		.30
					50×3	½₀×3	qt₃ (mo)(cp) ×3										
12.19	40			110	30	⅓	qt₃-cp										
		a fine grn rx composed of qt₃ and white 'spar with 5-10% chl mainly as "ghosts" and ragged wisps. Avg. grn size ~ ½₀" - no obviously porph. but poss. seriate.			5+60	¼×2	qt₃-cp ×2										
					60×3	½₀×3	qt₃ (mo)(cp) ×3										
			50 WK		stkwk	hle-½₂₀	qt₃ (mo)(cp)(py)	0.5			92						
									* a ½"-¼" qt₃ vein with a broad grey envel. of qt₃-ser	117		20	80134	.34	.019		.15
					40-50×3	2"-3"×3	qt₃-ser ((py))((cp)) ×3*										
15.24	50			120	50+30	½₂₀×2	qt₃-cp-py×2										
		- contacts are faulted. - cp and py occur throughout fine rx as fine dissem.s and as hle qt₃-py-cp veinlets			40	⅛	qt₃-cp										
					40	2"	qt₃-ser (cp)										
			50 WK								96						
					40	½₀	qt₃-cp	0.5									
					60	5"	qt₃-mag(cp)(py)(mo)			127		23	80135	.60	.081		.18
					50	12"	qt₃-ser (cp)										
18.29	60			130	40-45×5	½₂₀-½₀×5	qt₃-py-cp×5										

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HOLE NO. 90-4
SHEET NO. 3 OF 5

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0				50+60	1/20+1/10	qt3-cp x 2										
					45x3	1/10 x 2 + 1/4	qt3-cp x 3										
			ND		50	6"	qt3-chl (vug)	as			97						
						3'	bx (gg)			137		30	80136	.36	.009		.14
3.05	10			140	40+45	1/2+1	qt3-mag (cp) x 2										
					30	2-3"	qt3 ((cp))									.42	
					50	10"	qt3-ser (mag) ((cp))									3815	
			50 wk. Mod		60x2+5x2	1/10 x 4	qt3 ((cp)) x 4	1.0			98						
					60x3	1/20 x 3	qt3 (cp) x 3										
					30-40x3	1/10-1/8 x 3	qt3-chl (mag) x 3										
					?	6"	gg-bx @ contact										
6.10	20	MINE PHASE		150	60 x 2	hle x 2	chl-cp x 2			147		33	80137	.35	.012		.14
		QUARTZ DIORITE (148'- 264')			70 x 2	1/2+4"	qt3-ser-py (cp) x 2										
		same as above except for incr. folg			80	14"	qt3-ser-py										
			60 Mod		80	7"	qt3-ser-py	5.0			97						
					80 ?	24"	qt3-ser-py-gg-bx.										
					45+50	1/4+1/10	qt3-chl-cp x 2		dk alty and vug. core								
9.14	30			160	80x4	1/20-1/10 x 4	chl-carb-cp x 4			157		30	80138	.29	.022		.18
					80 x 2	1/2+1/4	qt3-chl-cp x 2										
					5x3	1/20 x 3	qt3-chl-cp x 3										
					50	10"	chl-carb-qt3 (cp)										
			45-60 Mod		45+30	8"+4"	chl-ser-qt3-cp x 2				99						
					15	1/2	qt3-chl-cp	0.5									
					40	3/4	qt3-carb (cp)										
					30x2	hle x 2	chl-cp x 2			167		57	80139	.70	.010		.25
12.19	40			170	40	2"	qt3										
					35	20"	chl-carb										
					60	1/2	qt3-chl										
						3'	gg-bx										
			60 WK		80	1/20	qt3-chl-cp	0.5			97						
					80	1/3	qt3-chl-(cp)										
					20+30	2" + 1 1/2	qt3 (vug) + qt3-chl-vug.			177		47	80140	.21	.009		.12
15.24	50			180	80 x 6	1/10-1/8 x 6	qt3-chl (py) (cp) x 6										
					50 x 2	1/10 + 1/2	qt3-ser-py x 2										
					60 x 2	1/10 x 2	qt3-chl (cp) (py)										
					70	1/4	qt3-chl-cp				97						
					55	2"	qt3-chl (cp)	0.5									
						2 1/2	broken zone			187		37	80141	.20	.008		.15
					40	1/2	qt3-chl									.35	
18.29	60			190	40 x 3	1/2+1/20 x 2	qt3-chl-cp x 2									3770	

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HOLE NO. 90-4
SHEET NO. 1 OF 5

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0		ND	200	80×2	1/20×2	chl-carb-cp×2	0.5		197	96	27	80142	.27	.009		.12
					90	1/10	chl-qt3-ep										
					?	2"	gg-bx										
					30+20	1"×2	qt3-chl×2										
					? 50?	2 1/2	gg-bx (small fault)										
3.05	10				70	1"	qt3(cp)										
						6"	chl-ep-pied zone										
			ND	210		7'	broken zone	<0.5		207	70	13	80143	.06	.002		.10
					50-70×4	1/8-1/4×4	qt3-chl×4										
6.10	20																
			50 wk-mod	220	40	1/4	qt3	<0.5		217	96	60	80144	.07	.002		.08
					15	2"	qt3(vug)										
					?	6"	qt3-chl		dark alt'n								
					60	12"	qt3-chl-carb										
					45	1/2	qt3-chl										
9.14	30																
			60 wk	230	30+45×2	1/2+1/4×2	qt3-chl.×3	<0.5		227	98	63	80145	.08	.003		.05
					40	1/2	qt3										
12.19	40																
			ND	240	80	1/4	qt3-((cp))	<0.5		237	97	20	80146	.07	.003	.011 3725	.10
						3'	broken zone										
					15×2	1/4+1/2	qt3-carb-py-cp×2										
15.24	50																
			ND	250	60×2	2"+1/2	chl-ep	<0.5	dark alt'n	247	97	33	80147	.08	.005		.05
					60	2"	chl-ep										
					5	1"	gg										
					40	1"	chl										
					10	1/2	qt3										
18.29	60																

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20435 HOLE NO. 90-4
SHEET NO. 5 OF 5

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation	GRAPHIC LOG: Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0	incr. in qtz. to ~40% starting at ~220' – prob. approaching the Granite Mtn contact.						15+10	½+⅓	qtz + gg										
								?	3"	qtz										
										broken hem stained core	<0.5		257	93	13	80148	.06	.003		.05
3.05	10	DDH				260		45	¼	qtz-chl ((cp))										
		E.O.H. 264'						?	4'	broken core – minor gg	<0.5		2640'	85	3					.05
6.10	20																			
9.14	30																		.07	
																			3680	
12.19	40																			
15.24	50																			
18.29	60																			

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HOLE NO. 90-18
SHEET NO. 7 OF 8

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0				1 5x2 1 30x4 30x2 5x2	hle x2 hle x4 1/20 x2 1/20 x2	gg-hem x2 gg-hem x4 qtz-chl-ser-cp x2 qtz-chl-ser-cp x2	0%	hem-stain.		82%						
3.05	10		N.D	400	50	1/4	Qtz-chl-ser-cp-mo			397		33%	60264	.42	.017		.22% tMoS2
					30x3 20x6	1/20 x3 hle x6	qtz-chl-ep-cp x3 gg-hem x6	0%	} Broken Zone		87%						
6.10	20		ND	410	20x2 30° x4	hle x2 1/10 x4	gg-hem x2 qtz-chl-ser-(cp) x4			407		41%	60265	.41	.016		.28% tMoS2
					5x8	1/20 x8	qtz-chl-ser-cp x8				81%						
9.14	30		ND	420	5x3 70	hle x3 1/20	gg-hem x3 gg-hem	0%	Hem. stain.	417		46%	60266	.22	.003		.10%
					5 x6 5 30+10	1/20 x6 1/8 1/10 x2	qtz-ser-chl-cp x6 qtz-chl-ser-cp qtz-ser-chl-cp x2				95%					.32	
12.19	40		ND	430	30 45	3/4 2	qtz-ep-chem. Qtz Vn-mo	0%		427		62%	60267	.27	.012	340	.16%
					10 10 x2	1/8 1/20 x2	qtz-chl-ser-cp qtz-chl-ep-(cp) x2				91%						
15.24	50		ND	440	50 x 10 30x3 5°	1/20 x10 1/20 x3 1/8	qtz-chl-ser-cp x10 qtz-chl-ser-cp x3 Qtz-chl-ser-cp	0%		437		53%	60268	.29	.012		.10%
		445-450' Fault Zone - faulted qtz-chl-ser gneiss ~ 60% gg.			50 10 60	1/8 1 1/2 11 1/4 5'	qtz-chl-cp Qtz Vn-mo-cp Qtz Vn-vug-cp Fault Zone - gg + bx - no sulfides noted.	0%			94%						
18.29	60		ND	450						447		24%	60269	.22	.250		.21% tMoS2

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HOLE NO. 90-18
SHEET NO. 8 OF 8

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0	450-451 gtz ser fissures 151-479 Zones of: - N.M.P.Q.D. - DK. Alt'n - WK Sans Zone	ND.	460	60 30 80 20+10 30x4	1" 1/20 1½" 1/10x2 ¼+⅛+(⅛x2)	gg-Dy gtz-chl-ser-(cp) gtz-ser-chl-carb-(cp-mo?) gtz-chl-carb-(cp) x2 gtz-chl-carb-cp x4	0%		457	67%	40%	60270	.31	.020		.20%
6.10	20		60-70 WK.	470	20x2 5° 30° 60x2 5°	⅛x2 ⅛ 1/4 ⅛ 1/10x2 ⅛	gtz-chl-carb-cp x2 gtz-chl-ser-(cp) gtz-chl-carb-(cp) gtz-chl-carb-cp gtz-chl-ser-carb-cp x2 gg-hem-carb	0%		467	97%	48%	60271	.41	.010		.20%
9.14	30	470-475 Fault Zone ~30% gg, ~ 70% Brk core - carb gg & hem. 479-507	ND	480	5° 15x2 20x3 20 20x2	5⅛ ½ ¼6 1/20x3 ⅛ ¼x1/20	Gouge-bx-carb hem Qtz Vn-chl-carb-cp gtz-chl-carb (cp) gtz-chl-cp x3 gtz-chl-cp gtz-chl-cp (cp+py) x2	0%		477	81%	27%	60272	.42	.035	.32 3325	.15%
12.19	40	Mixture of: Gran. Mtn Phase & Sericite dept. Porphyritic Rx.	ND	490	20x3 5+20 85 20x3 30	like y3 1/10 ⅛ 1/20 x3 ⅛	chl-gg y3 gtz-chl-cp gtz-chl-ser-carb-(cp) gtz-chl-cp x3 gtz-chl-carb-cp	0%		487	99%	40%	60273	.33	.004		.18%
15.24	50	Gr. mtn. Phase is lt. green, coarse grained g.d. ~40% gtz ~ 20% mafics ~10% clays alt'd	ND	500	30x3 60 5x3 55	⅛x3 8" 1/10 x3 ½	gtz-chl-carb-cp x3 White Dyke - fine gr. gtz-chl-carb-cp x3 Chl-gtz-(cp)	0%	+ a fragment of same comp'n	497	92%	48%	60274	.22	.003		.12%
18.29	60	plag - mafic grains tend to clot together E.O.H. @ 507'	ND	507	30 x3 5 +30	⅛x3 1/10x2	gtz-ser-cp x3 gtz-ser-cp x2	6%		507	98%	51% 507	60275	.14	.002	.27	.06%

M.R. Shaw

GIBRALTAR MINES LIMITED 20435

HOLE NO. 90-17
SHEET NO. 1 OF 8

LOCATION West wall of Pollyanna-West	BEARING —	LATITUDE 49,630.52 N	CORE SIZE NQ wireline
LOGGED BY M.R. Thon			
DATE COLLARED 13-July-1990	LENGTH 487'	LONGITUDE 50,467.41 E	SCALE OF LOG 1"=10'
DATE August 20-21, 1990.			
DATE COMPLETED 14-July-1990	DIP -90°	ELEVATION 3907.14'	REMARKS

BOTTOM DEPTHS: LEACH CAP 120 · LIM. ZONE 253' · SUPERGENE —

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG (Footage)	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0	Cased to 33' Normal Mine Phase Quartz Diorite (N.M.P.QD.) ~30% qtz, ~50% saus^zd plag, ~20% chloritized mafics		33								33					
3.05	10	33 - 289 Altered M.P.QD. -A finer grained, foliated	60-70° Mod	40	60x2 70x2 80 60°+45°	1/20 x2 1/20 x2 1 1/4+1	qtz-chl-lim-mal x2 qtz-chl mal x2 Gouge-lim. Qtz Vn-lim x 2	0%	The oxide zone here has stronger sections, ie, not a	37	83%	48% 40	60184	.13 .090X	.002		.08% OX
6.10	20	to sheared rock. Fsp. is lt. grey, more sericitic, subhedral to anhedral grains. -Few narrow zone of	70-80° Mod to Str	50	10 80x4 30 80 80x5	1/20 hle x 4 1/8 3 hle x5	qtz-chl-ser mal. lim qtz-chl-lim-mal x4 Lim gouge-mal. Brkn core-lim mud. qtz-chl-mal x5	0%	blanket.	47	100%	41% 50	60185	.19 .190X	.003	.15/.204 3860	.08% OX
9.14	30	qtz-chl-ser shear + qtz-ser shear	70-80 Mod to Str.	60	80x6 60x2 60 60 X 3	hle x6 1 x 2 1/20 1/8 x3	qtz-chl-lim-mal x6 Qtz Vn - chl lim qtz-chl. mal qtz-lim x3	0%		57	90%	28% 60	60186	.15 .140X	.003		.06% OX
12.19	40		45°-60° Str.	70	45-60° 30°	hle x 100 1/2	lim x100. Qtz-lim		Str. lim.	67	80%	3% 70	60187	.24 .210X	.006		.02% OX
15.24	50																

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HOLE NO. 90-17
SHEET NO. 2 OF 8

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
			60-70 Mod to Sli.	80	50×2 60 30 50×2	hle×2 hle 1/8 hle×2	qtz-chl-lim-(mal)×2 qtz-chl-lim ×4 qtz-chl-lim-mal qtz-chl-lim-mal×2	0%		77	46%	21%	60188	.12 .076ox	.002		.07% ox
3.05	10											80					
			80° Mod to Sli.	90	80×10 45 10 45×3 45×2	hle×10 1/2 1/2 hle×3 hle×2	qtz-chl-lim-(mal)×10 qtz-chl-carb qtz-chl-carb lim-MnO2-mal×3 lim×2	0%		87	96%	20%	60189	.12 .050x	.001	.16/1.8g 3815	.09% ox
6.10	20											90					
			80° Mod. to Sli.	100	20 10×3 20 60+90 80×5	hle hle×3 hle hle×2 hle×5	chl-lim-MnO2-mal lim-mal×3 lim lim-MnO2-mal×2 lim×5	0%		97	85%	15%	60190	.10 .010x	.002		.09% ox
9.14	30											100					
			70-80° Sli.	110	70×2 30×2 45° 70×2	1/10×2 1/10×2 1/8 1"×2	qtz-carb-lim×2 qtz-chl-lim×2 qtz-chl-lim qtz vnv. lim-(chl)	0%	Strong limonite	107	89%	56%	60191	.14 .010x	.004		.03% ox.
12.19	40											110					
			60° Sli. to Mod.	120	20° 10×3 70×3 60 5	1/8 hle×3 hle×3 1/8 hle	lim gouge. lim-MnO2×3 lim-MnO2-mal×3. qtz-chl-ser-lim lim-mal	0%		117	80%	22%	60192	.04 <.010x	.004		.03% ox.
15.24	50											120					
			80° Mod	130	10 40 30 70° 45	hle 1/8 hle 1/8 1/20	lim-MnO2 qtz-chl-lim. lim-mal qtz-chl-cp-lim-mal. qtz-chl-ser-mal	0%		127	72%	30%	60193	.08 <.010x	.004		.11% ox
18.29	60											130					

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HOLE NO. 90-17
SHEET NO. 3 OF 8

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0				30 x 6	hle x6	lim - MnO2 - mal x 6				99%					.10%eq	
					50	1/4	Qtz Vn - chl - Carb - Vug	0%								3770	.09%
		leucocratic c.	ND		1 5x3	1/20 x3	lim - MnO2 - qg - mal x3			137		59%	60194	.16	.003		
					10 +30	1/20 x2	qtz - chl - ser - lim - mal - (cp?) x2							1130x			0%
3.05	10			140	10 +2	1/20	qtz - chl - lim - mal x2					140					
					20	1	qtz - ep - chl - cp - mal										
					60	1/2	Qtz Vn - Vugs - lim - mal				92%						
			ND		30 x5	hle x 5	lim - MnO2 - mal x 5	0%		147		72%	60195	.19	.002		.11%
					5 +30	1/20 x2	qtz - chl - ser - cp - lim - mal x2							.130x			0%
6.10	20			150	40	1/2	Qtz - chl - carb - vug - (lim - mal)					150					
					5	1/20	gouge - lim - hem - (mal)										
			70° N. W. to N.		70 x6	hle x 6	lim - MnO2 - mal x6				98%						
					20	1/6	qtz - chl - ser - cp - lim - mal	0%		157		62%	60196	.27	.004		.12%
			ND											.220x			0%
9.14	30			160	30x3	1/20 x3	qtz - chl - lim - mal - (cp) x3					160					
					45	3"	Qtz Vn (chl - ser) - lim -	MnO2 - mal.									
					20 x2	1/20 x2	qtz - chl - lim - mal x2				97%						
			ND		10	hle	lim.	0%		167		34%	60197	.40	.004		.10%
					30x4	1/8 x4	qtz - ser - chl - lim - MnO2 - mal x4							.290x			0%
12.19	40			170	5 x2	1/20 x2	qg - lim - MnO2 - mal x2					170					
					70x4	hle x4	lim - MnO2 - mal x4										
					30 x 6	hle x6	lim - MnO2 - mal x 6				96%						
		Leucocratic	ND		25	1/10	Qtz - carb - (chl - mal)	0%				32%	60198	.07	.003	.24/.160	.12%
		Rx.			30 x3	hle x3	lim - MnO2 - mal x 3			177				.020x			0%
15.24	50			180	70 x6	hle x6	lim - MnO2 - mal x6					180				3725	
					10°	1/8	lim gauge - mal										
					10 +30	1/20 x2	qtz - chl - ser - lim - mal - cp x2				90%						.16%
			ND		5	1/20	qtz chl - lim - mal.										
					10 x2	1/20 x2	qtz chl - lim - mal x2	0%		187		37%	60199	.23	.005		
					30x2	1/20 x2	qtz - chl - cp - ser - lim x2							.190x			0%
18.29	60			190	30 x6	1/20 x6	qtz - chl - mal x6					190					

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HOLE NO. 90-17
SHEET NO. 4 OF 8

Meters	Feet	ROCK TYPES AND ALTERATION	∨ TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0	Leucocratic zone ε															
			60-70° WK.		5°	1/10	lim gg-mal.				98%						
					(60×⅓)+(65×⅔)	hle×5	qtz-cht-mal-lim ×5										
					30	1/2	Qtz Vn-mal-chl-mal	0%		197		72%	60200	.10	.002		.12%
					20	1/10	qtz-chl-lim-mal-cp							.02oz			
3.05	10				30	1/6	qtz-chl-carb-veg-cp-lim-mal										
				200	45	V so	qtz-lim-cp-mal					200					
			15-60° WK.		40×3	⅛₀+(1/10×2)	qtz-chl-lim-mal-cp ×3				98%						
					30×3	hle×3	lim-mal×3	0%									
					30	1/20	qtz-chl-cp-lim-mal			207		60%	60201	.18	.005		.13%
6.10	20			210	60×3	hle×3	lim-mal×3							.07oz			6oz.
					60+30+20	hle×3	lim-mal×3				85%						
			60° wk		15°	1/10	qtz-chl-lim-mal										
					45	1/6	qtz-chl-cp-lim	0%		217		51%	60202	.25	.008		.18%
					60×3	1/10×3	qtz-chl-cp-lim-mal×3							.010oz			
9.14	30			220	60×2	1"×2	qtz-ser-chl-(cp-lim) ×2					220					9oz.
					60	1/20	qtz-chl-cp.				90%				.19/.07oz		
			70-80° WK.		60×3	1/20×3	qtz-chl-lim-cp ×3								3680		
					80	2/1	Gouge-bubble-lim.	<1%									
					50	6/1	qtz-chl-ser-carb-(cpy-lim)			227		47%	60203	.19	.011		.09%
					45 ×4	(1"×2)+(½"×3)	qtz-lim-chl-carb-veg-lim ×4							.010oz			8oz.
12.19	40			230	50°	1/8	qtz-chl-cp-mal-lim					230					
					60	1/16	qtz-chl-cp-(fcc)				96%						
			60-70° V. WK		45°	1/4	qtz-chl-cpid-cp.										
					5+80+70+30	hle×10	lim ×10	1-1%									
					30	1/8	qtz-chl-ser-lim-py-cp-mal			237		52%	60204	.15	.002		.18%
					50	1/2	qtz-chl-ser-veg-cp							<.010oz			
15.24	50			240	30°	1/3	qtz-chl-cp					240					9oz.
					20	1/10	qtz-chl-lim-cp-cc				92%						
			80° Mod.		30×3	1/10×3	qtz-chl-carb-cp ×3										
					60×2	1/2+1/4	qtz-chl-(cp) ×2	0%		247		53%	60205	.31	.012		.12%
					60×3	1/8×2	Qtz Vn-chl-cp-lim ×2							<.010oz			
18.29	60			250	10°	1/4	Carb Gouge-lim.					250					6oz.

GIBRALTAR MINES LIMITED

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HOLE NO. 85-17
SHEET NO. 5 OF 8

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0				70	1/2	qtz Vn - carb - vugs.										
					40 x 2	1/2 x 2	qtz-chl-ser-cp-(py)				97%						
					5 + 20	1/20 x 2	qtz-chl-carb-cp x 2										
			80		70	1/6	qtz-chl-cp	.1%									
			Mod.		50	1/10	qtz-chl-py			257							
					40 x 2	1/20 x 2	qtz-chl-py-cp x 2										
3.05	10			260	60	1 1/2"	qtz-chl-ser-cp					81%	60206	.16	.007		- .19%
					60	4"	qtz-ser-chl. carb							<.01 ox			
					5°	1/8	qtz-chl-py				89%						
			60-80		20 x 3	1/8 x 3	qtz-chl-carb-cp x 3	<1%									
			Mod.		30	1/2	qtz-chl-ser-cp			267							
					10 x 3	1/4 x 3	qtz-chl-ser-cp x 3										
6.10	20			270	30°	1/16	qtz-chl-cp					76%	60207	.31	.020	.13 bornt	.23%
														—		3635	
					45	1/4	Qtz Vn - chl-cp										
					30 x 2	1/4 x 2	qtz-chl-carb-cp				99%						
			60-70		5°	1/2	gouge-lim-carb	<.1%									
			WIK							277							
					30 x 2	1/20	carb gg. hem x2										
9.14	30			280	80 x 2	1/2 + 1/8	Qtz Vn - carb - chl - cp - tarnish x2					33%	60208	.22	.004		.17%
					5	1/10	carb-gouge-hem										
					5	1/2	carb gouge				97%						
			80°		20	1/10	qtz-chl-carb-cp	<1%									
			WIK to Mod		30 x 5	1/16 x 5	qtz-chl-carb-cp-tarnish or bornite? x5			287							
12.19	40	289-308		240	~30	1/4"	qtz-chl-carb-ser-(py-cp) -gg.					28%	60209	.28	.006		.16%
					10	1/8	qtz-chl-carb										
		Dk Alt'n zone - increased chlorite			30	1/2	qtz-chl-carb-(cp)				85%						
			Variable		30	1/2	qtz-chl-carb gg-(cp)	0%									
			Str.		10	1"	carb gg-hem.			297							
15.24	50			300	30 + 20	1/8 + 1/4"	Qtz-carb x 2					48%	60210	.39	.010		.10%
					30 x 2	1/2 x 2	qtz-chl-carb-ser-(cp) x2	0%									
					45	3"	Qtz Vn - chl-ser-cp-ep-(mag)				100%						
			80°		5	1	Qtz Vn - chl-carb-cp			307							
			Mod. to Str.		10 x 2	1/8 x 2	qtz-chl-ser-cp x 2					55%	60211	.39	.017		.26%
18.29	60	308 - 38f		310	10 x 2	1/4 x 2	qtz-chl-cp-(cp) x 2										

NMPQD.

GIBRALTAR MINES LIMITED

20435 HOLE NO. 90-19
SHEET NO. 8 OF 9

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0	Coarse grained ~40% qtz, ~20% chl. 2nd mafics ~40% plag. (sauss 2nd)	N.D.	30	1/20	qtz-chl-py					100%						
				30x10	hlex10	qtz-chl-py x10	.3%		437		90%	60116	.04	.002		.07%
3.05	10			30x6	1/16x6	qtz-chl-sw-py-cpx6											
				440 / 30	V3	qtz-ep-cp.				440							
			ND.	30x3	1/20x3	qtz-chl-ep-py-cpx3					94%						
		444-450 (chl) qtz-ser-(carb) Shear Zone	to 30° Str.	45	21"	Qtz Vn-chl-carb Cp											
				30°	6"	qtz-ser-(chl-carb)-cp shear	.1%		447		50%	60117	.90	.049		.40% +Mo
6.10	20			450 / 20°	21"	Qtz Vnx-mo-cp.				450							
		450-477 Altered Gran. Mtn Ph.? - no saus alt^n plag is - sheared in places	ND to 70°-45° wk.	20x4	1/5x4	Qtz-ser-carb-chl-cpx4					97%				.30		
				30x6	1/8x6	qtz-ser-carb-chl-cpx6									3410		
				15x6	1/16x6	qtz-ser-chl-cpx6	<1%		457		52%	60118	.50	.003		.22%
9.14	30			60 x2	1/20x2	qtz-ser-chl-py											
				460 / 45°	V4	qtz-ser-carb-hem				460							
		~35-40% qtz.		60x6	1/20x6	qtz-chl-carb-cpx6		Hem. Stain			73%						
			70-30° Mod to Str.	45	2"	Qtz^n chl carb-cp-mo.	.3%										
				20x3	1/16x3	qtz-chl-ser-py-(cp)x3		Broken Core.	467		26%	60119	.19	.015		.23% +Mo
				30	1/8	qtz-ser-chl-carb-py-cp											
12.19	40			470 / 30x20	1/20x20	qtz-ser-chl-py-(cp) x20				470							
			30° Str. to mod wk.	30°	1/3	Qtz-ser-py-(cp)					95%						
				30x10	1/20x4	qtz-chl-ser-py-(cp)x10											
				20	1/16	qtz-chl-ser-py	.3%		477		71%	60120	.08	.004		.13%
		477-497		30x2	1/20x2	qtz-chl-ser-py x2											
15.24	50			480 / 30	1	Qtz Vnx-chl-carb-cp				480							
		Gran. Mtn. Phase. 40-50% qtz.	ND	30°	1/8	qtz-ser-chl-py-(cp)					103%						
				30x2	1/20x2	qtz-chl-cpx2											
				10	1/2	Qtz-chl-carb-cp	.2%		487		82%	60121	.14	.003		.18%
18.29	60			490 / 30	1/10	qtz-chl-cp				490							

GIBRALTAR MINES LIMITED

20435 HOLE NO. 40-19
SHEET NO. 9 OF 9

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation	GRAPHIC LOG: Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0							45° x2	1/2+1	Qtz-carb. x2				98%						
			ND					40	1/8	Qtz-ser-mo-cp	Ap		497		73%	60122	.05	.002		.26%
		497-500 Qtz ser chl Shear	45° Str			500		45°	3'	Qtz-ser-chl-carb-py-cp			500	100%	500				.16 3365	
3.05	10	E.O.H. @ 500'.								M.R. Show										
6.10	20																			
9.14	30																			
12.19	40																			
15.24	50																			
18.29	60																			

GIBRALTAR MINES LIMITED

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HOLE NO. 90-18
SHEET NO. 1 OF 8

LOCATION: Retus. Gib-East + Poly — BEARING: – — LATITUDE: 49,925.47 N — CORE SIZE: N.Q. Wireline — LOGGED BY: M.R. Thon

DATE COLLARED: 14-July-1990 — LENGTH: 507' — LONGITUDE: 49,507.09 E — SCALE OF LOG: 1"=10' — DATE: August 21-22, 1990

DATE COMPLETED: 15-July-1990 — DIP: -90 — ELEVATION: 3,840.87' — REMARKS:

BOTTOM DEPTHS: LEACH CAP: – ; LIM. ZONE: 260 ; SUPERGENE: –

Meters	Feet	Rock Types and Alteration	< to Core Foliation	Graphic Log Footage	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	Sample Number	% Cu	% Mo		Estimated Grade
0.00–3.05	0–10	Cased to 52' Normal Mine Phase Quartz Diorite (N.M.P.Q.D.) lt. green; med. gr. q.d.: ~30% qtz, ~50% saus'zd plag. ~20% chloritized mafics		52						52		52					
3.05–6.10	10–20	52-90' N.M.P. Q.D.	ND	60	5x2 20x2 50	h/ex2 h/ex2 he	gouge-mal-lim x2 qtz-ep-lim. x2 chl-epid.	0%	Poor Recovery	57	14%	10% 60	60230	.72 .570x	.002 -		.04% 0x
6.10–9.14	20–30	There is a green clay alteration here - light pea green, greasy feel. (may contain copper*)	NP	70	30° 40x2 30x5 20X3	1/8 1/16x2 1/2x5 1/10x3	Qtz-chl-ep qtz-chl-lim x2 qtz-ep-(lim) x5 qtz-chl-lim-green clay x3	0%		67	93%	64% 70	60231	.40 .290x	.003	.56 .430x 3770	.02% 0x
9.14–12.19	30–40	- a weathering product. * plates metal.	60° wk	80	30 20 30 30x2 5° X3	1/16 1/2 1/2 1/10x2 1/8x3	qtz-chl. qtz-epid-green clay qtz-chl-ep qtz-epid x2 Gouge-lim-green clay x3	8%		77	98%	40% 80	60232	.52 .34ox	.002		.02% 0x
12.19–15.24	40–50		ND.	90	6X3 5 30 (10x2) +60 15x3	1/10 X3 1/8 3 hle x3 1/10x3	lim-green clay x3 gouge-lim-green clay Gouge-lim-green clay. green clay x3 lim x3	0% mal		87	97%	16% 90	60233	.64 .47ox	.002		.04% 0x

GIBRALTAR MINES LIMITED

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HOLE NO. 90-18
SHEET NO. 2 OF 8

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG (Foliation / Alteration / Footage / Structure)	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS (LEACH CAP / LIM. ZONE / SUPERGENE) Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00–3.05	0–10	90–139 white a.[illegible] ~30% qtz, ~60% plag (no saussurite alt^n) ~10% chloritized mafics.	ND	100	30x2x2 5+60 45 20 45x2	1/20 x2 hle x2 1 1/20 1/4 + 1/20	qtz-lim-green clay-mal x2 lim-green clay Qtz-lim green clay-(lim) qtz-chl-green clay-mal (lim) x2	0%		97	90%	62% 100	60234	.45 .31ox	.002		.06% 0%
3.05–6.10	10–20	-A pale green colour is imparted on the plag x/s by malachite stain. Rock is finer grained than normal.	N.D.	110	30° 10° 60° x2 45x2 30	1/8 1/16 1/10 x2 1/8 x2 1/8	Qtz-(lim-green clay) qtz-chl-green clay-mal-(lim) qtz-chl-mal-green clay x2 qtz-chl-lim x2 qtz-chl-mal-green clay (gouge)	0%		107	99%	86% 110	60235	.60 .43ox	.002		.09% 0%
6.10–9.14	20–30		N.D.	120	30° 60 5° 30 30°	1/10 1/8 1/2 1/8 1/8	qtz-chl-epid-lim qtz-chl-ser-lim Qtz-Chl-lim. qtz-lim-gouge qtz-chl-lim	0%		117	100%	80% 120	60236	.24 .17ox	.003	.52/.36 ox 3725	.02% 0%
9.14–12.19	30–40		ND.	130	20 60x6 60x4 60 30x2	1/2 1/8 x6 h1e x4 hle 1/10 x2	Qtz-Chl-lim qtz-chl-ser-lim x6 green clay-lim x4 lim-green clay qtz-chl-lim-mal x2	0%		127	100%	72% 130	60237	.22 .22ox	.002		.04% 0%
12.19–15.24	40–50	139–175	ND	140	30x4 60x2 5 80x2 5x2	1/20 x4 hle x2 1/20 1/20 x2 hle x2	qtz-chl-lim-green clay x4 green clay-MnO2 x2 qtz-lim green clay x2 mal-green clay-(lim) x2	0%		137	100%	47% 140	60238	.61 .43ox	.003		.06% 0%
15.24–18.29	50–60	An altered Mine Phase -Weak saus alt^n-epid. segregation ~20% chl. Grains have a fuzzy appearance.	ND	150	30 20x2 60x2 60	1/8 hle x2 1/20 x2 1/8	qtz-lim-green clay-mal mal-green clay x2 qtz-chl-lim-green clay-mal x2 Qtz-Chl	0%		147	100%	55% 150	60239	.37 .28ox	.004		.10% 0%

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HOLE NO. 90-18
SHEET NO. 3 OF 8

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation	GRAPHIC LOG: Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0						//	5 ± 30	1/20 x 2	qtz-chl. lim x2											
							/	70	1/8	Gouge - hem											
			ND				/	20	1/8	qtz-chl. lim	0%				100%						
							/	5	1/20	qtz. lim				157							
							/	60	1/10	qtz-chl. lim - green clay						79%	60240	.30	.002	.36	.03%
3.05	10					160	/	50	1/10	qtz ep-chl-lim					160			.190x		27 oz	oz
							//	20 x 2	1/10 x 2	qtz-chl. lim xz										8680	
							/	20	1	Qtz - lim (chl-mal)											
			ND				/	30 x 2	1/8 x 2	qtz-chl-ep. lim xz	0%			167	100%						
							/	10	1/2	qtz epid						66%	60241	.43	.002		.05%
6.10	20					170	/	45 x 4	blx4	lim x4					170			.27 oz x			oz
							/	10 x 3	blex3	lim x 3											
							/	20	1/20	qtz. chl (lim)											
			ND				/	5°	1/10	qtz-ser-chl. lim	0%				90%						
		175-184'					/	60 x 4	bl x 4	lim x4				177		40%	60242	.38	.002		.02%
9.14	30	Limonite stained				180	/	10	1"	qtz-ser-lim-chl.					180			.27 oz x			oz
							//	45	1"	lim gouge											
		White QD.					/	20 x 2	1/10 x 2	qtz-lim x 2											
			ND				/	30	1/16	qtz-chl-lim	0%				91%						
		184-205'	to				/	10	1/8	qtz-chl-lim				187		82%	60243	.82	.007		.06%
		NMP QD. w/ narrow	60-70°				/	30 x 2	1/8 x 2	qtz-chl-sugar lim xz								.600x			
12.19	40	zones of DK. Alt^n	WK.			190	/	40°	1/4	qtz-lim-chl-green clay-mal					190						oz
		(incr. chl.-epid. seqeq)					//	10	1/10	qtz lim-mal-MnO2-green clay											
		There is a lt. green					/	20	1/20	green-clay-lim											
		stain to 192' - green					/	30	1/20	qtz. chl. mal.					100%						
		clay & mal	ND				/	40 x 2	1/20 x 2	qtz-chl. mal-lim xz	0%			197		58%	60244	.40	.001		.10%
15.24	50					200	/	20	1/10	qtz-chl-lim-chl-MnO2					200			.300x			oz
							/	30	1/20	qtz-lim-mal-green clay											
							/	30	1/20	qtz-chl-MnO2-bent-lim-mal										.47	
							/	30 x 2	1/16 x 2	qtz-chl-lim-MnO2 x 2					90%					1.34 ox	
			ND													47%	60245	.16	.002	3635	
		205-217					/	20 x 2	1/10	qtz-chl-lim-mal	0%			207				.44			.10%
18.29	60	White QD.				210	/	50	1/16	Qtz-lim					210						oz

GIBRALTAR MINES LIMITED

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HOLE NO. 90-18
SHEET NO. 4 OF 8

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation	Alteration	Footage	Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																			
			ND				/	5x3	1/16 x3	qtz-chl. ser. lim x3				97%						
							—	80	1/16	gouge	0%				52%	60246	.14	.002		.07%
							/	5	hle	lim - ser. chl.			217				.100x			op.
		217-242					/	45	1/10	qtz. chl - lim										
3.05	10	N.M.P.Q.D.				220	/	30x3	hle	lim x3					220					
			NP				/	5°	1/4	gouge - clay alt^n. hem.		hem. stain		79%						
							/	30 x2	1/4x2	gouge x2	0%				10%	60247	.14	.002		.03%
							—	90x5	hle x5	lim x5		Fault System	227				.060x			op
6.10	20					230	/	70x30	1/20x2	qtz-chl-lim x2					230					
			ND.				/	5	1/10	qtz - ser lim		Badly broken		34%						
							/	30x2½	1/20 x3	qtz-chl. lim x3		Minor gouge								
							/	60x4	hle x4	hem.-lim x4	0%	95% / 5%	237		16%	60248	.20	.004		.10%
							/	30	1/10	qtz-chl-lim							.040x			
9.14	30					290	/	45°	1/10	qtz-chl-cp					290					
							/	30°	1/6	qtz-ser-chl-py-cp				82%						
		242-253'					/	15x2	1/8+1/10	qtz-ser-chl. lim x2										
		White Q.D.	ND				/	80	1/8	qtz-chl-(cp)	<1%		247		38%	60249	.45	.003	.22/.06	.07%
12.19	40					250	—	80	1/20	qtz-lim					250		.010x		3590	op
							/	60x4	hle x4	lim x4										
			ND				/	45x3	1/20x3	qtz-chl. lim-py x3				79%						
		253-330	to 45				/	45	1	Qtz-lim	<1%		257		30%	60250	.13	.022		.05%
		N.M.P.Q.D. w/ a few	-60°				/	70	1/10	qtz-chl-lim-(py)							.010x			
		narrow zones of:	Str.			260	/	30	3/1	Qtz Vn-lim-(chl)					260					
		- Dk Alt^n					/	60x3	1/10 x3	qtz-chl. lim x3				100%						
		- White Qtz					/	30	1/10	qtz. chl - cp										
		- Finer grained zone	70°				/	45	1/8	qtz. ser. chl - (cp)	<1%		267		87%	60251	.19	.008		.06%
		w/ v. weak sulf. alt^n	Mod.				/	60	1/2	qtz - cp - cp										
18.29	60					270	/	5°	1/8	qtz - cp - chl					270					

GIBRALTAR MINES LIMITED

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HOLE NO. 90-18
SHEET NO. 5 OF 8

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0	white QD.	60 30 wk to mod	280	30 / 30 / 30 / 30x3 / 30x6	1/16 / 1/8 / 1/8 / 1/16 x3 / 1/10x6	qtz-chl-cp / qtz-epi / qtz-chl-ep-cp / qtz-chl)-cp x3 / qtz-chl-(cp) x6	0%		277	98%	88%	60252	.12	.002		.12%
3.05	10																
6.10	20	ND		290	20 / 20 / 30 / 20 x2 / 20x2	1/20 / 8" / 1/20 / 1/8 + 1/16 / 1/16 x2	qtz-chl-ep-(cp) / fine cp-chl rich rock-(hem) / qtz-chl-cp / qtz-chl-cp x2 / qtz-chl-ep-cp x2	0%		287	97%	46%	60253	.09	.002		.14%
9.14	30	ND		300	10 / 45 / 20 / 15° / 10x3 / 70	1/4 / 1/8 / 1/8 / 1/6 / 1/16 x3 / 1	qtz-chl-ep-cp / qtz-chl-ep-(cp) / Qtz cp / qtz-chl-ep-cp / qtz-chl-cp x3 / qtz-ep-chl	0%		297	100%	83%	60254	.26	.001	.15 3545	.18%
12.19	40	ND.		310	30 / 30 / 30 / 5x6 / 20	1/16 / 1/2 / hle / hle x6 / hle	qtz-chl-ep-(cp) / qtz-ep-chl-hem / lim-hem / gauge & hem / cream colored clay & hem.	0%	Fault System. Iron stain Broken core.	307	93%	10%	60255	.08	.001		.06%
15.24	50	ND.		320	10 x2 / 5° / 20x4 / 20	1/16 x2 / 1/20 / hle x4 / 1/4	qtz-ep-chl-(cp) x2 / qtz-chl-cp / hem x4 / qtz vn-cp.	0%		317	90%	62%	60256	.22	.005		.25%
18.29	60	ND		330	10x6 / 5+10 / 30 / 15+20 / 15° / 20	hle x6 / 1/16 x2 / 1/2 / 1/16 x2 / 1/16 / 1/8	hem x6 / qtz-chl-ep-cp x2 / Qtz-cp / qtz-cp x2 / qtz-cp & chl-cp / qtz-chl-py-cp	2%		327	100%	50%	60257	.15	.001		.17%

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HOLE NO. 90-18
SHEET NO. 6 OF 8

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG Footage	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks (BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE)	Footage Blocks	Estimated Core Recovery	R.Q.D.	SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00 – 3.05	0 – 10	330 – 445 Leucocratic Phase <5% mafics fine gr.	ND	340	10 x2 30x2 30 30 x3 30 x2 60	hb x 2 1/16 x 2 1/10 1/8 x3 1/20 x2 1/20	horn x 2 qtz-ser-cp x2 qtz-ser-carb-cp.mo qtz-ser-(chl)-cp x3 qtz-ser-cp x2 qtz-ser-cp	0%		337	92%	61% 340	60258	.16	.005	.16 3550	.16%
3.05 – 6.10	10 – 20		ND	350	70 30° 5x2 20x3 10	1" 1/16 1/10 x2 1/8 x 3 1/8	Gouge. qtz-chl-ep-cp. qtz-chl-ser-(cp) x2 qtz-chl-ser-cp x3 qtz-ser-(chl)-cp	0%		347	90%	77% 350	60259	.22	.003		.13%
6.10 – 9.14	20 – 30		ND.	360	30x3 30 70 5x2	1/16 x3 1/20 1 1/16 x2	qtz-ser-chl-(cp) x 3 qtz-chl-ser-py Qtz Vn - lim qtz-ep-chl-(cp) x2	<.1%		357	95%	64% 360	60260	.14	.003		.06%
9.14 – 12.19	30 – 40		ND.	370	10 x2 5x2 5x3 5	1/16 x2 1/16 x2 hb x 3 hb	qtz-ser-cp x2 qtz-chl-lim-(cp) hem x3 hem-clay?	<.1%		367	100%	46% 370	60261	.19	.003		.03%
12.19 – 15.24	40 – 50		ND	380	30° 60 30 x2 20 x2 5° x2	1/8 1/4 1/20 x2 1/20 x2 1/20 x2	qtz-chl-ep-(cp) qtz-cp qtz-chl-ser-cp x2 qtz-ser-cp x2 qtz-chl-cp x 2	0%		377	96%	47% 380	60262	.16	.010		.05%
15.24 – 18.29	50 – 60		ND	390	20x3 5° x2 20 10	hb x 3 1/20 x2 1/20 1	gy-hem x3 qtz-ser-chl-cp x 2 qtz-chl-ser-cp Qtz Vn - chl-cp	0%		387	78%	26% 390	60263	.22	.009	.18 3455	.23%

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HOLE NO. 90-20
SHEET NO. 1 OF 7

LOCATION: North-East Corner of Gib-East	BEARING: -	LATITUDE: 50, 860.41 N	CORE SIZE: N.Q.Wireline — LOGGED BY: M.R. Thon
DATE COLLARED: 17-July-1990	LENGTH: 407	LONGITUDE: 49, 131.81 E	SCALE OF LOG: 1"=10' — DATE: Aug 23-24, 1990
DATE COMPLETED: 18-July-1990	DIP: -90°	ELEVATION: 3,853.83	REMARKS:

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG Footage	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP 70; LIM. ZONE 77'; SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00–3.05	0–10	Cased to 32' Normal Mine Phase Quartz Diorite (N.M.P.Q.D.) - lt. green, med. gr. q. d.; ~30% qtz; ~50% saus.[2d] plag.; ~20% chloritized mafics.		32					Lim to 77' to base of 1st fault.	32		32					
3.05–6.10	10–20	32-64' N.M.P.Q.D. w/ narrow zones of Wt. Q.D. Poor recovery, abundant gg.	ND	40	60×6 10 5×6 45	hle×6 2" hle×6 6"	lim×6 gouge-lim lim ×6 Wt. QD-lim	0%	Fault System 32-87'	37	24%	2% (40)	60123	.09 .030x	.002	.04 3815	.02%
6.10–9.14	20–30	abundant lim.	ND	50	20 5° 10° 5×6	3" 4" 2" hle×6	gouge-lim gouge-lim gouge-lim lim	0%		47	42%	0% (50)	60124	.05 .030x	.002		.02%
9.14–12.19	30–40		ND	60	60 +45 60 80 10 80	hle×10 hle 6" 4	lim×10 MnO_2-lim gouge-lim gouge-lim	0%	Fault System. ~30% gg, 70% B.Kn Core.	57	29%	0% (60)	60125	.09 .050x	.007		.02%
12.19–15.24	40–50	64-67' Limonite stained qtz-ser shear 67-87 Dk. Alt[n] ... in chl. - no saus. alt[n]	ND to 80° Mod	70	60×6 5×2 60×2 30 50	hle×6 hle×2 2"+½" 2" 1"	lim×6 lim×2 gouge-lim×2 Qtz Vn.-lim-(mo) Gouge-lim	0%		67	83%	10% (70)	60126	.16 .060x	.008		.02%

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HOLE NO. 90-20
SHEET NO. 2 OF 7

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation	Alteration	Footage	Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0							20 YZ	1/8 + 2	gouge - lim - (qtz-py)				30%						
			ND					70	1	Gouge Poor recovery	<1%	Fault System			4%	60127	.20	.005		.02%
								40	1/2	qtz-chl-carb			77				.030x			
3.05	10					80		30	1/20	qtz-chl-carb gg					80					
								90°	1/4	qtz-chl-carb-(py?)								.12		
			ND					30x2	1/20x2	qtz-chl-py				56%						
			to					50x2	1/8x2	Qtz-carb.Vn								3770		
		87-110'	60°					60x2	1/3+1/8	qtz-ser-chl) shear	.1%		87		26%	60128	.04	.002		.08%
6.10	20		Mod.			90		60	1/10	qtz-ser-chl-py					90					
		Altered Mine Phase similar to DK Alt^n, but less chlorite; plag. is sericitic and xls. are indistinct - narrow zones of qtz-ser-chl shear						80	1/2	Gouge										
			80°					10	1/3	Qtz-carb-chl Vn.				90%						
			Str					10	1/2	Carb-qtz-chl-gg										
			to					45	1/10	qtz-chl-carb	.2%		97		41%	60129	.04	.001		.03%
			Mod.					10	1/10	qtz-carb-py										
9.14	30					100		20	1/8	qtz-chl-carb-py					100					
								30x3	1/8x3	qtz-chl-carb-py x3										
								45	1/10	qtz-chl-carb-ser-py				78%						
			ND					45	1/8	carb gouge										
								30	1/10	qtz-chl-carb-py	.1%		107		17%	60130	.03	.002		.63%
12.19	40	Fault Contact				110		10°	3'	Gouge-bx-(py)					110					
		110-134						30x5	1/8x5	qtz-chl-vugs-py x5										
		N.M.P.G.D						45	1/2	Qtz Vn-(chl-py)				81%						
			45°					40	1/6	Qtz-chl-carb	1%		117		42%	60131	.06	.002		.04%
			Wk.					30	1/3	qtz-ser-chl-carb-py										
15.24	50					120		45x3	1/8x3	Qtz Vn-chl-py x3					120					
								50	1"	qtz-chl-ser-vugs-(carb)-py										
								30x4	1/10x4	qtz-chl-py x4				93%						
			ND					30	1/2	Qtz Vn-py-(mo)	1%		127		48%	60132	.08	.005		.04
								30x3	1/8x3	qtz-chl-ser-carb-py x3								.05		
18.29	60					130		30x3	1/2x3	qtz-chl, ser carb-vugs-py	x3				130			3715		+ Mo.

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HOLE NO. 90-20
SHEET NO. 3 OF 7

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG Foliation	Alteration	Footage	Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0							30x6	1/20 x 6	qtz-chl-ser-py-(cp-ox?)											
			ND					45	1½	Qtz Vn-py-cp-mo					72%						
		139 259	to					30x1	1/20 x 1	qtz-ser-chl-py-cp-tarnish x 4											
		White g.d. or	30					30 x2	½ x 1	qtz ser-chl-py-cp x 2						35%	60133	.13	.003		
		Leucocratic Zone	Mod.			140		30x9	1" + (1/8 x 8)	qtz-ser-py-cp x 9	2%			137							.13% + Mo
3.05	10															140					
		<5% chlorite					1	10	1/20	qtz-chl-ser-py											
		Most fsp's are sericitic - only					/	45	¼						100%						
		isolated zones w/ (sauss.	ND				/	30 x 6	½ x 6	qtz-ser-py											
		alt.m)	to				/			qtz-ser-py-(cp) x 6	2%			147		61%	60134	.07	.001		.12%
		-hem stain in places	80°				1	30 x 4	¼ x 4	qtz-ser-py-(cp) x 4											
			v. wk.			150	/	30	½	Qtz-ser-py-(cp) x 2						150					
6.10	20																				
							/	30 x 3	½ + (¼ x 2)												
			As-				/	30 x 10	1/16 x 10	qtz-ser-py-(cp) x 10					100%						
			30				/	30 x 3	1/2 x 3	qtz-ser-py-(cp) x 3	3%			157		54%	60135	.05	.002		.16%
			Mod				/														
			to			160	/	30	1	qtz-ser-py-(cp)						160					
9.14	30		wk																		
							/	30 x 10	1/16 x 10	qtz-ser-py-(cp) x 10											
							/	30	1/2	qtz-ser-cp					99%						
			ND				/	40 x 2	1/8 x 2	qtz-ser-py-cp x 2	3%		hem stain	167		43%	60136	.05	.001		.22%
						170	/	30 x 10	(1/20 x 8) + (1/8 x 2)	qtz-ser-chl-py-(cp) x 10						170					
12.19	40																				
							/	30 x 10	1/20 x 10	qtz-ser-chl-py-cp x 10									.07		
							/	30 x 3	1/16 x 3	qtz-ser-py-cp x 3	3%		hem stain		99%				3680		
			ND				/	30 x 3	1/4 + (1/8 x 2)	qtz-ser-chl-py-cp x 3				177		84%	60137	.05	.001		.25%
						180	/	15 x 3	¼ x 3	qtz-ser-py x 3						180					
15.24	50																				
							1	10	⅛	qtz-chl-carb-cp											
							/	20 x 4	1/20 x 4	qtz-ser-chl-py x 4					98%						
			N.D.				/	15 x 6	1/20 x 6	qtz-ser-py-(cp) x 6	3%			187		86%	60138	.05	.001		.25%
							/	30 x 10	1/20 x 10	qtz-ser-py-(cp) x 10											
						190	/	40	½	qtz-ser-cp						190					
18.29	60																				

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SHEET NO. 4 OF 7

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0				30x4	1/10 x 4	qtz-ser-py-cp x 4				100%						
			30-45°														
			v. wk.		15 x 20	1/16 x 20	qtz-ser-py-cp x20	2%		197		100%	60139	.01	.002		.20%
3.05	10			200	40 x6	1/10 x 6	qtz-ser-py-cp x6					200					
					40	1/6	Qtz-carb-cp										
			ND		45x5	1/10 x5	qtz-ser-cp x5				100%						
					30	1	Qtz Vn-(carb vug-cp)	2%		207		86%	60140	.05	.003		.20%
6.10	20			210	30 x3	1/8 x3	qtz-ser-py-(cp) x3					210					
		Sericite fault.			30	1/16	qtz-chl-ser-py										
			NP		80 x2	3/4 x 1/8	qtz ser-carb-py x2				100%						
					30	1/16	qtz-ser-chl-py x2	.3%		217		70%	60141	.03	.003		.10%
9.14	30			220	60	1	qtz-epid,					220				.01 3635	
					30	1/8	Qtz Vn-(chl carb-py-hem)										
					30	1/8	qtz-ser-carbgg-py										
			ND		30 x2	1/20 x2	qtz-ser-chl-py x 2				92%						
					30x7	(1/16)(1/20x5)	qtz-ser-chl-py-(cp) x7	.3%		227		58%	60142	.06	.003		.09%
					30x2	1/16 + 2"	Qtz Vn-carb-(hem) x2										
12.19	40			230	45	1 1/4	Qtz Vn-(chl carb-cp)					230					
					60	hle	qtz-ser-py										
			NP		30x3	1/4 (1/20 x2)	qtz-ser-carb-py-cp x3	.2%			96%						
					45	1/20	qtz-ser-py-(cp)			237		90%	60143	.02	.003		.14%
					30	1/4	qtz-ep										
15.24	50			240	30x3	1/8 x3	qtz-ser-chl-carb-cp x3					240					
					5°	1/8	qtz-chl-ep-carb-py										
					60	1	Qtz Vn-(carb)				85%						
			ND		45	1/4	qtz-chl-ser-carb-py-cp	.1%		247		60%	60144	.02	.002		.07%
					5°	hle	carb gg-hem										
18.29	60			250	60 x2	1 + 2	Qtz Vn-(chl-carb) x2					250					

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HOLE NO. 90-20
SHEET NO. 5 OF 7

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation	Alteration	Footage	Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0						/	30°	1/16	qtz-chl-epid-(py-hem)				93%						
							∫	10°	1/4	qtz-Cp-chl-carb										
		254 - 292	ND				/	30 x 2	1/20 x 2	qtz-chl-py x 2	.3%		257		85%	60145	.05	.003		.22%
		NMPQD.					/	10 x 3	1/4 (1/8 x 2)	qtz-chl-carb-py-(cp) x 3										
3.05	10	-a few white dykes				260	/	50	1	qtz-chl-epid-(cp)					260					
							/	45	1/16	qtz-chl-epid-cp				100%				.02		
			N.D				/	30 x 6	1/20 x 6	qtz-chl-ser-py x 6	.1%		267		86%	60146	.01	.001	3590	.04%
							/	45	1/10	qtz-chl-carb-py										
6.10	20					270	/	35 x 2	1/4 x 2	qtz-chl-carb x 2					270					
							/	30	1/16	qtz-chl-ep-py										
			ND				/	60 x 2	1 x 2	Qtz-carb				100%						
							/	50	1/20	qtz-carb.	.1%	hem stain	277		93%	60147	.01	.001		.04%
							/	30	1/10	qtz-carb-hem.										
9.14	30					280	/	30	1/4	qtz-chl-carb-Hem					280					
							/	30	1/2	qtz-chl-carb-cp										
							/	30 x 2	1/8 x 2	qtz-chl-carb x 2				100%						
			ND				/	40	1/8	qtz-carb	0%		287		74%	60148	.04	.002		.04%
							/	20°	3/4	qtz-carb-chl-hem										
12.19	40					290	/	30°	1/2	qtz-chl-epid-hem stain					290					
							/	30 x 2	1/8 + 1/2	Qtz-chl-carb-hem x 2				97%						
		292-297					/	30 + 60	1/20 x 2	qtz-chl-ser-py x 2										
		Mainly White Qtz.	ND				/	30 + 120	1/4 x 2	carb. hem. x 2	.1%		297		55%	60149	.01	.002		.02%
		297 - 331					/	5 + 120	hl e 1/20	qtz-carb-hem x 2										
15.24	50					300									300					
		Granite Mtn. Phase					/	70	1 1/2	qtz-ser-chl-carb-(py)				100%						
		~40% qtz. coarse grained	80°				/	60 x 2	1/20 x 2	qtz-chl-ser-py x 2	.2%		307		81%	60150	.02	.001		.02%
			V. WK to ND				/	45°	1/8	Qtz-chl-ep-py								.01%		
18.29	60					310	/	10 x 5	hl e x 5	carb-hem x 5					310			3545		

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HOLE NO. 90-20
SHEET NO. 6 OF 7

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

Meters	Feet	ROCK TYPES AND ALTERATION	∨ TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
					40°	1/8	qtz. chl. cp.				100%						
					30°	1/2	Qtz Vn ser-carb-chl-(py)										
			NP		60	1/20	qtz-chl-cp	.2%									
					45	1/10	qtz-ser-chl-cp-py			317		89%	60276	.02	.007		.13%
3.05	10			320	10 x 2	1/8 + 1/20	qtz-ser-chl-py-cp x2					320					
					30	1/8	qtz-ser-(chl)-cp										
					45	1/16	qtz ser py -(cp)				100%						
			ND		95	1	Qtz-ser-py-cp	.1%									
					30x2	1/8 + 1/16	qtz-ser-chl-py-(cp) x2			327		98%	60277	.01	.006		.22%
6.10	20			330	30	2½	qtz-ser-chl-carb-py-cp					330					
		331-338			30x3	1/8x3	qtz. chl-carb x3										
		Hem. stained leucocratic Phase			10x2	1/20x2	carb hem gg x2				93%						
		Ser. test.	NP		20	1/4	qtz-chl-ser-py-cp	2%		337		63%	60278	.02	.003		.19%
		338-389.5			70	1/2	qtz chl-ser-py										
9.14	30			340	45	1/20	qtz-ser-carb-cp					340					
		Gr. Mtn Phase / Mine Phase 2			30x2	1/2 x2	qtz-carb-(py-cp) x2										
		hem stain to 357'			30x3	1/20 x3	qtz-chl-cp-cp x3				100%						
			ND		30	1/20	qtz-chl-carb py	.1%									
		Rock grades from			70	1/16	qtz-ser-py			347		98%	60279	.04	.005		.22%
12.19	40			350	30	1"	qtz-chl-ser-carb-py-(cp)					350					
		40% qtz to 30%,			30	1/8	qtz-chl-carb-hem									.02	
		back to 40%.			50 x2	1/8 x2	carb-hem. x2				98%					3500	
			ND		10	1/8	qtz-chl-carb-hem	.1%	Hem. stain.	357		76%	60280	.04	.003		.09%
				360	15 x2	1/20 x2	qtz-chl-ser-py-(cp) x2					360					
					40°	1/4	qtz-chl-ser-carb-py										
					40 x 6	1/20 x 6	qtz-chl-py x6				100%						
			N.D.		60°	1/16	qtz-chl-carb	.1%									
					10	lle	carb-hem			367		91%	60281	.02	.002		.03%
18.29	60			370	45°	1/12	qtz-chl-cp					370					

GIBRALTAR MINES LIMITED

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HOLE NO. 90-20
SHEET NO. 7 OF 7

Meters	Feet	Rock Types and Alteration	< to Core Foliation	Graphic Log: Footage	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Bottom Depths (Leach Cap / Lim. Zone / Supergene) / Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	Sample Number	% Cu	% Mo		Estimated Grade
0.00–3.05	0–10		N.D.	380	50 5 x2 30 20 x 3 10 30	1/10 hle x2 1/8 1/16 x 3 1/10 1/10	qtz-chl-cp. carb-hem x2 qtz-chl-carb-cp qtz-chl-carb-py x 3 qtz-carb-vugs-cp qtz-chl-ep-cp	.2%		377	102%	77% 380	60282	.06	.003		.17%
3.05–6.10	10–20		ND	390	30x2 30x2 30x3 30	1/20 x 2 1/8 + 1/4 1/20 x3 1/2	qtz-ser-chl-py-cp x2 qtz ser-chl-py-cp x 2 qtz-chl-ser-cp x 3 qtz-ser-chl-cp-py	.1%		387	99%	85% 390	60283	.10	.012		-.20%
6.10–9.14	20–30	389.5-397 DK Altn & Qtz-chl-ser Shear (carb) 397-402 Qtz Vn.	.80° Mod to Str	400	60x5 60 30° 50°	1/20 x 5 1/6 hle 5'	qtz-chl-py-cp qtz-chl-carb-(cp) qtz-ser-chl-py-cp Qtz Vn. (chl-ser-carb-py-cp)	3%		397	82%	58% 400	60284	.04	.008	.05 3455	.20
9.14–12.19	30–40	402-407 Sheared Gran. Mtn Phase E.O.H. @ 407.	ND to 80° WK	407	45x0 60 30x3	1/8 x 2 1" 1/20 x 3	qtz-ser-chl-carb-py x2 Qtz-carb qtz-chl-py x3	.3%		407	90%	54% 407	60285	.22	.005		.09%
12.19–15.24	40–50																
15.24–18.29	50–60																

M.R. Shaw

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HOLE NO. 90-19
SHEET NO. 1 OF 9

LOCATION Between Pollyanna & Gib-East | BEARING - | LATITUDE 50,473.38 N | CORE SIZE N.Q. Wireline | LOGGED BY M.R. Thon
DATE COLLARED 16-July-1990 | LENGTH 500' | LONGITUDE 49,417.33 E | SCALE OF LOG 1" = 10' | DATE August 22-23, 1990
DATE COMPLETED 17-July-1990 | DIP -90° | ELEVATION 3,863.70 | REMARKS

BOTTOM DEPTHS: LEACH CAP 85 | LIM. ZONE 200 | SUPERGENE —

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0	Cased to 32'															
		Normal Mine Phase Quartz Diorite (N.M.P.Q.D.) -Lt. green, med. gr. g.d.: ~30% qtz, ~50% saus 2d plag, ~20% chl 2d matic.		32.						32		32					
3.05	10	32-228 N.M.P.Q.D. A few narrow zones of Dk Alt'n w/ increased chlorite, segregated epidote	N.D.	/ 20°	16" + 2"	qtz-Epid (chl-horn) vz	0%	Lim zone is not str., but follows fractures down to 200'	37	74%	62%	60076	.02	.001		.02%
				/ 25	1/8	qtz-chl-carb-lim							101 ppm				
6.10	20			40 / 45°	1/6	qtz-chl-vugs-lim					40						
			N.D.	/ 20	9	Qtz-Epid-(lim)	0%		47	97%	87%	60077	.01	.002	.01	.02%
				/ 45 V2	1/8 + 1/4	Qtz-chl-lim x2							101 ppm		3815		
				/ 45°	1/4	qtz-chl-ser-(lim)											
9.14	30			1 10	1/10	qtz-chl-ser-epid.					50						
				50 / 20	1/20	qtz-chl-lim											
			ND	/ 40	1/10	qtz-chl-lim	0%		57	102%	91%	60078	.01	.003		.02%
				/ 20	1/6	qtz-epid-lim							101 ppm				
				/ 60	V5	Qtz-(lim)											
				/ 10	Lte	qtz-chl-ser											
12.19	40			60 / 5	V4	qtz-chl-ep-lim					60						
				/ 60	1/6	qtz-chl-ep-lim											
			N.D.	/ 45°	1/9	Qtz-lim	0%		67	97%	91%	60079	.03	.005		.02%
				/ 10	1/20	qtz-chl-lim							101 ppm				
				X 20	1/10	qtz-chl-epid-(lim)											
				/ 30	1/2	Qtz-Epid-lim											
15.24	50			70 / 45	1/3	Qtz-lim-chl					70						

GIBRALTAR MINES LIMITED

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HOLE NO. 90-19
SHEET NO. 2 OF 9

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
			ND		80 +20	1/8 + 1/10	qtz-chl-(epid)				95%						
					45 x2	3/4 + 1/2	qtz-chl-epid-vugs-lim x2										
					30	1/20	qtz-chl-lim	0%									
					45	3	qtz-chl-epid-vugs-lim										
3.05	10			80	30	1/1	qtz-chl-epid-vugs-lim			77		99%	60080	.02 .010%	.002		.02%
			ND		30 x3	1/20 x3	qtz-chl-lim x3				100%						
					60	h/e	lim										
					70	1/16	qtz-chl-py-lim	<1%	1st sulphides								
					70	1/20	qtz-lim										
6.10	20			90	45 x2	h/e x2	lim x2			87		92%	60081	.02 .010%	.001		.02%
			ND		30 x2	2" + 6"	qtz-ser-chl-lim x2				93%					.02	
					30 x2	1/4 + 1/20	qtz-lim x2									3770	
					45	1/10 + (1/20 x2)	qtz-chl-ep-(lim) x3	0%				70%					
					45°	1/1	qtz-chl-lim										
9.14	30			100	60	1/10	qtz-chl-vugs-MnOx-lim			97		100	60082	.05 .020%	.006		.02%
			ND		45°	2"	qtz-ser-chl-lim				98%						
					10	1/16	qtz-chl-vugs-lim										
					45°	1	qtz-chl-lim	0%									
					60	4"	Fine gr. Qtz-ser-chl) leuc. Zone										
					45	3	Qtz Vn. + qtz-ser-chl-lim.										
12.19	40			110	60	1/4	Qtz-(lim)			107		82%	60083	.03 .020%	.005		.02%
			N.D		50	1/3	Qtz-ser-(epid)				100%						
					10 x2	1/10 + 1/20	qtz-chl-(py) x2										
					45	1/16	Qtz Vn. chl-vugs-lim	<1%									
					20	1/16	qtz-chl-ep										
15.24	50			120	45	1/2	qtz-chl-ep-(py-cp)			117		91%	60084	.09 .020%	.004		.03%
			N.D.		36 x2	1/10 x2	qtz-chl-epid-lim x2				100%						
					60 x2	h/e x2	lim x2										
					45 x2	1 + 1/2	qtz-epid x2	<1%									
					30°	1/8	Qtz-chl-vugs-cp-										
18.29	60			130	30	1/1	qtz-ds-py-lim			127		98%	60085	.06 .020%	.003		.08%

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HOLE NO. 90-19
SHEET NO. 3 OF 9

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG Foliation	Alteration	Footage	Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	SAMPLE NUMBER	ASSAY RESULTS: % Cu	% Mo		Estimated Grade
0.00	0																			
			ND.				1	30 x2	1/16 x 2	qtz-chl-ep-lim x2				98%						
							1	40 x 2	1/10 x 2	qtz-chl-ser.										
							1	40	1/8	qtz chl-vugs-lim	0%		137		90%	60086	.04	.005		.02%
							1	50 + 30	1/4 + 1/16	Qtz Vn-chl-vugs-lim x2							.020x		.05	
3.05	10					140	1	30	1/20	qtz-chl-lim					140				3725	
							1	5	1/8	qtz-chl-ser										
							1	60	1/4	qtz-chl-ser				98%						
			ND				1	30	1/10	qtz-chl-epid.	0%									
							1	45 x 2	1/3 + 1/8	Qtz-Chl Vns-(vugs-lim) x 2			147		80%	60087	.03	.003		.02%
							1	10	1/8	qtz-chl-ser-vugs-lim.							.030x			
6.10	20					150	1	10	lee	lim					150					
							1	30 x 3	1/20 x 3	qtz-chl-lim x3										
		qtz-ser-lim.	NP				1	5 x 3	lee x3	lim + MnO2 x 3				92%						
			to				1	30 x 2	lee x2	lim x2	4.1%	Str. lim.								
			30-45				1	20	1/20	lim			157		44%	60088	.07	.007		.03%
			WK				1	30	1/8	qtz-chl-epid.							.050x			
9.14	30					160	1	30 x2	1/16 x2	qtz-chl-lim-py x2					160					
							1	50	1/4	qtz-chl-ep										
							1	40 x2	1/10 + 1/8	Qtz-ser.Vn-(ep-lim)				87%						
			ND				1	30	1/20	qtz-chl-ep	4.1%						.05	.002		
			to				1	30	lee	lim			167		72%	60089	.020x			.03%
			10°				1	30 x2	1/4 + 1/20	qtz-chl-ep x2										
			V.WK.				1	80	3"	qtz-chl-epid-lim-((py))										
12.19	40					170									170					
							1/2	20	1	qtz-chl-lim-((ep))										
							1	50	lee	qtz-chl.				100%						
			ND to				1/2	30	1/16	qtz-chl-lim	<1%						.10	.002		
			70°										177		37%	60090	.050x			.03%
			V.WK.				1/2	50	lee	qtz-chl										
15.24	50					180	1/2	30 x2	1/20 x2	qtz-chl-lim x2					180					
							1	25	1/20	qtz-lim-chl									.06	
							1	80	1/8	Qtz Vnv-vugs				90%					3680	
			N.D.				1	40 x2	lee x2	chl-hem x2	0%						.06	.004		.02%
			to 70°				1	70	1/4	Qtz chl Vn-vugs			187		36%	60091	.060x			
			V. WK.				1	30 x2	lee x2	lim x 2										
18.29	60					190									190					

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HOLE NO. 90-19
SHEET NO. 4 OF 9

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
			ND		20	2"	qtz-chl-ep-lim				102%						
					60	1"	Qtz-Chl Vn-cp-lim										
					5°	1	Qtz Vn-vugs-lim										
					25x4	1/20x4	qtz-chl-py x4	.2%		197		50%	60092	.46 .050x	.029		.08%
					30x3	1/8x3	Qtz-Chl-cpy x3										
3.05	10			200	10	3"	Qtz Vn-Chl-cp-py-(cp)-lim					200					
					40x2	3"x2	Qtz-chl-lim mo py x2										
			Variable		10	2"	qtz-chl-ser-ep-(cp)				93%						
			WK to		70x2	1/8 x2	qtz-chl-arv-lim-(py)x2	.1%	Badly broken core.	207		28%	60093	.74 .130x	.018		.04%
			Str.		6° x 2	1/16 x 2	olive green gouge-lim x2										
6.10	20			210	5°x2	1/16x2	qtz-chl-cp x2					210					
					5x2	1/8 x2	qtz-chl-ser-cp-vugs x2										
					5°	hle	olive green gouge-hem				96%						
			NP		20x3	1/8x3	qtz-chl-ser-cp x3	<.1%		217		42%	60094	1.02 .104	.008		.10%
					5°	1/10	qtz-ab-vugs-cp										
					30	1/2	qtz-chl-cp										
9.14	30			220	30x3	1/20x3	qtz-chl-ser-(cp) x3					220					
					30+20	1/10 x2	qtz-chl-vugs-py-cp x2										
					30	1/2	Qtz-ser-vugs-py-(cp)				100%						
			70°		20x3	1/16x3	qtz-ab-py x3										
			VWk		30x2	1/20 x2	qtz-chl-ser-pff-lim x2	.1%		227		62%	60095	.37 .040x	.002	.58 1/80x	.10%
		228-237			10	1/4	gouge-lim-hem									3635'	
12.19	40			230	5+60	hle x2	lim x2					230					
		Leucocratic Phase on white QD			20x3	1/8 +(1/2)	qtz-ser-chl-vugs-py-(cp) x3										
			ND		30x5	1/2x5	qtz-ser-chl-vugs-py-(cc)-(cp)-lim		xs		85%						
			to		10°	1/16	Qtz-ab vugs-py	.1%		237		33%	60096	.52 .050x	.004		.20%
		237-255	50°		60°	12"	Gouge-lim.										
		Hem. staining of NMPQD;	wk.														
15.24	50			240	70	1/20	gouge.					240					
					5°	hle	colinf gun sg-hem										
					30x4	1/20x4	qtz-chl-cp-(py) x4				92%						
			ND		30x3	1/20x3	qtz-chl-ser-py-cp x3	.1%		247		40%	60097	.18 .010x	.026		.16%
					60	1/4	Qtz-carb-vugs-(gg)										
					10	1"	Qtz-Vn-chl-ser-carb-cp										
18.29	60			250	50	1/20	qtz-chl-ser-py					250					

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HOLE NO. 90-19
SHEET NO. 5 OF 9

Meters	Feet	Rock Types and Alteration	< to Core Foliation	Graphic Log Footage	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Bottom Depths / Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	Sample Number	% Cu	% Mo		Estimated Grade
0.00–3.05	0–10	255- 418 White QD or leucocratic Phase	NP	260	50° 40x3 20x2 60 50x3 45° x2	1/4 1/16x3 1/2+1/8 1/8 1/10x3 1/20x2	qtz-chl-carb (py) qtz-chl-py-(cp) x3 qtz-chl-carb-ser-py-(cp) x2 qtz-chl-ser-py qtz-chl-ser-py x3 qtz-chl-ser-(carb)-py-hem x2	.2%		257	93%	41% 260	60098	.07	.005		.07%
3.05–6.10	10–20	- hem stained in places	70-80 Mod.	270	60x5 80x2 30 70x2 60x4 70	1/16x5 1/20x2 1/8 1+3 1/20x4 1"	qtz-chl-ser-py x5 qtz-ser-py-hem x2 qtz-chl-carb-hem Gouge-carb. qtz-ser-py V 4 Gouge-carb(hem)	.2%	Somewhat Sheared	267	92%	12% 270	60099	.07	.004		.08%
6.10–9.14	20–30		60-70 Mod 70 ND	280	70 30 60 30 40x3 60	1/20 1/2 1/8 3" 1/4x3 2"	gouge(hem) olive green gg-hem qtz-ser-cp QtzVn-mo-(cp) Qtz ser-cp x3 qtz ser-py-mo-(cp) gg	0%	Shearing	277	90%	32% 280	60100	.11	.017	.20 3590	.22% MoS_2
9.14–12.19	30–40		ND	290	60x2 10 80 45x2 45	1/8x2 1/8 1 1/8x2 1/2	qtz-ser-carb-py-(cp) x2 carb gg-hem QtzVn-ser-py-(mo) Qtz-chl-carb-epid x2 QtzVn-carb-vugs-hem	.1%		287	92%	32% 290	60101	.05	.003		.16%
12.19–15.24	40–50		ND,	300	30 60 20 60x2 30x3 30	1/8 1/8 1/10 1/16x2 1/8+(1/16x2) 6	carb gg-hem qtz-ser-carb-cp qtz-carb-cp qtz-chl-ser-cp x2 qtz-chl-ser-cp x3 carb gg-hem.	0%		297	91%	38% 300	60102	.13	.004		.20%
15.24–18.29	50–60		N.D.	310	45x2 20 5 30 30x2	1/8+1/16 1/10 hair 1/10 1/20x2	qtz ser-cp x2 carb gg. hem. carb g.g. qtz-chl. ser. cp. qtz-chl. ser-(cp) x2	0%		307	92%	75% 310	60103	.05	.003		.09%

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HOLE NO. 90-19
SHEET NO. 6 OF 9

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
			ND		20	1/8	Qtz-an-cp		Not much iron stain here.		94%						
					30	1/20	carb-gg-hem										
					30 x 6	1/16 x 6	qtz-chl-an-cp x 6	0%									
					45	1/6	Qtz			317		72%	60104	.06	.003	.08	.09%
					30	1/10	Qtz-cp									3545	
3.05	10			320	30 x 2	1/20 x 2	qtz-an cp +(cp) x2					320					
					30 x 2	1/20 x 2	qtz-ser-carb-(cp) x2										
			ND		20 x 6	1/20 x 6	qtz-chl-ser-(cp) x6				106%						
					40	1/8	Qtz-Chl-carb.	<1%		327		38%	60105	.07	.003		.11%
					45	1/8	gouge-carb-(hem-py)										
6.10	20			330	30	1/8	Qtz Vn-(carb)-cp					330					
					20 x 6	1/16 x 6	qtz. (carb) - cp x6				100%						
			ND		60°	1/8	Qtz. chl-cp	0%		337		72%	60106	.05	.003		.12%
					30	1/8	qtz-ser-(chl)-cp										
9.14	30			340	20 x 2	hle x 2	carb gg-hem x 2					340					
					10°	1/10	qtz-ser-(chl)-py										
					60°	1/16	qtz py				97%						
			N.D.		30	1/8	qtz ser (py-cp)	.3%		347		61%	60107	.08	.002		.07%
					30 x 3	1/10 x 3	qtz-chl-ser-ep-py-cp x3										
					45°	1/4	qtz-ser-chl-cp										
12.19	40			350	30 x 6	1/10 x 6	qtz-ser-chl-py-(cp) x6					350					
					30 x 2	1/10 + 1/20	qtz-ser-chl-(py-cp) x2										
			ND		30	1/20	qtz-ser-chl-py-(cp)	.2%		357	100%						
					5 x 2	hle x 2	qtz-dl-ep-py x2					89%	60108	.03	.002		.10%
15.24	50			360	30 x 3	1/10 x 3	qtz-ser-(chl)-py-(cp) x3					360					
					20 x 2	1/10 x 2	qtz-ser-chl-ep-py-cp x2										
					50	1"	Qtz Vn									.08	
			ND		30 x 4	(1/8 x 3) 1/20	qtz-ser-chl-py-cp x4	.3%		367	92%					3500	
					10°	2"	Qtz Vn-(carb)-mo-(cp)					62%	60109	.26	.006		.20%
					10°	1/10	qtz-chl-(carb)-cp										
18.29	60			370	30 x 10	1/16 x 10	qtz-ser-chl-cp-(py) x10					370					

GIBRALTAR MINES LIMITED

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HOLE NO. 90-19
SHEET NO. 7 OF 9

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE

Meters	Feet	ROCK TYPES AND ALTERATION	∨ TO CORE FOLIATION	GRAPHIC LOG Foliation Alteration	GRAPHIC LOG Footage	GRAPHIC LOG Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																		
			ND				10 x2	1/16 x2	qtz-ser-chl-py x2				90%						
							30 x3	1/10 x3	qtz-ser-py x3										
							45°	1/8	qtz-ser-py										
							20 x3	1/16 x 3	qtz-ser-py x3	.4%	Pink hem. stain.	377		65%	60110	.08	.002		.09%
							30	1/10	qtz-ser-py-(cp)										
3.05	10				380		70	1/10	qtz-chl-carb-(hem)					380					
							30	1/20	carb gg & hem										
							30x2	1/4x2	qtz-ser-cp-chl-py x2				92%						
			ND				38	4"	Qtz Vnw-carb-(chl)-cp	.2%		387		75%	60111	.06	.003		.17%
							60	12"	qtz-ser-(carb) shr w/ (py-cp)										
6.10	20				390		10	1/10	qtz-ser-chl-carb-py-cp					390					
							70	1/8	qtz-chl-cp.										
							30x3	hlex3	qtz chl-ser-cp x3				100%						
			N.D.				60x2	1/20 x2	qtz-chl-py-(cp) x2	.1%		397		81%	60112	.04	.004		.08%
							70	1/3	qtz-chl										
9.14	30				400		50° x2	1/20 x2	qtz-chl-ep-cp x2					400					
							30	1/20	qtz-chl-carb.										
							70	1	Qtz Vnw-ep-mo				99%						
			ND				50°	1/8	qtz-ser-chl-py-(cp)	.1%				90%	60113	.04	.003	.08	.07%
			+o				20+30	1/4 x2	qtz-carb-chl x2			407							
			80° Str.				45	1/2	Qtz-carb-chl									3455	
12.19	40				410		70°	1/10	qtz-chl-ser-carb-py-cp					410					
							10	1/4	qtz-carb-chl										
							45° x3	1/16 x3	qtz-chl-ep-carb-py-cp x3				100%						
							10	1/6	qtz-carb-chl-py										
			ND to				45	4	Qtz-Chl-Carb-cp	.3%		417		90%	60114	.12	.016		.14%
			45° Str.				95	3 1/2"	qtz-chl-ser-(carb) sloan.										
15.24	50	418 - 499			420		45°	1/16	qtz-chl-ep-carb-py					420					
		Granite Mtn Phase					80	1/16	qtz-chl-carb.				98%						
							30	3	Chl-qtz-carb										
			ND				60	1/6	Qtz-ser-chl-cp-py	.2%		427		81%	60115	.06	.002		.20%
							30x3	hlex 3	qtz-chl-py x3										
18.29	60				430		95	2	White QD. Dyke.					430					

GG #14

GG #13

GG #26

GG #25

GG # 5

GG #16

GG #15

GG #28

GG #27

GG # 7

GG #18

GG #17

GG #30

GG #29

GG #50

HT MFR

GG # 9

GIB #9

GG 19

GG #52

GG #51

NO1 FR

SAP #4 FR

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Figure 3.
Drill Hole Location Map
October, 1990 1"=200'

Pollyanna 901015

GIB #2

GIB #7

GIB #8

DOT NO2

EST #5 FR

GG # 4

ZEPHYR #3410

GG #85

GG #84 FR

GG # 6

ZEPHYR # 5

ZEPHYR # 8

ZEPHYR #15

GG # 8

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ZEPHYR # 3

ZEPHYR #6

ZEPHYR 5FR

ZEPHYR #16

ZEPHYR # 4

ZEPHYR #13

Figure 4.
Drill Hole Location Map
October, 1990 1"=200'

ZEPHYR # 2

ZEPHYR #11

ZEPHYR #14 Gib-East

GG #10

901017