

DIAMOND DRILL REPORT

ON THE

RED GROUP

CARIBOO MINING DIVISION

93 B.8, 9.

(LATITUDE 52° 30', LONGITUDE 122° 17')

OWNER AND OPERATOR

GIBRALTAR MINES LIMITED

MCLEESE LAKE, B. C.

Author: M. R. Schaumberger

Submitted: 20 May, 1981

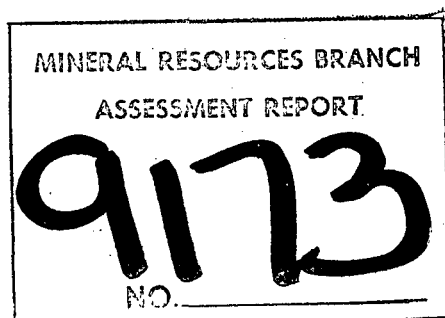


TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION	1
2.0 MINERAL CLAIMS	4
3.0 DRILL PROGRAM	5
3.1 Objective	5
3.2 Results	5
3.3 Interpretation	6
4.0 STATEMENT OF EXPENDITURES	7
5.0 CONCLUSIONS	9

FIGURES

Figure 1	Area Location Map	(In Text)
Figure 2	Red Group Claim Location Map	(In Pocket)
Figure 3	Drill Hole Location Map	(In Pocket)

APPENDICES

I.	Statement of Qualifications	10
II.	List of Abbreviations	12
III.	Drill Log: Hole 81-16	(In Pocket)
	Drill Log: Hole 17	(In Pocket)
	Drill Log: Hole 18	(In Pocket)
	Drill Log: Hole 19	(In Pocket)
	Drill Log: Hole 20	(In Pocket)
	Drill Log: Hole 21	(In Pocket)
	Drill Log: Hole 22	(In Pocket)
	Drill Log: Hole 23	(In Pocket)
	Drill Log: Hole 24	(In Pocket)
	Drill Log: Hole 25	(In Pocket)
	Drill Log: Hole 26	(In Pocket)
	Drill Log: Hole 27	(In Pocket)
	Drill Log: Hole 28	(In Pocket)

1.0 INTRODUCTION

The Red Group lies approximately 1.25 miles (2.01 km) south of the Gibraltar Mines Concentrator and touches the north end of Granite Lake. It is situated along the southwest flank of Granite Mountain within an elevation range of approximately 3,500 to 4,000 feet. Access is via the mine haul road and 4-wheel drive roads from the east end of the Pollyanna Pit. The location of the claim group is shown in Figure 1.

The Red Group shares a common history with the adjacent Purple Group. An account of this is quoted from a "Diamond Drill Report on the Purple Group" submitted for assessment work on April 20, 1981.

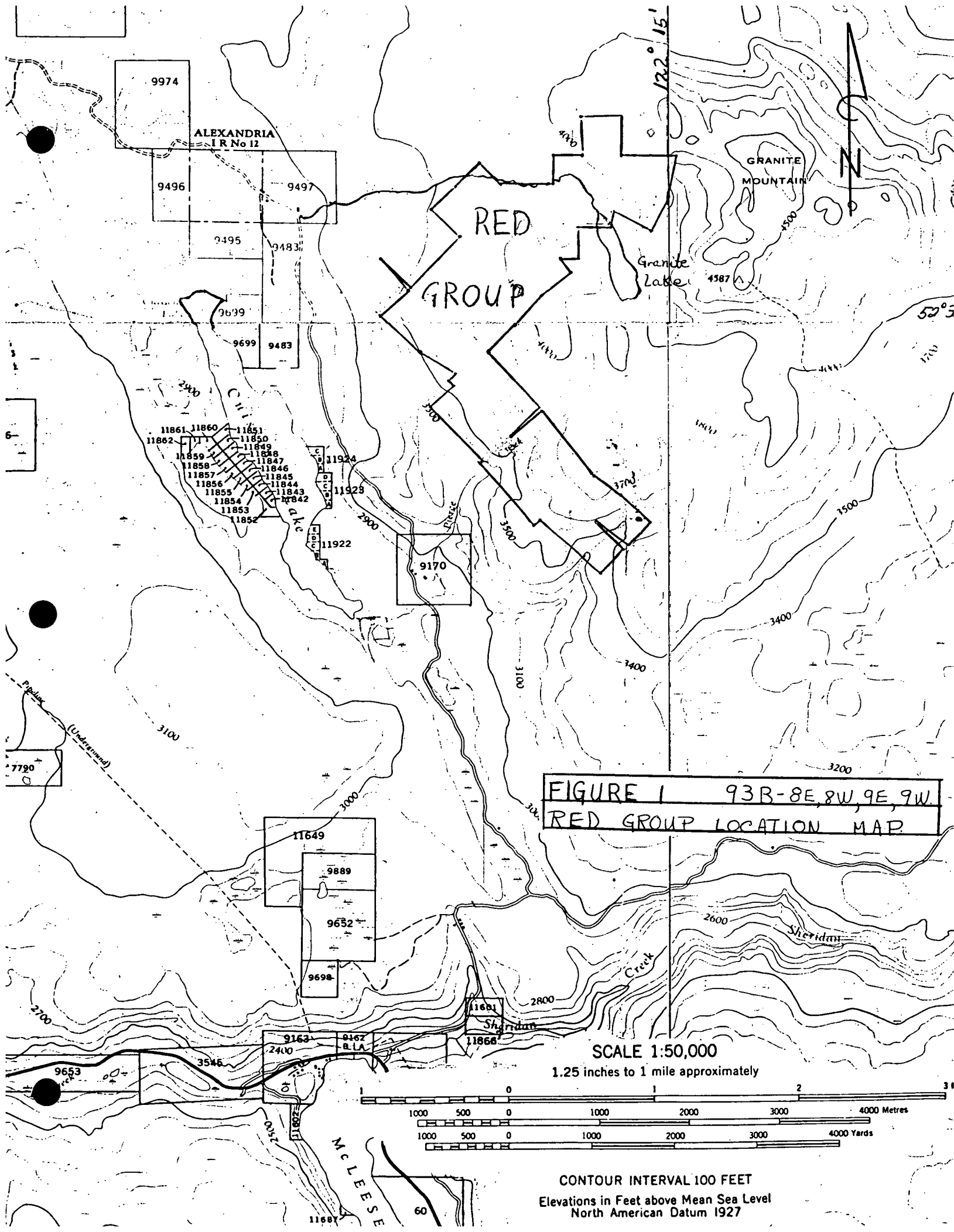
"The early history of this claim area is somewhat sketchy. It was first described as the Rainbow Group in 1918. A 1925 B.C. Ministry of Mines Report states that "T. H. Jackson holds or held 40 claims in this region either under option or in virtue of ownership by himself and associates."

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 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 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, running along a north-south line. These were 25 feet apart. The northernmost 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 southernmost 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.

On 1950 they sank a 28-foot deep shaft 120 feet south of the most southerly shaft. 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 restaked as the Rollyanna claims by Kimacllo 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 occurs 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.

Kimacllo 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 20 to 30 million tons of low grade copper mineralization.

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 gives the reserves as 61,000,000 tons at 0.36% 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 13,783' were drilled. Four underground diamond drill holes, totalling 1,174', were drilled on the GG claims.

By 1971 the Canex Aerial claims were transferred to Gibraltar Mines Limited. "1

This report covers a drill program designed to test the easterly extension of the Pollyanna Pit ore systems. G & D Diamond Drilling Co. Ltd. was contracted during the period April 17 to May 13, 1981 to drill thirteen vertical N.Q Wireline diamond drill holes totalling 6,210 feet (189.81m). Core is stored at Gibraltar Mines plant site.

"1. M. R. Schaumberger, Gibraltar Mines Ltd., Diamond Drill Report on the Purple Group, Cariboo Mining Division, 93B9, April 26, 1981."

2.0 MINERAL CLAIMS

Claims and leases of the Red Group are shown in Figure 2. Pertinent information is tabulated below.

CLAIM NAME	RECORD NO.	LOT NO.	LEASE	ANNIVERSARY DATE
AL 13	28549	4147	M-62	OCTOBER
AL 14	28560	4147	M-62	OCTOBER
AL 15	28561	3711	M-49	JULY
AL 16	28562	4147	M-62	OCTOBER
AL 17	28563	3711	M-49	JULY
AL 18	28564	3711	M-49	JULY
AL 19	28565	3711	M-49	JULY
AL 20	28566	3711	M-49	JULY
AL 21 Fraction	28567	3711	M-49	JULY
AL 22 Fraction	28568	4147	M-62	OCTOBER
EST 1 Fraction	62399	3711	M-49	JULY
EST 2 Fraction	62400	3711	M-49	JULY
EST 4 Fraction	62402	3711	M-49	JULY
EV 5	31058	4147	M-62	OCTOBER
EV 6	31059	4147	M-62	OCTOBER
EV 7	31060	4147	M-62	OCTOBER
EV 8	31061	4147	M-62	OCTOBER
ZEPHYR 14	25587	3711	M-49	JULY
ZEPHYR 16	25589	3711	M-49	JULY
GG 9	29241	3603	M-41	JULY
GG 10	29242	3603	M-41	JULY
GG 15	29247	3603	M-41	JULY
GG 17	29249	3603	M-41	JULY
GG 18	29250	3603	M-41	JULY
GG 19	42812	3603	M-41	JULY
GG 29	29261	3603	M-41	JULY
GG 50	29262	3603	M-41	JULY
GG 51	29263	3603	M-41	JULY
GG 52	29264	3603	M-41	JULY
HT 14 Fraction	42811	3603	M-41	JULY
GIB 9	62412	3603	M-41	JULY
GIB 19 Fraction	65177			DECEMBER 16
HA 3	48021			OCTOBER 16
HA 4	48022			OCTOBER 16
HA 5	71604			MAY 23
HA 6	71605			MAY 23
VAL 23	71606			MAY 23
VAL 23	71607			MAY 23
VAL 25	71610			MAY 23
VAL 26	71609			MAY 23

All of these claims belong to Gibraltar Mines Ltd. and adjoin to the south, west, and north, 2-post claims of the Gibraltar Mines permanent property. The Keevil claims adjoin to the east.

3.0 DRILL PROGRAM

3.1 OBJECTIVE

The purpose of this drill program was to test the easterly extension of the Pollyanna Pit ore systems.

3.2 RESULTS

The drill hole locations are shown in Figure 3. The assaying is not completed as yet but, using the available assays and visual estimates, it appears that all holes intersected some ore grade mineralization except 81-19 and 81-26. There is only a weak copper oxide effect seen in a few holes. The supergene effect is negligible. All copper values reported here and in the logs are for total copper. All molybdenum reported is MoS_2 .

Hole 81-16 was cased to 50 feet. Between 220 and 300 feet, a 80-foot zone of 0.51% copper, 0.023% MoS_2 was intersected. The hole was drilled to 491 feet.

Hole 81-17 was cased to 20 feet. Assaying is not completed as yet, but a rather sporadic mineralization averages 0.24% copper, 0.012% MoS_2 for the intersection 150 to 260 feet. Visual estimates indicate a possible extension of this zone. The hole was drilled to 496 feet.

Hole 81-18 was cased to 14 feet. Between 220 and 420 feet, a 200-foot zone of 0.34% copper, 0.020% MoS_2 was intersected. Visual estimates indicate a possible extension of this zone. The hole was drilled to 480 feet.

Hole 81-19 was cased to 22 feet. No assays are available but visual estimates indicate a waste hole. It was drilled to 381 feet.

Hole 81-20 was cased to 50 feet. No assays are available but visual estimates outline a 30-foot zone of 0.23% copper between 430 and 460 feet. The hole was drilled to 472 feet.

Hole 81-21 was cased to 34 feet. Visual estimates indicate a zone between 150 and 240 feet of 0.25% copper. The hole was drilled to 509 feet.

Hole 81-22 was cased to 20 feet. Between 330 and 480 feet, a 150-foot zone of 0.28% copper, 0.019% MoS_2 was intersected. The hole was drilled to 567 feet.

Hole 81-23 was cased to 12 feet. There are a few high estimates at the top of the hole but they are due to oxide copper. Between 320 and 410 feet, a 90-foot zone of 0.36% copper, 0.047% MoS_2 was intersected. The hole was drilled to 497 feet.

Hole 81-24 was cased to 30 feet. Between 200 and 290 feet, a 90-foot zone of 0.36% copper, 0.030% MoS_2 was intersected. The hole was lost at 296 feet.

Hole 81-25 was cased to 40 feet. Available assays and visual estimates indicate a zone from 200 to 280 feet of approximately 0.25% copper and low grade molybdenum. The hole was drilled to 506 feet.

Hole 81-26 was cased to 50 feet. Visual estimates indicate a waste hole. It was drilled to 521 feet.

Hole 81-27 was cased to 40 feet. Visual estimates indicate a zone between 140 and 290 feet of approximately 0.24% copper. Another zone of approximately 0.24% copper was noted between 360 and 400 feet. The hole was drilled to 493 feet.

Hole 81-28 was cased to 27 feet. Visual estimates indicate a 40-foot zone of approximately 0.22% copper between 380 and 420 feet. The hole was drilled to 501 feet.

3.3 INTERPRETATION

The mineralization outlined by this drilling appears to be porphyry-type mineralization and is hosted by epidote-chlorite altered "Mine Phase" quartz diorite, quartz-sericite-chlorite schist and a quartz-porphyry leucocratic phase.

Drill results indicate a possibly flat-lying easterly extension of the Pollyanna ore systems but the ground is so badly faulted that an accurate interpretation would be extremely difficult.

4.0 STATEMENT OF EXPENDITURES

APRIL, MAY, 1981 DIAMOND DRILLING, RED GROUP

a) Site Preparation

TD20E Bulldozer	Apr. 4-6	23 hrs. @ \$66.25	\$1,523.75	
Drill Company Charges		43 hrs. @ \$40.00	<u>1,720.00</u>	
			\$3,243.75	\$ 3,243.75

b) Drilling Costs

Drilling:	81-16	\$ 7,217.70	
	81-17	7,291.20	
	81-18	7,056.00	
	81-19	5,600.70	
	81-20	6,938.40	
	81-21	7,500.30	
	81-22	8,468.90	
	81-23	7,305.90	
	81-24	4,351.20	
	81-25	7,450.20	
	81-26	7,700.70	
	81-27	7,247.10	
	81-28	<u>7,366.70</u>	
		\$91,495.00	\$91,495.00

Man Hours (set-up, tear-down, hole
stabilizing, reaming, etc.)

230 hrs. @ \$20.00 4,600.00

Materials

17,245.20
\$113,340.20

\$113,340.20

c) Vehicle Costs

4 x 4 1980 Suburban	Apr. 3	1 day	
	Apr. 20-24	5 days	
	Apr. 27-May 1	5 days	
	May 4-8	5 days	
	May 11- 13	<u>2 days</u>	
		18 days @ \$17.20	309.60

d) Assay Costs

212 assays @ \$4.40/assay 932.80

e) Miscellaneous Costs

320 core boxes @ \$4.60	\$1,472.00	
Sample bags, tags, etc.	<u>150.00</u>	
	\$1,622.00	\$ 1,622.00

f) Personnel Costs

Core logging and supervision

G. D. Bysouth	Apr. 23	8 hrs.	
	Apr. 28-30	14 hrs.	
	May 1	8 hrs.	
	May 4-8	40 hrs.	
	May 11	4 hrs.	
		<u>74 hrs.</u>	@ \$19.60/hr. \$1,450.40
M. R. Schaumberger	Apr. 23-24	8 hrs.	
	Apr. 27-30	28 hrs.	
	May 7-8	12 hrs.	
	May 11-15	32 hrs.	
	May 19	8 hrs.	
		<u>96 hrs.</u>	@ \$10.67/hr. 1,024.32
W. D. T. Raven	May 8	8 hrs.	
	May 11-15	36 hrs.	
		<u>44 hrs.</u>	@ \$9.23/hr. 406.12

Field Work and Organizing

E. Oliver	Apr. 17	8 hrs.	
	Apr. 20-24	20 hrs.	
	Apr. 27-May 1	20 hrs.	
	May 4-8	20 hrs.	
	May 11-13	12 hrs.	
		<u>80 hrs.</u>	@ \$13.23/hr. 1,058.40
C. Johnston	Apr. 3	8 hrs.	
	Apr. 17	8 hrs.	
	Apr. 20-24	20 hrs.	
	Apr. 27-May 1	20 hrs.	
	May 4-8	20 hrs.	
	May 11-13	12 hrs.	
		<u>88 hrs.</u>	@ \$10.87/hr. 956.56

Core Splitting

D. Tait	Apr. 23-24	16 hrs.	
	Apr. 27-May 1	40 hrs.	
	May 4-8	40 hrs.	
	May 11-15	40 hrs.	
		<u>136 hrs.</u>	@ \$6.67/hr. 907.12
			<u>\$5,802.92</u> <u>5,802.92</u>

TOTAL DRILLING COST \$125,251.27

5.0 CONCLUSIONS

Drill results have extended the Pollyanna ore systems in an easterly direction though further drilling is required to firmly establish the relevant structures. Two holes suggest that the ore is cut off on the eastern edge of the property.

Submitted by,

M. R. Schaumberger

M. R. Schaumberger
Mine Exploration Geologist

GIBRALTAR MINES LIMITED.

APPENDIX I

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

1. I am a geologist.
2. I am a graduate of the University of British Columbia, with a B.Sc. degree in geology in 1966.
3. From 1966 to the present I have been engaged in mining and exploration geology in British Columbia.
4. I personally supervised this drill program, logged the core and assessed the results.

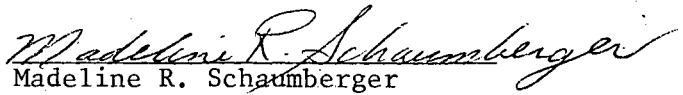
Garry D. Bysouth
Garry D. Bysouth

APPENDIX I

STATEMENT OF QUALIFICATION

I, Madeline Schaumberger, of Gibraltar Mines Limited, McLeese Lake, B.C., do certify that:

1. I am a geologist.
2. I am a graduate of the University of British Columbia with a B.Sc. 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 assisted in the supervision of this drill program, logging of the core and assessment of the results.


Madeline R. Schaumberger

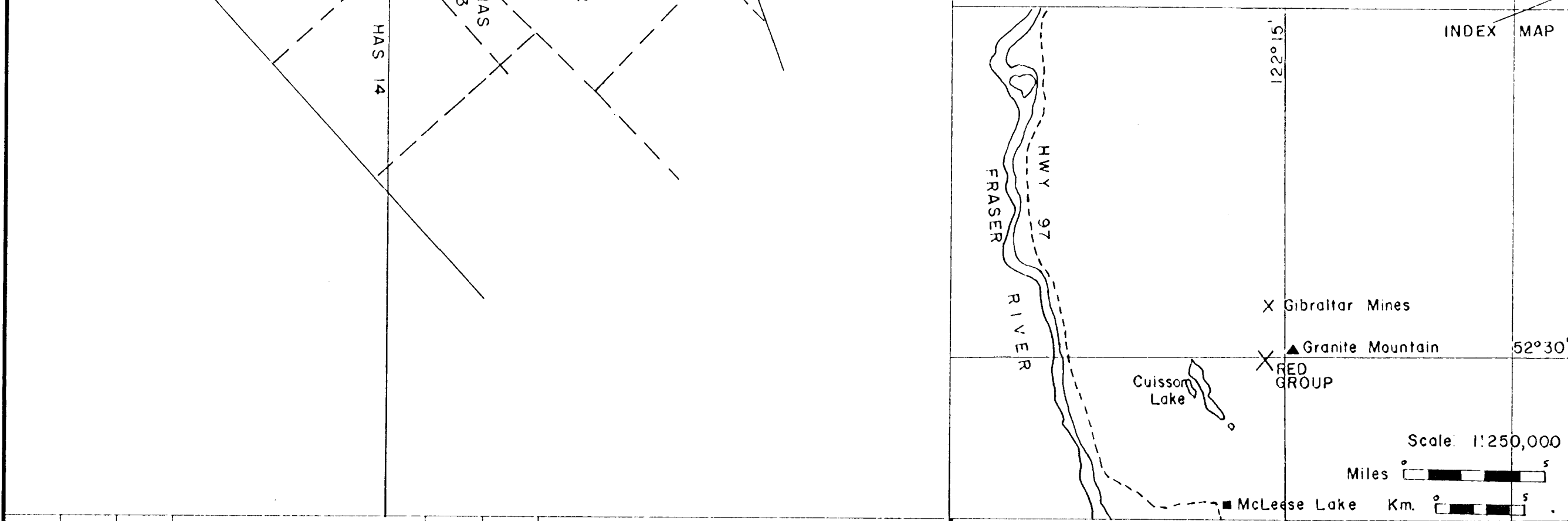
APPENDIX II

ABBREVIATIONS USED IN DRILL LOGS

cal.	calcite
carb.	carbonate
chl.	chlorite
cp.	chalcopyrite
cren.	crenulated
dissem.	disseminated
ep.	epidote
foln.	foliation
grn.	grained
lim.	limonite
mal.	malachite
mag.	magnetite
py	pyrite
QSP	quartz-sericite-py
qtz	quartz
rx.	rock
ser.	sericite
str.	strong
stkwk	stockwork
wk	weak

BIBLIOGRAPHY

M. R. Schaumberger, Diamond Drill Report on the Purple Group, Cariboo Mining Division, 93 B 9, April 20, 1981



LEGEND

- Red Group Boundary
- Control: Survey by B.C.L.S.
- Control: Chain, compass and topographic map

Scale: 1:12,000 (1"=1,000')

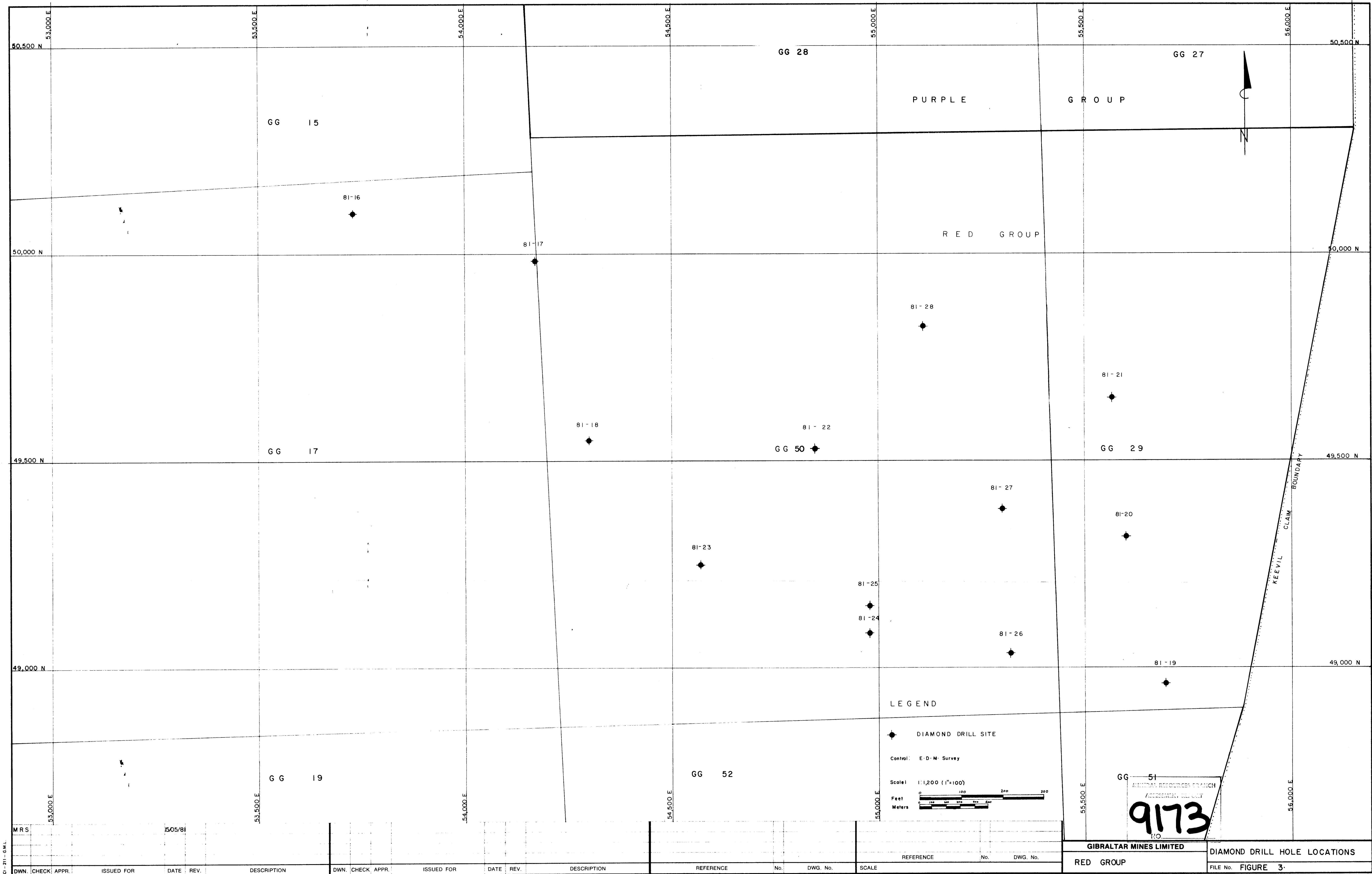
Feet

Meters

MINERAL RESOURCES BRANCH
ACTING ASSISTANT
9173
NO.

						GIBRALTAR MINES LIMITED		CLAIM LOCATIONS	
						RED GROUP		FILE No. FIGURE 2.	
DWN.	CHECK	APPR.	ISSUED FOR	DATE	REV.	DESCRIPTION	SCALE	REFERENCE	No. DWG. No.

NGI-1212-CML



NO. 211 - G.M.L.

MRS 15/05/81

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Dit	Plog.	K-Spar.	Mafic	Tertiary	Hardness											Sample Number		%		Estimated Grade
																Cu.	Ag oz/ton	Cu.	Mo.	
					5	85° WK	85° 75' x 2 65° 60° x 2 130° 140° 80°	hls 1/2 145 1 1/2 x 4 1/4 1/2 1/2	chc-hem gtz-chl-Lcarb gtz-chl-Lgtz PP? dyke gtz-chl-py gtz-carb-chl-car-py-px2 gtz-carb-chl gtz-carb-chl-py				136	50%	90%	35338		.12	2.002	.07%
					5-6	85° WK	85° 150' x 2 60° x 2 150° 135° 150° 165°	hls 1/2 1/2 x 4 1/20 1/10 1/116	gtz-chl-py x2 gtz-chl-carb x2 gtz-chl-cp-py gtz-chl-carb-cp chl-gtz-cp-py				146	43%	95%	35339		.15	2.002	.20%
					5-6	Not Defined	160° 110° 110° 125° 160° 20° x 2	1/42 1/4 1/8 1/4 1/20 x 2	gtz-chl-py gtz-chl-carb-cp gtz-chl-carb-cp gtz-carb-chl-cp-mo.				156	57%	95%	35340	.032	.33	.046	.30% .18% Mo
3770					5-6	60° 80° WK	130° 150° 130° 120° x 2 115° 145° x 2	18" 1/4 1/4 1/16 x 2 1/2 1/16 x 2	gtz-PP gtz-carb-op-py gtz-chl-carb-cp gtz-chl-carb-py x2 gtz-chl-carb-cp-py gtz-carb-chl-py x2				166	63%	95%	35341	.028	.21	.020	.35%
					5-6	70° 80° WK	80° 75° 150° 80° 120° 130° 130°	1 1/8 1/20 1/2 1/10 1/10 1/8	gtz-chl-py gtz-carb-cp gtz-chl-carb-cp-py gtz-chl-carb-py gtz-carb-cp gtz-chl-carb-py				176	47%	100%	35342		.16	.004	.28%
					6	Not Defined	150° 80° 80° 130° 80° 130° 130° + 60° x 3	1/8 1/4 20" 1/8 1/10 1/8	gtz-chl-carb gtz-chl-saur-mox-cp gtz-PP gtz-chl-carb-cp gtz-chl-carb-cp gtz-chl-carb-py				186	67%	90%	35343		.15	.006	.19%
					5-6	Not Defined	120° x 2 150° x 2 60° x 3 130° 200° 150°	hls 1/4 x 2 hls 1/4 x 3 1/4 1/8	carb gauge carb chc-mo x2 gtz-chl-carb-py gtz-chl-carb-py-Lcp		hem stain.		196	7%	90%	35344	.037	.28	.022	.09%

ROCK TYPES & ALTERATION						L to Core Foliation Foliation Alteration Footage Structure	Veins L to Core Axis	Width of Vein	Mineralization	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	ASSAY RESULTS				
C11	Plog	K-Spec.	Mafic	Texture	Hardness									Sample Number		%		Estimated Grade
														Cu.	Ag oz/torr	Cu.	Mo.	
					5-6	85° WK	80x2 110° 50x2 80° 45° 45° 210	1/4x2 1/4 1/4x2 1/20 12" 1/16 1/16	gtz-sil-carb-py gtz-ill-carb-py carb-x2 ch-gtz-ep white gtz pp gtz-ep-carb chl-carb-py	hem. stain.	206	60%	95%	35345		.08	.004	.10%
3725					5-6	80-85° WK	80° 85° 60° 120° 15° 150° 220	2 12 6 1/10 1/2 1/8 1/20x2	gtz-ill-carb-py Broken core - gauge gtz-carb-ill-ep gtz-ill-carb-ep gtz-ill-carb-ep-py gtz-ill-carb-ep gtz-ill-carb-ep		216	17%	90%	35346	.034	.26	.014	.30%
					5-6	80-85° WK	220 80x2 175° 100° 70° 60° 55° 40° 230	1/4 1/2 1/4 1/8 1/16 1/4 1/4	gtz-ill-carb-py carb-ill gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py		226	33%	95%	35347		.07	.004	.20%
					5-6	60-85° WK	60° 85° 85° 60° 120° 115° 130° 160° 240	1/4 1/20 1/10 1/4 1/4 1/20 1/18 3	gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py		226	60%	95%	35348	.021	.25	.016	.20%
					5-6	80-85° WK	80° 50+150° 70x2 110°x2 60x6 130x2 160° 130° 250	1/4 1/4x2 1/4x2 1/2x2 1/2x2 1/2x2 1/2x2 1/2x2	gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py		246	40%	90%	35349	.030	.34	.018	.42%
3680					5-6	85° WK	85° 80x2 85° 50° 80° 130° 75° 260	1/4 1/4x2 1/4 1/4 1/4 1/4 1/4	gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py		256	37%	90%	35350	.034	.27	.010	.20%
					5-6	75-85° WK	75° 85° 45° 130° 60° 60x2 85° 270	1/16 1/16 1/20 1/10 1/2 1/10x2 1/4	gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py gtz-ill-carb-py		266	23%	95%	35351	.030	.26	.044	.22%

LOCATION POLLYANNA
DATE COLLARED January 7, 1981
DATE COMPLETED January 10, 1981

BEARING 0.°
LENGTH ~~500'~~ 500'
DIP -90°

LATITUDE 49.764.34
DEPARTURE 5,157.48
ELEVATION 3939.46

CORE SIZE N.C.W.
SCALE OF LOG 1" = 10'
REMARKS _____

LOGGED BY G.D.B
DATE Jan 12³ 1981

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Sericite Zone	Remarks	Footage Blacas.	R O D	Estimated Core Recovery %	ASSAY RESULTS							
Otz	Plog.	K-Sper.	Mafic	Texture	Hardness										L to Core Foliation	Foliation Alteration	Footage Structure	Sample Number		%		Estimated Grade
																		Cu.	Ag oz/Azn	Cu.	Mo.	

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Sericite Zone	Remarks	Footage Blocks.	R Q D	Estimated Core Recovery %	ASSAY RESULTS						
Plog.	K-Sper.	Mafic	Tertiary	Hornfels	Sample Number											%		Estimated Grade				
																Cu.	Az oz/ton		Cu.	Mo.		
					MINE PHASE QUARTZ DIORITE (66'-80') Saus. Altn (66'-80')	ND		15 x 2 + 45 x 2 10 x 3 45 x 2 10 x 3 10 x 3 10 x 3 10 x 3 10 x 3	1/10 x 4 1/10 x 3 1/10 x 2 1/20 x 3 1/2" x 2 1/10 x 2 1/2" x 2	qtz-chl-py-cp = 4 qtz-chl-(cp) = 3 qtz-chl(cpy) x 2 chl x 3 qq+bx(py) qtz-chl-py qtz-chl(vug)	PYRITE 10%			77	0	50	35403	.058	.73 .02 ox	.032		
					QUARTZ SERICITE (CHLOR.) ZONE (80-108) Core very vuggy - structure obscure - chl prominent over 10' zones @ boundaries of zone	60 ? Cren?		{ } 60'	{ } 28'	qtz-ser-(chl) zone Py(cpy)-lim diss. and along qtz-chl veinlets - mainly as 45-60 + 10-20' sets. - but str. obscure and poss. intense Cren.	minor cc			87	10	85	35404	.030	.44 .04 ox	.006		
						60 ? Cren?					Py(cpy)-lim diss. and along qtz-chl veinlets - mainly as 45-60 + 10-20' sets. - but str. obscure and poss. intense Cren.	minor cc			97	23	60	35405	.057	.64 .01 ox	.060	
						60 ? Cren?					poss. intense Cren.	minor cc			107	30	85	35406	.039	.46 .01 ox	.028	
					MINE PHASE QUARTZ DIORITE (108'-280') Saus. Altn (108'-280')	ND		30 x 2 40 45 0-5 30 x 3 + 45 x 2 5	8" 1/10 x 2 1/2" 4' 1/20 2"	qtz-cp(cc) qtz-chl-py-cp qtz qq+bx+py qtz-ser-chl(pyl-cp) zone (very vuggy) Mo qtz(cpy)(cc) bx+vuggy qtz-chl(cpy)(cp) x 5					117	13	85	35407	.039	.58 .01 ox	.112	
								5 45 x 3 26 80 80 30 20 80	1/4 - 3/8 1/8 x 3 1/4 1/2 1/4 1/2 1/4 1/2	qtz-chl-cp qtz-chl-cp(cc) = 3 qtz-py-cp-mag qtz-chl(vuggy) qtz(vug) qtz-cp-mag(vug) qtz-cp qtz-chl(vug)	<.50%			127	43	90	35408	.026	.25 <.01 ox	.006		
					Leucocratic Phase { }			30 80 50 x 3 5 + 45 x 3 50 80 100	1/4 1/20 x 3 1/4 + 1/10 x 2 2" 1" 1/20 - 1/10 x 4	qtz-cp-AlO qtz-chl-cp-cc(vug) qtz-chl x 3 qtz-chl-py-cp-cc(vug) x 4 qtz(cpy)(cc) qtz-chl(cpy) qtz-chl(py)(cp) x 4	<.50%			137	33	90	35409	.026	.30 .01 ox	.020		

ROCK TYPES & ALTERATION						GRAPHIC LOG		Vein L to Core Axis	Width of Vein	Mineralization	Sericite Zone	Remarks	Footage Blocks.	R Q D	Estimated Core Recovery %	ASSAY RESULTS					
Core	Plg	K-Spec.	Matrix	Texture	Hardness	L to Core Foliation	Foliation Alteration									Footage Structure	Sample Number		%		Estimated Grade
																	Cu.	Ag	Cu.	Mo.	

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Sericite Zone	Remarks	Footage Blocks.	R Q D	Estimated Core Recovery %	ASSAY RESULTS						
Dip	Plg	K-Spt	Mafic	Texture	Hardness											Footage	Structure	Sample Number		%		Estimated Grade
																		Cu.	Ag 22/bw	Cu.	Mo.	
								5x2+4x2 30 10x2+4x3 45 40	1/10 x 4 1/8 10x2+4x3 1/10 6"	qtz-chl-cp qtz-chl-cp qtz-chl-cp x s qtz-chl-cp qtz	PYRITE 4.5%			95	35417	.030	.21 4.01 ox	.008				
						220		20 15 45x2 50 30 45 40	1/2 18" 1/4x2 8" 6" 1/2 2"	qtz(Mo) qtz-cp qtz-chl-cpxz qtz-ser-chl (cp)(Mo) qtz-ser-chl (cp) qtz-cp qtz-chl-(cp)(Mo)	4.5%			90	35418	.028	.24 4.01 ox	.004				
						230		60 5 30 85 40 70 45	1/4 2" 1/10 1/4 1/4 1/8 1/4	qtz-chl (cp) qtz-chl (cp) qtz-chl (cp) qtz qtz-chl-cp qtz-carb qtz-cp (Mo) qtz-chl (cp)				95	35419	.036	.28 4.01 ox	.016				
						240		35 30 45 45	1/8 1/4 1/6 1/4	qtz-chl-mag-cp qtz-carb qtz-carb qtz-cp (Mo) qtz-chl (cp)				95	35420	-	.16 4.01 ox	.002				
						250		45 45 45x3 45 45x2 30	1/6 1/8 1/10x3 6" 1/2x2 10"	qtz-chl-cp qtz-chl-carb (cp) qtz-chl-cpx3 qtz-chl-cp qtz+qtz-chl (cp) qtz-cp (Mo)				98	35421	.038	.39 4.01 ox	.038				
						260		40x3 40 45x3 40x2 10x35 30x3	1/8x3 1/4 1/10x3 1/20x2 1/4x2 1/10x3	qtz-chl (cp)x2 qtz-chl-cp qtz-chl-cpx3 qtz-chl-cpx2 qtz-chl-cpx2 qtz-chl-cpx2				95	35422	.034	.29 4.01 ox	.026				
						270		30x3 50 ? 60 60 ?	1/20x3 1/2 6" 1/10 1/8 10"	qtz-chl-cpx3 qtz-Mo (+1" GSP envel. qtz-chl (cp) zone qtz-py-cp qtz-py-cp qtz-ser-cp				90	35423	-	.10 4.01 ox	.006				
						280																

ROCK TYPES & ALTERATION						GRAPHIC LOG		Veins L to Core Axis	Width of Vein	Mineralization	Sericite Zone	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	ASSAY RESULTS					
Dz.	Fol.	K. Sp.	Mol.	Texture	Hardness	L to Core Foliation	Foliation Alteration									Footage Structure	Sample Number		%		Estimated Grade
																	Cu.	Ag 0.27 0.02	Cu.	Mo.	
						Alt'n Zone (280 - 322)															
						- Saus. gone - rx texture dense, swirled, or intensely foliated - original granitic texture gone	30- 40 str.									90	35424	-	.13 4.01 OX	.004	
						- most of the rx is bleached (ser-qtz?) but fine grn. dk. minerals are also prevalent (chl-qtz). - much fine grn. py (cp)	23- 40 str.									90	35425	.051	.53 4.01 OX	.010	
							ND									95	35426	.042	.34 4.01 OX	.006	
																90	35427	.034	.29 4.01 OX	.006	
						MINE PHASE Saus. Alt'n (322 - 341)										95	35428		.17 4.01 OX	.004	
																85	35429		.17 4.01 OX	.014	
						Alt'n Zone (Same as 280-322) (341 - 465)										90	35430	.053	.69 4.01 OX	.016	
						plus small zones of															

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Sericite Zone	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	ASSAY RESULTS						
Qz.	Plag.	K-Spl.	Mafic	Tuffaceous	Hardness											Foliation Alteration	Footage Structure	Sample Number		%		Estimated Grade
																		Cu.	As 3600 02/62	Cu.	Mo.	
								40 x 2 15 x 1 50 50 45	1/20 x 1/4 1/10 x 2 1/8 7"	qtz-chl-py + qtz-carb-py qtz-chl-py (cp) qtz-chl-py (cp) qtz-chl-py cp qtz-chl-py (cp) x 2 cp	10%	Vuggy core	356	30	90	354/31	.10 2.01 ox	.004				
								30 60 x 3 20 + 45 20 x 2 5 50 20 + 80	1/10 1/10 x 3 1/10 x 2 1/10 x 2 1/4 1 1/2 1/10 x 2	qtz-py qtz-ser-py qtz-chl-cp qtz-chl-cp qtz-carb-chl-cp qtz-carb-py qtz-chl-py-cp	30%	Vuggy core	366	40	95	354/32	.034 .31 2.01 ox	.008				
								20 30 60 + 30 60 x 2 80 45 80	1/4 1" x 3" 1/20 + 1/8 1/4 x 2 20" 16" 1/4	qtz-chl-carb-cp qtz-chl-carb + qtz chl-cp x 2 qtz-carb-chl py (vug) x 2 banded qtz-chl-carb (py) zone qtz-chl (cp) ser zone qtz-carb	10%		376	47	90	354/33	.040 .33 2.01 ox	.016				
								80 30 x 3 80 x 2 80 x 4 80 x 5 70 70 x 3	12" 1/10 x 3 2" x 3 1/20 - hlc x 4 1/4 x 3 1/10 1/4 x 3	qtz-carb (vug) veins around by qtz-chl (py) x 2 qtz (ser) x 2 chl-py x 4 qtz-carb x 3 chl-cp Carb	10%		386	60	90	354/34	.034 .20 2.01 ox	.016				
								80 80 45 80 80 80 x 2 35 70 70	1/20 1" 1 1/2" 1/10 2" 1/4 x 2 1/4 1/4 1/4	cp qtz (ser) qtz-cp qtz-chl-cp qtz (ser) (cp) Mo qtz (Mo) x 2 carb qtz-carb qtz-carb (cp) (vug)	50%		396	67	95	354/35	.16 2.01 ox	.016				
								30 x 3 80 8 45 40	8" hlc x 3 3" 2" 3/8 1/20 x 3	qtz-ser chl-py x 3 QFP QFP qtz-chl-carb (py) qtz-chl-cp x 3			406 410	40 85	90	354/36	.13 2.01 ox	.006				
								80 20 20	1" 3/4 2 1/4"	qtz-carb qtz qtz + by			416	27	95 95	354/37	.10 2.01 ox	.002				

ROCK TYPES & ALTERATION						L to Core Foliation	Foliation Alteration	Footage Structure	Veins L to Core Axis	Width of Vein	Mineralization	Sericite Zone	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	ASSAY RESULTS				
Oit	Plan	K-Spec	Matrix	Texture	Hardness												Sample Number		%		Estimated Grade
																	Cu.	Ag Au	Cu.	Mo.	
						Alt. n Zone (341-465)				30' 1/8" 1" 1/4"	99 + bx qtz-chl-cp 99 qtz (cp)	PYRITE L.S		422 33		90	35438	116 2.01 ox	.004		
						incr. chl (~60%)	80 WK	430	85 25 5+50 30	1/2 3" 1/4x2 1/2	qtz-chl-carb qtz-chl (cp) carb xz qtz (cp) (vug)	L.S		432 436 73		95	35439	111 2.01 ox	.002		
							ND ?	440	50 xz 50 xz 60+30	1/8 + 1/4 1/16 xz 1/8 + 1/4	qtz-carb xz cp xz qtz (cp) + qtz (carb)	L.S		446 70		98	35440	112 2.01 ox	.002		
							ND ?	450	70 20 20 xz 5	1" 1/2 1/10 xz 1/2	qtz-chl (cp) 99 chl (cp) xz 99 + bx	L.S		456 90		100	35441	.21 2.01 ox	.002		
									50 10 5	2" 1/2 1/4	qtz (soo) (cp) 99 qtz-cp	L.S		466 30		90	35442	.32 2.01 ox	.006		
						QUARTZ - SERICITE (CHLORITE) - CARB.	? Cren	470		1"	qtz-carb (cp)										
						ZONE (465-506) pale greenish grey with dk-chl in wisps and bands - most of this zone is all'd G.F.P	? Sl. Cren	480	30 80 15 ?	5' 1/8 1/8 1"	99 + bx qtz-carb (vug) qtz-carb (vug) qtz (cp)	L.S		475 23		80	35443	.25 2.01 ox	.026		
							? Sl. Cren	490	30 10 75	1/8 1/16 1/16	qtz-chl-cp cp chl-cp	L.S	Vug. Corr	485 43		90	35444	.15 2.01 ox	.012		

Harry O. Byrnes

REMARKS Assay for Ox Cu as well - Vile at end.

FORM 130-LSD, 1

[illegible]

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 21-5
SHEET No. 3 of 5

ROCK TYPES & ALTERATION						Z to Core Foliation	GRAPHIC LOG	Vains L to Core Axis	Width of Vain	Mineralization	Remarks	Footage Blocks.	R Q D	Estimated Core Recovery %	ASSAY RESULTS				
Dtz.	Plog.	K-Spt.	Mafic	Texture	Hardness										Sample Number		%		Estimated Grade
															Cu.	Ag oz/ton	Cu.	Mo.	
					5-6	80° WK		50° X 2 130° 70° 30° X 2 90° 130° X 2 70° X 2	1/4 X 2 1/8 1 1/2 X 3 1/2 X 2 1 X 2	gtz - chl - cp - 1/10 X 2 lim - mal gtz - sanc - lim - py gtz - chl - lim lim - mal lim - mal X 2 gtz - lim		176	33%	95%	35381		.19 .16 ox	.002	.10%
					181 - 214 4 5	20° 80° St.		120° 70° 120° X 2 80° 80°	1/2 1/20 1/2 X 2 1/2 1/2	Broken - core - Luggs - lim - mal lim - mal lim - mal X 2 lim - cupitch - lim gtz - cp - lim gtz - cp - lim	Uggy Abund gtz veining	186	0%	85%	35382	.026	.35 .31 ox	.004	.20%
					2 6	Not Defined 80° Mod.		40 + 60° 60° 60° 60° 50°	1/2 X 2 1 6 36" 1 1/2 1/2	lim X 2 gtz - lim - ugg Broken - core - lim stain gtz vein - ugg - badly broken - lim stain gtz - cp - lim Broken core - gtz - lim - ugg - lim - mal		196	6%	75%	35383	.017	.39 .33 ox	.004	.22%
					A 6	NSD° WK Mod.		140 X 3 30 + 45 80° X 2 50° 145 X 2	1/2 X 3 1/2 X 2 1/2 X 2 1/2 1/2 X 2	Broken core - lim - mal gtz - lim - mal lim + Cu - pitch X 2 lim - mal X 2 lim - Cu - pitch lim - mal X 2		202 206	12%	98%	35384	.032	.44 .42 ox	.006	.18%
					5- 6	70° WK		130° X 2 110° X 2 160 X 2 15° 80° 70 X 4	1/2 X 2 1/16 1/16 1/18 1/14 1/2 X 4	lim - mal X 2 gtz - lim - chl - ugg gtz - chl - lim - mal gtz - lim - ugg gtz - lim - ugg gtz - chl - lim - mal	V. Uggy Can.	214	12%	68%	35385	.030	.21 .17 ox	.004	.16%
					5-6	60° 80° WK		30° 110° 160° 70° 130°	1/16 1/12 1/2 1/20 1/2	gtz - lim lim - mal - Native Cu gtz - vein broken - lim stain gtz - cp - lim gtz - chl - cp gtz - gtz - sanc - finely disseminated	7% 225' Tube didn't lock ground care.	225	20%	85%	35386	.028	.24 .06 ox	.010	.20%
					5-6	80° WK		160 X 2 160 X 2 120° X 2 120° 125 X 2 150° 150°	1/2 X 2 1/20 X 2 1/2 X 2 1/2 1/25 X 2 1/2	lim X 2 gtz - chl - lim - cp X 2 gtz - chl - py - lim X 2 lim gtz - chl - py - lim lim gtz - chl - cp		235	18%	93%	35387	.024	.20 .02 ox	.006	.09%

ROCK TYPES & ALTERATION						Z to Core Foliation	GRAPHIC LOG	Veins Z to Core Axis	Width of Vein	Mineralization	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	ASSAY RESULTS				
Dtz	Flag	K-Spec	Matrix	Texture	Hardness										Sample Number		%		Estimated Grade
															Cu.	Ag oz/ton	Cu.	Mo.	
					5-6	80° v. wk.	150° 125° 125° 125° 170° 300°	1/4 1/16 1/20 1/20 1/20 1/20	gtz-che-cp - Native Cu - 11m. lim. gtz-chl-cp - tetrahedrite? 8 ft. lim. ser. op. Native Cu. " "	ep. veining	245	42%		35388	.24 024 01	.24 02 0x	.018	.20%	
					5-6	85° wk.	150° 150° 170° 85° 115° 260°	1/16 1/16 1/16 1/16 1/16 3/8"	gtz-che-cp - Native Cu lim. - (cp) - Native Cu lim. Vuggy gtz gtz-che-cp Broken gtz vein - lim.	?	255	25%		35389	.026	.38 01 0x	.006	.11%	
					5-6	85° wk.	150° 150° 170° 150° 150° 270°	1/16 1/16 1/16 1/16 1/16 1/20 x 2	gtz-che-cp - Native Cu lim. - (cp) - Native Cu Broken core - gtz - vein - lim. lim. - Native Cu gtz-che-cp - (cp) - (cp) gtz - lim. - Native Cu - Broken core gtz-che-cp - 1/2 Native Cu - 1/2	7%	261 266	11%	90%	35390	.026	.73 01 0x	.010	.26%	
					5-6	5° 80° wk.	125° 110° 110° x 2 60° 50° 280°	1/2 1/8 8" 1/20 x 2 2 1/2	gtz-dl-lsp - (cp) - 2 Native Cu gtz-cp - cc Broken core gtz-che-cp - Vuggy gtz-che-cp - Vuggy gtz-che-cp - Vuggy	1% V. Vuggy core	273	15%	70%	35391	.026	.40 01 0x	.010	.26%	
					5	80° wk.	170° 7° 80° 80° 290°	1/2 8 1/16 1/20 6 2	gtz-carb Broken core - lim. chl-gtz-py gtz-carb-chl-cp - py gouge - Broken core gtz	1%	283 288	18%	42%	35392	.021	.26 01 0x	.048	.20%	
					5-6	5° 80° Mod. Hd.	180° 121° 30° 125° 120° 300°	1/16 2 1/20 12 2 1/2	gtz-carb-chl gtz-carb-chl-cp gtz-carb-chl-cp - lim. gouge Broken core - gouge gtz-chl-carb - (cp) gtz-chl-carb	7%	296	25%	68%	35393	.030	.32 01 0x	.022	.24%	
					5-6	15° 80° Mod.	125° 120° 180° 110° 150° 310°	1/20 1/16 1/16 1/8 1/8 1/2	gtz-chl-cp - carb gtz-carb gtz-chl-py gtz-carb-chl-cp gtz-chl-carb - cp gtz-chl-carb gouge	1%	301 306	18%	70%	35394	.028	.23 01 0x	.014	.15%	

ROCK TYPES & ALTERATION						GRAPHIC LOG		Mineralization	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	ASSAY RESULTS									
Core	Plog	K-Spar	Mafic	Tactile	Hardness	L to Core	Foliation						Foliation Alteration	Footage	Structure	Veins L to Core	Width of Vein	Sample Number		%		Estimated Grade
																		Cu	Ag	Cu	Mo	
					5-6	309-389	80'															
						Weak Sulfide	Mod															
						Alt																

GRID

GIBRALTAR MINES LTD.

HOLE No. 81-16
SHEET No. 1 of 7LOCATION Pollyanna
DATE COLLARED April 18, 1981
DATE COMPLETED April 20, 1981BEARING 0°
LENGTH 491'
DIP -90°LATITUDE 50,097.65 N
DEPARTURE 53,727.61 E
ELEVATION 4,087.10'CORE SIZE N.O.W.
SCALE OF LOG 1" = 10'
REMARKSLOGGED BY G.D.B.
DATE April 24, 1981

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Surface Zone	Remarks	Footage Block	R O D	Estimated Core Recovery %	ASSAY RESULTS				
Oil	Plg	K-Spec	Mafic	Tertiary	Hardness										Sample Number		%		Estimated Grade
						Foliation Alteration	Foliation Footage	Structure							Cu	Mo	Cu	Mo	
										PYRITE	26-50 is rusty rx, qq, bx and some till? (chert pebbles) - could be a fault but we are assuming it is overburden.								
								50											
								55 40 36x3+25x4 25x3 50x2 50 25x3	1/8 1/8 1/8-1/16x7 1/16x3 1/16x2 1/16 1/8-1/16x2	qtz-chl-py-lim qtz-chl-py-lim qtz-chl-lim x7 lim x7 qtz-py x2 qtz-py qtz-chl-py x3	lim to 80' (py>lim) Weak supergene zone 80 to 100	54	37	85 90	54333		10	0.02	0.5
								60											
								40x3 15 45x5+40x3 40x3+50 40x2+60 40x3 45x3 45x3	1/8x1 1/8 1/16x8 1/16x4 1/8x3 1/16x3 1/16-1/16x8 1/16-1/16x3	qtz-chl-py-lim x2 qtz-chl-py-lim qtz-chl-py-lim x8 qtz-chl-py x4 qtz-chl-py-lim x3 qtz-chl-py x3 qtz-chl-py x8 qtz-chl-py-lim		63 66	40	85	54334		10	0.2	0.5
								70											
								50x3 35x3 45x3 80x3 60 80+10	1/16x3 1/16x3 1/16x3 1/16x3 1/16 1/16+1/16	qtz-chl-py x3 lim x3 qtz-py lim x3 qtz-chl-py qtz-chl-py x2	20%	76	53		54335		10	0.2	0.5
								80											
								35x2 50+ 60x5+5x4	1/16x2 1/16x2 1/8-1/20x4	qtz-chl-py x2 qtz (chl) py x9	20%			85	54336		14	0.1	10
								40 60+10 45x4	2" 3/4 1/16x2 1/8x4	qq qtz-py (cc) qtz-py x2 qtz-py-cc x4		86	47	90					
								40x6 5x3 10x10 20x6	1/16x6 1/16x3 1/16x10 1/16x6	qtz-py (cc) qtz-py x3 qtz-py x10 (cc) qtz-py (cc) x6	30%	91			54337		11	0.4	10
								40 5	1/16 1/16	qtz-chl-py qtz-py		97	37	90					
								100											

Casing to
50'MINE PHASE
QUARTZ
DIORITE
(50-116)

Saus. Alt'n (50-116)

incr. ep. as
zones + clots +
50% ep.

ROCK TYPES - B ALTERATION							L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Blocks.	R Q D	Estimated Core Recovery %	ASSAY RESULTS				
Obs	Plag	K-Spar	Molc	Texture	Hardness												Sample Number	% Cu	% Mo		Estimated Grade
						9FP	ND		80? 70 70x2 15 15x7 ? 20?	12" 1/4 1/20 1/10x2 1/2" 1/2 1/10x4 3'	qq+bx qtz-py (cp)(cc) uug. qtz-chl-py qtz-pyx2 qq+bx qtz-py (cp) qtz-py (cp) x4 qq+bx	2.0%		106	37	85- 75	54338	.06	.02		.05
							ND		45x23 45x3+25x4 45 20x4 30	1/4x1/8 1/10x7 1/10 1/16x4 1/2	qtz-py (cp) qtz-chl-py qtz-chl-py py x4 qtz-ser-py	1.0%	1st str. cp vein	111 116	30	70 70	54339	.08	.02		.10
							ND		15x2 40x3 20?	1" x2 1/2x3 2"	qtz-pyx2 qtz-pyx3 qtz-py qq+bx (- py frags)	1.0%		123 129	10	70	54340	.06	.04		.10
							ND		85x20x3 45 10 20 45x55 50?	1/4x1/10x3 1/2 3/5 1/10 1/10x2 10"	qtz-chl-py (cp)(cc) qtz-py qtz-py qtz-chl-py qtz-chl-py x2 qtz-py	3.0%		133 140	40	80	54341	.11	.04		.08
							ND		40x3+30x7 50x3 40x2 5x2 45x3 60x2 30x4	1/10-1/20x10 1/10x3 1/8x2 1/20x2 1/20x3 1/2x2 1/4x4 4'	qtz-py x10 qtz-chl-py x3 qtz-chl-py x2 qtz-chl-py x2 qtz-chl-py x3 qtz-py (cp) x2 qtz-chl-py x4 qtz-ser-py (cp) (poss. alt'd qfp)	3 1/2%		146 150	57	85	54342	.05	.02		.08
							ND		30 70 20 50x30 60 25 40 45 70	1/2 1" 1/4 1/10x2 1/2 1/2 1/4 1" 1"	qtz-chl-py qtz-chl-py qtz-chl-py qtz-chl-pyx2 qtz-cp qtz-py qtz-py qtz-py qtz-cp (Mn)	3.0%		156 160	27	85	54310	.17	.010		.10
							ND		70 45x2 80 80x3 5-10x2 80 55-40x5 80 70	1/2 1/8x2 1/2x1/4x2 5-10x2 1/2 1/8x5 2" 6"	qtz-py (Mn) qtz-chl-py qtz-chl-py (cp) qtz-chl-py x3 qtz-chl-py x2 qtz-py (Mn) qtz-chl-py x5 qtz-ser-py (cp) qtz-ser-py (cp)	3.0%		166 170	57	90	54311	.15	.010		.10

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Blocks	R O D	Estimated Core Recovery %	ASSAY RESULTS				
Out.	Plag.	K-Spar	Mafic	Texture	Hardness										L to Core Foliation	Foliation Alteration	Footage Structure	Sample Number	% Cu
						(72)													
						LEUCOCRATIC ZONE (172-202)	ND			10%		176	63	90	54312	.19	.030		.08
						contacts are ep-chl rich (~50%) but rx is identified by its fine grn. texture. - center of zone is a pale grey qts-porp. -	ND	180		20%		186	57	95	54313	.14	.012		.12
							ND	190		10%		196	53	90	54314	.14	.010		.10
						202	ND	200		20%		205	50		54315	.16	.006		.08
						MINE PHASE (Saus. Alt'n) (202'-491')	ND	210		20%		215	43	90	54316	.18	.017		.10
							ND	220		10%		225	37	80	54317	.63	.026		.30
							ND	230		10%		235	70	95	54318	.36	.024		.15

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Blocks.	R Q D	Estimated Core Recovery %	ASSAY RESULTS			
Out.	Plag	K-Spar.	Mafic	Texture	Hardness											Sample Number	% Cu	% Mo	Estimated Grade
						MINE PHASE (Saus. Alt'n) (202 - 491')	ND		45 x 2 50 x 60 + 70 50 30 30 320	1/4 x 1/8 1/4 x 3 1/10 1/8 1/10	qts + qts-chl qts x 3 qts-chl-mag qts-chl qts-chl-cp		314	50	85	54325	.13	.002	.08
							ND		38 x 2 25 30 x 2 35 40 x 3 60 30 x 2 10 x 2 330	1/10 1/4 1/10 x 3 1/10 1/2 - 3/4 x 3 2 1/2 3" x 1/2 1/10 x 2	qts-chl (cp) x 2 qts-chl (vug) qts-chl x 2 qts-carb qts (carb) qts-chl + qts qts-chl x 2		324	27	90 85	54260	.08	.004	.05
							ND		70 x 2 20 70 x 2 + 5 70 x 3 30 x 2 40 5 340	1/2 x 2 1/2 1/10 - 1/8 x 3 1/10 x 3 1/4 x 2 1/4 1/8 1"	qts qts qts-chl x 3 qts-chl (cp) x 3 qts x 2 qts qts (cp)-chl qts		333	50	90	54261	.07	.002	.05
							ND		70 x 2 + 80 + 0 30 30 x 3 350	1/10 x 4 1/4 1/10 x 3 ?	qts-chl (cp) x 3 + qts qts-chl-cp qts-chl x 2 Zone of chl-ep-qts alt'n + several 1/8" - 80' chl-mag veinlets		343	27	85	54262	.13	.004	.10
							ND		60 x 2 25 20 80 50? 342 30 360	1/10 x 3 3" 1" 1/2 8" 1/10 x 2 20	qts-chl x 3 qts-chl (py) (cp) zone qts-chl qts-chl (cp) qts-chl-cp (vug) qts-chl-cp x 2 qts		352 358	10	85	54263	.17	.002	.15
							ND		20 34 30 x 2 ? 80 30 x 4 20 370	3/4 1/10 x 3 10" 2" 1/10 x 4 1/4	qts-carb-gg-bx qts-chl-cp x 3 qts-ep-chl zone qts qts-chl x 4 gg		365 369	20	80 90	54264	.09	.004	.10
							ND		40 5 380	10' 1" 1/2	qts-chl-ep zone (minor cp in chl-rich zones) qts-chl-vug qts-chl		379	23	85	54265	.05	.004	.10

ROCK TYPES & ALTERATION										L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	ASSAY RESULTS			
Out	Plag	K-Spr	Mafic	Textura	Hardness	Sample Number	% Cu	% Mo	Estimated Grade														
						MINE PHASE (Saus. Alt'n) (202' - 491')	ND		390	3x4 30x8 20 20 20x2 30	1/10x4 1/4x8 1/4 1/2 1/4x3 1/10	qz+chl qz+chl+ep qz+chl+ep (cp) qz+chl+py (cp) x 2 qz+chl	< 5		389/5	23	75	34266	.03	.002	.08		
							ND		400	80 30 30 30x2 30 30 30 30	8" 1/2 1/4 1/10x2 10" 1/10 2" 1/10 1/2-1/4	qz+ep+chl zone qz+chl+carb+ep qz+hem qz+chl+qz qz+bx qz+chl+ep chl+ep qz+chl qz	< 5		397	43	85	34267	.07	.002	.05		
							ND		410	30?	7'	qz+chl - (py) zone (highly fragmented)	5%		404 405	27	80 90 90	34268	.04	.002	.05		
							ND		420	45	3' 1" 1'	qz (bx) qz+chl bx + minor (6") qz zones and hem.	< 5%		412 417	10	90	34269	.02	.007	.05		
							ND		430	30x5+20 5-20	1/2-1" x 3 1/2x1/8 6"	qz x 3 qz x 2 qz	< 5		425	13	75 80	34270	.02	.002	.05		
							70 St+		440	45 45x2 60 40? 40	1/4 1/2x2" 1/4 5'	qz qz x 2 qz+chl qz+bx (carb)	< 5		432 436 440	27	85 50	34271	.03	.004	.05		
							70 WN		450	60 30 80 45 10x2 5x80	3' 3" 1/10 1/4 1/8x2 1/4x2	qz+chl+ep qz+bx qz qz qz qz x 2	< 5		446	30	90	34272	.03	.004	.05		

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 31-17SHEET No. 1 of 8

LOCATION _____

BEARING 0°LATITUDE 49,981.50CORE SIZE 1/2" wirelineLOGGED BY M.R.S.DATE COLLARED April 20, 1981LENGTH 496'DEPARTURE 54,173.38SCALE OF LOG 1" = 10'DATE April 23-27, 1981DATE COMPLETED April 23, 1981DIP -90°ELEVATION 4,108.78

REMARKS _____

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	OX. DEPTH SUP. DEPTH	REMARKS	Footage Block.	R Q D	Estimated Core Recovery %	ASSAY RESULTS				
Alt.	Plot	K-Spor.	Mafic	Teslers	Hardness											Sample Number	% Cu	% Mo		Estimated Grade
						<u>cased to</u> <u>20' 14'</u>														
						<u>MINE PHASE</u> <u>QUARTZ DIORITE</u> <u>- same alt.</u> <u>(20' - 170')</u>	80° v.wk to Not Defined	10 60x10 110° 33	h/e h/e x 10 h/e lim.		0%	Badly broken core & rubble. Sl. bleached core Str. lim zone Many lim. fractures	24 28	0%	38% 75%	54326	.05	<.02		.03
							80° 85° v.wk to Not Defined	30x3 110° 100x2 110° 42	h/e x3 h/e h/e x2 1/2	lim x3 lim lim x2 gtz - sand	0%	Bleached. Str. lim zone Many lim. fractures. Broken core.	325 38	15%	56% 91%	54327	.04	.02		.03
							80° v.wk to Not Defined	70 110° 60x2 50 60x 50	1/16 h/e 1/4 x2 h/e x lim x	lim - aggr. lim. grange - lim x2 lim x	0%	Many limonitic fractures. Minor manganese stain.	45	15%	81% 58%	54328	.05	.02		.02
							Not Defined	30x4 80 60 180° 60	h/e x 6" 1" 1/2	lim x grange & breccia gtz - pp dyke - lim 1/2 - chl - py dissam (py)	5%	Fairly gtz rich Badly broken core. End limonite 60'	51 54 56 58	0%	75% 75% 60%	54329	.06	<.02		.02
							45° mod st. to 80° v.wk.	60° 15° 80° 125° 15x3 15x3 70	1/20 h/e 1 1/16 1/20x2 h/e x3	gtz - carb - chl - py carb grange gtz pp dyke gtz - chl - carb - py gtz - chl - py x3 carb x3	1%	Sl. dark chloretic zone.	63	53%	52% 91%	54330	.07	<.02		.03

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	ASSAY RESULTS				
Dtz	Plag	K-Sp	Mafic	Tessera	Hardness										L to Core Foliation	Foliation Alteration	Foliation Footage	Sample Number	% Cu
						70-80° WK	50 x 2 70 x 3 30° 35 x 2 15 x 3 110° 10°	1/20 x 2 1/4 3, + 2 (1/10 x 2) + 1/8 1/8 1	gtz - chl - py x 2 gtz - chl - py x 3 gtz - ep - carb - py gtz - pp - dyke gtz - py - chl - carb gtz - py gtz - chl - ep	2.5%	cross-cut by fract. cont. py w/ alt. encl.	74	6%	95%	54331	.07	.02		.05%
						Not Defined	120° 70° 15° x 3 60° 60 x 2 25°	1/4 1/20 + 1/16 + 1/2 1/2 1/16 x 2 1	gtz - pp gtz - chl - py x 3 gtz - carb - pied. py gtz - py x 2 Broken core - (carb & chl) carb.	2 1/2%	alt. encl.	84	65%	72%	54332	.05	<.02		.05%
						Not Defined	120° 60° 15° x 2 70° 50° 110°	1/4 1/12 1/16 x 2 1/2 1/4 1/16	gtz - ep - pied. carb gtz - vein - (chl) gtz - chl - py gtz - chl - py - carb x 2 gtz - chl - carb gtz - pp dyke gtz - chl - py	2 1/2%		93	45%	88%	54343	.03	<.02		.10%
						75° V WK Not Defined	15° x 2 70° + 40° 80 x 2 60° x 2 45° + 30°	1/4 x 2 1/10 + 1/20 1/4 x 2 1/16 x 2 1/16 x 2	Broken core (carb & chl) along fracture planes. carbonate x 2 chl - carb. py x 2 gtz pp dyke gtz - chl - per - py x 2 gtz - chl - py x 2	3%		103 106	75%	95%	54344	.06	.02		.05%
						Not Defined	125° 80 x 3 20° x 4 135° 15° 110° 30°	1/4 1/4 x 3 1/20 x 4 1/4 1/16 1/8 1	gtz - chl - py - carb gtz - chl - py gtz - ep x 2 (gtz - chl - py x 2) gtz - pp Broken core - calcareous fractures. gtz - chl - py gtz - chl - py - carb gtz - chl - py - carb	3%	faulted into 3 separate segments, Qtz - pp dyke	116	66%	93%	54345	.12	<.02		.08%
						Not Defined	145° x 10 110° 130 x 3 60° 55°	1/20 x 10 1/4 1/20 x 3 1/4 1/2	gtz - ep - pied - py x 10 chl - py gtz - chl - py x 3 chl - per - py gtz - pp	2 1/2%	Runs around these fractures and picked in chl.	126	8%	98%	54346	.21	.004		.05%
						Not Defined	80° x 2 80° x 2 85° 70° 75°	2" + 1/2" 1/20 x 2 1/2 1/4 0	gtz - per - py - chl x 2 gtz - per - py gtz - chl - carb - py - L group gtz - chl - carb gtz - per - chl - carb w/ py - Lcp	5%		136	30%	90% 85%	54347	.12	.002		.15%

[illegible]

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Blocks.	R Q D %	Estimated Core Recovery %	ASSAY RESULTS			
Qz	Plag	K-Spar	Mafic	Textured	Hardness											Sample Number	% Cu	% Mo	
						60- 80° WK	A 80° 130° 60° 75° 360°	1 1/2 1/2 5 1	1 1/2 1/2 5 1	Purkin con - calc. - 1845 gg. gtz-carb. gtz-chl-cp. gtz-chl-py gtz-spr-cmb-py gtz-spr			352	10%	70%				.08%
						10- 50° WK	A 80° 150+30° 130° 80° 50° 370°	1/8 1/2 x 2 1/8 1/8 1/2 1	1/8 1/2 x 2 1/8 1/8 1/2 1	Broken con - calc. - 1845 gg. gtz-chl-spr-cmb-py carb. x 2 gtz-chl-cp gtz-chl-cp gtz-carb-cp-py-cp calc. - 1845 gg.			363	43	85%				.13%
						80° WK	A 45+15 120° 80° 80 x 2 130° x 2 380°	1/8 x 2 1/16 2' 1 1+3/4 1/2	1/8 x 2 1/16 2' 1 1+3/4 1/2	gtz-cp x 2 gtz-chl-carb-py-cp Broken con - calc. - 1845 gg. gtz-carb-chl gtz-chl-cmb-py x 2 gtz-chl-cmb-py			373	17	90				.2%
					380 - 4961 Sana Alt	60- 100° 50° WK	A 80° 70° 155° 70° 160 x 4 390°	1 1/4 1/16 1/2 1/16 x 4 12"	1 1/4 1/16 1/2 1/16 x 4 12"	gtz-cp-carb. gtz-carb. chl-gtz-carb. calcareous gg - rubbly x 2 - cp gtz-carb-py-spr x 4 py-gtz-carb.	5%	less Purkin r x	383.5	47	90				.05%
						60- 50° 100° 10° M.H.	A 45° 45° 80° 130° 400°	1 1/2 1/2 5" 5" 1/2	1 1/2 1/2 5" 5" 1/2	gtz-py-spr gtz-chl-py-cp gtz-chl-gp carb. Broken con & gg gtz-chl-cp	2%	(fine diss. in tiny veinlets of cp)	394	47	90				.49%
						60- 80° WK H.S.	A 50 x 5 80° 70° 70° 60° 60 x 4 410°	1/4 x 4 1 1/16 1/4 1/4 1/2 x 4 1/2	1/4 x 4 1 1/16 1/4 1/4 1/2 x 4 1/2	gtz-chl-spr-cmb-py-cp x 5 gtz-cp gtz-chl-cp gtz-spr-cmb-py gtz-chl-carb. gtz-chl-cp	1%		404	57%	90				.15%
						80° WK	A 111° 55° 60° 70° 145 x 2 130° 150 x 2 420°	1/16 1/4 1/20 12 18 x 2 1/2 x 2 1/2 x 2	1/16 1/4 1/20 12 18 x 2 1/2 x 2 1/2 x 2	calcareous gg - hump gtz-chl-cmb-py gtz-chl-cp gtz-spr-chl-carb-cp-cp gtz-chl-spr-cmb-py gtz-chl-cmb-py gtz-chl-cmb-py	8%		414	20%	85				.10%

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Blocks.	RQD %	Estimated Core Recovery %	ASSAY RESULTS			
Qtz.	Plag.	K-Spar.	Mafic	Tactile	Hardness											Sample Number	% Cu	% Mo	
						60- 70° wk fo Mod.	145° 15° x 2 45° + 20° 120° 290	1/8 1/8 x 2 1/20 x 2 1/8 15"	gtz - carb. gtz - chl - carb - cp - lpp x 2 gtz - chl - py gtz - chl - carb - lpp Broken core - calcareous ggs - carb.			283	43%	80%				.10%	
						60- 70° wk fo Mod.	Gradational contact 290 - 337' Mainly dk. chl. alt ~ w/ only minor sanc alt ~ ep. blotches.	160° 130° 145° 70° 300	6" 2 1/16 1/8 6" 1/8	Broken core - calcareous ggs. gtz - carb - lpp gtz - chl - carb - py - lpp gtz - chl - cp - mo grubbl & gg gtz - chl - carb - py			292 296	27	90				.10%
						60° 70° wk fo Mod.	80° 30° 60 x 6 80° x 3 310	1 1/2 1/16 1/20 x 6 1/4 + 1/20 1	gtz + chl - carb - lpp gtz - chl - py gtz - chl - cp - py x 6 gtz - chl - cp gtz - chl - cp - py - carb			306	37	90				.35%	
						Var. Mod.	- (more ep. stingers & blotches)	80° 55° 60° 60° 70 x 3 60° 320	1 1/2 1/2 1 2 x 3 1/16	gtz - ep. gtz - ep - carb - chl gtz - chl - lpp gtz - carb - lpp - chl - lpp gtz - ep - carb gtz - chl - cp - py			316	17	90				.10%
						70- 80° wk fo Mod.	75 x 2 60° 60° x 2 70° 330	1/16 x 2 1 1/2" 12" + 5" 4" 12	gtz - ep calcareous gg - hem. gtz - ep - chl x 2 chl - gtz - carb - lpp Broken core - calcareous fracture.			326	13	90				.09%	
						Not Defined	70° 80° 90° 340	5' 1/4 x 2 1/16 x 2 1/16 1/16	gtz - ep - carb - chl - lpp gtz - chl - carb - lpp carb gg gtz - chl - carb - py gtz - chl - carb - py - lpp gtz - chl - py x 2 gtz - carb gtz - chl - cp Broken core - calcareous fractures				17	85				.16%	
						60- 70° wk fo Mod.	Sanc Alt ~ Dark Alt ~ Gradational contact 337 - 380	50° 36 x 2 70° 70° 30° 350	1 1/2 x 2 1/16 1/4 1/16 6"	gtz - chl - carb - py - lpp gtz - chl - carb - py x 2 gtz - carb gtz - chl - cp Broken core - calcareous fractures			341 344 346	40	90 60 70				.08%

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Foliation Alteration	Foliation Folage	Foliation Structure	Vains L to Core Axis	Width of Vain	Mineralization	Pyrite Zone	Remarks	Folage Blocks.	R O D %	Estimated Core Recovery %	ASSAY RESULTS				
Qtz.	Plag.	K-Spar.	Mafic	Texture	Hardness														Sample Number	% Cu	% Mo		Estimated Grade
						60° 70° Mod.				45° 60 X 2 60 X 10 30° 130° 145°	120° 1/4 X 2 1/2 X 10 1/8 1/2	Broken core - calcareous gangue gtz-chl-carb-epz gtz-che-carb-epz carb X 10 gtz-chl-epz gtz-chl-carb				422 429	20%	85%					.06%
						80° Mod.				145° 10° 60° 100 X 2 60°	4 1/4 1/20 1/2 X 2 3	gtz-carb-epz che-carb gtz-che-epz-carb carb-epz gtz-chl-carb					27	80					.06%
						60° Str 80 wt 50 wt				40° 80° 150 X 2 60° 150° 145°	1/2 8 1/2 1/20 X 2 6 1/2 1/4	gtz-chl-carb gtz-chl-carb-epz gtz-chl-py (folded) Broken core calcareous gangue calcareous gg gtz-chl gtz-chl-epz-epz X 2 gtz-chl X 2 gtz-py-py-chl calcareous gg gtz-chl-carb					63	95					.05%
						70° 80° Str.				70° X 2 70° X 2 70° 50° 70°	1 1/2 1/4 X 2 1/2 1/2 3/4	gtz-chl-epz-epz X 2 gtz-chl X 2 gtz-py-py-chl calcareous gg gtz-chl-carb					43	90					.06%
						30° 60° Mod 40° Str.				80 X 3 30° 20 X 2 85° 40°	1/2 X 3 3/4 1/16 X 3 1 1/20	gtz-chl-carb-py X 3 gtz-chl-py X 3 gtz-chl-carb gtz-chl-py X 3 gtz-chl-carb-epz carb gg Broken core - calcareous gg - gtz-chl						80					.06%
						30° 45° 40° Str.				70-80° 15° 60°	1/4 to 8 1/2 1/2 1/16	gtz-chl-carb X 10 gtz-chl-py Broken core calc. fract. gtz-chl-py					47	85					.05%
						70° 80° Str.				20 X 3 30° 50°	1/20 X 3 1/16 1/16	gtz-chl-py Var. angles & fracture carb. rem. gg gtz-chl-carb-py carb gg - rem.					40	80					.05%

RULE No. 87-17
 SHEET No. 2 of 2

[illegible]

GRID

GIBRALTAR MINES LTD.

HOLE No. 81-18

SHEET No. 1 of 7

LOCATION

BEARING

0°

LATITUDE

49.550.63

CORE SIZE

N.G. Wire line

LOGGED BY MRS

DATE COLLARED April 22, 1981

LENGTH

480'

DEPARTURE

54.301.65

SCALE OF LOG

1" = 10'

DATE April 27-29 '81

DATE COMPLETED April 23, 1981

DIP

-90°

ELEVATION

4,079.73

REMARKS

ROCK TYPES & ALTERATION

GRAPHIC LOG

OX. DEPTH 80'

SUP. DEPTH

ASSAY RESULTS

Estimated
Core
Recovery
%Sample
Number

%

%

Estimated
Grade

Cased to

14'

MINE PHASE
QUARTZ DIORITE- Same 811'
OK cut
19-5480°
WK.

30

70 X
10 Xhls X
hls XBadly broken
core
limBadly broken
limonitic core.

0%

Stn. lim. to
50'
WK. lim to
80'

21

13%

60%

54233

.05

.002

.02%

7045

4040

50°
80°
Stn.
folded
lim.

40

70°
15°
70°3
hls XBadly broken
limonitic core
gg, lim
lim X

0°

34

17%

65%

90%

54234

.07

.006

.02%

50°
80°
Stn.
folded
lim.

50

70°
30°4
hls Xlim - some hls
gtz-py-lim
gtz-py-lim

3%

Some broken core

44

21%

90%

54235

.05

.002

.02%

54-59
Qtz PP?5-80°
Stn.
folded
lim.

60

5°
20°
60 X 2
40 X 60 X 80
80° X 23/4
hls
1/16 + 1/2
1/16 X 3
3 X 2hls
gtz-chl-py-lim
gtz-chl-py-lim
gtz-py-lim
Broken x gg-lim

3%

54

40%

85%

54236

.17

.001

.02%

[illegible]

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	ASSAY RESULTS				
Dip	Plag	K-Spar	Mafic	Tertiary	Hardness										Footage Alteration	Footage Structure	Sample Number	% Cu	% Mo
					130-149° Same AH ^m /Qtz- Ser Zones	45- 80 Mod to Str.	130x7 70° 45x8 45x3	1/16x5 1/2x12 Karl. 1/4x1/8 + 1/16x6 1/20x3	qtz-ser-py x7 Karl. qtz-ser-py x8 qtz-ser-py-cp x3	4%		136	40%	90%	54244	.13	.002		.15%
						45- 80 Str to Wk.	140 15° 30x3 45x 60°	1/16 1/8x3 4" 1/20x1/4 6"	qtz-chl-ser-py- qtz-ser-py- qtz-ser-py Zone qtz-ser-py qtz-ser-py : (cp) 2 max.	4%		146	60%	85%	54245	.16			.20%
					149° Same 9/11 ^m	Not Defind.	150 120° 120x4 50x2 15° 130x2 15°x2	Karl. 1/20x4 1/8x2 3/4 1/8x2 1/4x1/8	Karl. qtz-ser-py - map after leached carb. qtz-ser-py x2 qtz-chl-ser-py-cp - uugs after leached carb. qtz-ser-py map after leached carb x2 qtz-ser-py-chl - uugs after leached carb or	4%		156	53%	90%	54246	.11			.18%
						80° U. Wk U to Defind.	160 150° 150x4 30° 80x2 130° 45	1/8 + 1/16x30 1/2 1/16x2 1 1/8	qtz-ser-py x4 qtz-chl qtz-ser-chl-py x2 qtz-chl-py qtz-cpy - (max)	4%		165	33%	90%	54247	.05	.014		.10%
						70° U. Wk.	170 160° 60x2 10° 120x7 1/4x2 130x2	1/16x5 1/2x12 1/8x1/8 Karl. 1/16x7 1 1/16x2 1/2	qtz-ser-py x7 qtz-ser-py-chl qtz-ser-chl-py qtz-ser-chl-py Broken core - gg - (cp) - (chem) qtz-ser-py x2 qtz-ser-py	3%		175	30%	90%	54248	.12			.10%
						60° 80° U. Wk	180 130° 160x2 150° 45x2 150° 160x6 190°	1/16x2 1/8x3/8 1 + 3/8 1/4 1/16x6 1	qtz-ser-py x2 qtz-ser-chl qtz-ser-py qtz-ser-py - cp qtz-ser-py qtz-ser-py - map after leached carb	3%		185	23%	90%	54249	.12	.018		.10%
						60° 80° U. Wk	190 140° 160° 10° 30° 120x2 30x2	1/4 1/16 12 1/4 1/4 + 1/2 1/2x7	qtz-py - cp qtz-carb-py Broken core - gg qtz-chl - cp qtz-carb-py - cp x2 qtz-ser-chl-py x2	3%		194	13%	80%	54250	.13	.05		.18%

[illegible]

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	ASSAY RESULTS				
Obs	Plag	K-Spar	Mafic	Tertiary	Hardness											Sample Number	% Cu	% Mo		Estimated Grade
						277 - 318	70° Mid	70 x 2 80 x 2 60 x 2 80 x 2 80 x 2 280 x 60	1/4 + 1 1/20 x 2 1/16 3 2 1	gtz-ser-che-py x 2 gtz-ser-py x 3 gtz-carb-che-ep-py gtz-ser-che-py (40%) 40% gtz-che-py-ep 3% gtz-che-ser-carb-py 3%			277	3%	90%	54358	37%	25		20%
						Same Alt	70° 80° J. Weak	160 160 160 160 160 290 x 300	2 1/2 12 12 1/4 1/2	gtz-che-carb-py-ep gtz-ser-carb-che-py-ep gtz-ser-2% gtz-ser-carb-py-ep gtz-carb-che-py-ep			287	27%	90%	54359	32	0		22%
							45° 70° wk to Mid	130 120 130 130 130 300 x 120	1/8 1/16 1/16 1/16 24 12 12	gtz-carb-py-ep gtz-che-carb-py gtz-che-ser-py-2% gtz-ser-che-ep-py gtz-che-ser gtz-che-py-ep gtz-che-py			295 299	10%	80% 80%	54360	23			20%
						(few dk. zones)	60° wk to Mid	145 160 150 160 160 310 x 120	1/4 1/8 1/16 6 6 1/8	gtz-carb-che-py-ep gtz-ser-che-carb-ep-py gtz-py-ep-ser gtz-ser-ep-py zone Broken core - calcareous gtz-che-ep-py 2 1/2% gtz-ser-carb-py			306	7%	75% 75%	54361	22			25%
						318 - 426	70° wk	170 170 150 150 150 320 x 150	12 12 1 324 18 18	gtz-che-py-ser Broken core gtz-carb-che Broken core - calcareous 99 gtz-carb-che-py-ep Broken core - calcareous			313 318 321	7% 7% 7%	85% 85% 90%	54362	22			15%
						DK Alt - Same Alt - Ser- Che Zones	70° 80° wk	170 145 120 70 x 2 160 x 2 330 x 160	1/2 1/8 1/20 1/8 x 2 1 1	gtz-carb-che-ep-mo gtz-carb-py gtz-che-carb-py-ep gtz-che-carb-py-ep x 2 gtz-ser-ep-mo 3%			330	17%	90%	54363	58	0.1%		35%
							70° wk	145 170 170 110 110 340 x 110	1 1/20 1 1/16 1/2 1/8	gtz-ser-carb-py-45 mo 40% gtz-che-ep gtz-ser-carb-ep-py ep-gt-ser-carb-che gtz-che-ep 3%			338	20%	90%	54364	58	0.1		33%

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	ASSAY RESULTS				
Qtz	Plag	K-Spr	Mafic	Tertiary	Hardness										L to Core Foliation	Foliation Alteration	Foliation Structure	Sample Number	% Cu
						80° U WK	160 x 2 110 300 60 70 x 2 350-700	1/20 1/4 1/4 1 + 2 1/20	gtz-chl-py che-py-carb gtz-carb-chl-py gtz-carb-chl-py gtz-pam-x chl-am-py-ll-cp gtz-am-py-ll-cp gtz-chl-carb-py-ll-cp gtz-chl-carb-py-ll-cp Broken ore-gg-carb-ll-py gtz-carb-chl-py		346	10%	90%	54365	.34	.016		.09%	
						800° U WK	30 x 3 150 x 2 100 120 130	1/20 x 18 1/20 x 2 1/20 1/4 5 116	gtz-am-py-ll-cp gtz-chl-carb-py-ll-cp gtz-chl-carb-py-ll-cp gtz-carb-py-ll-cp Broken ore-gg-carb-ll-py gtz-carb-chl-py		355 356	20%	95%	54366	.36	.4		.08%	
						20- 80° U WK	30 x 3 120 20 x 3 370-380	1/10 x 3 1 6 1/8 x 3 1/8	gtz-chl-py-ll-cp gtz-py-chl-carb-ll-cp Broken ore-gg gtz-am-chl-py gtz-am-chl-py Broken ore-gg gtz-carb-ll-py gtz-am-chl-py	leached carb.	363	27%	95%	54367	.28			.11%	
						50° 80° WK	30 300 480 + 25 150 100	1 1/4 1/16 x 2 1/16 1/8	gtz-am-chl-py gtz-am-chl-py Broken ore-gg gtz-carb-ll-py gtz-am-chl-py-cp gtz-am-chl-py gtz-am-chl-py	Badly Broken Core	371 374 378	10%	65% 75%	54368	.43	.006		.08%	
						80° U WK	30 110 76 110 150 390-400	1 1/20 1/8 1/20 1/18 1/16	gtz-am-chl-py-ll-cp gtz-am-chl-py gtz-am-chl-py-cp gtz-same cp-ll-cp gtz-am-chl-py gtz-am-chl-py gtz-carb-chl-py gtz-am-chl-py Broken ore-gg		384 390	3.1%	90% 85%	54369	.46	.011		.25%	
						70° U WK	60 70 x 2 15 90 400-410	1 1/8 x 2 1/2 1 12	gtz-am-chl-py-ll-cp gtz-carb-chl-py gtz-am-chl-py gtz-chl-carb-ll-cp Broken ore-gg		399	17%	95%	54370	.19	.007		.10%	
						80° WK	180 120 55 445 x 30 130 x 2 410-415	1/4 1 1/12 x 2 1 x 2 3/8 x 2	gtz-am-chl-py-ll-cp gtz-py-chl-py gtz-carb-chl-py gtz-cp-chl-carb gtz-chl-carb-ll-cp	Rx has broken	406	40%	90% 95%	54371	.30	.008		.23%	

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Valve L to Core Axis	Width of Valve	Mineralization	Pyrite Zone	Remarks	Footage Blocks	R O D	Estimated Core Recovery %	ASSAY RESULTS				
Qtz.	Plag	K-Spr	Mafic	Tertiary	Hardness											Sample Number	% Cu	% Mo		Estimated Grade
						80° Wk.	70° 80° 145° 70° x 3 135° 160° 120°	3/4 1/4 6 9 1/4 x 3 1/2 1/4	3/4 1/4 6 9 1/4 x 3 1/2 1/4	gtz-chl <cp>> gtz-carb-chl-py Broken core - carb. ss. gtz-chl <cp> - carb. - cp - py - <cp> gtz-chl-ser-carb-py-cp gtz-chl-py-cp gtz-carb-chl-py-cp			413 418	40%	90%	54372	42	016		22%
						80° Wk. to Not Defined	145° x 3 40° 80° 80° x 3 80° 120°	1/8 x 3 1/2 1 1 x 3 3/4 1/4	1/8 x 3 1/2 1 1 x 3 3/4 1/4	gtz-chl-Lpy gtz-ser-chl-cp gtz-chl-py-cp gtz-cp-mox3 gtz-gp-mox carb-gp-cp	1%		425	20%	90%				26%	
						DK alt. Qtz-ser	70° 50° 70° 145° 440°	15° x 3 70° 70° x 2 60° 145° 2'	1/20 x 3 7 12 x 2 3 1/2 1/2 2'	gtz-chl-ser-cp-py carb zone gtz-chl-ser-py-cp gtz-chl-cp-ser gtz-chl-cp-carb Broken core - gp	1%		431 436	27%	90%				28%	
						60° Wk. to Not Defined	15° 150° 120° 60° 450°	1/20 1/8 x 2 1/4 12 1/2 x 3	1/20 1/8 x 2 1/4 12 1/2 x 3	gtz-ser-py-cp gtz-ser-chl-py-cp x 2 gtz-chl-ser-cp DK. chl alt. zone of dissemi cp-mox & vermic. of cp gtz-ser-chl-cp x 3	Broken 5%		442 448	3%	85%				3%	
						453-480: Same Alt.	60° 70° 145° x 2 160° 120° 460°	1/45 x 20 1/8 1/8 1/2 1/16 x 2 1/4	1/45 x 20 1/8 1/8 1/2 1/16 x 2 1/4	gtz-ser-chl-cp-py-Lmo x 3 gtz-ser-chl-py-cp gtz-chl-carb-py gtz-chl-ser-cp gtz-chl-ser-cp-Lmo gtz-chl-cp	5%		452 456	50%	95%				36%	
						70° Wk.	110° 70° x 2 155° 130° 160° 470°	1/4 1/2 1 1 2 9	1/4 1/2 1 1 2 9	carb-hem gtz-chl-cp x 2 gtz-chl-carb-cp gtz-chl-cp gtz-chl-Lcp gtz-chl-Lcp gtz-chl-Lcp	15%		466	23%	95%				30%	
						80° Wk.	130° x 2 160° x 2 480°	1/4 15 1/8 x 2 1/4 x 2 12	1/4 15 1/8 x 2 1/4 x 2 12	gtz-chl-cp Broken core gtz-chl-cp x 2 gtz-chl-ser-cp x 2 Broken core - gp - Lcp	15%	MR. Schrammberger	474 480	23%	90%				30%	

SHEET No 1 of 6

LOGGED BY M.R.S.
DATE April 29-30, 1981

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Ox. DEPTH <u>106.</u>	Footage Blocker.	R O D	Estimated Core Recovery %	ASSAY RESULTS			
Qtz.	Plag.	K-Spar.	Mafic	Tuffare	Hardness							Foliation Alteration				Footing Structure	REMARKS	% Cu	% Mo
								0.8.											
								0.8.				Limonite zone Strong to 60. Wk. to 106.							
							22												
						10" Med.	-80° 15' 30' 40 x ?	kle kle Kley		Qu - pellets lim. patchy lim lim lim. gg & rubble	.7%			90%				.03%	
						70" Med	-70 x -30 x -80° 1300	kle kle 3/4 1/8		lim lim gtz-chl-lim gtz-chl-coar-grt-lim	.3%	35	20%	80%				.03%	
							39-45'			limonite zone - lim. gg.									
						800	-80° 160° 15° 60 x ? 30	6" 2' 1/16 Llx3 kle		qtz-ser-py limonitic gg-py gtz-chl-lim lim AS lim	.8%			90%				.03%	
						WK													
							45'- Same Alt m.												
						10° V. WT	115° 145° 160 x ? 145° 72°	kle kle Kex? 2 1		lim - Cg patchy lim - lim patchy lim dic - gtz - lim lim - lim - vim	.5%			90%				.06%	
														17%					

GIBRALTAR MINES LTD.

ROLL NO. 81-19
SHEET No. 3

GRID

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	ASSAY RESULTS				Estimated Grade
Qtz	Plag	K-Spar	Mafic	Tessels	Hardness										Sample Number	% Cu	% Mo		
						131 - Same Alt DK Alt 7312 Rich.	70 WE	1/2	gtz - chl - ser - cp. 3%			130	83%	95%					0.7%
							70 WE	1/2	gtz - chl - ser - cp. 3%			145	23%	90%					0.8%
							70 WE	1/2	gtz - chl - ser - cp. 3%			155	23%	50%					1.5%
							70 WE	1/2	gtz - chl - ser - cp. 3%			162	57%	90%					0.7%
							70 WE	1/2	gtz - chl - ser - cp. 3%			176	43%	95%					0.6%
						178-180 Qtz Pp	60 WE	1/2	gtz - chl - ser - cp. 3%			186	67%	90%					0.3%
						180 - Same Alt	60 WE	1/2	gtz - chl - ser - cp. 3%			194.5	5%	90%					0.5%

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Block.	R Q D	Estimated Core Recovery %	ASSAY RESULTS				
Ort	Plac	A-Spar	Mafic	Texture	Hardness										Sample Number	% Cu	% Mo		Estimated Grade
						60° v. wk.	60° x 2. 145° 145° 145°	1/4 + 1/2 3 12 12	gtz. san - chl - py x 2 gtz gtz - ep fine gr. - Lpy Broken core cub. gtz. ep.	5%		204.5 209	53%	90%					1.3%
						75° wt.	130° 80° 70° 70° 80°	1/20 1/8 1/8 h.c.	gtz. pyd gtz. san - chl - py - carb cub. gtz. py	5%		216	33%	85%					1.3%
						80° wk.	70° 70° 55° x 2 80° 30° 55°	2 1 1/2 6 1/2 1 1/4 3/8 1/4	gtz. san - chl - py - carb gtz. chl. carb. - ep. gtz. san - chl - ep gtz. carb. gtz. - py gtz. carb. - py			226	57%	90%					1.3%
						80° wk. Mod.	110° 140° 75° x 2 120° 120° 120°	1/16 2 1/4 x 2 1/2 1 16	gtz. carb. gtz. chl. - san - Lpy gtz. - chl - Lpy gtz. chl. - Lpy cub. gtz.	5%		236	30%						
						75° -45° wk. to Mod.	70° x 2 10° 80° 145° 130° 110° x 2	1 1/2 h.c. h.c. 1 1/4 h.c. 1 1/2 x 2	gtz. chl. - carb. x 2 chl. carb. gtz. chl. - carb. gtz. chl. - ep gtz. x 2	5%	→ chl. carb. → Lpy - carb.	246	40%	90%					1.3%
						45° 60° Mod.	15° 55° 95° 30° + 70° 30°	h.c. 1/4 4 3/8 + 1 h.c.	chl. - carb. - carb. gtz. - chl. - carb. gtz. - chl. - san - carb. - Lpy gtz. - chl. - Lpy h.c. - carb. - carb.	5%		256	37%	90%					1.3%
						50° Mod.	130° 110° 150° 150° 120°	h.c. 6" h.c. h.c. 1/2 1/4	chl. - ep. Broken gtz. vein w/ good cp min. - prob. lost some of it. gtz. chl. - py gtz. Lpy - py gtz. - chl. - Lpy gtz. - carb. - Lpy	5%		263	50%	95%					1.3%



GRID _____

GIBRALTAR MINES LTD.

HOLE No. 81-19
Sect No. 5 of 6

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Feet	R Q D	Estimated Core Recovery %	ANALYSIS		
Ch	Plg	K-Spec.	Mafic	Tertiary	Hardness											Sample Number	% Cu	% Mo
						60° WK.	130° x 4 45° 110° 145° 145° 125 x 2 280	1/20 x 4 1/8 hde 1/8 1/16 1/4 x 2 3/4	carb-hem gtz-chl. cp. gtz-chl. - py - carb gtz-chl. - py - carb gtz-carb gtz-chl. carb			273	47%	95%			.05%	
						60° u.wk 100° Defined	160° x 2 155° 155° 130° 290	1/8 x 2 hde 1/16 x 1/4 6 3 1/8	gtz limb gtz-chl. - py x 2 gtz-chl. - carb gtz-chl. - carb gtz-chl. - carb			283 287	47%	60%			.05%	
						74° Defined	70° 125° 45° 130° 130° 300	1/2 1/20 5 3/8 18" 30 x 3	gtz-carb gtz-carb gtz-carb gtz-carb ex chloritic - gtz-chl. alt gtz-chl. - py x 3			295	43%	95%			7	
						80° u. WK.	130° 130° 110° ? 310	1/8 12 1/4 1/2" 2" 15"	gtz-chl. - py Broken cone gtz-chl. - carb gtz-chl. - carb Minor chloritic - py gtz - carb - chl - carb - py			303	23%	80%			.07%	
						60° u. wt.	? 130 x 2 160 130° 320	12" 1/2 x 2 1 hde 1/2 x 2	gtz-carb gtz-carb gtz-carb carb gtz-chl. carb x 2			312	33%	95%			.05%	
						80° u. wt + 60° 110°	180° 140° 130° 130° 330	3 1/8 1/2 1/4 12 1/5 x 3	gtz-pied-carb gtz-pied-carb gtz-chl. carb Broken cone carb x 3			320	10%	80			.05%	
						70° wt + 30° 100°	160° 145° 130° x 2 130° 150° 340	5 1 1/8 x 2 1/20 1/4	gtz-chl. carb - py gtz-chl. carb gtz-chl. carb gtz-chl. carb gtz-chl. carb			336	33%	85 96			.05%	

MR. Schaumburger

LOGGED BY G.D.B.
DATE April 30- 1981
- May 1

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ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Blocks.	R Q D	Estimated Core Recovery %	ASSAY RESULTS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Qz	Plag	K-feldspar	Mafic	Tuffaceous	Hardness										L to Core Foliation	Foliation Alteration	Footage	Structure	Sample Number	%	%	Estimated Grade																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	ASSAY RESULTS			
Qtz	Plag	K-Spr	Mafic	Tasite	Hardness											Footage Alteration	Structure	Sample Number	% Cu
								50	1/8	qtz-chl-cp									
								20"		qtz-cp zone					95				.05
								? 20?	10"	qq+bx	.5%		246	40					
								40	2 1/4 x 1"	qtz-ser-chl-py (cp)					90				
								45x2	1/4	cp+qtz									
								45	2 1/4"	qtz-py (cp)			250						
								250		qq+bx									
								45x2	1/10x2	qtz-chl-ser-py x2									
								15?	8"	qtz-ser-chl (py) (cp) zone									
								40x2	1/4x2	qtz-carb + qtz-chl (cp)									.08
								10	1/10	qtz-chl-py-cp	.5%			47	90				
								35	1/10	qtz-chl-py (cp)									
								45	1/10	qtz-chl-py									
								45	1/20	qtz-chl-py-cp			260						
								260											
								60	1/4	qtz-chl-cp									
								50	1/8	qtz-ser (py)					90				
								45x2	1/2x2	qtz x2			266	60					.05
								40	1/2	qtz-ser-chl-py	<.5%								
								45	1/10	qtz-qq-py									
								30?	1/2	qq									
								15	1/4	qtz									
								270											
								50	3/4x2	qtz (chl) x2					90				
								30x60	1/4x2	qtz x2									
								40	1/8	qtz	<.5%		276	43					.05
								15	1/2	qtz-chl									
								30	1/4	qtz									
								20	1/10	qtz-chl (py)									
								30	1/20	qtz-chl-py					85				
								10	1/20	qtz-chl-qq-py									
								60	6"	qtz-chl-ser-py	<.5		285	33					.05
								20	1/20	qtz-chl (py)									
								60	12"	qtz					90				
								290		bx			290						
								10	2"	bx									
								80x5	3/4	qq					85				
								5	1" x 1/10	qtz-ser-py	10%		296	47					.35
								20x3	1/4	qtz-ser-py-cp									
								15	1/10x3	qtz-ser-cp									
								10	1/2	qtz-chl-py x3									
								10	3/4	qtz-chl-py (cp)									
								300	1/10x3	qtz-py									
								40	1/2	qtz-chl-py x3					95				
								50	1/2	qtz-chl									
								70	16"	qtz			306	47					
								310	4'	qtz-ser-chl zone									
										qtz-cp-chl zone									

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Elong.	R Q D	Estimated Core Recovery %	ASSAY RESULTS			
Cut	Plag	K-Spat	Mafic	Tuffaceous	Hardness											Sample Number	% Cu	% Mo	Estimated Grade
						MINE PHASE (Saus. Alt.) (212-472')	ND		30 45 80 30 45+5 60	1" 6" 4" 1/4" 1"+1 1/2" 3"	qq+bx qtz-chl (cp) zone qq+bx qtz-chl qtz x 2 qtz-chl zone	<.5	314/6	43	90 70			.05	
							ND		60 60? 45 30? 30?	7" 2' 6" 3/8 3' 12"	qtz-ser (chl) (cp) zone qq qtz-chl (vug) qtz bx + min qq qq+bx	<.5	324 329	40	 80			.05	
							ND		20x2 20 5x3 5 50 ? + 60+30	1/10 + 1/8 1/8 1/20x3 1/8 1/4 12" - 1" + 1/2"	qtz-py x 2 qtz-py qq x 3 qq qtz qq+bx + qtz x 2	<.5	339	30	85			.05	
							ND		35 25 90? + 20 30 35x3 20 20 20	1/10 3" 3" + 1/4 1/2 1/8 + 1/10x2 1/20 1/10	qtz-chl qq/bx qtz-chl (vug) x 2 qq qtz-chl-py x 2 qtz-chl-cp qtz-chl-py	10%	347	50	75			.05	
							ND		10 20 30 60 60 40	1/10 12" 3" 3/8 1/2 1/10	qtz-chl-cp qq+bx (hem) qtz-chl hem qtz qtz-ser-cp qtz-py-gg	.5	355	33	85 80			.08	
							ND		20x3 30 8" 30 40 15 40 20 30 30	1/10x3 8" 30" 1/20 3' 12"	qtz-chl cs qq+bx qtz-chl-py-cp qtz-chl-py qtz-chl (cp) (py) (cp) zone qtz-ser (py) zone	10%	361 367	23	80			.10	
							ND		80 60x2 40 80 80	1/4 1/4x2 1/8 14" 10"	qtz qtz x 2 qtz-chl-py qtz (cp) vein bx (qd)	<.5	374 379	33	85 85			.05	

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Blocks.	R Q D	Estimated Core Recovery %	ASSAY RESULTS				
Ctz	Flog	K-Spar	Mafic	Textured	Hordene										L to Core Foliation	Foliation Alteration	Footing Structure	Sample Number	% Cu
						MINE PHASE (Saus. Alt'n) (212' - 472')	ND		390	5m x 2 50" 30" 30" 30" x 2 1/10 x 2	chl-qq-carb qtz-chl-py (cp) x 2 qtz (dirty) qtz (chl) (vug) qq chl (py) qtz x 2	<.5		389	43	75			.05
							ND		400	45" 30" 40" 40" 30" x 3 1/2 30" 40"	qtz (vug) qtz-chl-py (cp) qtz-chl-py qtz-chl-py-cp qtz x 3 chl-carb qq+bx qa+bx	.5		396	37	95			.05
							ND		410	2' 2' 6" 5'	qa+bx bx (qq) qq bx	<.5		402	0	50			.05
							ND		420	5" 80? 12" 2'	qtz-Mo (py) bx + qq qtz-ser-py zone bx + qa bx	.5		411	13	65			.05
							ND		430	30" 40" 50? 2' 10" 12" 6" 6"	qtz (Mo)(cp) qtz-chl (Mo) qq qq+bx bx bx bx	<.5		426	17	80			.08
							ND		440	10" 60" 50" 60" 30? 1" 2" 45"	qtz-ser-chl-py-cp qtz-ser-chl-py qtz-chl qtz-chl (cp) qtz-chl-ser-(cp) zone qq qtz-chl-ser-(py)(cp) zone	1.0%		437	43	80			.30
							ND		450	45" 10+50" 10" 20" 80" 30" 20"	qq qtz-carb-py-cp qtz-carb-py-cp qtz-chl-py qtz-chl (cp) qtz-chl-cp-mag qtz-cp	1.0%		444	37	80			.20

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LOGGED BY M.R.L.
DATE Apr 30 - May 1 '81

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ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	ASSAY RESULTS				
Core	Plag	K-Spar	Mafic	Textured	Horizons										Sample Number	% Cu	% Mo	Estimated Grade	
						70° WK	15° 100° 80° 160° 130° 50°	1/20 hlc 1/20 1/20 hlc hlc	gtz-chl-carb gtz-hem gtz-sau gtz-carb-hem chl carb-hem	5%			60%	90%				.05%	
						80° WK	15° 100° 120° 145° 70° 100-70°	hlc 1/16 hlc 120x2 120x2	chl-gtz-py gtz-sau-chl carb-hem gtz-sau-x2 gtz-carb-hem-x2	5%			50%	95%				.05%	
						80° WK	170° 160x2 90° 145° 70° 110	hlc 1/20x2 1/4 1 1	gtz-sau-x2 gtz-sau-chl gtz-sau-LPY diagen py gg-carb	8%			63%	97%				.05%	
						80° WK	150° 10° 130° 120° 160° 145° 160°	1/2 1/20 1/8 1/20 1/2 1/2	carb-sg gtz-chl-carb-cp-py gtz-sg-chl-carb gtz-chl-carb-py gtz-sg-chl-cp gtz-cp gtz-cp-chl-py	1%			43%	95%				.05%	
						60° 80° WK	145° 160° 130° 160° 130	1/2 hlc x3 hlc 1/20 3 1/10 1/2	gtz-sg-chl carb-hem-hem x3 carb-hem x2 gtz-cp-py-carb-hem gtz-sg-py-carb-hem gtz-chl-cp-py gtz-chl-sau-cp	1%			27%	90%				.09%	
					130-138 Fault Zone	?		8	Broken core - rubble core gg-carb-hem	8%									.05%
						80° WK	140° 70° 150° 70° 150	3 2 hlc 12	gtz-sg-chl-py-carb-hem gtz-sg-carb-hem Broken rubble core -gg-carb-hem chl-cp-py gouge	1%								.05%	

ROCK TYPES & ALTERATION							GRAPHIC LOG	Foliation	Foliation Alteration	Footage Structure	Vains L to Core Axis	Width of Vain	Mineralization	Pyrite Zone	Remarks	Footage Block	R Q D	Estimated Core Recovery %	ASSAY			
Qtz	Plag	K-Spar	Mafic	Tessera	Hardness														Sample Number	% Cu	% Mo	Estimated Grade
								80°			30° ± 20°	16x2	chl-ser-py									
								WK			10°	12	gtz-chl-cp-carb-py			157	13%	60%				60%
										160	110°	18	gtz-chl-py-cp									
											150	120	gtz-ser-chl-py									
											150	3/4	gtz-chl-carb-cp									
											145X2	1/2 + 3	gtz-cp-hm-piled? x2					80%				
								80°			160°	1/16	gtz-chl-carb-cp-xmo			167	20%					25%
								Mod			160°	1	gtz-carb-cp									
											180°	1/2	gtz-carb-cp									
										170	130° X2	1/8 X2	gtz-carb-chl-py x2									
											150° X2	1/20 X2	gtz-chl-carb-py-cp x2					90%				
								80°			150° X2	1/16 X2	gtz-chl-carb-py-cp x2			177	20%					25%
								WK			140°	1/16	gtz-carb-chl-py									
											160°	1/20	gtz-chl-ser-py									
										180	150°	25-1	gtz-cp-chl-py-carb									
												4	Broken bleached zone - carb gg									
								80°			120°	hlc	chl-ser-py					90%				
								WK			150°	hlc	chl-ser-py-cp									
												1 1/2	Broken core w/ gtz-py-cp			187	30%					25%
											130°	1/8	cp-gtz-chl-carb									
										190	170°	7"	gtz-cp-hm-cp x2									
											1850	hlc	chl-ser-cp					90%				
								60°			120°	1/20	gtz-chl-ser-py									
								80°			160+70	1/20 X2	gtz-chl-ser-py-cp x2									
								WK			180°	1/4	gtz-cp-carb-py			197	43%					18%
												1	Broken gtz vein - cp-cp-cp									
										200	120°	hlc	gtz-chl-cp									
											100+20	hlc x2	gtz-chl-py x2					80%				
											110°	hlc	gtz-ser-py-cp									
											150	hlc	ser-mo-py-cp									
											115 X3	1/8 + hlc x2	gtz-ser-carb-py-cp x3			207	27%					15%
											140°	1/4	gtz-ser-py-carb-cp-cp									
										210	145°	hlc	gtz-ser-py									
											140°	1/4	gtz-ser-py									
											150°	1/20	gtz-ser-py									
											165°	1	gtz-ser-cp-mo-py									
											175°	1	gtz-ser-cp-mo-py									
											180°	1	gtz-ser-py-mo-cp									
										220		6	Broken carb					80%				12%

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Stops.	R Q D	Estimated Core Recovery %	ASSAY RESULTS					
Qtz	Plag	K-Spar	Mafic	Tactile	Hardness										Sample Number	% Cu	% Mo	Estimated Grade		
						Not Defined	130° 115° 30° 110° 80° 130° x 2 70° 150°	1/16 hlee 1/16 1" 10 1/20 x 2 1/8 1/8	gtz - ser - cp carb - hlee gtz - cp - mo gtz - cp - carb - m gtz - cp gtz - carb - py - cp - smoz	1%		222								
						Not Defined	120° 150° 140° 145° A 130° 110°	1/8 1/8 1/4 1/16 1/2 16" 1/16 1/20	gtz - py gtz - cp - mo gtz - cp - mo gtz - py - cp - smoz Broken core - carb. fractures gtz - cp - mo gtz - cp - py	8%		233								
						Not Defined	145° A 130° 110° 70°	1/2 16" 1/16 1/20 1/20	gtz - py - cp - smoz Broken core - carb. fractures gtz - cp - mo gtz - cp - py	8%		237	30%	75%					24% high mo	
						Not Defined	110° 160° x 2 145° 130° 130° 110° 70°	1/16 hlee x 2 1/8 1/16 1/16 1/20 1/20	gtz - carb - chl - p - py carb - hlee x 2 gtz - ser - py - cp gtz - cp - py gtz - cp - py - mo gtz - ser - cp - smoz gtz - ser - py - mo - hlee	8%		242								
						Not Defined	145° 130° 130° 110° 70°	1/8 1/16 1/16 1/20 1/20	gtz - ser - py - cp gtz - cp - py gtz - cp - py - mo gtz - ser - cp - smoz gtz - ser - py - mo - hlee	8%		247	20%	80%					15%	
						Not Defined	110° 160° x 2 145° 130° 130° 110° 70°	1/16 hlee x 2 1/8 1/16 1/16 1/20 1/20	gtz - carb - chl - p - py carb - hlee x 2 gtz - ser - py - cp gtz - cp - py gtz - cp - py - mo gtz - ser - cp - smoz gtz - ser - py - mo - hlee	8%		252								
						Not Defined	145° 130° 130° 110° 70°	1/8 1/16 1/16 1/20 1/20	gtz - ser - py - cp gtz - cp - py gtz - cp - py - mo gtz - ser - cp - smoz gtz - ser - py - mo - hlee	8%		257	13%	80%					0.9%	
						Not Defined	110° 160° x 2 145° 130° 130° 110° 70°	1/16 hlee x 2 1/8 1/16 1/16 1/20 1/20	gtz - carb - chl - p - py carb - hlee x 2 gtz - ser - py - cp gtz - cp - py gtz - cp - py - mo gtz - ser - cp - smoz gtz - ser - py - mo - hlee	8%		263								0.9%
						Not Defined	110° 160° x 2 145° 130° 130° 110° 70°	1/16 hlee x 2 1/8 1/16 1/16 1/20 1/20	gtz - carb - chl - p - py carb - hlee x 2 gtz - ser - py - cp gtz - cp - py gtz - cp - py - mo gtz - ser - cp - smoz gtz - ser - py - mo - hlee	8%		270								
						Not Defined	110° 160° x 2 145° 130° 130° 110° 70°	1/16 hlee x 2 1/8 1/16 1/16 1/20 1/20	gtz - carb - chl - p - py carb - hlee x 2 gtz - ser - py - cp gtz - cp - py gtz - cp - py - mo gtz - ser - cp - smoz gtz - ser - py - mo - hlee	8%		277	23%	70%						12%
						Not Defined	110° 160° x 2 145° 130° 130° 110° 70°	1/16 hlee x 2 1/8 1/16 1/16 1/20 1/20	gtz - carb - chl - p - py carb - hlee x 2 gtz - ser - py - cp gtz - cp - py gtz - cp - py - mo gtz - ser - cp - smoz gtz - ser - py - mo - hlee	8%		287	17%	70%						15%

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ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Blocks	R O D	Estimated Core Recovery %	ASSAY RESULTS			
Dist.	Plag	K-Spr.	Mafic	Tuffaceous	Hardness										L to Core Foliation	Foliation Alteration	Footage Structure	Sample Number
						Not Defined		10 15 110 150 150 170 370	1/20 1/16 1/4 1/8 1/10 1/20 1/14	gtz-chl-sauc. carb. gtz-chl-carb gtz-chl-carb-ep gtz-ser-chl-py gtz-ser-chl-ep-py gtz-chl-py			266	67%	90%			.09%
						Not Defined		150 70 80 145 110 10 380	1/16 1/16 1/4 1 1/20 1/14	carb. gtz-ser-chl-ep-py-ep gtz-chl-ser-carb-py gtz-ep gtz-chl-py gtz			371.5	40%	70%			.09%
					381-383 DK. chloritic Alt ^m 383-401 Sauc Alt ^m / Qtz mid chloritic w/ 190° blotches	80° Mod.		12 1/20 8" 1/20 1/2 390	1/2 1/20 8" 1/20 1/2	Broken core - carb-gg gtz-chl-«cp» gtz-chl-ser-carb-«py» gtz-chl-py-lmo? gtz-chl-ep gtz-chl-«cp»		mainly diss. «cp»	381	37%	80%			.09%
						Not Defined		150 x 2 15 120 x 3 15 400	1/16 x 2 1/2 1/16 x 3 1/20 1/20	carb x 2 gtz-chl-«cp» Broken core - carb-gg «py» gtz-chl x 3 gtz-ep			391	37%				.06%
					401-479 Sauc Alt ^m	Not Defined		120 150 130 x 3 100 100 x 2 410	1/20 1 1/16 x 3 1/20 1/20 x 2 1/16	gtz-chl-carb-ser-ep gtz-ep carb x 3 carb-gg gtz-sauc x 2 gtz-sauc-chl (lmo?) - py			405	50%	60%			.09%
						Not Defined		70 110 85 130 160 420	1/2 1/16 1/8 1/4 1/16 1/16	gtz-ep-py-chl-sauc carb chl-carb-gg gtz-chl-«sauc»-«py»-«cp» gtz-carb-ep gtz-chl-ep			415	50%	90			.09%
						Not Defined		80 70 x 2 160 15 x 2 160 430	1/2 1/4 x 2 1/20 1/4 x 2 1/16 1/16	chl-carb-gg gtz-sauc x 2 gtz-sauc gtz-chl-«py»-«cp» x 2 gtz-chl-py gtz-chl-ep			425	50%	95			.09%

ROCK TYPES & ALTERATION						GRAPHIC LOG		Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Block	R Q D	Estimated Core Recovery %	ASSAY RESULTS				Estimated Grade
Dip	Plg.	K-Spl.	Mafic	Texture	Hardness	L to Core Foliation	Foliation Alteration									Footage	Structure	% Cu	% Mo	
						80° V.U. WK		100 60x2 60° 1/2 85° 120x2 440	120 120x2 1/16 1/2 18x2 2	gtz-carb-chl gtz-sauc-py gtz-py-cp carb-gg gtz-chl-cp gtz-chl-py-cp broken core w/gtz-py-agg-carb-gg	5%		435	47%	25%				.07%	
						70° 80° WK		120° 150° 60x2 80° 120° 150° 450	18x2 3 18x2 3/4 12" 14	gtz-sauc-py gtz-sauc gtz-piedmontite carb-gg-broken-gtz-chl-carb-core gtz-ser-sauc gtz-chl-py-cp	1%		445	60%	95%				.05%	
						60° 80° WK Mod		120° 70° 55° 120° 50° 460	hls 2 1/2 1 hls hls 1 1/2	gtz-chl-carb-py gtz-sauc gtz-sauc gtz-chl-py gtz-chl-py gtz-sauc-hem-chl	5%		455	50%	90%				.05%	
						Not Defined		170° 130° 70° 120° 125° 155° 470	1/16 1/16 8" 1/20 1/2 1/2	gtz-sauc gtz-sauc-chl gtz-chl-carb-py-cp gtz-chl-ser-py-cp gtz-chl-py-cp gtz-chl-sauc-py-cp	5%		465	60%	90%				.09%	
						Not Defined		150° 70° 110° 160° 130° 70° 480	1/8 1/4 1/4 1/8 2 1/2 1/2	gtz-chl-sauc gtz-chl-ser-py gtz-chl-py gtz-carb-hem-cp gtz-chl-py gtz-sauc-chl-carb-hem gtz-chl-carb-py	9%		475 476	47%	97%				.06%	
						Not Defined		155° 120° 140° 60° 120x2 80° 150° 490	1/16 1/8 hls 1/12 hls x2 1/4 hls	gtz-chl-sauc-py gtz-chl-py carb-hem gtz-sauc carb-hem x2 gtz-chl-py carb-hem	6%		486	15%	90%				.05%	
						Not Defined		155° 120° 140° 60° 120x2 80° 150° 490	1/16 1/8 hls 1/12 hls x2 1/4 hls	carb-hem-lim chl-gtz-py-carb-gg gtz-carb-cp carb-gg-hem gtz-ser-chl-py carb-chl-hem	5%		496	27%	80%				.05%	

LOCATION POLLYANNA
DATE COLLARED April 29, 1981
DATE COMPLETED 7/7/81, 1981

BEARING 0
LENGTH 567'
DIP -90°

LATITUDE 49° 52' 29.84" N
DEPARTURE 54° 18' 49.22" E
ELEVATION 4,130.01'

CORE SIZE NO. 1
SCALE OF LOG 1" = 10'
REMARKS _____

LOGGED BY G.D.
DATE 7/24/51

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Ox. DEPTH <u>95'</u>	Footage Block.	R Q D	Estimated Core Recovery %	ASSAY RESULTS			Estimated Grade				
Ois.	Plot	K-Spec.	Matrix	Texture	Hardness						L to Core Foliation				Foliation Alteration	Footage Structure	Sup. DEPTH		REMARKS	Sample Number	%	%
																					Cu	Mn
												20										
							ND		5 5 50 x 3 60 x 4	1/10 1/10 1/20 x 3 1/10 x 4	lim lim lim lim		43	70								
							ND		15 5 50 x 4	hlo 1/4 1/20 x 4	lim-MnO2 qtz-chl-lim qtz-chl-lim x +		47	85								
							ND		5 x 3 ? 8" 40 x 4 5 + 30 x 2 5 60 x 3	1/20 x 3 2" hlc hlc x 4 1/4 + 1/10 x 3 1/8 hlc x 3	MnO2 (gg) x 3 gg-br MnO2 lim x 3 + MnO2 lim x + lim-gg lim x 3		23	95								
							ND		60 x 3 + 45 x 3 60 20 20 x 4	hlc x 6 1/8 1/8 1/10 x 4	lim-MnO2 x 6 qtz-lim qtz-MnO2 (Vug) lim-gg x +		20	95								
									10 10 x 3 + 40 x 4 5 20 x 3 + 40 x 2	12" 1/20 1/20 - 1/10 x 4 1/3 12" 1/10 x 5	bv (gg) MnO2 MnO2-lim x + qtz-chl-lim (vug) gg-lim lim-gg x 5		7	85								

ROCK TYPES & ALTERATION						GRAPHIC LOG		Vains L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Elev. S.M.	R O D	Core Number	Sample		Cu	Mo
Diz.	Plog	K-Spec.	Mafic	Tertiary	Hardness	L to Core Foliation	Foliation Alteration									Footage	Structure		

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footwall Structure	R Q D	Estimated Grade %	Sample Number	Cu	Ni	Estimated Grade %
Qty.	Flag.	K-Spec.	Mafic	Texture	Hardness													
						MINE PHASE: Says Alt'n Phase (20-336)	ND	70 10 70 x 8 60 x 2 70 ? 5 ?	1/10 3/8 1/10 x 8 1/10 x 2 6" 1/4 3'	qtz-py qtz-py qtz-ser-py qtz-ser-py qtz-chl-ep zone qz qq+bx. qtz-py ((cp))	2.0%		146	23	97			38
							ND	70 x 2 60 50 50 70 60 x 80 50 x 4 40 ? 70 x 3 + 60 x 2	1/4 + 2" 8" 3" 3/8 1/2 1/4 + 1/2 1/20 - 1/10 x 4 14" 10" 1/8 - 1/10 x 5	qtz-ser-py + qtz-chl-ep zone qtz-ser-py (cp) qtz-ser-py (cp) qtz-ser-py (cp) qtz-py (cp) qtz-ser-py x 2 qtz-ser-py x 4 qtz-chl-py zone (even) qtz-chl (py) qtz-ser-py x 5	3.0%		155.5	23	90			03
							ND	60 70 x 2 10 + 45 x 2 5 x 2 + 60 50 45 x 3 85 x 5 85 85	1" 1/4 x 2 1/20 x 3 2" + 1/2 x 2 1/8 1/4 x 3 1/8 x 5 1/4 1/2	qtz-py-chl (cp) (Wd) qtz-py x 2 qtz-py (cp) x 2 qtz-chl (Wd) x 3 qtz-chl-py qtz-ser-py (cp) x 3 qtz-ser-py (cp) x 5 qtz-ser-py qtz-py ((cp) (Wd))	2.0%		163	30				10
							ND	70 70 70 70 70 x 2 45 60 50 20 50	1/8 1/6 1" 1/4 1/2 1" x 2 2" x 2 1" 1/2 1/4 1/2 + 1/4 + 1/2	qtz-py-ser qtz-ser-cp qtz-ser-py-cp qtz-py (cp) (Wd) qtz-ser-py (cp) qtz-ser-py (cp) x 2 qtz-ser-py (cp) x 2 qtz-ser-py (cp) x 2 qtz-ser-py-cp	3.0%		173	33	90			
							ND	70 70 x 3 ?	12" 1/20 - 1/10 x 3 4'	qtz-ser-py-cp zone qtz-ser-py-cp x 3 qq+bx	1.0%		183	23	70			20
							ND	60 50 45 50 70 20	1/8 1" 1/2 3/8 1/4 1/4	qtz-py qtz-chl qtz-chl-ser (py) ((cp)) qtz-cp-py qtz-py (cp) qtz-py			189					
							ND	5 50 45 50 70 20	1" 1/2 1/2 3/8 1/4 1/4	qtz qtz-ser-py (cp) qtz-ser-py-cp qtz-py x 5 qtz-ser-py qtz-ser-py x 3 qtz-py (cp) qtz-ser-py-cp qtz-py-cp x 2 qtz-py-cp x 5	1.0%		197	50	95			10
							ND	80 x 2 70 x 2 70 x 5 45 80 x 3 50 35 45 x 2 45 x 5	1/4 x 2 1/10 x 2 1/20 x 5 1/4 1/2 x 3 1" 1/8 1/20 x 2 1/10 x 5	qtz-ser-py (cp) qtz-ser-py-cp qtz-py x 5 qtz-ser-py qtz-ser-py x 3 qtz-py (cp) qtz-ser-py-cp qtz-py-cp x 2 qtz-py-cp x 5	2.0%		207	33	90			15

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core and	Width of Vein	Mineralization	Pyrite Zone	Remarks	Feetage Block	R Q D	Estimated Core Recovery %	Sample Number		Cu	Mo
Chl	Plag	K-Spar	Mafic	Tactite	Hardness														
					MINE PHASE Saus. Alt'n Phase (20-336)	ND		70 x 2 45 x 2 70 x 2 50 x 2 40 2 80 80 80 4 50	1/8 x 1/4 1/10 x 2 1" x 2 1/10 x 2 1/4 1 1/2 8" 8" 1/4 3/8	qtz-ser-py x 2 qtz-chl-ser-py x 2 qtz-ser (chl py (cp)) x 2 qtz-py (cp) x 2 qtz-cp bx (gg) qtz-chl-cp zone qtz-ser-py (cp) zone qtz-py qtz-py x 3 qtz-py x 2 qtz-ser-chl-py (cp) qtz-ser-py x 4	3%	215	37	70					20
						ND		70 x 3 60 x 2 50 50 x 4 70 x 2 5 80 5 80	1/10 x 2 1/20 x 2 1/4 1/10 x 4 1/4 x 2 1/10 1/8 1/10 1/4	qtz-py x 3 qtz-py x 2 qtz-ser-chl-py (cp) qtz-ser-py x 4 qtz-ser-py x 2 qtz-py qtz-py qtz-py qtz-py	2 1/2%	225	40	90					1.04
						ND		70 x 2 50 20 45 x 60 40 x 6 40 x 2 80 x 4 70	1/10 x 2 1/4 1/8 1/4 x 2 1/4 + 1/10 x 5 1/10 x 2 1/20 x 4 1/2	qtz-chl-py qtz-py-cp chl-cp qtz-py-cp x 2 qtz-py (cp) x 5 qtz-ser-py x 2 qtz-py x 4 qtz-ser-chl (py) zone	2 1/2%	235	23	85					15
						ND		50 x 5 5 5 + 90	1/10 x 5 1" 1/2 + 2"	qtz-ser-py (cp) x 5 qtz-chl (cp) (vug) gg x 3	1%	243	20	65					0.8
						ND		20 x 3 30 60 80 60 x 2 80 40 x 80 80 x 45 x 2	1/20 x 3 1" 1/10 1" 1/4 1/4 1/10 x 2 1/10 x 2 1/10 x 3	qtz-chl-py x 3 qtz-chl-py qtz-chl-py qtz-cp qtz-ser-py qtz-ser-py (cp) qtz-ser-py (cp) qtz-ser-py (cp) x 2 qtz-ser-py (cp) x 3	1.5%	257	53	97					15
						ND		80 70 x 2 70 70 x 5 80 70 x 3 30 x 3 80 20	1/10 x 2 1/4 1/10 x 5 1/4 1/10 x 3 1/2 + 1/10 x 2 2 1/2" 3"	qtz-ser-py qtz-ser-py qtz-py (cp) (Ala) qtz-py x 5 py qtz-py-ser x 3 qtz-ser-chl-py (cp) x 3 py (massive) qtz-py (cp) (Ala)	5%	267	20	75					25
						ND		30 5 x 2 + 70 x 2 70	1/2 1 1/2 5'	qtz-chl-py gg qtz-chl-ser-py (cp) x 4 qtz-ser-py (cp) (includes 5" massive py)	7 1/2%	271	10	60					20
								5 x 5 = 2	1/4 + 1/10 x 6	qtz-chl-py + qtz-ser-py x 6			278						

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ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Feet Block	R Q D	Estimated Core Recovery %	Sample Number	ANALYSIS		Estimated Grade
Ch	Plag	K-Spar	Mafic	Tertiary	Hardness												Cu	Mg	
													353			54381	11		
						ND							358	0	40				
							360												
						ND				"Solid" qq			367	0	55	54382	21		
							370								50				
							373						373						
						ND		30 x 2 50 45 30 15 x 2	1/4 x 1/2 1/4 1/2 3/8 1/2 x 1/2	qtz-cp x 2 qtz (ser)-py-cp qtz-py-cp qtz (cp) qtz-chl (cp) x 2	.5			17	75	54383	3		.30
							380						380						
						ND		20 20 x 30 20	3/8 2' 1/10 x 1/10 1/4	qtz-mag (cp) qq + bs qtz-chl-cp qtz-chl-py	.5			3	50 90	54384	2		.20
							390	30 x 4	1/2 x 1/4	qq + hem x 4			390						
						ND		25 20 30 x 2 80 20 25 30 10	1/2 1/2 3/4 x 1/10 1/2 1/10 3" 1/4 1/4	qtz-cp qtz-cp (Mo) chl-cp x 2 qtz-cp qtz-chl-cp qtz-chl-mag-cp-Mo qq + hem qq	.5			13	80	54385			.30
							100	80 70 x 5 80 45 x 2 5 30 45 30 5	1/4 1" 1/10 x 1/4 1/2 1/4 x 1/2 1/10 1/2 1/2 x 1/10 1/4	qtz chl-cp qtz-chl-cp x 2 chl-cp qtz-chl-py-cp (Mo) qtz-chl-py qtz-chl-py-cp qtz-chl-cp-Mo qtz-ser-py-cp					80				
						ND		70 x 5 80 45 x 2 5 30 45 30 5	1/4 1" 1/10 x 1/4 1/2 1/4 x 1/2 1/10 1/2 1/2 x 1/10 1/4	qtz chl-cp qtz-chl-cp x 2 chl-cp qtz-chl-py-cp (Mo) qtz-chl-py qtz-chl-py-cp qtz-chl-cp-Mo qtz-ser-py-cp	.5			20	70	54386	21		.35
							110	45 45 x 2 45 x 3	1" 1/10 x 3 1/10 x 3	qq + ba qtz-py-cp qtz-chl-py-cp x 2 qtz-chl-py (cp) x 3	.5				95				
						ND		45 45 x 2 45 x 3	1" 1/10 x 3 1/10 x 3	qq + ba qtz-py-cp qtz-chl-py-cp x 2 qtz-chl-py (cp) x 3			414 415	3	90	54387	21		.20
							420		5'	qq					35				

ROCK TYPES & ALTERATION						GRAPHIC LOG		Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Stops	R Q D	Estimated Core Recovery %	ANAL		
Cut	Flag	K-Spar	Mafic	Tactile	Hardness	L to Core Foliation	Foliation Alteration									Footage Structure	Sample Number	Cu
						ND		130	3' 1/4 2" 1/4 1/4 40x3+80x2 20	gg+bx (qtz-py(cp) frag) qtz-py(cp) qtz-chl-py(cp) chl-cp-py chl-cp-py-mag chl-cpx qtz-chl-cp	.5		421 426	27	85 97	54388		25
						ND		435	50 30 30x3 5+60	qtz-mag-cp qtz-vug qtz-chl-py(cp)x3 qtz-cpx	.5		433	7	60		20	
						ND		440					440					
						ND		450		gg+bx	?		446	0	30 45			
						ND		451					451					
						ND		460		bx (qq)	?		456	3	50 60	54390		
						ND		470	10 20x2+60 45 20x2+5	16" 6" 10x3 10 10x3	(qtz-ser) py-Ms (cp) (mass) gg (bx) qtz-chl-py-cpx qtz-chl-py(cp) qtz-chl-py-cp	10%	465 468	7	90	54391	21	20
						ND		480	45 5 21 30	10x3 10 3" 10 1/2	qtz-chl-cpx qtz-chl-cp gg+bx qtz-chl-cp qtz-(Mn)(cp)	.5	475	3	75 50	54392	27	20
						ND		490	40 40	2" 1/2	qtz-py qtz-chl-cp	?	485 488	3	70	54393		

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	Sample Number	ANALYSIS		Estimated Grade
Qtz	Plag	K-Spr.	Mafic	Tessite	Hardness												%	%	
								60	1/10	qtz-py			492		60				
						ND		60	1/10	qtz-chl-py (L)			496	0	75	54394	0+		10
													499		60				
							500						502		65				
						ND			12"	qz			507	0	70	54395			10
								43	1/10	qtz-ep		highly broken pale grey vuggy barren-looking core - structure obscure.			85				
						ND							512						
													517	3	95	54396			10
							520	60?	16"	qtz-ep									
								60	1/4 + 1/8	qtz + qtz-chl-py									
						ND		40 x 5	1/10	qtz									
								50	1/2	qtz-chl (ep) x 5									
								30 x 2	1/10 x 2	qtz-chl (vug)									
							530	30	3/4	qtz-chl x 2			528.6						
						ND		40 x 2	1/10 x 2	qtz-chl (vug)									
								5	1/4	qtz-chl									
								50	1/4	ep									
							540	80 x 2	1/4 x 2	ep		pale grey (~45% qtz) qtz-diorite	539	27	97	54398			05
						ND		80	6"	qtz-ep									
								70	3"	qtz		- numerous white qz zones							
								60	1"	qz									
								80	3"	qz + b		- poss Granite Mtn Phase	547	7	90	54373			65
							550	40	1"	qz									
						ND		5	1/4	qz			552						
								60	2"	qtz-chl (vug)			556	7	80	54374			05
							560								85				

LOGGED BY GDR
DATE May 7-8 1981

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ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG		Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Block	R Q D	Estimated Core Recovery %	Sample Number	Analysis		
Ch	Plog	K-Spar	Uafic	Texture	Hardness		Foliation Alteration	Footage Structure										Cu	Mo	Grain
						70 WK		140	20 Bot to +50 60 40 50 70 20 40	$\frac{1}{8}$ $\frac{1}{4} \times 3$ $\frac{1}{10}$ $\frac{1}{2}$ $\frac{1}{10}$ $\frac{1}{10}$	qtz-chl qtz (chl) x 3 qtz (vug) qtz-chl (vug) qtz-chl (py) qtz-chl			136	70	90				08
						60 Mod		150	20 10 50 50 30+60 30 60	$\frac{1}{10}$ $\frac{1}{20}$ $\frac{1}{10}$ $\frac{1}{20}$ $\frac{1}{10} \times 2$ 2 9" $\frac{1}{10}$ $\frac{3}{8}$	qtz-chl (vug) qtz-chl (py) mal + qz lim qtz-chl-lim qtz-chl-lim ep zone qtz-qz-chl qtz-chl (py) (cp)			146	77	90				10
						60 Wk		160	60 x 3 45 5 70 20+45 20+45 80+60	$\frac{1}{20} \times 3$ $\frac{3}{4}$ $\frac{1}{10}$ $\frac{1}{20}$ $\frac{3}{8}$ $\frac{1}{10} \times 2$ $\frac{1}{10} \times 2$	qtz-chl-py-lim qtz (vug) (lim) qtz-chl qtz-cp qtz-chl (vug) qtz-cp qtz-lim		5	156	57	92				10
						60 WK		170	60 20 x 5 80+45+2 5 45 80 x 2 60 x 3	$\frac{1}{8}$ $\frac{1}{10} - \frac{1}{20} \times 5$ $\frac{1}{2} + \frac{1}{8} \times 2$ 2" $\frac{1}{4}$ 1" $\frac{1}{4} \times 2 + 1"$	qtz-cp qtz-chl (cp) (py) x 5 qtz x 3 qtz-chl-py (cp) zone qtz-chl qtz-chl (vug) cp x 3		5	166/6	83	90				
						60 WK		180	50 20 50 50 60 60 x 2 50 70 60 50	1" 20" $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{4} \times 2$ $\frac{1}{3}$ $\frac{1}{2}$ 12" 2" 3"	qtz qtz-chl (vug) (cp) qtz-chl qtz (cp) qtz-chl-py (cp) qtz (vug) x 2 qtz-py-cp qtz-chl-ep (cp) zone qtz-chl qtz-chl-ser-py-cp		5	177	57	90				20
						30 str.		190	60+45+65 25 5 80+50	1" + $\frac{1}{4} \times 3$ 5" 2" 19"	qtz + chl + qtz-chl (vug) qtz-chl-ep-ser-zone qtz-chl-ep (vug) qtz-chl-ep zone qtz-chl (vug)			186	53	85				05
									45+40 45+70 20 x 6 + 50 x 4 15 30 x 4 60 x 1	3" + $\frac{1}{2}$ 16 x 2 $\frac{1}{20} \times 6 + \frac{1}{10} \times 4$ $\frac{1}{4}$ $\frac{1}{20}$ $\frac{1}{20}$	qtz-chl-py-cp x 2 qtz-chl-cp x 2 qtz-chl-cp x 6 + qtz-chl-cp x 4 qz qtz-chl (cp) qtz-chl (cp)			196	57	85				15

ROCK TYPES & ALTERATION						GRAPHIC LOG			Veins L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Feet	R Q D	Estimated Core Recovery %	ASSAY			
Core	Plag	K-Sp	Mafic	Tafers	Hardness	L to Core Foliation	Foliation Alteration	Footage									Structure	Sample Number	% Cu	% Mo
						MINE PHASE QUARTZ DIORITE (10' - 401')														
						NP		210	10x2 30 10x2 45 30 40x2 20	1/2x2 2" 1/10 1/10 1/10 1/10 1/10x2 2"	qtz-chl-qz(cp)x2 qtz-cp qtz-chl(py) qtz-chl-py(cp) qtz-chl-py qtz-chl-cp x2 qtz-chl-cp x2 qtz-chl-cp x3 qtz-chl-cp qtz-chl-cp x2 qtz-qz			206	77	90	54401	17	0.01	1.0
						ND		220	40x2 10 20x2+8 30 40x2 20	1/10x2 1/10x2 1/10x3 1/10 1/10x2 2"	qtz-chl-cp x2 qtz-chl-cp x2 qtz-chl-cp x3 qtz-chl-cp qtz-chl-cp x2 qtz-qz			216.6	37	90	54402	36	0.01	2.0
						60 wk		230	30 30 30 40+45+60 80 70x2 80 30x2	1/10 1/2 2" 1/10x3 3" 1/10x3 1/4 1/10x2	qtz-chl-py qz qtz-cp-chl qtz-chl-py-cp qtz-cp qtz-chl-py x3 qtz-py qtz-py x2	1.0%		224	50	85	54426	11	0.01	1.0
						60 wk		240	20x2 45+60 40x2	1/10x2 1/10x2 1/2x2 10"	qtz-chl-py x2 qtz-chl-py x2 qz qtz-chl-py x2 qz	broken core str. Obs.	1.0%		232 235 239.6	70 27 65	54427	0.3	0.01	0.8
						?		250	40 5 30 40 40 10-30x10	2 1/2" 1/10 4" 1/8 1/6 1/20-1/8x10	qtz-ser-py(cp) zone qtz-chl-py(cp) qz qtz-chl-py qtz-chl-py(cp) qtz-chl-py(cp)x10	2.0%		246	70	85	54428	14	0.01	2.5
								260	5x3 5 5x2 40 5 30 20x10	1/10x3 20" 1/10x2 2" 2" 3" 1/10x10	qtz-chl-py(cp)x3 qtz-ser-py-cp(cp) zone qtz-ser-py(cp)x2 qtz-py(cp) qtz-ser-py(cp) qtz-ser-py qtz-chl-py(cp)x10	6.0%		256 262	73 90	90	54429	14	0.01	3.5
								270	70x2 60 10x2+50x2 5x2 10x3 20x2	1/8x2 1" 1/4x2+1/10x2 1/10x2 1/4x3 1/2x2	qtz-chl-py(cp)x2 qtz-cp-py-cp qtz-ser-py(cp)x2 qtz-chl-py-cp qtz-ser-py(cp)x3 qtz-ser-py(cp)x2	3.0%		267	63	85	54430	26	0.01	3.0

ROCK TYPES & ALTERATION						GRAPHIC LOG		Veins L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Feet	R Q D	Estimated Core Recovery %	ANALYSIS			
Site	Plot	K-Spec	Mafic	Tuffaceous	Hardness	L to Core Foliation	Foliation Alteration									Foliation Foliation	Sample Number	% Cu	% Mo
						MINE PHASE (10-40')													
						20-40 Str.		20-40	18'	qtz-chl-ser-py (cp) x 4 zone of closely spaced qtz-chl-ser-py (cp) veins up to 3" width-almost a solid alth zone	4%		277	7	90	54403	32	0.16	25
						ND		20x2 45 20 60x2 80 80	1/4x2 2" 1/2 1/2x2 1/2 6"	qtz-ser-py x 2 qtz-ser-py (cp) qtz-ser-py qtz-ser-py x 2 qtz-chl (cp) pyed qtz-ser-py (cp)	3%		284	27	80	54404	10	0.01	20
						ND		20x2 20+80x2 80 40x2 50 25 20 45x3 20	1/4x2 1/4+1/4+2" 1/2 1/10+1/8 1/4 2 1/2" 1/4 1/10x3 1/4	qtz-ser-py (cp) qtz-chl (cp) qtz-chl-py-py x 2 qtz-chl-py qtz-chl-ser-py qtz-chl-py qtz-chl-py-cp x 2 qtz-ser-py-cp	3%		294	37	95	54405	12	0.01	15
						ND		20 20+50x2 50x3 40 70+45x2 80 70 30x4	1/2 1/10x3 1/10x3 1/8 1/10x3 1" 1" 1/2+1/10x3	qtz-ser-py qtz-ser-py-cp x 3 qtz-ser-py-cp qtz-ser-chl-py (cp) qtz-chl-py (cp) x 2 qtz-py qtz-py qtz-chl-py (cp)	3%		303 307	47	95	54406	11	0.02	30
						0-50 Cren		15x2+50 15x2+50 45+55	1/10x3 1/10x2+1" 12" 1/10x2 12"	qtz-chl-py (cp) qtz-chl-carb-py (cp) qtz-bi qtz-chl-py x 2 qtz-bi	4%		314	37	90	54407	14	0.06	35
						0-50 Cren		0-50 Cren	14'	qtz-chl-ser-py (cp) x 2 zone	6%		324	10	95	54408	21	0.10	30
								20x4 20 20 20 60 10x5 10x2 15 15+30x3	1/4x4 3" 1/2 2" 2 1/2" 1 1/2+1/2 1/4x1/2 1 1/2x3	qtz-ser-chl-py (cp) x 4 qtz-py (cp) qtz-chl-ser-py-cp qtz-ser-py qtz-chl-ser-py (cp) zone qtz-py-cp-Mo x 2 qtz-carb-py-cp x 2 qtz-ser-py (cp) x 2	18%		334 337	17	95	54409	27	0.10	45

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Blocks	R O D	Estimated Core Recovery %	ASSAY			
Ch.	Plg.	R-Spr.	Mafic	Tertiary	Hardness										Sample Number	% Cu	% Mo	
						ND (but intense veining)	30x6+50x6 4x6 4x6 25x2+15 20+50x10 20 60? 45x50	1/10x8 3" 12" 1/10x6 1/4x2+1/8 1/4x10x10 3" 12" 4x6"	qtz-chl-py (cp) x8 qtz-ser-py (cp) qtz-ser-chl-py (cp) qtz-ser-chl-py (cp) x6 qtz-carb-py-cp x2 qtz-carb-cp qtz-ser-py (cp) x10 qtz-ser-py-cp qtz-cp-py (cp) qtz-ser-py (cp)	6%	intense veining - impossible to accurately show	346	20	90	54410	34	020	10 X
						40 Str	70 30 25 46	12" 3/8 6" 1/2	qtz-ser-py (cp) qtz-carb-py (cp) qtz-chl-py-cp (Mo) zone qtz-cp	6%		356	17	95	54411	21	011	50
						45 Str	45	15'	qtz-chl-ser-py (cp) zone	5%		365	13	95	54412	29	176	30
						ND	40 45x3 35x1 50 15x2 50	6" 1/8x3 1/10x1 1/10 1/10x2 1/4" 12"	qtz-chl-py (cp) qtz-ser-chl-py (cp) qtz-chl-py qtz-chl-cp qtz-chl-cp x2 qtz-cp (ung) 40+bx qtz-chl-cp	10%		375	13	90	54413	76	160	30
						ND	80 50 30 60 40 80	8" 1/2 1/2 1/4 3" 1/2x2+1/2	qtz-chl-ser-py (cp) qtz-ser (cp) qtz-chl-cp qtz-ser-py (cp) qtz-chl-cp qtz-carb (cp) (ung) qtz-chl-cp x3 qtz-ser-chl (cp)	10%		385/5	33	96	54414	46	020	25
						ND	60+60 30 80 20 45 80x3+70x45 70x4+45x3 60x2 30x5 60x5	3/8x1/10 8" 8" 1/2 1/2 1/2 1/2x4 1/10x7 1/8x2 1/8x2 1/8x2 1/8x2	qtz-cp x2 qtz-chl (cp) (cp) qtz-chl-cp-py-cp zone qtz-py-cp qtz-ser-py-cp qtz-chl-cp qtz-chl-cp qtz-chl-cp qtz-chl-cp qtz-chl-cp	10%		396	10	80	54415	6	012	45
						401	20	1/2	qtz-py-cp			401/5						
						ND	2	11'	4' qq + 7' qq (bx)			406	0	90	54416	31	116	
														50				

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LOGGED BY W. D. T. R

date May 8-12/1981

REMARKS

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Ox. Depth <u>142'</u>	Footage Blk.	R O D	Estimated Core Recovery %	ASSAY RESULTS			
Qtz.	Plag.	K-Spar.	Mofc.	Tactile	Hardness						L to Core Foliation				Foliation Alteration	Footage Structure	SUP. DEPTH	REMARKS

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Feet from Surface	Core No.	Sample Number	Grain Size
Qtz.	Flg.	K-Spr.	Mafic	Tuffate	Hardness										
						5-60 Str. Cren	80 ? 70 75 30	2" 2" 6" 6"	qtz - MnO ₂ - lm (vug) gg qtz - (lm) - (MnO ₂) qtz - chl - MnO ₂ - (cp)	numerous vuggy qtz - lm (mal) veins	numerous small (hl - 1/10) veins of MnO ₂ - lm Several small veins and 'splashes' of py - cp	85	27	54456	.15
						5-60 Str. Cren	80 x 2 10 ?	2" + 3/4 3/8 6"	qtz + (MnO ₂) x 2 qtz - lm - (mal) gg	.5	At ~ 98' there is a switch to a paler green rock (more epidote) but it is still part of the same zone.	94	30	54457	.15
						20-70 V. str. Cren	30 x 3	3/8 + 1/2 + 1/4	qtz - ((cp)) x 3 + lm x 2	.5	epidote) but it is still part of the same zone. A few minor veins of cp - py. and some 'splashes' of cp - py	104	43	54458	.15
						20-70 V. str. Cren.	80 50 60	1" 1" 3/4	qtz - chl - ep qtz - chl - ep qtz - chl - (cp)	increase in the number of large ep veins.	.5	114	70	54459	.15
						20-70 V. str. Cren	80 70 + 80 + 10	1" + 3/4 + 1/2	qtz - chl - ep x 3	.5	At ~ 126.5' there is a switch to a darker green rock due to an increase in chl with numerous qtz veins and distorted qtz lenses due to the foliation	124	80	54460	.15
						20-70 V. str. Cren	60 + 50 85 70 x 2 40 + 50 60	2" + 1/4 3/4 1/2 x 2 1/2 x 2 6"	qtz - chl - (lm) - vug (gg) - (carb) x 2 qtz - chl qtz - chl x 2 qtz - chl x 2 qtz - chl - (cp) - (vug)	.5	134	50	54461	.15	
						20-70 V. str. Cren	5	5"	qtz - chl - lm - ((cp)) - vug	.5	141	13	54462	.20	
						20-70 V. str. Cren	45 ? 70 30	1/4 2" 3/4 3/4	qtz gg + bx qtz - chl - (lm) - (vug) qtz - chl - (lm) - vug qtz - chl - (cp) - vug	.5	145	85	54462	.20	

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Vains L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	ANALYSIS			
Chl	Plag	K-Spar	Wolfs	Talc	Hardness											Sample Number	% Cu	% Mo	Estimate Grade
						20-70 V. str. Cren.		35 ?	4" 12"	qtz-chl-ep-(cp)-vug gg+bx numerous vuggy qtz-chl + ep veins	.5%	numerous qtz-chl lenses with a few small cp blebs mixed in with the veins	152	43	90	54463	.04	<.001	.15
						20-70 V. str. Cren.		160			.5%		163	73	92	54464	.11	.002	.15
					171.5	20-70 Str. Cren.			12" 12" 1 1/2" x 2 1"	gg - bx gg - bx - (py) qtz-chl - py - ((cp)) x 2 gg + bx	1.0%	Small veins and blebs of py-cp mixed in with the gg-bx	173	7	80	54465	.30	.004	.20
						N.D.		45 10 ?	1/4" 10" 12" 1" } 4'	qtz-chl-ep-py-(cp) qtz-chl-ep-py-(cp) gg-bx-(py) gg qtz-py-gg-bx-chl gg	1.5%	Much of the mineralization is in poorly defined badly distorted veins and blebs and is mixed in with the gg-bx	186	0	75	54466	.17	.006	.25
						N.D.		30+25 ?	1/2 + 1/4 6" 1/16 5" } 4'	qtz-chl-(py) x 2 gg+bx qtz-chl-py gg+bx gg+bx	1.5%		196	0	90	54467	.07	.004	.20
						N.D.		2	5' faulted chl-zone	gg+bx					20	54468	.12	.045	.25
					207	N.D.		40 x 3 + 30 40 + 75 + 10 + 70 ?	1/16 x 3 + 1/10 1/4 x 2 + 1/2 x 2 6"	qtz-chl-py-((cp)) x 4 qtz-chl-py-gg-bx x 4 gg (faulted qtz-py vein)	2.0%		205	3	85	54469	.30	.028	.30
						N.D.		40 60 40 10 10 x 2 + 30 75 + 50 + 40	2" x 1/8 1/8 1/8 1/2 + 1/10 x 2 1/10 + 1/20 + 1/2	gg (qtz-chl-py-(hem)) qtz-chl qtz-chl-py-(cp) x 3 qtz-chl-py-cp gg qtz-chl-py-cp x 4 qtz-chl-py-(cp) gg (faulted qtz-py veins) qtz-chl-py gg qtz-chl-py-((cp))-(gg)-(bx)			213	0	85	54469	.30	.028	.30
						N.D.		30 ?	1/2 2'	gg qtz-chl-py-cp x 4 qtz-chl-py-(cp) gg (faulted qtz-py veins) qtz-chl-py gg qtz-chl-py-((cp))-(gg)-(bx)	2.0			0	85	54469	.30	.028	.30

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage meters	R O D	Core Number	Sample Number	Cu	Zn	Fe	S	P	Mn	Other
Qtz	Plag	K-Spar	Mafic	Texture	Hardness																		
						85 Mod.	230	30 40 85 10+30+20 80	3/8 6" 8" 24" 1/4 + 1/2 x 2 1/2	qtz-chl-py qtz-chl-(py)-(cp)-vug-agg qtz-chl-carb-py-(cp) zone qtz-chl-py-cp x3 qtz-chl-py	2.0%		2235	3	85	54470	.24	.014				.35	
						75 Mod.	240	5 10+40 10 40x2 30 ? 20+10+10x2 60 40	1/10 1/10 + 1/8 1/8 1/4 + 1/10 1/10 2" 1/2 x 2 3/4 24"	qtz-chl-py qtz-chl-py-(cp) x2 qtz-chl-py-(cp) gg-bx qtz-chl-py x2 qtz-chl-py qtz-chl-py-(cp) x4 qtz-chl-(py) qtz-chl-py-cp-(gg) zone	2.5%	Several veins of qtz-chl-py-cp distributed throughout the rock.	234	3	85	54471	.19	.12				.40	
						45-85 Weak to Mod.	250	40x2 15 40x4+60 4 40 30x4 ? 20+50 40 7	1/10 + 1/4 1/10 1/10 x 5 1/10 1/2 x 4 1/2 x 2 1/2 x 2 1/2 x 2 24"	qtz-chl-py x2 qtz-chl-(py) qtz-chl-py-(cp) x5 qtz-chl-py-(cp) qtz-chl-py x4 gg qtz-chl-py x2 qtz-chl-py gg + bx	2.5		244	7	80	54472	.11	.006				.35	
						45-85 Weak to Mod.	260	20x2+30 ? 20+25x2 20+4" ? 40x2+30x4+60 30 40 ? 30 ? 30 ? ?	2" 1/10 x 2 + 1/4 1/4 1/4 + 1/8 x 2 1/4 x 2 3/4 1/4 x 4 + 1/8 x 4 12" 2" 12" 1/2 24"	gg qtz-chl-py-(cp) x3 gg-bx qtz-chl-py-(cp) x3 gg qtz-chl-py x2 gg qtz-chl-py-(cp) x8 qtz-chl-py-cp zone qtz-chl-py-(cp) gg-bx qtz-chl-cp gg-bx qtz-chl-cp-py-(carb) gg-bx qtz-chl-cp-(vug) gg-bx qtz-chl-py-cp gg-bx	2.5	Considerable hematite stain throughout this section. A 12" zone with numerous qtz-chl-py-cp veins up to 1/2" width	256	10	80	54473	.27	.11			.45		
						45-85 Weak to Mod.	270	30 ? 30 ? 30 ? 30 ? ?	1/2 1/4 1" 6" 1/4 12" 1/2 24"	qtz-chl-cp gg-bx qtz-chl-cp-py-(carb) gg-bx qtz-chl-cp-(vug) gg-bx qtz-chl-py-cp gg-bx	3.0	A 10' zone with numerous small qtz-chl-py-cp veins	269	7	70	54474	1.27	.12				.45	
						N.D.	272			Broken core - carb. gg - (carb)-(hem) along? fractures			276	0	90	54475	.11					?	
						N.D.	280																?
						N.D.	290																?
						N.D.	290																?

MINE PHASE
SAUC. ALTERATION
(272-296)

[illegible]

LOGGED BY G.D.B.
DATE May 8, 1961

[illegible]

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Vein L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Bic. ft.	R Q D	Estimated Core Recovery %	ASSAY RESULTS				
Ch.	Flag.	K. Spar	Mafic	Texture	Hardness											Sample Number	% Cu	% Mo		Estimated Grade
						NO	100	45 40 35 30 25 20 15 10	1/2 1/10 1/10 1/10 1/10 1/10 1/10 1/10	qtz-chl (vug) qtz-chl-cp zone qtz-chl-py qtz-chl-py qtz-chl-py qtz-chl-py qtz-chl-py qtz-chl-py qtz-chl-py	10%		95	47%	95%	82306	.06	<.002		10
						NO	110	35x2 60	1/8x2 8"	qtz-chl (cp) x2 qtz-chl-cp zone	<5"		105	20%	90%	82307	.10	.004		.08
						10-60 Str Cren	120	70 90	2" 3"	ser-py qtz			115	17%	50%	82308	.08	.004		12
						10-60 Str Cren	130	60 60 60 60	3" 1" 1/2"	qtz-ser-py (cp) qtz-ser-py-cp	1 1/2%		125	3%	75%	82309	.21	.002		20
						60-80 Str Cren	140	40	3"	qtz-ser-py (cp)	10%		132	17%	90%	82310	.17	.002		12
							150	60 45 45 40	1/10 1/10x2 1/10x2 1/10	qtz-chl-py qtz-chl-py x2 qtz-chl-py x2 qtz-chl-py			142							
							160	40x2 90 80 35	1/10x2 1/4 1/8 1/10	qtz-chl-py (cp) x2 qtz-py qtz-py (cp) qtz-chl-cp	10%		146	27%	75%	82311	.05	.002		12
							170	40	1/8"	qtz-chl-cp			150		85%					
							180	7 45 50 x2 20 60 x3 45	30" 1/10 1/4 x2 1/10 1/10 x3 1/10	qtz-chl-py qtz-chl-py qtz-chl-py qtz-chl-py qtz-chl-py qtz-py			154.5	23%	75%	82312	.03	.002		

QUARTZ CHLORITE
(EPIDOTE) (SERICITE)
ZONE
(107-136)

MINE PHASE
Saus Alth
(136-175)

ROCK TYPES & ALTERATION						L to Core Foliation Alteration Footage Structure	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Stake	R Q D	Estimated Core Recovery %	ASSAY				Estimated Grade
Ch	Flag	K-Spr	Mafic	Tertiary	Hardness											Sample Number	% Cu	% Mo		
						ND		2-45 60	1/10 1/8	qtz-chl-py qtz-chl-py qtz-py	1 1/2%		1645	17%		82313	.25	.006		10
						170		45 60	1/4 1/10	qtz-py (cp) qtz-chl-py			170		875%					
						ND		60 60x3	1/2 1/10x2	qtz-py (cp) qtz-chl-py (qq)-bx	1 1/2%		175	7%	70%	82314	.11	.002		10
					QUARTZ - CHLORITE BAND ZONE	5 St.		5					179		60%					
						5 Green Str		5	15'	min disse py along foln planes	1 1/2%		186	3%	75%	82315	.07	.002		10
					MAJOR FAULT ZONE (190-220)								196	0%	76%	82316	.08	.004		10
										"Solid" qq 192-213 qq-bx 213-220 much py-rich leucocratic phase @ 215-220			206	0%	80%	82317	.20	.006		10
											5 1/2%		216	0%	75%	82318	.19	.008		10
					MINE PHASE (220-238)			35x3 60 30x3? 50x6 50x3	1/10x3 2" 1/8x3 1/10x6 1/8x3 13" 36" 1/10x4	py (cp) x3 qtz-ser-py (cp) qtz-ser-py (cp) vug x3 qtz-ser-py (cp) x6 qtz-ser-py (cp) x7 qq-hem qq-bx ser-qtz-cp x4	5 1/2%		227	0%	60%	82319	.21	.012		20
								130	60x4						85%					

[illegible]

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Vains L to Core Axis	Width of Vain	Mineralization	Pyritic Zone	Remarks	Footage Feet	R O D	Estimated Core Recovery %	Sample Number	ANALYSIS		Grade
Core	Flag	K-Spar.	Mafic	Texture	Hardness												%	%	
						20 Wk		45 53 5x5	1/10 2" 1/10x5	qtz-chl qtz(ep)-vug. qtz carb-gg-hem	.5		301 305 309	7%	60% 60%				.08
						30 Wk		20x2 10-30 x 6 30x2 60 20x90 20x70 70	1/10x3 hls-1/10x6 1/10x2 1" 1/4x2 1/10x2 1/10	carb-gg-hem hem x 6 qtz-chl x 2 qtz-chl-vug qtz-chl x 2 carb x 2 qtz-chl-py	>.5		312 319	17%	75% 80%				.05
						30 Wk		36"		qtz (finely ground but intact - almost apowder)	>.5	finely ground core - soft, gougy but appear to have undergone little distinction	324	0%	75% 70%				.05
						20 Wk		30 45x3 50 60x2x5 50 5x40	1/10 1/10x3 1/4 1/4x2x1/8 1/8 1/4x1"	qtz-chl-py qtz-chl-py x 3 qtz-carb-chl-ep qtz x 3 qtz qtz-chl x 2	.5		331	10%	90%				.12
						10-60 Str Cren		45 70 15x80	1" 1/8 1/2x2	qtz-chl-py qtz-pi(ep) qtz-carb	.5		341 346	37%	90%				.10
						0-80 Cten				numerous qtz - lenses, veins, + clots up to 24" thick	.5		356	0%	85% 90%				.10
						0-80 Cren				- highly broken gougy core.	.5		362 369		85% 90%				.10

QUARTZ-CHLORITE
(SER)(EP) ZONE
(342-379)

ROCK TYPES & ALTERATION						GRAPHIC LOG		Vein L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Sights	R O D	Estimated Core Recovery %	ASSAY RESULTS			
Core	Piegs	R-S pol.	Metre	Texture	Hardness	L to Core Foliation	Foliation Alteration									Footage	Structure	Sample Number	% Cu
						Cren 0-80							371						
						0-80							374	7%	60%				10
						379									90%				
							380												
								60 70 70 x 5	1/2 3/4 - X x 5	qtz qtz-chl (vug) qtz-chl. qtz-chl. zone			384	3%				05	
						30 Stv		70 80 80 x 2 80 65	12" 3/8 1/2 x 2 14" 2"	qtz qtz x 2 qtz-chl. qtz-chl	> 5		390		85%				
								65 70 70 45 45	1/8 1/8 1/10 8" 2" 14"	qtz-chl-pied-py qtz-chl-py qtz-chl-py qtz-chl-py (vug) qtz-chl-py qtz-chl. zone qtz-chl-ser (py) (cp) (M) zone	1.0%		396	13%	85%			10	
						30 Stv		400	30										
								5	6"	qtz-chl					90%				
						30 Stv							404						08
								410	8"	bx (gg) - crushed zone (powdery qtz veins) - pass - Fault zone	5		407	0%	65%				
								5 50 Mod	24' 3/8 1/4 5"	qtz-chl-pied zone qtz-chl. qtz-carb qtz-chl-py			412	30%	90%			05	
						418													
								420											
						Cren 0-80 Folded					1.0%		422						
													427	0%	85%				12
										highly contorted broken gangue zone			430		60%				
						Cren Folded 0-80					1.5%		436	0%	85%				12
													440		70%				

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Blocks	R O D	Estimated Core Recovery %	ASSAY						
Core No.	Plg	K-Spar	Hafic	Texture	Hardness										L to Core Foliation	Foliation Alteration	Footage Structure	Sample Number	%	%	Estimate Grade
																			Cu	Mo	
						MINE PHASE (442-506)	ND		80x65 30" 80x2 80"	1/8 1/8 x 1/2 30" 1/8 x 2	qtz-chl-carb (cp) py qtz-carb QFP qtz-carb x 2	S		446	13%	75%		.08			
						Core appears finer grn + texture is indistinct (altho?) - almost approaches leucocratic phase.	ND		45+70 10" 25x2 30x2	13" 1/8 x 2 1/2 1/20 x 2 11 x 2	q9(b2) qtz x 2 qtz-chl (ug) qtz-chl x 2 chl x 2	<.5 x .6		454	27%	85%		.05			
							ND		5 70	1/4 2"	q9 qtz-ser (pt)	<.5		462	17%	90%		.05			
							70 Md		80 50 45 48	2 1/2 1/2 3" 13" 4'	qtz pf qtz-chl (vug) qtz-ep qtz-chl-ep (dense) zone	<.5		472	33%	90%		.05			
									? 70 40+35 5"	36" 10" 6 1/2" + 1" 3'	qtz-chl-ep zone (sl. purple) qlt qtz + qtz-chl QFP	<.5		482 488	13%	85%		.05			
									60 60 60+40 45 40+5 50	1/20 12" 2 1/2" + 1" 1 1/2" 1/2 x 2 15"	qtz-cp QFP qtz x 2 qtz qtz qtz-chl-ser zone	<.5		496	30%	85%		.05			
									60 ? 40? 60? 30	3" 24" 6" 1/2 30"	qtz qqabx-qtz-ser pt zone QFP qtz qtz			506		90%					
Sandy D. Byrnes EOH 506																					

LOCATION Putnam Co. FL East
DATE COLLARED Friday, 7, 1981
DATE COMPLETED 2 May 9, 1981

BEARING 0°
LENGTH 521
DIP -90°

LATITUDE 49, 033.10 N
DEPARTURE 55, 323.67 E
ELEVATION 4,061.55'

CORE SIZE N. O. W. line
SCALE OF LOG 1" = 10'
REMARKS _____

LOGGED BY
DATE 7/22/81 11-14, 1981

[illegible]

[illegible]

[illegible]

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	ANALY			Estimated Grade
Core	Flag	K-Spec	Mol%	Texture	Hardness											Sample Number	% Cu	% Mo	
						243-275 Same Alt. / Qtz rich Phase	Not Defined	5° 15° 250-75 x 2	1-2" 7. 1 6 x 2	Aug. infilled w/ gtz - chl - carb. gtz - chl - carb - lcp7 infilling gtz - chl - carb - lcp7 gtz - chl - carb - lcp7 x 4 gtz - carb x 2 gtz - carb - lcp7 gtz - ser - carb - lcp7 gtz - ser - chl - py gtz - lcp7 x 2		247	23%	90%				.13%	
							80° wk to Mod.	80 x 4 70 x 2 130° 80° 70° 260-60 x 2	46 x 4 1 + 3/8 3/8 1 1/2 1/8 1/8 x 2	gtz - chl - carb - lcp7 gtz - carb x 2 gtz - carb - lcp7 gtz - ser - carb - lcp7 gtz - ser - chl - py gtz - lcp7 x 2		251	33%	90%				.08%	
							80° wk to Mod.	80° 70° 70° 50° 270-70°	1 1/4 1 1/4 12" 2 1/2 4 x 2 1/4	gtz - carb - chl - ser gtz - carb - chl - lcp7 Broken core - carb - gg Leucocratic Phase / gtz - ser - carb - chl - carb - gtz gtz - chl - py gtz - carb - chl - lcp7		265	17%	95%				.05%	
						275-440 Same Alt.	80° wk to Mod.	130° x 2 75° x 2 160° 120° 300-130°	1/20 x 2 1/2 x 2 1/16 1/8 1/2	chl - gtz - ser - lcp7 gtz - pred - chl - lcp7 gtz - carb gtz - carb - chl - lcp7 gtz - chl - carb		273	50%	95%				.05%	
							80° wk	60° x 3 55° 80° 70° 290-80°	1/4 x 2 + 1/2 1/2 1/2 1/4 1/2	gtz - carb - chl x 3 gtz - carb carb - gg gtz gtz - ser - chl - lcp7		290	50%	90%				.05%	
							70° 80° wk to Mod.	110° 70° 80° 70° 70° 300-15°	41 x 2 44 44 4 4 41 x 2	carb gtz - carb - chl gtz - ser - chl - py gtz - carb - chl - lcp7 gtz - carb - lcp7 carb - gg		297	21%	85%				.05%	
							80° Mod to Str.	120° x 2 135° 75° x 2 80° 80° x 2 210-60°	41 x 2 1/8 1/4 x 2 3/4 1/2 x 2 2	gtz - chl - carb gtz - pred x 2 gtz - mag - carb - lcp7 gtz - chl - ser - carb - lcp7 Broken core - carb - gg gtz - carb - ser - lcp7		307	40%	90%				.09%	
													310		90%				.09%

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Remarks	Footage Feet	R Q D	Estimated Core Recovery %	ANALYSIS			
Core	Flag	K-Spar	Mafic	Tactile	Hardness										Sample Number	% Cu	% Mo	Estimated Grade
						70° wk to M.L.	80° 65° 60° 50° 45° 320	3/4 1/8 1 1/4 1 1/2 1/8 2	gtz-sanc-pid gtz-chl-ser-ep gtz-chl-ser-sanc-pred.-llpyz gtz-chl-py gtz-chl gtz-chl-sanc-sanc-llpyz				37%	95%			.08%	
						80° 85° 75° 70° 80° 5th	80° X 1 85° 75° 70° 80° 330	3/8 X 1/4 2 1/2 1/2 1/4 1/2	gtz-carb-llpyz X 1 gtz-chl-carb-llpyz X 1 gtz-carb-llpyz gtz-carb-llchl-ep gtz-pid-sanc-carb-chl gtz-carb-llpyz-sschl				17%	95%			.07%	
						80° 85° wk to Med	80° 70° X 2 65° 15 60° 340	1/4 1/8 X 2 1/8 1/8 1/8 1/4	gtz-chl-llpyz chl-py X 2 carb-gtz-llpy gtz-carb gtz-ser-chl-ep carb				10%	85% 90%			10%	
						70° 80° N.W.K. to Not Dy. med	80° 80° 70° 70° 145° 30 X 2 350	1/16 3/4 1 1/2 1 1/2 1 1 1/2 1/8	gtz-ser-py gtz-carb-knd-?chloritic mud?-llcpz gtz-ser-py-carb carb-llpy gtz-chl-carb-llpy gtz-chl-ser-py X 2 gtz				20%	90%			.0%	
						80° V. WK.	80° 130° 80° 25° 360	3 3/4 1/2 1/4 1/2	gtz-ep-chl gtz-chl-carb gtz-chl-carb gtz-carb gtz-carb-chl gtz-llchl					20%	90%			.05%
						70° wk to Med	130° 65° 60° 70° X 3 130° 370	1/16 1/16 3/8 1/2 X 3 1/16 1/2	gtz-ep-llpyz gtz-ser-llpyz gtz-carb X 3 gtz-carb-ep Broken cov-carb-llpyz gtz-sanc-chl chl-carb-py gtz-carb-py-chl gtz-carb-ser-py-llpyz gtz-chl-carb-py				57%	90%			.0%	
						60° 70° Med	45° 130° 60° 150° 145° 380	1/16 1/8 1/8 1/4 1/2 1/16	gtz-sanc-chl chl-carb-py gtz-carb-py-chl gtz-carb-ser-py-llpyz gtz-chl-carb-py				50%	90% 90%			.11%	

ROCK TYPES & ALTERATION						GRAPHIC LOG	Vein L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Sic. No.	R Q D	Estimated Core Recovery %	ASSAY				Estimated Grade
Str.	Plag	K-Spar.	Mafic	Tactite	Hardness										L to Core Foliation	Foliation Alteration	Footage Structure	Sample Number	
						60-70 u.wk to Not Defined		75 55 150 130 135 78	3 1/4 1/2 2 1/20 1/20 1/8 3	Broken core - carb - gg gtz - carb - chl - py - 2 gtz - chl - ser - py Broken core of gtz - ser - 4py carb - gg gtz - chl - py gtz - carb - py - ep - mo gtz - carb - 4py - 1/2	?? granitic cobbles??	383	30%	85% 90%				.112 Good do	
						50-60 wk.		140 80 110 140 130 120 x 3	1 1/20 1/8 1/8 3 3	gtz - ser - chl - py gtz - carb - cp - chl? gtz - ep - chl - carb gtz - chl - cp. gtz - ser - py gtz - mag - ser - carb - gp - py gtz - pied - chl - carb x 3	3%	392 398	27%	85%				.18%	
						80-90 wk.		130 130 165 130 160 125	1/2 1/2 1/4 1/4 1/4 1/16	gtz - pied - chl - carb. gtz - ser - carb - py - 4cp gtz - chl - carb - 9 gtz - carb - py - 4cp gtz - chl - carb - 1/2 gtz - chl - py	1%	406	37%	85%				.28%	
						40-60 wk to Mod		130 120 150 170 110	1/8 1/4 1/4 1/8 1/10 4	gtz - chl - carb gtz - chl - carb chl - gtz - carb gtz - carb - 4cp - 4py gtz - chl - carb - py Broken core - carb - gg gtz - chl - carb - 1/2	9%	416	40%	90% 90%				.05%	
						80-90 Mod to Str.		170 160 155 80 120	8 1/2 2 3 1/4	gtz - chl - carb - pied. gtz - ser - carb - chl. gtz - carb gtz - ser - chl - 4py - carb gtz - carb - pied.	2 1/2%	422	33%	80%				.09%	
						Added & Chn.		55 60 70 55 70	1/2 1/4 1 1/20 1/2	gtz - carb - pied. gtz - carb - pied - chl. gtz - carb - chl gtz - carb - chl gtz - chl - carb - 4py gtz - carb - pied.	9%	432	43%	90%				.05%	
						440-452.5 gtz - chl - ser - carb. Zone		700 150 80 80 180 180	3 1/2 1/8 1 1/16 1/2	gtz - ser - chl - pied - 4py gtz - chl - carb gtz - chl - ser - 4py gtz - carb - chl - pied gtz - chl - ser - py - 4cp gtz - chl - ser - carb - py	1%	442	33%	85%				.07%	

ROCK TYPES & ALTERATION										GRAPHIC LOG		Veins		Width of Vein		Mineralization		Pyritic Zone		Remarks		Footage		R.O.D.		Estimated Core Recovery %		ANALYSIS RESULTS		Estimated Grade	
Core	Plug	K-Spar	Mafic	Tertiary	Hardness	L to Core	Foliation	Foliation Alteration	Footage	Structure	Veins	L to Core	Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage	Footage	R.O.D.	Estimated Core Recovery %	Sample Number	% Cu	% Mo							
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°	Mod			70°	80°	Wk.																		
						452-517	80°																								

LOGGED BY W. D. T. R.
DATE May 12, 1981

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Vena L to Core Axis	Width of Vena	Mineralization	Pyrite Zone	Ox. DEPTH <u>100'</u>	Footage Blocks.	R O D	Estimated Core Recovery %	ASSAY RESULTS			
Qtz.	Plag.	K-Spar.	Mafic	Texture	Hardness							Foliation Alteration				Footage Structure	SUP. DEPTH _____	REMARKS	Sample Number
		</																	

[illegible]

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyrite Zone	Footage meters	R Q D	Estimated Core Recovery %	ANALYSIS		
Date	Plot	K-Spar.	Mafic	Tertiary	Hardness										Sample Number	% Cu	% Mo
						85 Mod.	20+5+80 20+50 80 30 20+10 20+10 60+2 60 30	1/20 x 2 + 1/8 1/10 + 1/20 1/4 1/10 + 1/4 1/10 x 2 1 + 1/4 3/4 1/8	gtz-chl-py-cp x 2 + (cp) x 1 gtz-chl-py-cp x 2 gg gtz-chl-py-(cp) gtz-chl-cp x 2 + vugul gtz-chl-cp-vug x 2 gtz-chl-(cp) x 2 gtz-(vug) gtz-chl-(cp)-py	1.5	166	37	90			.25	
						75 Mod.	10+20 x 2 30 3 30 x 3 + 20 + 40 40 + 30 1 3 30	3/4 + 1/10 + 1/20 1/10 4" 1/2 + 3/4 + 1/4 + 1/20 1/8 + 1/4 3" 4" 1/20	gtz-chl-cp-(py) x 3 gtz-chl-cp-py gtz-chl-cp-py zone gtz-chl-cp-py x 5 gtz-chl-py-(cp) x 2 gg-bx gg-bx gtz-chl-py-(cp)	2.0	176 180	53	90 85			.35	
						80 Poor to Mod.	85 40 x 2 30 x 3 60 + 40 x 2 40 30 x 2 ?	1" 1/8 + 1/4 1/10 + 1/4 x 2 1/20 x 3 3/4 1/4 x 2 6"	gtz-chl gtz-chl-py x 2 gtz-chl-py-(cp) x 3 + vug x 2 gtz-chl-cp x 3 gtz-chl-cp-mag-(py) gtz-chl-(cp)-(py)-vug x 2 gg-bx	2.0%	190	3	85			.25	
						ND	75 30 x 2 + 50 + 5 5 + 40 50	3" 1/4 x 3 + 1/10 1/20 x 2 1/10	gtz gtz-chl-cp-(py)-(hem) x 4 gtz-chl-cp-cp-(py) x 2 gtz-chl-py-(cp)	1.0	196	20	90			.45	
							200					200.5		75			
						ND						206	0	60 80			?
							210					212					
							214										
						70-85 Poor to Mod.	40+50 40+50 80 50 40	1/4 3/4 + 1/4 3" 1/2 1/20	gtz-chl-cp-py x 2 gtz-chl-py-cp x 2 gg-bx gtz-chl-(cp)-py gtz-chl-cp-py	1.0	218	7	80			.20	
						N.D.	50 50 50 50 50	1/2 3" 3" 3" 1/20	gtz-chl-py-(cp)-hem gg-bx gtz-chl-(cp)-(vug) gtz-chl-(vug) gg-cp mixed in gg gtz-chl-cp gg-bx - some hem stain	1.0	225 228	27	80 75 80			.25	

ROCK TYPES & ALTERATION						L to Core Foliation	Foliation Alteration	Footage Structure	Veins L to Core Asin	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	ASSAY RESULTS			
Core	Plag.	K-Spar.	Mafic	Talc	Hornbl.												Sample Number	% Cu	% Mo	Estimated Grade
						235			60 30 50+60	1/8 1/4 6" 1/20 x 2	gtz-chl-hem-py gtz-chl-py-cp gg gtz-chl-cp-py-z		231 235	7	50					
							ND	240								45				
						MAJOR FAULT ZONE (235-266) (hem. stained 257-266)	ND		30 40+30 50	hlc hlc + 1/4 3/4	gtz-chl-hem-py gtz-chl-py x2 + vugai gtz-chl-(cp)		243 249	0	50				?	
							N.D.	250					251			80				
													256	0	50				?	
								260								65				
						266	N.D.						261			35			?	
													266							
								270		12"	gg-hem stain-carb gg-hem stain-carb		270			50				
						MINE PHASE SAUC. ALT. (266-405.5) (hem. stained 266-275)	70 Mod		30 30 x2 15+20+40+50	3' 1/8 1/20 x2 1/4 + 1/2 + 3/4 x2	gg-bx-carb gtz-chl-py-(cp) gtz-chl-py x2 gtz-chl-py-cp-vug x4	1.5	276	23	60			25		
							60 Poor		10 30 x2 25 x2 30 x2 + 70 20 10 80 40	1/4 1/10 x2 1/8 + 1/4 1" x2 + 4" 2" 1/10 1/20 2" 6"	gtz-py gtz-chl-py x2 + vugai gtz-chl-py gtz x3 + chl x1 gg gtz-chl-py gtz-chl-py-ep gtz-(vug) gtz-chl-(cp)-vug	1.0	285 289	67	90 90			20		
							45 Poor to Mod		20 x2 + 30 30 30 15 28 + 30 20 15	1/4 + 3/4 + 1" 1/4 4" 1/4 1/20 1/20 x2 1/2 1/8	gtz x3 + (py) x1 gtz-chl-(vug) gg gtz-carb-chl-vug gtz-chl-py gtz-chl-py x2 gtz-chl-vug gtz-chl-py-vug	1.0	292	50	80			.08		

ROCK TYPES & ALTERATION							L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Blocks	R Q D	Estimated Core Recovery %	ASSAY RESULTS				
Ctz.	Plag.	K-Spr.	Mafic	Tafic	Hardness	Foliation Alteration											Foliation Footage	Structure	Sample Number	% Cu	% Mo
									30	1/4	qtz-chl-(py)-(cp) gg-bx			302							
									2	1/2	qtz-ser-py-carb -gouge zone	5%		306	20	80				.10	
						60 Poor to Mod.			30 20x2 20x2	1/20 + 1/2 1/10 + 1/8	qtz-chl-ep-py qtz-chl-py-ep-x2 qtz-chl-py-cp-vugx2 qtz-chl-py-cp-x3 gg-bx					80					
							310		20+25x2 30	1/4 + 1/10 + 1/8 1/4	qtz-chl-py-(cp) gg-bx			311							
									10 50 40 10 10 10 80 85 40	1/8 1/4 1/20 1/10 1/8 1/10 3/4 2 1/2	qtz-chl-py qtz-chl qtz-chl-py qtz-chl-py qtz-chl-py-(gg) qtz-chl-py-(cp) qtz-chl-(py) qtz-(chl)-(ep) qtz-(llpy)	1.5%			20	90			.10		
							320		40+20 30 30 50+60x2 50 40 30 20	1/20 x 2 1/4 1/8 3/4 + 1" + 3/8 1/4 3" 1" 1/8	qtz-chl-py-(cp)x2 qtz-chl-(llpy) qtz-chl-py-(cp) qtz-vugx3 + chl x1 qtz-chl-gg qtz-chl-ep-py zone qtz-chl-vug qtz-chl-py-(cp)	1.0		321					.10		
						N.D.			330					330	47	85					
									20 20 40x3+20x2 50x2+40x2 25 5 25 5 20	1 1/2 1/20 x 3 + 1/8 x 2 1/20 + 1/8 x 2 + 1/4 1/4 1" 1/8 1" 1/8	qtz-chl-mag-(py)-(cp) qtz-chl-(llpy) qtz-chl-(py) x6 + vugx1 qtz-chl x3 + qtz x1 qtz-chl-py qtz-chl-(py)-(cp)-(vug) qtz-chl-ep-py-(cp) qtz-chl-ep-(cp)-(vug) qtz-chl-py-(cp)	1.0			37	90			.10		
							340		20	1/8	qtz-chl-ep-py-(cp)-(vug)			339							
									15 60 5x3 60 20x4 10 25 50+15 30+40	1/8 3/4 1/8 x 2 + 1/10 1/2 1/8 x 2 + 1/4 x 2 1" 1/2 + 1/10 1/2 + 1/4	qtz-(chl)-(vug) qtz-chl-vug qtz-chl-(llpy)x3 qtz-chl-vug qtz-chl-(py)x2 + qtz x2 gg qtz-chl-py-cp qtz-chl x1 + qtz-chl-py x1 qtz-chl-(llpy)x2 + vug x1	1.0		346	53	90			.10		
						80 Poor			350												
									5x2 30 20 20x3 30+20 30x2 30 30 40	1/10 1/2 1/2 1" + 1/8 + 1/20 1/20 + 1/10 1/10 x 2 1/4 1/10 3/4	qtz-chl-py qtz-chl-py-cp-(vug) qtz-chl-(py)-vug qtz-chl-vug x1 + py-cp x2 qtz-chl-py-(cp) x2 qtz-chl-py-(cp)x2 qtz-chl qtz-chl-py qtz-chl-(carb)-py-(cp)	1.5		356	50	90			.15		
							360		30+50+40 30 30+20x2 70 15x2+20 25 20x2 70	1/4 x 2 + 1/8 1/10 1/4 x 2 + 1/8 1/4 1/8 x 2 + 1/10 1/4 1/4 x 2 1/2	qtz-chl-ep-py-(cp)x3 qtz-chl-ep-cp qtz-chl-py-(cp)x3 qtz-chl-ep qtz-chl-(py)-(cp) 8 qtz-chl-py qtz-chl-(py) x2 qtz-chl	1.5				90			.20		
						N.D.			370		20+25+40	qtz-chl-(py)		366	67						

ROCK TYPES & ALTERATION						Z to Core Foliation	GRAPHIC LOG	Foliation Alteration	Footage Structure	Vein Z to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Remarks	Footage Sect.	R Q D	Estimated Core Recovery %	ASSAY RESULTS				
Qz	Plag	K-Spar	Mafic	Tefere	Hardness													Sample Number	% Cu	% Mo		Estimation Grade
						N.D.			380	50 20 20 20 30+20 50+25 30 10 80	1/2 1/4 1/8 1" + 3/4 1/2 + 1/4 3" 1/4 1/20 1/2	qtz-chl-(py)-vug qtz-chl-cp-py qtz-chl-py cp-chl x1 + qtz-chl-py-(cp)x1 qtz-chl x1 + qtz-chl-py x1 qtz-chl-py-vug qtz-chl-ser-carb-(gg) qtz-chl	1.5		376	70	90					.20
						N.D.			390	20 x 2 10 20 20 x 3 5 20 30 20 85 x 2 30 + 70 x 2	1/4 x 2 1/10 1/8 x 3 1/2 1/2 3/8 1/4 1/8 1/8 + 1" 1/8 x 2 + 1/10	qtz-chl-py-(cp) x 2 qtz-chl-py-(cp) qtz-chl-py x 3 qtz-chl-cp qtz-chl-py-cp qtz-chl-py-(cp)-vug qtz-chl qtz-chl-gg qtz-chl-py-(cp)x3	1.5		386	27	90					.30
						80 Poor			400	10 20 75 30 + 50 x 2 30 40 x 2 40 x 4 5 + 30 x 2 10 50	3/8 1/10 1/2 1/20 x 2 + 1/8 1/4 1/40 x 2 1" + hlc x 3 1/8 + 1/20 x 2 1/8 1/8	qtz-chl-py-(cp) qtz-chl-py gg-bx-carb-py frags. qtz-chl-py x 2 + cp x1 qtz-chl-(cp)-py-cp qtz-chl-py-(cp) qtz-chl x1 + py x 3 qtz-chl-py x1 + cp x 2 qtz-chl-py-cp	1.5		392 396	17	90					.25
						N.D.			405.5	50 + 25 50 + 30 x 2 25 30 20 x 2	1/8 + 1/20 hlc x 3 1/10 1/8 1/10 + 1/2	qtz-chl-py x 2 qtz-chl-py-cp x 3 qtz-chl-(cp)-py qtz-chl-ep-py qtz-chl-ep-py-(cp)x2	.5%			60	90					.10
									410	20	1/20	qtz-chl-py-(cp)			406							
									420	40 40 30 x 3 10 40 x 3	1/8 1/8 + 1/10 + hlc 1/8 1/8 + 1/20 x 2 2"	qtz-chl-py-cp gg-bx-hem stain qtz-chl-py-ep x 2 + (cp)x1 gg-bx qtz-ser-carb-(gg) qtz-chl-py-cp x 3 minor broken up veins of py and one broken chl vein	7.5		416 420	37	90 85					.10
						N.D.			430	30 20 7 7 20 x 2 80 20 30 x 2	3" 1/8 5" 3" 1/20 + 1/4 4" 8" 1/4 + 1/10	gg-bx qtz-chl-py-(cp) gg-bx-carb gg-bx-carb gg-bx-carb qtz-chl-py x 2 qtz-chl-cp qtz-chl-(py)-Mo qtz-chl-py-ep x 2	7.5		425	17	80 90					.08
						80 Poor			440	30 40 x 4 + 60 x 4 50 x 4 20 + 40 40 + 50	1/2 1/10 x 4 + 1/20 x 4 1/8 + 1/20 x 3 hlc + 1/8 hlc x 2 6"	bx-(gg) qtz qtz-chl-py x 8 qtz-chl-py x 4 qtz-chl x 2 qtz-chl-py stockwork of veins of qtz-chl-ep	1.5		431	37	90					.08

Garrett Bynette

SHEET No. 1 of 8

LOGGED BY W.R.S.

DATE May 15 1981

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ROCK TYPES & ALTERATION							Z to Core Foliation	GRAPHIC LOG	V. to Core Z to Core Axis	Width of Vein	Mineralization	Pyrite Tons	Remarks	Footage Blocks	R.O.D.	Estimated Core Recovery %	ASSAY RESULTS			
Dtz.	Plog.	K-Spec.	Mafic	Tertiary	Hardness												Sample Number	% Cu	% Mo	Estimated Grade
							45		120°	1/20	hem.			74	30%					0.3%
							60		55°	1/20	gtz - sauc									
							Mid		60°	6	gtz - chl - hem	0%		80		90%				
									150°	1/20	hem - hem - gg									
									120°	1/20	hem									
							50°		25° x 3	1/4 x 1/2	hem gg									
							60°		60° x 2	1/16 x 1/2	gtz - sauc - chl	0%								
							Mid		60°	1/16	gg - vugs - hem			97	30%	85%				0.3%
							to Wb		30°	1/16	gtz - chl									
									90°	1/10 x 1/2	hem - gg x 2									
							70°		30°	1/8	hem gg	0%								
							Wb		30° x 2	1/30 x 2	hem x 2									
									70°	6	Broken core - gg - hem			9.5	20%	90%				0.3%
									70°	15"	gtz - ser - carb - chl - gg	fine								
									100°	3	Broken core - carb - chl - gg			99		90%				
									70°	1/20	carb - gg - hem									
										2'	carb - hem - broken core									
							50°		30°	1	gtz - chl - hem - carb					90%				
									90°	1/4	gtz - chl - hem - carb - gg			106	53%					0.3%
							Str		50°	1	gtz - chl - gg - carb	8%								
									70°	2	carb - hem - gg - broken core					95%				
									110°	3/4	gtz - ep									
									160°	1/8	gtz - chl	0%		113						
							Not Def. ind		80°	1	carb - gg - hem - hem	0%								
									30°	1/2	gtz - chl - (hem)				10%	85%				0.3%
									30°	2	gtz - ep - chl - carb - (hem)									
									120°	30 x 3	gtz - ep									
									70°	8'	Broken rock - hem - hem - carb - gg - abund.			122						
							60°		60°	1/2	gtz - chl - ep									
									10° x 2	1/20 x 2	carb - hem - x 2	6%			47%	95%				0.3%
									30°	1/20	gtz - chl - pl									
									30° x 2	1/10 x 2	carb - hem - x 2			128						
									80°	1/16	gtz - ep - chl									
							45-60		30°	1/16	carb - hem - chl	6%								
									80°	1/8	gtz - ep									
									150°	1/16	carb - hem									
							Mid		70°	8	Broken core - carb - hem - hem			136	43%	85%				0.3%
									70°	1/4	gtz - chl - carb - hem - hem	some finer gr								
									170°	1/70	gtz - chl - sauc	sauc rock								

ROCK TYPES & ALTERATION							GRAPHIC LOG	Vein to Core	Width of Vein	Mineralization	Pyritic zone	Footage Blotches	R.O.D.	Estimated Gold Recovery %	ASSAY %			
Ctz.	Plg.	K. Spec.	Molte	Testers	Hardness										Sample Number	% Cu	% Mo	Estimated Grade
						141 - 212	50 M.d. N.D.	150	1/20	gtz - ap - lim + same-free envelope gtz - chl - carb - py x 2 gtz - ap - chl gtz - chl gtz - chl - py - carb gtz - chl - carb - hem - py 12" + carb - hem - py + broken carb gtz - ap - chl - 12 gtz - ap - chl - 4 py 7	8%	146	60%	90%				.03%
						bands	N.D.	160	1/20	lim x 4 gtz - chl - py x 3 carb gtz - chl x 4 gtz - chl - py chl - gtz - carb	8%	155	30%	95%				.03%
							65 wt. to Mod.	170	1/20	gtz - ap - chl - "py" carb x 2 gtz - ap - chl carb - hem x 2 ser - carb chl - gtz - ap - 4 py 7 gtz - ap - carb - chl - py - 12 py	12	165	63%	95%				.06%
							N.D.	180	1/20	carb - hem carb - x 2 gtz - ap lim gtz - ap - chl - py - carb 7 gtz - chl - ap - py	8%	175	37%	90%				.06%
							60 wt. to N.D.	190	1/20	Broken carb - carb 99 gtz - carb - chl gtz - carb - chl - 11 Broken carb - carb 99 gtz - carb gtz - chl - py	8%	183	33%	90%				.05%
							70 - 80 wt.	200	1/20	carb - hem x 6 gtz - chl - ap - py gtz - chl - carb - py 1.56 gtz - chl - ap - carb 6 py gtz - chl - py x 2 gtz - chl - ap - carb - py	1.56	195	30%	90%				.08%
							70 - 80 wt.	210	1/20	gtz - chl - py gtz - carb - ser - py - chl carb - hem - py gtz - chl - py gtz - chl - 11 lim - carb - 7	2%	204	10%	85%				.68%

ROCK TYPES & ALTERATION						GRAPHIC LOG	Vein L to Core Axis	Width of Vein	Mineralization	Pyritic Zone	Footage Blocks	R O D	Estimated Core Recovery %	ASSAY RESULTS			
Ctz.	Plg.	K-Spar.	Mafic	Taxite	Hor. Gneiss									Sample Number	% Cu	% Mo	Estimated Grade
						212-216 Leucocratic Phase	70° 80°	75° x 2 125 x 2 70° 130° 10 x 3 170° 220	1 + 1/10 120 x 2 1/2 1/4 1/4 x 3 1/4 2	gtz-ser-py x 2 gtz-ser-py x 2 gtz-ser-carb gtz-de-ser-py-carb gtz-ser-chl-py gtz-carb-py Broken core carbagg	213	40%	98%				.08%
						216-244 Same Alt	W.K.	145° 120° x 2 150° 70° 130° 230	1/2 110 x 2 1/16 13/4 11/4 11/4 2 1/2 + 1 1/2	gtz-ser-chl-py gtz-ser-chl-py x 2 gtz-ser-cp gtz-ser-chl gtz-ser-chl-py gtz-chl-carb gtz-ser-py x 2	220						
						gtz-ser-py zones (gtz-rich phase - cp - chl Alt)	60° 80° W.K.	145° 140° 130° x 2 138° 175° 120° 45° 240	2 1/2 1/2 100 + 1/4 1/2 2 1/2 15	gtz-ser-py gtz-ser-py-lepzt-limon gtz-ser-py-lepzt x 2 gtz-py-mo gtz-ser-py gtz-ser-gst-mo gtz-ser-chl-py-lepzt zone	226	60%	95%				.09%
						244-256 gtz-E-chl Alt	45° 55° 100° W.D.	145° 140° 130° x 2 138° 175° 120° 45° 240	2 1/2 1/2 100 + 1/4 1/2 2 1/2 15	gtz-ser-py gtz-ser-py-lepzt-limon gtz-ser-py-lepzt x 2 gtz-py-mo gtz-ser-py gtz-ser-gst-mo gtz-ser-chl-py-lepzt zone	233	27%	90%				.11%
						256-291 Same Alt	80° W.K.	145° 80° 160° x 2 80° 70° 130° 250	1/2 1/2 120 x 2 142 3 120 1	gtz-ser-chl-py x 2 gtz-ser-chl-py gtz-ser-chl-py gtz-ser-chl-py-cp gtz-ser-py-gst Broken core carbagg - limon	241						
						256-291 Same Alt	45° 80° W.K.	145° 160° x 2 80° 70° 130° 250	1/2 1/2 120 x 2 142 3 120 1	gtz-ser-chl-py x 2 gtz-ser-py gtz-ser-py-lepzt x 2 gtz-ser-chl-py gtz-ser-chl-py-cp gtz-ser-py-gst Broken core carbagg - limon	246	30%	85%				.12%
						256-291 Same Alt	45° 80° W.K.	145° 160° x 2 80° 70° 130° 250	1/2 1/2 120 x 2 142 3 120 1	gtz-ser-chl-py x 2 gtz-ser-py gtz-ser-py-lepzt x 2 gtz-ser-chl-py gtz-ser-chl-py-cp gtz-ser-py-gst Broken core carbagg - limon	254	30%	95%				.15%
						256-291 Same Alt	80° W.K.	145° 160° x 2 80° 70° 130° 250	1/2 1/2 120 x 2 142 3 120 1	gtz-ser-chl-py x 2 gtz-ser-py gtz-ser-py-lepzt x 2 gtz-ser-chl-py gtz-ser-chl-py-cp gtz-ser-py-gst Broken core carbagg - limon	261	57%	98%				.09%
						256-291 Same Alt	80° W.K.	145° 160° x 2 80° 70° 130° 250	1/2 1/2 120 x 2 142 3 120 1	gtz-ser-chl-py x 2 gtz-ser-py gtz-ser-py-lepzt x 2 gtz-ser-chl-py gtz-ser-chl-py-cp gtz-ser-py-gst Broken core carbagg - limon	276	50%	97%				.15%
						256-291 Same Alt	80° W.K.	145° 160° x 2 80° 70° 130° 250	1/2 1/2 120 x 2 142 3 120 1	gtz-ser-chl-py x 2 gtz-ser-py gtz-ser-py-lepzt x 2 gtz-ser-chl-py gtz-ser-chl-py-cp gtz-ser-py-gst Broken core carbagg - limon	276	50%	98%				.15%

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