

82-#653 -10878

DIAMOND DRILL REPORT
ON THE
MIOCENE MINERAL CLAIM GROUP

CARIBOO MINING DIVISION

93 A 5

(Latitude $52^{\circ} 17'$, Longitude $121^{\circ} 43'$)

OWNER AND OPERATOR
GIBRALTAR MINES LIMITED
MCLEESE LAKE, B.C.

Author: G. D. Bysouth

Submitted: 24 Sept. 1982

GEOLOGICAL BRANCH
GEOLOGICAL BRANCH
ASSESSMENT REPORT
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10,878

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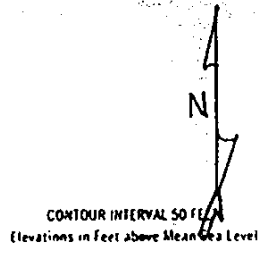
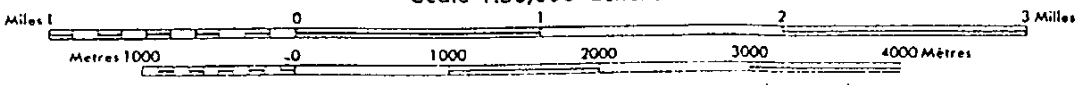
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A.	Statement of Qualifications	(In text)
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MIOCENE GROUP LOCATION MAP **FIGURE 1**

BEAVER CREEK 93^{A/5}
 CARIBOO LAND DISTRICT
 BRITISH COLUMBIA
 Scale 1:50,000 Échelle



1.0 INTRODUCTION

The Miocene Mineral Claim Group is located at the community of Miocene, about 23 miles northeast of Williams Lake. Access is via the Horsefly road which leaves Highway 97 near 150 Mile House and proceeds easterly through Miocene. The drillsites are accessible only by 4-wheel-drive-type trails.

The claims appear to be underlain by a quartz-deficient suite of volcanic rocks and associated volcanoclastic sediments. Trachyte porphyry forms several prominent ridges and makes up most of the available rock exposure. The dominant rock type however, is a fine grained calcareous sedimentary assemblage consisting almost entirely of volcanic-derived clastic material which is occasionally interbedded with volcanic breccia and feldspar porphyry. These rocks are not found in outcrop. Near the Horsefly road, volcanic pebble conglomerate outcrops along Wiggins Creek and dark green andesitic flows are exposed in adjacent bulldozer cuts. According to G.S.C. Map 3-1961, Geology Quesnel Lake, these rocks belong to a Jurassic suite of volcanic and sedimentary rocks, lying near a contact with the Permian Cache Creek Group.

The Miocene Claim Group covers the old Wiggins property which in 1969 and 1970 was the subject of geological, geochemical and magnetometer surveys by Grandeur Mines Ltd. (Assessment Reports 2014 and 2475) Chief focus of activity has been widespread occurrences of malachite and lesser chalcopryrite in a dark grey trachyte porphyry. In 1981, Gibraltar Mines Limited had an I.P. survey run over this prospect area as part of an option agreement with its present owner, Miocene Exploration Ltd. Several large significant I.P. anomalies were outlined.

This report covers a diamond drill program aimed at evaluating the 1981 I.P. anomalies and testing the extent of known surface mineralization. Six vertical N.Q. diamond drill holes, totalling 2350-feet were completed during the period August 11 - 22, 1982. Frontier Drilling Ltd. was the contractor. Core is stored at the L. Wiggins ranch at Miocene.

2.0 MINERAL CLAIMS

The location of the Miocene Mineral Claim Group is shown in Figure 2. Information on these claims is tabulated below:

CLAIM NAME	RECORD NO.	NO. OF UNITS	ANNIVERSARY DATE
Miocene 1	1871	20	August 20
Miocene 2	1955	20	Sept 16
Miocene 3	3085	12	Dec 19
Miocene 4	3484	20	May 20
Jan 1	2054	20	Sept 30
Shannon 1	3396	1	April 28
Shannon 2	3397	1	April 28
Shannon 3	3398	1	April 28
Shannon 4	3399	1	April 28
Shannon 5	3400	1	April 28

These claims are currently owned by Gibraltar Mines in accordance with an option agreement made with Miocene Explorations Ltd.

3.0 DRILL PROGRAM

3.1 OBJECTIVES

Drill holes 82-30, 82-31, 82-32 and 82-33 were aimed at testing the main I.P. anomaly. Holes 82-34 and 82-35 were aimed at testing the northern extent of copper mineralization exposed in nearby trachyte rock outcrops.

3.2 RESULTS

Drill hole locations are shown in Figure 2. All copper concentrations reported in the logs are for total copper, all pyrite concentrations are visual estimations and all molybdenum values are for MoS₂.

Holes 82-30 to 82-33 all intersected a volcano clastic sedimentary unit. Prevailing rock type is a pale grey calcareous sandstone or siltstone assumed to be composed of re-worked volcanic material. Quartz grains appear to be totally absent. Pyrite occurs in all holes as pervasive disseminations and as blebs or stringers in dark chloritic laminae, often associated with graphite. Pyrite in all cases is fine grained to microscopic and estimates suggest an average concentration of about .5%, which is likely conservative considering the fine grain size involved. The pyrite is concentrated in the dark laminae which are interpreted to represent organic-rich muds formed under reducing conditions during periods of slow sedimentation. These laminae occur throughout the unit usually at two to ten-foot spacings, but in some zones the spacing is close enough to resemble a banded black shale having pyrite concentrations in excess of several percent. Calcite is present throughout the unit both as open-space fillings and as a normal constituent of the rock. As veinlets, the calcite is usually mineralized with pyrite. The unit is cut by numerous feldspar porphyry zones usually less than ten-feet wide which have obscure contacts but

are assumed to be of intrusive origin. Breccia zones are also common and are often associated with the porphyries.

Drill hole 82-34 intersected trachyte porphyry from the casing at 20-feet to a depth of 230-feet. The volcanoclastic unit was intersected from 230-feet to the end of the hole at 295-feet. The trachyte porphyry is assumed to be a subvolcanic intrusive rock. A pronounced breccia zone occurs at the contact. Only negligible amounts of pyrite was found in the porphyry.

Drill hole 82-35 was in trachyte porphyry from the casing at 20-feet to the bottom of the hole at 210-feet. Pyrite concentrations were negligible.

No significant concentrations of copper or molybdenum were found in any of the assayed core and it is assumed the remaining core is equally barren.

4.0 STATEMENT OF EXPENDITURES


a)	Site Preparation, Moving Core and Drill D8 Bulldozer - 23 hrs. @ \$60.00/hr.	\$ 1,380.00
b)	Drilling Costs 2350 feet @ \$13.11/foot	30,808.68
c)	Vehicle Costs 4 x 4 1980 Suburban 12 Aug. - 17 Sept. 20 days @ \$20.00/day	400.00
d)	Miscellaneous Costs Plastic bags, tags ...	100.00
e)	Core Boxes 136 boxes @ \$4.90/box	666.40
f)	Core Logging and Supervision <u>G.D. Bysouth</u> Aug. 12 8 hrs. Aug. 21 8 hrs. Sept. 22 - 23 <u>16 hrs.</u> 32 hrs. @ \$31.25/hr.	1,000.00
	 <u>G.E. Barker</u> Aug. 16 - 18 24 hrs. Aug. 23 - 25, 31 32 hrs. Sept. 1 - 3 <u>24 hrs.</u> 80 hrs. @ \$20.00/hr.	1,600.00
g)	Field Work and Organizing <u>E. Oliver</u> Aug. 9 - 13 40 hrs. Aug. 16 - 21 48 hrs. Sept. 1 - 3, 8 32 hrs. Sept. 13 - 17 <u>40 hrs.</u> 160 hrs. @ \$20.00/hr.	<u>3,200.00</u> <u>\$39,155.08</u>

G.D. Bysouth

5.0 CONCLUSIONS

The I.P. anomaly was most likely caused by the pervasive pyrite and graphite found in the volcanoclastic unit and does not represent an economic sulfide source.

The drilling of the trachyte porphyry has failed to intersect copper mineralization; this greatly reduces the probability of a northward extension of copper mineralization exposed in outcrops to the south.

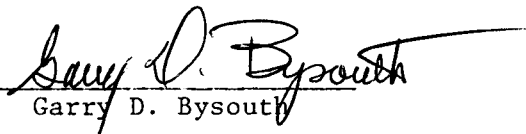

G.D. Bysooth
Senior Geologist
Gibraltar Mines Ltd

APPENDIX A

STATEMENT OF QUALIFICATION

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 B. C., with a degree in geology in 1966.
3. From 1966 to the present I have been engaged in mining and exploration geology in B. C.
4. I personally supervised this drill program and assessed the results.



Garry D. Bysouth

APPENDIX A

STATEMENT OF QUALIFICATION

I, George E. Barker, of Gibraltar Mines Limited, McLeese Lake, B. C., do certify that:

1. I am a geological technician.
2. I am a graduate of B.C.I.T. and from 1969 to the present I have been involved in mining and exploration projects in B. C.
3. I personally logged the drill core and assessed the results.


George E. Barker

APPENDIX B

ABBREVIATIONS USED IN LOG

cal.	calcite
carb.	carbonate
chl.	chlorite
cp.	chalcopyrite
ep.	epidote
lim.	limonite
grn.	grained
mal.	malachite
py.	pyrite
qtz.	quartz
seri.	sericite

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-30
SHEET No. 1 of 9

LOCATION MIOCENE CLAIMS BEARING 0 LATITUDE _____ CORE SIZE NO WIRELINE LOGGED BY G.F. BARKER
 DATE COLLARED 11 AUG 1982 LENGTH 500' DEPARTURE map in pocket SCALE OF LOG 1" = 10' DATE 16 AUG 1982
 DATE COMPLETED 13 AUG 1982 DIP -90 ELEVATION see REMARKS _____

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralisation	ESTIMATED % PYRITE	Leach Cap OX. DEPTH SUP. DEPTH	Footage Blacks.	Estimated Core Recovery %	R O D	ASSAY RESULTS			
Qty.	Pics.	R-Spec.	Malle.	Texture	Hardness											Sample Number	% Cu	% Mo	Estimated Grade
						60 to ND mod	16 20	5 60 70	1/8 1/16 1/16	carb lim graphite (ch) (x) (ep) (py) carb graphite (hem)	20		18		27				.05
						ND	21 35		1/8	carb py (ep) (x)	20		27	85	20				.02
						ND	30 30		1/16	carb py			27	90					
						ND	36 36	15 10	1/16	carb (py) (epi)? carb (lin) (hem) (py)	20		33	90	13				.01
						ND	38 40			graphite, py (ep) carb			37						
						ND	40 47		1/16 x 2	carb (py)	15		47	47	23				.03
						60-70 Str	50 60		1/16 x 2	py (ep)			47						
						ND 10 60	40 30 50 to 60		1/16 1/8 1/16 x 4 1/16	carb seri carb graphite chl? py (ep) py (ep) s carb graphite chl (py)	25		55 55 57	75 75	7				.04
							60 60						65						

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ROCK TYPES & ALTERATION						GRAPHIC LOG	Vein L to Core	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH		Footage Block	Estimated Core Recovery %	R Q D	ASSAY RESULTS						
Oil	Plas	K-Sp	Mafic	Tenore	Hardness						L to Core	Footage				Structure	Sup. Depth	Remarks	Sample Number	% Cu	% Mo	
						ND	130	variable	1/4 to 1/8 x 6	carb (chl-graphite) py	20	very little graphite - chl from 119' to 141'	122 123	95 80	17					.01		
												Badly Broken core 121' to 123'		65								
						ND	140	variable	1/4 to 1/8	carb (chl) py carb (py)	20	fine grain sulphides scattered in core - also some larger blebs.	136	95	60					.01		
						ND	150	variable	1/8 x 2	dark chl py carb	20	badly broken core 149' to 150'	143	70	23					.03		
					end of volcaniclastic unit.	ND	156	70 to 80	1/8 x 4 to 1/4	chl py (cpy)? carb. chl (graphite)? py	20	slumping features 153 - 156	154	90	40					.03		
					FELDSPAR PORPHYRY (156' to 170') same as rx type from 2' to 36'		160	10	1/4"	carb qtz (hem)es stain				95								
						ND	170	variable	1/8 x 3	carb (py)	10	sulphides in the form of blebs, associated with carb. veins.	162	85	33					.01		
														168								
					Volcaniclastic Unit (170' to 179')	ND	179			carb. chl (graphite) py	20	Badly broken core 170' to 191'	171	85	3					.01		
					same as rx type from 63' to 156'									174		50						
														177		50						
														180		70						

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG Foliation Alteration Foliation Foliation Structure	Vains L to Core Ash	Width of Vain	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____ REMARKS	Feather Diagrams	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Qtz.	Pls.	K-Spar.	Melle	Texture	Hardness											Sample Number	% Cu	% Mo	Estimate Grade
						ND	183			seri (epi) carb	.05		70	10					.01
						ND	190	30	1/2				70						
						ND	197				.10		80	33					.05
						ND	200	45	1/2 x 2	carb			80						
						4.5-50 med to str	204	variable	1/2 x 6	carb py (epi)	.20	sulphide in veins + fine grain sulphides scattered in core	204	80	20				.10
						45	207	45	1/2	carb (graphite) chl			85						
						45	209	45	1/2	carb chl (graphite) py (epi)			85						
						210	209	45	1/2 x 2	carb graphite chl (py)									
						60-70 med to str	214	70	1/2 x 2	carb py (epi) py (epi) carb. chl graphite	.25	fine grain sulphide scattered in core Badly broken core 219 to 226'	214	85	13				.10
						220	217	variable	1/2 x 5	carb			70						
						ND to 70 med	222			carb (graphite) chl py (epi).	.20		222	85	3				.05
						230	226			chl (graphite) (py)			70						
						ND	233			(graphite) chl (py)		Badly broken core 230' to 250'	233		0				.01
						240	237	variable	1/2 x 5 to 1/2	carb (graphite) chl (py)	.20		237	25					
													30						

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-30
SHEET No. 5 of 9

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____ REMARKS	Feet per Block	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Oil.	Flux.	K-Spac.	Melt.	Textures	Hardness										L to Core Foliation Alteration Footage Structure	Sample Number	% Cu	% Mo
						ND			carb graphite chl py	.25		246	30	27				.02
						ND	250		carb (py) carb (py) (cpy) chl	.25		251.5	80	27				.04
					Breccia zone 251.5' to 304' matrix has sandy texture from 257.5' to 258' silty texture in remainder of zone. fragments range from 1/10" up to 2" in size. cementing material appears to be calcite.	ND	260	10 40	1/8 x 3			256 257	80 80	27				.04
						ND	270	30-40	1/8 x 3	(py) carb py	.20	267	90	40				.04
						ND	280	variable	1/16 1/8	chl (in fragments) epi carb py (cpy) (ser) carb	.10	277	90	13				.05
						ND	290	variable	1/16 x many	(py) (chl) carb (py) (ser)	.15	287	90	30				.01
						ND	300	40 30 20	1/8 1/16 1/4	carb carb (ser) py (cpy) carb	.25	297	95	23				.02

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-30
SHEET No. 6 of 9

ROCK TYPES & ALTERATION						L to Core Foliation Fractures Alterations Feolite Structure	GRAPHIC LOG	Vains L to Core Asst	Width of Vain	Mineralisation	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____ REMARKS	Feolite Direct.	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Qtz.	Plas.	K-Spar.	Melle	Texture	Hardness											Sample Number	% Cu	% Mo	Estimate Grade
						Breccia zone ends 304	50 mod to ND	40	1/8	carb			90						
								46	1/4 x 2	carb graphite chl (py)	.40			30					.05
								45	1/4	carb graphite (chl) py (cov)			90						
							60 to med			carb uraninite chl (cov)									
								variable	1/6 to 1/8	carb chl (graphite) (py)	.35		33						.10
								45	1/2 to 1/4 x 2	carb chl py (cov)									
								48	chl	carb chl py (cov)									
							60 to med to cov	70	1/16 x 3	carb py (cov)			95						
						2" sand stone bed 326		70	1/8	carb (py)	.30		27						.03
								65	1"	chl (carb) (py)									
								70	1/8	carb chl (py)			90						
							80 med	variable	1/4 x med	carb (py) chl									
								35	1/16	carb py	.30		23						.01
								340		carb (py)			90						
							ND		1/4	carb seri (py)			85						
								variable	1/2 x 3	carb (seri) (chl) (py)	.25		17						.01
								70	1/8	carb py			90						
							ND	45	1/4	carb chl (py)			85						
								5	1/4 x 2	carb	.25		17						.01
								45	1/6 x 2	carb chl (graphite) (py)			85						
										carb			70						
										carb			95						

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HOLE No. 92-30
SHEET No. 7 of 9

ROCK TYPES & ALTERATION						L to Core Foliation Alterations Fossils Structures	GRAPHIC LOG	Values L to Core Ash	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH	REMARKS	Fossils Direct.	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Oil.	Flint	X-Spec.	Malle.	Texture	Hardness												Sample Number	% Cu	% Mo	Estimate Grade
						70 wh	Variable 40 370	hl to 1/2 p.	carb chl (py) carb chl - ri (py)	.20			365 370	95 90	30					.01
				Breccia - sandstone texture 374' to 376'		65 mod to wh	Variable 380	hl x many 1/2	carb chl carb (py) carb	.10			374 376	90 80	30					.01
				strong increase in chl 380' to 386'		70 med	Variable 70 45 390	hl x many 1/2 x 2 1/8	carb (py)((c [?] py)) chl carb py (chl)	.20			385 390	90 90	37					.02
				Breccia - sandstone texture 390' to 392'		60 wh to ND	400		chl carb py	.30	Early broken core 372' to 400' 400' to 420'		393 397 400 401	90 90 30 50	30					.02
				core very dark increase in chl + graphite (appears to be mainly chl) 395' to 416'		ND	Variable 410	hl x many	py chl + (graphite) carb py	.10	strong increase in sulphides. sulphides in the form of splashes throughout core		404 405	60 70	10					.03
						ND	70 420	1/2 x 2	py carb chl py	.60			415	60	3					.03
							420				possible 99 at 417'		50							

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GIBRALTAR MINES LTD.

HOLE No. 82-31
SHEET No. 1 of 9

LOCATION MIOCENE CLAIMS BEARING 0 LATITUDE _____ CORE SIZE NO WIRELINE LOGGED BY G.E. BARKER
DATE COLLARED 14 AUG 1982 LENGTH 497' DEPARTURE _____ SCALE OF LOG 1" = 10' DATE 17 AUG 1982
DATE COMPLETED 16 AUG 1982 DIP -90 ELEVATION see map in pocket REMARKS _____

ROCK TYPES & ALTERATION						L to Core Feet Feet Feet	GRAPHIC LOG	Feet Feet Feet	Vena L to Core Act	Width of Vena	Mineralization	ESTIMATED % PYRITE	Leach Cap OX. DEPTH SUP. DEPTH	Feet Feet	Estimated Core Recovery %	R O D	ASSAY RESULTS					
Str.	Pls.	R-Spec.	Malle.	Texture	Hardness												Sample Number	% Cu	% Mo	Estimated Grade		
							30															
							80 mod to ND	10 to 20	1/8 x 3		carb. lim (py) chl-graphite laminae	.25	30' 31' to 32' 31' to 49'	35	85	13					.03	
							ND	variable	hl x many		carb (py) chl graphite py (c-py)		31' to 49' fine grain sulphides	40	85							
							50 mod to ND				chl-graphite carb py (c-py) ground rx - 98?	.25	32' to 34' 39' to 51' fine grain sulphides scattered in core also associated with carb. viens Poss. small fault 59' to 58'	45	85	7					.04	
							50							50								
							ND	10 to 15	1/2 to 1/16		carb (py) carb (py)	.05	carb found only in viens, sulphides appear to be confined to these carb viens.	55	90	7					.01	
							60	35	1/8					60	90							
							NO	80	1/16		carb		Badly broken core 67' to 70'	65	90	23					.01	
								50	1/8		carb (py)	.03		70	90							
								70														

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GIBRALTAR MINES LTD.

HOLE No. 82-31
SHEET No. 3 of 9

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Value L to Core, A to	Width of Vain	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH	Remarks	Footage Blacked	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Qty.	Plus	R-Spec.	Mollic	Texture	Hardness												Foliation Alteration	Footage Structure	Sample Number	% Cu
						ND ?	140	45 variable	1/8 hl to 1/2	carb chl (graphite) py (cpv) carb chl py	.30	Badly broken core 129' to 136' 138 to 143' 145 to 147'	131 136	85 85	10					.04
					Fault gouge 141' to 142' fine grain sandstone texture 146' to 172' scattered chl-graphite laminae	ND 50 to 60 wk	150	variable	hl to 1/2	gg carb py (cpv) chl (graphite) py	.25		142 147	90 90	20					.03
						60 med to HR	160	45	hl x 2	carb chl (graphite) py chl (graphite) py	.20	fine grain sulphides scattered in core	152 157	90 90	47					.02
						60 mat	170	variable	hl x 4 hl	carb chl-graphite laminae py carb (py)	.20		162 167	90 85	53					.01
						60 WR to ND	180			chl graphite carb py carb	.20	Badly broken core 172' to 176' 178 to 181'	172 176	80 80	23					.02
					Breccia zone 181' to 200'	ND	190	40 50	1/8 x 2 1/8 x 3	carb py carb (massive in filling) carb py (cpv)	.25	carb. veins cross cut fragments	181 186 188	90 95	43					.02

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GIBRALTAR MINES LTD.

HOLE No. 82-31
SHEET No. 4 of 9

ROCK TYPES & ALTERATION						L to Core Foliation Alteration Foliation Structure	GRAPHIC LOG	Value L to Core As to	Width of Vena	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____ REMARKS	Feet Borehole	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Gr.	Plg.	K-Spec.	Mafic	Texture	Hardness											Sample Number	% Cu	% Mo	Estimate Grade	
						ND	variable	4 1/2 x 7	carb py			192	90	30						
						ND	40	1/4"	carb chl py (cpy)	.25		197	85							.02
						ND	200						80							
						ND	80	1/8 x 2	carb chl (graphite) py	.30	Badly broken core 198' to 223'	202	75	7					.02	
						ND	210					207	70							
					Poss. fault gg 214' to 215'	ND	variable	hl x many	carb py graphite chl-graphite py	.40	scattered fine grain sulphides + sulphide blotches in fractures.	212	70							.02
						ND	220					215	75	17						
					Poss. fault gg 222' to 223'	40 to 45 mod	variable	hl x many	py (cpy) carb (py) chl-graphite laminae py	.50	scattered fine grain sulphides + sulphides in small veins.	219	50							
						ND	230					221	85							.02
						ND	variable	hl to 1/16	carb chl-graphite py (cpy) carb chl-graphite py	.80	Badly broken core 233 to 236' 238 to 241 245 to 247	226	75	13					.10	
						ND	240					233	85							
						ND	10	1"	carb py (cpy) chl-graphite py	.12	Badly broken core 249 to 253	239	85							.10
					Breccia 248-253	ND	variable	hl x many				241	50	17						
						ND	variable					245	85							
						ND	250					249	85							

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Alt	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____ REMARKS	Footage Blacked	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Qty.	Plas.	K-Spac.	Melle	Tactere	Horstare										L to Core Foliation	Alteration	Footage	Structure	Sample Number
					Volcano clastic unit ends 253							254	90	20					
					FELDSPAR-PYROXENE PORPHYRY (253' to 291') This rx. type appears to be a variation of the feldspar porphyry found at 49' to 70'	ND	ND	20	1/8 x 2	carb py	.10	259	60						
					It is a pale grey to green-grey porphyry tinged pink throughout most of the zone. About 30% to 40% white to pink spar phenocrysts varying from euhedral through subhedral to an anhedral. 1/10" up to 1/2" dia., also < 10% dark green pyroxene (augite?) phenocrysts varying from euhedral to subhedral up to 1/8" dia. in med grey-green	ND	ND	variable	flex many	carb	.05	262	90	30					
					fine grain matrix. occasionally, what appear to be fragments, can be seen. rx could be intercalated between feldspar porphyry and trachyte porphyry? found in hole 82-29.	ND	NE	35	1/8 1/6	carb carb.	.02	267	85						
					291 VOLCANO CLASTIC UNIT 291' to 497' Same as rx. from 301 & 49 Breccia zone 299 to 312	ND		35 70	1/8 1/6	carb carb	.02	272	90	13					
						ND		35	1/8	carb	.02	277	80						
						ND		70	1/6	carb	.02	280	80	3					
						ND		70	1/6	carb	.02	285	85						
						ND		290			.02	290	70						
						ND		45	1/8	carb py	.20	295	40	13					
						ND		40	1 1/2 x 2	py carb (py) ((cpx))	.20	299	75						
						ND		80 variable	1" to 1/16" flex many 1/4	carb graphite py chl (graphite)? carb chl py ((cpx))	.50	302	95	40					
						ND		75	1/4	carb py	.50	307	90						
						ND		35	1 1/2 x 2	carb py	.50		85						

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structure	Veins L to Core Asst	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH REMARKS	Footage Blk.	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Oil	Flint	K-Spec.	Mafic	Tuffaceous	Hardness											Sample Number	% Cu	% Mo	
						ND to 30 WR	320	15 20	1/8 x 3 1"	carb py (carb) gtz CPY ? chl-(py)	.50	minor contorted dark foliation (bands)	312 317	90 95	47				.15
					Braccia zone 320 to 344	ND	330	?	1"	carb (epi) (chl) (py) carb gtz (py) CPY carb (py)	.30	Badly broken core 321' to 326' 328' to 329' 330' to 333'	322 327 329	90 80	13				.15
						ND	340			carb (py) carb py (epi)	.30		334 339	80 70	37				.05
					Sandstone texture with dark lamina 342' to 268'	ND to 80 mod	350			carb (py) chl-(graphite)? carb (py)	.25	Badly broken core 347' to 348' 349' to 350' 361' to 362'	342 347	90 95 90	23				.01
						20 to 80 mod to str	360	45 30	1/4 x 2 1/8	chl-graph? (py) carb carb py (epi)	.40		352 357	90 90	47				.03
					Poss. Fault zone gg? 369' to 371'	20 to 80 mod	370	20-30 70	1/6 x 3 1/4 x 2	carb (py) chl-graph? carb py chl-graph (py)	.40	Badly broken core 369' to 372'	362 367 370	90 90	33				.02

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Alt 1	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH		Footlog Blk. No.	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Qty.	Plus	K-Spar.	Malle	Texture	Hardness							SUP. DEPTH	REMARKS				Sample Number	% Cu	% Mo	
						ND	380	variable	hl to 1/4	chl-graph? py carb (py) chl-graphite py	.80	373' to 377' 379' to 388'	372 375 377	70 80 50	17					.01
						ND	390	variable variable	hl to 1/4 hl to 1/4 1/8	carb py carb (py) chl-graphite py (epi?) carb	.40	mining very contorted poss. slumping or shattering	381 384 388	70 85 85	17					.05
						ND	400	variable	hl to 1/8 hl x many	chl-graphite py carb chl-graphite py (epi?) carb	.70	Badly broken core 392' to 393' 395' to 397'	392 397	85 85	30					.04
					Breccia 402-403 Fine grain sandstone texture 403' to 497' dark Laminae scattered in zone	45 to 50 wr	410	variable	1/8 x 2	(chl-graph?) carb (py)	.30	Badly broken core 407' to 409' 411' to 412' 423' to 427'	402 407 409	90 90	27					.01
						45 mod	420	50	1/8	carb (py) chl-graphite py	.30	sulphides fine grained	412 417	85 85	27					.01
						45 wr	430	variable	hl x many	chl-graph py carb carb chl-graph (py) carb	.35	Some sulphides as blotches associated with chl-graph material.	422 426	90 85	17					.01

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-31
SHEET No. 8 of 9

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structure	Veins L to Core Ails	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____		Footage Block.	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Qtz.	Pls.	K-spar.	Malle	Texture	Hardness							SUP. DEPTH _____	REMARKS				Sample Number	% Cu	% Mo	
						45 to 50 wr	45 30	1/8 x 2 1/6	carb chl py carb py chl (epi)	.35	Badly broken core 437' to 439'	432 435 439	90 90	30					.01	
						60 wr to mod	40 75 variable	1/8 x 2 1/4 1/2 x 4	carb (py) carb chl (py) (graphite) carb (py) py	.45	fine grained sulphides scattered in core	442 447	90 95	27					.03	
						60 wr to mod	450 460		chl-graphite (py) carb chl-graphite	.15	Badly broken core 450' to 458' 459' to 462' 465 to 465'	452 455 458	95 80	30					.01	
					medium grain sandstone texture 469' to 470'	50-60 mod	470	variable	H x many carb graphite chl-graphite (py)	.25		462 467	80 70	23					.01	
						45 mod	480	1/6 x 2	carb chl (graphite) carb chl (graphite) py carb chl py	.60	Badly broken core 478 to 480' 484 to 485'	472 476 480	85 85	23					.02	
						50-60 mod to str.	490	40 ? 1/2 x 2	carb carb chl (graphite) py (epi) chl-graph carb py	.70	sulphide in format Large blotch in fractures.	485 490	90 85	30					.04	

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GIBRALTAR MINES LTD.

HOLE No. 82-32
SHEET No. 1 of 8

LOCATION MIOCENE CLAIMS BEARING 0 LATITUDE _____ CORE SIZE NO WIRELINE LOGGED BY G.E. BARKER
 DATE COLLARED 16 AUG 1982 LENGTH 498' DEPARTURE _____ SCALE OF LOG 1" = 10' DATE 23 AUG 1982
 DATE COMPLETED 18 AUG 1982 DIP -90 ELEVATION see map in pocket REMARKS _____

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG Foliation Alteration	Feet to Structure	Vein L to Core Axis	Width of Vein	Mineralisation	ESTIMATED % PYRITE	Leach Cap OX. DEPTH <u>NIL</u> SUP. DEPTH _____	Footage Block.	Estimated Core Recovery %	R O D	ASSAY RESULTS			
Str.	Plas.	R-Spor.	Mills	Texture	Hardness												Sample Number	% Cu	% Mo	Estimated Grade
							45													
						60 to 70 mod	45		1/8		chl-graph carb py (kpy) carb py chl-graph carb py	2.0	good sulphides in form of blotches + fine grained	48	90	40				.05
						60 to 70 wk	50				chl-graph carb py carb py carb (py)	.70		52	80	43				.02
						70 str to wk	30	variable	1/8	h/x 7	carb (py) carb (py)			57	95					
						70 str to wk	60			1/4	carb (py) graphite-chl carb py (kpy)?	.80	Badly broken core 68' to 71' 73' to 75'	62	95	27				.05
						70 wk to ND	70			1/8	carb (py)			67	85					
						70 wk to ND	80			1/8	carb (chl-graph)	.20		71	80					
						70 ND to wk	90			1/8 x 3	carb (chl-graph) carb (py)			74	85	23				.01
						70 ND to wk	90			1/8 x 2	carb py chl (graph)? (chl-graph) py carb	.70	Badly broken core 81' to 85' 87' to 89'	79.5	85					
														85	85	17				.02
														90	85					

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GIBRALTAR MINES LTD.

HOLE No. 82-32
SHEET No. 2 of 8

ROCK TYPES & ALTERATION						L to Core Foliation Fractures Foliation Foliation Foliation	GRAPHIC LOG	Value L to Core A to C	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH REMARKS	Foliation Block	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Oil	Plex.	K-Spec.	Malle.	Texture	Hardness											Sample Number	% Cu	% Mo	Estimate Grade
						70 mod		30	1/16 x 2	chl-graph carb py carb (py) chl-graph py	.60	Badly broken core 98' to 100' 109' to 112'	95 100	90 85	37				.03
						70 to 80 mod to str.				chl-graph carb py chl-graph carb py	1.0		105	85 80	20				.05
						70 to 80 mod to str.		30	1/8	chl-graph py carb (cpy) carb py chl-graph carb py	2.0	Badly broken core 113' to 122'	111 112 114 118	90 75 85 80	0				.09
				Breccia 122' to 123' silt stone texture with no dark laminae 123' to 130'		ND		variable	1/4 x 5	carb (py) carb py	.45	sulphides fine grained disseminated in core	122 127	90 90	33				.01
				Str. dark laminae 130' to 151'		80 str		15 80	1/8 x 2 1/4	carb (py) (cpy), carb py chl-graph chl-graph carb py	1.5	slump features sulphides as blotches associated with dark laminae.	132 137	90 90	37				.06
						70 to 80 str		10	1/16 x 2	carb py chl-graph py carb chl-graph py (cpy)	5.0	Badly broken core 140' to 153' massive + fine grain sulphides associated with dark laminae.	142 147	85 80	0				.15

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Asth	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH REMARKS	Footage Blacked	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Qty.	Plus	K-Spec.	Mollic	Texture	Hardness										L to Core Foliation	Foliation Alteration	Folios	Size/Sp. A	Sample Number
						small zone with porphyritic texture 153' to 153.5' both dark and light phenocrysts 1/16" dia.	ND	20	1/8 to 1/2	carb py carb	.50	Badly broken core 155' to 157' 161' to 162'	152	90	27				.10
						Dark Laminae (chl-graph) see: Graphic log, foliation	70 mod	25	1/8 x 2	carb (py) (cpy) (Bo)			157	85					
							70 mod	variable	hl x many	carb (py) chl-graph py carb (cpy)	.50		162	95	50				.03
							170	variable	hl x many	carb chl-graph-py carb chl-graph py (cpy)	1.5		167	95					
							str 80	30	1/8 x 2	carb chl-graph-py carb chl-graph py (cpy)			172	95	47				.05
							70 to 80 wk	30	hl x 3	(chl-graph) py carb (py)	.40	Badly broken core 184' to 185' 193 to 194'	177	95					
							80 wk to mod	30	hl x 4 1/4	carb carb (py)	.70		182	90	47				.02
							200	20-20 variable	1/4	chl-graph py carb chl-graph py carb carb			187	90					
							70 to 80 str	5	1/8	chl-graph py carb chl-graph py (cpy) chl-graph py carb	3.0	Blotchy sulphides associated with dark laminae also scattered fine grained sulphides	192	85	33				.03
						Small intrusive 6" wide porphyry texture 203' similar to zone at 153' (possibly breccia?)	70 to 80 str	5 to 10	1/8 to 1/4 x 2	chl-graph py carb chl-graph py (cpy) chl-graph py carb			194	95					
							210	5 to 10	hl to 1/8 x 5				200	90	57				.10
								10 to 10					205	90					
													210	90					

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GIBRALTAR MINES LTD.

HOLE No. 82-32
SHEET No. 4 of 8

ROCK TYPES & ALTERATION						L to Core Foliation Alteration Footage Structure	GRAPHIC LOG	Veins L to Core Ass.	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____ REMARKS	Footage Block.	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Qty.	Plus	K-Spar.	Malle	Texture	Hardness											Sample Number	% Cu	% Mo	Estimate Grade
						20-80 str to mod		5 40 80	1/8 x 2 1/8 1/16 to 1/8	carb (py) chl-graph py carb carb chl-graph py (cpy) carb (py)	3.5		215 218	90 90	33				.10
						70-80 mod		10 50 45	1/16 1/16 1/16 x 2	carb (py) carb chl-graph (py) carb	.40		223 228	90 90	50				.01
				med. grain sandstone texture 235' to 236' 240' to 241'		70 to 80 wk to mod		40	1/16	carb py chl-graph (py) carb	.45	some fine grain sulphides in core (hard to see)	232 235	90 85	43				.01
				dark laminae show str. flow structure 238 & 239'		240		40	1/16	carb py chl-graph (py) carb	.45		240	90					
						80 wk to mod		35 20	1/16 1/16 to 1/8 x 3	carb py (cpy) carb (py) chl-graph py carb	.70		245 250	85 90	37				.09
				med. grain sandstone texture 253' to 254' 262' to 263' 267' to 268'		80 wk		variable	1/16 x many	carb (py) chl-graph py carb	.65	sulphides blotches associated with dark laminae as well as carb veins.	255	90	30				.05
						260		10	1/16 x 2	carb (py) (cpy)			260	70					
						75 wk		20 40	1/16 x 2 1/8	carb (py) carb (cpy) py chl-graph py chl-graph py carb	.40		265 270	90 90	37				.05

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-32
SHEET No. 6 of 8

ROCK TYPES & ALTERATION						L to Core Foliation Position Alteration Foliation Structure	GRAPHIC LOG	Valve L to Core Ash	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH REMARKS	Foliation Block.	Estimated Core Recovery %	R Q D	ASSAY RESULTS					
Oil	Pics.	K-Spec.	Melt*	Texture	Hardness											Sample Number	% Cu	% Mo	Estimated Grade		
						70 str to wlr	340	65	1/8x2	carb (py) chl-graph py((epy)) (chl-graph)(py), carb	.80	Badly broken core 334' to 350' 352' to 355'	331	85	30				.10		
						337' to 339' 343' to 344'								336		80					
						70 wlr to ND	350			chl-graph py carb carb py((epi))	.50		344	80	7				.05		
						ND								347		75					
														350		70					
						70 wlr to str	360	45	1/16x3	chl carb(py)(epi) carb(py) chl-graph py carb	.45		355	85	40				.03		
						str								360		90					
						70-80 wlr to ND	370	40	1/16x2	(chl-graph) py carb	.35		365	95	37				.01		
						ND			variable	1/16 to 1/8 x 5	carb(py)			370		90					
						70 mod to str	380	variable	1/16 x many	chl-graph carb py carb(py) chl-graph py(epy)	1.0		374	90	40				.08		
						str								379		90					
						65-70 str	388	?		chl-graph py carb chl-graph py(epi) chl-graph py carb py	3.0		382	90	23				.10		
						str				1/2 to 1/4 x 3				387		90					
						ND	390	variable	ND	carb				85							

388 FELDSPAR PORPHYRY (388 to 396')

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 22-32
SHEET No. 8 of 8

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG Foliation Alteration Fracture Structure	Veins L to Core Ails	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____ REMARKS	Estimated Core Recovery %	R Q D	ASSAY RESULTS					
Gr.	Plas.	K-Spec.	Mafic	Texture	Hardness										Sample Number	% Cu	% Mo		Estimate Grade	
						70 mod	45 20		1/16 1/16	(chl-graph) py carb carb (py)	.60	Badly broken core 453' to 457'	452 456 460	85 90	27					.02
						70 mod	variable 40		nl x many 1/8	(chl-graph) py carb carb py (ep?)	.70		465 470	90 85	33					.05
				medium grain sandstone texture 477' to 478' 489' to 491'		70 mod to ND	40		1/8	chl-graph py carb carb	.60	Badly broken core 469' to 470' 482' to 484' 496' to 498'	474 478	95 90	37					.103
						70 WR to ND	40		1/16	(chl-graph) py carb (py) (ep?)	.60	fine grain sulphides scattered throughout core	483 488	85 90	47					.02
						ND 70 WR				carb py (chl-graph) py	.55		493 498	90 90	40					.01
												END OF HOLE	498							

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-33
SHEET No. 1 of 6

LOCATION MIOCENE CLAUDIS BEARING 0 LATITUDE _____ CORE SIZE NO WIRELINE LOGGED BY G.F. MARKER
DATE COLLARED _____ LENGTH 350 DEPARTURE _____ SCALE OF LOG 1" = 10' DATE 31 AUG 1982
DATE COMPLETED _____ DIP -90 ELEVATION SEE MAP in pocket REMARKS _____

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Alt	Width of Vein	Mineralization	ESTIMATED % PYRITE	Leach Cap OX. DEPTH <u>34</u> SUP. DEPTH _____	Footage Block.	Estimated Core Recovery %	R O D	ASSAY RESULTS				
Qty.	Pie.	K-Spec.	Malle.	Testers	Hardness										L to Core Foliation	Foliation Alteration	Footage	Stratigraphic	REMARKS
									LIMONITE TO 34'		CASING TO 32'	32							
									lim on fractures		Badly broken core 32' to 34'	36	80	27					.01
									(py)	.15	42' to 50' 52' to 57'		90		853	.055	.006		
									scarcely fine grained sulphides scattered here			41							
									folded dark and light bands 36' to 57'			46	80	7					.01
									TRACHYTE PORPHYRY (52.5' to 33', 34' to 34.5') (and 29' to 41')	.10		48	85		85302	.016	.002		
									as per DDH 82-29, 12' to 18.5' rx type appears to intrude sedimentary unit			52	80						
									Breccia zone 41' to 52'	.40	miner pale green staining at 52' ? epi-chl? good sulphides associated with dark laminae (halos) also fine grain sulphides in light sand above zones	57	85	20	85303	.010	.002		.01
									Large fragment upto 2" from 50' to 52' cemented by calcite.			62							
									fine grain sand stone texture with occasional dark laminae 52' to 60'	.35	Badly broken core 58' to 60' & 61' to 65'	64	70	3	85304	.010	.002		.02
									FELOSPEAR PORPHYRY (60' to 62')		Possible Fault zone 99. 62' to 69'	68	80						
									as per DDH 82-29 24' to 28'		Badly broken core 67' to 70'		80						
									appears to intrude sedimentary unit			72							
									Breccia zone 73' to 85'	.10	Badly broken core 73' to 80'	74	80	0	85305	.010	.002		.01
									fragments 1/8" to 1/4"			75	70						
												78	80						
												80	50						

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GIBRALTAR MINES LTD.

HOLE No. 82-33
SHEET No. 2 of 6

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Azis	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____ REMARKS	Footage Discor.	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Qtz.	Plas.	K-Spec.	Mafic	Texture	Hardness											Sample Number	% Cu	% Mo	Estimate Grade
						ND				carb		Badly broken core 81' to 84'	84	50	23	85306	.012	.002	.01
						60 uk				Dark Laminae (py)	.15		87	85					
							90	variable	hl x many	carb				85	27	85307	.013	.002	.01
						ND				carb (py)	.10		92	85					
							100	90	1/6	carb				80	13	85308	.014	.002	.01
						70° mod		variable	hl x many	dark Laminae (py)	.10	Badly broken core 101' to 103'	101	85					
										carb		Possible Fault gg 102' to 103'	106	70					
							110			dark Laminae (py)		dark laminae contorted and folded 104' to 106'	110	90					
						70° mod				dark Laminae (py) (graphite)	.10	Badly broken core 112' to 120' 125 to 130 131' to 132' 133' to 152	112	90	3	85309	.016	.008	.01
													115	85					
							120							70	13	85310	.012	.002	.01
						70° wtz		30	hl	dark Laminae (py)	.20	fine grain sulphides scattered in core	122	80					
								5	1/4	carb (py)			127	80					
							130							85	10	85311	.010	.002	.01
						ND				(dark Laminae) (py)			132	90					
										carb	.15	some fine grained sulphides scattered in core	134	90					
										carb (py)				137					
							140							70					

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-33
SHEET No. 3 of 6

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	WIDEN of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH	REMARKS	Feetage Blk.	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Qty.	Plus	R-330c	Malle	Texture	Hardness											L to Core Feetage	Alteration	Structure	Feetage	Sample Number
						65 wr			dark laminae (py) carb	.10			142	85						
														40	0	85312	.008	.002		.01
					FERROSIL PERPHRY (152' to 157') same as 60' to 62'	ND		hl + 1/16	(dark laminae) (py) carb	.15	Badly broken core 156' to 161'		152	85	10	85313	.009	.002		.01
									(dark laminae) (py)		dark laminae contacted.		157							
						70° wr		1/4	(dark laminae) (py) py carb	.20				90	30	85314	.011	.002		.01
								hl x many	carb				166	85						
						70 med			carb dark laminae py graphite py carb dark laminae py	1.8	Badly broken core 170' to 175' str. increase in sulphide blotches		171	85						
													173	85	13	85315	.016	.006		.03
													176	85						
													179	85						
						?		hl x 3	dark laminae py carb	1.5	Badly broken core 182' to 199' Possible Fault gg 189' to 191'		182	90						
									dark laminae carb graphite py				187	80	7	85316	.015	.008		.02
														60						
						70 med			carb (py) dark laminae py dark laminae py	2.0	sulphides as thin (1/32) sheets or beds in the dark laminae		191	50						
													195	40	3	85317	.016	.002		.03
													197	75						

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GIBRALTAR MINES LTD.

HOLE No. 82-33
SHEET No. 4 of 6

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Act	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH REMARKS	Footage Disc.	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Oil	Pics	K-Spec	Malle	Testers	Hardness											Sample Number	% Cu	% Mo	Estimate Grade
						60 str to mod	210			dark laminae py carb dark laminae PY(?)	2.5	thin sulphide [?] beds	201	60	17	85318	.016	.002	.05
						65 wr	220	40	1/2"	carb py carb laminae (py)	1.0	Badly broken core 215' to 216' 229' to 250'	214	80	13	85319	.014	.002	.02
						60 wr	220	35	hl	carb			219	80					
						60 wr ? ?	230			dark laminae py carb (py) dark laminae py	1.5		222	90	3	85320	.011	.002	.02
						60 wr	230			carb (py) dark laminae py			227	80					
						60 wr	230			carb (py) dark laminae py			229	50					
						60 ? ?	240	variable	hl x 3	carb (py) dark laminae py carb (py)	1.8	core badly broken orientation of dark laminae not apparent except on a few small sections	234	60	0	85321	.011	.002	.03
						60 ? ?	240			carb (py) dark laminae py			234	70					
						60 ? ?	250			dark laminae py carb (py) (Epy) dark laminae py	2.0		242	60	3	85322	.010	.002	.03
						60 wr 60 ? ?	260			dark laminae py carb (py)	1.5	Badly broken core 255 - 258	255	70	13	85323	.010	.002	.02
						60 wr	260			carb (py)			258	70					
						60 wr	260			carb (py)			260	80					

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-33
SHEET No. 5 of 6

ROCK TYPES & ALTERATION						L to Core Foliation Alteration Footage Structure	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____	Footage Blacks	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Oil.	Flint.	K-Spar.	Malle.	Texture	Hardness							SUP. DEPTH _____				REMARKS	Sample Number	% Cu	% Mo
						?				dark Laminar material py carb	0.8	265	60	0	85324	.011	.002		.01
						60 ?	270			dark Laminar py carb	0.7	272 275 278	60 70 80	7	85325	.014	.002		.01
						65 ?	280			dark Laminar py carb	0.9	282 287	80 80	3	85326	.012	.002		.01
						65 ?	290			dark Laminar py carb graphite	1.0	292 297	80 60	3	85327	.011	.002		.01
					fine grain sandstone texture 300'-310' no dark Laminar	ND	300	variable	1/16 to 1/8 way	py carb (py) seri.?	0.5	292 302 305 309	70 85 90	7	85328	.009	.002		.01
						ND to 10 WR	310		hlx3	dark Laminar py carb	0.5	314 316 320	85 80 60	0	85329	.009	.002		.01

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-34
SHEET No. 1 of 5

LOCATION MIOKENE CLAIMS BEARING 0° LATITUDE _____
DATE COLLARED _____ LENGTH 295 DEPARTURE _____ CORE SIZE NO WIRELINE LOGGED BY G. E. BARKER
DATE COMPLETED _____ DIP -90 ELEVATION see map in pocket SCALE OF LOG 1" = 10' DATE 2 SEPT 1982
REMARKS _____

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Alt	Width of Vein	Mineralization	ESTIMATED % PYRITE	Leach Cap OX. DEPTH <u>85'</u> SUP. DEPTH _____	Footage Blkct.	Estimated Core Recovery %	R O D	ASSAY RESULTS				
Qty.	Plas.	K-Spac.	Malle.	Texture	Hardness										L to Core Foliation	Foliation Alteration	Footage Structure	Sample Number	% Cu
									LIMONITE TO 90'										
							20					20							
							30	hl x 3	carb lim	0	Badly broken core 20' to 37'	27	60	0	85333	.021	.002		.01
							30		lim			31	80						
							40	5 to 40	carb lim	0		38	85	0	85334	.028	.002		.01
							40		lim (carb) lim	0	Badly broken core 42' to 51' 56' to 57'	42	50	3	85335	.026	.002		.01
							50		lim			51							
							60	variable	carb epi (lim)	0		56	85	23	85336	.026	.002		.01
							60					85							

GEOLOGICAL BRANCH
ASSESSMENT REPORT

10,878

TRACHYTE PORPHYRY
(20 to 230')
A dark grey green
vx. characterized by
prominent euhedral
pale grey feldspar
lathes, commonly
aligned which make
up 30% of the vx.
and often reach 1"
in length. Also present
are squat dark green
augite? phenocrysts
up to 1/16" dia. forming
25% of vx. Matrix
is dark grey-green
fine grained to
aphanitic material.

60% of lathes oriented, between
40-60° to core axis

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-34
SHEET No. 2 of 5

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structures	Veins L to Core Axis	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Oil	Pkt.	X-Ray	Metallic	Texture	Hardness											Sample Number	% Cu	% Mo	Estimate Grade	
					Breccia 61' to 63'					lim on fractures		Fault 99 60' to 61'	61							
						L to Core 40' to 60' to core axis	70	0 to 10	1/8	carb Lim	0		66	90	40	85337	.025	.002	.01	
								0 to 15	1/4	epi carb (MnCO ₃ + CaCO ₃)				90						
						L to Core 40' to 60' to core axis	80	40	1/8 x 2	(epi) carb Lim	0		72	90	33	85338	.025	.002	.01	
								10	1/16	Lim carb Lim			77	90						
								80	5	1/4	carb Lim (lim)	0		82	90	37	85339	.032	.002	.01
					40 to 50% of phenocrysts are small (2 1/10" dia) & anhedral 80' to 91' remainder are euhedral lathis up to 1" long	L to Core 60% of lathies oriented 63' to 112'	90	5	1/4	carb Lim (lim)	0		87	90						
								5	1/4	carb (py)	.05	Poss. Fault 99 91' to 92'	92	90	23	85340	.031	.002	.01	
								100		py	.20		97	90						
													102	90	27	85341	.030	.002	.01	
						L to Core 60% of lathies oriented 63' to 112'	110	30	1/8	carb epi (in matrix)			107	90						
								110	30	1/8	carb (py) epi in matrix	.15		111	90	40	85342	.032	.002	.01
					Breccia zone 112' to 133		ND	variable	HL x 3	carb (py)			117	85						

GRID _____

GIBRALTAR MINES LTD.

HOLE No. R2-34
SHEET No. 3 of 5

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG Foliation Alteration Fossils Structures	Veins L to Core Asth	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH REMARKS	Footage Block	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Qtz.	Plat.	K-Sp.	Mafic	Texture	Hardness											Sample Number	% Cu	% Mo	Estimate Grade
						ND		variable	hl x 5	carb epi in matrix (seri) py	.25	Badly broken core 129' to 138' sulphide a thin smears in fractures	121 125 129	90	20	85343	.027	.002	.01
							130			((lim)) ((py)) (hem)	.05		132 136	70 85	7	85344	.023	.002	.01
							140	variable	hl x many	carb			142	85					
							150	5	yg	carb (epi)(chl) (hem)	.01		146	90	7	85345	.040	.002	.01
					Laths have a bright blue-green tint 152' to 166'		160	20	yg	carb (chl)(seri)(epi) (hem)	.02	Badly broken core 159' to 160' Poss FAULT gg	151 155	90 90	20	85346	.035	.008	.01
					feldspar phenocrysts smaller and subhedral 165' to 170'		170	variable	hl x many	carb hem epi (hem)	.02	Poss Fault gg 64' to 65'	160 165	90 80	20	85347	.028	.002	.01
							180	variable net	hl x many	(hem) carb	.02	Badly broken core 171' to 176'	172 175.5 180	90 80 80	13	85348	.030	.002	.01

60% of Laths oriented 45 to 60° to core axis 132' to 187'

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-34
SHEET No. 4 of 5

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Ash	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____ REMARKS	Footage Blacks.	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Gr.	Flux.	K-Spar.	Mafic	Texture	Hardness										L to Core Foliation Alteration	Footage Structure	Sample Number	% Cu
					Breccia zone 187' to 201'		variable net	hl x many	(py) carb (hem)	.10		185	90	23	85349	.032	.004	.01
						190						190	90					
						ND	variable	N x many	epi carb	.01	Badly broken core 192' to 198'	194	90	17	85350	.027	.002	.01
						200						198	85					
					Breccia zone 208' to 219'	ND		1/6 x 2	carb (epi)(chl)(seri)	.01		202	90	40	85351	.035	.004	.01
						210			carb epi			207	90					
					leucocratic zone 214' to 215' has sand stone texture fragments and phenocrysts on each side	ND	0-5	1/6	epi carb	.01		212	90	47	85352	.028	.004	.01
						220			(seri)(epi) carb			217	90					
					Breccia zone 223' to 230' No Feldspar lathic can be see from 224' to 225' and 226' and 229' Subhedral laths 224' to 230' rx type change at 230'	ND			carb (epi)	.02	Badly broken core 220' to 222' 225' to 227' 234' to 237' 238' to 239'	222	90	23	85353	.025	.002	.01
						230	variable	hl x 5	carb			227	80					
					VOLCANIC CLASTIC UNIT (230' to 295') A fine grained med. to pale grey elastic sedimentary unit with widely spaced graphitic	60 mod to wk			dark laminae = argillaceous- chloritic-graphitic bands (py) carb py	.25	fine grain sulphides scattered in core also some blotches in fractures.	232	90	10	85354	.016	.002	.01
						240						236	90					
												240	90					

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-34
SHEET No. 5 of 5

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Ave	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH REMARKS	Footage Block.	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Gr.	Pls.	K-Spec	Malle	Texture	Hardness											Foliation Alteration	Footage Structure	Sample Number	% Cu
						70 Very wk	250	variable	hl x 3	carb (dark laminae) (py)	.20	Badly broken core 251' to 255'	242 246	80 85	17	85355	.013	.002	.01
						70 Very WR	260	80 variable	1" hl x many	(dark laminae) (py) carb (py)	.25	Sulphide blotches associated with dark laminae scattered fine grain sulphides in grey siltstone to sandstone Textured rock	251 252 255 260	90 90 90	13	85356	.012	.002	.02
						ND	270	0 + 50	hl x 2	carb carb (py)	.10	Badly broken core 265' to 271' 272' to 274' 278' to 280' 282' to 284' 286' to 295'	262 266 268 270 272	85 75 85 90 90	10	85357	.012	.002	.01
						ND	280	variable	hl x many	carb py	.25		276 277 280	85 90 80	10	85358	.011	.002	.01
						ND	290			((py)) carb	.05	poss. Fault gg 286' to 288'	283 288	90 80	17	85359	.011	.002	.01
						ND	295			((py)) carb dark laminae	.05	E.O.H.	70 295	70	7	85360	.014	.002	.01

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-35
SHEET No. 2 of 4

ROCK TYPES & ALTERATION						L to Core Foliation Alteration	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH REMARKS	Foliation Blacks.	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Gr.	Pkt.	K-Spar.	Malle.	Texture	Hardness											Foliation	Structure	Sample Number	% Cu
						ND	70	variable	1/4 to 1/8	(lim) poss. Mn CO ₃	0	orange-pink color with calcite vein	61	90	37	85365	.025	.004	.01
						ND	80	variable	1/4 x 5	carb	0		66	70					
					phenocrysts much less distinct, laths smaller and subhedral 60' to 89'	ND	80			epi Lim (carb) hem Lim	0	Pass. Fault gg 71' to 72' Badly broken core 76' to 78' pass. Fault gg	72	80	10	85366	.021	.002	.01
						ND	90			carb Lim Lim	0	Badly broken core 80' to 83' 85' to 88' 90' to 101'	78	80					
							90	1/4 to 5	1/8	carb	0		82	90	10	85367	.023	.002	.01
							100	5	1/8	(lim) carb	0		87	75					
							100	5	1/8	carb	0		91	85	10	85368	.026	.002	.01
							110	5	1/8	carb carb	0		96	85					
							110	10	1/16	carb carb	0		85	85	13	85369	.024	.002	.01
							110				0		101	90					
							120	35	1/8	carb	0		111	90	30	85370	.025	.002	.01
							120				0		116	85					

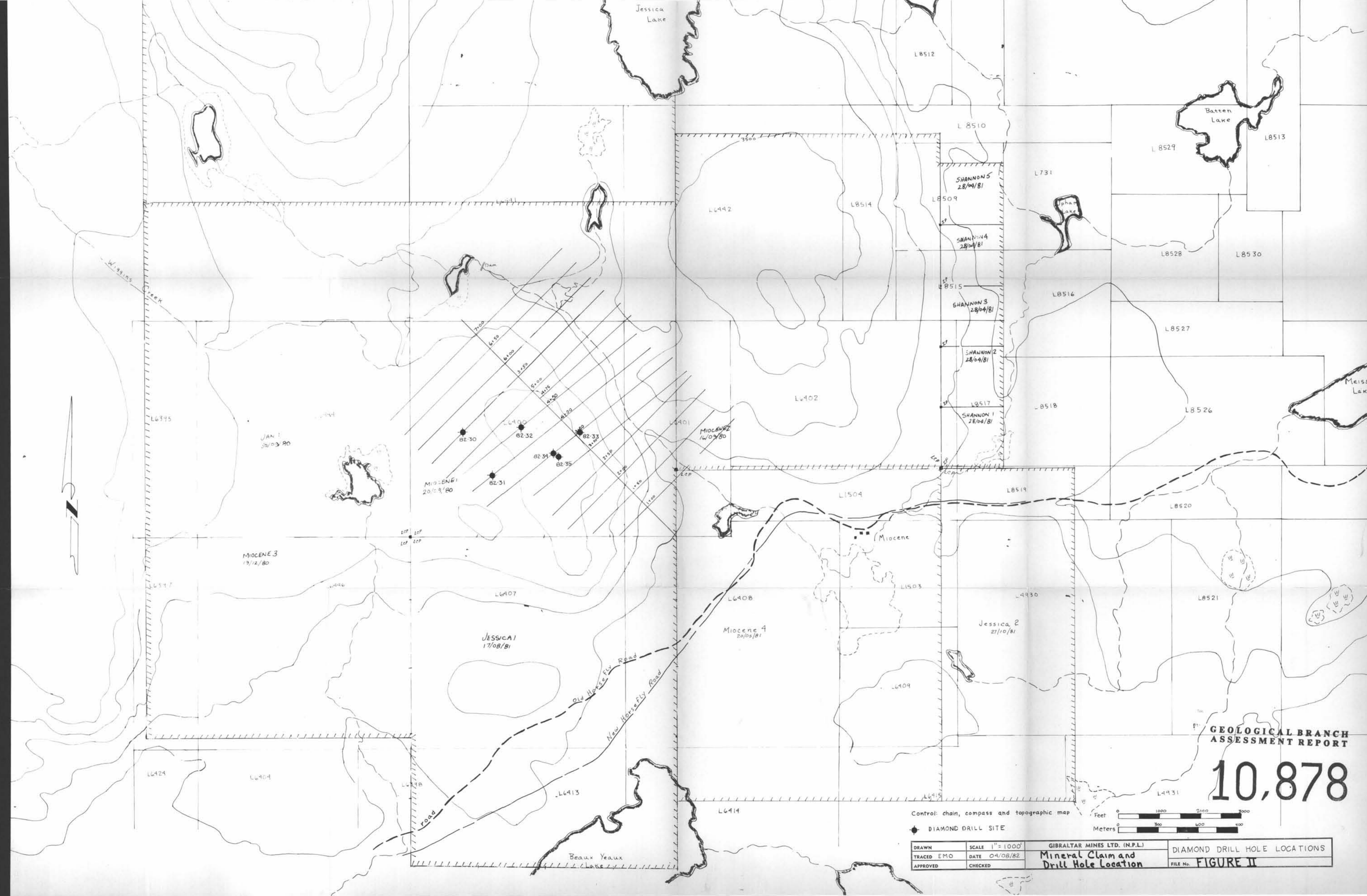
most laths oriented below horizontal
axis. below 89' to 121'

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-35
SHEET No. 3 of 4

ROCK TYPES & ALTERATION						L to Core Foliation Alteration	GRAPHIC LOG	Veins L to Core Ails	WIDTH of VEIN	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH	REMARKS	Footage Blacked	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Oil	Flint	K-Spar	Malle	Talcum	Herdsen												Sample Number	% Cu	% Mo	Estimate Grade
					phenocryst very small (2 1/16" dia.) and anhedral 121' - 126.5'	ND				(py)		small sulphide blob	121							
							10	1/16 x 2	carb		.05			126	75	30	85371	.017	.002	.01
						Lathes oriented between 80 to 90° to axis 126.5' to 138'	130							130	90					
							20	1/16	carb		.02			138	90	20	85372	.030	.002	.01
							140						140	80						
					Breccia zone 148' to 151' 152' to 153'	ND	40	1/16 x 2	carb (epi)		.01	Badly broken core 148' to 163'		142	85					
							150		(hem)				147	80	3	85373	.026	.002	.01	
							150		(hem)				150	90						
							150		(epi)				152	80						
							150		hem epi (carb)		.01		155	80	0	85374	.023	.002	.01	
							160		hem			Press. Fault 99 158' to 160'		60						
					Breccia zone 159' to 194' phenocrysts are apparent	ND	variable	1/4 many	carb epi hem		.02	Badly broken core 168' to 171' 172' to 181' 184' to 191'		162	70					
							170						166	80	10	85375	.020	.002	.01	
							170						169	80						
							6	1/8	carb (hem) epi				172	70						
							35	1/8	carb		.01		173	80						
							35		(hem)				175	80	0	85376	.028	.002	.01	
							180						80							

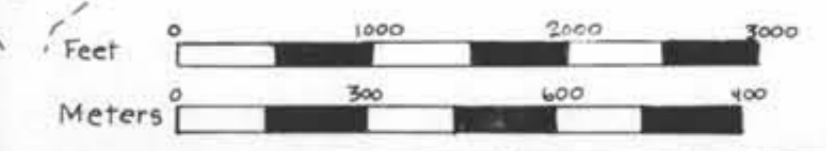


GEOLOGICAL BRANCH
ASSESSMENT REPORT

10,878

Control: chain, compass and topographic map

◆ DIAMOND DRILL SITE



DRAWN	SCALE 1"=1000'	GIBRALTAR MINES LTD. (N.P.L.)	DIAMOND DRILL HOLE LOCATIONS
TRACED EMO	DATE 04/08/82	Mineral Claim and Drill Hole Location	FILE No. FIGURE II
APPROVED	CHECKED		