DIAMOND DRILL REPORT
on the DOR CLAIM GROUP
Cariboo Mining Division 93A/7W
(Latitude 52°17.5', Longitude 120°57')
OWNER: EUREKA RESOURCES, Vancouver, B.C.
OPERATOR: Gibraltar Mines Limited, McLeese Lake, B.C.

G. Barker, G.Bysouth **January 4, 1990**

DIAMOND DRILL REPORT

on the

DOR CLAIM GROUP

Cariboo Mining Division

93A/7W

(Latitude 52°17.5', Longitude 120°57')

OWNER
Eureka Resources Inc.
837 East Cordova St.
Vancouver, B.C.
V6A 3R2

OPERATOR
Gibraltar Mines Limited
P.O. Box 130
McLeese Lake, B.C.
V0L 1P0

Authors: G. E. Barker
G. D. Bysouth

Submitted: January 4, 1990

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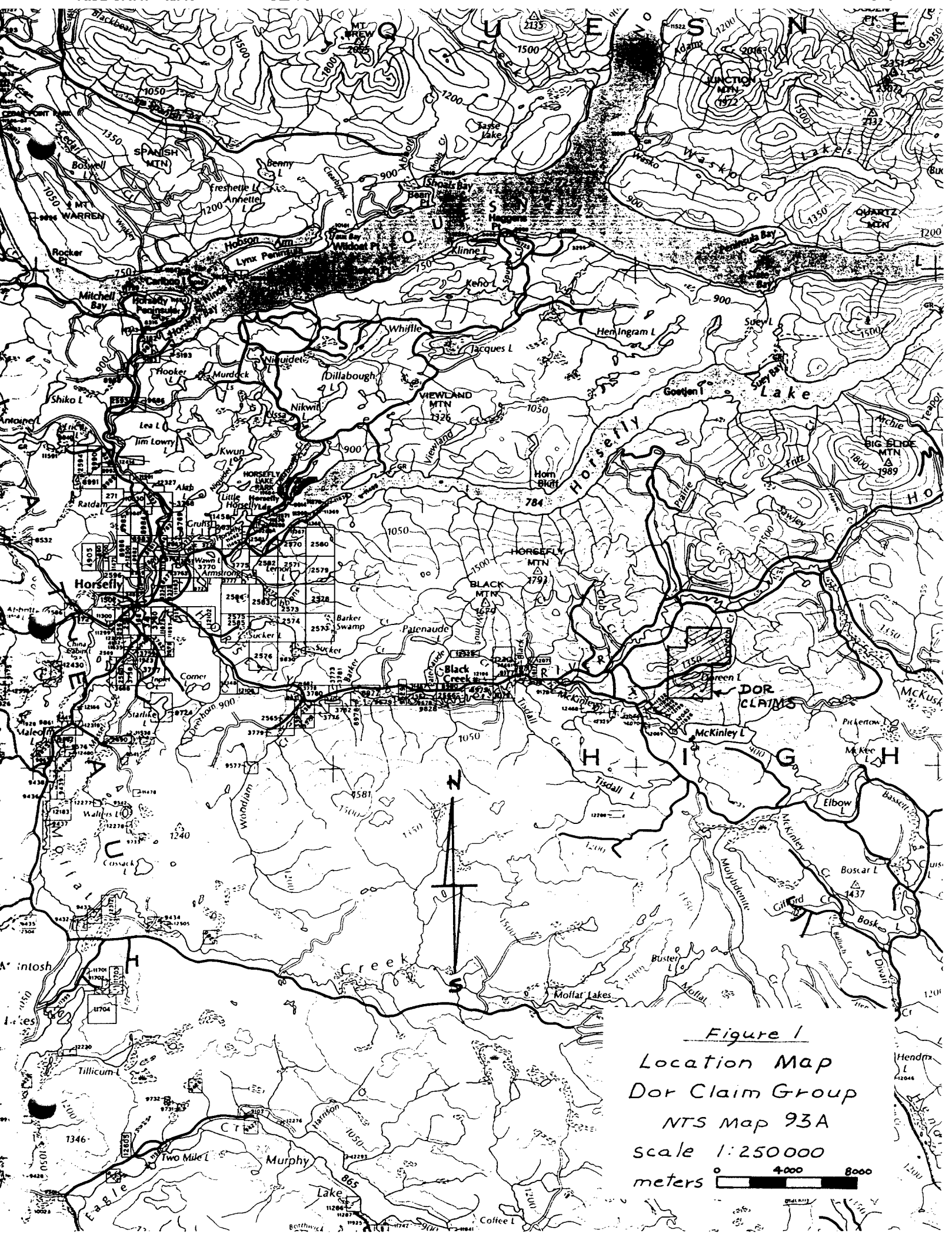


Figure 1

Location Map

Dor Claim Group

NTS Map 93A

scale 1:250000

meters 0 4000 8000

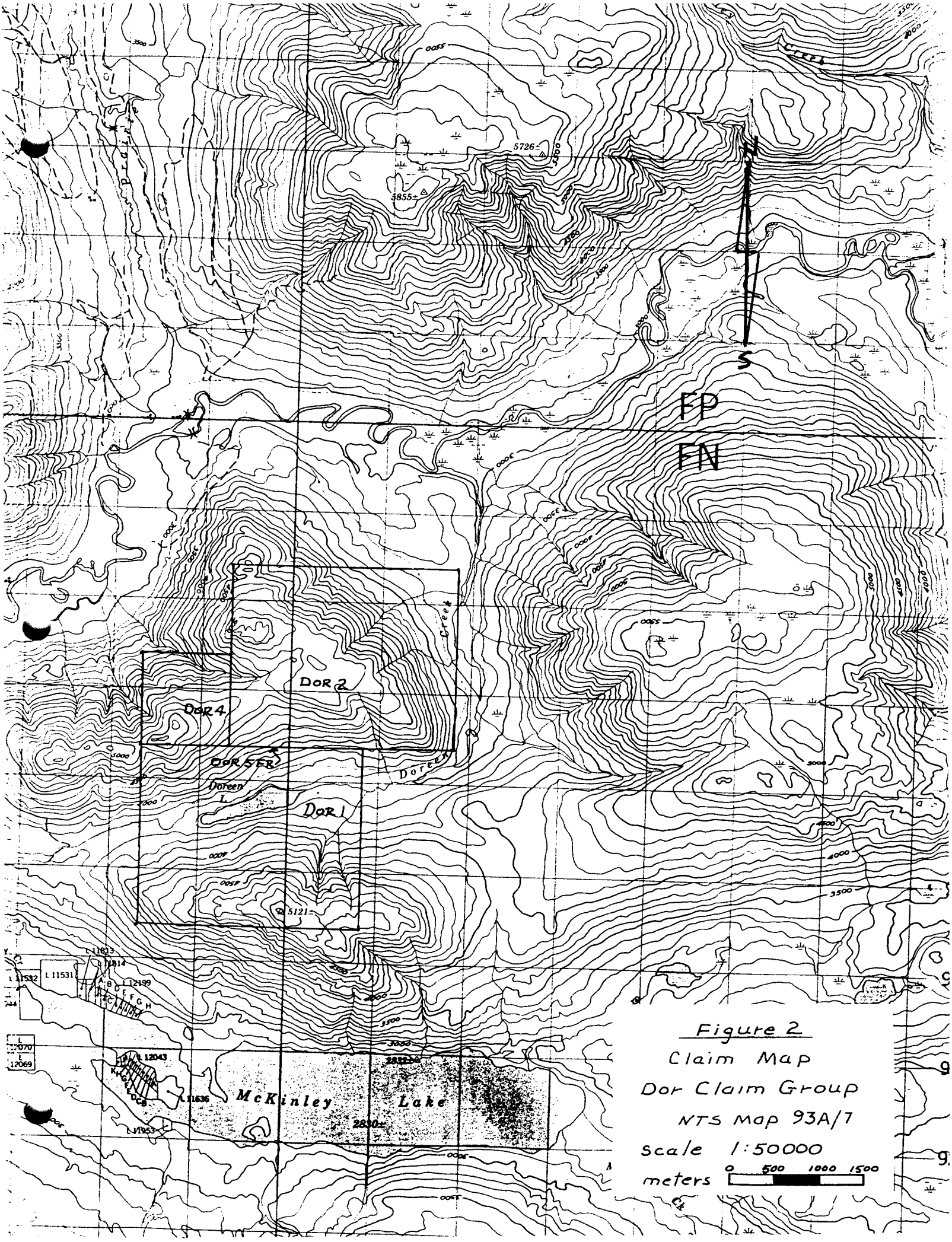


Figure 2

Claim Map

Dor Claim Group

NTS Map 93A/7

scale 1:50000

meters 0 500 1000 1500

1. INTRODUCTION

The Dor Mineral Claim Group is located in the Cariboo Mining Division approximately 32 km. east of the settlement of Horsefly, B.C. (see Figure 1). The claims lie at elevations between 3700- and 5100-feet within an area of moderate to steep relief and generally poor drainage, typical for this part of the Cariboo District.

Access to the claims is provided by an all-weather logging road which extends easterly from Horsefly along the Horsefly River for about 35 km., to a branch road leading to a logging area east of Doreen Lake. (See Figure 2). The main area of work lies along a south-facing slope north of the east end of Doreen Lake, and can be reached by a four-wheel drive type of road which extends up the north side of Doreen Creek from the main logging road near the Doreen Creek bridge.

The first record of work in the Doreen Lake area is provided in the Minister of Mines G.E.M. Report for 1974, page 239, in which Dome Exploration Ltd. and Newmont Mining Corporation are described as doing reconnaissance geological mapping and geochemical soil sampling over an area of minor pyrite and chalcopyrite mineralization. In 1981, this approximate area was restaked as the Dor claims by Keron Holdings Ltd., and a subsequent soil survey revealed anomalous zones of gold and copper enrichment. The Dor claims were later acquired by Eureka Resources Inc. who undertook a program of soil sampling, geological mapping, rock chip sampling and VLF-EM surveys. By 1983, a large east trending gold soil anomaly had been outlined, and numerous zones of gold enrichment established in nearby hornfelsic rock. A significant east-trending E.M. anomaly was also delineated which was largely coincident with the geochemical anomaly. In 1984, the Dor claims were optioned to Noranda who confirmed the E.M. anomaly and tested it with two short drill holes. The holes encountered a narrow zone of massive pyrrhotite and several zones of gold enrichment. In 1989, the Dor property was optioned to Gibraltar Mines Ltd.

This report covers a diamond drill program conducted by Gibraltar Mines Limited during the period August 14 to August 30, 1989. Six holes were drilled totalling 1212.71 meters. The contractor was L.D.S. Diamond Drilling Ltd. of Kamloops, B.C. The drilling was confined to the Dor 2 mineral claim, but some drill road construction also extended to the Dor 1 claim. The core is currently stored at the Gibraltar Mines plant site.

2. MINERAL CLAIMS

The mineral claims of the Doreen Lake Property are shown in Figure 2 and claim information is tabulated below:

CLAIM NAME	RECORD NO.	NO. OF UNITS	DATE OF RECORD
DOR 1	3261	20	MARCH 27, 1981
DOR 2	4091	20	OCTOBER 15, 1981
DOR 4	10102	4	OCTOBER 4, 1989
DOR 5 FR	10103	1	OCTOBER 4, 1989

Dor 4 and Dor 5 Fr are currently owned by Gibraltar Mines Limited. Dor 1 and Dor 2 are owned by Eureka Resources Inc. but held under option by Gibraltar Mines Limited.

3. GENERAL GEOLOGY

The Dor claims lie within the Quesnel Trough, a linear North-Northwest trending belt of early Mesozoic volcanic and sedimentary rocks. The Dor claims are underlain by a series of sedimentary and volcanic units of Upper Triassic to Lower Jurassic age which includes a sequence of interbanded medium to dark green andesitic tuffs, flows and breccias, and green to black, aphanitic argillaceous units, some of which may have a volcanic origin. Banding and bedding is not easily observed due to metamorphism of the various units.

The above assemblage has been intruded by a stock of fine to medium grained diorite. Near the intrusive contact, the interbanded volcanic-sedimentary units have been thermally metamorphosed into hard dense light grey to black aphanitic hornfels. The hornfels commonly contains very fine grained disseminated pyrrhotite and pyrite, which in a few exposures appears to also be associated with disseminated chalcopyrite.

4. DRILL PROGRAM

4.1 Objective

The primary purpose of the 1989 drill program was to test the inferred bedrock source of the large east trending geochemical gold anomaly outlined by Eureka. A secondary purpose was to determine the geological nature of the sulfide mineralization found in rock exposures within and adjacent to the geochemical anomaly.

4.2 Results

Two vertical and four angle N.Q. diamond drill holes were completed. Some difficulty was encountered in drilling the hard, highly fractured hornfelsic rocks but recoveries generally remained above 95%. The location of the holes is shown in Figure 3 and copies of the logs are provided in the Appendices. Survey control was by compass, hip chain and topographic map. Assays of the core were unavailable at the time the Statement of Work was submitted.

Drill holes 89-1, 89-2, 89-3, 89-4 and 89-6 have encountered similar rock types. All holes for example, have intersected an alternating sequence of fine grained siliceous black argillite and fine to medium grained grey-green tuff. The tuff appears to be of andesitic or dacitic composition and generally lacks bedding structure. The argillite appears to be composed mainly of silica with minor and variable amounts of graphite and carbonate. Fine bedding structure is often shown by alternating grey and black laminae. Bedding angles, as indicated in vertical hole 89-3, suggest the sequence dips at 70- to 80-degrees. The thickness of the alternating tuff and argillite beds vary between one- and 40-meters. All the above holes also indicate the argillite-tuff sequence has been intruded by a series of grey seriate textured dacitic dykes. Heat metamorphic effects occur on most dyke contacts and some brecciation of the host rock was noted in holes 89-2 and 89-4. A steep dip can be inferred for most of the dykes, particularly in the case of drill hole 89-2 which suggests the dyke contact lies along the 65-degree axis of the hole. Another dyke rock was noted in holes 89-4 and 89-6; this is a grey-green fine grained seriate textured hornblende porphyry having conspicuous black prismatic hornblende phenocrysts. All the rock units contain very fine grained disseminated pyrrhotite and pyrite which generally averages between one- and two-percent, and may exceed seven-percent in some three- to six-meter sections. The relationship between pyrite

and pyrrhotite is not clear, but there is some suggestion that the proportion of pyrite increases towards the west. Massive brown pyrrhotite segregations occur in many of the holes, particularly in hole 89-1, in which several massive zones up to .5 meters thick have been intersected. Minor chalcopyrite often accompanies the massive pyrrhotite. All the rock units are cut by numerous quartz and quartz-carbonate veinlets which occasionally also contain sulfides.

Drill holes 89-3, 89-4 and 89-6 have encountered higher grades of contact metamorphism associated with zones of plutonic rock. In the case of 89-3, a biotite hornfels was intersected near the bottom of the hole at 201 m., followed by a zone of grey diorite and more biotite hornfels. Further to the west, hole 89-4 appears to be confined entirely to alternating zones of biotite hornfels, recrystallized tuff and dacitic dykes. A four meter zone of dioritic rock was also noted. Still further west, hole 89-6 has intersected a sequence of breccias, zones of biotite hornfels and recrystallized tuff, and a 17-meter wide zone of grey quartz-diorite. The breccias are of particular interest. One zone consists almost entirely of quartz-diorite fragments. Another is a mixture of various plutonic porphyry fragments, some of which appear felsic.

Drill hole 89-5, which was the most westerly hole of the program, was confined almost entirely to a dioritic rock type. The diorite appears mainly as a fine to medium grained, equigranular plutonic rock consisting essentially of plagioclase and mafic minerals. Various degrees of propylitic alteration were noted throughout the hole, mainly involving a saussuritization of plagioclase and choritization of mafic minerals. Cutting the propylite were numerous zones of dark chlorite-green alteration assumed to be an assemblage of chlorite, silica and minor carbonate. This same alteration also occurs as halos and envelopes around certain quartz veins. Zones of massive epidote occur throughout the hole, as well as quartz veining accompanied by various combinations of chlorite, epidote and carbonate. Disseminated pyrite was noted in most of the rock in amounts averaging between one- and two-percent. Pyrite and pyrrhotite also occur in veins either alone or with the other vein minerals. One zone, at about 213-meters, contains massive pyrrhotite, pyrite and chalcopyrite in a quartz-carbonate-chlorite gangue over a width of about .6-meters. Of interest in this hole, was the occurrence of hornblende porphyry dykes similar to those of holes 89-4 and 89-6, which were clearly intrusive to the diorite.

4.3 Interpretation

The diamond drill program has indicated the geochemical anomaly is underlain in part, by a contact zone formed between a dioritic pluton and an argillite-tuff sequence. The diorite appears to have been altered by an early hydrothermal or deuteric phase, which has caused pervasive propylitic alteration, and a later hydrothermal phase, which has caused localized chlorite-quartz-carbonate alteration. Sulfides, mainly pyrite and pyrrhotite with minor chalcopyrite and molybdenite appear to have accompanied the later alteration phase. The sulfide mineralization also appears to have been a relatively late event since it occurs in all rocks including the hornblende porphyry which is clearly younger than the diorite. The presence of a quartz diorite zone in hole 89-4 and felsic fragments in nearby breccias are of interest since it suggests the pluton is differentiated into more acidic phases. Narrow contact effects immediately next to the pluton, which involve the transformation of argillite to biotite hornfels and the recrystallization of tuff to granoblastic textured rock, suggests an epizonal level of emplacement. An irregular easterly dipping contact zone is also indicated by the distribution of biotite hornfels and

plutonic rock in drill holes 89-3, 89-4 and 89-6. The fact that the drill holes are distributed along a westerly axis, and each hole, with the exception of 89-5, has intersected the argillite-tuff sequence as well as numerous dacite dykes suggests that both the argillite-tuff sequence and the dykes strike close to a westerly direction. This appears even more likely when it is considered that both the dykes and host rock dip at 70- to 80-degrees, possibly to the north. If a westerly strike is correct, then this drill program has been confined to only a narrow horizon within the sedimentary-volcanic host rock formation. The drilling may, however, lie at a large angle to the thermal metamorphic gradient set up by the pluton; that is, the pluton at this point is considered to strike northerly.

5. STATEMENT OF EXPENDITURES

1989 Diamond Drill Program - DOR Claim Group

1.	Site Preparation Costs		
	Gruh's Bulldozing Ltd.		
	D8H Cat Bulldozer, 42 hrs. x $107.50 per hr.	$4,515.00	
	Rauch Lowbed Service	292.50	
		----------	$4,807.50
2.	Diamond Drilling Costs		
	LDS Diamond Drilling Ltd.		
	All inclusive charge, 1213.71m. x $56.89 per m.		69,049.44
3.	Personnel Costs		
	3.1 Field Work and Core Splitting		
	C. Trudeau, Aug. 14 to Sept. 1, 1989		
	120 hrs. x $17.33 per hr.	2,079.60	
	P. Baatz, Sept. 12 to Oct. 6, 1989		
	184 hrs. x $11.53 per hr.	2,121.52	
	3.2 Supervision, Core Logging, Report Preparation		
	G. Barker, Aug. 1 to Oct. 6, 1989		
	48 hrs. x $27.38 per hr.	1,314.24	
	G. Bysouth, Aug. 1 to Oct. 6, 1989		
	24 hrs. x $38.54 per hr.	924.96	

			6,440.32

	TOTAL		$80,297.26
			==========

6. CONCLUSIONS

This diamond drill program has indicated a plutonic porphyry mineralizing system has been operative within the general area of the geochemical anomaly.

An I.P. survey is now required over most of the property and the resulting anomalies must be tested by diamond drilling.

G. D. Bysouth
Senior Geologist

G. E. Barker
Exploration Geologist

GIBRALTAR MINES LIMITED

APPENDIX A. Statement of Qualifications - G. D. Bysouth

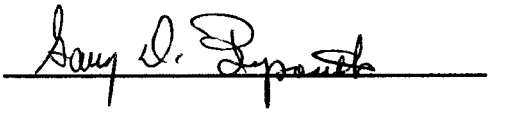
I, Garry D. Bysouth, of Gibraltar Mines Limited, McLeese Lake, British Columbia, do certify that:

1. I am a geologist.

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

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

4. I personally participated in the field work, supervised the program, logged about 50% of the core and interpreted the results.



Garry D. Bysouth

APPENDIX B. Statement of Qualifications - G. E. Barker

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

1. I am a graduate of the University of Waterloo, Waterloo, Ontario, with a B.Sc. degree in General Science, 1985.

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

3. I personally participated in the field work, logged about 50% of the core and interpreted the results.

George E. Barker

APPENDIX C. Drill Logs

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200 HOLE NO GXD89-1 Page 1 of 7

LOCATION DOREEN LAKE BEARING 360° LATITUDE _____ CORE SIZE NQ

DATE COLLARED 15 AUG. 1989 LENGTH 198.42 m (651') DEPARTURE _____ DATE 18 SEPT. 1989

DATE COMPLETED 18 AUG. 1989 DIP 55° ELEVATION _____ LOGGED BY G.E. BARKER

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE No.	ASSAY VALUES
				CASING TO 3.66m					
ANDESITIC TUFF - BLK ARGILLITE UNIT 3.66m to 39.8m Fine to med. grained grey-green volcano clastic sediments minor to med. amounts of qtz-carb as viens and stockw. (s.w.) 1 to 2.5% fine grain po-py disseminated in core plus small veins. Also small zones of massive brownish po + (cp) Zones of Black aphanitic argillite are noted on graphic Log. Core is quite fragmented in places. H. Stab Ave. Harder siliceous and cherty zone are noted. Tuff = ▨ Argillite = ▤		6	qtz-carb 3mm X 2 45°	fragmented core = ▨	4.88	90	1.5	85701	
		9	minor limonite to 6.8m qtz-(po) 1cm 80° to core axis	( ) = minor amount (( )) = very min. "	7.92	88	1.0	85702	
		12	qtz-carb 2mm X 2 40°	siliceous zone	10.97	85	1.0	85703	
		15	qtz-carb 1mm X 2 40° + 50°	to core axis	14.02	89	1.5	85704	
		18	qtz-carb-chl 5cm 85° massive po((cp))		17.07	90	3.0	85705	
		21	massive po	po is a purple-brown color	20.12	97	4.5	85706	
		24	massive po(cp)		23.16	96	7.0	85707	
		27		coarser grained	26.21	96	2.5	85708	
		30		sharp cherty leading fragments	29.26	95	2.0	85709	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200 — HOLE NO GXD89-1 — Page 2 of 7

GEOLOGY	FOLN.	m. DEPTH	MINERALIZATION	REMARKS	BLOCKS	% REC	% PY+	SAMPLE NO.	ASSAY VALUES
		33	massive po (brownish) min + py - py ((cp))	slump features? core has a crushed look	32.31	96	6.0	85710	
		36	massive po (cp) chlorite qtz-carb. 3m x 2 70°		35.36	97	5.5	85711	
ARGILLITE 39.8m to 50.6m A dark green to black aphanitic rock interbedded with lighter grey-green bands. Bedding appears to be ≈45° to core axis. Core is very angular and fragmented. The rx appears to be siliceous H = 6.5-7, 1 to 3% sulphides (po+py) disseminated and in small veins + some small "patches" of brown po. Broken core surface has a dark chloritic look, minor qtz-carb veining.		39	massive po (cp) Lacy qtz-carb stock work (carb-qtz healed crush zone?)	core is lighter color, increase in qtz. carb.	38.40	96	7.5	85712	
		42	massive po (cp)		41.45	95	5.0	85713	
		45	qtz-carb 5mm x 3	40-45° to core axis	44.50	93	1.5	85714	
		48	qtz-carb 3cm x 2 40°		47.55	91	1.0	85715	
HORNFELS ? 50.6 to 62.9m Similar to 39.8m to 50.6m except Rx is mainly grey to grey-green intermixed with dark green to black zones. Some gypsum noted on fractures.		51	po (brown)		50.60	90	3.0	85716	
		54			53.64	87	1.5	85717	
		57	gypsum	core has a crushed look	56.69	92	1.0	85718	
		60			59.74	Ec	1.0	85719	
		63		1.5m of core lost due to drill grinding.	62.74	45	1.0	85720	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD89-1 Page 3 of 7

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	BLOCKS	% REC	% PYr	SAMPLE NO.	ASSAY VALUES
INTRUSIVE Dacite? 62.9 to 67.3m fine grained seriate texture, grain size upto 1mm Consists of qtz, white feldspar and chlorite altered hornblende Large angular fragments of argillite at contact. Hornfels near contact H 6.5 to 7. disseminated sulphides	ND	66		intrusive	65.84	85	1.5	85721	
	ND	69	qtz-carb 1m x 4 35-45°	Breccia - Hornfels	68.88	90	1.0	85722	
		72			71.93	96	1.0	85723	
		75	qtz-carb 3mm 45°		74.98	97	1.5	85724	
ARGILLITE 67.3m to 81.4m Black aphanitic Rx similar to 39.8m to 50.6m, minor qtz carb veins, 1-2% po-py disseminated and in small veins and "smears"		78			78.03	97	1.0	85725	
		81			81.08	98	1.0	85726	
ANDESITIC TUFF ? 81.4 to 124.1m A fine to medium grained Rx some Large clasts upto 3mm, grey to grey-green color. Zones of siliceous (cherty) Rx, fragmented in places, fragments are sharp and angular H 6.5-7. Some light grey and dark green to black bands ≈ 70-80° to core axis, minor qtz-carb. veins and stock work. Also zone of black Argillite with "lacy" qtz-carb stock work.		84			84.12	96	1.0	85727	
		87			87.17	90	1.0	85728	
		90	Fault zone?	core lost. Drillers triconed for 3ft. Siliceous (cherty)	90.22	60	1.0	85729	
		93		zone, broken core - fragments sharp and angular	93.27	80	0.5	85730	
		96	qtz carb (lacy) qtz-carb 1cm 35°			95	1.0	85731	

GIBRALTAR MINES LTD
EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD89-1 Page 4 of 7

GEOLOGY	FOLN.	m. DEPTH	MINERALIZATION	REMARKS	BLOCKS	% REC	% PYT	SAMPLE No.	ASSAY VALUES
		99		large clasts up to 3mm	96.32 / 99.36	97	1.0	85732	
		102		Blk Argillite	102.41	97	1.5	85733	
		105	"Lacy" qtz-carb stock work	scooty looking mica schist?	105.46	98	0.5	85734	
		108	qtz carb, 1cm 45°	slump or flow features	108.51	91	1.0	85735	
		111	qtz-carb-clt., 3cm 50°	Baely brecciated core	111.56	93	1.0	85736	
		114	small qtz carb veins	siliceous 30% cherty looking	114.60	94	1.5	85737	
		117	wk qtz-carb stock work		117.65	95	1.0	85738	
		120	qtz-carb, 5mm X2 40-50°		120.70	80	1.0	85739	
		123			123.75	93	1.5	85740	
		126			126.80	97	1.0	85741	
		129				85	1.0	85742	

INTRUSIVE?
124.1 to 126.3m
Similar to Rx @ 62.9 to 67.3m
(may be coarse volcanic tuff)?

GIBRALTAR MINES LTD
EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD 89-1 Page 5 of 7

GEOLOGY	FOLN.	m. DEPTH	MINERALIZATION	REMARKS	BLOCKS	% REC	% PY+	SAMPLE No.	ASSAY VALUES
INTRUSIVE? 130.2 to 133.5 m Similar to Rx @ 124.1 to 126.3	ND	132	small carb veins		129.84				
					132.89	95	1.0	85743	
		135	Siliceous Rx slumping and/flow features			97	1.0	85744	
ARGILLITE 135.60 to 158.9 m Black siliceous Rx (aphanitic) breaks into very sharp angular fragments. Some is interbedded with small zones of grey-green silt size material. Some slump and/or flow features. Fine "lacy" stock work of qtz-carb plus some veins within zone (see graphic log). Fine disseminated po-py in core plus small veins and "smears" on fractures.		138	qtz-carb 1cm 60°		135.94	93	1.5	85745	
		141	lacy "qtz-carb stockwork cherty looking		138.99	96	1.0	85746	
		144			142.04	95	1.0	85747	
		147	qt-carb 1cmX2 45°		145.08	96	1.0	85748	
		150	tuff? coarse fragments up to 3mm		148.13	97	1.5	85749	
ANDESITE TUFF 158.9 to 188.5m Fine to medium grained (upto 1m) grey-green volcanic tuff. with minor qtz-carb stock work. Fine disseminated po-py throughout core plus in small veins. Small zones of interbedded blk argillite.		153			151.18	95	1.0	85750	
		156	"Lacy" qtz-carb stock work "Lacy" qtz-carb stock work		154.23	98	1.0	85751	
		159	small "smears" of py-po on fractures cherty looking		157.28	97	2.0	85752	
		162			160.32		1.0	85753	

GIBRALTAR MINES LTD
EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200 — HOLE NO GXD89-1 — Page 6 of 7

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	BLOCKS	% REC	% PY+	SAMPLE No.	ASSAY VALUES
		165			163.37	97	1.5	85754	
		168	"lacy" qtz-carb qtz-carb 1cm 45°		166.92	97	2.5	85755	
		171	welded tuff? small intrusive zone?	grain size increase up to 3mm	169.97	96	1.0	85756	
		174		Bedding visible 45° to core axis	172.52	98	1.0	85757	
		177	fine grained siliceous zone H 6.5-7 slump and flow features, dark and light colored swirl pattern.		175.56	98	1.5	85758	
		180	large clasts up to 1cm brecciated appearance tuff - greywacke? slumping, flow and swirl features intermixed coarse - fine material blk to light grey.		178.61	98	1.0	85759	
		183			181.66	97	1.0	85760	
		186	qtz-carb 1cm 50°		184.71	96	1.5	85761	
INTRUSIVE (andesite)? 188.5 to 191.0m grey green with qtz-carb stockwork - Hornfels at contacts		189	small fault? crushed zone with "lacy" carb	Badly broken core some gouge?	187.76	97	1.5	85762	
TUFF (andesite) 192.0 to EOH Fine grained Rx interbedded with small zones of Black Argillite, min qtz carb veins. cherty looking from 196.5 to EOH		192	crushed zone with lacy carb	Breccia at contact	190.80	95	1.5	85763	
		195			193.85	98	1.0	85764	

GIBRALTAR MINES LTD
EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD 89-1 Page 7 of 7

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	BLOCK	% REC	% PY	SAMPLE No.	ASSAY VALUES
			qtz-carb 1cm 50°		196.90	97	1-5	85765	
		198	po-py smears on fractures "rosets"		198.42	98			
END OF HOLE									

MEB

GIBRALTAR MINES LTD
EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200 — HOLE NO GXD89-2 Page 1 of 7

LOCATION DOBEEN LAKE — BEARING 360° — LATITUDE — CORE SIZE NQ

DATE COLLARED 18 AUG 1989 — LENGTH 198.12 m (650') — DEPARTURE — DATE 19 OCT 1989

DATE COMPLETED 20 AUG 1989 — DIP 65° — ELEVATION — LOGGED BY G.E. BARKER

GEOLOGY	FOLN.	m. DEPTH	MINERALIZATION	REMARKS	m. BLOCKS	% REC	% PY+	SAMPLE NO.	ASSAY VALUES
ANDESITIC TUFF – BLACK ARGILLITE UNIT 3.05 m to 32.3 m Tuff = ▨ argillite = ▨ An intermixed zone of black aphanitic argillite and fine to medium grained volcanic tuff. Tuff is light grey to grey green in color with fragments up to 5mm minor qtz-carb. stock work and vienlets within zone. 1 to 2.5% fine grain sulphides (po py) are disseminated in core plus small viens and "smears". Core is fragmented in places. H:5-6		6	broken and fragmented core = ▨ limonite to 6.7m	casing to 3.05 m badly broken core possible fault	4.88	50	0	85766	
		9	small fault (min. gouge) qtz-carb-2cm-55° to core axis	crushed zone healed with carb.	7.92	90	0.5	85767	
		12	carb 1cm 45° fine po+py viens 1mm stock work qtz-carb 2mm (off set)	slumping and flow features	10.97	94	1.5	85768	
		15			14.02	96	1.0	85769	
		18	carb 6mm 30°		17.07	93	1.0	85770	
		21	po (brown) fine viens + small patches min qtz-carb viens	light grey zone grain size increase	20.11	95	1.5	85771	
		24	fracture surfaces smooth-platy dark chl	schistic – increase in phyllosilicates	23.16	98	1.0	85772	
		27	min. carb "stock work" po-(py) "stock work"		26.21	97	2.0	85773	
		30			29.26	96	1.0	85774	

GIBRALTAR MINES LTD
EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD89-2 Page 2 of 7

GEOLOGY

INTRUSIVE (DACITE?)
32.3m to 56.3m

INTRUSIVE = Hornfels = Breccia fragment

A fine grained seriate textured Rx., grain size up to 1mm Consists of qtz, white feldspar and chlorite altered hornblend Large fragments of argillite, up to 5cm scattered in intrusive. Blk. argillite has been altered at contact to a light grey colored, hard (6.6) hornfels. minor carb stock work throughout zone. Finely disseminated po-(py) up to 1.5% + some small veins. It appears that the hole has been drilled along or close to the contact between the intrusive Rx. and the intruded Rx. Various contact features - hornfels, breccia - are noted throughout the zone.

BLK. ARGILLITE - ANDESITIC TUFF UNIT
56.3m to 86.4m

Rx similar to core from 8.05m to 32.3m

FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCK	% REC	% PY+	SAMPLE NO.	ASSAY VALUES
	33	qtz-carb 1cm 50° ? po(brownish)(py)(Bo))		32.31	96	3.5	85775	
ND	36			35.36	97	1.0	85776	
ND	39	fine "lacy" po-py veins	appears hole drilled along contact	38.40	97	1.5	85777	
ND	42	qtz-epi 1cm 60°		41.45	98	1.0	85778	
ND	45		matrix is a little finer grained Breccia frags. up to 1cm	44.50	98	0.5	85779	
ND	48			47.55	97	1.0	85780	
ND	51	po-py (fine stock work)		50.60	85	1.5	85781	
ND	54		core is highly fractured - has a "crushed" appearance	53.64	90	1.5	85782	
ND	57	carb 1cm 60°		56.69	96	1.0	85783	
	60			59.74	97	1.5	85784	
	63	qtz-carb stock work		62.75	98	1.0	85785	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCK	% REC	% PY:	SAMPLE No.	ASSAY VALUES
cherty looking zone		66	"smears" of po (PY)		65.84	98	1.0	85786	
		69	qtz-carb 5mm x 2 45°		68.88	98	0.5	85787	
		72	carb 1cm, 80°	Broken core - fragments sharp and angular	71.93	93	1.0	85788	
		75	qtz-carb-po 1cm x 2 50° fine "lacy" qtz-carb stockwork		74.98	95	1.5	85789	
		78			78.03	97	1.0	85790	
		81	qtz-carb 2mm x 3 ω-π		81.08	99	0.5	85791	
		84			84.12	99	1.0	85792	
		87	carb 5mm 45° fine "lacy" qtz-carb s.w.	slump features "crushed" look	87.17	98	1.0	85793	
INTRUSIVE (Dacite?) 86.3m to 114.8 Rx. has seriate texture with conspicuous hornblend laths from 86.3m to 93.2m. Remainder of Intrusive is similar to Rx. in zone from 32.3 to 56.3m		90	qtz-carb 4mm x 2 40° "lacy" fine blk. viens		90.22	98	1.0	85794	
		93	chl? mag		93.27	97	0.5	85795	
		96	qtz stockwork po (PY) ((CP))			98	1.0	85796	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXDB9-2 Page 4 of 7

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE No.	ASSAY VALUES
					96.32				
BRECCIA ZONE 96.4m to 108.5m sparce fragments up to 3cm.		99	fine "lacy" qtz-carb		99.36	98	0.5	85797	
		102	qtz-chl 5m 70° qtz-carb 2cmx2 40°		102.41	99	1.5	85798	
		105	po((cp)) clots (patches)	po is orrion color	105.46	98	2.5	85799	
		108	distinct biotite flakes	} slight increase in grain size	108.51	98	1.0	85800	
		111	small py cubes		111.56	98	1.5	85801	
		114	fine "lacy" po-py viens		114.60	97	1.5	85802	
ARGILLITE 114.8 to 117.6m A blk. siliceous aphanitic Rx small viens of brown po + (py) disseminated fine sulphides up to 1.0%		117	"Lacy" qtz-carb stock work		117.65	98	1.0	85803	
		120	qtz-carb stockwork with po(py)		120.70	98	1.0	85804	
INTRUSIVE (DACITE) AND HORNFELS ZONE 117.6m TO 166.5m A mixed zone of intrusive Rx. (similar to Rx. in zone 32.3 to 56.3m) plus grey-brown Hornfels. Disseminated po+py up to 2.5% plus fine viens, minor amounts of cp. It appears that the hole has been drilled along contact.		123	} microscopic biotite (gives hornfels its brown color)		123.75	99	2.0	85805	
		126	qtz-carb-chl-po-py several 0.5 to 1mm viens		126.80	85	1.0	85806	
		129	qtz-carb-po 5mx2 50°	} Badly broken core (possible fault)		90	1.0	85807	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXDB9-2 Page 5 of 7

GEOLOGY	FOLN.	m. DEPTH	MINERALIZATION	REMARKS	m. BLOCKS	% REC	% Fe_2S	SAMPLE No.	ASSAY VALUES
		132			129.84	98	1.0	85808	
		135	Biotite - epidote		132.89	97	1.0	85809	
		138			135.94	98	1.5	85810	
		141	qtz - carb 3mm 45°		138.99	97	1.5	85811	
		144	fine "Lacy" blk. stain were chl ? mag?		142.04	96	1.0	85812	
		147	X		145.08	96	1.0	85813	
Breccia Spare fragments up to 2cm		150	small clot (cp)) with brown po		148.13	97	1.5	85814	
		153	"patches" of brown po		151.18	98	2.5	85815	
siliceous blk. Argillite		156	qtz - chl veins "Lacy" 10cm zone Biotite (brown), qtz - carb "Lacy" veins 12cm zone.	some broken core	154.23	96	1.5	85816	
Breccia Spare fragments up to 1.5cm		159			157.28	97	1.5	85817	
siliceous BLK. Argillite		162	carb veins 1mm X 5 60°-70°		160.32	98	1.0	85818	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD 89-2 Page 6 of 7

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE No.	ASSAY VALUES
Breccia sparce fragments up to 2cm		165			163.37	98	2.0	85819	
VOLCANO CLASTIC SEDIMENTS 166. m to 193.3m A mixed unit of meta sedimentary Rx (tuff, chert, siltstone, greywacke?) grain size varys from aphanitic upto 2mm. Blk "sooty" graphitic coating on some fractures. broken fragments are very angular 11:6-7 Rx is siliceous.		168	qtz-carb 1cmx2 65° chl. mag? - py -(po) massive po +(cp)	po = purple/brown color aphanite zone	166.42	96	5.0	85820	
		171		mixture of coarse and fine grain particals upto 2mm	169.47	98	1.5	85821	
		174	small py cubes		172.52	97	2.0	85822	
		177		Badly broken core poor recovery	175.56	95	1.5	85823	
		180		Drillers triconed this section.	178.61	60	1.0	85824	
		183	py cubes	core has a crushed look - highly fractured	181.66	35	1.5		
		186			184.71	75	1.0	85825	
cherty, looking		189			187.76	95	0.5	85826	
light grey aphanitic Hornfels		192			190.80	90	1.0	85827	
INTRUSIVE (Dacite) 193m to EOH Breccia sparce frags. up to 1cm		195			193.85	88	1.5	85828	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXDB9-2 Page 1 of 1

GEOLOGY	FOLN.	m. DEPTH	MINERALIZATION	REMARKS	m. BLOCKS	% REC	% PY+	SAMPLE No.	ASSAY VALUES
Breccia					196.90	92	2.0	85829	
		198	stg-carb 1cm 50° to po "smears"		198.12	95			
				END OF HOLE					

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200 — HOLE NO GXD 89-3 Page 1 of 8

LOCATION Doreen Option — BEARING — — LATITUDE — — CORE SIZE N.Q.W.

DATE COLLARED 20 AUG 1989 — LENGTH 233.78m (767') — DEPARTURE — — DATE Oct 24, 1989

DATE COMPLETED 23 AUG 1989 — DIP -90° — ELEVATION — — LOGGED BY G.D. Bysouth

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCK	% REC	% PYT	SAMPLE NO.	ASSAY VALUES
Casing To 4.88 m									
Black Siliceous Argillite (4.88m-201.m) mainly a black to dark grey aphanitic compact rx. with a hardness of 6-7. May be a hornfels. Most of the rx. lacks bedding structure except in short sections where alternating dark and light grey laminae impart a fine bedding – these angles are recorded in the foliation column. The rx. is "laced" by carb. veinlets in places but contain only a minor amount of carbonate – fizz in acid is wk or nil. Py and Pyr. occur throughout as microscopic dissem., segregs. along shears and slips, and as massive lenses and clots – sulfide conc.'s occur up to 5.0% but estimates are diff. due to the fine grained nature of the dissem. fraction – rx is mod. magnetic (pyr) – graphite content is prob not over 1% except in a few 1-2m sections	?	6.0 m	poss. small fault.	broken rusty core	5.18	80	.5	86626	
	?	9.0m		broken rusty core – lim. to 7.34m. mud seam	7.34 / 8.23	70 / 0	.5	86627	
	30	12m	20°, 5cm, qtz-carb bx-healed; 40°, 6cm, qtz-carb bx-healed; 10, .5mm - pyr. - carb. (3 zone)		11.28	95	1.0	86628	
	35	15m	numerous qtz-carb veinlets @ rt. L's to bedding		14.3	95	1.0	86629	
	45	18m		broken zone. broken zone	17.37	80	1.0	86630	
	20-50	21m	25cm-40°-light grey bed with incr. pyr-py-(cp) 10°-20°-1mm-qtz-carb-pyr.		20.42	98	2.5	86631	
	?	24m		dense blk massive section - cut by carb gash veinlets +- py	23.47	98	1.0	86632	
	45	27m		broken section. incr. graph.	26.52	95	1.0	86633	
	nd.	30m	ragged, sharp 80° contact	Grey-green feldspar porp. – clay alt'd spar pheno's up to .5mm in crowded seriate matrix of qtz-spar-chl.	29.57	98	2.5	86634	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD 89-3 Page 2 of 8

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE No.	ASSAY VALUES
from 44.8 to 52.5m a dark grey bed of coarser sed. is intersected with grns up to .5mm dia – resembles a fine grn greywacke. * most of the core is magnetic – which may be due not only to pyr but also finely diss. mag.	30-80	33m	35° sharp contact 30°? bx zone healed by carb and clay altd dyke material = 6 m.	incr dissem. pyr in dyke part of dyke contact ??	32.61	90	2.0	86635	
	5-10°	36 m	5°, 6cm - bx - pyr. carb. zone		35.66	90	1.5.	86636	
	5°	39m	mottled grey and grey-green sedt., H.T, and incr. pyr.	poss. complex fold str.	38.71	95	3S	86637	
	60°	42m	qtz-carb-stkwks.	dense blk arg.	41.76	98	2.0	86638	
	5-15	45m		folded sec. + dislocation of beds poss. nondiastrophic	44.81	85	2.0	86639	
	5	48m	80°, 5mm - magnetite*	as above	47.86	95	2.5	86640	
	5	51m		dislocation of beds.	50.91	100	2.0	86641	
	5-90	54m	40°, 30cm - zone of carb veins and veinlets "healing" bx zones		53.96	99	20	86642	
	55	57m	carb stkwks 20° - 1m - carb. vein swarm		57.01	98	1.0	86643	
	5-50	60 m		dislocation of beds	60.06	100	1.0	86644	
	35	63m	50, 32 cm - "dirty" green bed - resembles scarn - massive - dense.		63.11	98	2.0	86645	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GxD 89-3 Page 3 of 8

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE NO.	ASSAY VALUES
- general incr. in the proportion of lighter gr laminae 66 - 96 m. - fr. lighter grey material usua y shows an incr. in disse sulfides - the lighter 'bands' are sl. coarser grn, in pl ces resemble a fine greywack	35-45	66m	40°, 30cm - soft carb. bed. 10-15cm - bx zone 'healed' by carb.		66.16	95	2.0	86646	
	5-40	69m	40°, 5m - dive grey dense zone (scarn?) 5° qtz-carb veinlets		69.21	95	1.0	86647	
	10-40	72 m	5-10° qtz-carb veinlets	sparse dissem cp.	72.24	90	1.0	86648	
	5-10	75	5°, 2cm - bx zone healed by massive pyr+qtz?	incr pyr.	75.28	90	3.5	86649	
	5-10	78		fine bx and dislocation healed by qtz-carb.	78.39	95	2.0	86650	
	5-10	81		incr. microscopic sulfides - conc. maint in lighter grey bands	81.35	90	3.0	86651	
	20-30	84	25°, 20cm - light grey bed with ~20% dissem. pyr. + sparse cp		84.39	90	3.0	86652	
	20-80	87	5-90°, <4mm, carb veining		87.43	95	2.0	86653	
	20-40	90		numerous hard green blotches and stringers (ep?) with incr. pyr. and sparse cp.	90.47	98	2.0	86654	
	20-40	93			93.57	100	2.0	86655	
	?	96		mottled grey and green zone - H.? with incr. coarse pyr.		98	3.0	86656	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD 89-3 Page 4 of 8

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE NO.	ASSAY VALUES
	?	99		hard dense blk zone with mottled green zones and incr. sulfides	96.62	95	8.0	86657	
	?	102	broken zone		99.67	80	8.0	86658	
	10	105		mainly brownish grey bed with subordin. blk laminae	102.72	80	2.0	86659	
	10-20	108	broken zone	hard dense blk zone	105.77	85	1.5	86660	
	10-60	111	60, 6cm - green zone (? tuff bed?) broken zone		108.82	85	1.0	86661	
	10-25	114			111.86	85	2.0	86662	
	?	117		med grey, sl. cherty zone - poss. a bio horizon - decrease sulfides	114.92	65	.5	86663	
	?	120	highly broken core		117.97	70	1.0	86664	
	45-55	123	broken and lost core	hard dense black zone - minor lighter grey lamination	121.07	75	1.5	86665	
	?	126	remob. py. along hle fracs 40°? 2m. - gg-bx	- small fault	124.07	60	3.0	86666	
	5-35	129	broken zone		127.12	80	2.0	86667	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE No.	ASSAY VALUES
	5-10	132m		dense dirty green zone + minor dark grey laminae - resem. a scarn - aphanitic-	130.15	100	.5	86668	
	5-15	135		well laminated zone - minor green beds and laminae	133.20	95	1.0	86669	
	5-10	138		" " "	136.24	95	1.0	86670	
	0-5°	141			139.29	90	1.0	86671	
- from 141 to 201 m. a dyke or series of dykes have been intersected which appear to be approx. concordant with the steeper bedding angles, and therefore dip close to the core axis → repetitive dyke contact effects.	0-5°	144	"dirty" green zone - like scarn lies subparallel with bedding and in one place X-cuts bedding - bleached reaction rims	this green material which is reported above as scarn etc may be a dyke injected along the bedding	142.34	90	1.0	86672	
	0-5°	147	1-2 cm.		145.39	95	1.0	86673	
	0-5	150	finely frac. zone healed by tiny carb. gash veinlets with retaole. py.		148.44	80	1.0	86674	
	0-5	153	5°, 2cm - carb-gg zone 0-10°, ~3m, dark grey	this dyke has green aphan. reaction rims @ contacts similar to the above green	151.49	95	3.0	86675	
		156	hb. porph. dyke with diseem. and gash-like veinlets of pyr. broken zone - minor	zones - dyke is char. by scattered subhed. blk hb. phenocrysts up to 2mm. long in a dense aphanitic ground	154.53	90	3.0	86676	
	0-5	159	99		157.58	90	1.5	86677	
	5-10	162			160.63	95	1.0	86678	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GxD 89-3 Page 6 of 8

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE NO.	ASSAY VALUES
	5	165m	0-5, 1m, dirty green zone - poss dyke contact		163.68m		1.0	86679	
	0-10	168m	0-8, .5m. dirty green zone. broken zone		166.72m	95	1.0	86680	
	0-5	171m	5°, 2m - dyke with green contacts. ?, 4m - gg-bx-sand.	} small fault.	169.77	90	1.0	86681	
		174	broken zone with qtz-carb veins and dyke frags. dark grey aphanitic		172.82	85	2.0	86682	
	5.	177	dyke - incr. dissem. and segreg. sulfide.		175.87	95	2.0	86683	
	5-10	180	5° dark grey aphanitic dyke.		178.92	90	1.5	86684	
	5-10	183	5-10 5?		181.97	95	1.0	86685	
	-	186	dark grey aphanitic		185.01	90	1.0	86686	
	-	189	dyke - green contacts		188.06	95	1.0	86687	
	-	192	? contact? } broken zone		191.11	85	.5	86688	
	-	195	50°, 20cm - green zone	dense, dark grey aphanitic zone - no bedding str. dyke? hornfels?	194.16	80	1.5	86689	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200 — HOLE NO GXD 89-3 — Page 7 of 8

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE NO.	ASSAY VALUES
	5-10	198 m	sharp, chilled 10° contact		197.21	95	1.0	86690	
	–	201 m	med. grey hb. porphyry - dissem py broken contact	lighter grey and more coarser grn. than other dykes above - phenos of hb and plag.	200.25	98	2.0	86691	
201 m **BIOTITE HORNFELS (201 - 209.8 m)** grey with brownish hue, subconc. fracture, aphanitic – equigran under binoc. – weak dissem pyr. throughout – conc. pyr. in mottled green zones – hard (H 7), dense – weak bedding str. in places. 209.80	0-5	204	hard (7) dense brown-grey zone with sections of dissem pyr > 20% - weak	.5 - 2mm dia in grey seriate ground.	203.30	80	3.5	86692	
	–	207	bedding str. same as above but with mottled ep-green zones with pyr	lost core	206.35	40	2.0	86693	
	–	210	ragged 25° chilled contact		209.40	95	1.0	86694	
GREY HORNBLENDE DIORITE (209.80 - 221.19 m) a med to dark grey, fine grn. equigranular diorite, consisting of prominent hb laths, partially chloritized, in a matrix of grey feldspar chl. and qtz? - grn size is ~ 1-2 mm - sl. porph. tex. at contacts with hb phenos. - contains ~3-4 % dissem. pyr. - cut by numerous slips and veinlets of carb and carb-qtz-mag?	–	213	45, 6cm - qtz-carb-pyr-mag.		212.45	95	3.0	86695	
	–	216			215.49	95	3.5	86696	
	–	219			218.54	100	3.0	86697	
	–	222	40°, 7cm - qtz-carb-pyr-mag broken contact 40°?		221.54	98	3.0	86698	
BIOTITE HORNFELS (221.19m – 233.78 m) hard cherty dark grey rx with distinctive brownish hue - same as above but higher conc. of dissem. pyr.	–	225	dark grey		224.64	90	2.5	86699	
	–	228	hb-spar porp. mottled ep-green zone with incr. pyr. mainly as short veinlets	poss. a bx. - healed contact zone with above dyke	227.69	95	3.5	86700	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD 89-9 Page 8 of 8

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE NO.	ASSAY VALUES
			broken zone						
			dyke? - mottled green + coarser grn			85	3.0	86701	
		231 m		rx is dark grey to black showing disrupted bedding tex.	230.73				
	5?		mottled ep-green zone with interst pyr.			70	3.5	86702	
E.O.H 233.78m			broken zone		233.78				

Jerry D. Bywater

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200 HOLE NO GXD89-4 Page 1 of 6

LOCATION DOREEN LAKE BEARING 360° LATITUDE ____ CORE SIZE NQ

DATE COLLARED 23 AUG 1989 LENGTH 175.87m (577') DEPARTURE ____ DATE 13 NOV. 1989

DATE COMPLETED 25 AUG 1989 DIP 65° ELEVATION ____ LOGGED BY G.E. BARKER

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE NO.	ASSAY VALUES
				Casing to 4.88m	4.88				
HORNBLEND PORPHYRY 4.88 m to 14.55m		6	limonite to 8.9m	{ } = minor amount ( ) = very min. "			0	85830	
A grey-green colored Rx close to andesitic composition. Fine grain matrix of plag. feld., amphibole? - with small phenocrysts of hornblend. Rx is highly fractured with fractures filled with carb. and sulfides (po - py - (cp)) sulfides are also disseminated (microscopic to fine) in Rx. Rx may be a recrystalized sedimentary Rx (argillite)		9		X = Broken core (fragmented)	8.23	65	0.5	85831	
		12	carb S.W. py (po)((cp))	Badly broken core. Drillers comment "badly shattered ground" S.W. = stockwork	11.28	40	2.0	85832	
		15	feldspare phenocrysts up to 2mm carb SW		14.33	95	1.5	85833	
HORNFELS 14.55m to 30.4m		18	fine S.W. of po (py)		17.37	90	2.0	85834	
A hard (6-7) siliceous aphanitic meta sedimentary Rx, grey to black in color. Small viens of carb and qtz-carb. po + py are disseminated and in small viens and "smears". Rx is fairly fractured with fragment angular and sharp.		21	carb-po 3mm 45° carb 1cm 20° to core axis	Bedding ? 25-45° to core axis "slump" features	20.42	96	1.0	85835	
		24	core is light brown color - microscopic biotite ? 50° chl. grey? po 3mm		23.47	96	1.5	85836	
		27	light yellow green patches epi?		26.52	97	1.5	85837	
Intrusive (igneous) Rx = ☑ Hornfels = ☐		30	qtz-carb-py 2mm 25°	argillite remnents in the zone. broken core	29.57	90	1.5	85838	

GIBRALTAR MINES LTD

EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD 89-4 Page 2 of 6

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE No.	ASSAY VALUES
INTRUSIVE (andesite?) 30.4 to 39.9 A light grey fine grained Rx of felospar, minor qtz, minor mafics. Rx is non foliated and fairly "tough" Grain size is very uniform. po-py is found finely disseminated and in viens and "smears"		33	carb 2mm X2 50° several fine blk viens chl? graph? 70-80°		32.61	97	1.0	85839	
		36	carb - py +(po) 1mm X2 40° carb 5mm X2 70°		35.66	98	1.5	85840	
		39	carb py - po 8mm - 35° fine s.w. chl? graph?		38.71	98	2.0	85841	
Hornfels ? 39.9m to 48.5m Rx is similar to Rx from 14.55m to 30.4m. Rx is strongly fractured very fragmented and gougy looking - increase in phyllosilicates. carb. infills fractures, some qtz, po-py disseminated in core.		42	increase in carb s.w. + clots	strongly fractured fragmented core	41.76	75	1.5	85842	
		45		gougy looking possible FAULT ZONE	44.81	65	1.0	85843	
		48	Py 1-2mm X3 45°-55°		47.85	90	2.0	85844	
BIOTITE HORNFELS 48.5m to 58.9m A grey green to grey brown aphanitic Rx with patches of light green. Rx is hard(6?) and cherty looking. Some fine black viens (chl, graphite?), up to 2% sulphides disseminated and in fine viens (mainly py) Remnants of blk siliceous argillite.		51	py as small cubes up to 2mm epi? "patches"		50.90	96	2.5	85845	
		54	several fine blk viens chl graph mag? up to 1mm		53.95	98	1.5	85846	
		57	several blk viens up to 2mm		57.00	99	1.0	85847	
INTRUSIVE (mafic dyke?) 58.9m to 63.9m fine to med. grained dark Rx, Hornblend 50%, plagio 40% qtz 10%? Breccia fragments → up to 3cm.		60	Lacy carb s.w. up to 1mm epi? patches		60.05	99	1.0	85848	
		63				95	1.0	85849	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE No.	ASSAY VALUES
MIXED ZONE HORNFELS, SILICEOUS BLK ARGILLITE, WELDED TUFF 63.9m to 92.8m									
Biotite hornfels similar to zone 48.5m to 58.9m plus siliceous aphanitic blk argillite plus fine to med. grain welded tuff grain size variable bedding weakly apparent grains both sharp and rounded. po-py in small viens and disseminated up to 2.5%		66		badly broken core possible fault	63.09	92	1.5	85850	
Blk argillite =					66.14				
Tuff =		69	epi? - light green "patches" po - "patch"	Lissen color	69.19	98	2.5	85851	
		72	chl? py 2mm X 3 45°-50°		72.24	98	2.0	85852	
		75	epi? "patch" fine "lacy" blk viens chl grain? carb 3mm X 2 40°	small bed? coarse particals 1cm	75.29	99	1.5	85853	
		78	epi? patches gtz-carb-chl-po-py several fine po viens up to 1mm	1cm 50°	78.33	96	2.5	85854	
		81	gypsum on fractures py cubes	light grey color	81.38	97	2.0	85855	
		84	carb 5mm 30° carb chl py 4mm X 2 ~45°		84.43	97	2.0	85856	
		87	epi? light yellow green	coarse particals? patches	87.48	95	1.5	85857	
INTRUSIVE (Dacite)? 92.8 to 100.1m		90	small py cubes epi "patch"		90.53	95	2.0	85858	
A med-grained Rx 30 to 40% mafics (hornblend-chl.) white feld + gtz. breccia frag. up to 3cm. Disseminated po-py up to 1%		93			93.57	96	0.5	85859	
Breccia		96	gtz-carb vien 5mm 40° cut by py vien 1mm 35°			97	1.0	85860	

GIBRALTAR MINES LTD

EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD 89-4 Page 4 of 6

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE No.	ASSAY VALUES
BIOTITE HORNFELS 100.1 m to 102.0 m A grey brown aphanitic Rx. Many small blk veins (chl-graph?), Several light green to yellowgreen "patches" of epi?, fine veins of po-py also disseminated sulphides up to 2% - some "massive" zone of po with minor cp.		99	fine "lacy" carb S.W. qtz-carb-chl? S.W epi	core is redish brown color (Biotite?)	96.62	97	1.0	85861	
		102	epi? Light green "patch"		99.67	98	0.5	85862	
		105	qtz-carb-chl-po-py	Several fine veins	102.72	98	2.5	85863	
INTRUSIVE (Dacite?) 102.0 to 104.5 similar to 92.8m to 100.1m		108	massive po + (cp) + carb carb fine "lacy" S.W		105.77	98	3.0	85864	
INTRUSIVE + HORNFELS 104.5m to 109.6 m as above		111		crushed zone infilled with carb	108.81	96	1.5	85865	
BLK SILICEOUS ARGILLITE 109.6 to 113.2m A siliceous blk. aphanitic Rx with faint bedding ≈ 25° to core axis. Fine grain disseminated po-py up to 2%		114	carb fine lacy" S.W.		111.86	97	1.0	85866	
BIOTITE HORNFELS 113.2 m to 115.7 as above		117	carb py (po) 2mm 50°		114.91	98	1.5	85867	
BLK SILICEOUS ARGILLITE 115.7m to 120.0m as above		120	carb py (po) 3mm 46° py fine Lacy" S.W. small py cubes + smear on fractures		117.96	97	1.0	85868	
BIOTITE HORNFELS 120.0m to 121.1m as above		123	carb (po)(py) fine S.W. epi? "patch"		121.00	99	1.5	85869	
INTRUSIVE (Diorite)? 121.1m to 125.3 A med. to Coarse grained Rx Looks like an unaltered form of diorite found in GXD89-5 Hornblend very distinct and fresh some epi - patches of po (py)(cp)		126	massive po (py)(cp)		124.05	98	2.5	85870	
BIOTITE HORNFELS 125.3 m to 132.0 m as above + remnant argillite		129	carb py (po) fine S.W py (po) very fine S.W	core looks crushed or brecciated.	127.10	99	2.5	85871	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD89-4 Page 5 of 6

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE No.	ASSAY VALUES
BIOTITE HORNFELS AND INTRUSIVE DACITE MIXED 132.0m to EOH similar to previous zones see graphic log for various Rx types and locations		132	Fe stained carb +(py) 1cm 40° carb.epi. biotite ?	light grey green to light brown	130.15	99	1.5	85872	
		135	Fe stained carb + py (Po)((cp)) 3cm 45°	vein has a "crushed" appearance	133.20	100	2.0	85873	
		138	Fe stained carb (py)(po) 1cm 35° Badly broken core		136.25	96	2.0	85874	
		141	Fe stained carb-po py(cp) 1cm 80° - has a crushed appearance epi- Light green "patch"		139.29	98	1.5	85875	
		144	carb-qtz-(py)(mo) 1cm 10° bedding @ 40° to core axis	very light grey aphanitic Rx	142.34	98	1.5	85876	
		147	py (po) fine "lacy" s.w. epi? "patches" qtz-carb 1cm 40°	light yellow green color	145.39	98	2.0	85877	
		150	py(po) fine s.w		148.44	99	2.5	85878	
		153	qtz-carb ? mo 2cm 45°	light grey brown aphanitic color	151.49	99	1.5	85879	
		156	qtz carb mo (py) 4cm 35° ? ? ? chl mc graph - fine blk s.w		154.53	96	1.0	85880	
		159	py(po) "smears" on fractures also small py cubes qtz-carb (py)(po) 1cm 30°		157.58	98	2.0	85881	
		162	fine blk s.w chl? graph? some (py)(po)		160.63	99	1.5	85882	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD89-4 Page 6 of 6

GEOLOGY	FOLN.	DEPTH	MINERALIZATION	REMARKS	BLOCKS	% REC	% PY	SAMPLE No.	ASSAY VALUES
Dark grey			qtz-carb Mo(py)(po)	4cm X 3 30°-40°					
		165	carb (po) py S.W.		163.68		1.5	85883	
			py-po "smears" on fract.			98			
		168			166.73		2.0	85884	
			epi "patches"	light yellow-green color		99			
			qtz-carb 5mm 40°	slumping (vein offset)	169.77		1.0	85885	
Breccia fragments up to 3cm						99			
		174	qtz-carb-po(py) S.W		172.82		1.0	85886	
			qtz-carb-Mo?, 0.5 to 1 cm X	5, 40°-45°		99			
				END OF HOLE	175.87		1.5	85887	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200 HOLE NO GXD 89-5 Page 1 of 1

LOCATION Doreen Option BEARING — LATITUDE _____ CORE SIZE N.Q.

DATE COLLARED 25 AUG 1989 LENGTH 227.69m (747)' DEPARTURE _____ DATE Sept. 21, 1989

DATE COMPLETED 28 AUG 1989 DIP -90° ELEVATION _____ LOGGED BY G.D. Bysouth

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE NO.	ASSAY VALUES
Casing To 13.41m					13.41				
Dioritic Contact? (13.41-27.10m) A complex zone of dioritic, or andesitic rxs consisting of ~40% chloritic mafics and ~50 % saus. plag. - grn size varies from med. to fine grn. (ie 1.5m to <.5m) Mafics - prob. augite - appear altd to chl. and a pale brown bio. Rx appears crushed and sl. dislocated. - frac's are gen. healed by qt3. and qt3-carb veinlets. py and pyr. is dissem. throughout and conc. in crush. zone's	ND	15m	wk carb veinlets	typical diorite 13.41 - 14.33m	14.33	95	.5	86551	
	ND	18m	20°, 2cm - qt3-mag-		17.37	96	.5	86552	
	ND	21	intense qt3-stockwks with later x-cutting carb.	rx appears crushed and healed by qt3. + incr. py	20.42	97	3.0	86553	
	ND	24	set. of dk grey veins 40-60° and 1-5mm thick - chl.? qt3-carb stockwks	crushed zone with incr. py	23.47	94	1.0	86554	
	ND	27	40°, 1cm - py-pyr(cp) x2 30°, 6cm pyr(cp) vein	* 1.5 o/o pyr 2.5 o/o py	26.52	98	* 4.0	86555	
	ND	30	ep veins and clots		29.57	97	3.0	86556	
DIORITE (27.10-73.40m) - a fine grn. plutonic rx. - gen. equigranular with grn. size usually < 1.5mm and consisting of: 55% saus plag 40% chl. mafic 5% ep clots - the degree of saus. and grn size varies - contains fine dis. py	50 WK	33	ep veins up to 3mm dark altn zone	saus altd to chl + carb?	32.61	97	3.5	86557	
	45 WK	36	zone of ~30° ep veins		35.66	97	1.0	86558	
	45 WK-Mod.	39	assoc. with incr py ep-py veins		38.71	96	2.0	86559	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD 89-5 Page 2 of 7

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m. BLOCK	% REC	% PY+	SAMPLE No.	ASSAY VALUES
most of the rx is an epidote green color due to strong saus. alt'n as well as numerous veins and clots of ep. - but often cutting the saus phase are dark green zones, poss. a chl.-carb-qtz alt'n phase which will be referred to in the log as dark alt'n. Incr. sulfide often accompanies this alt'n and the core hardness goes from 5-6. to ~4.0 . This alt'n is also accompanied by qtz, qtz-carb and qtz-chl. veining. In places the qtz veins cutting the saus phase have envelopes and halos of dark alt'n - a SiO_2-chl-carb-MeS system?	v v v 50 WK	42m	60°, 3cm - ep 70° ep veinlets		41.76	95	.5	86560	
	v v v 50 WK	45m	20°-2cm chl-qtz-carb 30°, 1cm chl-qtz	dark alt'n zone bordered by chl-qtz veins and containing "lacy" qtz-carb veinlets	44.81	96	1.0	86561	
	v v v 50 WK	48	dark alt'n 20°-5mm chl-gyp-py →	with dark alt'n halo.	47.81	95	.5	86562	
	v v v ND	51	dark alt'n - incr carb veinlets and dissem py		50.90	95	1.5	86563	
	v v v ND	54	broken zone zone of qtz-carb veins with dark alt'n halos.		53.95	94	.5	86564	
	v v v ND	57			57.0	96	1.0	86565	
	v v v ND	60	incr qtz-carb veinlets + carb filling of bx. voids	crushed zone - and dark alt'n + incr py, carb and qtz-carb.	60.05	98	2.0	86566	
	v v v ND	63	10°, 3cm - qtz-chl-py		63.09	97	.5	86567	
	+ + + + ND	66		dark green hb porp. with qtz-chl veins @ contacts	66.14	97	2.0	86568	
	+ + v ND	69	30°, 5cm qtz-chl ep py 45°-2cm-qtz-py x3		66.19	96	1.0	86569	
	v v v ND	72	45-70°, 1-4mm - qtz-chl x6 50°, 8mm - qtz-py (cp)	hb porp.		96	1.5	86570	

HORNBLENDE PORPH.
(61.50 - 67.25 m)
- dense dark grey-green rx with fresh-looking hb prisms up to 1mm long in a seriate matrix of plag. and chl. alt'd mafics - no saus.??

DIORITE (67.25 - 73.45 m)
as above

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200 HOLE NO GXD 89-5 Page 3 of 7

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE NO.	ASSAY VALUES
73.40	ND	75	60° - sharp contact		75.29	95	2.0	86571	
HORNBLENDE PORPH. (73.40 - 81.30m) - similar to above hb porp but contains in places clots of ep up to 5mm dia - incr. py often as ep-py veinlets - carb occurs as late stage fillings *	ND	78	mainly finely dissem py		78.33	97	1.0	86572	
	ND	81	40°, 3cm, qt3-ep-carb ep-carb-bx 50-60, 1-3cm - qt3epx6 50° - sharp contact		81.38	97	.5	86573	
81.30	ND	84	30°, 5mm - py(cp)x2 30°, 6cm - ep-carb 40°, 3cm - ep-py		84.43	98	1.5	86574	
DIORITE (81.30 - 160m) same as above diorite - says altd cut by dark alt'n zones which are often sharply defined by qt3-carb veins & contacts.	ND	87	45+40, 6mm-ep-carb-py 35, 3cm - qt3-ep x2 20, 4cm - qt3-ep(py)		87.57	95	1.0	86575	
	45 WK	90	65, 2cm - qt3 ep x2 40° sharp contact	dark alt'n zone with qt3-carb	90.53	96	.5	86576	
	45 WK	93	10°, 4cm - qt3-chl-py(cp) diffuse contact	stockwks and veins - rx appears crushed and healed with qt3-carb.	93.57	97	.5	86577	
	40 Mod	96	11cm - massive ep dark alt'n		96.62	97	.5	86578	
	40 WK	99	15cm - massive ep	numerous dark alt'n zones	99.67	98	.5	86579	
	ND	102	1m - massive ep	5-50cm wide -gen with incr carb + py	102.72	98	<.5	86580	
	ND	105	.5m - massive ep 45°, 2cm - ep x 4			98	<.5	86581	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD 89-5 Page 4 of 7

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE No.	ASSAY VALUES
	45 WK	108	15°, 5cm-ep 90°, 5cm-ep			98	<.5	86582	
	ND	111	50°, 3cm-ep		108.81	96	<.5	86583	
	50 WK	114	80°, 4cm, ep x2 50°, 5cm-ep 50°, 20cm-ep ep stockwk	dark alth zone with abundant ep as zones	111.86	95	.5	86584	
	50 WK	117	50°, 7cm-ep 20°, 3cm-ep	and veins forming 2-3% of section - minor carb. as gash veins	114.91	95	.5	86585	
	ND	120			117.96	95	<.5	86586	
	ND	123	60°, 5cm-ep	dark alth	121.05	94	<.5	86587	
	ND	126		dark alth	124.05	95	<.5	86588	
	ND	129	60°, 2cm-ep 70°, 3cm-ep 60°, 7cm-ep 70°, 10cm-ep x2		127.10	95	<.5	86589	
	ND	132	80°, 3cm-ep 50°, 3cm-ep 60-70°, 3-6cm-ep x5	dark alth	130.15	96	<.5	86590	
	ND	135	70°, 20cm-ep 70°, 30cm-ep 25°, 6cm-ep		133.20	95	<.5	86591	
	ND	138			136.25	92	<.5	86592	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE NO.	ASSAY VALUES
dark grey aphanitic dyke - similar to hb porph.	ND	141	40°, 1cm, ep-py x 2 } dissem py (cp)		139.29	93	.5	86593	
	ND	144	40° diffuse contact		142.37	94	1.0	86594	
	ND	147	40°, 1cm - qt3-py 20°, 2cm - qt3-carb-ep-py	} dk alt'n + ep clots	145.39	95	1.0	86595	
	ND	150	25°, 2cm - qt3-py		148.48	95	.5	86596	
	ND	153	50°, 6cm - cp 40°, 2cm - qt3 x 4	} dark alt'n	151.49	96	<.5	86597	
	ND	156	10°, 2cm - qt3-ep-py (cp)		154.53	95	.5	86598	
	ND	159	5°, 3cm - ep-py (cp) 5°, 5cm - ep-py (cp)		157.58	95	1.0	86599	
160m FINE GRN DIORITE (160 - 227.69m) this is a mixed unit of ~20% med-fine grn saus. diorite similar to the above diorite and ~80% finer grn diorite rock types. - obvious dyke rx. will be noted - saus. alt'n appears to have lessened in this unit	ND	162	5°, 2cm - ep-py-qt3 20°, 6cm - qt3-chl 40°, 2cm - qt3-carb		160.63	94	.5	86600	
	ND	165	40°, 50cm - ep-py (cp) broken zone - pass fault	massive sp-py } greenish aphanitic zone (silicification)	163.68	93	2.5	86601	
	ND	168	5-20°, 1.3m - qt3-carb-ep-py-pyr. } clots of ep-py (cp) in broken zone		166.73	94	3.0	86602	
	ND	171	80°, .5m - ep-carb (py) } incr. carb-qt3 veinlets		169.77		1.5	86603	

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EXPLORATION DIAMOND DRILL LOG

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GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE No.	ASSAY VALUES
	ND	174	45, 1.5cm - py (ep)		172.82		1.0	86604	
	ND	177	Crushed zone healed by qtz-carb veinlets + incr py. 50°, 30 cm - chl-qtz-ep-py 5°, 2cm - epx3	dark alt'n zone	175.87	95	2.0	86605	
	ND	180	10-15, 5 mm - ep-pyx3 45-6mm - ep-py 5 - 12cm - ep		178.92	95	1.5	86606	
hb porph. dyke.	ND	183	5, 5cm - epx2 20° sharp contact		181.92	90	.5	86607	
	ND	186	60°? 30°, 25cm - ep-chl-carb		185.02	98	.5	86608	
	ND	189	55, 6cm - ep-qtz-py 50, 8cm - ep x 2 60, 9cm - ep		188.07	96	.5	86609	
	ND	192	40°, 10cm - ep 45°, 15cm - ep		191.02	95	.5	86610	
	ND	195	45-30, 60cm - ep 45°, 12cm - ep 30°, 3mm - py		194.17	96	.5	86611	
	ND	198	40, 10cm - py 30 - 4cm - ep		197.22	98	.5	86612	
	ND	201	20 - 9mm - py-carb		200.27	98	1.0	86613	
	ND	204	45, 70cm - chl-ep-carb-py (cp) 40 - 70cm chl-ep-py-cp		203.30	95	1.0	86614	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

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GEOLOGY	FOLN.	m DEPTH	GR. ST.	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE NO.	ASSAY VALUES
	ND	207		60? - 15cm - ep		206.25	95	1.0	86615	
	ND	210		60 - 12mm - ep-py 40 - 2.5cm - ep-py xx	} dissem + veinlet py. Sample by J. Kerr	209.40	96	2.0	86616	
	ND	213		? 6cm ; ep-py ? 5cm ; cp-py 5-20°, 30 cm - chl-	} dissem. and veinlet py ~ .40% cp.	212.45	96	3.5	86617	
	ND	216		carb-qtz-py-cp + 30cm - chl-ep-py 40, 3cm - ep. 60? - 30cm - ep-qtz 60+70+20, 4-10cm, ep x 3		215.49	100	.5	86618	
	ND	219		15+15+30, 10cm ; ep x 3 70+60, 5cm ; ep x 2 60, 4cm ; ep x 2 80, 30cm - ep	} py as fine dissems and	218.54	100	.5	86619	
		222		40, 15cm - ep 60, 20cm - ep 5, 2 cm - ep	} tiny veinlets	221.59	98	1.0	86620	
		225		80, 1cm, ep x 3 50, 3cm - ep		224.67	96	<.5	86621	
F.O.H. 227.69 m				45, 3cm - ep x 2 90, 1cm - qtz x 3		227.69	95	<.5	86622	

GIBRALTAR MINES LTD
EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200 HOLE NO GXD 89-6 Page 1 of 6

LOCATION Doreen Option BEARING 360° LATITUDE _____ CORE SIZE N.Q.W.

DATE COLLARED 28 Aug. 1989 LENGTH 179.83 m (590') DEPARTURE _____ DATE Nov. 20, 1989

DATE COMPLETED 30 Aug 1989 DIP -65° ELEVATION _____ LOGGED BY G.D. Bysouth

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE NO.	ASSAY VALUES
Casing To 14.02 m (broken core starts at 13.41					13.41				
VOLCANOCLASTIC SEDIMENT (13.41 - 17.50 m) med. grey, coarse grn clastic rx with rounded frags. up to 7mm dia. - mainly dark grey to green frags.	-	15.m	weak dissem pyr. and clots of pyr. rich material up to 5mm.	highly broken core.	14.32	50	.5	86726	
	-	18 m		Sharp 40° contact	17.37	85	.5	86727	
DARK GREY TUFF? (17.50 - 24.65 m) fine grn (<1mm) equigran. med. to dark grey rx. with faint bedding str. - in places resembles a fine grn diorite - poss. a hornfels altered basic tuff. - appears to consist of plag? chl., hb, and bio. + weak dissem pyr. - hardness 6-7	40	21	40° - clots and strings of ep-pyr.	weak lim to ~22.0 m.	20.42	98	1.0	86728	
	-	24			23.47	95	.5	86729	
			40° sharp contact.						
BIOTITE HORNFELS (24.65 m - 48.60 m) hard (?) cherty brownish grey rx - occassional faint bedding str. - fine dissem pyr. - - includes beds of dark grey tuff -	-	27			26.52	95	.5	86730	
	25	30	highly broken zone		29.57	70	.5	86731	
	-	33	30 - 3cm. ep-pyr. broken zone		32.61	75	1.0	86732	
	-	36			35.66	75	.5	86733	
	-	39			38.71	80	.5	86734	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD 89-6 Page 2 of 6

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE NO.	ASSAY VALUES
	-	42m	20, 3cm - qtz-carb-pyr 50, 3cm, ep-pyr coarse volcanoclastic sed.	sharp 45° contacts	41.76	86	1.5	86735	
	-	45m	35°-1cm - cp-pyr x 3		44.81	85	1.0	86736	
	25?	48			47.85	98	1.0	86737	
			50, 6cm - qtz-carb sharp 35° contact						
DARK GREY TUFF ? (48.60 - 60.0m) - similar to the above tuff unit but becoming increasingly more fragmental towards the base @ 60 m - typically a fine grn granoblastic rx with prominent ovoid grains of plag. up to 1mm in a finer grn. seriate groundmass of plag., chl, bio and qtz? - recrystallized tuff or volcaniclastic sed.?	-	51		no bedded	50.90	90	1.0	86738	
	-	54	fine dissem. pyr. + a few veinlets of massive pyr	structure - orientation of frags suggest a 40° incl. to core axis	53.95	95	1.0	86739	
	-	57	40°-10cm - ep pyr. zone		57.0	90	1.5	86740	
	40	60	gradational contact		60.05	100	1.0	86741	
POLYMICTIC BRECCIA (60.0 - 72.34 m) - rounded to subangular frag.s of diorite, various spar porp.s., brown hb porp., pale grey felsic rx ... crowded in a dark grey granulated matrix - grades upwards into the dark grey tuff unit.	-	63	dissem pyr. and random mass. pyr. veinlets		62.09	98	1.5	86742	
	-	66	45 grey brown hb porph. - chilled contacts. 15°		66.14	95	1.0	86743	
	-	69	15° shear-bx zone healed with dk grey carb., Py, qtz-carb and ep. 3m. wide	prob. a mineralized shear zone - also zones of hb. porp.	69.19	95	4.0	86744	
	-	72	10° sharp contact	zone of brown bio hornfels. finer grn + brown cherty zones		98	1.5	86745	

GIBRALTAR MINES LTD

EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200 — HOLE NO GX089-6 — Page 3 of 6

GEOLOGY	FOLN.	m. DEPTH	MINERALIZATION	REMARKS	m. BLOCKS	% REC	% PY+	SAMPLE NO.	ASSAY VALUES
					72.24				
BRECCIATED QUARTZ DIORITE Light grey, fine to med grn (1-2mm) plutonic rx fragments in dirty green cherty matrix (72.34 - 77.10m)	-	75m	fine disem pyr.		75.29	98	1.0	86746	
	-					95	1.0	86747	
GREEN BRECCIA (77.10 - 89.0m)		78m			78.33				
dark greyish green rx char. by large ep. frags up to 10cm dia in a swirled grey green dioritic fine grn (<1mm) matrix. The ep frags may be saus. alt'n or simply mixtures of ep-qtz-etc. Frags form only ~20% of rx - all are rounded with fussy boundaries (reaction boundaries) - other frags are present similar to the above polymictic bx but in subordinate amounts. From 86 to 88 m. there are few frags and the rx resembles a rex. tuff. or volcanoclastic sed.	-	81	80-1cm - qtz-carb-py 70-80 - 2mm - py x 5	gen incrn pyr + py in reaction? rims around ep. frags	81.38	95	2.0	86748	
	-	84	broken carb vein system 20-30°		84.43	90	2.0	86749	
		87	70 - 1cm - qtz-py py veinlets 60-70° ~1mm x 6		87.48	98	1.5	86750	
			88-bx. 50, 1-2cm - pyr x 2 30, 1cm - pyr. 5° contact?			95	2.5	86751	
BIOTITE HORNFELS (89 - 93.15m) brownish grey cherty as above		90			90.50				
	25°?	93	25° sharp contact		93.57	98	1.0	86752	
DARK GREY TUFF (93.15 - 101.0 m) a dark grey equigranular fine grn (<1mm) rx similar to the other tuff units described above - appears to consist of plag., chl, bio, qtz. - gen. granoblastic tex. . poss a rex. tuff or tuffaceous sed.	-	96	30-5mm - carb x 4		96.62	98	1.0	86753	
	-	99			99.67	95	1.0	86754	
	15°?	102	10, 3mm, qtz-carb-py x 2 15° sharp contact		102.72	98	1.0	86755	
GREY HORNFELS (101 - 103m) grey cherty zone			30-25cm - ep-green zone + carb-pyr 10-10cm - pyr-chl.	contact @ min. zone					
DARK GREY TUFF (103 - 135m) as above.	-	105				98	3.0	86756	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD89-6 Page 4 of 6

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE No.	ASSAY VALUES
	-	108m	} bx zone - incr ep-green and pyr. 5°-5cm - carb-chl-ep-pyr zone			98	2.0	86757	
	-	111	80-2cm - carb-py 5°-1m. - carb-bx zone (rx bx. healed by carb) - minor py and sphal.?		108.81	98	1.5	86758	
	-	114	60°+40°-5cm - qtz-carb x 2	} angular cherty frags.	111.86	98	1.0	86759	
	20°	117	80°-1cm - qtz-carb 0°-3cm - qtz carb	} rounded frags of chert, ak rx and ep. green rx	114.91	95	1.0	86760	
	-	120	} broken zone		117.96	95	1.0?	86761	
	-	123	} broken zone incr. carb veinlets		121.00	90	1.0?	86762	
	-	126		}	124.05	95	1.0	86763	
	-	129	broken zone healed by carb veinlets	} short cherty sections	127.10	95	1.0	86764	
	-	132	} system of carb veinlets healing broken zone.		130.15	90	1.0	86765	
	-	135	30-5mm - qtz-carb x 2 45-1cm - blk-qtz-py carb veinlets	sharp 5° contact	133.20	95	1.5	86766	
BIOTITE HORNFELS (135-143.50m) brownish grey cherty rx		138		} incr carb veinlets approaching a fine stwks.	136.25			86767	

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EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD 89-6 Page 5 of 6

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE No.	ASSAY VALUES
	5	141	20-2cm qtz		139.29	90	1.0	86768	
	5*	144	highly broken zone healed by qtz.	* bedding defined by greenish zones	142.34	95	1.0	86769	
DARK GREY ZONE (143.50 – 149m) similar to the dark grey tuff unit but in places dark grey-green and soft (H-4)	–	147	broken core and	incr. dissem py + Pyr.	145.39	80	3.0	86770	
	–	150	numerous qtz veinlets forming a weak stockwke.	contact not evident	148.44	75	3.0	86771	
GREY QUARTZ DIORITE (149 – 166.73m) a light grey fine to medium grn (1-2mm) plutonic rx consisting of 20% chl. hb, 20-30% interstitual qtz and 50-60% feldspar – poss. a G.D. – The frag's in the breccia (72.34 - 77.10) are of this rx. From 149 to 154 m the tex. is sl. porp. with spar phenos in a fine dark grey finer grn. matrix (chilled zone?) - from 164 to the bottom contact at 166.73 the same tex. is noted – elsewhere the tex. is equigran. to seriate. The rx is cut by numerous black qtz veins, veinlets and fracture fillings (MoS_2?) – also contains minor dissem. py. (not pyr.) + rare cp	–	153	broken zone	blk coatings on some frac's - MnO_2?	151.40	80	.5	86772	
	–	156	broken zone 45° 4mm blk qtz 40° 2mm - blk qtz		154.53	60	.5	86773	
	–	159	blk qtz stks. 45° 2.5cm - blk qtz broken zone		157.58	90	.5	86774	
	–	162	60°, 5cm - blk qtz 50°+45°+40° - 1cm+.5cm+.1cm 40° .1cm blk qtz x 2 45°, 40cm+2cm - blk qtz x 2	blk coatings on some frac. - MnO_2?	160.63	80	.5	86775	
	–	165	40, 2cm blk qtz. 45 - 2cm - blk qtz		163.68	80	.5	86776	
	–		40 - 1cm - blk qtz x 2 grad. contact ?		166.73	85	1.0	86777	
DARK GREY TUFF? (166.73 – 179.83m) similar to the above tuffs but under magnification resembles a fine grn. diorite.		168		highly broken zone		65			
	–	171			169.77		2.0	86778	

GIBRALTAR MINES LTD

EXPLORATION DIAMOND DRILL LOG

SCALE of LOG 1:200

HOLE NO GXD89-6 Page 6 of 6

GEOLOGY	FOLN.	m DEPTH	MINERALIZATION	REMARKS	m BLOCKS	% REC	% PY+	SAMPLE NO.	ASSAY VALUES
rex. tuff, or tuffaceous sed.? or an andesitic dyke? – in places pheno's of hb and plag. up to 1mm dia – – is this the hb porp dyke?		174	broken zone	blk coatings on frac's – MnO_2?	172.82	60	3.0	86779	
		177	broken zone – less than 4cm fragr		175.82	55	2.0	86780	
E.O.H.					176.78	60	2.0	86781	
					179.83	80			

J.O. Bysouth

VGC VANGEOCHEM LAB LIMITED

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BRANCH OFFICES
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BATHURST, N.B.
MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: GIBRALTAR MINES LTD.
ADDRESS: P.O. Box 130
: McLeese Lake, BC
: V0L 1P0

DATE: NOV. 02 1989

REPORT#: 890800 GA
JOB#: 890800

PROJECT#: NONE GIVEN
SAMPLES ARRIVED: OCT. 30 1989
REPORT COMPLETED: NOV. 02 1989
ANALYSED FOR: Au (FA/AAS)

INVOICE#: 890800 NA
TOTAL SAMPLES: 105
SAMPLE TYPE: 105 SOIL
REJECTS: DISCARDED

SAMPLES FROM: MR. G. BARKER
COPY SENT TO: GIBRALTAR MINES LTD.

PREPARED FOR: MR. G. BARKER

ANALYSED BY: VGC Staff

SIGNED: _____

GENERAL REMARK: None

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REPORT NUMBER: 890800 GA JOB NUMBER: 890800 GIBRALTAR MINES LTD.

SAMPLE #	Au ppb
85701	nd
85702	nd
85703	nd
85704	nd
85705	80
85706	40
85707	210
85708	60
85709	50
85710	200
85711	140
85712	440
85713	500
85714	40
85715	100
85716	120
85717	20
85718	30
85719	80
85720	30
85721	20
85722	40
85723	30
85724	30
85725	30
85726	20
85727	20
85728	100
85729	20
85730	nd
85731	nd
85732	nd
85733	30
85734	20
85735	20
85736	nd
85737	90
85738	20
85739	nd
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

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SAMPLE #	Au ppb
85740	30
85741	140
85742	20
85743	30
85744	30
86551	40
86552	20
86553	30
86554	30
86555	100
86556	30
86557	20
86558	20
86559	30
86560	30
86561	50
86562	30
86563	50
86564	40
86565	60
86566	60
86567	40
86568	30
86569	50
86570	60
86571	130
86572	70
86573	80
86574	40
86575	20
86576	40
86577	70
86578	20
86579	20
86580	30
86581	80
86582	50
86583	90
86584	40
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

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SAMPLE #	Au ppb
86585	30
86586	30
86587	90
86588	90
86589	60
86590	30
86591	60
86592	80
86593	100
86594	30
86595	100
86596	110
86597	50
86598	80
86599	30
86600	100
86601	120
86602	140
86603	nd
86604	20
86605	30
86606	50
86607	50
86608	30
86609	140
86610	20
86611	30

DETECTION LIMIT 5
nd = none detected -- = not analysed is = insufficient sample

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GEOCHEMICAL ANALYTICAL REPORT

CLIENT: GIBRALTAR MINES LTD.
ADDRESS: P.O. Box 130
: McLeese Lake, BC
: V0L 1P0

DATE: NOV. 30 1989
REPORT#: 890836B GA
JOB#: 890836B

PROJECT#: NONE GIVEN
SAMPLES ARRIVED: NOV. 28 1989
REPORT COMPLETED: NOV. 30 1989
ANALYSED FOR: Mo Cu Pb Zn Ag Au (FA/AAS)

INVOICE#: 890836B NA
TOTAL SAMPLES: 1
SAMPLE TYPE: 1 CORE PULP
REJECTS: DISCARDED

SAMPLES FROM: MR. GEORGE E. BARKER
COPY SENT TO: GIBRALTAR MINES LTD.

PREPARED FOR: MR. GEORGE E. BARKER

ANALYSED BY: VGC Staff

SIGNED: Jaime C. Wong

GENERAL REMARK: None

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REPORT NUMBER: 890836B GA JOB NUMBER: 890836B GIBRALTAR MINES LTD.

SAMPLE #	Mo	Cu	Pb	Zn	Ag	Au
	ppm	ppm	ppm	ppm	ppm	ppb
84745	2	89	18	100	.2	20

DETECTION LIMIT	1	1	2	1	0.1	5

nd = none detected -- = not analysed is = insufficient sample

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GEOCHEMICAL ANALYTICAL REPORT

CLIENT: GIBRALTAR MINES LTD.
ADDRESS: P.O. Box 130
: McLeese Lake, BC
: V0L 1P0

DATE: NOV. 30 1989

REPORT#: 890836 GA
JOB#: 890836

PROJECT#: NONE GIVEN
SAMPLES ARRIVED: NOV. 28 1989
REPORT COMPLETED: NOV. 30 1989
ANALYSED FOR: Au (FA/AAS)

INVOICE#: 890836 NA
TOTAL SAMPLES: 121
SAMPLE TYPE: 121 CORE PULPS
REJECTS: DISCARDED

SAMPLES FROM: MR. GEORGE E. BARKER
COPY SENT TO: GIBRALTAR MINES LTD.

PREPARED FOR: MR. GEORGE E. BARKER

ANALYSED BY: VGC Staff

SIGNED: _____

GENERAL REMARK: None

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REPORT NUMBER: 890836 GA JOB NUMBER: 890836 GIBRALTAR MINES LTD.

SAMPLE #	Au
5	ppb
84746	nd
84747	nd
84748	nd
84749	nd
84750	nd
84751	230
84752	80
84753	20
84754	20
84755	nd
84756	nd
84757	nd
84758	nd
84759	nd
84760	10
84761	60
84762	nd
84763	30
84764	nd
85765	20
85766	nd
85767	30
85768	nd
85769	nd
85770	20
85771	20
85772	20
85773	20
85774	nd
85775	nd
85776	40
85777	20
85778	nd
85779	110
85780	nd
85781	nd
85782	30
85783	20
85784	nd
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

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SAMPLE #	Au ppb
85785	nd
85786	40
85787	20
85788	30
85789	50
85790	nd
85791	nd
85792	nd
85793	nd
85794	30
85795	nd
85796	nd
85797	nd
85798	nd
85799	180
85800	60
85801	nd
85802	30
85803	nd
85804	nd
85805	nd
85806	nd
85807	nd
85808	nd
85809	nd
85810	nd
85811	nd
85812	nd
85813	nd
85814	nd
85815	nd
85816	nd
85817	nd
85818	nd
85819	30
85820	160
85821	nd
85822	20
85823	20
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

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SAMPLE #	Au ppb
85824	nd
85825	nd
85826	nd
85827	50
85828	nd
85829	230
86612	30
86613	20
86614	20
86615	nd
86616	nd
86617	310
86618	20
86619	30
86620	20
86621	20
86622	30
86626	10
86627	nd
86628	nd
86629	nd
86630	nd
86631	nd
86632	nd
86633	nd
86634	nd
86635	nd
86636	nd
86637	nd
86638	nd
86639	nd
86640	nd
86641	nd
86642	nd
86643	nd
86644	nd
86645	nd
86646	nd
86647	30
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

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SAMPLE #	Au ppb
86648	20
86649	100
86650	nd
86651	nd

DETECTION LIMIT 5
nd = none detected -- = not analysed is = insufficient sample

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RENO, NEVADA, U.S.A.

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: GIBRALTAR MINES LTD.
ADDRESS: P.O. Box 130
: McLeese Lake, BC
: V0L 1P0

DATE: JAN 10 1990

REPORT#: 900002 GA
JOB#: 900002

PROJECT#: NONE GIVEN
SAMPLES ARRIVED: JAN 08 1990
REPORT COMPLETED: JAN 10 1990
ANALYSED FOR: Au (FA/AAS)

INVOICE#: 900002 NA
TOTAL SAMPLES: 165
SAMPLE TYPE: 165 CORE PULPS
REJECTS: DISCARDED

SAMPLES FROM: MR. G. E. BARKER
COPY SENT TO: GIBRALTAR MINES LTD.

PREPARED FOR: MR. G. E. BARKER

ANALYSED BY: VGC Staff

SIGNED: _____

GENERAL REMARK: None

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1988 TRIUMPH ST.
VANCOUVER, B.C. V5L 1K5
● (604) 251-5656
● FAX (604) 254-5717

BRANCH OFFICES
PASADENA, NFLD.
BATHURST, N.B.
MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

REPORT NUMBER: 900002 GA JOB NUMBER: 900002 GIBRALTAR MINES LTD.

SAMPLE #	Au ppb
85830	40
85831	20
85832	nd
85833	20
85834	nd
85835	10
85836	nd
85837	nd
85838	10
85839	20
85840	20
85841	30
85842	20
85843	nd
85844	nd
85845	nd
85846	nd
85847	nd
85848	nd
85849	nd
85850	nd
85851	nd
85852	nd
85853	nd
85854	20
85855	10
85856	10
85857	30
85858	nd
85859	10
85860	30
85861	nd
85862	nd
85863	10
85864	40
85865	20
85866	10
85867	nd
85868	nd
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

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SAMPLE #	Au ppb
85869	nd
85870	nd
85871	nd
85872	nd
85873	nd
85874	nd
85875	30
85876	nd
85877	30
85878	nd
85879	nd
85880	nd
85881	nd
85882	nd
85883	10
85884	nd
85885	nd
85886	nd
85887	nd
86652	10
86653	10
86654	nd
86655	nd
86656	nd
86657	10
86658	10
86659	10
86660	10
86661	20
86662	30
86663	30
86664	30
86665	30
86666	30
86667	20
86668	30
86669	30
86670	120
86671	20
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

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RENO, NEVADA, U S.A.

SAMPLE #	Au ppb
86672	30
86673	40
86674	30
86675	30
86676	40
86677	40
86678	10
86679	20
86680	40
86681	40
86682	30
86683	20
86684	20
86685	30
86686	40
86687	30
86688	30
86689	20
86690	90
86691	20
86692	30
86693	30
86694	40
86695	20
86696	20
86697	30
86698	20
86699	40
86700	10
86701	20
86702	40
86726	90
86727	10
86728	20
86729	10
86730	nd
86731	20
86732	10
86733	20
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

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RENO, NEVADA, U.S.A.

SAMPLE #	Au ppb
86734	30
86735	10
86736	20
86737	nd
86738	nd
86739	nd
86740	60
86741	10
86742	10
86743	nd
86744	70
86745	10
86746	10
86747	10
86748	10
86749	30
86750	nd
86751	nd
86752	130
86753	nd
86754	nd
86755	nd
86756	10
86757	20
86758	30
86759	nd
86760	nd
86761	10
86762	nd
86763	nd
86764	nd
86765	10
86766	nd
86767	nd
86768	10
86769	20
86770	260
86771	130
86772	nd
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

VGC VANGEOCHEM LAB LIMITED

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REPORT NUMBER: 900002 GA JOB NUMBER: 900002 GIBRALTAR MINES LTD.

SAMPLE #	Au ppb
86773	10
86774	nd
86775	nd
86776	nd
86777	10
86778	nd
86779	nd
86780	10
86781	10

DETECTION LIMIT 5
nd = none detected -- = not analysed is = insufficient sample

Gibraltar Assay Procedure.

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

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

Dor Cot

ASSAY CERTIFICATE

Exploration

Date Dec 29 , 19 81

GXD89-4

PPM

Reverse order

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	Zn	Pb	Ag
85864		402	10	314	8	1.7
65		188	8	57	13	1.0
66		151	10	92	22	1.0
67		123	10	41	11	.8
68		133	9	49	22	1.3
69		17~	14	26	13	1.2
70		174	11	18	12	.6
71		188	10	36	20	.7
72		230	14	50	16	.7
73		155	6	55	17	.6
74		118	7	20	6	.5
75		301	11	119	15	1.3
76		173	14	18	10	.8
77		116	12	20	14	.7
78		157	14	35	8	.8
79		200	5	45	15	.9
80		169	8	29	11	.6
81		294	64	40	14	.9
82		228	40	66	17	.9
83		173	8	293	33	1.0
84		223	13	34	13	.6
85		200	10	26	18	.7
86		182	14	23	12	.6
87 ✓		228	17	19	11	.9

cc: Assay Lab.

Assayer .....

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

DOR Core 8

ASSAY CERTIFICATE

Exploration

Date Dec 14, 19 89

GXD89-4

Reversed order

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	Zn	Pb	Ag
85837		111	9	101	20	.6
38		202	7	70	27	1.0
39		125	5	164	29	1.1
40		127	6	491	34	1.7
41		91	5	440	17	1.6
42		119	8	151	20	1.1
43		139	17	142	20	1.1
44		356	7	440	24	.9
45		273	17	108	19	1.2
46		138	13	40	13	.9
47		119	7	37	17	.9
48		132	21	82	12	.8
49		182	9	31	20	1.0
50		132	15	37	16	1.2
51		132	14	34	8	1.2
52		80	17	26	20	1.0
53		194	9	68	17	.9
54		199	15	41	22	1.3
55		100	7	30	14	.8
56		110	4	32	22	.7
57		185	12	38	22	1.2
58		134	13	24	11	1.2
59		104	23	25	8	1.0
60		140	5	28	11	1.0
61		103	10	24	10	1.4
62		108	11	22	8	.7
63		120	4	39	13	1.1

cc: Assay Lab.

Assayer 38

Form. No. Mill - 1

DOR CORE

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION

Date ..... 10. DEC. ..., 19.89.

Sample No.	% Ox. Cu.	ppm Total Cu.	ppm % MoS_2	ppm Pb	ppm Zn	ppm Ag
GXD 89-6						
86771		121	19	27	29	0.9
72		122	8	27	35	1.0
73		109	7	24	60	0.9
74		24	13	21	30	0.9
75		46	6	22	13	0.9
76		141	5	29	28	1.0
77		87	13	29	23	1.2
78		74	27	29	25	1.0
79		173	10	28	22	1.0
80		145	4	28	50	1.0
81		83	5	35	23	1.1

cc: Assay Lab.

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

Form. No. Mill - 1

Dor Cote

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION

Date .....7..DEC.....,19.89..

Sample No.	% Ox. Cu.	ppm Total Cu.	ppm % MoS_2	ppm Pb	ppm Zn	ppm Ag
GXD-89-6						
86743		118	9	4	22	1.3
44		71	8	16	114	1.8
45		86	7	32	113	1.4
46		86	7	11	69	1.3
47		73	5	9	44	1.0
48		168	5	15	214	1.4
49		123	9	13	209	1.8
50		113	19	9	31	1.3
51		215	10	11	26	1.5
52		133	15	4	25	1.0
53		97	10	8	225	1.1
54		96	18	10	64	1.2
55		115	12	12	27	1.0
56		122	8	12	28	1.2
57		113	14	9	73	1.0
58		170	40	12	216	1.8
59		106	10	7	326	1.3
60		121	9	10	72	1.4
61		136	13	10	56	1.7
62		156	11	4	108	1.6
63		147	19	12	58	1.4
64		132	9	10	94	1.5
65		115	9	11	52	1.4
66		106	10	11	73	1.5
67		190	13	25	62	1.5
68		226	12	23	112	1.7
69		103	12	22	73	1.9
70		41	7	12	32	1.6

cc: Assay Lab.

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

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Dor Core

Exploration

Date Dec 6 19 89

GXDE9-3

ppm

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	Zn	Pb	Ag
86678		121	10	82	9	1.0
79		109	10	71	13	1.4
80		90	11	56	11	1.3
81		98	12	48	9	1.1
82		96	10	89	15	1.4
83		95	11	55	11	1.3
84		119	11	70	10	1.1
85		97	8	60	8	1.1
86		160	13	63	14	1.4
87		106	10	50	11	1.2
88		136	24	51	11	1.3
89		146	20	72	9	1.0
90		116	9	82	11	1.0
91		158	8	57	10	1.1
92		97	8	39	11	1.0
93		88	8	48	13	1.0
94		118	9	43	8	1.0
95		37	6	47	8	1.2
96		74	8	143	12	1.3
97		82	4	147	14	1.4
98		71	8	54	9	1.1
99		2103	10	43	9	1.0
700		141	8	51	11	1.0
01		121	8	65	8	1.0
02		151	11	61	7	1.8

cc: Assay Lab.

Assayer

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

Dor Cove

ASSAY CERTIFICATE

Exploration

Date Dec 6 revised, 19 89

GxD89-6

Sample No.	% Ox. Cu.	Total Cu.	* MoS_2	Zn	Pb	Ag
86726		96	6	19	6	.5
27		113	7	17	9	.5
28		135	11	19	7	.8
29		101	7	16	10	1.0
30		143	13	24	7	1.1
31		102	13	32	8	1.2
32		177	22	35	12	1.0
33		132	12	25	7	.9
34		126	11	30	5	.8
35		117	12	33	11	1.0
36		106	8	46	10	1.0
37		163	25	35	13	1.0
38		93	9	17	12	.8
39		90	8	18	10	.7
40		75	8	17	10	.7
41		93	7	17	12	.7
42		92	13	21	10	.6
GxD89-4						
85830		85	3	24	9	.8
31		158	5	36	11	.9
32		218	6	19	15	1.4
33		254	18	61	14	1.3
34		155	5	25	11	1.2
35		111	7	22	11	.8
36		140	6	21	11	.8

cc: Assay Lab.

Assayer .....

Form. No. Mill - 1

Dor Cove

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration

Date Nov 27, 1989

GXD 89-3

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	Pb	Zn	Ag
86652		167	103	10	73	1.2
53		140	27	11	97	1.3
54		125	23	9	65	1.4
55		128	21	17	114	1.1
56		71	10	10	104	1.0
57		96	14	10	103	1.3
58		97	17	11	70	1.1
59		81	16	12	83	1.2
60		97	5	14	147	1.1
61		126	30	10	103	1.1
62		115	12	14	104	1.1
63		102	9	7	65	1.0
64		146	8	10	110	1.1
65		123	15	12	100	1.0
66		152	17	12	102	1.0
67		135	32	12	91	1.2
68		103	45	17	117	1.4
69		124	14	10	73	0.3
70		117	14	20	142	1.1
71		119	16	17	85	1.0
72		113	13	6	72	1.0
73		111	15	20	81	1.2
74		100	14	14	66	1.0
75		144	15	16	40	1.0
76		160	16	14	62	1.8
77		142	16	14	47	1.0
26						

cc: Assay Lab.

Assayer BB

Form. No. Mill - 1

Dor Core

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration

Date Nov 23, 19 89

GXD89-3

PPM

Sample No.	% Ox. Cu.	Total Cu.	MoS_2	Pb	Zn	Ag
86626		119	164	17	300	1.8
27		240	50	15	255	1.5
28		192	18	14	435	1.5
29		135	16	22	127	1.5
30		140	14	12	95	1.4
31		161	14	15	157	1.7
32		135	14	23	175	1.6
33		152	14	20	170	1.5
34		120	8	10	65	1.4
35		133	11	17	141	1.7
36		134	16	24	340	1.4
37		95	11	10	141	1.3
38		115	26	18	249	1.5
39		116	46	20	213	1.7
40		98	17	18	241	1.3
41		131	22	16	140	1.4
42		166	23	10	200	1.3
43		133	20	17	85	1.8
44		147	18	14	51	1.5
45		158	11	13	66	1.6
46		111	21	10	125	1.8
47		111	10	17	111	1.5
48		140	13	13	290	1.3
49		90	26	13	61	1.4
50		131	16	8	94	1.6
51		154	16	11	90	1.7

(26)

cc: Assay Lab.

J J

Assayer .....

Form. No. Mill - 1

Dor Core.

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION

Date ..... 20... NOV.., 19.89..

GXD 89-2

Sample No.	% Ox. Cu.	Total Cu. ppm	% MoS_2 ppm	Pb ppm	Zn ppm	Ag ppm
85810		411	16	10	29	0.6
11		284	15	9	31	0.9
12		231	8	15	31	0.8
13		230	9	16	33	0.5
14		251	10	17	25	0.8
15		248	4	21	24	1.1
16		318	12	19	30	0.8
17		232	13	9	29	0.9
18		308	12	8	30	1.1
19		217	5	5	28	0.7
20		540	4	10	96	1.5
21		190	5	11	44	0.7
22		176	3	11	32	0.6
23		181	2	12	26	0.6
24		182	7	5	27	0.7
25		306	19	7	28	0.7
26		305	12	10	31	0.9
27		308	12	9	36	0.6
28		419	17	9	31	0.9
29		347	6	11	73	1.1

cc: Assay Lab.

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

Form. No. Mill - 1

Dot Core

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration

Date ..... 15 Nov ....., 19 89

GXD 89-2

Sample No.	% Ox. Cu.	ppm Total Cu.	ppm % MoS_2	ppm Pb	ppm Zn	ppm Ag
85786		169	8	12	218	1.1
87		161	7	12	144	1.3
88		216	20	18	297	1.3
89		120	17	14	82	0.8
90		168	7	14	83	1.0
91		200	12	13	40	0.7
92		203	3	14	28	0.8
93		307	7	22	36	1.5
94		67	4	23	83	1.4
95		104	3	14	86	1.3
96		194	3	13	33	1.1
97		117	2	11	19	0.7
98		142	3	10	18	0.8
99		126	2	13	27	1.0
800		248	3	15	26	0.9
01		219	2	12	23	0.8
02		244	2	14	35	0.9
03		233	15	14	40	1.0
04		254	12	11	30	0.9
05		251	24	11	48	0.9
06		204	14	7	47	1.2
07		179	12	7	40	1.0
08		298	43	11	43	1.0
09		285	24	12	33	0.9

cc: Assay Lab.

Assayer ..J.J./D.A.W.....

Form. No. Mill - 1

Dot Core

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration

Date Nov 14, 1989

GXD 89-5

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	Pb	Zn	Ag
86612		151	22	19	47	2.0
13		154	268	12	55	2.0
14		706	11	15	89	2.4
15		253	7	15	47	2.0
16		202	6	13	42	2.0
17		8120	14	27	668	6.1
18		565	7	12	71	2.2
19		251	6	15	51	1.7
20		171	8	15	55	1.7
21		196	7	16	51	1.7
22		195	6	13	55	1.6
GXD89-2						
85766		277	5	15	780	1.5
67		215	10	15	282	1.6
68		117	6	17	94	1.6
69		156	10	15	78	1.7
70		134	12	15	73	1.6
71		92	11	15	47	1.6
72		120	7	12	63	1.8
73		107	15	17	99	1.5
74		102	12	21	99	1.8
75		161	22	18	680	1.9
76		88	17	18	275	1.7
77		99	14	16	268	2.1
78		84	11	13	58	1.7
79		144	9	14	45	1.8
80		140	11	13	70	1.8
81		86	8	17	390	2.8
82		140	8	17	101	1.8
83		117	6	20	87	1.7
84		195	7	17	159	1.6
85		179	11	12	63	1.6

cc: Assay Lab.

Assayer JJ

Form. No. Mill - 1

GIBRALTAR MINES LIMITED Dor Core.

ASSAY CERTIFICATE

EXPLORATION

Date ..... 10... NOV.., 19. 89.

GXD89-1

Sample No.	% Ox. Cu.	Total Cu.	% MoS2	ppm Pb	ppm Zn	ppm Ag
5 8745		98	11	21	109	1.1
46		84	7	26	89	1.2
47		96	6	23	90	1.1
48		80	6	23	80	0.9
49		83	5	28	88	1.3
50		86	6	29	110	1.1
51		119	8	28	146	1.5
52		104	5	25	104	1.3
53		66	3	29	46	1.4
54		65	3	26	42	1.3
55		75	7	26	31	1.2
56		155	8	29	95	1.2
57		116	7	30	62	1.3
58		78	2	31	120	1.7
59		72	5	32	113	1.6
60		79	4	27	115	1.7
61		110	5	27	441	1.8
62		147	6	21	502	1.5
63		156	6	23	176	1.5
64		120	11	25	188	1.5
65		125	8	28	282	1.7

cc: Assay Lab.

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

Form. No. Mill - 1

Dor Core

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration

Date Oct 25, 1989

GXO 89-5

PPM

Sample No.	% Ox. Cu.	Total Cu.	MoS_2	Pb	Zn	Ag
86589		100	6	30	61	1.5
90		78	5	30	55	1.5
91		152	8	26	60	1.4
92		193	3	33	62	1.5
93		380	522	37	64	1.7
94		276	35	21	45	1.7
95		542	37	25	42	1.7
96		396	15	27	37	1.6
97		194	56	23	26	1.5
98		137	13	26	37	1.5
99		204	31	25	35	1.4
600		262	14	26	291	2.0
01		690	400	26	223	2.0
02		736	500	31	73	2.2
03		141	88	35	38	2.1
04		270	46	24	46	1.7
05		520	73	35	95	2.0
06		234	9	29	54	1.6
07		317	5	24	40	1.4
08		446	4	21	24	1.5
09		200	12	27	44	1.2
10		146	7	22	41	1.4
11		159	6	25	41	1.4

(23)

cc: Assay Lab.

Assayer .....

Form. No. Mill - 1

Dor Core

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration

Date Oct 19, 19 89

GxD 89-5

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	Pb	Zn	Ag
86551		145	4	11	40	1.2
86562		186	6	12	36	1.0
63		228	5	9	33	1.0
64		135	6	6	30	1.2
65		407	5	11	37	1.3
66		250	39	12	34	1.5
67		397	15	12	34	1.7
68		64	7	6	21	1.8
69		268	7	10	21	1.0
70		236	6	11	22	1.2
71		149	4	12	22	1.0
72		171	5	10	24	1.0
73		106	5	9	26	1.1
74		441	7	10	46	1.4
75		143	7	9	31	1.0
76		334	8	10	31	1.2
77		195	46	10	33	1.4
78		150	5	9	42	1.3
79		186	4	5	49	1.1
80		148	7	9	42	1.1
81		126	5	7	47	1.1
82		152	6	8	55	1.2
83		75	3	11	54	1.2
84		99	8	7	60	1.5
85		129	15	10	52	1.2
86		190	2	8	67	1.1
87		125	7	7	47	1.2
88		208	31	7	44	1.3
(28)						

cc: Assay Lab.

Assayer JG

Form. No. Mill - 1

Dor Core

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration

Date Oct 18 1989

GXD89-1

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	Pb	Zn	Ag
85731		144	13	19	65	1.5
32		107	21	23	52	1.5
33		145	25	23	52	1.4
34		141	20	22	207	1.8
35		174	15	20	80	1.6
36		130	16	28	68	1.5
37		53	37	21	48	1.3
38		66	14	19	62	1.6
39		98	17	18	39	1.6
40		88	16	14	61	1.7
41		100	15	13	36	1.6
42		99	12	14	41	1.7
43		88	13	20	49	1.4
44		104	11	14	68	1.4
GXD89-5						
86552		589	18	22	41	1.6
53		224	13	21	33	1.6
54		200	14	33	66	1.3
55		1765	31	23	56	2.1
56		562	13	20	41	1.4
57		558	12	22	49	1.4
58		332	11	17	48	1.3
59		164	9	22	43	1.0
60		316	25	13	39	1.4
61		288	7	16	36	1.5
24						
Checks						
85711		428	11	30	164	2.4
12		572	11	22	73	2.0
13		818	12	22	735	4.0
24		87	14	20	55	1.2

cc: Assay Lab.

Assayer BB

Form. No. Mill - 1

Dor Core

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration ~~Reassay~~

Date Oct 18, 1989

GXD89-1 checks ppm

Sample No.	~~% Ox. Cu.~~	Total Cu.	% MoS_2			
85701	ppm Cu	150				
02		80				
03		86				
04		100				
05		202				
06		170				
07		555				
08		120				
09		111				
10		318				
11	428	450				
12	572	560				
13	818	747				
14		169				
15		166				
16		166				
17		137				
18		220				
19		205				
20		226				
21		82				
22		112				
23		133				
24	87	87				
25		110				
26		104				
27		98				
28		100				
29		154				
30		174				

cc: Assay Lab.

Assayer JD

Form. No. Mill - 1

Dor. Core

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration

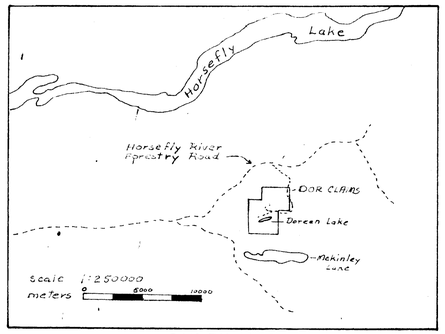
Date Oct 17 19 89

GXD89-1 PPM

Sample No.	~~% Ox~~. Cu.	~~% Total Cu.~~	% MoS_2	ppm Pb	ppm Zn	ppm Ag
85701	150	.12	20	21	35	2.0
02	80	.06	16	18	33	1.2
03	86	.07	19	20	31	1.4
04	100	.08	12	25	27	1.3
05	202	.15	18	22	97	2.4
06	170	.13	15	28	52	2.0
07	[redacted]	.37	11	33	41	3.0
08	120	.09	12	19	35	1.8
09	111	.08	10	11	27	1.2
10	chis ≡ 318	.24	17	21	45	2.0
11	(428) 439 450	.32	18	20	179	2.8
12	(572) 566 ~~560~~	.39	20	20	73	2.2
13	(818) 782 ~~747~~	.51	19	21	638	3.4
14	169	.13	19	15	145	1.8
15	166	.12	17	13	227	2.0
16	166	.14	14	20	80	2.0
17	137	.10	15	19	139	1.7
18	220	.15	20	16	63	1.4
19	205	.15	10	24	74	1.6
20	226	.17	8	20	58	2.1
21	82	.06	9	16	44	1.4
22	112	.09	10	20	42	1.3
23	133	.10	15	20	163	1.6
24 (81)	87	.65	20	17	52	1.2
25	110	.08	13	21	123	1.4
26	104	.08	16	20	161	1.2
27	09	.07	14	13	73	1.3
28	100	.09	19	14	75	1.5
29	154	.13	20	17	46	1.3
30 ✓	174	.13	11	18	60	1.7
30						

cc: Assay Lab.

Assayer JS



INDEX MAP

N

Bridge

1463m (4800')

1371.6m (4500')

1219.2m (4000')

1066.8m (3500')

Doreen Creek

1524m (3000')

LCP DOR 1

DOR 4 LCP

DOR 2 LCP

DOR 5 FR LCP

GXD89-5 228m -90°

GXD89-6 180m -65°

GXD89-4 176m -65°

GXD89-2 198m -65°

GXD89-3 234m -50°

GXD89-1 198m -65°

Doreen Lake

EM Conductor

Au Geochem anomaly (>20ppb)

Road

meters: 0 100 200 300 400

Note: Control by chain and compass

19,551

GEOLOGICAL BRANCH ASSESSMENT REPORT

DRAWN GEB	SCALE 1:5000	GIBRALTAR MINES LTD. (N.P.L.)	1989 Diamond Drill Sites
TRACED	DATE 27 AUG 89	DOREEN LAKE PROPERTY	FILE No. Figure 3
APPROVED	CHECKED		