REPORT ON THE EXPLORATION OF THE WAYSIDE PROPERTY GOLD BRIDGE AREA LILLOOET MINING DIVISION, B.C.

for

CARPENTER LAKE RESOURCES LTD.

Box 466
Lillooet, B.C.

bу

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December 19th, 1980

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PROPERTY GOLD BRIDGE AREA, LILLOOET MINING DIVISION, B.C.

SUMMARY

The wayside property was worked continuously during 1980 and a total of 7,690 feet of diamond drilling was completed in 10 holes. Of these 8 holes totalling 6500 feet were drilled on the sulphide or New Discovery zone and two holes were drilled to probe the main Wayside shear below the 9th level.

Additional work consisted of some lines of I.P. survey over the sulphide zone, and some geochemical sampling along the roadside.

The drilling of the sulphide zone has disclosed a body of massive to disseminated sulphides, principally pyrite and pyrrhotite which surrounds a body containing potentially economic values in copper and zinc. The I.P. survey indicates that this zone may trend to the northwest towards the old Wayside mine, and future drilling will be programmed in this direction.

Hole 80-S10 which was drilled from the surface to cut the Wayside shear below the 9th level intersected a 15 foot section of vein in the hangingwall of the shear which averaged 1.76 oz/ton Au and 0.68 oz/ton Ag. Within this 15 feet, 5 feet assayed 4.78 oz/ton Au and 1.84 oz/ton Ag.

Separate exploration programs are proposed for both the gold and sulphide zones. The Wayside gold shear zone will be probed by three surface holes, and concurrently with this, the mine should be de-watered and a complete mapping and sampling of the underground workings carried out, followed by underground diamond drilling.

The sulphide zone will be explored by further drilling to the north, and additional I.P. lines as necessary. A third target to be

investigated is the high gold geochem sample at station 880.S. Further stripping is recommended. The total budget for the three exploration zones has been estimated at \$305,000, with \$160,000 assigned to the gold zone, \$140,000 to the sulphide zone, and the remainder to investigate the geochem anomaly.

INTRODUCTION

On January 21st, 1980 the writer submitted a report on the exploration of the Wayside property located near Gold Bridge in the Lillooet Mining Division of B.C. which covered the history of the property, its geological characteristics, and summarized the exploration work carried out from 1974 to the end of 1979 by Carpenter Lake Resources and its predecessor company, Dawson Range Mines Ltd. N.P.L. A program of further exploration was outlined consisting of diamond drilling, geophysical surveys, etc., the first phase of which was estimated to cost \$245,000.

A large part of the above work was completed during 1980, the results of which are dealt with in this report with recommendations for the 1981 program. The property background, geological setting etc. will not be repeated in this report however, as it has been fully covered in previous reports dated 1971 and 1980.

This report was prepared for Carpenter Lake Resources Ltd. Box 466 Lillooet, B.C.

LOCATION AND ACCESS

The property, which now consists of 31 reverted Crown Granted claims and four located claims lies on both sides of Carpenter Lake and partially under the lake.

Access is by way of the all weather Bridge River highway from Lillooet, a distance of approximately 100 km. The highway follows the west side of Carpenter Lake cutting through the claims with the old mine adits being both above and below the road grade. A location map accompanies this report.

PROPERTY

The property consist of 31 reverted Crown Granted claims and 4 located claims as follows —

Reverted CG.'s	Lot No.	Record No.
Wayside	3036	Min. Lease #M-57
Argon	3037	417 (1)
Radium	3038	418 (1)
Helium	3039	419 (1)
Queen City Fr.	3040	420 (1)
Rodeo	5471	421 (1)
Commodore Fr.	5503	422 (1)
Lodge	5504	423 (1)
Alpha	5505	424 (1)
Beta	5506	425 (1)
Gamma	5507	426 (1)
Cabinet	5509	427 (1)
Council	5510	428 (1)
Newport	5511	429 (1)
Camp Dennison	5513	430 (1)
Sun	5515	431 (1)
City #1	5912	432 (1)
Spring A	5913	433 (1)
Spring Fr.	5914	434 (1)
Spring B	5915	435 (1)
Spring_C	5916	436 (1)
Lodge B	5917	437 (1)
Rodeo Fr.	5918	438 (1)
Wayside #2	6955	439 (1)
Lodge #2 Fr.	6956	440 (1)
Counsel #2	5628	724 (1)
Councel #3	5630	725 (1)
Cabinet #3	5631	726 (1)
Sat #3	5472	727 (1)
Sat #1	5473	728 (1)
Sat #2	5473	1097 (1)
Located Claims		
Wayside Ext. #2 (18 units)	i	1089 (12)
" Fr. #1		1247 (3)
" Fr. #2		1248 (3)
" Fr. #3		1249 (3)
		• •

Mineral Lease #M-57 is owned by Carpenter Lake Resources Ltd. All other claims are in the name of P. Polischuk, held in trust for Carpenter Lake Resources Ltd.

SUMMARY OF 1980 EXPLORATION

During the year a total of 7690 feet of diamond drilling was completed on the Wayside property in ten holes. Eight of these holes totalling 6500 feet were drilled to explore the sulphide, or "New Discovery" zone, and two holes totalling 1190 feet were assigned to test the downward extension of the gold veins in the Wayside shear below the No. 9 level of the mine. Hole 80-S10 is still in progress at 1120 feet and has been logged and sampled to 890 feet. The results of each hole are summarized in the following section, and complete logs and assays of each hole are included in this report as Appendix.

In addition to the diamond drilling, an I.P. and S.P. geophysical survey was conducted over the New Discovery zone, and soil samples were taken along the road at 30 m. intervals for a total of 2170 m.

(1) DIAMOND DRILLING

(A) Sulphide (New Discovery Zone) Hole 80-S1 Bearing 240° Dip - 60°

This hole was drilled parallel to and 150 feet to the southeast of hole 79-S6 which intersected a 50 ft. zone of heavy sulphide mineralization averaging Cu 0.895%, Zn 1.51%. Hole 80-S1 cut a similar section of sulphides, the 30 ft. from 677 ft. to 707 ft. averaging Cu. 0.77%, Zn.1.34%.

Hole 80-S2 Bearing 240° Dip - 60°

This hole was drilled parallel to, and on nearly the same vertical plane as 79-86, and 93 ft. to the west.

Disseminated to massive sulphide mineralization was noted from 115 ft. to 135 ft., the weighted average assay of 28 ft. being 0.30% Cu and 0.11% Zn.

Minor mineralization was encountered in the core from 145 ft. to 345 ft., except for 10 feet from 185 ft. to 195 ft. which assayed 0.40% Cu and 0.05% Zn.

Hole 80-S3 Bearing 250° Dip - 50°

Located 150 ft. north of 80-S2 and drilled to a depth of 732 feet. Minor values in copper and zinc associated with massive to disseminated pyrite were encountered from 125 feet to 318 feet.

Hole 80-S4 Bearing 250° Dip - 60°

Located 280 ft. south of 80-S1 and drilled to a depth of 785 feet. The entire hole was in greenstone and diorite cut by minor quartz veinlets and with minor amounts of disseminated pyrite and chalcopyrite. At 737 feet the hole entered augite diorite and was stopped in the formation.

Hole 80-S5 Bearing 240° Dip - 50°

This hole is located directly in line with 79-S6 but 220 ft. behind it, and about 50 feet lower in elevation. To a depth of 271 ft. the hole was in augite diorite and soda granite except for a 20 foot band of greenstone from 194 to 214 feet. The remainder of the hole to 768 feet was in greenstone cut by andesite and rhyolite dikes, with disseminated to massive sulphide mineralization starting at 667 feet. The 17 feet from 667 to 684 averaged 0.882% Cu and 0.43% Zn, and 32 feet from 722 to 754 averaged 0.64% Cu and 1.34% Zn.

Hole 80-S7 Bearing 240° Dip - 60°

Located 80 feet to the east of hole 80-S5 and drilled in the same vertical plane. The hole was lost at 550 feet before it had entered the mineral zone.

Hole 80-S8 Bearing 240° Dip - 60°

This hole, drilled alongside 80-S7, which was lost, was completed to a depth of 1001 feet. Disseminated to massive pyrite, chalcopyrite, and sphalerite were encountered from 810 ft. to 831 ft., the weighted average assay of the 17 ft. from 814 to 831 being Cu 0.98%, Zn 0.46%. Within this 17 ft., 6 ft. from 814 to 820 assayed Cu 1.32%, Zn 0.43%, and the 5 ft. from 826 to 831 ft. assayed Cu 0.92%, Zn 1.00%.

Hole 80-S9 Bearing 240° Dip - 60°

This hole was drilled on the same bearing and dip as hole 80-S1, but 200 feet behind it and 20 feet lower in elevation. It has been completed to 1180 feet and has been logged to 890 ft. Minor chalcopyrite and pyrite mineralization was noted from 906 to 915 feet, but below commercial grade.

Included in this report are vertical sections through holes 79-S6, 80-S2, 80-S5, 80-S8, and also holes 80-S1 and 80-S9, these being the groups of holes which are in approximately the same vertical plane. The relation of the mineral intersections encountered will be discussed in a following section.

B WAYSIDE MINE SHEAR

Hole 80-S6 Bearing 260° Dip - 60°

This hole was drilled from the mud flats of Carpenter Lake and aimed to cut the main Wayside shear below the 9th level and to the east of the existing workings. The overburden and silt was found to be much thicker than expected and the hole had to be abandoned at about 90 feet.

Hole 80-S10 Bearing 215° Dip - 56°

As hole 80-S6 had to be abandoned (see above) a site was selected on

a rock outcrop above Carpenter Lake 800 feet northeast of the No.5 adit and the hole projected to cut the shear about 120 feet below the elevation of the 9th level. This hole has reached a depth of about 1100 feet and is still in progress, but the section from the surface to 890 feet has been logged and sampled. A gouge seam followed by a quartz vein was intersected from 685 feet to 700 feet which was split and assayed in 5 ft. sections. The section from 685 to 690 ft assayed Au 0.48 oz/ton, Ag 0.20 oz/ton; from 690 ft. to 695 ft, Au 4.78 oz/ton, Ag 1.84 oz/ton, and from 695 ft. to 700 ft. Au 0.019 oz/ton, Ag 0.01 oz/ton. The average for the 10 feet from 685 to 690 ft. is Au 2.63 oz/ton, Ag1.02 oz/ton or for the 15 ft. from 685 ft. to 700 ft., the average would be Au 1.76 oz/ton, Ag 0.68 oz/ton. A plan and section of this hole is included with this report.

(2) GEOPHYSICAL SURVEY

During July 1980 part of the area of the New Discovery Zone was subjected to an I.P. survey. The final report of this work is still incomplete, but the preliminary results indicate a strongly anomalous area over the zone of mineralization indicated by the diamond drilling. The anomaly extends to the north beyond the drilling and is open at this end, but it appears to be displaced or split off to the northwest, but is still strong at the end of the survey.

At the south end, the survey indicates a cut-off or end to the mineralization about 300 feet south of the discovery area.

Several minor anomalies were indicated well removed from the main zone.

(3) SOIL SAMPLING

Soil samples were taken at 30 m. intervals along the roadside for a distance of 1030 m. to the south and 1140 m. to the north of Hole 80-S2. The samples were analysed by Acme Analytical Labs Ltd. in Vancouver

with gold and copper expressed as parts per million.

The gold values obtained were mainly in the background level of 0.005 p.p.m. except for a few stations. At 360N a value of .160 p.p.m. was obtained which corresponds to the position of the Commodore Vein. At 630N a value of 0.340 p.p.m. may be due to gold from the old mine workings above. The highest reading of 1.600 p.p.m. was obtained at station 880S, and corresponds closely in location to the high assay from a soil sample mentioned by Lammle in his report of 1974.

The copper values were low to moderately high along the road but it should be noted that the samples taken directly across the area where drilling has indicated widespread copper-zinc mineralization were lower than some of the values obtained to the north and south of the drilled area.

DISCUSSION OF RESULTS

The high grade intersection encountered in hole 80-S10 which is believed to be the hangingwall or Notman vein justifies an accelerated program of exploration of the main Wayside Mine. The present hole should be continued until it has cut the true footwall, and according to present projections the main, or footwall vein should be encountered within 50 to 100 feet of the present end of the hole.

The next hole to be drilled should be from the same site and at the same dip, but at a bearing of 245° which should cut the structures approximately 250 feet to the north, and normal to the projected strike.

The third hole to be drilled would be a repeat of 80-S6 which had to be abandoned in overburden, but to avoid this problem, a large diameter

bore hole could be sunk to bedrock, cased, and diamond drilling continued through the casing.

In 1974 C.A.R. Lammle, P. Eng. designated several targets for exploration in the main mine, both above and below the No. 5 adit level. At the time of his report gold was quoted at \$185 per oz., so that now with gold in the \$600.00+ per oz. range, these targets appear particularly attractive, especially with the evidence of high grade vein material at depth as indicated by the 80-S10 hole. The shaft was repaired and the mine de-watered in 1971, so a renewed de-watering to the 9th level should present no problems.

Delineation of the sulphide zone by diamond drilling is far from complete but the vertical section producted by holes 79-S6, 80-S2, 80-S5 and 80-S8 indicates a lenticular shaped body of sulphide mineralization with potentially economic values in copper and zinc which dips to the southeast, and underlies a rhyolite dike dipping in the same direction. (See section accompanying this report.) This lense has no clearly defined contacts and appears to be the nucleus of a large body of disseminated pyrite in the Ferguson greenstone, and has approximate dimensions of 300 feet in width with a maximum thickness of 100 feet.

The section through holes 80-S1 and 80-S9 which lies 200 feet to the south of the previous section indicated a section of copper-zinc mineralization in 80-S1 which correlates with the intersections to the north, but 80-S9 cut only weak sulphides below the 900 foot point and the log of the hole showed it to be in intermittent bands of augite diorite and volcanics which would suggest that the hole was close to the contact with the south limb of the Bralorne intrusive.

Two hundred feet north of the section 79-S6 et al, only one hole has been drilled to date 80-S3 which intersected zones of massive sulphides

above the rhyolite dike, but assays indicated only some marginal values in copper and zinc. A deeper probe on the same bearing might give better definition of the trend of mineralization.

The previously discussed I.P. survey has indicated several strong anomalies to the north and northwest of the drilled area and this should be the main exploration target for future drilling as results to date have shown a fairly good correlation between an I.P. anomaly and drill indicated sulphide mineralization.

One further target on the property remains to be tested, that is the high gold soil sample of 1600 p.p.b. located on the road at station 880S. There is no known gold vein or old dump in this vicinity which could have caused the anomalous reading, so it may represent a so far undiscovered vein system as there is fairly heavy overburden in the area. Initially, corroboration of the sample should be attempted by taking several more closely spaced samples each side of the station and making a comparison of the results.

In summary, the property has now distinct exploration targets, one being the gold in the original Wayside Mine zone, which is becoming increasingly attractive with the continuing high price for gold, and the second is the copper-zinc sulphide zone in the volcanics which will require considerable more drilling before any real definition of the potential of the deposit, but the results achieved to date justify continued work. An outline of recommended work for both areas is as follows.

RECOMMENDATIONS

A. Wayside gold-quartz zone

1. Complete the three surface diamond drill holes to trace the vein

system below and to the east of the 9th level.

- 2. Concurrently with (1) carry out necessary repairs to the No. 5 adit and shaft timbering, and de-water the mine.
- 3. When the mine is dry, map and sample all the levels below the 5th level.
- 4. After an evaluation of the results of the above select the sites, and drill both the hanging and footwall. All vein material should be split and assayed, as there may be wide shear zones which were too low grade to be of interest in the past, but which would now constitute ore grade material.

B. Sulphide Zonë

- Continue the 1980 drilling program to the north, spacing holes at 200 foot intervals along strike with at least two holes per vertical plane. Special holes should be drilled below the indicated I.P. anomalies.
- 2. Based on the results obtained from (1) plan fill-in holes as necessary.

C. Gold Geochem Anomaly

1. As previously mentioned, the high geochem result at station 880S should be checked by further sampling. If an anomalies zone is confirmed, then stripping or trenching should be undertaken to determine the cause.

EST A.	IMATE OF COSTS Wayside Gold-Quartz Zone		
1.	Surface diamond drilling allow	1800 ft. @ 25.00/ft.	\$45.000
2.	Adit and shaft repairs, de-wat	ering of mine, allow	25,000
3.	Underground sampling and mappi	ng	6,000
4.	Underground diamond drilling -	allow 2000 ft. @ \$25.00/ft.	50,000
5.	Assaying		5,000
6.	Engineering, consulting, admin	istration	10,000
7.	Contingencies approx. 15%		19,000
		Total	\$160,000
В.	Sulphide Zone		
B. 1.	Sulphide Zone Diamond drilling - allow 4000	ft. @ \$25.00/ft.	100,000
			100,000
1.	Diamond drilling - allow 4000		-
1.	Diamond drilling - allow 4000 Additional I.P. Survey as neces	sary - allow	8,000
 1. 2. 3. 	Diamond drilling - allow 4000 Additional I.P. Survey as neces Assaying	sary - allow	8,000 5,000
1. 2. 3.	Diamond drilling - allow 4000 Additional I.P. Survey as neces Assaying Engineering, supervision, admi	sary - allow	8,000 5,000 10,000
1. 2. 3.	Diamond drilling - allow 4000 Additional I.P. Survey as neces Assaying Engineering, supervision, admi	sary - allow nistration	8,000 5,000 10,000 17,000
1. 2. 3. 4. 5.	Diamond drilling - allow 4000 Additional I.P. Survey as neces Assaying Engineering, supervision, admi Contingencies approx. 15%	sary - allow nistration Total	8,000 5,000 10,000 17,000

December 19th, 1980

J.P. ELWELL, P. Eng.

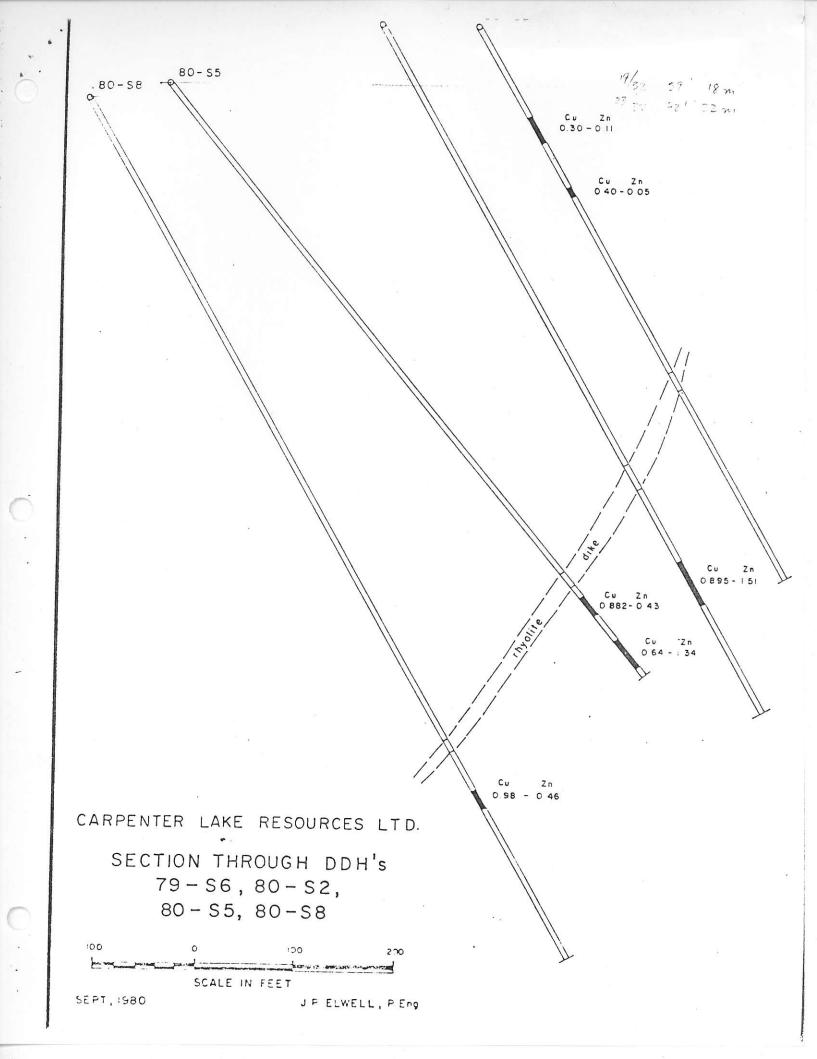
CERTIFICATE

- I, James Paul Elwell, of 4744 Caulfield Drive, West Vancouver, B.C. do hereby certify that:
- 1. I am a Consulting Mining Engineer residing at 4744 Caulfield Drive, West Vancouver, B.C., and with an office at 1026 510 West Hastings Street, Vancouver, B.C. V6B 1L8.
- 2. I am a graduate in Mining Engineering from the University of Alberta in 1940, and am a Registered Professional Engineer in the Province of British Columbia.
- 3. I have no personal interest, directly or indirectly in the properties or in Carpenter Lake Resources, nor do I expect to receive directly or indirectly any interest in such property or securities.
- 4. The findings in this report are from data obtained from the reports and maps referred to and numerous examinations of the property during 1980.
- 5. The full text and accompanying maps may be reproduced in the Company's Statement of Material Facts.

DATED at VANCOUVER, B.C. this 19th day of December, 1980.

APPENDIX

Diamond Drill Hole Logs and Assays



DIAMOND DRILL LOG

Hole 80-S1

Bearing 240°

Dip -60°

	Fo	otage		
	From	To		Description
	0	- 54	-	casing
	54	- 59	_	serpentine
		- 60	-	greenstone
	60	- 61.5	_	qtz vein
	61.5	- 109	_	greenstone, serpentized greenstone
		- 125	-	volcanics
38.1		- 149 45 4		greenstone, rhyolite
, , ,		- 194		mainly greenstone, porp, and non porph.
		- 217	-	andesitic volcanics, porphyritic
		- 239		dark grey massive vol. non porph.
	239	- 331	-	porp. greenstone, minor shearing at 265', also 316'-318', and 330'
	331 .	- 353	-	same, with minor qtz. stringers
	353	- 378	_	porph. greenstone
	378 -	- 399	-	greenstone, increase in qtz. stringers
		- 427	-	greenstone, minor rhyolite dike at 409'
1	,427 -	- 437 _g	-	greenstone with qtz. veinlets
133.	437	- 462 140.8	-	rhyolite dike
140.8	462	- 492 150.0		diss. to mass. sulph., py. cpy.
-		- 523		greenstone
.159.4		- 544		minor streaks and pods py. in greenstone
165.8	544	- 545		increase in sulphides
166.1	545 -	- 572	-	fine gr. sulph. as bands and diss. in greenstone
174.3	572 -	- 629 191.7 - 677		minor sulph. in greenstone
				greenstone porp. minor qtz. at 653'
206.3	677 -	- 696	_	heavy to diss. sulp. in brecciated greenstone,
	696 -	- 700		py, cpy, sph.
213.4	700	720	_	massive sulph. in breccia bands of mass. sulph. pv. cpy
219.5 221.0	726	739 225.2	_	greenstone with diss. and pods of sulph. at 733' 223'4
219.5 221.0	739 -	- 764		mainly greenstone bands of sulph. at 753 229.5
		0.0	_	mass, volcanics, minor of stringers, pods of
	. 23	- 849 _{258.8}		sulph. at 813' 247.8
	End of	Hole		CA +. 8

ASSAYS

		Footage								
Sample	No. Fr	om To	% Cu	% Z	n_	oz/to	on A	<u>g</u> .	oz/ton	Au
37771 37772 37773 37774 37775 37776	147.8 48 165.8 54 206.3 65 209.4 68 212.1 69 215.5 70	548 (c) 548 (c) 548 (c) 687 696 707		.09 3.00 0.90	4.20 4.20 1.92 1.92 1.32 1.26		a b	o:		

DIAMOND DRILL LOG

Hole 80-S2

Bearing 240°

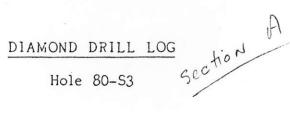
Dip -60°

21 - 35		Fo	ota	ige			
S		From		To			Description
- bands and diss. fine gr. py. in greenstone, varisulp., mass. to diss. shearing and brecciation folders, and 65'-80' - 24.4 80 - 103 - 127 - increasing fine gr. min., py. cpy. Massive at 80 81', remainder banded at 60' to core. Fault with gouge at 90'-95' - 38.4 127 - 150 - 178 - porp. greenstone with massive to banded py, cp. sheared and brecciated. - hard greenstone, minor cpy, py porp. greenstone, streaks and bands mass. sulph. shearing axially to core at 168' sparse min 155'-165', heavy at 165'-178' - mass. to banded sulph. in siliceous porp. greenstone with intense axial shearing - sulph. in sheared zone 215'-223' breccia 200'-215' - hard, dense, siliceous greenstone diss. and streak cpy., py. - minor diss. sulph. in andesite 6'' qtz. veinted at 269' - hard, siliceous volcanics minor pods and diss. py sheared and siliceous vol. sulph. as streaks in mass. starting at 325' - same - intense axial shearing - sheared greenstone, diss. sulph andesite dike - sheared greenstone, diss. to mass. py porph. greenstone - porph. greenstone - porph. greenstone with py. 464'-474' qtz. veinted ta 465' - sil. vol. with diss. py., minor streaks - sil. greenstone with diss. py greenstone minor sulph. as diss. an - sil. greenstone, some minor sulph. as diss. an			-	21		-	sheared greenstone, py. as small pods and coarse diss.
24.4 80 - 103 - increasing fine gr. min., py. cpy. Massive at 80 81', remainder banded at 60' to core. Fault with gouge at 90'-95' porp. greenstone with massive to banded py, cp. sheared and brecciated. hard greenstone, minor cpy, py. hard greenstone, streaks and bands mass. sulph. shearing axially to core at 168' sparse min 155'-165', heavy at 165'-178' mass. to banded sulph. in siliceous porp. greenstone with intense axial shearing sulph. in sheared zone 215'-223' breccia 200'-215' hard, dense, siliceous greenstone diss. and streak cpy., py. minor diss. sulph. in andesite 6'' qtz. veintentation hard, siliceous volcanics minor pods and diss. py. sheared and siliceous vol. sulph. as streaks mass. starting at 325' same intense axial shearing sheared greenstone, diss. sulph. andesite dike porph. greenstone grey volcanics volcanics with diss. py. shearing at 453'-461' sheared greenstone with py. 464'-474' qtz. veintat 465' sil. vol. with diss. py., minor streaks greenstone with diss. py. greenstone with diss. py. greenstone and andesite. Very minor min. sil. greenstone, some minor sulph. as diss. an	10.7	0-		725000000		-	bands and diss. fine gr. py. in greenstone, var. sulp., mass. to diss. shearing and brecciation
103 127	24.4	80	-	103		-	increasing fine gr. min., py. cpy. Massive at 80'-81', remainder banded at 60° to core. Fault with
- hard greenstone, minor cpy, py porp. greenstone, streaks and bands mass. sulph. shearing axially to core at 168' sparse min 155'-165', heavy at 165'-178' - mass. to banded sulph. in siliceous porp. greenstone with intense axial shearing - sulph. in sheared zone 215'-223' breccia 200'-215' - hard, dense, siliceous greenstone diss. and streak cpy., py minor diss. sulph. in andesite 6" qtz. veinle at 269' - hard, siliceous volcanics minor pods and diss. py sheared and siliceous vol. sulph. as streaks mass. starting at 325' - same - intense axial shearing - sheared greenstone, diss. sulph andesite dike - porph. greenstone with diss. py. shearing at 453'-461' - sheared greenstone with py. 464'-474' qtz. veintle at 465' - sil. vol. with diss. py., minor streaks - greenstone and andesite. Very minor min sil. greenstone, some minor sulph. as diss. an	31.4	103	-	127			porp. greenstone with massive to banded py, cpy
- mass. to banded sulph. in siliceous porp. green stone with intense axial shearing - sulph. in sheared zone 215'-223' breccia 200'-215' - hard, dense, siliceous greenstone diss. and streak cpy., py. - minor diss. sulph. in andesite 6" qtz. veinled to 269' - hard, siliceous volcanics minor pods and diss. py sheared and siliceous vol. sulph. as streaks mass. starting at 325' - same - intense axial shearing - sheared greenstone, diss. sulph andesite dike - porph. greenstone - porph. greenstone - porph. greenstone, diss. to mass. py rhyolite dike - 426 - 427 - grey volcanics - sheared greenstone with py. 464'-474' qtz. veinled - 488 - 510 - 561 - 585 - 635 476' - greenstone with diss. py., minor streaks - greenstone with diss. py greenstone with diss. py greenstone and andesite. Very minor min sil. greenstone, some minor sulph. as diss. an							hard greenstone, minor cpy, py. porp. greenstone, streaks and bands mass. sulph., shearing axially to core at 168' sparse min.
- sulph. in sheared zone 215'-223' breccia 200'-215' - hard, dense, siliceous greenstone diss. and streak - cpy., py. - minor diss. sulph. in andesite 6" qtz. veinle - at 269' - hard, siliceous volcanics minor pods and diss. py sheared and siliceous vol. sulph. as streaks - mass. starting at 325' - same - intense axial shearing - sheared greenstone, diss. sulph andesite dike - porph. greenstone - porph. greenstone - porph. greenstone, diss. to mass. py rhyolite dike - grey volcanics - volcanics with diss. py. shearing at 453'-461' - sheared greenstone with py. 464'-474' qtz. vei - at 465' - sil. vol. with diss. py., minor streaks - greenstone with diss. py greenstone and andesite. Very minor min sil. greenstone, some minor sulph. as diss. an	54.3	178	-	200		-	mass. to banded sulph. in siliceous porp. green-
- minor diss. sulph. in andesite 6" qtz. veinle at 269" 278 - 308 - hard, siliceous volcanics minor pods and diss. py. 308 - 335 - sheared and siliceous vol. sulph. as streaks in mass. starting at 325" 335 - 360 - 377 - sheared greenstone, diss. sulph. 377 - 385 - 388 - 406 173.7 - porph. greenstone 406 - 426 174.8 - rhyolite dike 426 - 427 - rhyolite dike 426 - 427 - volcanics 437 - 464 - 488 - sheared greenstone with diss. py. shearing at 453'-461' 464 - 488 - 510 - sheared greenstone with py. 464'-474' qtz. veint at 465' 488 - 510 - 561 - sil. vol. with diss. py., minor streaks 510 - 561 - 585 - 635 476 - greenstone and andesite. Very minor min. 585 - 635 476 - sil. greenstone, some minor sulph. as diss. an							sulph. in sheared zone 215'-223' breccia 200'-215' hard, dense, siliceous greenstone diss. and streaks
278 - 308 308 - 335 - hard, siliceous volcanics minor pods and diss. py. 308 - 335 - sheared and siliceous vol. sulph. as streaks in mass. starting at 325' 335 - 360 360 - 377 - sheared greenstone, diss. sulph. 377 - 385 385 - 388 - porph. greenstone 388 - 406 123.7 - porph. greenstone, diss. to mass. py. 406 - 426 129.8 - rhyolite dike 426 - 427 - grey volcanics 437 - 464 - 488 - 510 - sheared greenstone with diss. py. shearing at 453'-461' - sheared greenstone with py. 464'-474' qtz. vei at 465' 488 - 510 - 561 - 585 - 635 - 635 - greenstone with diss. py. greenstone and andesite. Very minor min. 585 - 635 - 635 - 531. greenstone, some minor sulph. as diss. an	76.5	251	-	278	94.7	-	minor diss. sulph. in andesite 6" qtz. veinlet
335 - 360 - same - intense axial shearing 360 - 377 - sheared greenstone, diss. sulph. 377 - 385 - andesite dike 385 - 388 - porph. greenstone 386 - 406 123.7 - porph. greenstone, diss. to mass. py. 406 - 426 129.8 - rhyolite dike 426 - 427 - grey volcanics 437 - 464 - volcanics with diss. py. shearing at 453'-461' 464 - 488 - 510 - sheared greenstone with py. 464'-474' qtz. vei at 465' 488 - 510 - sil. vol. with diss. py., minor streaks 510 - 561 - greenstone with diss. py. 561 - 585 - 635 - 376 - greenstone and andesite. Very minor min. 585 - 635 - 635 - 376 - sil. greenstone, some minor sulph. as diss. an						-	hard, siliceous volcanics minor pods and diss. py. sheared and siliceous vol. sulph. as streaks to
510 - 561 - greenstone with diss. py. 561 - 585 - greenstone and andesite. Very minor min. 585 - 635	118.3	360 377 385 388 406 426 437 464		377 385 388 406 426 427 464 488	123.7		same - intense axial shearing sheared greenstone, diss. sulph. andesite dike porph. greenstone porph. greenstone, diss. to mass. py. rhyolite dike grey volcanics volcanics with diss. py. shearing at 453'-461' sheared greenstone with py. 464'-474' qtz. vein at 465'
End of Hole		510 561 585	-	561 585 635	193.5		greenstone with diss. py.

ASSAYS

Hole 80-S2

	Footage			
Sample No.	From To	% Cu	% Zn oz/ton Ag oz/ton Au	
37777 37778 37779 37780 37781 37782 37783 37784 37785 37786 37786 37787 37788 37789	8 2.4 21 6.4 35 10.7 45 13. 48 14.6 57 57 13.4 65 19.5 80 24.4 90 90 24.4 100 100 30.5 107 107 32.6 115 115 35.4 125 125 36.4 125 145 145 145 145 145 145 165 165 50.3 175	7 .01 .01	.04 .06 .06 .00 .00 .00 .00 .00 .00 .00 .00	
37791 37792 37793 37794 37795 37796 37797 37798 37799 37800 61765 61766 61767	17553.3 185 18554.4 195 19559.4 205 20562.5 215 21565.5 225 22569.6 235 23591.6 24574.3 335102.1 345 345105.2 355 355108.2 365 365111.3 37714.9 390118.9 406123.3	.01 .40- .06 .17 .07 .01 .01 .01	.05	



Bearing 250°

Dip -50°

	From	oota n	To		Description
					· White desired and the desire
	0		36		overburden
	36	-	39	-	mud seam
	39	-	66		greenstone, qtz. stringers at 49', 60', 58'
	66	_	90	-	greenstone, minor qtz. stringers, epidote alt. minor py. at 74.5'
	90	_	122	_	greenstone with epidote alt. minor qtz.
27 -	2 122				greenstone with diss. py.
725	125	_	130		massive py. diss. cpy., sph.
29.1	130	_	138		streaks and diss. py., cpy., sph.
47.	138	_	155		greenstone porph., minor diss. py.
	2155		190 57.9		intense shearing, diss. to mass. sulphides, some
-11.	133		130 2/11		bleaching, alt.
	190	_	194	_	dense, massive greenstobe
	194		240		sheared greenstone, some py. as bands heavy
	-				shearing 60° to core
	240	_	243	_	massive greenstone
74.1			245 74.4		bleached and sheared greenstone, mass. to diss.py.
100	245	_	290		greenstone, minor qtz. stringers
28.4	290				greenstone with bands mass. py. minor cpy., some
00					shearing
1.4.0	374	-	395	-	very heavy sulphides, core faulted and broken,
					py, cpy, sph.
130.4	395		402 122.5	_	diss. sulphides
	402	-	434	-	siliceous greenstone with diss. sulphides, breccia
137.	3434	-	450 137.2	-	rhyolite dike
()0	450	-	505	-	massive greenstone, minor breccia, minor qtz.
					stringers
	505	-	579	-	greenstone with minor qtz. stringers some epidote
			25		alt. and shearing
709.3	1688	-	720 219.5		augite diorite.
	720	-	732 (35)	-	fine grained dike
	End	of	Hole "		

ASSAYS

Sample No. F	rom To	Feet	% Cu	% Zn	oz/ton Ag	oz/ton Au
80914 78.1 80915 A7.2 80916 114.6 80917 117.7 90618 93.9	155 165 50 5 376 386 386 394 120 1	3 10 10 8	0.01 0.01 0.01 0.04 0.01	0.01 0.02 0.01 0.02 0.03 0.04 0.02 0.05 0.02 0.03		0.003 0.003 0.003 0.003 0.003

DIAMOND DRILL LOG

Hole 80-S4

Bearing 250°

Dip -60°

	Fo	ota	ge		
•	From	e es Mircal	To		Description
	0	_	49	_	overburden
	49	_	145	_	greenstone, minor qtz. stringers at 50' and 63'
	145	-	180		porph. greenstone, minor alteration
	180				porph. and non porph. volcanics, minor shear
					at 214', minor diss. py.
	234	_	245		andesite, minor qtz. stringers
		_	247		andesite, increase in qtz.
75.3			278 84.7		rhyolite dike
- /	278				andesite and greenstone, very minor py.
	378	_	405		brecciated greenstone, bands with minor cpy. and
					py. at 60° to core.
	405	_	580	_	greenstone, minor qtz. veins at 480', 520' minor
					blebs and diss. py.
	580	_	600	_	brecciated andesite, streaks and diss. of py.,
					minor cpy.
	600	_	695	-	greenstone with minor shearing
	695	_	704		altered and sheared greenstone
004.6			785 739.3		augite diorite
	End				, , , , , , , , , , , , , , , , , , ,

DIAMOND DRILL LOG

Hole 80-S5

Bearing 240°

Dip -50°

	Fo	oota	ge		
- 2	Fron		To		Description
	11011	-			<u> </u>
	0	_	46		overburden
14.	0 46	_	194 59.1	_	augite diorite, 6" qtz. stringer at 96'
			214		greenstone
1.5.7-			271 82.6		soda granite, minor qtz. stringers
67.0	271				
					sheared and altered greenstone
			355		fine grained massive greenstone
	333	-	401		porph. greenstone
	401				siliceous volcanics, qtz. minor malachite stain
	405	-	485	-	andesite
	485	_	490	-	fine gr. greenstone dike
	449	-	499	_	andesite
152.1			515 157.0	-	diorite dike
	515	-	537	-	greenstone
163.7	537	-	546 166.4	_	rnyolite dike
037005	546	-	629	_	andesite, minor qtz. at 464'
	629	-	632		andesite
192.6			650 198.1	_	rhyolite dike
	650	-	667	-	greenstone
	667		685	_	greenstone, diss. to mass. py.
208.8			736 224.3		massive sulphides, cpy., py., sph. core brecciated
200.0	736		768 734.1		same as above, but bleached
			Hole		

ASSAYS

Sample	No.	From	To	Feet	% Cu	<u>% Zn</u>	oz/ton	Ag	oz/ton	Au
80905	208.4	684	694	10	0.21	0.15 .36	0.	02	0.003	
80906	c 211.5	694	704	10	U.18	U.47 .65	o 0.	02	0.003	
80907	214.6	704	714	10	0.13	U.47 .60		06	0.003	
80908	717.6	714	722	8	0.01	0.02 .03	0.	01	0.003	
80909	P 220.1	722	732	10	0.56	2.32 2.88	∅	30	0.003	
80910	6 223.1	732	744	12	0.54	1.35 1.89	Ø U.	28	0.003	
80911	9 226.8	744	754	10	0.84	0.34 1.18	3 5 U.	24	0.003	
80912	229.8		764	10	0.09	U.13 .ZZ		04	0.003	
80913	232 9		768 234.1	4	0.03	0.03 .06	U.	01	€.003	
80903	a 203.3		674	7	1.30	0.53 183	0.	32	0.003	
80904	b 205.4		684	10	0.59	0.36 .95	. 0.	08	0.003	

DRILL LOG

DDH 80-S8

Bearing 240°

Dip-60°

	0.9	
	Foo	tage
F	com.	To

	From	To	Description
10.4	55	- 35 - 55 16.8 - 94	casingaugite diorite, minor qtz. stringersporph. andesite
41.8	94 137 372	- 137 - 372 - 446	 fine grained Volcanics augite diorite, minor qtz. veins 220'-221' augite diorite - coarse gr. 430-446
	446 462 478	- 462 - 478 145.7 - 529	 altered diorite, mud seams qtz. diorite andesite
	550 712	- 550 167.6 - 712 - 747	- rhyolite dike - greenstone, qtz. stringer at 655' - greenstone
229.7	759 780	- 759 231.3 - 780 - 796	 rhyolite dike greenstone, with alt. brecciation qtz. and calcite stringers greenstone, bands and diss. fine gr. sulphides porphyritic greenstone
Cz.9	796 797 810 815	- 797 - 810 - 815 - 831	- greenstone, frequent bands and diss of fine gr. sulphides - same, - massive sulphides at 814'-815' - banded to massive sulphides
•	831 890	- 890 271.3 -1001	 minor sulphides is porph. greenstone as bands and disseminations greenstone

End of Hole

				AS	SAYS				
Sample N	0.	F	rom	<u>To</u>	<u>Feet</u>	% Cu	% Zn		
4014 4011 4012 4013	0601	248.1 249.9	810 814 820 826	814 820 826 831	4 6 6 5	0.05 1.32 0.69 0.92	0.63 0.43 0.04 1.00	, 68 1.75 .73 1.92	0

DRILL LOG

DDH 80-S9

Bearing	240°
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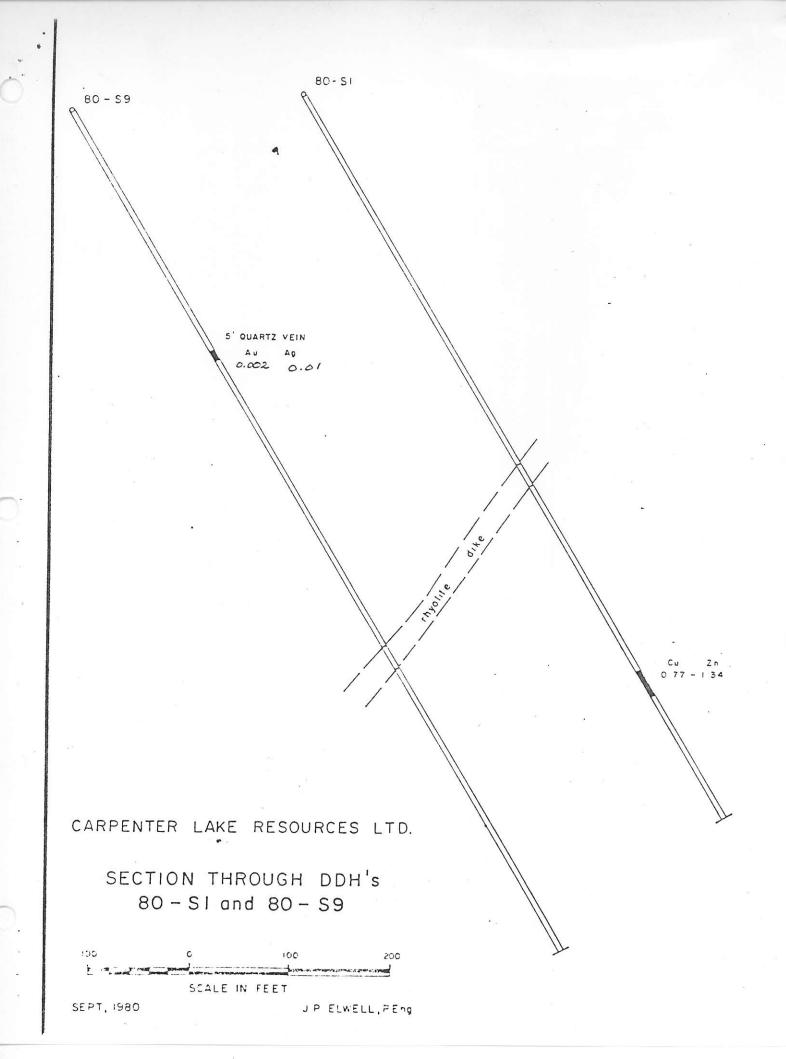
Dip-60°

	<u>Fo</u>	ota	ge			
	From		To			
	0		35			casing
10.7	- 35	-	37	11.3		augite diorite
	37		39		-	andesite dike
11.9	39		286		-	fine grained diorite
,	286	-	291		_	brecciated qtz. vein, mariposite
	291	-	297		-	silicified and altered diorite
	297	-	333		-	augite diorite
	333	-	340		-	fine gr. andesite dike
	340	-	350		_	augite diorite
	350	-	392	119.5	-	qtz. diorite, minor qtz. stringer
	392	-	629			dark to light grey volcanics
191.7	629	-	664	202.4	-	rhyolite dike
	664	-	687		-	greenstone, qtz. stringer at 687'
	687	-	692		-	mud
	692	-	890		_	fine, gr. greenstone, qtz. stringer at 800'-802'
	890	-	906			core lost
	906		915		-	diss. to pods of py, cpy, in greenstone
	915	-	987	300.8	-	

End of Hole

<u>ASSAYS</u>

Sample No.	From	<u>To</u>	Feet	oz/ton	oz/ton	% Cu	<u>% Zn</u>
4016 4015	286 906	291 915	5	.002	.01	<u> </u>	



DRILL LOG

D.D.H. 80-S 10

Dip-56°

Bear	n	g 215		
Fo	ota	age		
From		To		Description
0	_	14427	_	casing
14		14] AZ.98		silicious qtz. diorite, soda gr.
141		15346.63	-	albitite dike
153	_	245 14.68	_	augite diorite
245	-	25377.11	_	sheared albite with qtz. stringers
253	_	575175.26		augite diorite, qtz. stringer at 533'
575		622,89.59	_	soda granite
622		625190.50		basic dike
625		663202-08	_	silicious augite diorite
663		666203.00		qtz. vein
666	_	684208.48		augite diorite
684	-	690210.31	_	albite, 5' mud
690		695211.84	_	qtz., mud
695	_	705214.88		
	_	770234.70	-	qtz. stringers, mud
705	-	7/025	-	augite diorite
770		780237.74	****	albitite, minor qtz. stringers
780	-	802244.45	-	qtz. diorite, augite diorite, minor py.
802	-	835254-51	-	soda granite, mud seam 832'-833'
835	-	840256.03	-	fine gr. albitite, soda granite
840	-	870265.18		albitite stockwork
870	-	890271-27		augite diorite, minor qtz., py.

Hole in Progress

Sample # From To Feet oz/ton o	Ag
	z/ton_
4043 685 690 5 0.48	0.20
4044 690 695 5 4.78	1.84
4045 695 700 5 0.019	0.01
4046 700 705 5 0.002	0.01
4047 662 665 3 0.002	0.01
	0.01

