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File Rus Ponta. Mines
(Nan Todd.).

H.H. SHEAR, P. ENG. P.O. Box 159 GREENWOOD, B.C.

November 17, 1973

BURNT BASIN PROJECT

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Approximately 50% of the rock exposure mapped on the Eva Bell consists of argillite grading to crystaline limestone, with black argillaceous limestone predominating.

Minor interbedded tuffs also occur. The balance of the rock exposed consists of fine grained to medium grained diorite and gabbro sill and dikes. Minor basalt and andesite also accur.

Mineralization tends to occur along the limestone - intrusive contacts. Mineralization consists of magnetite, pyrrhotite, pyrite, sphalerite, galena and chalcopyrite. No chalcopyrite occurs in the production pit area and practically none on the Halifax.

#30-448 SEYMOUR ST. VANCOUVER 2, B. C. PHONE 687.7608 File Land Portra. Mines
(Nan Todd.).
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H.H. SHEAR, P. ENG. P.O. Box 159 GREENWOOD, B.C.

November 17, 1973

Donna Mines Ltd(NPL) #30- 448 Seymour St. Vancouver 2, B.C.

# PROGRESS REPORT - BURNT BASIN PROJECT

Dear Sir:

Work completed to date by Donna Mines on the Burnt Basin property consists of line cutting over the Eva Bell and Halifax leases, a magnetometer survey over both areas geological mapping over the Eva Bell and five short diamond drill holes at two sites on the Eva Bell.

Magnetometer readings were taken over the Eva Bell showings on spacings 50 x 25 feet. Over the Halifax, readings were taken on 100 x 50 foot intervals. On the Eva Bell three anomoulous areas were outlined adjacent to each other. One coincides with the upper copper-lead-zinc showings. A second anomaly coincides with the production pit area and the third anomaly lies between the other two. These three anomalies together cover a length of approximately 1000 feet and widths vary up to 200 feet. Values ranged generally from 500 to 1500 gammas above background with negative values of 500 to 1000 gammas below background. Work was not completed on the Halifax. However, an anomaly was partially delineated in the area of the hi-grade in the main workings. This anomaly is 300 feet long and still open to the south east.

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Five diamond drill holes totalling 661 feet were drilled from October 27th to November 8th, 1972. DDHs, D-1, D-2, and D-3 were spotted at 20N, 18+75E. DDHs, D-4 & D-5 were spotted at 12+50N, 22E. Their depth, bearing and dip are

as foll	OWS: HOLE	DEPTH		BEARING	DIP
	D-1 D-2 D-3 D-4 D-5	122' 156 146 119		south north S 45 W	vertical -45 -45 vertical -45
Twenty	samples ere slit fi		and ass		
HOLE	SAMPLE	Ag Oz/ton	Pb %	Za. Z	Cd Cd%%
D - 1	17.5 - 22	1.46	1.96	7.18	
D - 2	20.5 - 26.5'	.72	1.12	1.74	
D ~ 4	4.0 - 10.5° 10.5 - 15.5 15.5 - 20.5 20.5 - 25.5 25.5 - 30.5 30.5 - 35.5 35.5 - 42	2.60 3.82 1.60 .98 .56 .70 .44	5.12 6.64 2.68 1.51 .74 1.02 .28	9.02 10.05 2.32 2.68 2.01 2.33 1.32	.03 .06 .01 .01
D - 5	92.5 - 100 11.5 - 17' 17 - 22.5	2.10 5.26	3.30 6.84	1.42 6.58 9.80	
	22.5 - 28 28 - 33.5 33.5 - 39.5	4.78 .44 .10	6.18 .27 .06	9.96/ 1.70 .21	.06
	70 - 80.5 80.5 - 90.5 90.5 - 100.5 100.5 - 110.5	.08 .06 .02	.02 .04 .01	.12 .18 .05 .35	

DDHs D1, D2, and D3 were drilled to test the center of the upper Eva Bell anomaly at its highest gamma value. The cause of the high core of the anomaly was found to be a flat lying band of magnetite with values as indicated:

Hole D1 intersected 4.5 feet of sulphides assaying 1.46 oz/ton Silver; 1.96% Lead; & 7.18% Zinc

Hole D2 intersected 6.0 feet of sulphides assaying 0.72 oz/ton Silver; 1.12% Lead; & 1.74% Zinc.

DDHs D3 and D4 were drilled to test the south end of the Eva Bell magnetic anomaly near the open cut from which 47 tons of good grade lead, zinc silver ore was shipped to Trail smelter in 1972. The shipment assayed:

Gold: 0.017 oz/ton, Silver: 6.50 oz/ton, Lead: 7.8%, Zinc: 16.5%

A net smelter return of \$22.00 per ton was realized after smelter penalties of \$25.19 per ton.

The drill holes were located on the same section 50 feet northwest of the northwest end of the pit along strike. They both intersect 16.5 feet true width of good grade lead zinc mineralization that extended the known zone exposed in the open cut an additional 50 feet along strike to the northwest and indicate a widening of the zone in this direction. Both ends of the zone appear to be open.

The average grade of intersection obtained in the holes is as follows:

Hole D4 over 16.5 true width 2.4 oz/ton Silver, 4.8% Lead, 7.3% Zinc.

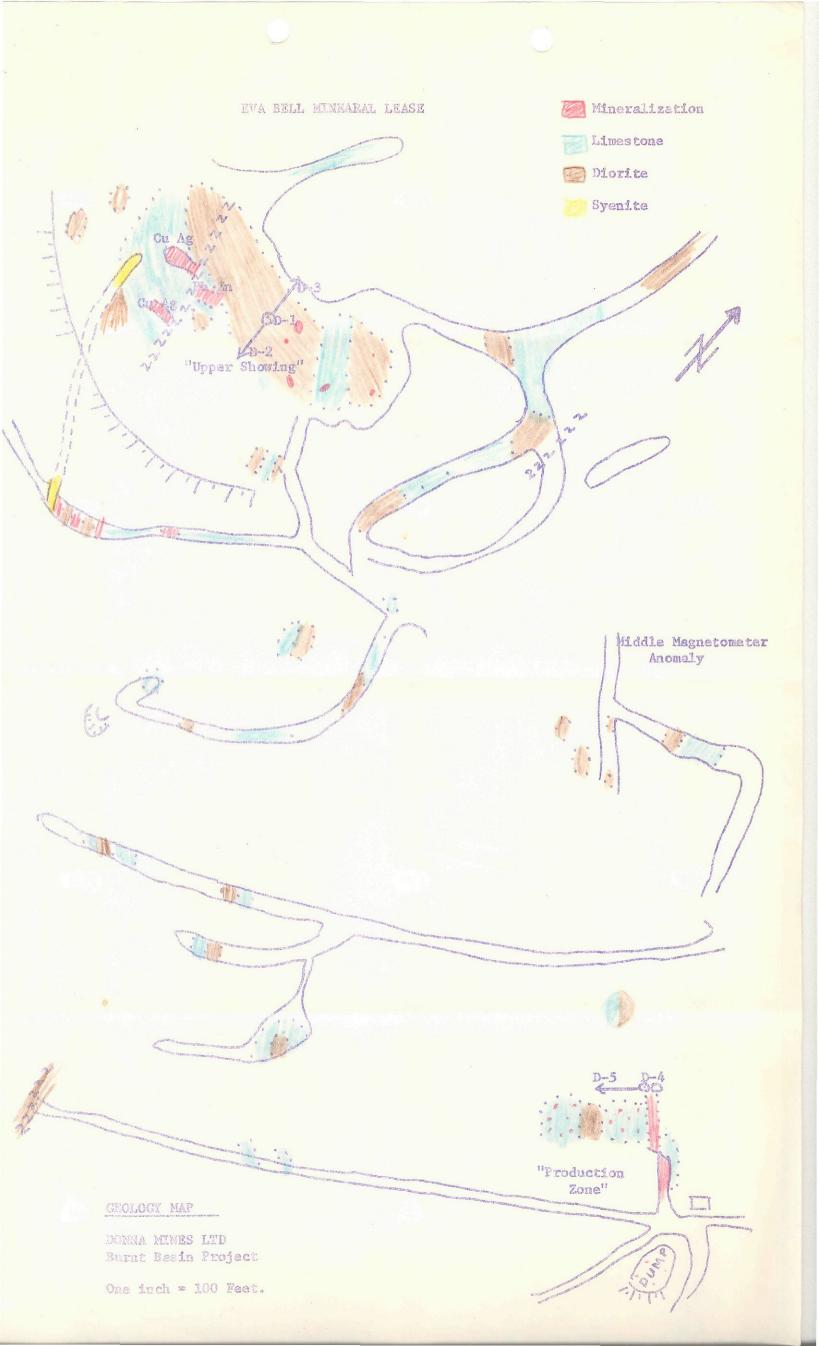
This intersection was followed by a core width of 20.5 feet of sulphide assaying 0.67 oz/t. Silver, 0.89% Lead, 2.1% Zinc.

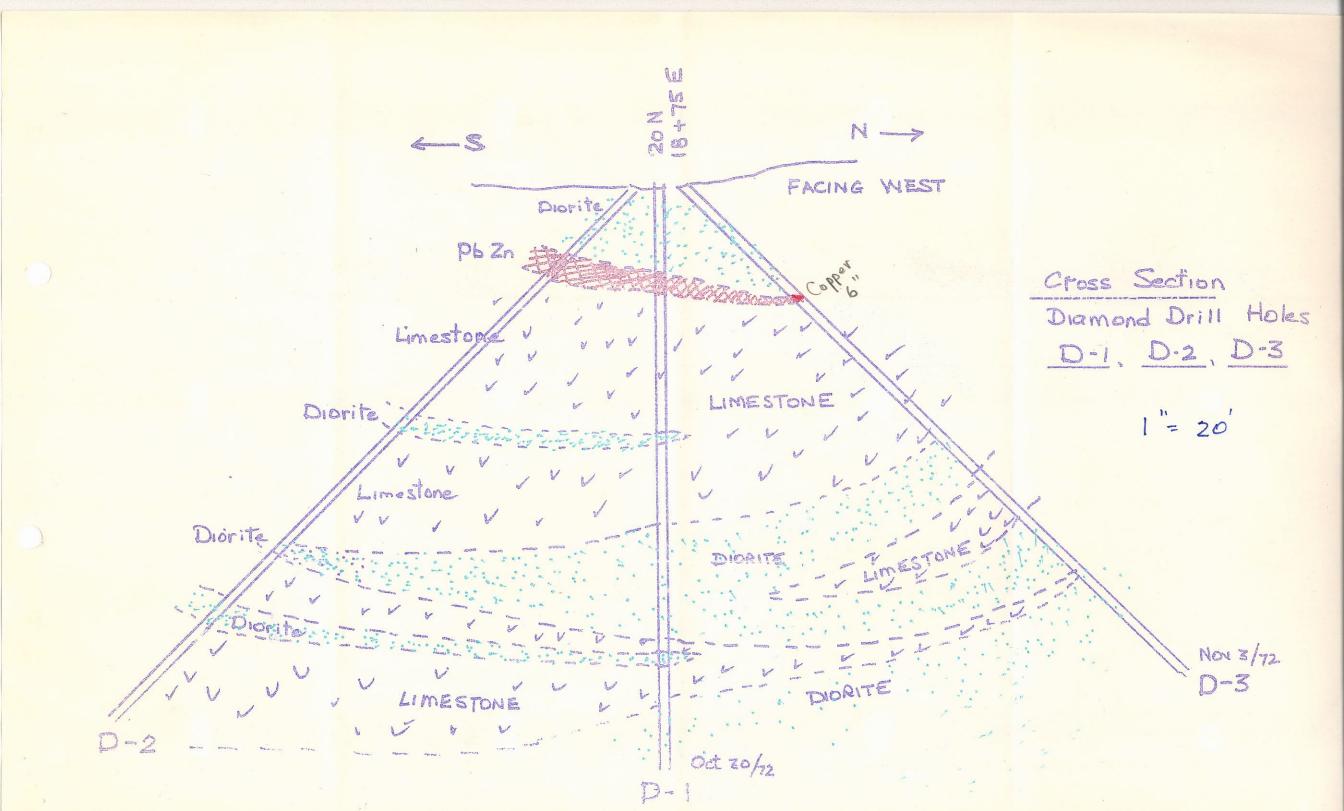
Hole D5 over 16.5 true width 4.0oz/t. Silver, 5.4% Lead, 8.8% Zinc. This intersection was followed by a core length of 11.5 feet of low grade lead zinc mineralization.

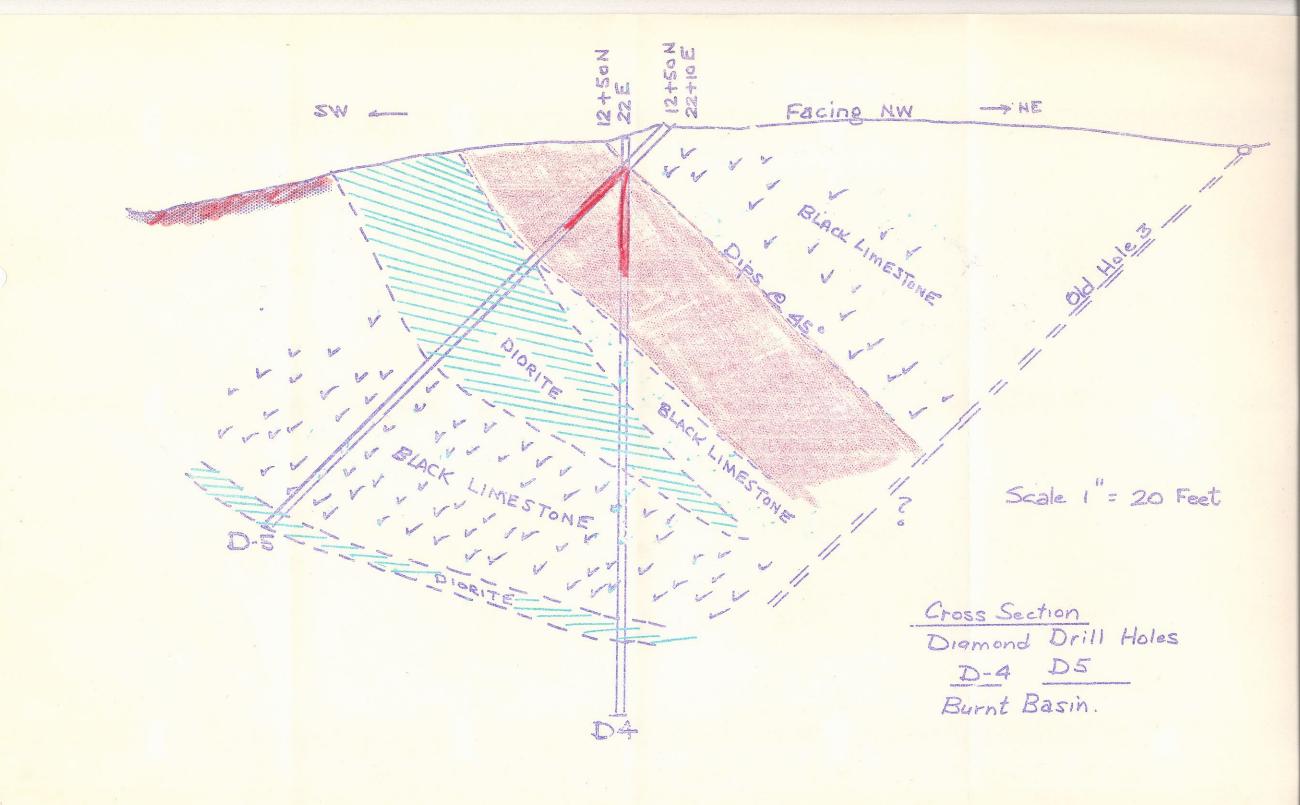
### Conclusions & Recommendations

The work completed to date on the property has been encouraging. Known zones of ore grade mineralization have been extended and warrant additional drilling. Geophysical work has indicated new zones of base metal mineralization along strike that require additional geophysical work and drilling to define their extent. A program of geophysical work and diamond drilling will be laid out when the results of the work are compiled.

Signed: H.H. Shear. P. Eng.







From

IUAN TODD

ST.

#30 - 448 SEYMOUR ST.

VANCOUVER 2, B. C.

VANCOUVER 2, B. C.

PHONE 687.7608

GEOLOGICAL REPORT ON EVA BELL CALIM

by H.H Shear, P. Eng.

BURNT BASIN CAMP

GREENWOOD MINING DIVISION

NOVEMBER, 1972.

## INTRODUCTION

The Eva Bell claim is located on the western edge of the Greenwood Mining Division, 15 miles northeast of Christina Lake, B.C. It is a mineral lease and is currently under option by Donna Mines Ltd. Access is via BC Highway #3 to the Paulson Bridge, then by rough mining road which climbs the western steep side of MacRae Creek Valley. The Eva Bell is about two miles by road from the main highway. The claim was partially mapped by the writer during September and October, 1972.

#### BRIEF SUMMARY OF REGIONAL GEOLOGY

The Burnt Basin Camp showings occur within a large roof pendant of the Mt. Roberts formation. The Mt. Roberts formation is considered Permian or Pennsylvanian in age (possibly equivalent to the Anarchist Group) and consists of limestone, argillite, graywacke, paragneiss and greenstone.

Tis roof pendant lies with the Nelson Intrusives which are considered lower Cretaceous in age. They consist of porphyritic granite, granodiorite, diorite, minor syenite and monzonite.

### LOCAL ROCK TYPE

Rock exposure are divided approximately equally between sedimentary and intrusive rock types. Sedimentary types grade from grey crystaline limeston through black argillaceous limestone to aggillite. Non-limey types are rare. Intrusive rocks are fine to medium grained and grade mostly from diorite to gabbro. One syenite dike was mapped along & with minor andesite.

Thin section work has indicated the presence of tuffaceous rocks, but these have not yet been distinguishable from fine grained diorite in the mapping.

#### MINERALIZATION

The Burnt Basin camp is characterized by wide spread but small high grade showings. The most common of these are high grade lead-zinc occurrences carrying low to substantial amounts of magnetite, pyrhotite, and pyrite. Also present are occurrences of lead zinc carrying substantial chalcopyrite and a few minor occurrences of mainly chalcopyrite with other base metal and iron sulphides. All of these types of showings occur on the Eva Bell.

Because magnetite occurs with most of the lead-zinc showings, the magnetometer is a very appropriate geophysical instrument to use in exploring the area. However, the significant copper showings do not respond to the magnetometer.

There are two significant showings areas on the Eva Bell. One is being called the Upper Eva Bell showings and the other is called the Lowere Eva Bell or Production zone.

The Upper showings lie in the western corner of the mapped area from 16N to 21N and from 16E to 20E. A magnetometer anomaly coincide with a portion of the area. Mineral occurrences vary considerably in this zone. There are the following type showings: chalcopyrite - pyrite, chalcopyrite, pyrite and sphalerite, chalcopyrite sphalerite and galena, and sphalerite, galena and magnetite. Copper rich showings predominate on the western side of this area but their relationship is uncertain. The showings of the upper Eva Bell zone are very scattered the largest single show being 30' long and 10' wide. The magetometer anomaly is continuous for over 300' and is up to 120' wide. Some of the individual showings are very good in grade. Recent drilling on this zone has disclosed that the high order core of the magnetometer anomaly is caused by a relatively flat lying band of magnetite rich lead zinc mineralization. More drilling is warranted because the small but rich copper showing and a large portion of the mag anomaly have not yet been tested.

The lower Eva Bell showing is much smaller but much more continuous that the Upper. It lies from 11+50N, 22+25E to 13N, 21E.

A much larger mag anomaly is associated with this showing. The mineralization here consists of magnetite, sphalerite and galena with minor pyrite and pyrrhotite. Two recent shallow drill holes intersected ore grade lead-zinc mineralization and follow up drilling is warranted.

A low order mag anomaly lies between the Upper and Lower showings, centered at 17N, 22E. It cannot be explained by surface geology and warrants testing by drilling.

### STRUCTURE

The Eva Bell claim geology is somewhat complex. The area has been profusely invaded by dikes and sills, presumably originating from the Nelson Intrusives. The flat lying sills tend to mask the continuation of beds making any interpretation at this time most questionable.

Intense folding is very obvious in the limeston exposed on the Halifax claim, 3000' to the west. On the Halifax there is much less intrusive materail and thus less masking of structure. It is to be assumed that folding has taken place in the limestone on the Eva Bell.

Major fault zones have been inferred on the geological map by using minor changes in bedding trends, brecciated outcrops and by analysing an overlay on the geological map of a magnetometer survey. The mineral showings and the mag anomalies have been sharply truncated on the northwest by a major northeast trending fault. In the ampped area, this fault marks the contact between a large diorite plug to the northwest and the Mt. Roberts formation. It appears that the invasion of this diorite plug has caused the uplifting and concentric slumping of the Mt. Roberts formation around and away from the contact. These concentric faults are trending roughly northeast on the northeast side of the map area., but swing more to the west as they cross the map. Complicating the structure are other northwest trending faults which appear to be weaker than the other set. This faulting appears to have created fault blocks so that tracing individual beds is further complicated.

Faulting will undoubtedly cause fragmentation of any possible ore bodies present, but the exposed mineralization is high enough in grade to make small targets attractive. Deliniation of zones should be done by relatively close spaced drilling initially say 50' step outs.

In the southeastern portion of the mapped area the geology is such a hodge page of mixed intrusive, limeston and brecciated zones that no interpretation was attempted. It can only be assumed that this area is part of a major regional fault zone. Studies of air photographs lend support to this theory.

### OTHER AREAS OF INTERES

Two other zones of interest exist on Domna Mines property, outside the boundaries of the Eva Bell and the geological mapping to date. These zones have been covered by a magnetometer survey and are called the "Halifax" and "Cabin" zones.

The Halifax has various workings one of which contains an impressive showing of Lead-zinc. A magnetometer anomaly has been partially outlined over this showing and the surrounding area and it is still open to the southeast. Drilling is warranted to test this zone.

The Cabin area has some workings but showings are mediocre. A magnet—ometer low 300' long coincides with the showings. This area should be tested by drilling but is of lower priority than the rest of the targets discussed above.

### CONCLUSIONS & RECOMMENDATIONS

Good grade mineral showings have been exposed on the Eva Bell claim. A mag survey has outlined anomalies up to 300° long coincident with two showingareas. A third anomaly lies over mostly barren but non magnetic rock between the two showings. A third showing, part of the upper Eva Bell zone, has interesting values in Copper and Zinc exposed, but no anomalous values were detected over this area.

The Halifax has a high grade Pb-Zn showing with a large mag anomaly associated with it. Future work is warranted on the Cabin Zone, provided encouragement is obtained on the more interesting zones.

A drill program is recommended to test the various showings and anomalies delineated to date.

Attached is a list of the recommedded holes with a brief reason for each.

It is confidentaly expected that encouraging results will be owtained with part of the attached proposed drill program. Consequently a budget for atleast 2000 feet of diamond drilling should be planned.

#### RECOMMENDED HOLES FOR PROPOSED DRILLING PROGRAM

HOLE	NO. LOCATION	BEARING	DIP	DEPTH	REASON
D-6	13N, 22+50E	SW	w 45	150 8	Stepout from D-4 & D-5
D-7	12N, 23E	SW	45	150 "	50 05 62
D8	20+50N,17+75E	NE	-45	1000	To test two best copper
D-9	20+50N, 17+75E	SV	-45	100	showings on the NW end of Upper Eva Bell showings
D-19	18+50N, 17+50E	SW	m 45	200	To test non magnetic Copper Zinc on SW edge of Upper Eva Bell showing
D 1.1	19N, 20+50E	SW	-45	200	To test SE end of Upper Eva Bell mag anomaly
Dean 12	1.7N, 23+50E	SW	~ ls 5	200	To test middle mag anemaly on Eva Bell
D-13	28N, 2E	SW	m 4,5	100	To test Halifax showing exact location to be determined.
D-14	1+50N, 23E	S	m45	200 1	To test Cabin showing mag anomaly.
				1375"	

Ca James Hines

#### DONNA MINES LTD. (N.P.L.) #30 - 448 Seymour Street Vancouver 2, B. C.

Phone: 687 - 7608

REPORT TO SHAREHOLDERS

JANUARY 8, 1972

Mr. Herbert H. Shear, P. Eng., field geologist for Donna Mines Ltd. in his review of results from geological mapping, magnetometer survey and limited diamond drilling on the Burnt Basin property has recommended more diamond drilling.

In his report he states, "It is confidently expected that encouraging results will be obtained with part of the attached proposed drill program for atleast 2,000 feet of diamond drilling"

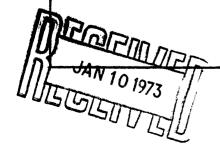
SIX mineralized showings and magnetic anomalies should be tested:

1. "Production Zone" - Two drill holes extended this zone to a confirmed length of 120' and a depth of 50'. The zone is open at both ends and to depth. From the open cut where massive Silver, Lead, Zinc was shipped the zone widens from 8 feet to 22 feet. Core across a true width of 16 1/2 feet assayed:

SILVER	<u>LEAD</u>	ZINC	
•			
4.0 oz.	5.44%	8.78%	

Further step out drilling is recommended to expand this mineralization.

- 2. "Cabin Zone" is a high magnetic anomaly associated on strike with an old adit in which some 20' of base metal sulphides are exposed.
- 3. & 4. are magnetic anomalies situated between the "Production" zone and the "Upper Showing" which are some 1,000 feet apart. An area 60 feet in diameter was stripped at the "Upper Showing" where composite grab samples assayed 1.52 oz. Silver, 4.07% Lead and. 2.25% Zinc.
- 5. "Halifax Showing" where high grade base metal mineralization is partially exposed in 4 veins in a 500' cut associated with a large magnetic anomaly. One 6 foot vein assayed 3.2 ounces of Silver, 0.20% Copper, 7.5% Lead and 12.70% Zinc.



6. "Copper Showing" containing significant Silver Copper values, adjacent to the "Upper Showing" should be tested with atleast three diamond drill holes. Samples taken from two trenches carried the following values:

	COPPER	ZINC	LEAD	SILVER
No. 1 Trench for 23 feet	1.9%	12.01%	1.0%	6.7 oz.
No. 2 Trench for 40 feet	2.3%	2.30%	1.5%	8.4 oz.

Some 15 other showings and anomalies not exposed in detail are reported from previous work on the 36 claims located north of Christina Lake and adjacent to the Trans Provincial highway at Paulson.

Grab samples from a quartz vein exposed on surface and by a short adit on the "Motherlode" claim, carried 3.36 ounces of Gold, 3.2 ounces Silver and 1.09% Copper.

All proposed drill holes are spotted and accessible by adequate roads constructed to the sites.

To quote E.O. Chisholm, Consulting Engineer, "From work carried out to date geological conditions on these claims are excellent for occurrence of high grade base metal mineralization and further detailed drilling is thoroughly warranted".

The agreement between Grey River Mining Company, St. John's, Newfoundland and Donna Mines Ltd. has been terminated as of December 22. 1972.

Yours respectfully,

DONNA MINES LTD. (N.P.L.)

per Ivan Todd - President

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NOTE: Our new address and phone number

DONNA MINES LTD. N.P.L. #30 - 448 Seymour Street

Vancouver 2, B. C. Phone: 687-7608