

012966

SUMMARY REPORT

on

DAGO AND BUD CLAIMS

MAYO MINING DIVISION, YUKON TERRITORY

(Sheet 106-D-8)

Latitude 64° 17'
Longitude 134° 13'

of

RACKLA RIVER MINES LTD. (N.P.L.)

by

Edward O. Chisholm, P.Eng.

Vancouver, British Columbia

April 15th, 1971

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I N T R O D U C T I O N

The exploration data on the Rackla River property of Rackla River Mines Ltd. was reviewed by the writer who made the original report on the property on March 30th, 1968.

Material for the report was obtained from the following sources:

1. Report on Bud Claim Group, E. O. Chisholm, dated March 30, 1968.
2. Progress Report, E. O. Chisholm, dated January 15, 1969.
3. Rackla River Mines, Dago and Bud Claims, by P.H. Sevensma dated September 13, 1969.
4. Casino Silver Mines Ltd. - Rackla River Project Progress Report No. 2 (Final) by R. E. Hindson dated August 31, 1970.
5. Personal communication with Mr. P. E. Hindson and Gordon Dickson.

S U M M A R Y A N D C O N C L U S I O N S

The results of work carried out in 1969 and 1970 including geochemical, geological, rock trench and diamond drilling have indicated that the main base metal bearing zones originally encountered in prospecting on the Dago 5 and Dago 3 claims are not of sufficient size and grade to warrant further detailed work on the showings at this time. A limited program of prospecting and geochemical reconnaissance totalling expenditures of \$10,500 is recommended on the unexplored portion of the claim group when conditions warrant.

H I S T O R Y

Original find made by Gordon Dickson, prospector, circa 1952. Preliminary trenching, K. J. Springer interests. Further detailed prospecting, trenching and mapping carried out by Prospectors Airways Co. Ltd. of Toronto in 1954.

Geochemical Survey by Atlas Explorations in 1966. Road construction, shallow bulldozer trenching and geochemical survey carried out by Rackla River Mines Ltd. in the summer of 1969. Diamond drilling, sampling, geological mapping carried out by Casino Silver Mines Ltd. summer of 1970. Present status dormant.

RESULTS OF RECENT WORK CARRIED OUTTRENCHING

Two main zones of lead-zinc-silver mineralization named the Mac 1 and Mack 2 trenches were explored by deep trenching under gossan zones.

Results obtained in sampling by P.H. Sevensma, Ph.D., P.Eng., Vancouver, B.C., are summarized as follows:

<u>MAC 2 (most westerly)</u>		<u>V a l u e s</u>			
<u>Length</u>	<u>Width</u>	<u>Au</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>
27 ft.	8 ft.	Tr	4.76	1.15	3.0

<u>MAC 1 (1200 ft. ENE of Mac 2)</u>						
(Av.)	24 ft.	18 ft. (?)	Tr	18.6	33.2	16.5

Results obtained by G. Dickson, 2060 Beach Avenue, Vancouver, B.C.:

<u>MAC 2</u>		<u>V a l u e s</u>				
<u>Length</u>	<u>Width</u>	<u>Au</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>	
(Av.)	(?)	27 ft.	-	9.43	2.98	2.69

<u>MAC 1</u>						
(Av.)	(?)	25 ft.	-	20.5	35.6	6.90

Nothing is known regarding the continuity of the showings along strike. R. E. Hindson believes the width indicated in the trenching is exaggerated by soil creep down slope from the showings.

DIAMOND DRILLING RESULTS

The higher grade zone exposed by trenching in the Mac 2 area was tested in four holes totalling 1,639 feet. The detailed logs are attached (Appendix A).

Mineralized fault and/or breccia zones containing low to medium values in lead, zinc and silver were intersected in all holes approximately 90 feet beneath the surface exposure. Results were considerably lower than that of surface trenching. The arithmetic averages obtained from the four holes were as follows:

Pb - 0.78%, Zn - 3.44%, Ag - 0.56 oz/ton.

The highest intersection was:

Pb - 5.6%, Zn - 8.75%, Ag - 1.23 oz/ton over a true width of 7.0 feet. The silver to lead ratio in general averages less than 2:1.

R. E. Hindson reports that core recovery in the mineralized zones was satisfactory and reliably indicated the grade.

The mineralization on the property is believed to be controlled by faults and the two most prominent systems strike southwest through the

claim group some 1500 feet apart. No bedded economic sulphides were intersected.

The sediments are comprised of limestone, dolomite and shale beds that dip from 25° to 45° to the south and southwest. In the vicinity of drill holes 3 and 4 the beds are folded and dip 30° to 45° to the east/southeast.

CONCLUSIONS AND RECOMMENDATIONS

The recent work on the main surface discoveries has been disappointing in that no massive sulphide deposit or bedded stratigraphic controlled deposit has been indicated in the work to date. The diamond drill results under the main zone show narrow zones of shear or fault controlled mineralization of sub-economic grade.

The indicated length of the fault zones and the high grade nature of localized occurrences in the trenching however indicate that a careful reconnaissance on the claims outside the discovery area is warranted. The recommendations previously made in this regard to my knowledge have not yet been carried out.

A program estimated at \$10,500 is recommended as follows:

ESTIMATED EXPLORATION EXPENDITURES

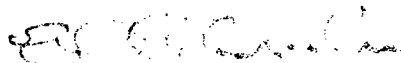
Geological and Geochemical Survey

1 Geologist for 1 month @ \$1200/mo.	\$ 1,200
2 Geochemical Samplers for 1 month @ \$750/mo.	1,500
Maintenance	1,750
Transportation	600
Analyses of 1000 samples @ \$2.50/sample	2,500
Linecutting	2,000
Contingencies @ 10%	950

ESTIMATED TOTAL EXPENDITURES

\$ 10,500

Respectfully submitted,



Edward O. Chisolm, P.Eng.


C E R T I F I C A T E

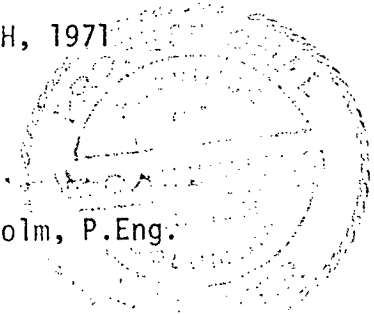
I, Edward O. Chisholm, of the City of Vancouver in the Province of British Columbia, hereby certify that:

- (1) I am a geologist with offices at 602 West Hastings Street, Vancouver 2, B. C.
- (2) I am a graduate of the University of Toronto, Ontario Master of Arts, 1945.
- (3) I am a member of the Professional Engineers of Ontario and British Columbia.
- (4) I have no direct interest or indirect interest in the property or securities of Rackla River Mines Ltd. or its affiliates, nor do I expect to receive any such interest.
- (5) This report is mainly based on an examination of company records, maps and sections, and also several visits in past years to the property.

DATED AT VANCOUVER, BRITISH COLUMBIA

APRIL 15TH, 1971


Edward O. Chisholm, P.Eng.



CASINO SILVER MINES LTD.

<u>D.D.H. #1</u>	<u>Depth of Hole:-</u> 180.0'
<u>Location:-</u> Rackla River Project	<u>Dip Angle:-</u> -50°
<u>Direction:-</u> S.35°E	<u>Date Started:-</u> July 21, 1970
<u>Co-ordinates:-</u> 10 plus 35'W	<u>Date Completed:-</u> July 28, 1970
3 plus 75'N	<u>Logged by:-</u> R. Hindson

Description

0' - 20.0' Overburden. No recovery.

20.0' - 51.5' Limestone-Dolorite. Light brown-beige; frequent siderite fracture fillings 0.3" wide at random orientation; later fractures are filled with calcite, highest calcite fracture filling density from 32.0' - 35.0'.

51.5' - 74.5' Breccia. Replacement, fragments not recognizable, most likely limestone-dolomite; lightly banded and kaolinized, often muddy, limonitic and calcareous.

74.5' - 81.0' Limestone-Dolomite. As in 20.0' - 51.5', with carbonate fracture fillings weathered out; increasing limonite (bright orange) content in last 5.0'.

81.0' - 84.0' Limonite 80%; minor limestone-dolomite present; light orange - jarosite or possibly plumbo-jarosite.

84.0' - 94.0' Breccia, replacement, sharp angular fragments of light grey dolomite with minor fragments of dark brown siderite or ferruginous limestone cemented by calcite; occasional sections up to 2" containing limonite as fracture fillings; fragments average 0.15" across.

94.0' - 120.0' Breccia, replacement, light grey dolomite fragments contained in calcite matrix; grades into shale fragments contained in an ankerite matrix, calcite-ankerite content up to 80%, average 50%; calcite-ankerite contains galena, limonite and manganese veins or seams with average width up to 1", cutting the core at 45°.

120.0' - 126.0' As above, with sharply reduced calcite content; possible galena mineralization at 124.0'.

126.0' - 135.0' Shale, graphitic, black to dark grey, calcareous; some inter-bedded dolomite; rare small crystals of galena; possible shear with odd breccia fragments or slump feature with clay-galls.

135.0' - 144.0' Dolomite, light grey, fractured; some replacement breccia.

144.0' - 174.0' Shale, graphitic, black; some slickensiding; bedding at 40° to core axis; slumping and minor folding.

174.0' - 180.0' Mud seam; no recovery.

END OF HOLE

D.D.H. #1

SAMPLES

<u>Sample Interval</u>	<u>Sample No.</u>	<u>Ag</u> <u>oz/ton</u>	<u>Zn %</u>	<u>Pb %</u>
64.0 - 74.0	C-6	.10	1.68	.19
74.0 - 84.0	C-7	.48	3.78	.62
84.0 - 94.0	C-1	.50	4.08	.18
94.0 - 104.0	C-2	1.26	2.52	1.68
104.0 - 114.0	C-3	1.30	2.52	.94
114.0 - 124.0	C-4	.28	1.35	.08
124.0 - 134.0	C-5	.16	0.88	.11

CASINO SILVER MINES LTD.

<u>D.D.H. #2</u>	<u>Depth of Hole:-</u> 303.0'
<u>Location:</u> Rackla River Project	<u>Dip angle :-</u> -80°
<u>Direction:-</u> S 35° E	<u>Date Started:-</u> July 28, 1970
<u>Co-ordinates:-</u> 10 plus 35'W	<u>Date Completed:-</u> August 1, 1970
3 plus 75'N	<u>Logged by:</u> John Essery

Description

<u>0' - 9.0'</u>	<u>Overburden.</u> No core recovery.
<u>9.0' - 29.0'</u>	<u>Limestone-Dolomite.</u> light grey, varying to light brown due to limonite staining in part; numerous ankerite-calcite filled fractures 1/16" to 1" wide at random orientation; bedding planes @ 40° to core.
<u>29.0' - 34.0'</u>	<u>Limestone-Dolomite,</u> altered, light to dark brown limonite staining with darker manganese oxidation in some sections; clayey to muddy in part; brecciated 29.0' - 30.0', fragments and matrix clayey and oxidized to light brown colour.
<u>34.0' - 73.0'</u>	<u>Limestone-Dolomite,</u> similar to 9.0' - 29.0'; manganese oxidation from 40.0' to 41.0' with later introduction of ankerite-calcite as fracture fillings; brecciated from 43.0' to 44.0' with dark brown to orange coloured fragments in an ankerite-calcite matrix; core angle 35° to 50°.
<u>73.0' - 76.5'</u>	<u>Limonite,</u> possibly altered dolomite, dark brown, (broken core) occasional fine calcite filled seams, often parallel to core.
<u>76.5' - 79.5'</u>	<u>Limestone- Dolomite.</u> similar to section 9.0' - 29.0'; C/A 40°.
<u>79.5' - 83.0'</u>	<u>Limonite,</u> dark brown, altered dolomite? C/A 30°.
<u>83.0' - 153.0'</u>	<u>Limestone-Dolomite,</u> similar to section 9.0' - 29.0'; gradational change from light grey to light brown with limonite stained sections; uniform distribution of ankerite-calcite stringers, usually occurring along bedding planes, also occasional random stringers; bedding plane angles contorted varying from 10° to 45° to core.
<u>153.0' - 166.0'</u>	<u>Ankerite-Calcite;</u> vein type intrusion into limonite material causing fragmentation of host rock; limonite/ankerite-calcite ratio nearly equal.

D.D.H. #2

166.0' - 202.0'

Limestone-Dolomite; later intrusion of ankerite-calcite as veining and fracture fillings which constitutes an estimated 50% of section; brownish limonitic fragmentals in part with dolomite in ankerite matrix;

175.0' to 177.5' massive calcite
189.5' to 192.5' " "

Core angle at contact of vein materials 50°.

202.0' - 224.5'

Limestone-Dolomite; average 40% ankerite-calcite content as fracture fillings at random orientation; brecciated in part in sections less than 1' long, dark grey fragments in an ankerite-calcic matrix;

211.5' to 224.5' fine limonite stained fracture fillings of calcic material; core badly broken.

224.5' - 303.0'

Limestone-Dolomite, dark grey, highly fractured; abundant later seams and vein-like fracture fillings of ankerite representing estimated 25% of section; minor 2' to 3' section of brecciated material; ankerite is the predominant rock type throughout section.

END OF HOLE

SAMPLES

<u>Sample Interval</u>	<u>Sample No.</u>	<u>Ag</u> <u>oz/ton</u>	<u>Zn %</u>	<u>Pb %</u>
73.0' - 77.0'	C-8	.10	.22	.06
152.5' - 166.0'	C-9	.24	1.88	.08
211.0' - 224.0'	C-10	.10	.64	.06

CASINO SILVER MINES LTD.

<u>D.D.H. #3</u>	<u>Depth of Hole:-</u> 634.0'
<u>Location: Rackla River Project</u>	<u>Dip Angle:-</u> -50°
<u>Direction: N. 60°W</u>	<u>Date Started:-</u> August 3, 1970
<u>Co-ordinates: 18 plus 00'W</u> 00 plus 50'S	<u>Date Completed:-</u> August 8, 1970
	<u>Logged by:</u> John Essery

Description

<u>0' - 32.0'</u>	<u>Overburden.</u> No recovery
<u>32.0' - 36.0'</u>	<u>Limestone-Dolomite,</u> dark grey, massive appearance, stratification indistinct; a few calcite filled fractures; homogenous throughout.
<u>36.0' - 113.5'</u>	<u>Shale,</u> graphitic; alternating beds of light to dark grey extremely fine grained material, in layers varying from 1/32" to 2"; thin seams up to 1/8" of fine pyrite occur along bedding planes in the thinly laminated slaty material; pyrite also occurs finely disseminated within the slaty sections, particularly where graphite is present; thicker beds of fairly massive limestone-dolomite (up to 6') similar to section 32.0 - 36.0 occur within the finer laminated, graphitic sections, at the following footages: 62.5' to 64.0' 65.0' to 68.0' 84.0' to 92.0' Minimum amount of fracturing (except along bedding planes); later calcite introduction. Core angle at 37' - 40° " " 110' - 20°
<u>113.5' - 127.0'</u>	<u>Limestone-Dolomite,</u> light grey; upper section with numerous carbonate filled fractures at random orientation.
<u>127.0' - 136.0'</u>	<u>Shale,</u> graphitic; similar to section 36.0' - 113.5'. Core/angle at 133' - 10°
<u>136.0' - 163.0'</u>	<u>Limestone-Dolomite,</u> light grey; occasional fine carbonate filled seams; minor leaching of carbonate fillings between 151' and 154'; later introduction of ankerite-calcite as minor brecciation (replacement) and as fracture fillings; bedding 5° to core axis.
<u>163.0' - 183.0'</u>	<u>Shale,</u> graphitic, laminated; similar to section 36.0' - 113.5'; bedding as above.
<u>183.0' - 206.0'</u>	<u>Ankerite-Dolomite;</u> cream coloured ankerite intruded into bedded dolomite-limestone; mainly parallel to bedding planes displaying alternating, wavy layers of cream to grey material ranging in widths from 1/16" to 1"; also more massive sections of ankerite containing fragments of host rock and as fissure fillings; estimated content of ankerite 50%; core angle as above.

D.D.H. #3

- 206.0' - 236.0' Dolomite-Limestone; similar to section 136.0 - 163.0'; massive; fracturing negligible; core angle as above.
- 236.0' - 259.0' Slaty Dolomite; thinly bedded; alternating layers of light to dark grey material usually from 1/16" to 1/2" thick; lightly graphitic, mainly along slippage planes; bedding 5° to core.
- 259.0' - 288.0' Ankerite-Dolomite; similar to section 183.0' - 206.0' ankerite intruded almost totally parallel to bedding; bedding 5° to core.
- 288.0' - 359.0' Limestone-Dolomite, light grey; gradational change to sections displaying narrow (1/16" to 2") alternating beds or layers of light grey to dark grey material; minor sections contain some graphite, especially along slips, later introduction of ankerite-calcite usually parallel to bedding; bedding 10°.
- 359.0' - 424.0' Shale, graphitic, dark grey to black, laminated; disseminate pyrite, particularly in the higher graphitic sections; ankerite vein 370.5 to 371.5'; core angle at 393' - 25°; core angle at 408' - 45°.
- 424.0' - 497.0' Limestone-Dolomite, light grey throughout; abundant later ankerite-calcite veining and fracture fillings; minor localized sections of brecciation and leaching in the higher carbonitized zones; core angle 40°.
- 497.0' - 515.0' Breccia; fault zone? Fine light and dark grey fragments cemented with carbonate; some minor leaching; has porous appearance.
- 515.0' - 557.0' Limestone-Dolomite, similar to previous sections; slight decrease in later fracturing; minor slips with graphitic slickensides at 528' and 551'; core angle 30°.
- 557.0' - 566.0' 7' Sulphides, mainly massive fine grained pyrite in brecciated muddy-limy material; estimated sulphide content 65% to 75%; visible galena in small patches and streaks of zinc-blende throughout section; core angle at upper contact, 45°.
- 566.0' - 576.0' Limestone-Dolomite, light grey, bedded 30° to core; random sections with light-brownish streaks, possibly zinc-blende; odd specks of galena; no visible pyrite.
- 576.0' - 583.0' Sulphides; similar to previous sulphide section; sulphide content lower due to later intrusion of ankerite.

D D.H. #3

583.0' - 634.0'

Limestone-Dolomite, light grey, fine clayey-slaty appearance; bedding planes quite pronounced after 610' displaying platy structure, varying from fractional to several inches in thickness; bedding 20° to core.

END OF HOLE

SAMPLES

<u>Sample Interval</u>	<u>Sample No.</u>	<u>Au</u>	<u>Ag</u>	<u>Zn</u>	<u>Pb</u>
557.0' - 562.0'	C-11	tr	1.48	8.15	9.36
562.0' - 566.0'	C-12	tr	.92	9.50	.91
566.0' - 571.0'	C-13	.005	.10	.40	.32
571.0' - 576.0'	C-14	tr	.20	1.42	.24
576.0' - 583.0'	C-15	tr	1.44	16.1	.50
	wt \bar{x}		0.9	6.84	2.21

CASINO SILVER MINES LTD.

<u>D.D.H. #4</u>	<u>Depth of Hole:</u> 522.0'
<u>Location:</u> Rackla River Project	<u>Dip Angle:</u> -50°
<u>Direction:</u> N.60° W	<u>Date Started:</u> August 10, 1970
<u>Co-Ordinates:</u> 21 plus 00'W	<u>Date Completed:</u> August 15, 1970
0 plus 00 (Base Line)	<u>Logged by:</u> John Essery

Description

<u>0' - 8.0'</u>	<u>Overburden</u> , no recovery.
<u>8.0' - 28.0'</u>	<u>Limestone-Dolomite</u> , weathered, dark brown, limonitic and manganese stained, clayey in part; highly fractured with later ankerite-calcite fillings.
<u>28.0' - 54.0'</u>	<u>Limestone-Dolomite</u> , mainly grey in colour, manganese stained, light brown in upper portion of section; bedding obscure; 52.0' to 54.0' shaly, broken core.
<u>54.0' - 59.0'</u>	<u>Limestone-Dolomite</u> , dark brown, manganese stained throughout, porous, weathered-out sections; 58.0' - 59.0' - ankerite vein
<u>59.0' - 73.0'</u>	<u>Dolomite-Ankerite</u> , brecciated, banded to broken recemented particles of dolomite and ankerite; 72.0' - 74.0' highly oxidized, manganese stained, broken.
<u>73.0' - 135.0'</u>	<u>Limestone-Dolomite</u> , grey, fairly massive to minor banded sections to 85.0'; core angle 30°; 85.0' to 93.0' slaty, finely banded, slightly graphitic; C/A 25°
<u>100.0' - 112.0'</u>	slightly weathered, porous appearance, consisting of ankerite-dolomite to calcite, brownish manganese staining in part, minor displacements and crumpling of original bedding, due to localized folding and faulting
<u>135.0' - 152.0'</u>	<u>Shale</u> , dark grey, slightly graphitic, finely bedded, alternating from light grey to black bands in layers from fractional to several inches in thickness; minor later ankerite-calcite filled fractures; core angle 10°.
<u>152.0' - 335.0'</u>	<u>Limestone-Dolomite</u> , light grey throughout, varying thickness of beds from inches to several feet; much introduction of later ankerite and calcite, usually parallel to bedding planes, displaying alternating white to grey bands in narrow widths of less than an inch in thickness; rust stained fracturing from top of hole to 322' as result of ground waters.
<u>335.0' - 370.0'</u>	<u>Shale</u> , similar to section 135.0' - 152.0'; some minor introduction of ankerite-calcite; bedding almost perpendicular to core, at 10°.

D D H #4

370.0' - 372.0'

Sulphides; mainly pyrite and zinc with ankerite-calcite; brecciated or broken particles later re-cemented; fractures containing patches of zinc and pyrite; contacts quite sharp at around 10° to 20°

372.0' - 430.0'

Shale, similar to previous sections; bedding obscure in some parts mainly due to graphite discolouration; fairly graphitic, especially along planes of slippage; core angle 10°; 374.0' to 379.0' ankerite veining.

430.0' - 522.0'

▲ Limestone-Dolomite, similar to section 152.0' - 135.0' except less introduction of later ankerite-calcite; familiar grey appearance throughout; bedding planes at 25° to core; 430.0' - 432.0' ankerite veining.

END OF HOLE

<u>Sample Interval</u>	<u>Sample No.</u>	<u>Ag</u>	<u>Zn</u>	<u>Pb</u>
8.0 - 18.0'	C-16	.12	.48	.06
18.0 - 28.0'	C-17	.08	.48	.05
54.0 - 59.0'	C-18	TR	.98	.09
68.0 - 70.0'	C-19	.44	-	.05
370.0- 372.0'	C-20	1.86	10.08	.11



WM. GERRIE, M.A.
D. KERR-LAWSON, B.A., PH.D.

CORRELATION LABORATORIES LTD.

M. E. WELLER, B.A.
H. E. WELLER

R.R. 6 COBDEN, ONTARIO PHONE 646-7448 (AREA 613)

CERTIFICATE OF ANALYSIS No. 10390 Aug. 15, 1970.

We have analysed
Received Aug. 10

2 samples of pulp
and submitted by Whitehorse Assay Office
with the following results:

SPECTROGRAPHIC SEMI-QUANTITATIVE ANALYSIS

ELEMENTS SOUGHT: Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Chromium, Cobalt, Copper, Gallium, Germanium, Indium, Lead, Iron, Lithium, Manganese, Mercury, Molybdenum, Nickel, Niobium (Columbium), Rare Earths, Silver, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Zinc, Zirconium, Boron.

ELEMENTS FOUND:		Ref: 6228-10 <i>Granada</i>
Approx. Amount	G-4	G-5
Over 10%	Iron	Zinc
5 to 30%		
2 to 10%		Iron, Lead
1 to 5%	Manganese	
.5 to 3%	Zinc	
.2 to 1%		Manganese
.1 to .5%		
.05 to .3%		Cadmium, Titanium
.02 to .1%		
.01 to .05%	Titanium, Vanadium	
.005 to .03%	Barium lead	Copper Silver
Less than .01%	Copper, Silver Zirconium	Tin

H. W. Weller