

GEOCHEMICAL AND GEOLOGICAL REPORT

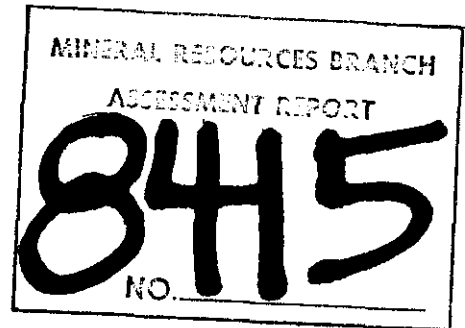
on the

JUNE AND LEDGE MINERAL CLAIMS

SLOCAN MINING DIVISION  
BRITISH COLUMBIA

ESPERANZA EXPLORATIONS LTD.

Owner and Operator



Latitude 118°00'W

Longitude 50° 25'N

N.T.S. 82K5 and 82L8

June 30, 1980

G. H. Rayner, P. Eng.  
R. Holland

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## INTRODUCTION

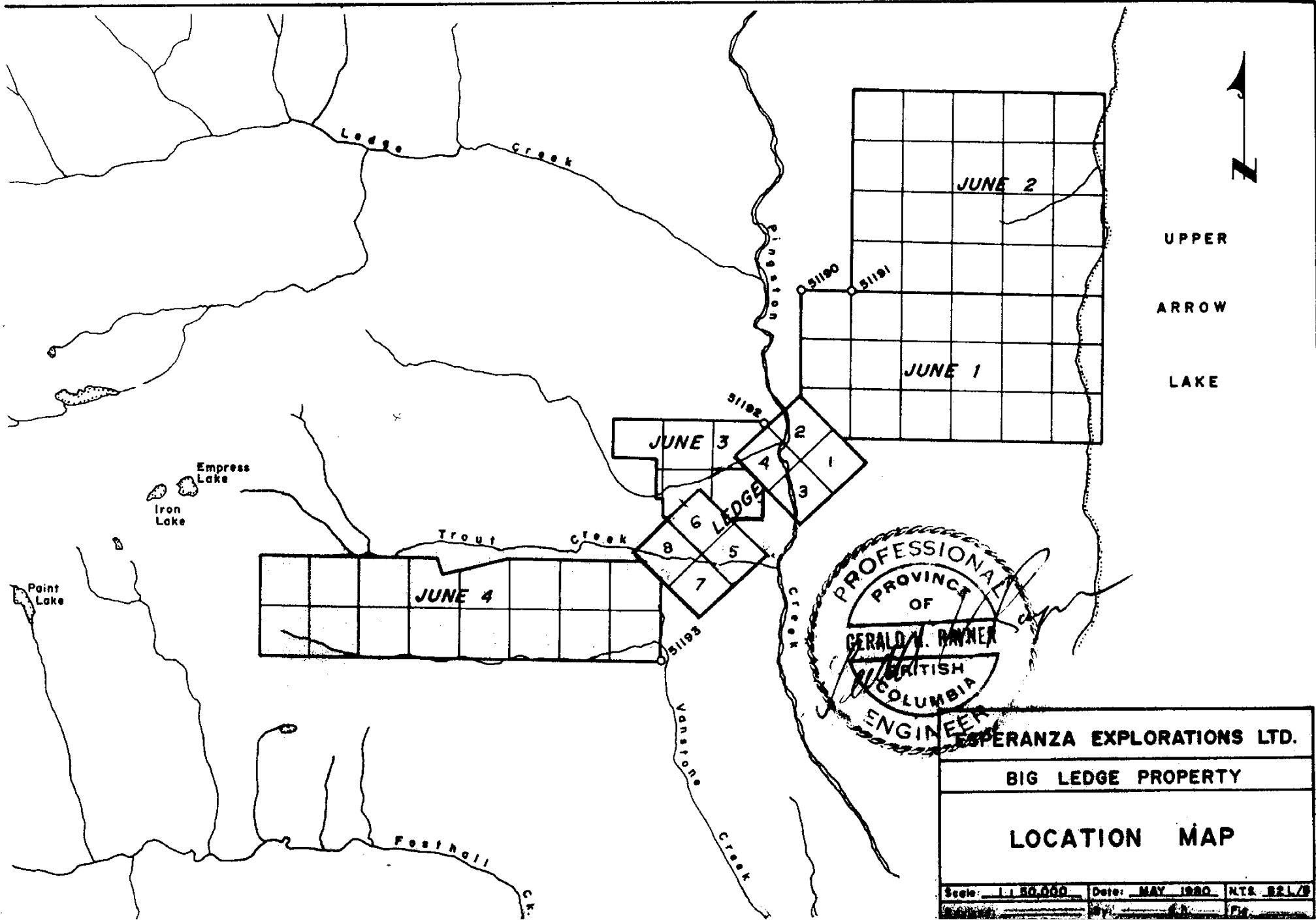
The LEDGE and JUNE claim groups lie adjacent to Cominoc's BIG LEDGE property on the west side of Upper Arrow Lake in the Slocan Mining Division of British Columbia. The property is about twenty kilometers north west of the town of Nakusp and about 50 kilometers south of Revelstoke.

Access to the ground is by a good system of well maintained logging roads. The logging road system is reached by a logging access road which leaves Highway 23 at a point 5 kilometers north of Shelter Bay and runs along the west shore of Upper Arrow Lake for some 37 kilometers to the claims area.

The original discoveries of strata-bound low grade zinc mineralization date to about 1892. Over the years the district has been held and intermittently worked by Cominco who now hold a number of Crown Granted claims covering the main mineral exposures. Cominco in the past has done work on some of the ground now included in the JUNE and LEDGE Claims. In addition, the Northwestern Syndicate carried out some work in 1965. Both of these programs included limited diamond drilling but the results are unknown.

The present owner-operator of the claims is Esperanza Explorations Ltd. of Vancouver, B.C.

During the 1979 season Esperanza carried out a soil geochemical survey and geological mapping over the ground to more clearly define the trace of the sulphide horizon through the claims and also to test for additional horizons.



### GEOCHEMICAL SOIL SURVEY

Grid lines for control of the geochemical soil survey and geological mapping were laid out over the property at a line spacing of approximately 500 meters. Soil samples were collected along the lines at a spacing of 50 meters. Wherever possible the "B" soil horizon was collected.

Samples were sent to Chemex Laboratories, 212 Brooksbank Avenue, North Vancouver, B.C. for analysis. After drying and screening the 80 mesh fraction was tested for lead, zinc and silver by the atomic absorption method. A total of 350 samples were run. The results are presented in Schedule C and are plotted on Figure 2.

### GEOCHEMISTRY - DISCUSSION OF RESULTS

In general the distribution of geochemical soil values closely reflects what is known of metal distribution from geological mapping in the area. The values were not statistically analyzed, however by inspection it appears that the values are surprisingly low in view of the amount of visible mineralization on the property. Samples over mineralized bedrock running from 1 to 4 percent zinc in some instances returned only 200 to 300 ppm. zinc in soil.

The JUNE I soil grid covers portions of the JUNE 1 and JUNE 2 Claims. Anomalous values on the eastern portion of this grid correspond closely to known mineralization. On the western portion of this grid outcrop is sparse but anomalous values are distributed in a systematic linear pattern that can be related to the bedrock trace of the mineral horizon as known from float distribution.

Some additional scattered highs also occur in the western part of the grid that may indicate the presence of more than one or two mineralized horizons. Further detailed prospecting and perhaps fill-in geochemical soil sampling would be required to clarify this point.

On the LEDGE soil grid higher values closely correspond to the trace of the known mineralized horizon. No anomalous trends noted that did not reflect mineralization outlined by geological mapping.

The JUNE 4 soil grid contains no zones of geochemical interest. The highest value for zinc (the most mobile of the three elements) was 170 ppm. It is probable (as suggested by mapping) that the main mineralized horizon does not sub-outcrop in the area covered by this grid. Some silver values on the JUNE 4 grid range up to 1.4 ppm. Although this is well above the background for the district it does not reach a range of interest for silver.

#### PROPERTY GEOLOGY

The western part of the property has been previously mapped by Trygve Höy of the B.C. Department of Mines. The present work builds upon the work of Höy and in particular, attempts to trace in detail the sulphide bearing horizon or horizons through the property.

The property is located in the south portion of the Thor-Odin Gneiss Dome on the eastern edge of the Shuswap Complex. The mineral deposits are syngenetic bedded sulphide zones in a sedimentary sequence now altered to a mixture of schist, gneiss, quartzite, calc-silicate gneiss, marble and amphibolite. Structurally the area has been folded into a series of east-west folds which appear to vary from moderately open to nearly isoclinal. One such tight fold, according to Höy, appears to be involved in developing the large body of massive sulphide material exposed on Cominco's BIG LEDGE claims.

On the JUNE 4 claim it appears from the present and previous work that the mineralized horizon has a southerly dip and if it is present it passes through the claim at some depth.

In the LEDGE - JUNE 3 claim areas the present work has outlined the trace of the main horizon through the length of the ground. A second horizon crops out in one area to the south of the main horizon in an area to the south of the main horizon in an area of limited outcrop.

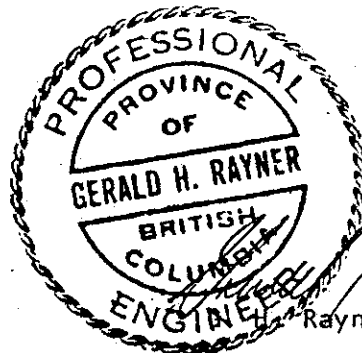
The relations of these two horizons are not clear. It may be that they are the folded repetition of a single horizon. Diamond drilling will probably be required to clarify the question.

In the JUNE 1 and JUNE 2 claim areas, there appears to be only one main mineral horizon as mapped from outcrops, rusty soil areas and float occurrences. This conclusion is supported by the geochemical results.

#### CONCLUSIONS AND RECOMMENDATIONS

The geological mapping and the soil geochemistry have confirmed the existence of the mineralized horizon in outcrop or sub-outcrop from the LEDGE claims through to the JUNE 2 claims.

The property warrants further investigation to locate economic zones along this horizon. The first stage should include a ground E.M. survey which should be followed by diamond drill testing.



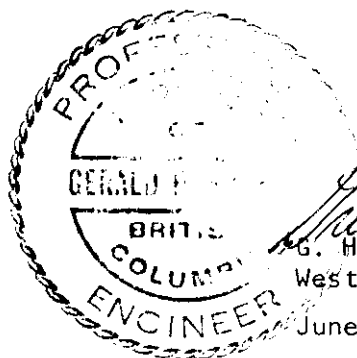
Rayner, P.Eng.

R. Holland.

CERTIFICATE

I, Gerald H. Rayner do hereby certify that:

1. I am a consulting geological engineer with offices at 626 Duchess Avenue, West Vancouver, B.C.
2. I am a graduate of the University of British Columbia (B.Sc.Geology).
3. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
4. I have practiced my profession since 1958 primarily in Western North America and the South Pacific.
5. I have no interest, direct or indirect in the JUNE and LEDGE claim groups or in the property or securities of Esperanza Explorations Ltd.



*Gerald H. Rayner*  
G. H. Rayner, P.Eng.  
West Vancouver, B.C.

June 30, 1980



SCHEDULE "A"

<u>CLAIM NAME</u>	<u>RECORD NUMBER</u>	<u>DUE DATE</u>	<u>NO. OF CLAIMS/ UNITS</u>	<u>GROUP</u>
LEDGE 1-8	825-832	August 30, 1980	8	Ledge Group 2
JUNE 1	1351	July 19, 1980	18	Ledge Group 1
2	1350	July 19, 1980	20	Ledge Group 1
3	1349	July 19, 1980	6	Ledge Group 2
4	1348	July 19, 1980	<u>16</u>	Ledge Group 2
			<u>68</u>	

GROUPING:

Ledge Group 1 (June 1 and June 2 Claims)

Ledge Group 2 (Ledge 1 to 8 incl., June 3 and June 4 Claims).

SCHEDULE "B"

STATEMENT OF COSTS

LEDGE Group 1 (38 Units) June 1-2 Claims

Geochemical analyses 163 samples @ \$4.80	782.40
Camp maintenance	210.00
Geological staff -	
G.H.Rayner June 16-19/80, Sept.21, 25/79 5 days @ \$350	1,750.00
R. Holland Sept.19-22/79, June 10,11/80 6 days @ \$150	900.00
J. Jenks Sept.21-22/79 2 days @ \$150	<u>300.00</u>
Total:	\$3,942.40

LEDGE GROUP 2 (30 Units) (Ledge 1-8 and June 3-4 Claims

Geochemical analyses 187 samples @ \$4.80	907.60
Camp maintenance	215.00
Geological staff:	
G.H.Rayner Sept.25/79; June 13-16/80 4 days @ \$350	1,400.00
R. Holland Sept.22-25/79 4 days @ \$150	<u>600.00</u>
Total:	\$3,122.60

Note: LEDGE Group 1 - One Year's work applied for JUNE 1 and JUNE 2 claims  
(38 claim Units)

LEDGE Group 2 - Two years' work applied for LEDGE 1-8 incl.Claims  
(8 Units)

One year's work applied for JUNE 3 and JUNE 4 claims  
(22 Units)

SCHEDULE 'C'

ASSAY SHEETS



# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: [REDACTED] 984-0221  
 AREA CODE: 604  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO: **Esperanza Explorations**  
 1027 - 470 Granville  
 Vancouver, B.C.  
 V6C 1V5

ATTN:

CERTIFICATE NO. 50956  
 INVOICE NO. 33178  
 RECEIVED **October 5, 1979**  
 ANALYSED **October 12, 1979**

SAMPLE NO. :	PPM Pb	PPM Zn	PPM Ag
June 1 L1 0+00	14	1050	0.1
June 1 L1 0+50 N	12	72	0.1
1+00	10	162	0.1
1+50	10	100	0.1
2+00	2	46	0.1
2+50	10	88	0.2
3+00	10	66	0.1
3+50	12	90	0.1
June 1 L1 4+00 N	6	58	0.1
June 1 L1 0+50 S	8	920	0.1
1+00	24	490	0.1
1+50	20	250	0.1
2+00	14	230	0.1
2+50	10	114	0.1
3+00	12	164	0.2
3+50	8	106	0.1
4+00	8	162	0.1
4+50	10	144	0.1
5+00	10	190	0.1
5+50	8	125	0.1
6+00	12	75	0.1
6+50	10	110	0.1
7+00	8	145	0.1
7+50	8	135	0.1
8+00	6	65	0.1
8+50	10	115	0.1
9+00	12	115	0.1
9+50	10	130	0.1
10+00	10	125	0.1
10+50	8	70	0.1
11+00	12	110	0.1
11+50	12	120	0.1
12+00	14	95	0.2
June 1 L1 12+50 S	12	150	0.1
June 1 L2 0+14 N	10	90	0.1
1+00	4	70	0.1
1+50	8	75	0.2
2+00	4	70	0.1
2+50	8	130	0.1
June 1 L2 3+00 N	8	65	0.2

L.C.D. 602 for B. Howard

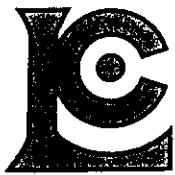
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MEMBER  
 CANADIAN TESTING

CERTIFIED BY:

*Hart Bille*



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212 BROOKSBANK AVE.  
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## CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 50957

TO: **Esperanza Explorations**  
 1027 - 470 Granville  
 Vancouver, B.C.  
 V6C 1V5

INVOICE NO. 33178

RECEIVED October 5, 1979

ATTN:

ANALYSED October 12, 1979

SAMPLE NO. :	PPM Pb	PPM Zn	PPM Ag
June 1 L2 3+50 N	4	65	0.1
June 1 L2 4+00 S(A) N?	2	60	0.1
June 1 L2 0+50 S	6	100	0.1
1+00	12	110	0.1
1+50	10	150	0.1
2+00	8	95	0.1
2+50	18	120	0.1
3+00	16	110	0.2
June 1 L2 3+50 S	10	80	0.1
June 1 L2 4+00 S(B) S?	14	100	0.1
June 1 L2 4+50 S	14	120	0.1
5+00	10	140	0.1
5+50	20	170	0.1
6+00	14	110	0.1
6+50	18	130	0.1
7+00	18	225	0.1
7+50	16	160	0.1
8+00	16	190	0.1
8+50	10	85	0.1
9+00	22	190	0.1
9+50	14	340	0.1
10+00	10	70	0.1
10+50	14	105	0.2
11+00	16	70	0.1
11+50	18	140	0.1
12+00	10	85	0.1
June 1 L2 12+50 S	12	40	0.1
June 1 L3 0+00	10	35	0.1
June 1 L3 0+50 N	14	90	0.1
1+00	8	60	0.1
1+50	10	75	0.1
2+00	14	255	0.1
2+50	22	195	0.1
3+00	28	140	0.4
3+50	20	175	0.1
June 1 L3 4+00 N	18	145	0.1
June 1 L3 0+50 S	6	25	0.1
1+00	6	60	0.1
1+50	8	70	0.1
June 1 L3 2+00 S	12	110	0.1



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 CANADA V7J 2C1  
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 AREA CODE: 604  
 TELEX: 043-52597

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TO: **Esperanza Explorations**  
 1027 - 470 Granville  
 Vancouver, B.C.  
 V6C 1V5

ATTN:

CERTIFICATE NO. **50958**  
 INVOICE NO. **33178**  
 RECEIVED **October 5, 1979**  
 ANALYSED **October 12, 1979**

SAMPLE NO. :	PPM Pb	PPM Zn	PPM Ag
June 1 L3 2+50 S	6	40	0.1
3+00	12	180	0.1
3+50	14	130	0.1
4+00	10	130	0.1
4+50	14	115	0.2
5+00	10	70	0.1
5+50	12	80	0.1
6+00	14	120	0.1
6+50	26	160	0.8
7+00	14	95	0.1
7+50	12	145	0.2
8+00	12	190	0.1
8+50	12	95	0.2
9+00	12	100	0.1
9+50	12	90	0.1
10+00	30	170	0.1
10+50	20	125	0.1
11+00	20	90	0.1
June 1 L3 11+50 S	14	130	0.1
June 1 L4 0+00	14	80	0.1
June 1 L4 0+50 N	6	100	0.1
1+00	4	85	0.1
1+50	10	80	0.1
2+00	2	40	0.1
2+50	18	120	0.1
June 1 L4 3+00 N	8	65	0.1
June 1 L4 0+80 S	6	80	0.1
2+00	4	60	0.1
2+50j	8	115	0.1
3+00	6	90	0.1
3+50	8	100	0.1
4+00'	10	200	0.1
4+50	12	120	0.1
5+00	14	140	0.1
5+50	14	80	0.1
6+00	24	160	0.1
6+50	22	330	0.1
7+00	16	220	0.1
7+50	12	160	0.1
June 1 L4 8+00 S	10	60	0.1



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*Hart Bielle*



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TO: Esperanza Explorations  
 1027 - 470 Granville  
 Vancouver, B.C.  
 V6C 1V5

INVOICE NO. 33178

RECEIVED October 5, 1979

ATTN:

ANALYSED October 12, 1979

SAMPLE NO. :	PPM Pb	PPM Zn	PPM Ag
June 1 L4 8+50 S	4	65	0.1
9+00	6	100	0.1
9+50	4	65	0.1
10+00	10	100	0.1
10+50	10	115	0.1
11+00	10	165	0.1
June 1 L4 11+50 S	12	110	0.2
June 1 L5 0+00 N	4	30	0.1
0+50	10	110	0.1
1+00	14	60	0.1
June 1 L5 1+50 N	12	90	0.1
June 1 L5 0+50 S	22	700	0.1
1+00	4	60	0.1
1+50	6	180	0.1
2+00	8	300	0.1
2+65	4	230	0.1
2+93 silt	4	150	0.1
3+00	8	130	0.1
3+50	12	165	0.1
4+00	18	185	0.1
4+50	10	85	0.1
5+00	14	150	0.1
5+29 silt	10	75	0.1
5+50	6	50	0.1
6+00	12	90	0.1
6+50	20	215	0.8
7+00	12	135	0.1
7+50	10	170	0.1
June 1 L5 8+00 S	12	160	0.1
June 1 L5 8+50 W	14	80	0.1
June 1 L5 9+00	16	125	0.1
June 1 L5 9+50 S	20	400	0.1
June 1 L6 0+50 W	16	110	0.1
1+00	10	130	0.1
1+22 silt	4	50	0.1
1+50	10	50	0.1
2+00	8	70	0.1
2+50	14	150	0.1
3+00	10	105	0.1
June 1 L6 3+50 W	14	160	0.1

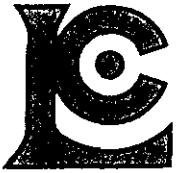
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MEMBER  
CANADIAN TESTING

CERTIFIED BY:

*Hart Biddle*



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## CERTIFICATE OF ANALYSIS

TO: Esperanza Explorations  
 1027 - 470 Granville  
 Vancouver, B.C.  
 ATTN: V6C 1V5

CERTIFICATE NO. 50960  
 INVOICE NO. 33178  
 RECEIVED October 5, 1979  
 ANALYSED October 12, 1979

SAMPLE NO.		PPM Pb	PPM Zn	PPM Ag
June 1 L6	4+00 W	16	330	0.1
	4+50	20	130	0.6
June 1 L6	5+00 W	16	120	0.1
June 4 0+00E	0+50 N	14	40	0.1
	1+00	16	85	0.1
	1+50	14	80	0.1
	2+00	12	40	0.2
	2+50	10	70	0.1
June 4 0+00E	3+00 N	12	50	0.1
June 4 0+00E		34	60	0.1
June 4 0+00E	0+50 S	10	60	0.2
	1+00	12	65	0.1
	1+50	14	60	0.1
	2+00	14	60	0.1
	2+50	12	85	0.1
	3+00	12	100	0.1
	3+00 silt	56	120	0.1
	3+50	10	100	0.1
	4+00	16	50	0.1
	4+50	20	120	0.1
June 4 0+00E	5+00 S	16	110	0.1
June 4 5+00E		14	70	0.1
June 4 5+00E	0+50 N	18	140	0.1
	1+00	16	85	0.4
	1+50	10	45	0.1
June 4 5+00E	2+00 N	20	30	0.1
June 4 5+00E	0+50 S	12	45	0.1
	1+00	14	75	0.1
	1+50	8	90	0.1
	2+00	12	95	1.0
	2+50	12	85	0.1
	3+00	10	70	0.2
	4+00	14	50	0.4
	4+50	16	85	0.2
June 4 5+00E	5+00 S	12	75	0.1
June 4 10+00E		14	170	0.1
June 4 10+00E	0+50 N	16	195	0.1
	1+00	16	100	0.1
	1+50	18	220	0.6
June 4 10+00E	2+00 N	20	40	0.4



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## CERTIFICATE OF ANALYSIS

TO: Esperanza Explorations  
 1027 - 470 Granville  
 Vancouver, B.C.  
 V6C 1V5

CERTIFICATE NO. 50961  
 INVOICE NO. 33178  
 RECEIVED October 5, 1979  
 ANALYSED October 12, 1979

ATTN:

SAMPLE NO. :	PPM Pb	PPM Zn	PPM Ag
June 4 10+00E 2+50 N	26	70	0.1
June 4 10+00E 1+00 S	14	75	0.2
1+50	14	50	0.2
2+00	18	50	0.1
2+50	12	95	0.1
3+00	16	50	0.2
3+50	10	70	0.1
4+00	14	80	0.1
4+50	12	50	0.1
June 4 10+00E 5+00 S	20	35	0.1
June 4 12+50E 0+50 S	24	75	0.2
1+00	16	120	0.1
1+50	16	75	0.1
<u>1+87</u> S/H	<u>34</u>	85	0.1
2+00	26	85	0.1
2+50	18	110	0.1
3+00	20	70	0.2
3+50	14	70	0.2
4+00	16	65	0.1
4+50	10	115	0.2
June 4 12+50E 5+00 S	14	140	0.1
June 4 15+00E	20	50	0.2
June 4 15+00E 0+50 S	14	70	0.4
<u>0+70</u> S/H	16	130	0.2
1+00	8	30	0.4
1+50	16	120	0.1
2+00	16	65	0.2
2+50	18	105	0.1
3+00	14	130	0.2
3+50	12	95	0.1
4+00	14	115	0.1
<u>4+36</u> S/H	<u>38</u>	110	0.1
4+50	16	60	0.2
5+00	28	100	0.1
<u>5+45</u> S/H	<u>32</u>	110	0.1
5+50	14	50	0.2
6+00	10	60	0.4
6+50	12	40	0.1
7+00	8	65	0.1
June 4 15+00E 7+50 S	8	70	0.1



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION

CERTIFIED BY: Hart Biele

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# CHEMEX LABS LTD.

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 AREA CODE: 604  
 TELEX: 043-52597

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## CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 50962

TO: **Esperanza Explorations**  
 1027 - 470  
 Vancouver, B.C.  
 V6C 1V5

INVOICE NO. 33178

RECEIVED October 5, 1979

ATTN:

ANALYSED October 12, 1979

SAMPLE NO.	PPM		
	Pb	Zn	Ag
June 4 15+00E 8+00 S	10	55	0.1
8+50	10	75	0.2
9+00	10	50	0.4
9+50	14	70	0.4
10+00	10	65	1.4
10+50	8	140	1.4
11+00	12	70	0.2
11+50	8	80	0.1
12+00	8	90	0.1
12+50	10	100	0.1
13+00	10	160	0.8
13+50	18	100	0.2
14+00	10	170	1.0
14+50	8	75	0.1
15+00	8	60	0.2
15+50	8	130	0.1
16+00	6	100	0.1
June 4 15+00E 16+50 S	12	90	0.1
June 4 20+00E 10+50 S	12	60	1.0
11+00	10	60	0.1
11+50	8	75	0.1
12+00	14	70	0.2
12+50	8	60	0.1
13+00	18	25	0.1
13+50	10	45	0.1
14+00	14	50	0.1
14+50	10	80	0.1
15+00	8	85	0.1
15+50	4	170	0.2
16+00	12	75	0.1
16+50	8	85	0.4
June 4 20+00E 17+00 S	6	120	0.1
Ledge 1 0+00	36	140	0.1
Ledge 1 0+50 N	8	80	0.1
1+00	10	50	0.1
1+50	10	55	0.1
2+00	6	100	0.1
2+50	2	45	0.1
3+00	4	95	0.1
Ledge 1 3+50 N	8	55	0.1



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION

CERTIFIED BY:

*Hart Biddle*



# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: ██████████ 984-0221  
 AREA CODE: 604  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO: Esperanza Explorations  
 1027 - 470 Granville  
 Vancouver, B.C.  
 V6C 1V5

ATTN:

CERTIFICATE NO. 50963

INVOICE NO. 33178

RECEIVED October 5, 1979

ANALYSED October 12, 1979

SAMPLE NO. :	PPM Pb	PPM Zn	PPM Ag
Ledge 1 0+50 S	8	70	0.1
1+00	10	1100	0.1
1+50	18	430	0.1
1+86 silt	16	270	0.1
2+00	2	55	0.1
2+07 silt	14	430	0.2
2+50	8	80	0.1
3+00	14	205	0.1
3+50	6	140	0.1
4+00	8	90	0.1
4+50	10	150	0.1
5+00	14	120	0.2
5+50	10	110	0.1
6+00	8	125	0.1
6+50 7 00	10	90	0.1
7+00	10	170	0.1
7+50	14	90	0.1
8+00	12	105	0.1
8+50	20	90	0.1
9+00	16	130	0.1
9+50	10	150	0.1
10+00	14	160	0.2
10+50	10	105	0.1
11+00	8	110	0.1
Ledge 1 11+40 S silt	12	265	0.1
Ledge 2 0+00	8	120	0.1
Ledge 2 0+50 S	18	125	0.1
1+00	20	100	0.1
1+50	12	100	0.1
2+00	10	55	0.1
2+50	20	95	0.1
3+00	12	140	0.1
3+50	6	125	0.1
4+00	18	260	0.1
4+08 silt	18	300	0.1
4+50	20	170	0.1
5+00	184	600	0.1
5+50	14	200	0.1
6+00	38	245	0.2
Ledge 2 6+50 S	14	170	0.1



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION

CERTIFIED BY:

*Hart Biddle*



# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: [REDACTED] 964-0221  
 AREA CODE: 604  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO: Esperanza Explorations  
 1027 - 470 Granville  
 Vancouver, B.C.  
 V6C 1V5

ATTN:

CERTIFICATE NO. 50964  
 INVOICE NO. 33178  
 RECEIVED October 5, 1979  
 ANALYSED October 12, 1979

SAMPLE NO. :	PPM Pb	PPM Zn	PPM Ag
Ledge 2 7+00 S	16	120	0.1
7+50	10	140	0.1
8+00	18	120	0.2
8+50	8	70	0.1
9+00	16	155	0.1
9+50	12	80	0.1
10+00	10	90	0.1
10+50	10	125	0.1
11+00	12	125	0.2
Ledge 2 11+50 S	10	95	0.2
Ledge 3 0+00	10	140	0.1
Ledge 3 0+50 N	10	120	0.2
1+00	10	210	0.1
Ledge 3 1+50 N	14	115	0.1
Ledge 3 0+50 S	20	70	0.1
1+00	6	55	0.2
1+50	6	105	0.1
2+00	8	70	0.1
2+50	6	80	0.1
3+00	8	80	0.1
3+50	18	90	0.1
4+00	4	25	0.2
4+50	74	1300	0.2
5+00	6	115	0.1
5+50	4	50	0.2
Ledge 3 5+80 Silt	10	70	0.2
BL ✓32	12	880	0.1
✓33	10	110	0.1
✓34	14	1100	0.1
35	10	100	0.1
36	10	80	0.1
37	12	90	0.2
38	10	65	0.1
39	10	75	0.1
40	16	110	0.1
41	8	55	0.1
✓57	8	190	0.1
✓58	8	180	0.1
✓59	16	500	0.2
BL 66	8	90	0.1



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION

CERTIFIED BY:

*Hart Bielle*



UPPER  
ARROW  
LAKE

Water Elevation - 1363  
(3512 m.m.)

**GEOLOGICAL LEGEND**

- SUPERCrustal ZONE**
- S7 QUARTZ MONZONITE
  - S5 ANDESITE METAVOLCANICS, CHLORITE SCHIST, HORNBLENDE SCHIST
- FRINGE ZONE**
- F4 LINEATED LEUCOQUARTZ MONZONITE
  - F2 GREATER THAN 50% PEGMATITE
- MANTLING ZONE**
- M7 AMPHIBOLITE
  - M6 MARBLE
  - M5 BILIMANITE - GARNET - BIOTITE SCHIST; CALC-SILICATE GNEISS, MINOR MARBLE AND AMPHIBOLITE
  - M3 QUARTZITE
  - LEGE HORIZON - CALCAREOUS GRAPHITIC ROCKS WITH CALCAREOUS QUARTZITE, CALC-SILICATE GNEISS AND MARBLE, SULPHIDE MINERALIZATION

**SYMBOLS**

- LOSSING ROAD
- CAT ROAD
- TRAIL
- CAMP BUILDINGS
- CONTOUR INTERVAL, 50 FEET
- CLAIM POST, LOCATED
- CLAIM POST, ASSUMED LOCATION
- DRILL HOLE, COMINCO, 1952
- DRILL HOLE, NORTHWEST SYNDICATE
- SOIL GRID SAMPLE LOCATION (P, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ

8415

**ESPERANZA EXPLORATIONS LTD.**  
BIG LEDGE PROPERTY

**GEOLOGICAL COMPILATION  
and  
1979 SAMPLING RESULTS**

Scale: 1:12,500 Date: FEB. 1980 (REV. 881/8)  
By: B. HOLLAND (P. 08)