

This is Geophysical Report No. EM-69-102-71  
For G. Olheiser  
LOST Claims Group  
Highland Valley Area, 10 Miles North of Merritt, B.C.  
50° N - 120° W 92 I / 7W  
May 1st, 1971 to July 15, 1971.

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PLANS

#2 Profile Plan No. EM-69-102-71

1 Location Plan EM-69-102-71-L

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ELC GEOPHYSICAL REPORT NO. EM-69-102-71 FOR G.  
OLHEISER OVER THE LOST CLAIMS GROUP IN THE HIGHLAND  
VALLEY AREA, 10 MILES NORTH OF MERRITT, B. C.  
50° N - 120° W. MAY 1, 1971 to JULY 15, 1971.

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## Purpose:

The purpose of the geophysical reconnai-  
sance ground survey was to determine by electromagnetic  
and magnetometer geophysical instruments, the anoma-  
lous features to the north of the GO claims group,  
previously surveyed and reported in the ELC Geophy-  
sical report No. EM-69-102-70. The extension of the  
base line to the north used the same coordinates and  
may be assessed relative to the results obtained in  
the southern portion in the survey of 1970.

## Location:

The LOST claims group extend along the east  
side of Guichon Creek on the west side of the Merritt-  
Kamloops highway, approximately 10 miles north of

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Merritt, B.C. The claims lie principally on meadowland in the valley as indicated on the plan drawing No. EM-69-102-71-L.

Instrumentation:

The survey utilized a type EM16 Ronka Instrument operating on 18.6 KHZ from the signals of the U.S. Naval Station NPL located near Arlington, Washington, USA.

A vertical fluxgate magnetometer Model 100 made by Sabre Electronics of Vancouver was simultaneously operated over the same traverse stations. The survey was under the supervision of R. Reece, assisted by G. Olheiser.

Geological Reference:

Report and maps issued by the Geological Survey of Canada (Memoir 249, W.E. Cockfield).

Presentation:

The plan of the survey is shown on drawing No. EM-69-102-71. The base line extends nearly true north and south and is shown in the centre of the

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plan. The grid lines are east and west having an average spacing of 500 feet, and the station spacing at 100 foot intervals, with the exception of closer spacing at anomalous areas. The central base line extends from the coordinates 59+00 N to 132+00 N.

The EM two component (in-phase and quadrature) readings are plotted in profile form, along the lines traversed, and interpretation is determined by the relative phase and amplitude, with respect to the two components and the corresponding profiles on the neighbouring grid lines. The values are as indicated on the plan.

The magnetometer results are shown with a value of 500 gammas to the inch in profile form, with the base line value of approximately 55,000 gammas.

Results:

The survey was confined chiefly to the north and west portion of the claims, although the traverse was continued over the entire central base line and ties into the earlier EM surveys to the south. (No. EM-69-102 and No. EM-69-102-70.) Two

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principal magnetic linear anomalies ML1 and ML2 extend nearly north and south. An apparent fault is indicated by the magnetic linear ML3.

Electromagnetic linear anomalies EL1 and EL2 have a similar north south strike and indicate increased conductivity along these strike lines. The short EL3 anomaly to the north east is not confirmed by a magnetic anomaly.

Conclusions:

South of the linear anomaly ML3 the most anomalous area is west of ML1, including EL2.

North of ML3 the most anomalous area exists east of ML2 as far as the central base line.

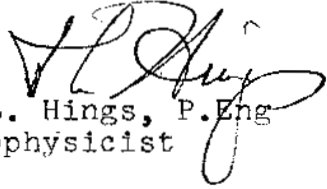
It appears the magnetic anomalies mark the division in geological formations and delineates the general area in the vicinity of EL2 and ML1 of principal interest. The anomalous features east of ML2 are largely on the EM profiles and are considered to be attributed to surface influences, such as local drainage patterns. There is insufficient control

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in the north east portion to assess the value of the EL3 linear anomaly.

Recommendations:

Since less than half the area of the claims group were covered by the reconnaissance survey, the assessments must be confined to the north and west until more of the claims are surveyed. The apparent area of interest is covered by the claims LOST 25, 28 and 30. The anomalous features are not strong by comparison to the south, but should be assessed by a surface geological examination or a geochemical survey. The reduced strength of the anomalies may be in part due to the increase in coverage that is apparent, east of Guichon Creek.

  
D.L. Hings, P.Eng  
Geophysicist

A statement of Costs for Geophysical Survey No. EM-69-102-71 Covering the LOST Claims Group, Highland Valley Area, 10 miles North of Merritt, B.C. 50° N - 120° W  
May 1, 1971 to July 15, 1971

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Survey Crew:

R.L. Reece	10 days @ 60.00	600.00	
G. Olheiser	10 days @ 32.00	<u>320.00</u>	920.00

Transportation

4 x 4 Truck	9 days @ 12.00	108.00	
Mileage 600 @ 12¢		<u>72.00</u>	180.00

Living Costs

20 man days @ 10.00			200.00
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Instruments

Ronka EM16	10 days @ 10.00	100.00	
Sabre Magnetometer	10 days @ 10.00	<u>100.00</u>	200.00

Data Processing & Drafting

D.A. Cramer	4 days @ 60.00		240.00
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Interpretation & Report

D.L. Hings, P. Eng.			
	1 1/2 days @ 120.00		180.00

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Total Costs.			<u>\$ 1,920.00</u>
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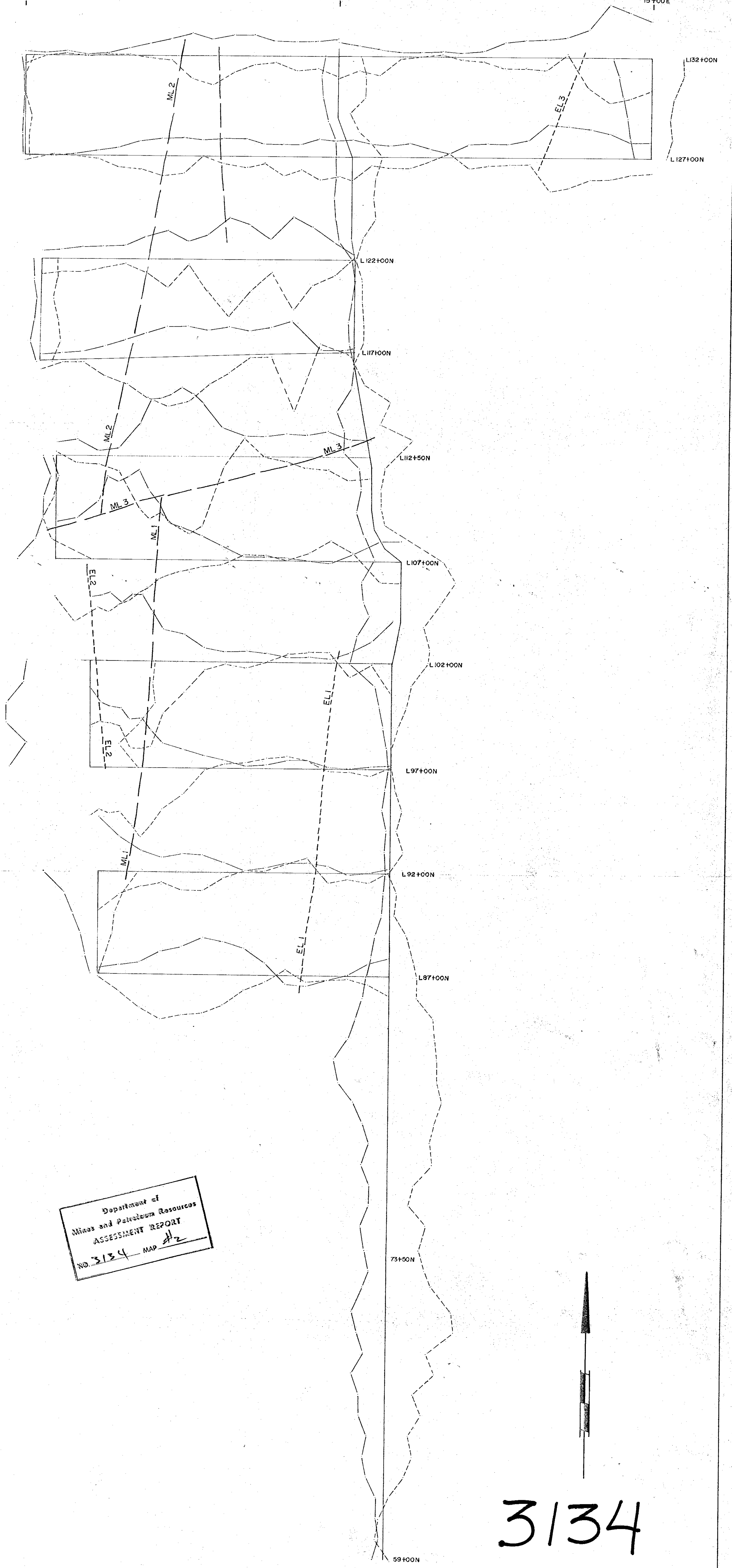
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15+00W

0+00

15+00E



Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3134 MAP #2



3134  
M-2

ELC GEOPHYSICS LTD.  
LOST GROUP HIGHLAND VALLEY, B.C.  
MR. G. OLHEISER  
JULY, 1971 SCALE: 1" = 200' DWG. NO. - EM-69-102-71  
EM PROFILES  
APPROVED: *[Signature]*

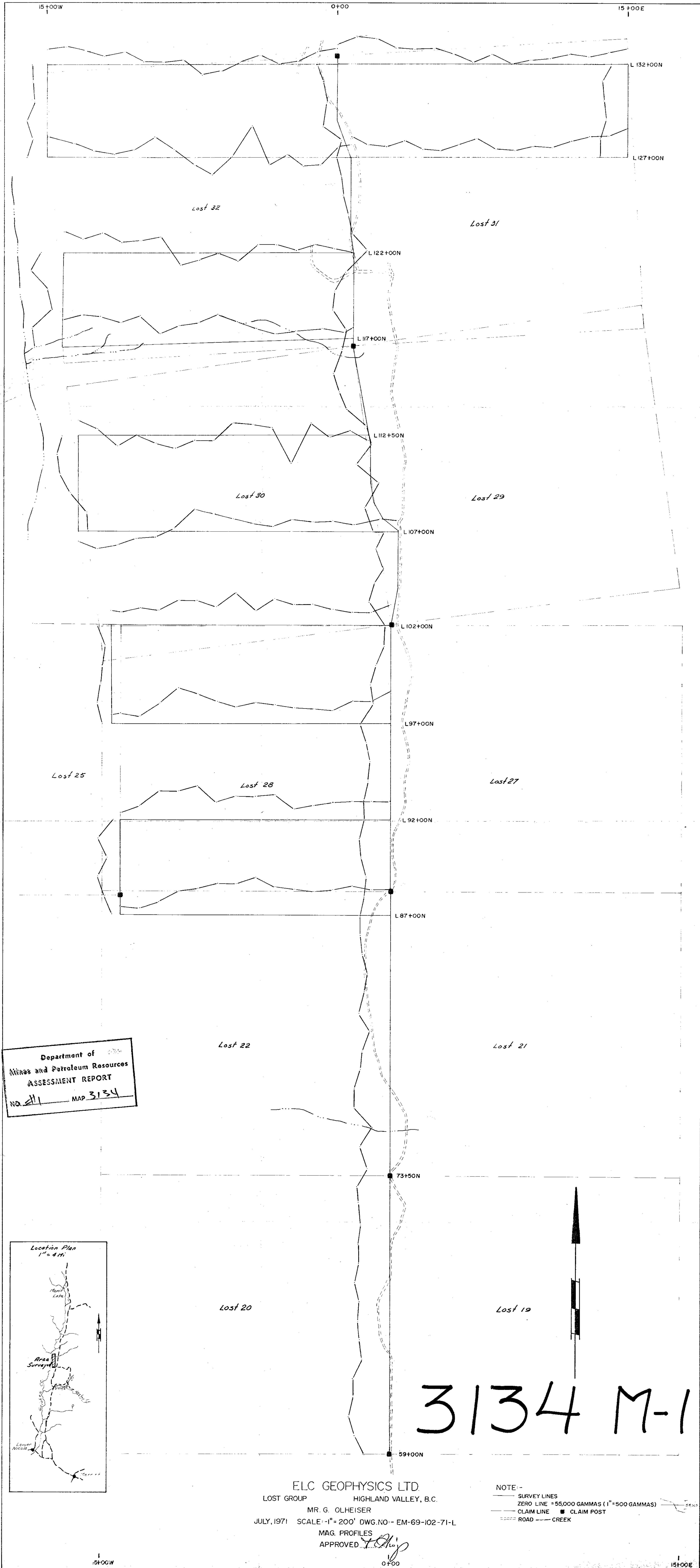
NOTE:-  
- - - SURVEY LINES  
+ | ± ZERO LINE  
- - - IN PHASE (I" = 50%)  
- - - QUADRATURE (I" = 20%)  
- - - MAGNETIC LINEAR ANOMALY  
- - - ELECTROMAGNETIC LINEAR ANOMALY

15+00W

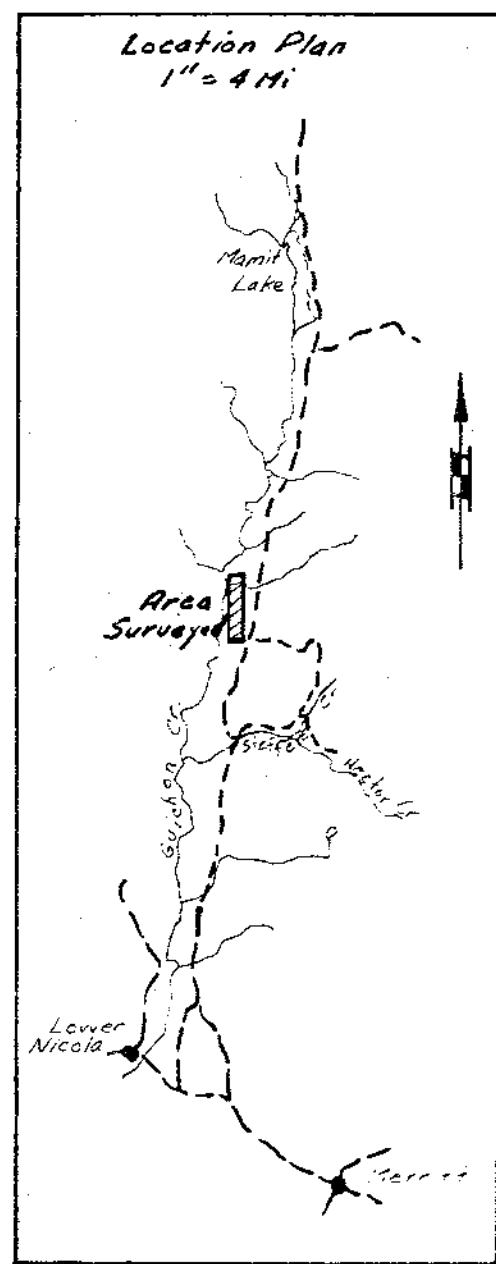
0+00

15+00E





Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 411 MAP 3134



3134 M-1

ELC GEOPHYSICS LTD.  
 LOST GROUP HIGHLAND VALLEY, B.C.  
 MR. G. OLHEISER  
 JULY, 1971 SCALE: 1" = 200' DWG. NO. - EM-69-102-71-L  
 MAG. PROFILES  
 APPROVED: *[Signature]*

NOTE:-  
 - - - SURVEY LINES  
 - - - ZERO LINE = 55,000 GAMMAS (1" = 500 GAMMAS)  
 - - - CLAIM LINE ■ CLAIM POST  
 - - - ROAD - - - CREEK

15+00W

0+00

15+00E