

2443

This is Report No. CM-69-1006
for Lone Prospector C.G. & Iron Clad C.G., Clearwater, B. C.
for Junex Mines Limited (N.P.L.)
December 1969

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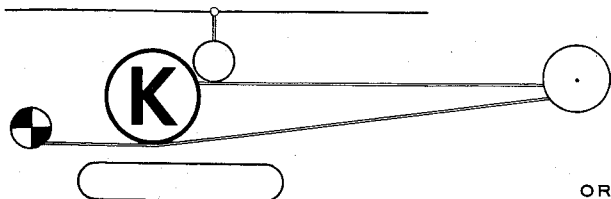
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PLAN (Rear)

- #1 Reconnaissance Plan EM-69-1006
#2 Detail Plan EM-69-1006-D

KLYCEPTOR SURVEYS LTD.
2101 LORRAINE
BURQUITLAM, B.C.
936-3091

Department of Mines and Petroleum Resources ASSESSMENT REPORT NO. <u>2443</u> MAP.....



KLYCEPTOR
INTERNATIONAL AIR SURVEYS LTD.

ORIGINATORS OF GEOELECTROMAGNETIC SURVEYS BY AIR

CUSTOM GEOPHYSICAL INTERPRETATIONS

GEOPHYSICAL REPORT OF THE SURVEY OVER THE LONE PROSPECTOR C.G.
& IRON CLAD C.G. AT CLEARWATER, B. C. FOR THE JUNEX MINES LTD.
(N.P.L.) BY KLYCEPTOR GEOPHYSICAL SURVEYS LIMITED NO. EM-69-1006
AND EM-69-1006-D DECEMBER 1969

Purpose:

The purpose of the surveys were to determine the electromagnetic anomalous features. The first was a reconnaissance survey shown in the enclosed drawing No. EM-69-1006. The second survey shown on drawing No. EM-69-1006-D covers a smaller area with closer spaced readings that include the interpretation of the most outstanding anomalous features.

Location:

The Claims (Prince Group, Lone Prospector C.G. & Iron Clad C.G.) are indicated on the reconnaissance plan and are located on the western slope of Mount Fennell approximately three miles south of Blackpool on the eastern slope of the North Thompson River Valley. The geographic location is 120° West and 51°30' North.

..cont'd..

Geological Reference:

Map No. 3-1916 Geology Bonaparte River by the Surveys and Mapping Branch, Department of Lands and Forests of British Columbia (92T).

Instrumentation:

The geophysical instrument was an EM-16 Ronka type instrument utilizing the low frequency transmissions from the U.S. Navy Station, at Arlington, Washington, U.S.A. on 18.6 KHZ.

Presentation:

It will be noted that most of the traverse lines are north and south and generally follow the surface contour. Interlacing lines have a general east-west direction. The traverse lines are shown in plan form with the two component profiles indicated by dashed and solid lines made from the station location readings as indicated along the traverse line.

In the more anomalous location including the detailed survey, shown on drawing EM-69-1006-D there is considerable displacement of the vertical component to the east and it should be noted that the interpretation should compare the profiles of like numbers.

It should also be noted that the separate presentation of the detail work is mostly confined to the Crown Grant Claims L288 and L289. The surveys were conducted under the direct supervision of D. A. Saare.

Results:

Referring to Drawing No. EM-69-1006 the profiles shown cover the reconnaissance survey, made with the EM16 Electromagnetic Geophysical Unit. The solid profile lines indicate the in phase or vertical component, and the dashed lines indicate the quadrature or horizontal component. In this survey the vertical component was considerably more active than the horizontal. General component displacements occurring in the area of increased conductivity were in evidence, also a number of linear anomalies

formed by interconnecting conductive sections of parallel traverses are indicated by the letters CL. The prominent linear CL1A extending from 26+00 west in the south to 18+00 west in the north extends across the property, but does not show substantial formation influence. In the vicinity of the cross-linear anomalies CL2B the anomalous features are stronger and show better conduction, however, this is to be expected, as this is in the drainage area parallel to and south of CL2B.

The general slow displacement of the traverse lines in the central portion of the survey are largely attributed to the topographical change on Mount Fennell. The particularly outstanding anomaly appeared on the south end of line 32+00 west and within the Crown Grants L288 and L289. These results indicated further work was warranted to the south of this area, and the detailed survey follow-up is shown in the drawing EM-69-1006-D.

Detail Survey Results:

Referring to the drawing EM-69-1006-D it will be noted that the extension of the lines 31+00 west to 43+00west have been extended to the south with additional intermittent lines to

form a grid every hundred feet, plus two interlacing lines.

The most anomalous section is southwest of the Crown Grants Claim L289 extending into the southern corner of this claim and indicated by the hatched Area A1. The second most anomalous area is shown in the hatched area A2 on the west side of the Crown Grant Claim L288.

The conductive linear anomaly CL1 appears to be the main division between the two formations and combined with CL6 forms what appears to be a block fault zone. The anomalous zones extend out to the borders indicated by the letters Z1 and Z2. These zones will have geological significance with preference to movement in the faulting. The conductive linear anomalies CL3, CL3A, and CL4 would appear to be associated with the strong A1 anomaly. The northern boundary of Z1 indicates a dip to the south and west, although the lower boundary of Z1 strikes nearly east and west.

Conclusions:

It is apparent that the survey detail work to the south of the Crown Grants L288 and L289 has disclosed an anomalous area south of the old workings, including tunnel No. 1 that shows

strong anomalous features to the west. The strength of these anomalies are quite exceptional and when included with the areas of Z1, might be considered approximately 800 feet long and average about 300 feet wide.

The readings within the A1 anomaly have every indication of extending to depth, especially to the south, thereby indicating an east-west formation, dipping to the south at a greater angle than the topography. Mr. Saare submitted massive sulphide samples from the northern edge of the A1 anomaly from old workings.

The Z2 zone and specifically the A2 anomaly may or may not have added to the knowledge of this property in view of the underground work, although it is suggested, that here also, considerable depth is indicated, which might warrant further investigation.

Recommendations:

The anomalies derived in the detailed survey warrant close

geological coordinated investigation, and might be aided by
a geochemical survey over the more pertinent areas.



Consulting
D.L. Hings, P. Geoph.



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Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2443 MAP #2

KLYCEPTOR GEOPHYSICAL SURVEY
PRINCE GROUP, IRON CLAD C.G. & LONE PROSPECTOR C.G. CLEARWATER, B.C.
JUNEX MINES LTD. (N.P.L.)
DEC. 1969 SCALE: 1" = 100' DWG. NO.: EM-69-1006-D
EM PROFILES
APPROVED: *[Signature]*

NOTE:-
— SURVEY LINES & STATIONS
+|- ZERO LINE
— IN PHASE (1" = 40%)
- - - QUADRATURE (1" = 40%)
— CONDUCTIVE LINEAR ANOMALY
○ ANOMALOUS ZONES
○ MAX. ANOMALIES

5+00S —

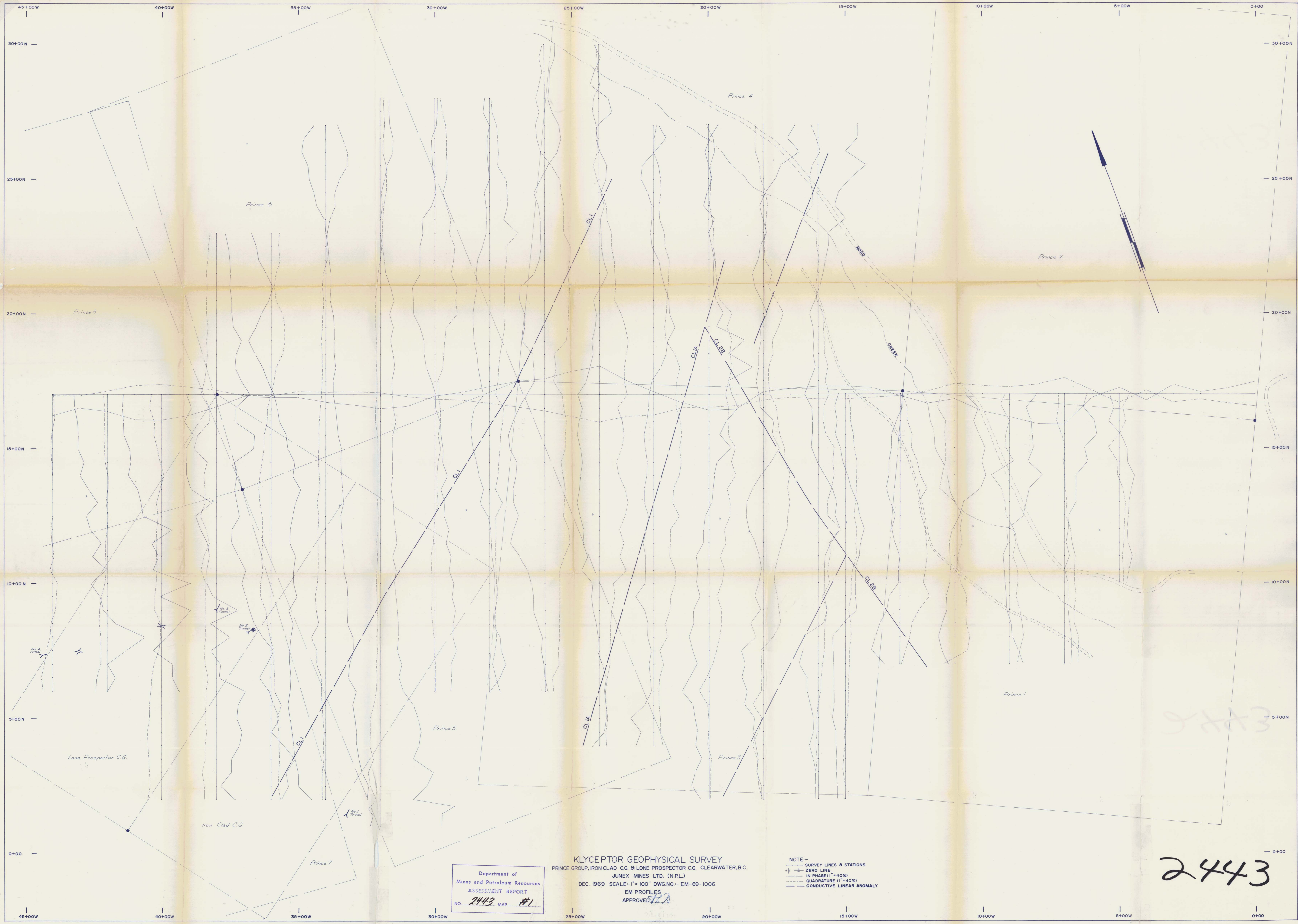
— 5+00S

45+00W

40+00W

35+00W

30+00W



Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 2443 MAP #1

KLYCEPTOR GEOPHYSICAL SURVEY
 PRINCE GROUP, IRON CLAD C.G. & LONE PROSPECTOR C.G. CLEARWATER, B.C.
 JUNEX MINES LTD. (N.P.L.)
 DEC. 1969 SCALE: 1" = 100' DWG. NO.: EM-69-1006
 EM PROFILES
 APPROVED: [Signature]

NOTE:-
 - SURVEY LINES & STATIONS
 - ZERO LINE
 - IN PHASE (1" = 40%)
 - QUADRATURE (1" = 40%)
 - CONDUCTIVE LINEAR ANOMALY

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