GEOPHYSICAL REPORT 82M/5W

Johnson Property, 18 miles northeast of Barriere. 51° 119° S.W.

September 20-October 20, 1951

Author: S.H. Ward

0070

36 CRANFIELD ROAD

OXFORD 0346

McPHAR GEOPHYSICS LIMITED

TORONTO, CANADA

GEOLOGIST
DR. STANLEY DAVIDSON

CABLE: "McPHAR" TORONTO

COPY

December 3rd, 1951.

Kennco Explorations Limited,
402 West Pender Street,
Vancouver, B.C.

Attention Mr. J. G. Scott -

INVOICE # G160

ELECTROMAGNETIC SURVEY

OF

JOHNSON PROPERTY, BARRIERE, B.C.

18½ days operating at $100.			$1,850.00
7 " lost time at 66.			462.00
4 " travelling at 66.			264.00
			2,576.00
Expenses:	Express	$76.10	
	Taxi	10.70	
	Room & Board	77.20	
	Transportation	340.17	
	Telegram	14.39	
	Telephone	7.62	
		526.18	526.18
	Invoice Total:-		$3,102.18

McPHAR GEOPHYSICS LIMITED
Received with thanks

MCPHAR GEOPHYSICS LIMITED

S. H. W.

rd.

S. H. Ward
per J. A. Lyne

36 CRANFIELD ROAD

OXFORD 9491

McPHAR GEOPHYSICS LIMITED

TORONTO, CANADA

GEOLOGIST
DR. C. STANLEY DAVIDSON

REPORT ON ELECTROMAGNETIC SURVEY OF THE JOHNSON PROPERTY FOR KENNCO EXPLORATIONS LTD.

1. Introduction:

At the request of Mr. J. S. Scott, western representative for Kennco Exploration (Canada) Ltd., an electromagnetic survey was conducted during September and October 1951 on a portion of the Johnson Property at North Barriere Lake, B.C. This property, located in the Kamloops Mining Division, may be reached by travelling north-eastward over twenty miles of bush road from Barriere B.C., the latter being situated on the main C.P.R. line about forty miles up the North Thompson River from Kamloops.

Two geophysical technicians spent 23½ days conducting the survey. The writer visited the property for three days in October. A total of 1035 stations were read along 16 miles of line covering some 240 acres.

2. Presentation of Results:

All receiving coil readings and transmitting coil locations have been plotted on the accompanying map on a scale

of 100 ft. to one inch. The receiving coil readings, or "dip angles", are a measure of the distortion of the primary electromagnetic field caused by induced currents flowing in subsurface electrical conductors. Small dip angles arise in hilly terrain if the receiving station is not located in the same vertical plane as the transmitting coil, and on this survey were mainly caused by inaccurate grid control. The assistance of Mr. G. Noel in helping to correct this condition was very much appreciated.

The transmitting coil locations are shown as a number enclosed within a circle and the corresponding dip angles are shown at each station of observation in the same style of lettering. Where extra detail was required, readings were taken at some stations several times, each time from a different transmitting coil location.

Axes of subsurface electrical conductors are indicated on the map by heavy solid or dashed lines according to the legend appearing on the map. For inclined or dipping bodies, these axes represent the projection to surface of the upper end of the conductor.

3. Discussion of Results:

In the western end of the area surveyed, the conductor axes as plotted cut across the bedding adjacent to, and possibly in, Lynx Gulch. Another conductor axis is shown striking roughly parallel to the bedding and ap-

parently coinciding with several large sulphide outcrops. A subsidiary conductor trending across the bedding strikes roughly southeast from the "Copper Cliff" sulphide outcrop towards Birk Creek. This latter conductor is possibly an expression of other sulphide outcrops known to exist on the sidehill. Southwest of the Copper Cliff area several more conductors are shown.

The electromagnetic indications in the western section suggest a more or less continuous band of conducting material extending down and alongside Lynx Gulch then spreading out to follow the bedding westward as far as the surveyed area extends. It seems likely that the conductors east of Lynx Gulch extend further north than so far determined; similarly the conductors in the southwest corner of the map area may be extended by further surveying.

In the central part of the map area, another conductor strikes northward through station 235, adjacent to stations 240 and 258. This conductor also is expected to continue further north. Its southern extremity is somewhat indefinite but likely lies close to the line upon which it has been terminated on the map.

Two strong parallel conducting zones about three hundred feet apart and striking northwest are shown on the eastern end of the map. The most easterly zone has an indicated width

up to one hundred feet and may consist of one or more conductors.

Several other possible conductors are indicated by dotted lines and interrogation marks in the central part of the map area. Rugged topography combined with poor grid control rendered these features uncertain. None are as strong as the previously discussed definitely established conductors.

Recommendations:

Several exploratory diamond drill holes are recommended to investigate the conductors detected. Because of the limitations imposed by the rugged topography, at least in the western half of the map area, it has been considered advisable to merely outline a drilling program, leaving the actual spotting to those more intimately acquainted with the terrain. In most instances the dip angles indicate moderate depths of overburden and the depth of holes should be governed accordingly. The geophysical evidence suggests the cross-cutting conductors are fairly steep features, while the conformable conductors are fairly flat lying. The dip of the diamond drill holes are however, best predetermined on the basis of geological evidence.

The northern end of conductor zone "A" (marked as such on map) should be cut by one hole. Another hole could be collared to intersect the three conductor axes adjacent to and on the same line as station 686.

As was stated previously the electromagnetic indications suggest that the "Copper Cliff" showings extend further east and west. This could be tested by suitably placed holes west and east of the showings.

Zone C can probably be closely correlated with known showings. Further trenching and stripping might assist here.

Zone D could be investigated by means of a hole collared to cut the conductor near transmitter location #12.

One diamond drill hole collared to cut Zone E near station 240 will likely find the cause of this conductor.

Zones F and G in the eastern section surveyed are suggestive of graphitic schists which may locally contain sulphide mineralization - this type of combined graphitic schist with some sulphide mineralization being present in the Lynx Gulch section to the west.

Detailed geological study along Zones F and G is suggested, followed by at least some test drilling. As tentative suggestions one hole could be spotted to cut Zone F near transmitter station #22 and another to cut Zone G near transmitter station #24.

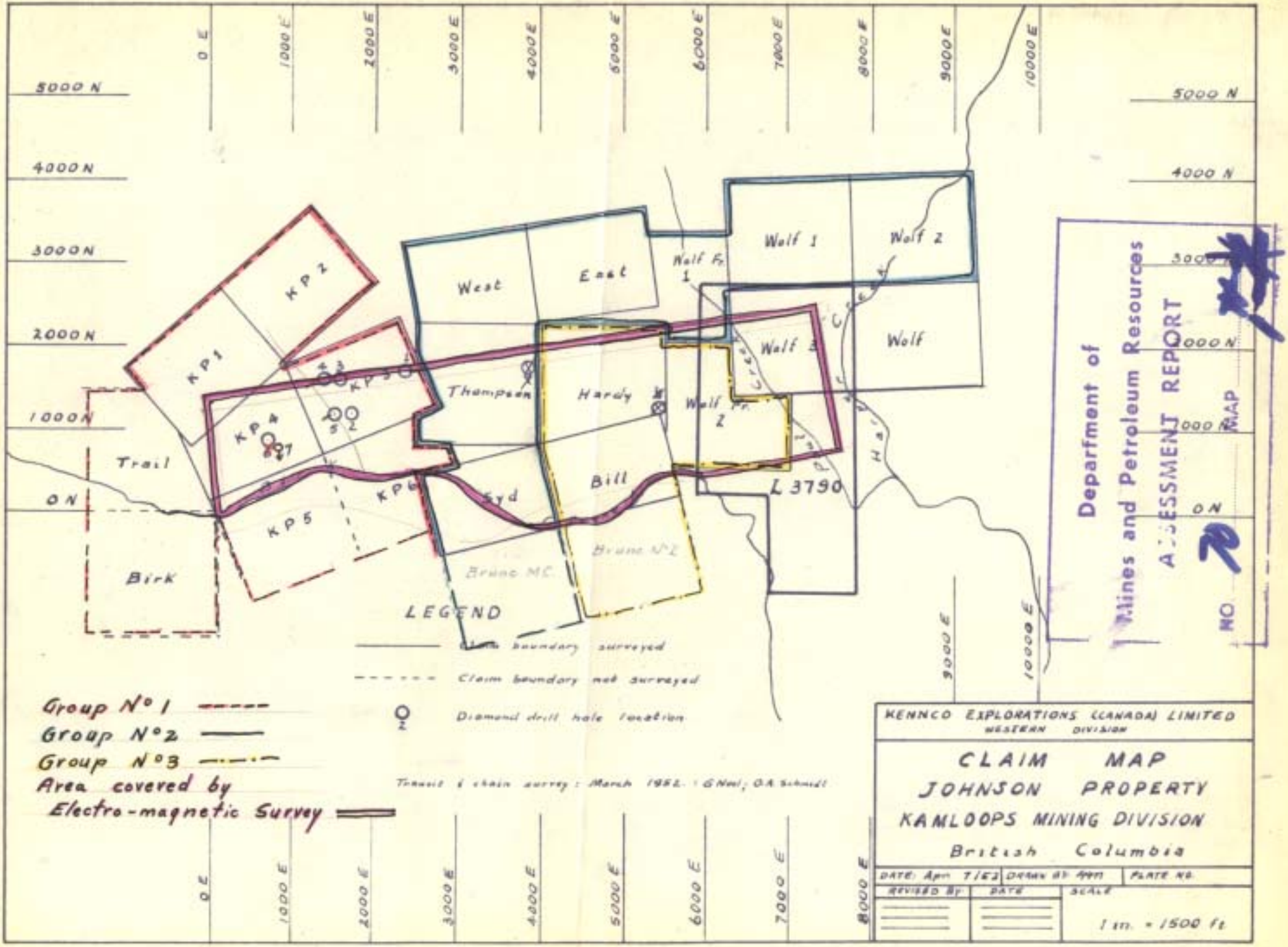
To finalize, since some of the conductors located coincide closely with known mineralization, it is reasonable to expect that exploration along the other indications may lead to additional discoveries of sulphides.

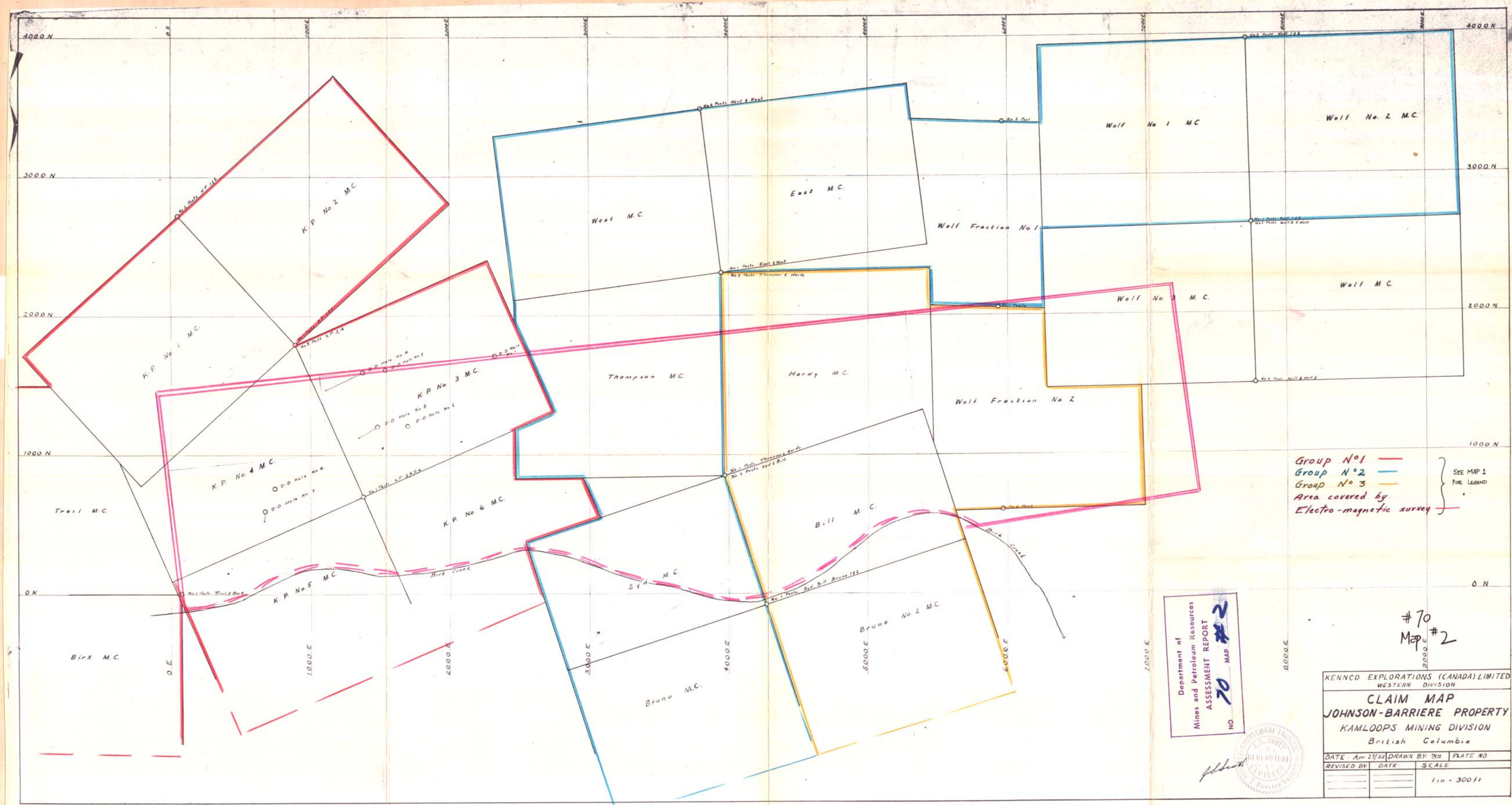
McPhar Geophysics Limited

SHW:rd.

S. H. Ward, Geophysicist.

Dated: November 7th, 1951.


0 E
1000 E
2000 E
3000 E
4000 E
5000 E
6000 E
7000 E
8000 E
9000 E
10000 E
5000 N
4000 N
3000 N
2000 N
1000 N
0 N
KP1
KP2
KP3
KP4
KP5
KP6
West
East
Wolf Fr. 1
Wolf 1
Wolf 2
Wolf
Wolf 3
Wolf Fr. 2
Thompson
Hardy
Bill
Syd
Trail
Birk
L 3790
Bruno MC
Bruno No 2
Department of Mines and Petroleum Resources
ASSESSMENT REPORT
MAP
NO
LEGEND
Claim boundary surveyed
Claim boundary not surveyed
Diamond drill hole location
Group No 1
Group No 2
Group No 3
Area covered by Electro-magnetic Survey
Transit & chain survey: March 1952. J.G.Neil; O.A. Schmidt
KENNCO EXPLORATIONS (CANADA) LIMITED
WESTERN DIVISION
CLAIM MAP
JOHNSON PROPERTY
KAMLOOPS MINING DIVISION
British Columbia
DATE: Apr. 7/52
DRAWN BY: Appn
PLATE NO.
REVISED BY:
DATE
SCALE
1 in. = 1500 ft


K.P. No 2 M.C.
K.P. No 1 M.C.
K.P. No 3 M.C.
K.P. No 4 M.C.
K.P. No 5 M.C.
K.P. No 6 M.C.
Trail M.C.
Birk M.C.
West M.C.
East M.C.
Wolf Fraction No 1
Wolf No 1 M.C.
Wolf No. 2 M.C.
Wolf No 3 M.C.
Wolf M.C.
Thompson M.C.
Hardy M.C.
Wolf Fraction No 2
Bill M.C.
S.Y.d M.C.
Bruno M.C.
Bruno No. 2 M.C.
Birk Creek
Group No 1
Group No 2
Group No 3
Area covered by Electro-magnetic survey
SEE MAP 1 FOR LEGEND
Department of Mines and Petroleum Resources
ASSESSMENT REPORT NO. 70 MAP #2
#70
Map #2
KENNCO EXPLORATIONS (CANADA) LIMITED
WESTERN DIVISION
CLAIM MAP
JOHNSON-BARRIERE PROPERTY
KAMLOOPS MINING DIVISION
British Columbia
DATE Apr 27/52 DRAWN BY: JH PLATE NO.
REVISED BY DATE SCALE
1 in = 300 ft

LEGEND

TRANSMITTER LOCATION

RECEIVER TRAVERSE AND READINGS

CONDUCTOR AXIS

POSSIBLE CONDUCTOR AXIS

INFERRED CONDUCTOR AXIS

NOTE– STYLE OF LETTERING RELATES TRANSMITTER LOCATION TO READINGS.

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 70 MAP #3

Claim boundaries added: 7/7/52
G. S. Scott

ELECTROMAGNETIC SURVEY
BY
McPHAR GEOPHYSICS LTD.
OF
JOHNSON PROPERTY – BIRK CREEK
FOR
KENNCO EXPLORATIONS (CANADA) LTD.

LOCATION – NORTH BARRIERE LAKE, B.C.

SCALE – 100 FT. = 1 IN. DRAWN BY – H.S. WILD

DATE – 7/11/51 APPROVED – [signature]

MAP NO. 27-1-51