

6132

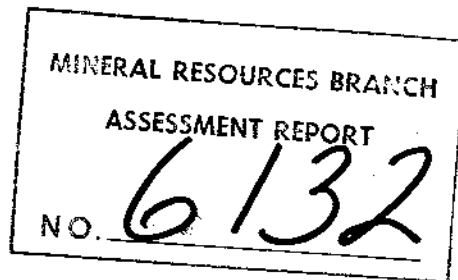
Report on
GROUND MAGNETIC SURVEY # 6132

JE #1 through 8 Claims
Nicola M.D.

Owner: Corbin J. Robertson
Operator: Quintana Minerals Corporation

by
M.R. Wolfhard

November, 1976



92I/2W

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REPORT ON GROUND MAGNETIC SURVEY

JE #1 through #8, Nicola M.D.

INTRODUCTION

Location:

Four Km north of Merritt, B.C.

Access:

By auto from Merritt, B.C.

Owner:

C.J. Robertson. Operator, Quintana Minerals Corporation.

General:

Lines were marked and a magnetic survey made over the JE #1 through #8 claims, consisting of 123 units, between June 14 and July 12, 1976. JE #6, 7, and 8 were staked during the course of the survey. Staking generally preceded surveying and line marking.

METHOD:

Four hand held fluxgate magnetometers were used by three field operators and one base station operator. The base station operator recorded base station readings for diurnal corrections, reduced readings, plotted readings, and supervised the survey. Field operators recorded the relative vertical magnetic field as indicated by a fluxgate magnetometer held about waist high, at stations 100 ft. apart on lines oriented east and west. Line spacing was nominally 400 ft., with local fill in at 200 ft. A centre line and two side tie lines were carefully installed with topofil, compass, and pickets. Cross lines were run with topofil and compass. True position of cross lines, as determined from tie lines and air photo plot, are shown on the attached Fig. 2.

Field readings were reduced by taking into account diurnal variation, and a linear difference in the response of one of the field instruments. Diurnal range was typically 40 to a maximum of 100 gammas as recorded on a base station within the grid area, using an MF-1 instrument. There were no magnetically noisy days. Two McPhar M-700 magnetometers and one Scintrex MF-100 magnetometer were used as field instruments. Under the conditions of the survey, the MF-100 instrument was seen to yield results which varied linearly from those of the two M-700 instruments by about 150 gammas per 1000 indicated gammas. The base line was run with the MF-100 instrument and with one M-700 to establish this correction. At about 1200 gammas under the conditions of the survey all three instruments gave similar readings. Above this, the MF-100 indicated higher values, and below 1200, the MF-100 yielded lower values. MF-100 results were reduced to equivalent M-700 values.

A check of one M-700 against the other showed no significant difference over the range 0 to 7000 gammas.

A base station was occupied morning and evening with all field instruments to check for secular instrument drift or malfunction. Neither was observed.

UNITS OF MEASUREMENT

Units of measurement were scale divisions on magnetometers adjusted to read in the range 0 to 10,000 within the grid area. These scale divisions are said by the manufacturers to be gammas. The difference between the two makes of instrument indicates some divergence from the correspondence between gammas and scale divisions for at least one make. As Scintrex readings were reduced to the McPhar instrument standard, the units used are really 'McPhar scale divisions'. These will be referred to as gammas in this report and on the accompanying maps.

The instruments were all of vertical probe fluxgate design, and therefore the field read is essentially the vertical field.

The values are relative, not absolute.

INTERPRETATION

There are three distinct regions, approximately corresponding to the northeast and northwest quadrants and the southern one half of the grid, based on magnetic response and known geology.

The northeast quadrant, north of a line from about 145N 106E to 180N 60E to 200N 36E shows a response mainly less than 1200 gammas, little relief, and no obvious orientation of isomagnetic contours. Post Lower Cretaceous Coldwater Beds outcrop in this area on a ridge northerly from 174N 64E. Other Coldwater outcrops are known northerly from a line drawn north westerly from 145N 106E to 168N 90E. Andesite of the Nicola Group is exposed near 176N 88E.

The magnetic pattern is consistent with an interpretation that the northeast quadrant is largely underlain by Coldwater Beds. The area of plus 1200 to 1500 gamma response in the southwestern part of this quadrant is probably underlain by Nicola volcanics.

The northwest quadrant, bounded by a line from about 120N 20E to 180N 60E and then north to 280N 36E is nearly devoid of outcrop. Scattered exposures of Guichon? hornblende granodiorite occur all along the western boundary of the grid, west of about 20E. Response is low, relief is low, and there is little obvious orientation of isomagnetic contours, except in the northwest corner. Here, a north trending Nicola-Guichon contact may be reflected in the stronger, higher relief, northerly oriented magnetic pattern. The northeast trending southerly boundary to this quadrant probably coincides with a Nicola-Guichon? contact. There is a weak magnetic ridge trending northerly from 180N 60E to 208N 48E, possibly indicating the Nicola-Guichon? contact along this part of the eastern side of the northwest quadrant. It is possible that magnetic expression of the contact is partly masked by overlying Coldwater Beds. A strong, northerly trending magnetic trough from 208N 48E to 280N 28E is most probably the magnetic expression of a 75 to 100 meter deep gully along the course of upper Jesse Creek.

In the southern one half of the grid, bounded by a line from 120N 20E to 180N 60E to 145N 106E, there are scattered but abundant exposures of north striking steeply dipping volcanics with minor sediments and intrusives. The high but variable magnetite content of many of these rocks is reflected in the magnetic patterns. Response is generally greater than 1200 gammas, relief is high, and a strong northerly orientation to isomagnetic contours is clear

In the southwest corner, the low flat response is probably related to a steep sided depression which trends south. In the center of the south half, at about 68N, an apparent east-west discontinuity in isomagnetic contours correlates with an apparent offset of calcareous sediments from about 68E to the south of 68N to about 50E to the north of 68N. The northerly extension of these calcareous sediments is probably indicated by the magnetic trough trending just east of north from 68N 50E towards 130N 60E. These sediments are locally altered to scarn, and mineralized with pyrite, hematite, chalcopryrite, and sphalerite. There is no strong, obvious magnetic anomaly associated with this horizon.

Small perturbations in the northerly trend of isomagnetic contours in the eastern portion of the south half are probably the results of intrusion by small diorite and syenite plutons. Such plutons are known to exist centered on 62N 74E, and centered on 106N 70E.

The magnetic survey of the JE #1 to #8 is useful in interpreting the geology of the claims in overburden covered areas. No obvious drill targets are indicated.

M. W. England
Al. Engstrom

STATEMENT OF EXPENDITURES
GROUND MAGNETOMETER SURVEY
JE#1,2,3,4,5,6,7,8

SURVEY:

<u>Name</u>	<u>Position</u>	<u>Days Worked</u>	<u>Rate</u>	<u>Total</u>
W.H. Howell	Geologist/ Supervisor	June 14-July 12 (29)	\$64.00/ day	1856.00
M.P. Stadnyk	Geologist/ Inst. operator	June 14-July 12 (29)	139.66/ day	4050.00
K.W. Livingstone	Geologist Supervisor	June 14-15 (2)	100.00/ day	200.00
P. Pitcher	Line cutter/ Inst. operator	June 14-July 12 (29)	36.00/ day	1044.00
W. Lillies	Line cutter/ Inst. operator	June 14-July 12 (29)	36.00/ day	1044.00
W. Mathiew	Line cutter	June 24-30 (7)	51.24/day	360.00
W. Petrie	Line cutter	June 23-30 (8)	37.47/day	299.76
				8853.76

TRUCK RENTAL:

1 4X4 truck	June 14-July 10	675.00	
1 4X4 truck	June 13-July 13	775.00	1450.00

MAGNETOMETER
RENTAL:-4

25 days @ \$10.50/day =	262.50	
25 days @ \$10.50/day =	262.50	
1 month @ \$250.00/month =	250.00	
1 month @ \$250.00/month =	250.00	1025.00

CAMP COSTS:

2288.49

REPORT
PREPARATION:

A. Kovacevic	Draftsperson	Various days		220.58
M. Wolfhard	Geologist	Nov. 22-23	\$120/day	240.00
Drafting & Printing				35.35

TOTAL EXPENDITURES

\$14,113.18

STATEMENT OF QUALIFICATIONS

Michael R. Wolfhard

EXPERIENCE

<u>From</u>	<u>To</u>	<u>Job</u>	<u>Employer</u>
1960-1965		Exploration technician. Performed many ground magnetometer surveys.	Cominco
1965-1969		Summer jobs as party chief. Performed some ground magnetometer surveys.	Cominco Spartan Exploration
1969-1976		Geologist, senior geologist, Manager. Supervised ground magnetometer surveys.	Spartan Exploration Quintana Minerals Corporation

EDUCATION

B.Sc. (Hons. Geol.) University of British Columbia, 1969

STATEMENT OF QUALIFICATIONS

William A. Howell

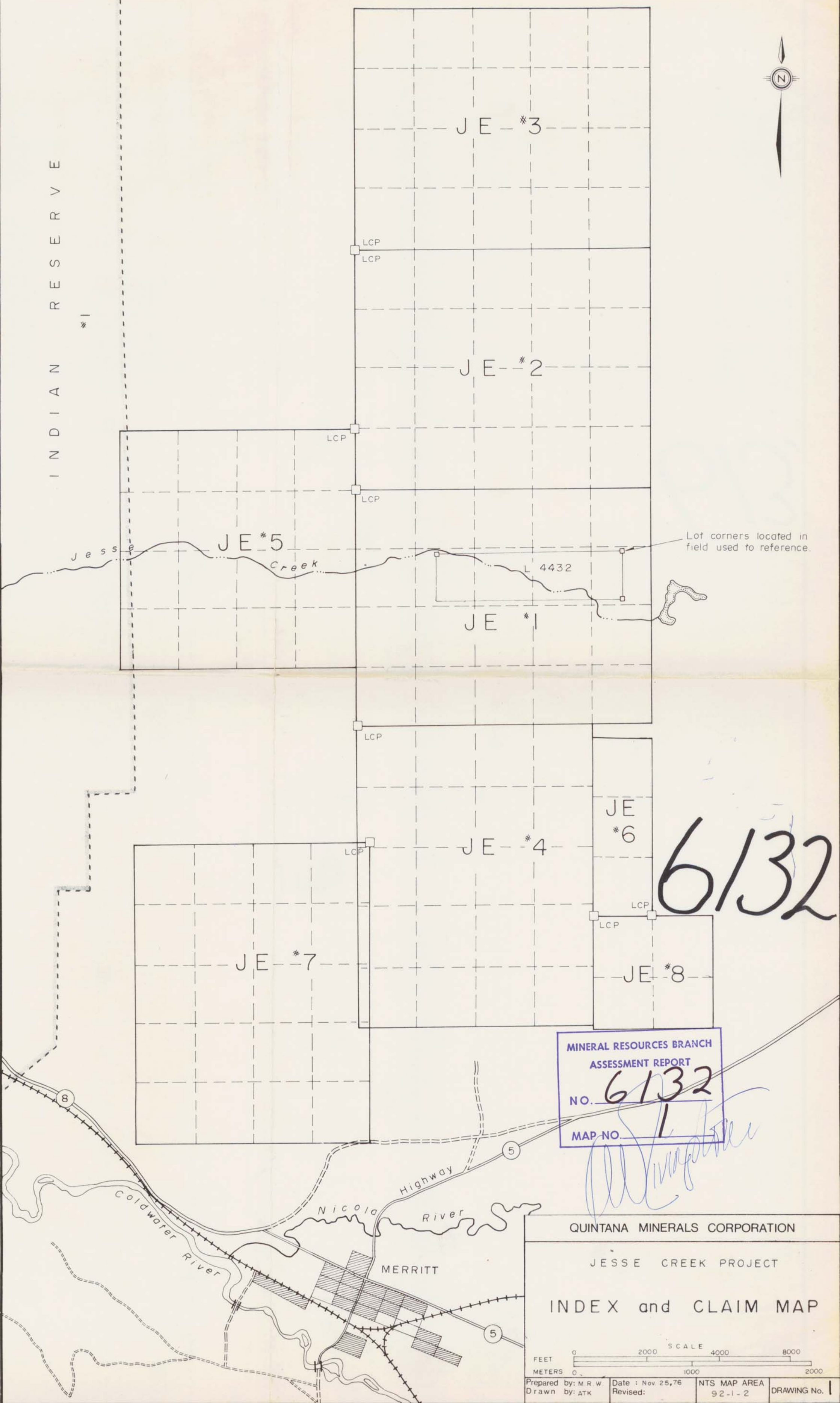
EXPERIENCE

<u>From</u>	<u>To</u>	<u>Job</u>	<u>Employer</u>
1966-1970		Summer jobs as student assistant and geologist. Performed ground magnetometer surveys.	Spartan Exploration Falconbridge Nickel
1970-1974		Geologist. Performed and supervised ground magnetometer surveys.	Falconbridge Nickel Noranda Exploration
1974-1976		Geologist. Performed and supervised ground magnetometer surveys.	Quintana Minerals Corporation

EDUCATION

B.Sc. (Geol.) University of British Columbia, 1971

INDIAN RESERVE



Lot corners located in field used to reference.

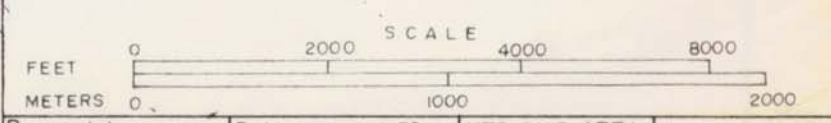
6132

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6132
MAP NO. 1

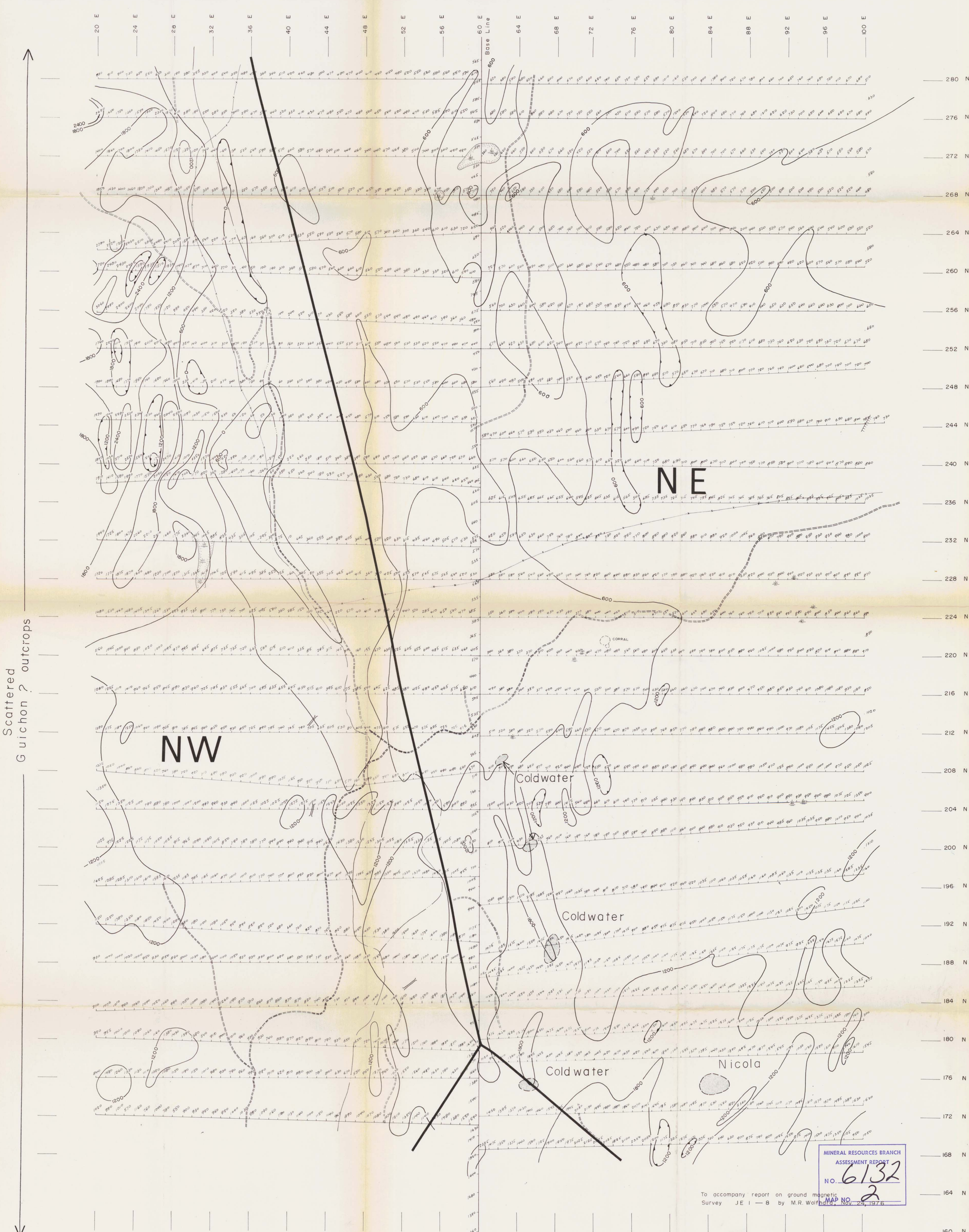
QUINTANA MINERALS CORPORATION

JESSE CREEK PROJECT

INDEX and CLAIM MAP



Prepared by: M.R.W. Date: Nov 25, 76 NTS MAP AREA 92-1-2 DRAWING No. 1
Drawn by: ATK Revised:



Scattered Guichon? outcrops

NW

NE

Coldwater

Coldwater

Coldwater

Nicola

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6132
MAP NO. 2
To accompany report on ground magnetic Survey J E I - 8 by M.R. Wolfhard, Nov. 24, 1976.

LEGEND

- | | | | |
|--|---------------------------------------|--|--------------------------|
| | 0 600 | | Fence |
| | 600 1200 | | Ribbon Line |
| | 1200 1800 | | Creek or drainage |
| | 1800 2400 | | Outcrop |
| | 2400 3000 | | Cliff |
| | 3000 3600 | | Shaft |
| | 3600 4200 | | Trench |
| | 4200 4800 | | Diamond Drill Hole |
| | 4800 | | Road |
| | All contours in gammas, interval 600. | | Claim Post or lot corner |

Readings are diurnal corrected relative gammas Measurements are vertical field.



16132

QUINTANA MINERALS CORPORATION

JESSE CREEK PROJECT

GROUND MAGNETOMETER SURVEY

Prepared by: W.A.H., M.R.W. Date: Aug 23, 76
Drawn by: A.T.K. Revised: NTS MAP AREA

DRAWING No. 2

Scattered
Guichon? outcrops

Cold water
outcrops

SOUTH

Region of
scattered
but
abundant
outcrops

intrusion
calcareous sediments

intrusion

J.E.#4
L.P.

J.E.#7
L.P.

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6132
MAP NO. 3

To accompany report on ground magnetic Survey
JE 1 - B by M.R. Walford, Nov. 24, 1976.

QUINTANA MINERALS CORPORATION

JESSE CREEK PROJECT

GROUND MAGNETOMETER
SURVEY



16132

Readings are diurnal
corrected relative gammas
Measurements are vertical
field.

LEGEND

	0 600		Fence
	600 1200		Ribbon Line
	1200 1800		Creek or drainage
	1800 2400		Outcrop
	2400 3000		Cliff
	3000 3600		Shaft
	3600 4200		Trench
	4200 4800		Diamond Drill Hole
	> 4800		Road
			Gaim Post or lot corner

All contours in gammas,
intervals 600.

Prepared by: WAH, MRW
Drawn by: ATK
Date: Aug 23, 76
NTS MAP AREA
DRAWING No. 2a