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COMBINED GEOCHEMICAL/GEOPHYSICAL REPORT
(VLF/CEM)

STRAT - QTZ GROUP

95D/12

60°31' 127°56'

NORANDA EXPLORATION COMPANY, LIMITED

T. Walker
P. McAndless

June 18 - July 19, 1976

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INSPECTORS OFFICE
WHITEHORSE, Y.T.

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CEM Survey South Sheet	No. - EM1
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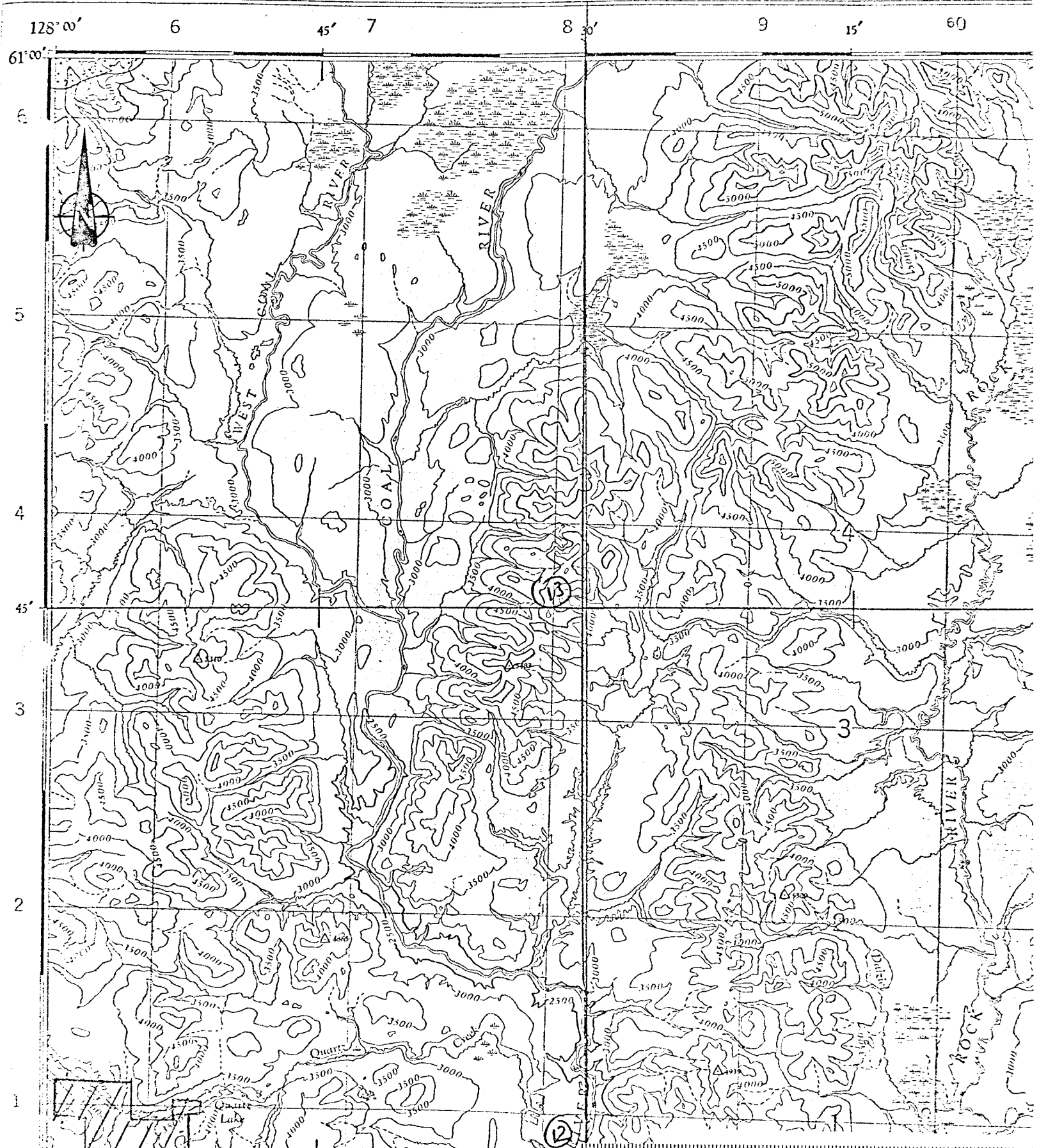

LOCATION MAP
STRAT - QTZ Group

95D/12

1" - 4 miles
Fig. 1

COMBINED GEOCHEMICAL/GEOPHYSICAL REPORT

ON THE STRAT-QTZ GROUP

INTRODUCTION

The claims referred to in this report are registered in the name of Noranda Exploration Company, Limited (No Personal Liability). The claim group consists of 95 STRAT claims and eight QTZ claims as follows:

Claim Name	Grant No.	Claim Name	Grant No.
Strat 1	84583	Strat 45	93427
Strat 2	84584	Strat 46	93428
Strat 3	84585	Strat 47	93429
Strat 4	84586	Strat 48	93430
Strat 5	84587	Strat 49	93431
Strat 6	84588	Strat 50	93432
Strat 7	84589	Strat 51	93493
Strat 8	84590	Strat 52	93494
Strat 9	84591	Strat 53	93495
Strat 10	84592	Strat 54	93496
Strat 11	84593	Strat 55	93433
Strat 12	84594	Strat 56	93434
Strat 13	84595	Strat 57	93435
Strat 14	84596	Strat 58	93436
Strat 15	84597	Strat 59	93437
Strat 16	84598	Strat 60	93438
Strat 17	84599	Strat 61	93439
Strat 18	84600	Strat 62	93440
Strat 19	93401	Strat 63	93441
Strat 20	93402	Strat 64	93442
Strat 21	93403	Strat 65	93497
Strat 22	93404	Strat 66	93498
Strat 23	93405	Strat 67	93499
Strat 24	93406	Strat 68	93500
Strat 25	93407	Strat 69	93443
Strat 26	93408	Strat 70	93444
Strat 27	93409	Strat 71	93445
Strat 28	93410	Strat 72	93446
Strat 29	93411	Strat 73	93447
Strat 30	93412	Strat 74	93448
Strat 31	93413	Strat 75	93449
Strat 32	93414	Strat 76	93450
Strat 33	93415	Strat 77	93451
Strat 34	93416	Strat 78	93452
Strat 35	93417	Strat 79	93453
Strat 36	93418	Strat 81	93454
Strat 37	93419	Strat 82	93455
Strat 38	93420	Strat 83	93456
Strat 39	93421	Strat 84	93457
Strat 40	93422	Strat 85	93458
Strat 41	93423	Strat 86	93459
Strat 42	93424	Strat 87	93460
Strat 43	93425	Strat 88	93461
Strat 44	93426	Strat 89	93462

..../2

Claim Name	Grant No.	Claim Name	Grant No.
Strat 90	93463	QTZ 1	84112
Strat 91	93464	QTZ 2	84113
Strat 92	93465	QTZ 3	84114
Strat 93	93466	QTZ 4	84115
Strat 94	93467	QTZ 5	84116
Strat 95	93468	QTZ 6	84117
Strat 96	93469	QTZ 7	84118
		QTZ 8	84119

The STRAT-QTZ claims are located approximately 45 miles NE of Watson Lake and immediately south and west of Quartz Lake. Access is by means of helicopter of fixed wing from Watson Lake. Elevations ranges from 3,000 to 5,500 feet a.s.l.

During the period June 18 to July 19, 1976, geochemical soil sampling, CEM and VLF surveys were carried out by Noranda Exploration Company, Limited over a large portion of the STRAT-QTZ claim group. The results of the above surveys were plotted on 1"-500' base maps. Also, a gravity survey was done by W. Sharpe and Associates Ltd., the data and results of which have been included in a separate report.

A thick cover of glacial till blankets the claim group, however, sparce outcrops of late precambrian sediments including quartzites, grits, grey wackes, conglomerites and argillites trending north west were mapped.

GEOCHEMICAL SOIL SURVEY

All soils were analyzed for copper, lead, zinc, cadmium and molybdenum in the Noranda Exploration Company, Limited Laboratory, located at 1050 Davie Street, Vancouver 5, B.C. Analyst was Evert VanLeeuwen.

Sampling Method

Samples were obtained by digging holes with a shovel, to a depth if feasible, where the visible C horizon or sub-outcrop was encountered. The C horizon was sampled whenever possible. The samples were placed in "Hi West Strength Kraft 3½ x 6 1/8" Open End" envelopes and the grid station was marked on the envelpes with indelible felt pen. Soil samples were taken at 200 foot intervals along the grid lines.

Laboratory Determination Method

The samples are first placed in a drying cabinet for a period of 24 to 48 hours. The sample material is then screened and sifted to obtain a -80 mesh fraction.

.../3

The determination procedure for total copper, lead, zinc, and molybdenum is as follows:
0.200 grams of the -80 mesh material is digested in 2 ml. of $HClO_4$ and 0.5 ml. of HNO_3 for approximately four hours. Following digestion, each sample is diluted to 5 ml. with demineralized H_2O. A varian Techtron Model AA-5 Atomic Absorption Spectrophotometer was used to determine the parts per million copper, lead,zinc, and molybdenum content in each sample.

The Theory of Atomic Absorption Spectrophotometer is fully described in the literature and will not be described in this report.

Presentation of Results

Results of the soil survey are presented in Drawing No. 1 of this report; plan maps (scale 1 inch = 500 feet) showing copper molybdenum, zinc and lead in parts per million.

Discussion of Results

In most instances anomalous lead-zinc soils are spotty and located in swampy areas on or adjacent to Mine Creek and down stream from the McMillan deposit. However anomalous lead -zinc soils are also located at 64S 64-70W. A few sporadic anomalous copper soils located at 108N 80W, 116N 80W 138W 48W and 138N 58W. No visible sulphides were encountered.

Conclusions and Recommendations

Lead-zinc soil anomalies located in swampy areas adjacent to Mine Creek may be transported from the McMillan deposit.

No visible sulphide mineralization was found associated with lead, zinc or copper anomalies.

An extension of the soil grid to the south of line 64S is recommended to test the southern extent of the lead-zinc anomalies on line 64 S.

CEM SURVEY

The CEM survey was carried out by M. Vetterli and J. Helkenberg, under the supervision of J.T. Walker, geophysicist, all employees of Noranda Exploration Company, Limited.

Electromagnetic transceivers,manufactured by Crone Geophysics Limited, Mississauga, Ontario were used to conduct the survey.

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The horizontal transmitter, shootback method was employed with a coil spacing of 400 feet and frequency of 5010 Hz. Limited detail surveys in anomalous areas were conducted using a frequency of 1830 Hz.

Method of Survey

The two operators, travesing the same grid line, transmit and receive in turn at each set-up (400 ft. separation). The receiver measuring the null dip angle of the transmitted field. The two measured dip angles are added together. The result equalling zero when no conductor is present. The resultant dip angle is plotted at mid-point between the two operator locations on the traverse line. Dip angle measurements are made at 100 ft. intervals along the grid lines.

Presentation of Results

The results of the C.E.M. survey are plotted on North and South Drawings No. E.M. 1. Plan maps at a scale of 1 inch equals 500 feet. The resultant dip angles are indicated at each station and a continuous profile is drawn. The vertical scale is 1 inch equals 50 degrees.

VLF-EM Survey

The VLF-EM survey was carried out by M. Vetterli and J.Helkenberg and supervised by J.T. Walker, all employees of Noranda.

The VLF receiver was manufactured by Sabre Electronic Instruments Ltd., Burnaby, B.C. The VLF signal transmitted from near Seattle Washington at a fequencey of 18.6 KHz was utilized throughout the survey.

Method of Survey

The survey procedure used is essentially that of the standard vertical Loop E.M. survey with the transmitter moved to infinity. The dip angle of null is measured and recorded in degrees.

Field Procedure:

(1) Turn instrument on, adjust gain for a suitable signal.

(2) With the V.L.F. receiver held horizontally (receiver coil axis horizontal), rotate the instrument in a horizontal plane until a null is observed. In this null position, the coil axis points in the direction of the transmitter. The vertical plane perpendicular to the coil axis direction is now known. This vertical plane is tangential to the wave front of the primary field. The operator is now facing the transmitter.

..../5

(3) The receiver is now held upright in this vertical plane (receiver coil axis vertical) and rotated until a signal null or minimum is observed. While the receiver is held in this null position, the dip angle of the null is read on the receiver inclinometer and recorded in degrees. A positive or negative sign is given each reading using the following convention.

Top of coil axis tilted to right of operator - sign positive.
Top of coil axis tilted to left of operator - sign negative.

Presentation of Results:

The results of the survey are plotted on plan maps at a scale of 1 inch equals 500 feet (Drawings No. EM2). The measured dip angle of null is plotted at each 100 foot station and these readings are profiled using vertical scale of 1 inch equals 50 degrees.

Discussions of Results (Electromagnetic Surveys)

The CEM survey profile indicate two response patterns. The first, long continuously negative profiles indicating broad conductive zones, the second a distinct W shapped profile, indicating narrow clearly defined conductors. This second profile pattern indicates one strongly anomalous zone, along and west of the base line extending from line 12N to line 68N with a second small anomaly centred on line 32S. The broad conductive zones, indicated by negative profiles are most evident on the north and west parts of the grid in areas of generally flat terrain, suggesting the source to be conductive overburdens.

The VLF-EM survey results show only a modest response, however good correlation is evident with the two strong conductors indicated by the CEM results. The VLF-EM response has not detected the broad conductive areas the north and west of the grid.

Conclusions and Recommendations

The results of both electromagnetic systems have indicated the areas of known mineralization although the CEM method has produced a none dramatic response pattern.

The results of the CEM survey indicate a conductive pattern extending north of the known mineralized zone, this north extension warrants further investigation by diamond drilling. New conductive anomalies requiring further investigation have not been detected by the electromagnet surveys.

.../6

Submitted by

J.T. Walker
Geophysicist

P.M. McAndless
Geologist

August 27, 1976

STRAT 93 STRAT 94 STRAT 95 STRAT 96

L 80 W L 60 W L 40 W L 5 W

STRAT 91 STRAT 92 STRAT 39 STRAT 40 STRAT 18 STRAT 17 STRAT 15 STRAT 16 STRAT 7 STRAT 8

STRAT 89 STRAT 90 STRAT 37 STRAT 38 STRAT 20 STRAT 19 STRAT 13 STRAT 14 STRAT 5 STRAT 6

BASE LINE

MEAHAN LAKE

STRAT 87 STRAT 88 STRAT 35 STRAT 36 STRAT 22 STRAT 21 STRAT 11 STRAT 12 STRAT 3 STRAT 4

L 15 E L 30 E L 45 E L 60 E

STRAT 85 STRAT 86 STRAT 33 STRAT 34 STRAT 24 STRAT 23 STRAT 9 STRAT 10 STRAT 1 STRAT 2

STRAT 83 STRAT 84 STRAT 82 STRAT 81 STRAT 26 STRAT 25 SN 47 SN 15 SN 16 SN 17

STRAT 28 STRAT 27 PIC 2 PIC 3

NORANDA LAKE

STRAT 30 STRAT 29 SN 10 SN 2 SN 1 SN 11 SN 13 SN 19 SN 30 SN 31

Pyrite Creek

STRAT 32 STRAT 31 SN 4 SN 3 SN 12 SN 20 SN 21 SN 24 SN 25

SN 9

SN 8 DOROTHY SN 5 SN 13 SN 22 SN 23 SN 27 SN 26

Pink Creek

Camp

SN 7 SN 6 SN 14 SN 34 SN 35 SN 38 SN

L 138 N L 132 N L 124 N L 116 N L 108 N L 100 N L 92 N L 84 N L 76 N L 68 N 60 N 52 N 44 N 36 N 28 N 24 N

TO ACCOMPANY COMBINED GEOCHEMICAL & GEOPHYSICAL REPORT BY J.T. WALKER, GEOPHYSICIST, AND P.M. M ANDLESS, GEOLOGIST, ON THE STRAT-QTZ GROUP DATED AUG. 27, 1976

ASSAY ORDER : Cu / Zn / Pb / Mo

REVISED

QUARTZ LAKE PROJECT

CUT GRID

GEOCHEMICAL SURVEY

NORTH SHEET

PROJ No. 912, 914

N.T.S. 95D/12

DWG. No. 1

SURVEY BY:

DRAWN BY JAN VAN VOORST

DATE JULY 1976

SCALE 1" = 500'

NORANDA EXPLORATION

OFFICE

N

SN 41 | SN 7 | SN 6 | SN 14 | SN 34 | SN 35 | SN 38 | SN 39

SN 50 | SN 49 | SN 48 | SN 32 | SN 33 | SN 36 | SN 37 | SN 40

Mine Creek

Pyrite Creek

M 21 | M 19 | M 17 | M 7 | QTZ 1 | QTZ 2 | STRAT 42 | STRAT 41

M 22 | M 20 | M 18 | M 8 | QTZ 3 | QTZ 4 | STRAT 44 | STRAT 43

M 29 | M 27 | M 25 | M 23 | M 31 | QTZ 5 | QTZ 6 | STRAT 46 | STRAT 45

Camp

M 30 | M 28 | M 26 | M 24 | M 32 | QTZ 7 | QTZ 8 | STRAT 48 | STRAT 47 | STRAT 71

M 33 | M 34 | STRAT 63 | STRAT 64 | STRAT 56 | STRAT 55 | STRAT 50 | STRAT 49 | STRAT 69

M 35 | M 35 | STRAT 62 | STRAT 58 | STRAT 57 | STRAT 52 | STRAT 51 | STRAT 67

M 37 | M 38 | STRAT 61 | STRAT 60 | STRAT 59 | STRAT 54 | STRAT 53 | STRAT 65

BASE LINE

L 15 W

L 15 E

L 30 E

L 45 E

L 60 E

28 N
24 N
20 N
12 N
4 N
0
8 S
16 S
24 S
32 S
34 S
36 S
40 S
48 S
56 S
64 S

TO ACCOMPANY COMBINED GEOCHEMICAL & GEOPHYSICAL REPORT BY J.T. WALKER, GEOPHYSICIST, AND P.M. Mc ANDLESS, GEOLOGIST, ON THE STRAT - QTZ GROUP DATED AUG. 27, 1976

ASSAY ORDER: Cu / Zn / Pb / Mo

REVISED

QUARTZ LAKE PROJECT

CUT GRID

GEOCHEMICAL SURVEY

SOUTH SHEET

PROJ No. 912, 914

N.T.S. 950/12

DWG No. 1

SURVEY BY:

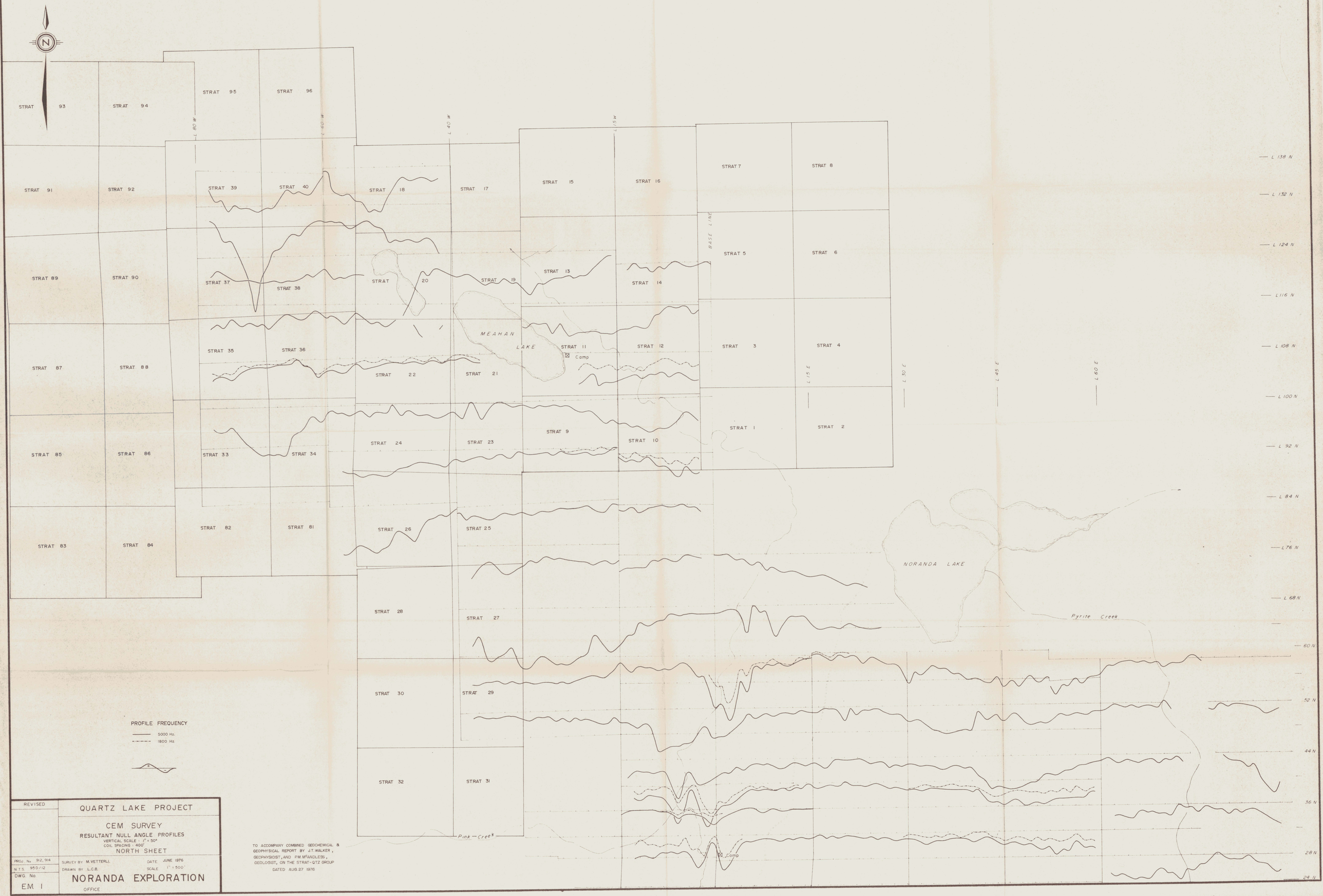
DRAWN BY: JAN VAN VOORST

DATE: JULY 1976

SCALE: 1" = 500'

NORANDA EXPLORATION

OFFICE



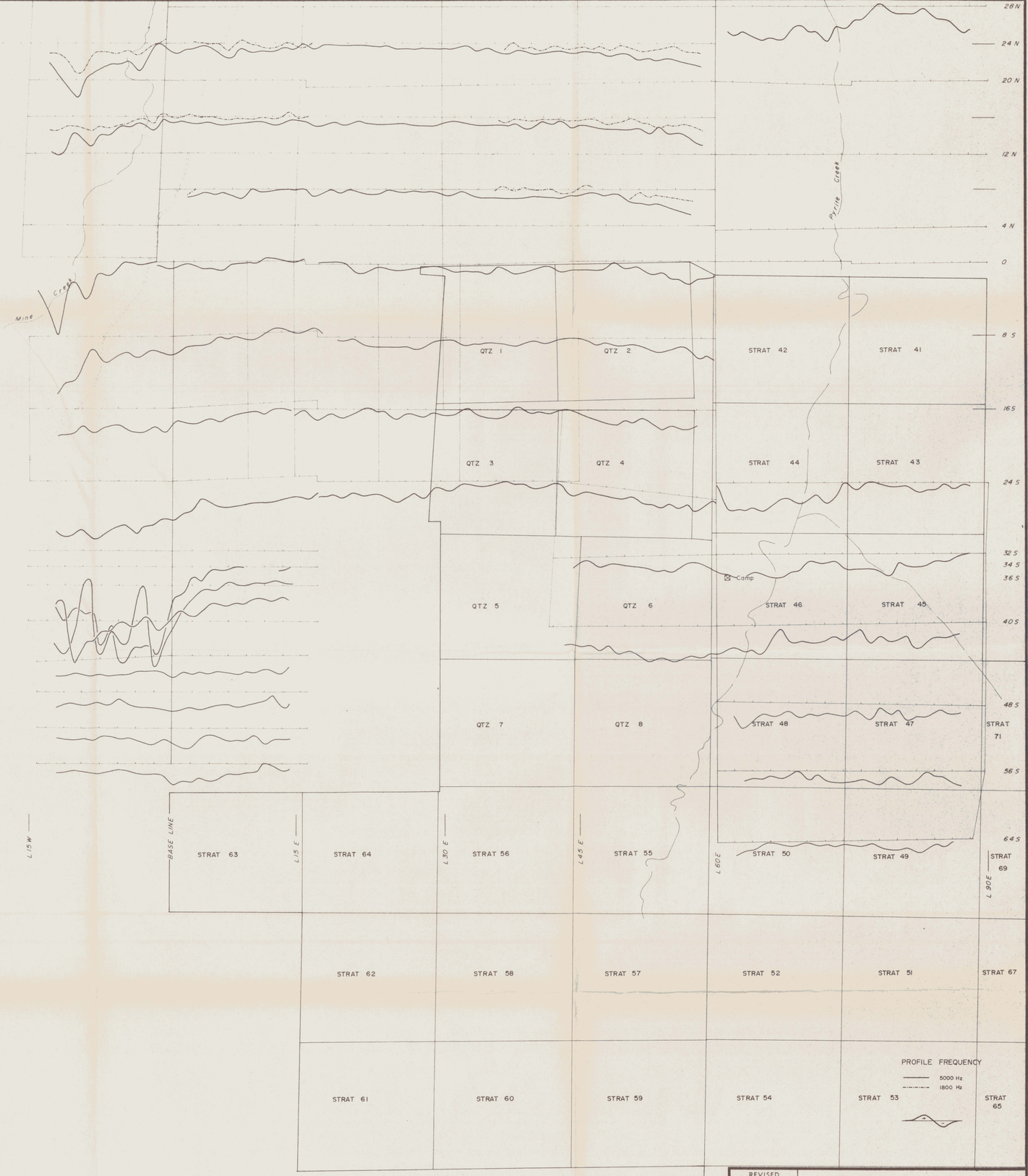
PROFILE FREQUENCY

5000 Hz.

1800 Hz.

REVISED	QUARTZ LAKE PROJECT
	CEM SURVEY
	RESULTANT NULL ANGLE PROFILES
	VERTICAL SCALE : 1" = 50'
	COIL SPACING - 400'
	NORTH SHEET
PROJ. No 912, 914	SURVEY BY M. VETTERLI. DATE JUNE 1976
N.T.S. 950/12	DRAWN BY L.C.B. SCALE 1" = 500'
DWG. No. EM 1	NORANDA EXPLORATION
	OFFICE

TO ACCOMPANY COMBINED GEOCHEMICAL & GEOPHYSICAL REPORT BY J.T. WALKER, GEOPHYSICIST, AND P.M. McANDLESS, GEOLOGIST, ON THE STRAT-QTZ GROUP
DATED AUG. 27 1976



PROFILE FREQUENCY

5000 Hz

1800 Hz

TO ACCOMPANY COMBINED GEOCHEMICAL & GEOPHYSICAL REPORT BY J.T. WALKER, GEOPHYSICIST, AND P.M. McANDLESS GEOLOGIST, ON THE STRAT-QTZ GROUP

DATED AUG 27 1976

REVISED

QUARTZ LAKE PROJECT

CEM SURVEY

RESULTANT NULL ANGLE PROFILES

VERTICAL SCALE : 1" = 50'

COIL SPACING : 400'

SOUTH SHEET

PROJ. No. 912,914

N.T.S. 950/12

DWG. No. E.M. 1

SURVEY BY: M. VETTERLI DATE: JUNE 1976

DRAWN BY: L.C.B SCALE: 1" = 500'

NORANDA EXPLORATION

OFFICE

STRAT 93 | STRAT 94 | STRAT 95 | STRAT 96

STRAT 91 | STRAT 92 | STRAT 39 | STRAT 40 | STRAT 18 | STRAT 17 | STRAT 15 | STRAT 16 | STRAT 7 | STRAT 8

STRAT 89 | STRAT 90 | STRAT 37 | STRAT 38 | STRAT 20 | STRAT 19 | STRAT 13 | STRAT 14 | STRAT 5 | STRAT 6

STRAT 87 | STRAT 88 | STRAT 35 | STRAT 36 | STRAT 22 | STRAT 21 | STRAT 11 | STRAT 12 | STRAT 3 | STRAT 4

STRAT 85 | STRAT 86 | STRAT 33 | STRAT 34 | STRAT 24 | STRAT 23 | STRAT 9 | STRAT 10 | STRAT 1 | STRAT 2

STRAT 83 | STRAT 84 | STRAT 82 | STRAT 81 | STRAT 26 | STRAT 25

STRAT 28 | STRAT 27

STRAT 30 | STRAT 29

STRAT 32 | STRAT 31

L 80 W | L 60 W | L 40 W | L 15 W | BASE LINE | L 15 E | L 30 E | L 45 E | L 60 E

L 138 N | L 132 N | L 124 N | L 116 N | L 108 N | L 100 N | L 92 N | L 84 N | L 76 N | L 68 N | 60 N | 52 N | 44 N | 36 N | 28 N | 24 N

MEAHAN LAKE

Camp

NORANDA LAKE

Pyrite Creek

Pink Creek

Camp

TO ACCOMPANY COMBINED GEOCHEMICAL & GEOPHYSICAL REPORT BY J.T. WALKER GEOPHYSICIST, AND P.M. MCANDLESS, GEOLOGIST, ON THE STRAT-QTZ GROUP
DATED AUG. 27 1976

REVISED

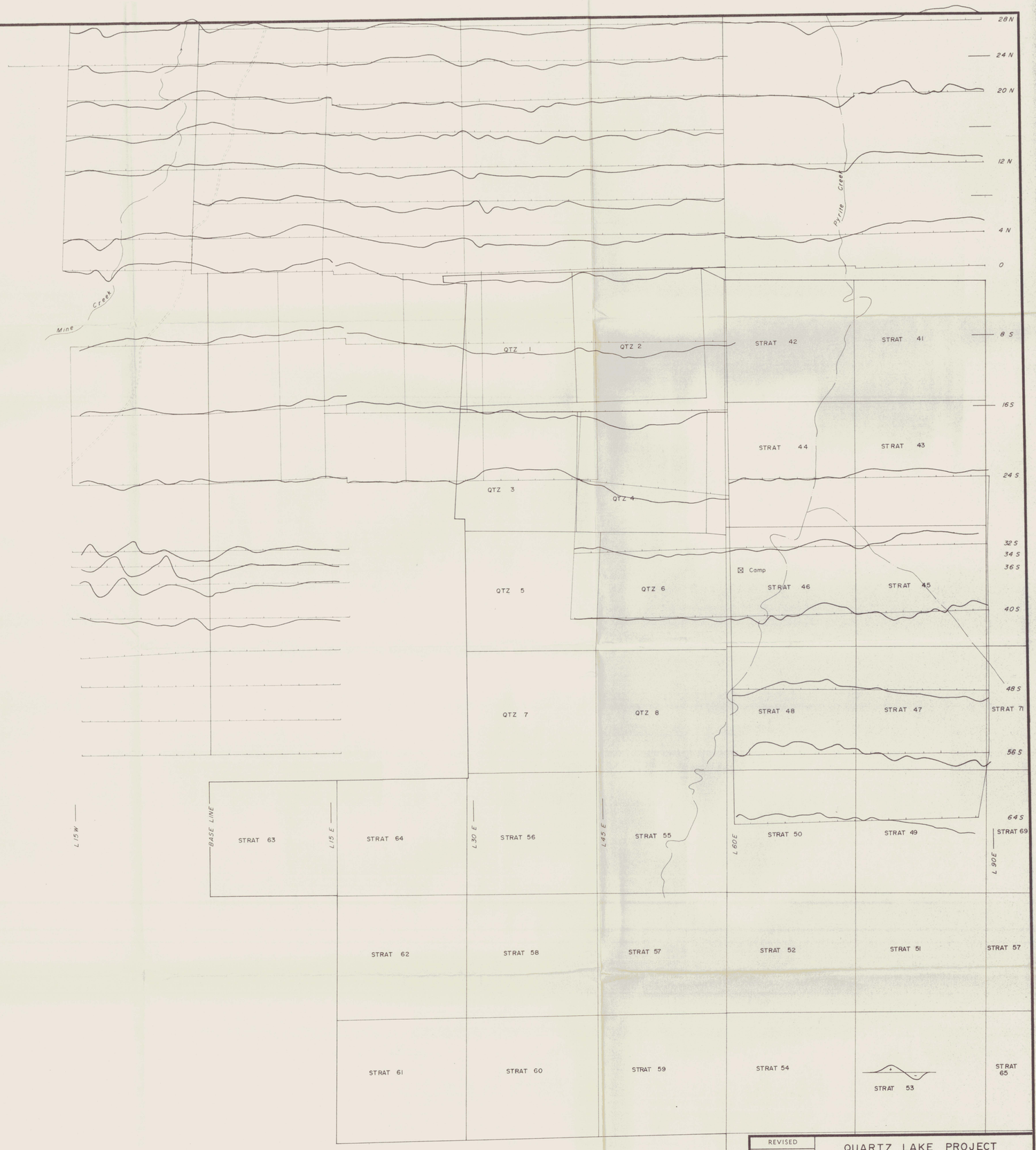
QUARTZ LAKE PROJECT

V.L.F - E.M. SURVEY
DIP ANGLE PROFILES
VERTICAL SCALE 1" = 50'
Tx SEATTLE, WASH.
NORTH SHEET

PROJ No. 912, 914
N.T.S. 950/12
DWG. No.
E.M. 2

SURVEY BY ... M. VETTERLI ... DATE JUN, JUL 1975, 76
DRAWN BY ... LCB ... SCALE 1" = 500'

NORANDA EXPLORATION
OFFICE ...



TO ACCOMPANY COMBINED GEOCHEMICAL & GEOPHYSICAL REPORT BY J.T.WALKER, GEOPHYSICIST, AND P.M.MCANDLESS, GEOLOGIST, ON THE STRAT-QTZ GROUP
DATED AUG 27 1976

REVISED

QUARTZ LAKE PROJECT

V.L.F.-E.M. SURVEY
DIP ANGLE PROFILES
VERTICAL SCALE 1" = 50'
Tx: SEATTLE, WASH
SOUTH SHEET

PROJ. No. 912,914
N.T.S. 95D/12
DWG. No. E.M. 2

SURVEY BY: M.VETTER.I DATE: JUN.25, 1975,6
DRAWN BY: L.C.B. SCALE: 1" = 500'

NORANDA EXPLORATION
OFFICE

SUMMARY REPORT - 1976

McMILLAN OPTION/QUARTZ LAKE PROPERTY

60°31' 127°56'

95D/12

WATSON LAKE MINING DIVISION

April 29, 1977
P.M. McAndless
G.E. Dirom

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MAPS

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DRAWING 2 - Grid Map - 1 - 1000'	"
DRAWING 3 - Geology Map - 1 - 1000'	"
DRAWING 4 - Gravity Map - 1 - 1000'	"
DRAWING 5 - CEM Map - 1 - 1000'	"
DRAWING 6 - Geochemistry Map - 1 - 1000'	"
DRAWING 7 - Diamond Drill Map - 1 - 1000'	"

INTRODUCTION AND SUMMARY

This report summarizes the results of the 1976 field program carried out by Noranda Exploration on the McMillan Option/Quartz Lake property, Watson Lake Mining Division, Y.T.

The object of the program was to explore for possible extensions to the reported 1,000,000 ton, 4.1% Pb, 8.3% Zn, 1.6oz/t Ag McMillan deposit.

In 1975, Noranda optioned the McMillan property from Asarco and conducted diamond drilling, geochemical soil sampling, VLF/EM and gravity in the immediate area of the deposit. An additional 103 claims were staked around the option claims to protect possible extensions of the McMillan stratigraphy.

In 1976, the second stage of the McMillan option was initiated with geological mapping, soil geochemistry, CEM, VLF/EM, and gravity over areas to the northwest and southeast of the deposit. This second stage intensive geological, geochemical, gephysical program established a potential drill target immediately east of Mine Creek near Noranda Lake.

Diamond drilling will be required to make an assessment of the coincident CEM, gravity, geochemistry anomaly mentioned above. Also, a broad gravity anomaly covering an area underlain by McMillan stratigraphy between Noranda Lake and Little Mountain will have to be tested by diamond drilling.

RECOMMENDATIONS

Diamond drilling is recommended for the following areas:

Area A
- L60N to 68N; 5E to 8E
- coincident gravity, CEM, geochemistry
- recommendation: two diamond drill holes
  a) L60N - 9E
  b) L68N - 8E

Area B
- L20N; 28E - 36E
- broad gravity; McMillan stratigraphy
- recommendation: one diamond drill hole
  a) L20N - 32E

Area C
- L40N; 32E - 38E
- broad gravity; projected McMillan stratigraphy
- recommendation: one diamond drill hole
  a) L40N - 34E

Further drilling will depend on the success of the initial recommended drill holes.

LOCATION AND ACCESS

The DOROTHY, SOUTH NAHANNI, M, QTZ and STRAT claim groups collectively known as the Quartz Lake property, are located approximately 45 miles northeast of Watson Lake, Y.T. and immediately south and west of Quartz Lake (Hulse Lake).

.../2

Access is by means of helicopter or fixed-wing from Watson Lake.

Elevations range from 3,000 to 5,500 feet a.s.l.

CLAIMS STATISTICS

The claims referred to in this report consist of 170 full size claims and 4 fractional claims.

Claim Name	Number	Renewal Date	Owner
Dorothy	57470	31 Dec./94	Liard
South Nahanni 1	57465	31 Dec./83	"
" 2	57466	31 Dec./80	"
" 3	57467	31 Dec./94	"
" 4	57468	"	"
" 5	57469	"	"
" 6	57471	"	"
" 7	57472	"	"
" 8	57550	31 Dec./78	"
" 9	57551	"	"
" 10	57552	"	"
" 11	57553	31 Dec./83	"
" 12	57554	"	"
" 13	57555	31 Dec./80	"
" 14	57556	"	"
" 15	57580	31 Dec./78	"
" 16	57557	31 Dec./81	"
" 17	57558	31 Dec./83	"
" 18	57559	31 Dec./79	"
" 19	57560	31 Dec./77	"
" 20	57561	31 Dec./79	"
" 21	57562	31 Dec./79	"
" 22	57563	31 Dec./77	"
" 23	57564	31 Dec./77	"
" 24	60046	"	"
" 25	60047	"	"
" 26	60048	"	"
" 27	60049	"	"
" 28	60050	"	"
" 29	60051	"	"
" 30	60052	31 Dec./74	"
" 31	60053	"	"
" 32	60054	31 Dec./79	"
" 33	60055	31 Dec./77	"
" 34	60056	"	"
" 35	60057	"	"
" 36	60058	"	"
" 37	60059	"	"
" 38	60060	"	"
" 39	60061	"	"
" 40	60062	"	"
" 41	60063	31 Dec./78	"
" 47	60069	"	"
" 48	63341	31 Dec./94	"

.../3

Claim Name	Number	Renewal Date	Owner
South Nahanni 49	63342	31 Dec./94	Liard
" 50	63343	31 Dec./78	"
W.H.I. 3 Fr.	Y64399	31 Dec./94	"
M 7	69450	31 Dec./77	Asarco
M 8	69451	"	"
M 17	70364	"	"
M 18	70365	"	"
M 19	70366	"	"
M 20	70367	"	"
M 21	70368	31 Dec./78	"
M 22	70369	"	"
M 23	70457	31 Dec./77	"
M 24	70458	31 Dec./78	"
M 25	70459	31 Dec./77	"
M 26	70460	31 Dec./78	"
M 27	70461	"	"
M 28	70462	"	"
M 29	70463	"	"
M 30	70464	"	"
M 31	70645	31 Dec./77	"
M 32	70646	31 Dec./78	"
M 33	70647	"	"
M 34	70648	"	"
M 35	70649	"	"
M 36	70650	"	"
M 37	70651	"	"
M 38	70652	"	"
Pic 1 Fr.	Y72515	31 Dec./77	"
Pic 2 Fr.	Y72516	"	"
Pic 3 Fr.	Y72517	"	"
Qtz 1	Y84112	31 Dec./78	Noranda
Qtz 2	Y84113	"	"
Qtz 3	Y84114	"	"
Qtz 4	Y84115	"	"
Qtz 5	Y84116	"	"
Qtz 6	Y84117	"	"
Qtz 7	Y84118	"	"
Qtz 8	Y84119	"	"
Strat 1	Y84583	31 Dec./78	"
" 2	Y84584	"	"
" 3	Y84585	"	"
" 4	Y84586	"	"
" 5	Y84587	"	"
" 6	Y84588	"	"
" 7	Y84589	"	"
" 8	Y84590	"	"
" 9	Y84591	"	"
" 10	Y84592	"	"
" 11	Y84593	"	"
" 12	Y84594	"	"
" 13	Y84595	"	"
" 14	Y84596	"	"
" 15	Y84597	"	"
" 16	Y84598	"	"
" 17	Y84599	"	"
" 18	Y84600	"	"

.../4

Name	Number	Renewal Date	Owner
19	Y93401	31 Dec./78	Noranda
20	Y93402	"	"
21	Y94403	"	"
22	Y93404	"	"
23	Y93405	"	"
24	Y93406	"	"
25	Y93407	"	"
26	Y93408	"	"
27	Y93409	"	"
28	Y93410	"	"
29	Y93411	"	"
30	Y93412	"	"
31	Y93413	"	"
32	Y93414	"	"
33	Y93415	"	"
34	Y93416	"	"
35	Y93417	"	"
36	Y93418	"	"
37	Y93419	"	"
38	Y93420	"	"
39	Y93421	"	"
40	Y93422	"	"
41	Y93423	"	"
42	Y93424	31 Dec./77	"
43	Y93425	31 Dec./78	"
44	Y93426	31 Dec./77	"
45	Y93427	31 Dec./78	"
46	Y93428	31 Dec./77	"
47	Y93429	31 Dec./78	"
48	Y93430	31 Dec./77	"
49	Y93431	31 Dec./78	"
50	Y93432	31 Dec./77	"
51	Y93493	31 Dec./78	"
52	Y93494	31 Dec./77	"
53	Y93495	"	"
54	Y93496	"	"
55	Y93433	31 Dec./78	"
56	Y93434	"	"
57	Y93435	31 Dec./77	"
58	Y93436	"	"
59	Y93437	"	"
60	Y93438	"	"
61	Y93439	"	"
62	Y93440	"	"
63	Y93441	31 Dec./78	"
64	Y93442	"	"
65	Y93497	31 Dec./77	Noranda
66	Y93498	"	"
67	Y93499	31 Dec./78	"
68	Y93500	31 Dec./77	"
69	Y93443	"	"
70	Y93444	"	"
71	Y93445	31 Dec./78	"
72	Y93446	"	"
73	Y93447	31 Dec./77	"

.../5

Claim Name	Number	Renewal Date	Owner
Strat 74	Y93448	31 Dec./77	Noranda
" 78	Y9345	"	"
" 79	Y9345	"	"
" 81	Y934	31 Dec./78	"
" 82	Y934	"	"
" 83	Y934	"	"
" 84	Y934	"	"
" 85	Y9345	"	"
" 86	Y93459	"	"
" 87	Y93460	"	"
" 88	Y93461	"	"
" 89	Y93462	"	"
" 90	Y93463	"	"
" 91	Y93464	"	"
" 92	Y93465	"	"
" 93	Y93466	"	"
" 94	Y93467	"	"
" 95	Y93468	"	"
" 96	Y93469	"	"

HISTORY AND PREVIOUS WORK

The McMillan showing was apparently first discovered in 1892 by prospectors from the Cassiar gold field, rediscovered by Ken McMillan in October, 1948 and optioned to Noranda. After the first season's work, New Jersey Zinc was asked to participate, however, they pulled out of the picture the following year. Next, American Smelting and Refining were given participation in the option. Asarco, by carrying out exploration on the property intermittenly between 1951 and 1972, earned a majority share position in Liard River Mining Company, Limited, a company formed to administer the property. In 1975 Noranda optioned the property and carried out exploration during 1975 - 76 field seasons.

A detailed summary of work performed on the McMillan option/Quartz Lake property is outlined on the following page.

1976 FIELD PROGRAM

The 1976 field program began May 25th and terminated July 19th. The crew consisted of one geologist, three sampler/prospectors and a cook. Line cutting and gravity surveys were contracted to D. Waugh and Associates Ltd. and Walter Sharpe and Associates Ltd. respectively. Occassional field support for camp moves and regional work was supplied by Bell 206B helicopter contracted from Highland Helicopters Ltd. or casual charter from Frontier Helicopters Ltd.

The purpose of the program was to explore for possible extensions along a northwest - southeast strike from the McMillan deposit.

During the initial stages of the program the 1975 grid was extended to the northwest, southeast and south for a total of 36.5 line miles. Gravity, VLF/EM, CEM and soil geochemistry surveys were conducted over the new grid as summarized below:

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McMILLAN OPTION/QUARTZ LAKE PROPERTY

SUMMARY OF PREVIOUS WORK

ERIOD	CLAIMS STAKED	CLAIM NAMES	OWNER(S)	TOTAL CLAIMS	OPERATOR	TYPE OF WORK	DRILL HOLES	FOOTAGE	TOTAL FOOTAGE	TONNAGE ESTIMATE	GRADE ESTIMATE
948 - 49	6	SN 1-5 Dorothy	K. McMillan	6	Noranda	Trenching, Drilling	6	651	651	-	-
	18	SN 6-23	Noranda K. McMillan	24							
950	24	SN 24-47	Noranda K. McMillan	48	New Jersey Zinc	Detailed Mapping Trenching	-	-	-	-	-
951			Noranda K. McMillan	48	Asarco	Drilling	7	1137	1,789	172,000	5.35%Pb 2.32oz Ag/ 11.41% Zn
952	9	SN 48-56	Asarco Noranda K. McMillan	57	Asarco	Geology, Geochemistry Drilling	13	2408	4,197	600,000	5.5%Pb 2.3oz Ag/t 9.7% Zn
953	-	-	Asarco Noranda K. McMillan		Asarco	Geology,Em,I.P. Geochemistry, Drilling	19	3236	7,433	935,581	4.7% Pb 9.9% Zn 1.8 oz Ag/
954	30	SN 57-70 M 1-16	Asarco Noranda K. McMillan	87	Asarco	Reconnaissance and detailed mapping drilling	20	6318	13,751	1,000,000	4.7%Pb 9.97%Zn 1.8oz Ag/t
955	22	M 17-38	Asarco Noranda K. McMillan	109	Asarco	E.m, Drilling	8	2813	16,564	1,000,000	4.7%Pb 9.97% Zn 1.8oz Ag/t

CONT'd

ERIOD	CLAIMS STAKED	CLAIM NAMES	OWNER(S)	TOTAL CLAIMS	OPERATOR	TYPE OF WORK	DRILL HOLES	FOOTAGE	TOTAL FOOTAGE	TONNAGE ESTIMATE	GRADE ESTIMATE
956	-	-	Asarco Noranda Liard		Asarco	Geology Drilling	11	3007	19,571	1,000,000	4.7%Pb 9.97%Zn 1.8ozAg/to
967	-	-	Asarco Noranda Liard	70	Asarco	I.P.	-	-	-	"	"
968	-	-	Asarco Noranda Liard	70	Asarco	Geochemistry, Drilling	10	3404	22,975	"	"
975	103	QTZ1-8 STRAT1-79 STRAT 1-96	Noranda Asarco Liard	173	Noranda	Drilling, Gravity,CEM, Geology,Geo- chemistry	27	8299	31,273		
976	-	-	Noranda Asarco Liard	170	Noranda	Gravity,Geology, CEM, Geochemistry, VLF	-	-	-		
otals				170			121		31,273		

a) Gravity
- 27.1 line miles
- 800 foot line separation
- 100 foot station interval

b) CEM/VLF-EM
- 63.7 line miles
- 800 foot line separation
- 100 foot station interval

c) Soil Geochemistry
- 23.9 line miles
- 603 samples
- 800 foot line separation
- 200 foot station interval

Geological mapping and prospecting carried out in the new grid areas.

GEOLOGY

The Quartz Lake property is underlain by Proterozoic (Hadrynian) and/or LateCambrian weakly metamorphosed sediments that have been divided locally into four units. The property is covered by extensive glacial drift ranging from 0 to over 250 feet and there is less than five percent rock exposure. Refer to Drawing 3 for illustration and description of geology.

The oldest lithologic unit is the Canyon Formation (1) located adjacent to and west of the property and consisting primarily of buff to grey, platy phyllite and limestone interbedded with phyllitic argillite.

The Range Group (2) overlies the Canyon Formation and consists of quartite, grits, conglomerate, thin platy limestone, argillite and dark grey phyllite. This group occurs predominantly to the north and west of Mine Creek and in the south central portion of the property. Range Group rocks also occur east of Pyrite Creek.

Overlying the Range Group is the Mine Group (3) which hosts the McMillan deposit and occurs in the central area of the property. It is characterized by pink to green silty, sandy argillite, grey limestone and quartzite interbedded with sandy quartzite.

The youngest unit, the Ridge Group (4) occurs primarily in the southeast and northeast sections of the property. The unit consists of quartzite interbedded with grey limestone and grey green argillite.

The main structural feature is a broad, complex regional syncline disrupted by a series of northwesterly trending shears and high-angle faults.

The McMillan deposit can be best described as a long narrow, flat lying lens of lead, zinc and silver mineralization replacing limestone and limey quartzites along a zone of east dipping shears and hgih-angle faults. The zone has a maximum width of 500 feet, a length of 2000 feet and variable thickness of five to 80 feet. The zone strikes northwest and dips flatly to the northeast. The mineralized horizon is overlain by predominantly argillaceous units, and immediately underlain by a predominantly graphitic quartzite unit..

.../7

GEOPHYSICS

GRAVITY SURVEY

During the period June 18 to July 22 a gravity survey covering 27.1 line miles was conducted by Walter Sharpe and Associates Ltd. for Noranda Exploration. The results of the survey are presented on Drawing 4 in the map pocket.

Thirteen gravity anomalies were produced from the 1976 survey, however, all but three are considered either too small in amplitude or size to be recommended for follow-up. The most significant anomaly occurs immediately east of Mine Creek near Noranda Lake between L60N and 68N; 5E to 8E. CEM and geochemistry are coincident with this anomaly.

A broad anomaly located directly east of the mineralized zone between L20N to 40N - 28E to 38E is also worth follow-up consideration. This particular anomaly, although lacking coincident CEM, is within the area of projected favourable McMillan stratigraphy.

For more complete information and maps of the 1976 gravity survey, refer to a report by W. Sharpe and R. Pemberton entitled "Preliminary Gravity Report - STRAT and QTZ Claim Groups".

CEM/VLF-EM SURVEYS

During the period of June 18 to July 19, 63.7 line miles of CEM/VLF-EM surveys were carried out over most of the Quartz Lake property.

The results of both electromagnetic surveys indicated the areas of known mineralization, although the CEM method produced a more pronounced response pattern. The CEM survey also indicated a conductive pattern extending north of the known mineralized zone in the area between Mine Creek and Noranda Lake. Refer to Drawing 5 in the map pocket. For a more detailed description of method and results of the surveys refer to a report by T. Walker and P. McAndless entitled "Combined Geochemical/Geophysical Report - STRAT - QTZ Group".

GEOCHEMISTRY

During the period June 18 to July 19, 603 soil samples were collected over 23.9 line miles covering mainly the STRAT and QTZ claim groups. The results are presented on Drawing 6 in the map pocket.

In most instances anomalous lead-zinc soils with the exception of L64S, 64-70W are spotty and located in swampy areas on or adjacent to Mine Creek; anomalies are probably transported from the McMillan deposit. A more detailed description of results is included in a report by T. Walker and P. McAndless entitled "Combined Geochemical/Geophysical Report - STRAT - QTZ Group".

P M McAndless

APPENDIX I

EXPENDITURES

TOTAL EXPENDITURES - McMILLAN OPTION/QUARTZ LAKE

1975:	McMillan Option - *			$233,683
	Quartz Lk. Regional **			
		Total	Prorate to property	
	Staking	5,293	3,617	
	Prospecting	10,694	675	
	Geology (C_1)	7,512	2,362	
	Geology (C_2)	47,244	376	
	Airborne	13,775	535	
	Geochemistry	35,781	1,797	
	Supervision	6,173	308	9,670
1976:	McMillan Option -			28,977
	Quartz Lk. Regional -			70,531
TOTAL EXPENDITURE				$342,861

Cost Breakdown

1) McMillan Option (80 claims) - $262,660
   Cost/claim - $3,170.00

2) Quartz Lk. Regional (90 claims) 80,201
   Cost/claim - 891.00

* South Nahanni, Qtz, M, Pic Fractions, Whi Fraction

** Strat

APPENDIX II

REFERENCES

REFERENCES

1. McMillan Property - B.O. Brynelsen, 1949
2. McMillan Claims - R.H. Barker, 1951
3. Summary Report - McMillan Option - S. Norman Kesten, 1951
4. Summary Report - McMillan Option - A.O. Hall, C.J. Coveney, 1952
5. Summary Report - McMillan Option - A.O. Hall, C.J. Coveney, 1953
6. Summary Report - McMillan Option - M.W. Cox, G.A. Dirom, 1954
7. Electromagentic Survey - McMillan Option - W.E. Saegart, 1955
8. Summary Report - McMillan Option - R.G. Kenly, G.A. Dirom, 1956
9. Summary Report - McMillan Option - E.P. Bailey, 1968
10. Induced Polarization Survey - McMillan Property - W. Schuur, 1968
11. Summary Report - McMillan Option - D.Pegg, 1975
12. Gravity Survey - McMillan Option - J.B. Boniwell, W. Sharpe, 1975
13. Airborne Geophysical Survey - J.T. Walker, 1975
14. Geological/Geochemical Reconnaissance - Quartz Lake Area - J.E. Stockwell, 1975
15. Combined Geochemical/Geophysical Report - STRAT - QTZ Group - T. Walker, P. McAndless, 1976
16. Preliminary Gravity Report - STRAT - QTZ Group - R. Pemberton, W. Sharpe, 1976
17. Application for Assessment Credit - STRAT - QTZ Group, 1976
18. Diamond Drill Log Summary, DDH #1 - 120, 1977

Bellik, 1975

APPLICATION FOR ASSESSMENT CREDIT

QUARTZ LAKE PROJECT

SN - M - STRAT - QTZ CLAIM GROUPS

WATSON LAKE MINING DIVISION

Noranda Exploration Company, Limited
(No Personal Liability)

August 1976

Office Of The Supervising Mining Recorder
OCT 1 8 1976
WHITEHORSE
Yukon Territory

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

STRAT - QTZ CLAIM GROUPS

Watson Lake Mining Division

APPLICATION FOR ASSESSMENT CREDIT

CONTENTS:

Location Map (1:250,000)

Statutory Declaration of Physical and Exploratory Work Costs

Applications to Group Mineral Claims
Claim Group Sketches (1" - 1,000')
Applications for a Certificate of Work
Grouping Map (1" - 1,000') - in pocket
Claim/Grid Maps (1" - 500') - in pocket

Summary of Statement of Costs

Statement of Costs - Line Cutting PART 1

Statement of Costs - Gravity Survey PART 2

Statement of Costs - VLF/CEM Survey PART 3

Statement of Costs - Geochem Survey PART 4

Distribution of Project Man/Days

Contract Agreements - Line Cutting
- Gravity Survey

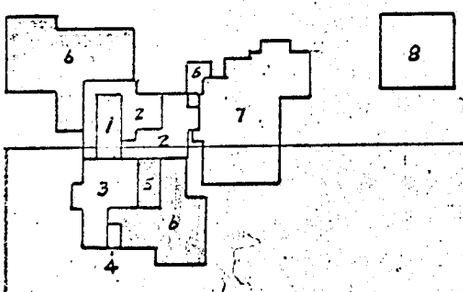
Vouchers Supporting Costs - separate package

128°00'

61°00'

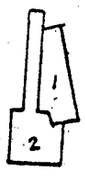
13

12



LEGEND

NO.	CLAIM GROUP
1	LEASED
2	SOUTH NATHANN
3	M
5	QTZ.
6	STRAT.



95D

Scale - 1" = 250,000

5

DOMINION OF CANADA:
YUKON TERRITORY
~~PROVINCE OF BRITISH COLUMBIA~~.

To Wit:

In the Matter of a Statement of Physical and Exploratory Work costs on fifty-four (54) mineral claims in the Watson Lake Mining District having grant numbers Y84583-84585, 84587, 84591-84596, 93401-93409, 93411, 93415-93422, 93425-93432, 93454-93455.

I, PATRICK M. McANDLESS, Agent for NORANDA EXPLORATION COMPANY, LIMITED (No Personal Liability)

of P.O. Box 2380, Vancouver, British Columbia, V6B 3T5

in the Province of British Columbia, do solemnly declare that the cost of Physical and Exploratory Work on the above-mentioned claims was:

TOTAL ASSESSMENT CREDIT COST FOR PHYSICAL AND EXPLORATORY WORK			$24,395.56
a) PHYSICAL WORK			
1. Line Cutting		$10,366.71	
a) Labour	$6,124.61		
b) Field	1,270.82		
c) Transportation	2,541.26		
d) Expediting	430.02		
e) Miscellaneous	0.00		
f) Rental	0.00		
b) EXPLORATORY WORK			
1. Gravity Survey		$8,800.22	
a) Labour	$4,991.11		
b) Field	614.36		
c) Transportation	2,558.11		
d) Expediting	362.09		
e) Miscellaneous	274.55		
f) Rental	0.00		
2. VLF/CEM Survey		$2,907.92	
a) Labour	$ 996.27		
b) Field	103.45		
c) Transportation	1,288.39		
d) Expediting	176.65		
e) Miscellaneous	94.76		
f) Rental	248.40		
3. Geochem Survey		$2,320.71	
a) Labour	$ 699.72		
b) Field	879.97		
c) Transportation	486.74		
d) Expediting	122.89		
e) Miscellaneous	131.39		
f) Rental	0.00		
TOTAL ASSESSMENT CREDIT COST FOR PHYSICAL AND EXPLORATORY WORK:			$24,395.56

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City of Whitehorse, in the Yukon Territory ~~Province of British Columbia~~, this 20th day of August, 1976, A.D.

P M McAndless

Mary L. Pitton

~~A Commissioner for taking Affidavits within British Columbia or~~
A Notary Public in and for the ~~Province of British Columbia~~ Yukon Territory.

SUMMARY OF STATEMENT OF COSTS

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

STATEMENT OF COSTS - SUMMARY

The following is a cost summary of the allowable portions of physical work (line cutting) and exploratory work (gravity, VLF/CEM and geochem surveys) performed during the period June 1 - July 19, 1976 on the SOUTH NAHANNI, M QTZ, and STRAT cliam groups, Watson Lake Mining Division

TOTAL ASSESSMENT CREDIT COST FOR PHYSICAL AND EXPLORATORY WORK		$24,395.56
a. PHYSICAL WORK PART 1		
1. Line Cutting		$10,366.71
a) Labour	$6,124.61	
b) Field	1,270.82	
c) Transportation	2,541.26	
d) Expedicting	430.02	
e) Miscellaneous	.00	
f) Rental	.00	
Total Line Cutting Cost		10,366.71
b. EXPLORATORY WORK		
1. Gravity Survey PART 2		8,800.22
a) Labour	4,991.11	
b) Field	614.36	
c) Transportation	2,558.11	
d) Expediting	362.09	
e) Miscellaneous	274.55	
f) Rental	.00	
Total Gravity Survey Cost		8,800.22
2. VLF/CEM Survey PART 3		2,907.92
a) Labour	996.27	
b) Field	103.45	
c) Transportation	1,288.39	
d) Expediting	176.65	
e) Miscellaneous	94.76	
f) Rental	248.40	
Total VLF/CEM Survey Cost		2,907.92
3. Geochem Survey PART 4		2,320.71
a) Labour	699.72	
b) Field	879.97	
c) Transportation	486.74	
d) Expediting	122.89	
e) Miscellaneous	131.39	
f) Rental	.00	
Total Geochem Survey Cost		$2,320.71
TOTAL ASSESSMENT CREDIT COST FOR PHYSICAL AND EXPLORATORY WORK		$24,395.56

PART 1

STATEMENT OF COSTS - LINE CUTTING

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

STATEMENT OF COSTS - LINE CUTTING

The following is a cost break down summary of the allowable portion of physical work (line cutting)performed during the periods June 1-23, July 12 and 18, 1976 on the SOUTH NAHANNI, M, QTZ and STRAT claim groups, Watson Lake Mining Division. Refer to accompanying Claim/Grid Map, 1"-500', Quartz Lake Project.

Application For Assessment Credit is based upon:

Total line miles chained by Noranda	36.5		
Less line miles on leased claims	0.6		
Assessment credit line miles		35.9	
Total line miles cut by Contractor	34.4		
Less line miles on leased claims	0.6		
Assessment credit line miles		33.8	
TOTAL ASSESSMENT CREDIT LINE CUTTING COSTS			$10,366.71
1. Line Cutting Labour Cost (Appendix A)		$6,124.61	
a) Noranda	$ 979.61		
b) Contractor	5,145.00		
Total Line Cutting Labour Cost		6,124.61	
2. Line Cutting Field Cost (Appendix B)		1,270.82	
a) Noranda	1,123.82		
b) Contractor	147.00		
Total Line Cutting Field Cost		1,270.82	
3. Line Cutting Transportation Cost (Appendix C)		2,541.26	
a) Noranda	784.45		
b) Contractor	1,756.81		
Total Line Cutting Transportation Cost		2,541.26	
4. Line Cutting Expediting Cost (Appendix D)		430.02	
a) Noranda	161.29		
b) Contractor	274.31		
Total Line Cutting Expediting Cost		430.02	435.60
5. Line Cutting Miscellaneous Cost (Appendix E)		.00	
a) Noranda	.00		
b) Contractor	.00		
Total Line Cutting Miscellaneous Cost		.00	
6. Line Cutting Rental Cost (Appendix F)		.00	
a) Noranda	.00		
b) Contractor	.00		
Total Line Cutting Rental Cost		.00	
TOTAL ASSESSMENT CREDIT LINE CUTTING COSTS			$10,366.71

10,372.29

August 1976 95D/12

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX A - LABOUR COST

TOTAL ASSESSMENT CREDIT LINE CUTTING LABOUR COST			$6124.61
1. NORANDA LINE CUTTING LABOUR COST			$ 979.61
a) Total Project Labour Cost		$10,579.10	
Project man/days	(254)		
Payroll distribution		10,579.10	
b) Line Cutting Labour Cost		999.60	
Project man/days	(254)		
Project labour cost	$10,579.10		
Cost per man/day	41.65		
Line cutting man/days	(24)		
Line cutting labour cost		999.60	
c) Assessment Credit Portion Of Line Cutting Labour Cost		979.61	
Total line miles	36.5		
Less line miles on leased claims	0.6		
Assessment credit line miles	35.9		
Line cutting labour cost	$ 999.60		
Prorated allowable portion	(35.9/36.6)		
Assessment credit portion		979.61	
NORANDA ASSESSMENT CREDIT LINE CUTTING LABOUR COST			$ 979.61
2. CONTRACTOR LINE CUTTING LABOUR COST			$5145.00
a) Line Cutting Labour Cost		$ 5,250.00	
As per invoice		5,250.00	
b) Assessment Credit Portion of Line Cutting Labour Cost		5,145.00	
Total line miles	34.4		
Less line miles on leased claims	0.6		
Assessment credit line miles	33.8		
Line cutting labour cost	$ 5250.00		
Prorated allowable portion	(33.8/34.4)		
Assessment credit portion		$5,145.00	
CONTRACTOR ASSESSMENT CREDIT LINE CUTTING LABOUR COST			$5145.00
TOTAL ASSESSMENT CREDIT LINE CUTTING LABOUR COST			$6124.61

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX B - FIELD COST

TOTAL ASSESSMENT CREDIT LINE CUTTING FIELD COST			$1,270.82
1. NORANDA LINE CUTTING FIELD COST			$1,123.82
a) Total line Cutting Field Cost		$1,146.75	
Thompson's Yukon Foods	$ 83.19		
Thompson's Yukon Foods	356.50		
Canadian Propane	43.50		
Camp Ground Services Ltd.	21.31		
Camp Ground Services Ltd.	50.00		
Camp Ground Services Ltd.	50.00		
Northern Metallic Sales	47.41		
Northern Metallic Sales	129.34		
Northern Metallic Sales	199.95		
Thompson's Yukon Foods	40.64		
Thompson's Yukon Foods	101.60		
White Pass Petroleum	5.38		
White Pass Petroleum	17.93		
Total Line Cutting Field Cost		$1,146.75	
b) Assessment Credit Portion of Line Cutting Field Cost		$1,123.82	
Total line miles	36.5		
Less line miles on leased claims	0.6		
Assessment credit line miles	35.9		
Line cutting field cost	$1146.75		
Prorated allowable portion (36.5/35.9)			
Assessment credit portion		$1,123.82	
NORANDA ASSESSMENT CREDIT LINE CUTTING FIELD COST			$1,123.82
2. CONTRACTOR LINE CUTTING FIELD COST			147.00
a) Total Line Cutting Field Cost		$ 150.00	
As per invoice		150.00	
b) Assessment Credit Portion of Line Cutting Field Cost		147.00	
Total line miles	34.4		
Less line miles on leased claims	0.6		
Assessment credit line miles	33.8		
Line cutting field cost	150.00		
Prorated allowable portion (33.8/34.4)			
Assessment credit portion		147.00	
CONTRACTOR ASSESSMENT CREDIT LINE CUTTING FIELD COST			$ 147.00
TOTAL ASSESSMENT CREDIT LINE CUTTING FIELD COST			$1,270.82

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX C - TRANSPORTATION COST

TOTAL ASSESSMENT CREDIT LINE CUTTING TRANSPORTATION COST			$2,541.26
1. NORANDA LINE CUTTING TRANSPORTATION COST			$784.45
a) Fixed Wing Transportation Cost		$ 94.30	
Average cost per mile *	$ 1.00		
Line cutting Fixed Wing miles B.C.-Yukon Air Service Ltd.	(94.3)		
Fixed Wing transportation Cost		94.30	
b) Helicopter Transportation Cost		556.16	
Average cost per hr.*	335.04		
Line cutting helicopter hrs. Frontier Helicopters Ltd. Highland Helicopters Ltd.	(1.66)		
Helicopter transportation cost		556.16	
c) Truck Transportation Cost		150.00	
Westminster Auto Lease	$ 150.00		
Truck Transportation Cost		150.00	
d) Assessment Credit Portion of Line Cutting Transportation Cost		784.45	
Total line miles	36.5		
Less line miles on leased claims	0.6		
Assessment credit line miles	35.9		
Line cutting transportation cost	$ 800.46		
Prorated allowable portion	(35.9/36.5)		
Assessment credit portion		784.45	
NORANDA LINE CUTTING TRANSPORTATION COST			784.45
2. CONTRACTOR LINE CUTTING TRANSPORTATION COST			1,756.81
a) Fixed Wing Transportation Cost		94.30	
Average cost per mile *	$ 1.00		
Line cutting Fixed wing miles B.C.-Yukon Air Service Ltd.	(94.3)		
Fixed Wing transportation Cost		94.30	
b) Helicopter Transportation Cost		1,494.28	
Average cost per hr. *	335.04		
Line cutting helicopter hrs. Frontier Helicopters Ltd. Highland Helicopters Ltd.	(4.46)		
Helicopter transportation Cost		1,494.28	
c) Truck Transportation Cost		204.08	
As per invoice			
Truck transportation Cost		204.08	
d) Assessment Credit Portion of Line Cutting Transportation Cost		1,756.81	
Total line miles	34.4		
Less line miles on leased claims	0.6		
Assessment credit line miles	33.8		
Line cutting transportation cost	$1792.66		
Prorated allowable portion	(33.8/34.4)		
Assessment credit portion		1,756.81	
CONTRACTOR LINE CUTTING TRANSPORTATION COST			$1,756.81
TOTAL ASSESSMENT CREDIT LINE CUTTING TRANSPORTATION COST			$2,541.26

APPENDIX C_1 - TRANSPORTATION *

1. FLYING CHARGES

a) Fixed Wing Average Cost Per Mile		$ 1.00
Total project flying miles	(1259.4)	
Total Flying cost	1183.19	
Average cost per mile		1.00
b) Helicopter Average Cost Per Hr.		335.04
Total project flying hrs.	(21.58)	
Total flying cost	7230.13	
Average cost per hr.		335.04

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX D - EXPEDITING COST

TOTAL ASSESSMENT CREDIT LINE CUTTING EXPEDITING COST			$430.02
1. NORANDA LINE CUTTING EXPEDITING COST			$161.20
a) Total Project Expediting Cost		$1,828.71	
Total project man/days	(254)		
Expediting man/days	(21)		
Payroll distribution	1046.01		
Room and board	347.20		
Telephone	235.50		
Total Project Expediting Cost		1,828.71	
b) Line Cutting Expediting Cost		164.58	
Total project man/days	(254)		
Line cutting man/days	(24)		
Total project expediting cost	1828.71		
Prorated line cutting portion	(24/254)		
Line cutting expediting cost		164.58	
c) Assessment Credit Portion of Line Cutting Expediting Cost		161.29	
Total line miles	36.5		
Less line miles on leased claims	0.6		
Assessment credit line miles	35.9		
Line cutting expediting cost	164.58		
Prorated allowable portion	(35.9/36.5)		
Assessment credit portion		161.29	
NORANDA ASSESSMENT CREDIT LINE CUTTING EXPEDITING			161.29
2. CONTRACTOR LINE CUTTING EXPEDITING COST			268.82
a) Total Project Expediting Cost		1,828.71	
As per 1 a)		1,828.71	
b) Line Cutting Expediting Cost		274.31	
Project man/days incl. contractors	(299)		
Line cutting man/days	(45)		
Total project expediting cost	1828.71		
Prorated line cutting portion	(45/299)		
Line cutting expediting cost		274.31	
c) Assessment Credit Portion of Line Cutting Expediting Cost		340.51	
Total line miles	34.4		
Less line miles on leased claims	0.6		
Assessment credit line miles	33.8		
Line cutting expediting cost	274.31		
Prorated allowable portion	(33.8/34.4)		
Assessment credit portion		268.82	
CONTRACTOR ASSESSMENT CREDIT LINE CUTTING EXPEDITING COSTS			268.82
TOTAL ASSESSMENT CREDIT LINE CUTTING EXPEDITING COST			$430.02

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NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX E - MISCELLANEOUS COST

TOTAL ASSESSMENT CREDIT LINE CUTTING MISCELLANEOUS COST		$ .00
1. NORANDA LINE CUTTING MISCELLANEOUS COST	$ .00	
2. CONTRACTOR GRAVITY SURVEY MISCELLANEOUS COST	$ .00	
TOTAL ASSESSMENT CREDIT GRAVITY SURVEY MISCELLANEOUS COST		$ .00

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NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX F - RENTAL COST

TOTAL ASSESSMENT CREDIT LINE CUTTING RENTAL COST		$ .00
1. NORANDA LINE CUTTING RENTAL COST	$ .00	
2. CONTRACTOR LINE CUTTING RENTAL COST	$ .00	
TOTAL ASSESSMENT CREDIT LINE CUTTING RENTAL COST		$ .00

PART 2

STATEMENT OF COSTS - GRAVITY SURVEY

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

STATEMENT OF COSTS - GRAVITY SURVEY

The following is a cost break down summary of the allowable portion of exploratory work (gravity survey) performed during the periods June 18 to July 22, 1976 on the SOUTH NAHANNI, M, QTZ and STRAT claim groups, Watson Lake Mining Division. Refer to accompanying Claim/Grid Map, 1"-500', Quartz Lake Project.

Application for Assessment Credit is based upon:

Total line miles assissted by Noranda	27.1	
Less line miles on >3 yr. old claims	12.1	
Assessment credit line miles		15.0
Total line miles surveyed by Contractor	27.1	
Less line miles on >3 yr. old claims	12.1	
Assessment credit line miles		15.0

TOTAL ASSESSMENT CREDIT GRAVITY SURVEY COSTS			$8,800.22
1. Gravity Survey Labour Cost (Appendix A)		$4,991.11	
a) Noranda	$ 412.36		
b) Contractor	4,578.75		
Total Gravity Survey Labour Cost		4,991.11	
2. Gravity Survey Field Cost (Appendix B)		614.36	
a) Noranda	579.43		
b) Contractor	34.93		
Total Gravity Survey Field Cost		614.36	
3. Gravity Survey Transportation Cost (Appendix C)		2,588.11	
a) Noranda	620.44		
b) Contractor	1,837.67		
Total Gravity Survey Transportation Cost		2,558.11	
4. Gravity Survey Expediting Cost (Appendix D)		362.09	
a) Noranda	70.41		
b) Contractor	291.68		
Total Gravity Survey Expediting Cost		362.09	
5. Gravity Survey Miscellaneous Cost (Appendix E)		274.55	
a) Noranda	132.10		
b) Contractor	142.45		
Total Gravity Survey Miscellaneous Cost		274.55	
6. Gravity Survey Rental Cost (Appendix F)		.00	
a) Noranda	.00		
b) Contractor	.00		
Total Gravity Survey Rental Cost		.00	

TOTAL ASSESSMENT CREDIT GRAVITY SURVEY COSTS $8,800.22

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NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX A - LABOUR COST

TOTAL ASSESSMENT CREDIT GRAVITY SURVEY LABOUR COST			$4991.11
1. NORANDA GRAVITY SURVEY LABOUR COST			$ 412.36
a) Total Project Labour Cost		$10,579.10	
Project man/days	(254)		
Payroll distribution		10,579.10	
b) Gravity Survey Labour Cost		749.70	
Project man/days	(254)		
Project labour cost	$10,579.10		
Cost per man/day	41.65		
Gravity survey man/days	(18)		
Gravity survey labour cost		749.70	
c) Assessment Credit Portion of Gravity Survey Labour Cost		412.36	
Total line miles	27.1		
Less line miles on >3 yr. old claims	12.1		
Assessment credit line miles	15.0		
Gravity survey labour cost	$ 749.70		
Prorated allowable portion	(15.0/27.1)		
Assessment credit portion		412.36	
NORANDA ASSESSMENT CREDIT GRAVITY SURVEY LABOUR COST			$ 412.36
2. CONTRACTOR GRAVITY SURVEY LABOUR COST			$4578.75
a) Gravity Survey Labour Cost		$ 8,325.00	
As per invoice		8,325.00	
b) Assessment Credit Portion of Gravity Survey Labour Cost		4,578.75	
Total line miles	27.1		
Less line miles on >3 yr. old claims	12.1		
Assessment credit line miles	15.0		
Gravity survey labour cost	$ 8,325.00		
Prorated allowable portion	(15.0/27.1)		
Assessment credit portion		$ 4,578.75	
CONTRACTOR ASSESSMENT CREDIT GRAVITY SURVEY LABOUR COST			$4578.75
TOTAL ASSESSMENT CREDIT GRAVITY SURVEY LABOUR COST			$4991.11

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NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX B - FIELD COST

TOTAL ASSESSMENT CREDIT GRAVITY SURVEY FIELD COST			$614.36
1. NORANDA GRAVITY SURVEY FIELD COST			$579.43
a) Total Gravity Survey Field Cost		$1,053.50	
Thompson's Yukon Foods	59.42		
Camp ground Services Ltd.	9.21		
Thompson's Yukon Foods	178.25		
Camp ground Services Ltd.	200.00		
Sportsman Motel	180.00		
Sportsman Motel	25.00		
Camp ground Services Ltd.	73.02		
White Pass Petroleum	19.30		
Camp ground Services	75.00		
Thompson's Yukon Foods	200.00		
Camp ground Services Ltd.	10.00		
Thompson's Yukon Foods	24.30		
Total Gravity Survey Field Cost		$1,053.50	
b) Assessment Credit Portion of Gravity Survey Field Cost		579.43	
Total line miles	27.1		
Less line miles on >3 yr. old claims	12.1		
Assessment credit line miles	15.0		
Gravity survey field cost	1053.50		
Prorated allowable portion	(15.0/27.1)		
Assessment credit portion		$ 579.43	
NORANDA ASSESSMENT CREDIT GRAVITY SURVEY FIELD COST			$579.43
2. CONTRACTOR GRAVITY SURVEY FIELD COST			34.93
a) Total Gravity Survey Field Cost		$ 63.50	
As per invoice			
b) Assessment Credit Portion of Gravity Survey Field Cost		34.93	
Total line miles	27.1		
Less Line miles on >3 yr. old claims	12.1		
Assessment credit line miles	15.0		
Gravity survey field cost	63.50		
Prorated allowable portion	(15.0/27.1)		
Assessment credit portion		$ 34.93	
CONTRACTOR ASSESSMENT CREDIT GRAVITY SURVEY FIELD COST			$ 34.93
TOTAL ASSESSMENT CREDIT GRAVITY SURVEY FIELD COST			$614.36

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX C - TRANSPORTATION COST

TOTAL ASSESSMENT CREDIT GRAVITY SURVEY TRANSPORTATION COST			$2,558.11
1. NORANDA GRAVITY SURVEY TRANSPORTATION COST			$ 620.44
a) Fixed Wing Transportation Cost		$ 77.20	
Average cost per mile *	$ 1.00		
Gravity survey Fixed Wing miles B.C.-Yukon Air Service Ltd.	(77.2)		
Fixed Wing transportation Cost		77.20	
b) Helicopter Transportation Cost		593.02	
Average cost per hr. *	$ 335.04		
Gravity survey helicopter hrs. Frontier Helicopters Ltd. Highland Helicopters Ltd.	(1.77)		
Helicopter transportation cost		593.02	
c) Truck Transportation Cost		457.85	
Westminster Auto Lease	$ 457.85		
Truck Transportation Cost		457.85	
d) Assessment Credit Portion of Gravity Survey Transportation Cost		620.44	
Total line miles	27.1		
Less line miles on >3 yr old claims	12.1		
Assessment credit line miles	15.0		
Gravity survey transportation cost	$1128.07		
Prorated allowable portion	(15.0/27.1)		
Assessment credit portion		620.44	
NORANDA GRAVITY SURVEY TRANSPORTATION COST			620.44
2. CONTRACTOR GRAVITY SURVEY TRANSPORTATION COST			1,937.67
a) Fixed Wing Transportation Cost		107.20	
Average cost per mile *	$ 1.00		
Gravity survey Fixed wing miles B.C.-Yukon Air Service Ltd.	(107.2)		
Fixed Wing transportation Cost		107.20	
b) Helicopter Transportation Cost		1,956.63	
Average cost per hr. *	335.04		
Gravity survey helicopters hrs. Frontier Helicopters Ltd. Highland Helicopters Ltd.	(5.84)		
Helicopter transportation Cost		1,956.63	
c) Misc. Transportation Cost		1,459.20	
As per invoice			
Misc. transportation Cost		1,459.20	
d) Assessment Credit Portion of Gravity Survey Transportation Cost		1,937.67	
Total line miles	27.1		
Less line miles on >3 yr old claims	12.1		
Assessment credit line miles	15.0		
Gravity Survey transportation cost	$3523.03		
Prorated allowable portion	(15.0/27.1)		
Assessment credit portion		1,937.67	
CONTRACTOR GRAVITY SURVEY TRANSPORTATION COST			$1,937.67
TOTAL ASSESSMENT CREDIT GRAVITY SURVEY TRANSPORTATION COST			$2,558.11

APPENDIX C_1 - TRANSPORTATION *

1. FLYING CHARGES

a) Fixed Wing Average Cost Per Mile		$ 1.00
Total project flying miles	(1259.4)	
Total Flying cost	1183.19	
Average cost per mile		1.00
b) Helicopter Average Cost Per Hr.		335.04
Total project flying hrs.	(21.58)	
Total flying cost	7230.13	
Average cost per hr.		335.04

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX D - EXPEDITING COST

TOTAL ASSESSMENT CREDIT GRAVITY SURVEY EXPEDITING COST			$362.09
1. NORANDA GRAVITY SURVEY EXPEDITING COST			$ 70.41
a) Total Project Expediting Cost		$1,828.71	
Total project man/days	(254)		
Expediting man/days	(21)		
Payroll distribution	1046.01		
Room and board	347.20		
Telephone	235.50		
Total Project Expediting Cost		1,828.71	
b) Gravity Survey Expediting Cost		128.01	
Total project man/days	(254)		
Gravity survey man/days	(18)		
Total project expediting cost	1828.71		
Prorated gravity survey portion	(18/254)		
Gravity survey expediting cost		128.01	
c) Assessment Credit Portion of Gravity Survey Expediting Cost		70.41	
Total line miles			
Less line miles on >3 yr. old claims	12.1		
Assessment credit line miles	15.0		
Gravity Survey expediting cost	128.01		
Prorated allowable portion	(15.0/27.1)		
Assessment credit portion		70.41	
NORANDA ASSESSMENT CREDIT GRAVITY SURVEY EXPEDITING			70.41
2. CONTRACTOR GRAVITY SURVEY EXPEDITING COST			291.68
a) Total Project Expediting Cost		1,828.71	
As per 1 a)		1,828.71	
b) Gravity Survey Expediting Cost		530.33	
Project man/days incl. contractors	(359)		
Gravity Survey man/days	(105)		
Total project expediting cost	1828.71		
Prorated gravity survey portion	(105/359)		
Gravity survey expediting cost		530.33	
c) Assessment Credit Portion of Gravity Survey Expediting Cost		291.68	
Total line miles	27.1		
Less line miles on >3 yr. old claims	12.1		
Assessment credit line miles	15.0		
Gravity Survey expediting cost	530.33		
Prorated allowable portion	(15.0/27.1)		
Assessment credit portion		291.68	
CONTRACTOR ASSESSMENT CREDIT GRAVITY SURVEY EXPEDITING COSTS			291.68
TOTAL ASSESSMENT CREDIT GRAVITY SURVEY EXPEDITING COST			$362.09

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NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX E - MISCELLANEOUS COST

TOTAL ASSESSMENT CREDIT GRAVITY SURVEY MISCELLANEOUS COST $274.55

1. NORANDA GRAVITY SURVEY MISCELLANEOUS COST $132.10

a) Total Gravity Survey Miscellaneous Cost $240.18

C. Lee	$161.74
C.N. Telecommunications	32.90
Superior Reproductions	45.54

Total Gravity Survey Miscellaneous Cost 240.18

b) Assessment Credit Portion of Gravity Survey Miscellaneous Cost 132.10

Total line miles	27.1
Less line miles on >3 yr. old claims	12.1
Assessment credit line miles	15.0
Gravity survey miscellaneous cost	$240.18
Prorated allowable portion	(15.0/27.1)
Assessment credit portion	132.10

NORANDA GRAVITY SURVEY MISCELLANEOUS COST $132.10

2. CONTRACTOR GRAVITY SURVEY MISCELLANEOUS COST 142.45

a) Total Gravity Survey Miscellaneous Cost 259.00

As per invoice 259.00

Total Gravity Survey Miscellaneous Cost 259.00

b) Assessment Credit Portion of Gravity Survey Miscellaneous Cost 142.45

Total line miles	27.1
Less line miles on >3 yr. old claims	12.1
Assessment credit line miles	15.0
Gravity survey miscellaneous cost	259.00
Prorated allowable portion	(15.0/27.1)
Assessment credit portion	142.45

CONTRACTOR GRAVITY SURVEY MISCELLANEOUS COST 142.45

TOTAL ASSESSMENT CREDIT GRAVITY MISCELLANEOUS COST $274.55

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NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX F - RENTAL COST

TOTAL ASSESSMENT CREDIT GRAVITY SURVEY RENTAL COST		$ .00
1. NORANDA GRAVITY SURVEY RENTAL COST	$ .00	
2. CONTRACTOR GRAVITY SURVEY RENTAL COST	$ .00	
TOTAL ASSESSMENT CREDIT GRAVITY SURVEY RENTAL COST		$ .00

PART 3

STATEMENT OF COSTS - VLF/CEM SURVEY

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

STATEMENT OF COSTS - VLF/CEM SURVEY

The following is a cost break down summary of the allowable portion of exploratory work (VLF/CEM survey) performed during the periods June 18-30 and July 1-2 and 12-19, 1976 on the SOUTH NAHANNI, M, QTZ and STRAT claim groups, Watson Lake Mining Division. Refer to accompanying Claim/Grid Map, 1"-500', Quartz Lake Project.

Application for Assessment Credit is based upon:

Total line miles surveyed by Noranda	63.7		
Less line miles on > 3 year old claims	34.5		
Assessment credit line miles		29.2	
TOTAL ASSESSMENT CREDIT VLF/CEM SURVEY COSTS			$2,907.92

1.	VLF/CEM Survey Labour Cost (Appendix A)		$ 996.27	
	a) Noranda	$ 996.27		
	b) Contractor	$ 0.00		
	Total VLF/CEM Survey Labour Cost		$ 996.27	
2.	VLF/CEM Survey Field Cost (Appendix B)		$ 103.45	
	a) Noranda	$ 103.45		
	b) Contractor	$ 0.00		
	Total VLF/CEM Survey Field Cost		$ 103.45	
3.	VLF/CEM Survey Transportation Cost (Appendix C)		$1,288.39	
	a) Noranda	$1,288.39		
	b) Contractor	$ 0.00		
	Total VLF/CEM Survey Transportation Cost		$1,288.39	
4.	VLF/CEM Survey Expediting Cost (Appendix D)		$ 176.65	
	a) Noranda	$ 176.65		
	b) Contractor	$ 0.00		
	Total VLF/CEM Survey Expediting Cost		$ 176.65	
5.	VLF/CEM Survey Miscellaneous Cost (Appendix E)		$ 94.76	
	a) Noranda	$ 94.76		
	b) Contractor	$ 0.00		
	Total VLF/CEM Survey Miscellaneous Cost		$ 94.76	
6.	VLF/CEM Survey Rental Cost (Appendix F)		$ 248.40	
	a) Noranda	$ 248.40		
	b) Contractor	$ 0.00		
	Total VLF/CEM Survey Rental Cost		$ 248.40	
	TOTAL ASSESSMENT CREDIT VLF/CEM SURVEY COSTS			$2,907.92

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NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX A - LABOUR COST

TOTAL ASSESSMENT CREDIT VLF/CEM SURVEY LABOUR COST $996.27

1. NORANDA VLF/CEM SURVEY LABOUR COST $ 996.27

a) Total Project Labour Cost $10,579.10

Project man days	(254)	
Payroll distribution		$10,579.10

b) VLF/CEM Survey Labour Cost $ 2,165.80

Project man/days	(254)	
Project labour cost	$10,579.10	
Cost per man/day	41.65	
VLF/CEM survey man/days	(52)	
VLF/CEM survey labour cost		2,165.80

c) Assessment Credit Portion of VLF/CEM Survey Labour Cost 996.27

Total line miles	63.7	
Less line miles on >3yr old claims	34.5	
Assessment credit line miles	29.2	
VLF/CEM survey labour cost	$2,165.80	
Prorated allowable portion	(29.2/63.7)	
Assessment credit portion		996.27

NORANDA ASSESSMENT CREDIT VLF/CEM SURVEY LABOUR COST $ 996.27

2. CONTRACTOR VLF/CEM LABOUR COST $ .00

TOTAL ASSESSMENT CREDIT VLF/CEM SURVEY LABOUR COST 996.27

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NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX B - FIELD COST

TOTAL ASSESSMENT CREDIT VLF/CEM SURVEY FIELD COST $103.45

1. NORANDA VLF/CEM SURVEY FIELD COST $103.45

a) Total VLF/CEM Survey Field Cost $224.88

Jones Tent and Awning	$ 25.60
Belvedere Motor Hotel	62.75
Thompson's Yukon Foods	25.40
Thompson's Yukon Foods	45.73
White Pass Petroleum	8.97
White Pass Petroleum	16.25
Camp Ground Services Ltd.	10.80
Camp Ground Services Ltd.	5.00
Thompson's Yukon Foods	24.30
Total VLF/CEM Survey Field Cost	224.88

b) Assessment Credit Portion of VLF/CEM Survey Field Cost 103.45

Total line miles	63.7
Less line miles on>3 yr. old claims	34.5
Assessment credit line miles	29.2
VLF/CEM field cost	$224.88
Prorated allowable portion	(29.2/63.7)
Assessment credit portion	103.45

NORANDA ASSESSMENT CREDIT VLF/CEM SURVEY FIELD COST $103.45

2. CONTRACTOR VLF/CEM SURVEY FIELD COST .00

TOTAL ASSESSMENT CREDIT VLF/CEM SURVEY FIELD COST $103.45

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NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX C - TRANSPORTATION COST

TOTAL ASSESSMENT CREDIT VLF/CEM SURVEY TRANSPORTATION COST			$1,288.39
1. NORANDA VLF/CEM SURVEY TRANSPORTATION COST			$1,288.39
a) Fixed Wing Transportation Cost		$ 719.20	
Average cost per mile *	$ 1.00		
VLF/CEM Survey Fixed Wing miles B.C.-Yukon Air Service Ltd.	(719.2)		
Fixed Wing transportation Cost		719.20	
b) Helicopter Transportation Cost		1,980.09	
Average cost per hr. *	335.04		
VLF/CEM Survey helicopter hrs. Frontier Helicopters Ltd. Highland Helicopters Ltd.	(5.91)		
Helicopter transportation cost		1,980.09	
c) Misc. Transportation Cost		101.55	
C.P. Airlines	101.55		
Misc. Transportation Cost		101.55	
d) Assessment Credit Portion of VLF/CEM Survey Transportation Cost		1,288.39	
Total line miles	63.7		
Less line miles on >3 yr. old claims	34.5		
Assessment credit line miles	29.2		
VLF/CEM survey transportation cost	2800.84		
Prorated allowable portion	(29.2/63.7)		
Assessment credit portion		1,288.39	
NORANDA VLF/CEM SURVEY TRANSPORTATION COST			1,288.39
2. CONTRACTOR VLF/CEM SURVEY TRANSPORTATION COST			.00
TOTAL ASSESSMENT CREDT VLF/CEM SURVEY TRANSPORTATION COST			$1,288.39

APPENDIX C_1 - TRANSPORTATION *

1. FLYING CHARGES

a) Fixed Wing Average Cost Per Mile		$ 1.00
Total project flying miles	(1259.4)	
Total Flying cost	1183.19	
Average cost per mile		1.00
b) Helicopter Average Cost Per Hr.		335.04
Total project flying hrs.	(21.58)	
Total flying cost	7230.13	
Average cost per hr.		335.04

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NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX D - EXPEDITING COST

TOTAL ASSESSMENT CREDIT VLF/CEM SURVEY EXPEDITING COST			$176.65
1. NORANDA VLF/CEM SURVEY EXPEDITING COST			$176.65
a) Total Project Expediting Cost		$1,828.71	
Total project man/days	(254)		
Expediting man/days	(21)		
Payroll distribution	1046.01		
Room and Board	347.20		
Telephone	235.50		
Total Project Expediting Cost		1,828.71	
b) VLF/CEM Survey Expediting Cost		384.03	
Total project man/days	(254)		
VLF/CEM survey man/days	(52)		
Total project expediting cost	1828.71		
Prorated VLF/CEM survey portion	(52/254)		
VLF/CEM survey expediting cost		384.03	
c) Assessment Credit Portion of VLF/CEM Survey Expediting Cost		176.65	
Total line miles	63.7		
Less line miles on >3 yr. old claims	34.5		
Assessment credit line miles	29.2		
VLF/CEM survey expediting cost	384.03		
Prorated allowable portion	(29.2/63.7)		
Assessment credit portion		176.65	
NORANDA ASSESSMENT CREDIT VLF/CEM SURVEY EXPEDITING			176.65
2. CONTRACTOR VLF/CEM SURVEY EXPEDITING COST			.00
TOTAL ASSESSMENT CREDIT VLF/CEM SURVEY EXPEDITING COST			$176.65

August 1976 95D/12

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX E - MISCELLANEOUS COST

TOTAL ASSESSMENT CREDIT VLF/CEM SURVEY MISCELLANEOUS COST			$94.76
1. NORANDA VLF/CEM SURVEY MISCELLANEOUS COST			$94.76
a) Total VLF/CEM Survey Miscellaneous Cost		$206.00	
L.C. Bradish	16.89		
J. Helkenberg	61.27		
C. Lee	77.41		
M. Vetterli	8.00		
Vancal Reproductions Ltd.	42.43		
Total VLF/CEM Survey Miscellaneous Cost		206.00	
b) Assessment Credit Portion of VLF/CEM Survey Miscellaneous Cost		94.76	
Total line miles	63.7		
Less line miles on >3 yr. old claims	34.5		
Assessment credit line miles	29.2		
VLF/CEM survey miscellaneous cost	206.00		
Prorated allowable portion	(29.2/63.7)		
Assessment credit portion		94.76	
NORANDA VLF/CEM SURVEY MISCELLANEOUS COST			$94.76
2. CONTRACTOR VLF/CEM SURVEY MISCELLANEOUS COST			.00
TOTAL ASSESSMENT CREDIT VLF/CEM SURVEY MISCELLANEOUS COST			$94.76

August 1976 95D/12

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX F - RENTAL COST

TOTAL ASSESSMENT CREDIT VLF/CEM SURVEY RENTAL COST				$248.40
1. NORANDA VLF/CEM SURVEY RENTAL COST			$248.40	
a) Total VLF/CEM Survey Rental Cost		$540.00		
Crone Geophysics Ltd.	$425.00			
Noranda Exploration Co. Ltd.	115.00			
Total VLF/CEM Survey Rental Cost		540.00		
b) Assessment Credit Portion of VLF/CEM Survey Rental Cost		248.40		
Total line miles	63.7			
Less line miles on >3yr. old claims	34.5			
Assessment credit line miles	29.2			
VLF/CEM survey rental cost	$540.00			
Prorated allowable portion	(29.2/63.7)			
Assessment credit portion		248.40		
NORANDA ASSESSMENT CREDIT VLF/CEM SURVEY RENTAL COST			248.40	
2. CONTRACTOR VLF/CEM SURVEY RENTAL COST			.00	
TOTAL ASSESSMENT CREDIT VLF/CEM SURVEY RENTAL COST				$248.40

PART 4

STATEMENT OF COSTS - GEOCHEM SURVEY

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

STATEMENT OF COSTS - GEOCHEM SURVEY

The following is a cost break down summary of the allowable portion of exploratory work (Geochem survey) performed during the periods June 18-27, July 11 and July 13-17, 1976 on the SOUTH NAHANNI, M, QTZ and STRAT claim groups, Watson Lake Mining Division. Refer to accompanying Claim/Grid Map, 1"-500', Quartz Lake Project.

Application for Assessment Credit is based upon:

Total line miles surveyed by Noranda	23.9	
Less line miles on >3 year old claims	10.5	
Assessment credit line miles		13.4

TOTAL ASSESSMENT CREDIT GEOCHEM SURVEY COSTS			$2,320.71
1. Geochem Survey Labour Cost (Appendix A)		$699.72	
a) Noranda	$699.72		
b) Contractor	$ 0.00		
Total Geochem Survey Labour Cost		$699.72	
2. Geochem Survey Field Cost (Appendix B)		$879.97	
a) Noranda	$879.97		
b) Contractor	$ 0.00		
Total Geochem Survey Field Cost		$879.97	
3. Geochem Survey Transportation Cost (Appendix C)		$486.74	
a) Noranda	$486.74		
b) Contractor	$ 0.00		
Total Geochem Survey Transportation Cost		$486.74	
4. Geochem Survey Expediting Cost (Appendix D)		$122.89	
a) Noranda	$122.89		
b) Contractor	$ 0.00		
Total Geochem Survey Expediting Cost		$122.89	
5. Geochem Survey Miscellaneous Cost (Appendix E)		$131.49	
a) Noranda	$131.49		
b) Contractor	$ 0.00		
Total Geochem Survey Miscellaneous Cost		$131.49	
6. Geochem Survey Rental Cost (Appendix F)		$ 0.00	
a) Noranda	$ 0.00		
b) Contractor	$ 0.00		
Total Geochem Survey Rental Cost		$ 0.00	
TOTAL ASSESSMENT CREDIT GEOCHEM SURVEY COSTS			$2,320.71

August 1976 95D/12

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX A - LABOUR COST

TOTAL ASSESSMENT CREDIT GEOCHEM SURVEY LABOUR COST			$699.72
1. NORANDA GEOCHEM SURVEY LABOUR COST			$699.72
a) Total Project Labour Cost		$10,579.10	
Project man/days	(254)		
Payroll distribution		10.579.10	
b) Geochem Survey Labour Cost		1,249.50	
Project man/days	(254)		
Project labour cost	$10,579.10		
Cost per man/day	41.65		
Geochem survey man/days	(30)		
Geochem survey labour cost		1,249.50	
c) Assessment Credit Portion of Geochem Survey Labour Cost		699.72	
Total line miles	23.9		
Less line miles on >3yr. old claims	10.5		
Assessment credit line miles	13.4		
Geochem survey labour cost	1,249.50		
Prorated allowable portion	(13.4/23.9)		
Assessment credit portion		$ 699.72	
NORANDA ASSESSMENT CREDIT GEOCHEM SURVEY LABOUR COST			$699.72
2. CONTRACTOR GEOCHEM SURVEY LABOUR COST			$ .00
TOTAL ASSESSMENT CREDIT GEOCHEM SURVEY LABOUR COST			$699.72

August 1976 95D/12

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX B - FIELD COST

TOTAL ASSESSMENT CREDIT GEOCHEM SURVEY FIELD COST			$879.97
1. NORANDA GEOCHEM SURVEY FIELD COST			$879.97
a) Total Geochem Survey Field Cost		$1,571.37	
La Varah Ltd.	$ 18.00		
La Varah Ltd.	17.96		
Jack Ross Electronics Ltd.	25.00		
Western Technical Supply	81.37		
Royal Printers and Stationers	75.76		
Thompson's Yukon Foods	242.35		
Horwood's Office Supply	19.98		
Canadian Propane	123.40		
Belvedere Motor Hotel	108.40		
Royal Printers and Stationers	15.00		
Camp ground Services Ltd.	647.99		
Camp ground Services Ltd.	24.47		
Thompson's Yukon Foods	35.56		
Thompson's Yukon Foods	83.82		
White Pass Petroleum	12.56		
White Pass Petroleum	29.60		
Camp ground Services Ltd.	5.00		
Canadian Propane	5.15		
Total Geochem Survey Field Cost		1,571.37	
b) Assessment Credit Portion of Geochem Survey Field Cost		879.97	
Total line miles	23.9		
Less line miles on >3 yr. old claims	10.5		
Assessment credit line miles	13.4		
Geochem survey field cost	1,571.37		
Prorated allowable portion	(13.4/23.9)		
Assessment credit portion		879.97	
NORANDA ASSESSMENT CREDIT GEOCHEM SURVEY FIELD COST			879.97
2. CONTRACTOR GEOCHEM SURVEY FIELD COST			.00
TOTAL ASSESSMENT CREDIT GEOCHEM SURVEY FIELD COST			$879.97

August 1976 95D/12

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX C - TRANSPORTATION COST

TOTAL ASSESSMENT CREDIT GEOCHEM SURVEY TRANSPORTATION COST			$486.74
1. NORANDA GEOCHEM SURVEY TRANSPORTATION COST			$486.74
a) Fixed Wing Transportation Cost		$167.20	
Average cost per mile *	$ 1.00		
Geochem survey Fixed Wing miles B.C.-Yukon Air Service Ltd.			
Fixed Wing transportation Cost		167.20	
b) Helicopter Transportation Cost		649.98	
Average cost per hr. *	335.04		
Geochem survey helicopter hrs. Frontier Helicopters Ltd. Highland helicopters Ltd.	(1.94)		
Helicopter transportation cost		649.98	
c) Misc. Transportation Cost		52.00	
C.P. Airlines	$ 52.00		
Misc. Transportation Cost		52.00	
d) Assessment Credit Portion of Geochem Transportation Cost		486.74	
Total line miles	23.9		
Less line miles on >3 yr. old claims	10.5		
Assessment credit line miles	13.4		
Geochem transportation cost	$869.18		
Prorated allowable portion	(13.4/23.9)		
Assessment credit portion		486.74	
NORANDA GEOCHEM SURVEY TRANSPORTATION COST			$486.74
2. CONTRACTOR GEOCHEM SURVEY TRANSPORTATION COST			.00
TOTAL ASSESSMENT CREDIT GEOCHEM SURVEY TRANSPORTATION COST			$486.74

APPENDIX C_1 - TRANSPORTATION *

1. FLYING CHARGES

a) Fixed Wing Average Cost Per Mile		$ 1.00
Total project flying miles	(1259.4)	
Total Flying cost	1183.19	
Average cost per mile		1.00
b) Helicopter Average Cost Per Hr.		335.04
Total project flying hrs.	(21.58)	
Total flying cost	7230.13	
Average cost per hr.		335.04

August 1976 950/12

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX D - EXPEDITING COST

TOTAL ASSESSMENT CREDIT GEOCHEM SURVEY EXPEDITING COST				$122.89
1. NORANDA GEOCHEM SURVEY EXPEDITING COST			$122.89	
a) Total Project Expediting Cost		$1,828.71		
Total project man/days	(254)			
Expediting man/days	(21)			
Payroll distribution	1046.01			
Room and Board	347.20			
Telephone	235.50			
Total Project Expediting Cost		1,828.71		
b) Geochem Survey Expediting Cost		219.45		
Total project man/days	(254)			
Geochem Survey man/days	(30)			
Total project expediting cost	1828.71			
Prorated Geochem Survey portion	(30/254)			
Geochem Survey expediting cost		219.45		
c) Assessment Credit Portion of Geochem Survey Expediting Cost		122.89		
Total line miles	23.9			
Less line miles on >3 yr. old claims	10.5			
Assessment credit line miles	13.4			
Geochem survey expediting cost	219.45			
Prorated allowable portion	(13.4/23.9)			
Assessment credit portion		122.89		
NORANDA ASSESSMENT CREDIT GEOCHEM SURVEY EXPEDITING			$122.89	
2. CONTRACTOR GEOCHEM SURVEY EXPEDITING COST			.00	
TOTAL ASSESSMENT CREDIT GEOCHEM SURVEY EXPEDITING COST				$122.89

August 1976 95D/12

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX E - MISCELLANEOUS COST

TOTAL ASSESSMENT CREDIT GEOCHEM SURVEY MISSCELLANEOUS COST			$131.39
1. NORANDA GEOCHEM SURVEY MISCELLANEOUS COST			$131.49
a) Total Geochem Survey Miscellaneous Cost		$234.81	
C. Lee	$ 99.74		
Ross Electronics Ltd.	120.00		
Vancal Reproductions	15.10		
Total Geochem Survey Miscellaneous Cost		234.81	
b) Assessment Credit Portion of Geochem Survey Miscellaneous Cost		131.49	
Total line miles	23.9		
Less line miles on >3 yr. old claims	10.5		
Assessment credit line miles	13.4		
Geochem survey miscellaneous cost	234.81		
Prorated allowable portion	(13.4/23.9)		
Assessment credit portion		131.49	
NORANDA GEOCHEM SURVEY MISCELLANEOUS COST			$131.49
2. CONTRACTOR GEOCHEM SURVEY MISCELLANEOUS COST			.00
TOTAL ASSESSMENT CREDIT GEOCHEM SURVEY MISCELLANEOUS COST			$131.49

August 1976 95D/12

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT

APPENDIX F - RENTAL COST

TOTAL ASSESSMENT CREDIT GEOCHEM SURVEY RENTAL COST		$ .00
1. NORANDA GEOCHEM SURVEY RENTAL COST	$ .00	
2. CONTRACTOR GEOCHEM SURVEY RENTAL COST	$ .00	
TOTAL ASSESSMENT CREDIT GEOCHEM SURVEY RENTAL COST		$ .00

DISTRIBUTION OF PROJECT MAN/DAYS

QUARTZ LAKE/MCMILLAN OPTION

PROJECT 912/914

DISTRIBUTION OF MANDAYS

NAME	TYPE OF WORK	NO. OF DAYS	DATES
AYER	Geology	25	May 24-31 June 1-17
	Geochem	12	June 18-29
BRISE	Line Cutting	20	June 4-8, 10-18, 20-23 July 12, 18
	Geology	19	May 24-31 June 1-3,9,19,24,26,28-29
	Geochem	3	June 27 July 16-17
	Gravity	17	June 28-30 July 1-11, 13-15
CURRELLY	Cook	37	June 5-30 July 1-5, 14-18
HELKENBERG	CEM/VLF	23	June 18-30 July 1-2, 12-19
LARSSEN	Geology	21	May 29-31 June 1-17, 23
	Geochem	9	June 18-22,24-27
McANDLESS	Line Cutting	2	July 12, 18
	Geology	37	May 29-31 June 1-24 July 5-11, 16-17, 19
	Geochem	4	July 11, 13-15
VETTERLI	CEM/VLF	23	June 18-30 July 1-2, 12-19
WALKER	CEM/VLF	2	July 17-18

	TOTAL MAN/DAYS	254
LINE CUTTING	PORTION OF MAN/DAYS	24
GEOCHEM	PORTION OF MAN/DAYS	30
GRAVITY	PORTION OF MAN/DAYS	18
CEM/VLF	PORTION OF MAN/DAYS	52

CONTRACT AGREEMENTS - LINE CUTTING

- GRAVITY SURVEY

JUL 0 2 1976

AGREEMENT

BETWEEN : D.H. WAUGH AND ASSOCIATES LTD.
Rm. 10 Airport Terminal
Whitehorse, Yukon

AND : NORANDA EXPLORATION COMPANY, LIMITED (NO PERSONAL LIABILIT
P.O. Box 3380
Vancouver, B.C. V6B 3T5

WHERE AS D.H. WAUGH AND ASSOCIATES LTD (called the CONRACTOR) will provide line cutting services on behalf of NORANDA EXPLORATION COMPANY, LIMITED (NO PERSONAL LIABILITY) (called the COMPANY) on the SOUTH NAHANNI, QTZ, DOROTHY, M, and STRAT claim groups, claim sheet number 95 D/12, Watson Lake, Mining Division, Under the following terms of AGREEMENT;

1. The CONTRACTOR will be responsible for;

a. Workmen's Compensation for personnal ~~his~~ employed by the CONTRACTOR

1. b. Necessary personnel
   c. Necessary equipment including chain saws, topofil, axes, compasses and flagging

2. The COMPANY will be repsonsible for;

   a. Transportation from Whitehorse to job site and return.
   b. Room and board on the job site
   c. Chain saw gas and oil
   d. Camp equipment and supplies

3. The contract rate will be set at One Hundred and Fifty dollars (150^{00}) per line mile cut.

DATED ~~this~~ May 25th, 1976 at Whitehorse, Yukon.

D. H. WAUGH AND ASSOCIATES LTD.

Representative: _____

NORANDA EXPLORATION COMPANY LIMITED (NO PERSONAL LIABILITY)

Representative: _____

AGREEMENT

BETWEEN : W. J. SHARPE AND ASSOCIATES LTD.
908 - 330 Bay Street
Toronto, Ontario

AND : NORANDA EXPLORATION COMPANY, LIMITED (NO PERSONAL LIABILITY)
P.O. Box 2380
Vancouver, B.C. V6B 3T5

WHEREAS W. J. SHARPE AND ASSOCIATES LTD. (called the CONTRACTOR) will provide a gravity survey on behalf of NORANDA EXPLORATION COMPANY, LIMITED (NO PERSONAL LIABILITY) (called the COMPANY) on the SOUTH NAHANNI, QTZ, DOROTHY, M and STRAT claim groups, claim sheet number 95 D/12, Watson Lake Mining Division under the following terms of AGREEMENT;

1. The CONTRACTOR will ~~provide~~ be responsible for;

a. Workmen's Compensation for personnel employed by the CONTRACTOR

1. b. The necessary personnel
c. The necessary equipment to perform the gravity survey.

2. The COMPANY will be responsible for;

a. Transportation from Toronto to job site and return.
b. Room and board during the job.

3. The contract rate will be set at Two Hundred and Twenty-five dollars (225^{00}) per day.

DATED June 15th, 1976 at Watson Lake, Yukon.

W. J. SHARPE AND ASSOCIATES LTD.

Representative:

NORANDA EXPLORATION COMPANY LIMITED (NO PERSONAL LIABILITY)

Representative:

STRAT 93 STRAT 94 STRAT 95 STRAT 96
STRAT 91 STRAT 92 STRAT 39 STRAT 40 STRAT 18 STRAT 17 STRAT 15 STRAT 16 STRAT 7 STRAT 8
STRAT 89 STRAT 90 STRAT 37 STRAT 38 STRAT 20 STRAT 19 STRAT 13 STRAT 14 STRAT 5 STRAT 6
STRAT 87 STRAT 88 STRAT 35 STRAT 36 STRAT 22 STRAT 21 STRAT 11 STRAT 12 STRAT 3 STRAT 4
STRAT 85 STRAT 86 STRAT 33 STRAT 34 STRAT 24 STRAT 23 STRAT 9 STRAT 10 STRAT 1 STRAT 2
STRAT 83 STRAT 84 STRAT 82 STRAT 81 STRAT 26 STRAT 25 SN 47 SN 15 SN 16 SN 17
STRAT 28 STRAT 27 SN 10 SN 2 SN 1 SN 11 SN 18 SN 19 SN 30 SN 31
STRAT 30 STRAT 29 SN 9 SN 4 SN 3 SN 12 SN 20 SN 21 SN 24 SN 25 SN 28
STRAT 32 STRAT 31 SN 8 SN 5 SN 13 SN 22 SN 23 SN 27 SN 26 SN 29
SN 41 SN 7 SN 6 SN 14 SN 34 SN 35 SN 38 SN 39
SN 50 SN 49 SN 48 SN 32 SN 33 SN 36 SN 37 SN 40
M 21 M 19 M 17 M 7 QTZ 1 QTZ 2 STRAT 42 STRAT 41
M 22 M 20 M 18 M 8 QTZ 3 QTZ 4 STRAT 44 STRAT 43
M 29 M 27 M 25 M 23 M 31 QTZ 5 QTZ 6 STRAT 46 STRAT 45
M 30 M 28 M 26 M 24 M 32 QTZ 7 QTZ 8 STRAT 48 STRAT 47 STRAT 71 STRAT 72
M 33 M 34 STRAT 63 STRAT 64 STRAT 56 STRAT 55 STRAT 50 STRAT 49 STRAT 69 STRAT 70
M 35 M 36 FORT 52 STRAT 62 STRAT 58 STRAT 57 STRAT 52 STRAT 51 STRAT 67 STRAT 68
M 37 M 38 FORT 54 STRAT 61 STRAT 60 STRAT 59 STRAT 54 STRAT 53 STRAT 65 STRAT 66
STRAT 79 STRAT 78 STRAT 73 STRAT 74
STRAT 76 STRAT 75
STRAT 77

PIC 2 Fr
PIC 3 Fr
W.H.I. 3 Fr.
PIC 1 Fr.

MEAHAN
NORANDA
LAKE
QUARTZ
LAKE
QUARTZ CREEK
PINK CREEK
DOROTHY

REVISED
NOV., 1975

QUARTZ LAKE PROJECT

CLAIM MAP

PROJ No 912
N.T.S. 95 D/12
DWG No

SURVEY BY
DRAWN BY JAN VAN VOORST
DATE MAY 1975
SCALE 1" = 1000'

NORANDA EXPLORATION
OFFICE VANCOUVER

STRAT 93 | STRAT 94 | STRAT 95 | STRAT 96

STRAT 91 | STRAT 92 | STRAT 39 | STRAT 40 | STRAT 18 | STRAT 17 | STRAT 15 | STRAT 16 | STRAT 7 | STRAT 8

STRAT 89 | STRAT 90 | STRAT 37 | STRAT 38 | STRAT 20 | STRAT 19 | STRAT 13 | STRAT 14 | STRAT 5 | STRAT 6

STRAT 87 | STRAT 88 | STRAT 35 | STRAT 36 | STRAT 22 | STRAT 21 | STRAT 12 | STRAT 3 | STRAT 4

STRAT 85 | STRAT 86 | STRAT 33 | STRAT 34 | STRAT 24 | STRAT 23 | STRAT 9 | STRAT 10 | STRAT 1 | STRAT 2

STRAT 83 | STRAT 84 | STRAT 82 | STRAT 81 | STRAT 26 | STRAT 25 | SN 47 | SN 15 | SN 16 | SN 17

STRAT 28 | STRAT 27 | SN 10 | SN 2 | SN 1 | SN 11 | SN 13 | SN 19 | SN 30 | SN 31

STRAT 30 | STRAT 29 | SN 9 | SN 4 | SN 3 | SN 12 | SN 20 | SN 21 | SN 24 | SN 25

STRAT 32 | STRAT 31 | SN 8 | SN 5 | SN 13 | SN 22 | SN 23 | SN 27 | SN 26

SN 7 | SN 6 | SN 14 | SN 34 | SN 35 | SN 38 | SN 39

M 08 W | M 09 W | M 10 W | M 15 W

BASE LINE

L 15 E | L 30 E | L 45 E | L 60 E

L 138 N | L 132 N | L 124 N | L 116 N | L 108 N | L 100 N | L 92 N | L 84 N | L 76 N | L 68 N | 60 N | 52 N | 44 N | 36 N | 28 N | 24 N

MEAHAN LAKE

Camp STRAT 11

DOROTHY

Camp

PIC 2 | PIC 3

NORANDA LAKE

Pyrite Creek

Pink Creek

LINE CUTTING (NORANDA/CONTRACTOR; NORANDA)

CLAIMS

LEASED

> 3 YEARS OLD

< 3 YEARS OLD

REVISED	QUARTZ LAKE PROJECT
	CUT GRID
	CLAIM MAP
PROJ No. 912, 914	SURVEY BY: DATE: JULY 1976
N.T.S. 95D/12	DRAWN BY: JAN VAN VOORST SCALE: 1" = 500'
DWG. No.	NORANDA EXPLORATION
	OFFICE:

SN 41 | SN 7 | SN 6 | SN 14 | SN 34 | SN 35 | SN 38 | SN 39

SN 50 | SN 49 | SN 48 | SN32 | SN 33 | SN 36 | SN 37 | SN 40

Pyrite Creek

Mine Creek

M 21 | M 19 | M 17 | M 7 | QTZ 1 | QTZ 2 | STRAT 42 | STRAT 41

M 22 | M 20 | M 18 | M 8 | QTZ 3 | QTZ 4 | STRAT 44 | STRAT 43

M 29 | M 27 | M 25 | M 23 | M 31 | QTZ 5 | QTZ 6 | STRAT 46 | STRAT 45

Camp

M 30 | M 28 | M 26 | M 24 | M 32 | QTZ 7 | QTZ 8 | STRAT 48 | STRAT 47 | STRAT 71

M 33 | M 34 | STRAT 63 | STRAT 64 | STRAT 56 | STRAT 55 | STRAT 50 | STRAT 49 | STRAT 69

M 35 | M 36 | STRAT 62 | STRAT 58 | STRAT 57 | STRAT 52 | STRAT 51 | STRAT 67

M 37 | M 38 | STRAT 61 | STRAT 60 | STRAT 59 | STRAT 54 | STRAT 53 | STRAT 65

BASE LINE

L 17 W

L 17 E

L 30 E

L 45 E

L 90 E

L 90 W

28 N
24 N
20 N
12 N
4 N
0
8 S
16 S
24 S
32 S
34 S
36 S
40 S
48 S
56 S
64 S

Line Cutting (Noranda/Contractors; Noranda)

Claims
Leased
> 3 years old
< 3 years old

REVISED	QUARTZ LAKE PROJECT
	CUT GRID
	CLAIM MAP
PROJ. No. 912, 914	SURVEY BY: DATE: JULY 1976
N.T.S. 950/12	DRAWN BY: JAN VAN VOORST SCALE: 1" = 500'
DWG. No.	NORANDA EXPLORATION
	OFFICE

NORANDA EXPLORATION COMPANY, LIMITED

(NO PERSONAL LIABILITY)

QUARTZ LAKE PROJECT (912)

WATSON LAKE MINING DIVISION

APPLICATION FOR ASSESSMENT CREDIT DEC./75

CONTENTS:

A. 1. Applications to Group Mineral Claims
2. Grouping Sketches (1" - 1000')
3. Grouping Map (1" - 1000') (in pocket)

B. 1. Applications for A Certificate of Work
2. Grid/Claim Map (1" - 500') (in pocket)

C. 1. Statutory Declaration of Costs for Line Cutting
2. Statement of Costs for Line Cutting
3. Appendix A - Line Cutting Labour Costs
4. Appendix B - Line Cutting Field Costs
5. Appendix C - Line Cutting Transportation Costs
6. Appendix D - Expediting Costs Line Cutting

D. 1. Gravity Report and Maps (separate)
2. Statutory Declaration of Costs for Gravity Survey
3. Statement of Costs for Gravity Survey
4. Appendix A - Gravity Labour Costs
5. Appendix B - Gravity Field Costs
6. Appendix C - Gravity Transportation Costs

E. 1. Supporting Vouchers

APPLICATIONS TO GROUP

MINERAL CLAIMS

APPLICATIONS FOR A CERTIFICATE OF WORK

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
Yukon Quartz Mining Act
APPLICATION TO GROUP MINERAL CLAIMS

RECEIVED
DEC 23 1975
MINING RECORDER
LAND AGENT
WATSON LAKE, Y.T.
I.A. & N.D.

OFFICE DATE STAMP

MINING DISTRICT Watson Lake

CLAIM SHEET NO. 95D/12

I(WE) THE UNDERSIGNED OWNER(S) OR AGENT(S) OF THE OWNER(S) OF THE FOLLOWING MINERAL CLAIMS

GRANT NUMBER(S)	CLAIM NAME(S)
Y72515	Pic 1 Fr
57465	South Nahanni 1
57466	South Nahanni 2
57550	South Nahanni 8
57551	South Nahanni 9
57552	South Nahanni 10
57553	South Nahanni 11
57554	South Nahanni 12
57555	South Nahanni 13
57556	South Nahanni 14
60054	South Nahanni 32
60063	South Nahanni 41
63343	South Nahanni 50
70364	M 17
70366	M 19
70368	M 21

* Above claims identified in attached sketch as red.

GIVE NOTICE OF INTENTION TO GROUP THE SAID CLAIMS FOR THE PERFORMANCE OF WORK AND DO HEREBY APPLY UNDER THE PROVISIONS OF SECTION 52 OF THE YUKON QUARTZ MINING ACT FOR A CERTIFICATE IN FORM "E"

I(WE) HEREBY CERTIFY THAT THE ABOVE CLAIMS ARE ADJOINING AS SHOWN ON ATTACHED SKETCH

DATED AT Whitehorse

THIS 19th DAY OF December 1975

P M McAndless

P.M. McAndless, Agent for Noranda

Exploration Company, Limited

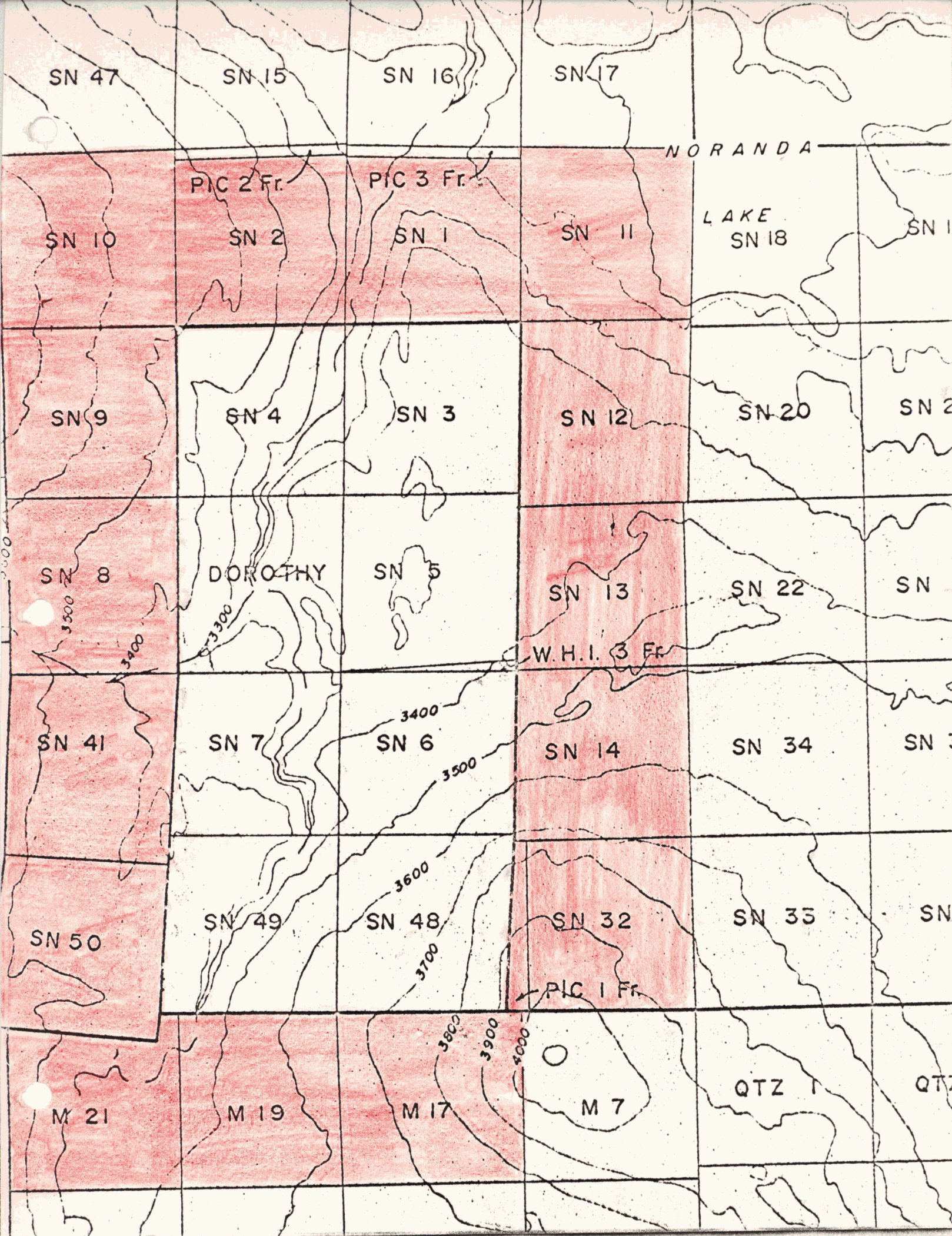
(NO PERSONAL LIABILITY)

FOR OFFICE USE ONLY.

FORM "E" NO. 1175

RECEIPT NO. 3338/86

DATE APPLIED: FEB 17 1976


SN 47
SN 15
SN 16
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NORANDA
PIC 2 Fr.
PIC 3 Fr.
SN 10
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LAKE
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DOROTHY
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W.H.I. 3 Fr.
SN 41
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SN 33
PIC 1 Fr.
3800
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4000
M 21
M 19
M 17
M 7
QTZ 1

Department of Indian Affairs and Northern Development

YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

(This form required in duplicate with sketch showing location of work.)

RECEIVED DEC 23 1975 MINING RECORDER LAND AGENT WATSON LAKE, Y.T. I.A. & N.D.

OFFICE DATE STAMP

I (Name) P. M. McAndless	Occupation Geologist
(Postal Address) P.O. Box 2380, Vancouver, B.C. V6B 3T5	

MAKE OATH AND SAY, THAT:-

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.

2. I have done, or caused to be done, wotk on the following mineral claim(s): .
(Here list claims on which work was actually done by number and name)

Y72515	Pic 1 Fr	70364	M 17
57465-66	South Nahanni 1-2	70366	M 19
57550-56	South Nahanni 8-14	70368	M 21
60054	South Nahanni 32		
60063	South Nahanni 41		
63343	South Nahanni 50		

situated at Quartz Lake Claim Sheet No. 95D/12

in the Watson Lake Mining District, to the value of at least $1100.00

dollars, since the 31st day of December 19 74,

to represent the following mineral claims under the authority of Grouping Certificate No. 1175
(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

Claim	Grant No.	Period	Assessment yrs.
Pic 1 Fr	Y72515	Dec.31/75-Dec.31/77	2
South Nahanni 41	60063	Dec.31/76-Dec.31/77	1
South Nahanni 50	63343	Dec.31/75-Dec.31/77	2
M 17	70364	Dec.31/75-Dec.31/77	2
M 19	70366	Dec.31/75-Dec.31/77	2
M 21	70368	Dec.31/75-Dec.31/77	2

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

Allowable portion of line cutting submitted as physical work (on claims not subject to section 53 (4) of the Quartz Mining Act) for the period June 1-6/75 and July 1-31/75 as per accompanying Grid/Claim Map and Statutory Declaration of Costs.

Total allowable Line Cutting Cost	-	$9,502.17
Less Amount applied to this Group	-	1,100.00
Balance to bring forward		$8,402.17

Sworn before me at Whitehorse

this 19th day of December 1975

Notary Public

P M McAndless

Applicant.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
Yukon Quartz Mining Act
APPLICATION TO GROUP MINERAL CLAIMS

RECEIVED
DEC 23 1975
MINING RECORDER
LAND AGENT
WATSON LAKE, Y.T.
I.A. & N.D.

OFFICE DATE STAMP

MINING DISTRICT Watson Lake

CLAIM SHEET NO. 95D/12

I(WE) THE UNDERSIGNED OWNER(S) OR AGENT(S) OF THE OWNER(S) OF THE FOLLOWING MINERAL CLAIMS

GRANT NUMBER(S)	CLAIM NAME(S)
Y72516	Pic 2 Fr
Y72517	Pic 3 Fr
57580	South Nahanni 15
57557	South Nahanni 16
57558	South Nahanni 17
57559	South Nahanni 18
57560	South Nahanni 19
57561	South Nahanni 20
57562	South Nahanni 21
57563	South Nahanni 22
57564	South Nahanni 23
60055	South Nahanni 33
60056	South Nahanni 34
60057	South Nahanni 35
60058	South Nahanni 36
60069	South Nahanni 47

* Above claims identified in attached sketch as orange .

GIVE NOTICE OF INTENTION TO GROUP THE SAID CLAIMS FOR THE PERFORMANCE OF WORK AND DO HEREBY APPLY UNDER THE PROVISIONS OF SECTION 52 OF THE YUKON QUARTZ MINING ACT FOR A CERTIFICATE IN FORM "E"

I(WE) HEREBY CERTIFY THAT THE ABOVE CLAIMS ARE ADJOINING AS SHOWN ON ATTACHED SKETCH

DATED AT Whitehorse

THIS 19th DAY OF December 1975

P M McAndless

P.M. McAndless, Agent for Noranda

Exploration Company, Limited

(NO PERSONAL LIABILITY)

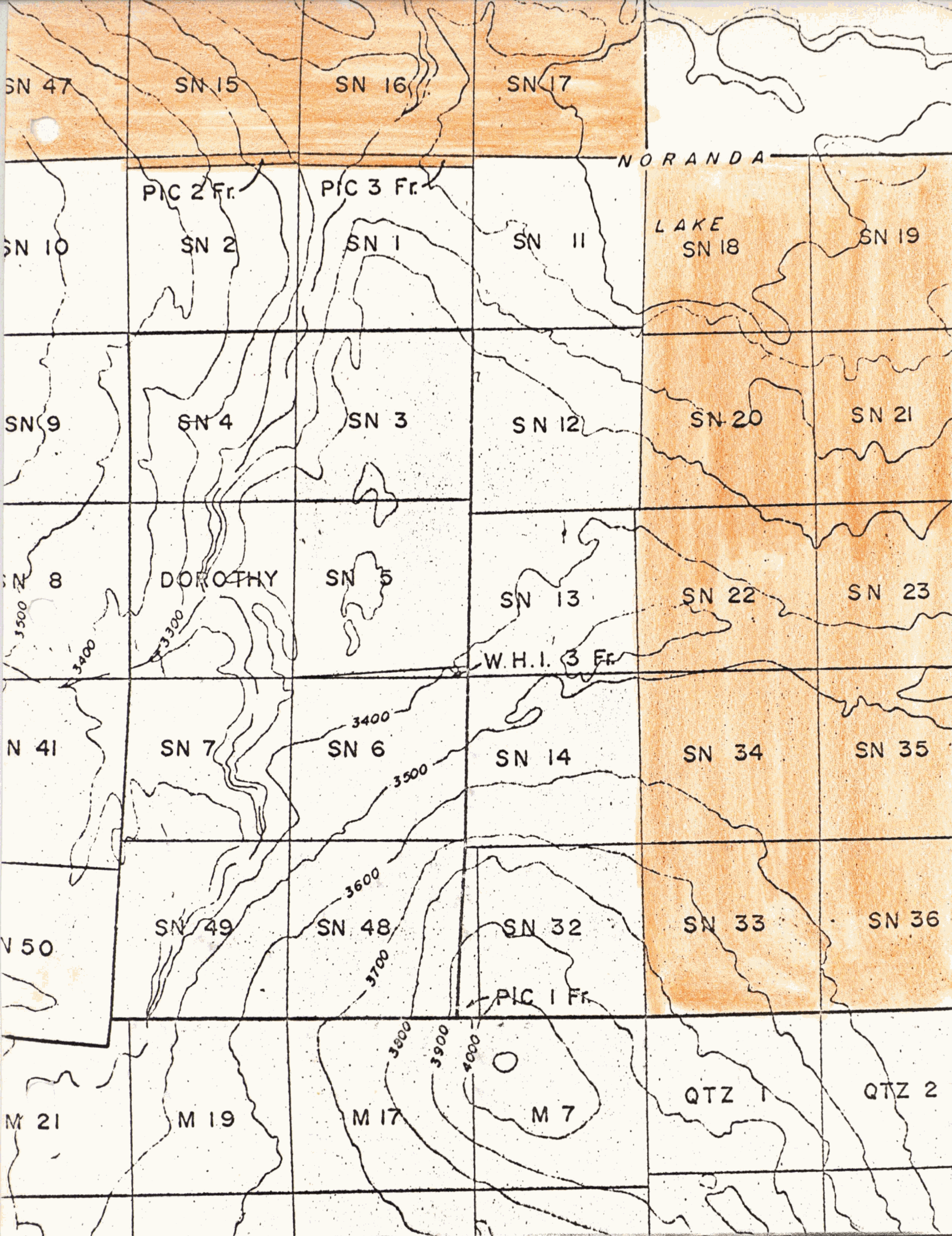
FOR OFFICE USE ONLY.

FORM "E" NO. 1176

RECEIPT NO. B338186

DATE APPLIED: FEB 17 1976

RO73


SN 47
SN 15
SN 16
SN 17
NORANDA
PIC 2 Fr.
PIC 3 Fr.
SN 10
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SN 11
LAKE
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SN 9
SN 4
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SN 21
SN 8
DOROTHY
SN 5
SN 13
SN 22
SN 23
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W.H.I. 3 Fr.
N 41
SN 7
SN 6
SN 14
SN 34
SN 35
3400
3500
3600
SN 49
SN 48
SN 32
SN 33
SN 36
N 50
3700
PIC 1 Fr.
3800
3900
4000
M 21
M 19
M 17
M 7
QTZ 1
QTZ 2

Department of Indian Affairs and Northern Development

YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

(This form required in duplicate with sketch showing location of work.)

RECEIVED
DEC 23 1975
MINING RECORDER
LAND AGENT
WATSON LAKE, Y.T.
I.A. & N.D.
OFFICE DATE STAMP

I (Name) P.M. McAndless Occupation Geologist

(Postal Address) P.O. Box 2380, Vancouver, B.C. V6B 3T5

MAKE OATH AND SAY, THAT:-

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.

2. I have done, or caused to be done, wotk on the following mineral claim(s):
(Here list claims on which work was actually done by number and name)

57559-64 South Nahanni 18-23
60055-58 South Nahanni 33-36

situated at Quartz Lake Claim Sheet No. 95D/12

in the Watson Lake Mining District, to the value of at least $1800.00

dollars, since the 31st day of December 19 74,

to represent the following mineral claims under the authority of Grouping Certificate No. 1176
(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

Claim	Grant No.	Period	Assessment yrs.
Pic 2 Fr	Y72516	Dec.31/75-Dec.31/77	2
Pic 3 Fr	Y72517	Dec.31/75-Dec.31/77	2
South Nahanni 19	57560	Dec.31/75-Dec.31/77	2
South Nahanni 22	57563	Dec.31/76-Dec.31/77	1
South Nahanni 23	57564	Dec.31/76-Dec.31/77	1
South Nahanni 33	60055	Dec.31/75-Dec.31/77	2
South Nahanni 34	60056	Dec.31/75-Dec.31/77	2
South Nahanni 35	60057	Dec.31/75-Dec.31/77	2
South Nahanni 36	60058	Dec.31/75-Dec.31/77	2
South Nahanni 47	60069	Dec.31/75-Dec.31/77	2

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

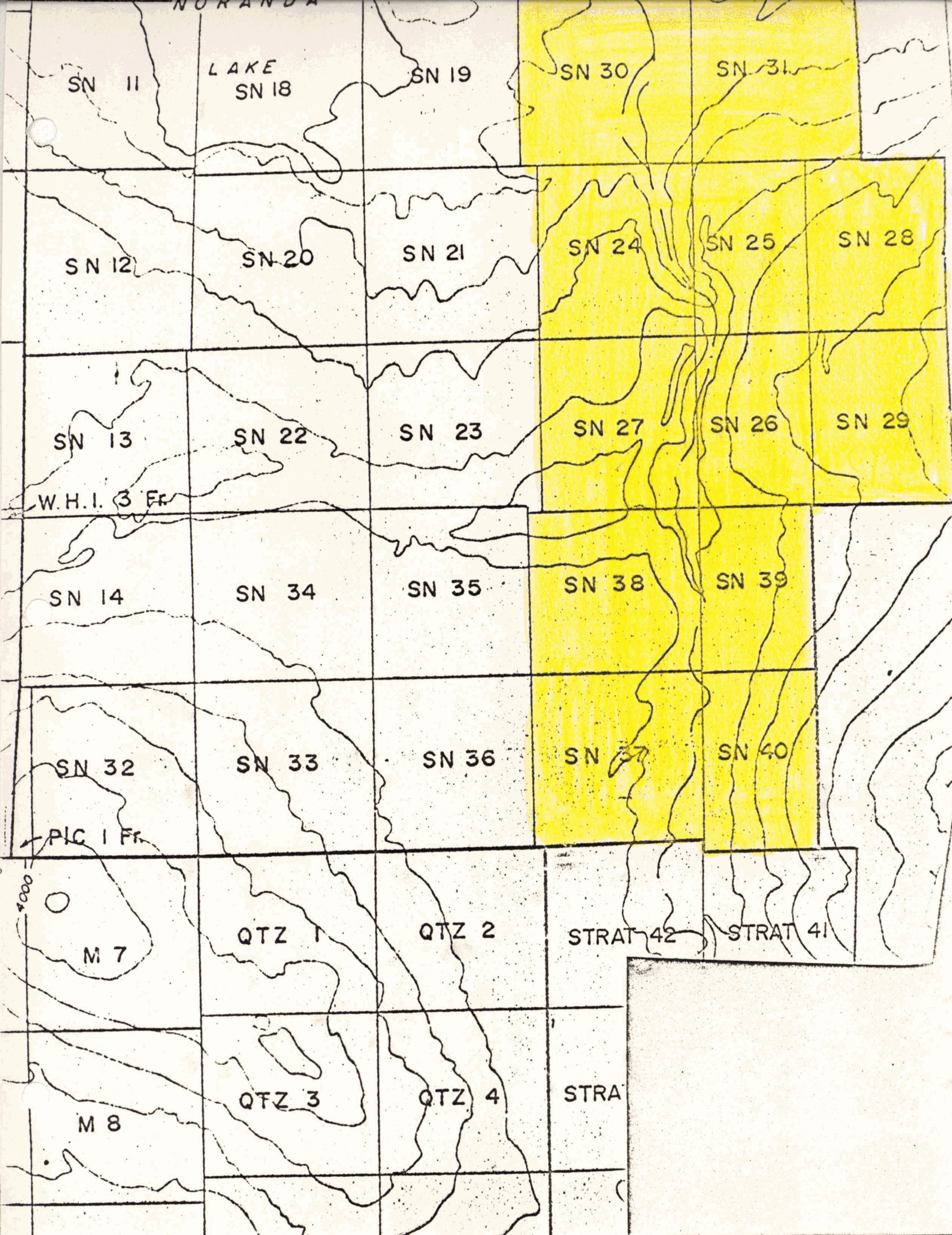
Allowable portion of line cutting submitted as physical work (on Claims not subject to Section 53 (4) of the Quartz Mining Act) for the period June 1-6/75 and July 1-31/75 as per accompanying Grid/Claim Map and Statutory Declaration of Costs.

Total Allowable Line Cutting Costs	- $9502.17	
Balance brought forward	-	$8402.17
Less: Amount applied to this Group	-	1800.00
Balance to bring forward		$6602.17

Sworn before me at Whitehorse
this 19th day of December 1975

Notary Public

P M McAndless
Applicant.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LAKE
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SN 19
SN 30
SN 31
SN 12
SN 20
SN 21
SN 24
SN 25
SN 28
SN 13
SN 22
SN 23
SN 27
SN 26
SN 29
W.H.I. 3 Fr.
SN 14
SN 34
SN 35
SN 38
SN 39
SN 32
SN 33
SN 36
SN 37
SN 40
PIC 1 Fr.
4000
M 7
QTZ 1
QTZ 2
STRAT 42
STRAT 41
M 8
QTZ 3
QTZ 4
STRA

Department of Indian Affairs and Northern Development

YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

(This form required in duplicate with sketch showing location of work.)

RECEIVED
DEC 22 1975
MINING RECORDER
LAND AGENT
WATSON LAKE, Y.T.
I.A. & N.D.
OFFICE DATE STAMP

I (Name)	P.M. McAndless	Occupation	Geologist
(Postal Address)	P.O. Box 2380, Vancouver, B.C. V6B 3T5		

MAKE OATH AND SAY, THAT:-

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.

2. I have done, or caused to be done, wotk on the following mineral claim(s):
(Here list claims on which work was actually done by number and name)

60046-49 South Nahanni 24-27

60059-62 South Nahanni 37-40

situated at Quartz Lake Claim Sheet No. 95D/12

in the Watson Lake Mining District, to the value of at least $2400.00

dollars, since the 31st day of December 19 74,

to represent the following mineral claims under the authority of Grouping Certificate No. 1177
(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

Claim	Grant No.	Period	Assessment yrs.
South Nahanni 24	60046	Dec.31/75-Dec.31/77	2
South Nahanni 25	60047	Dec.31/75-Dec.31/77	2
South Nahanni 26	60048	Dec.31/75-Dec.31/77	2
South Nahanni 27	60049	Dec.31/75-Dec.31/77	2
South Nahanni 28	60050	Dec.31/75-Dec.31/77	2
South Nahanni 29	60051	Dec.31/75-Dec.31/77	2
South Nahanni 30	60052	Dec.31/75-Dec.31/77	2
South Nahanni 31	60053	Dec.31/75-Dec.31/77	2
South Nahanni 37	60059	Dec.31/75-Dec.31/77	2
South Nahanni 38	60060	Dec.31/75-Dec.31/77	2
South Nahanni 39	60061	Dec.31/75-Dec.31/77	2
South Nahanni 40	60062	Dec.31/75-Dec.31/77	2

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

Allowable portion of line cutting submitted as physical work(on claims not subject to Section 53 (4) of the Quartz Mining Act)for the period June 1-6/75 and July 1-31/75 as per accompanying Grid/Claim Map and Statutory Declaration of Costs.

Total Allowable Line Cutting Costs	- $9502.17	
Balance Brought Forward	-	$6602.17
Less amount applied to this group	-	2400.00
Balance to bring forward	-	$4202.17

Sworn before me at Whitehorse

this 19th day of December 1975

Notary Public

P M McAndless

Applicant.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
Yukon Quartz Mining Act
APPLICATION TO GROUP MINERAL CLAIMS

RECEIVED
DEC 23 1975
MINING RECORDER
LAND AGENT
WATSON LAKE, Y.T.
I.A. & N.D.
OFFICE DATE STAMP

MINING DISTRICT Watson Lake | CLAIM SHEET NO. 95D/12

I(WE) THE UNDERSIGNED OWNER(S) OR AGENT(S) OF THE OWNER(S) OF THE FOLLOWING MINERAL CLAIMS

GRANT NUMBER(S)	CLAIM NAME(S)
70369	M 22
70459	M 25
70460	M 26
70461	M 27
70462	M 28
70463	M 29
70464	M 30
70647	M 33
70648	M 34
70649	M 35
70650	M 36
70651	M 37
70652	M 38

* Above claims identified in attached sketch as purple.

GIVE NOTICE OF INTENTION TO GROUP THE SAID CLAIMS FOR THE PERFORMANCE OF WORK AND DO HEREBY APPLY UNDER THE PROVISIONS OF SECTION 52 OF THE YUKON QUARTZ MINING ACT FOR A CERTIFICATE IN FORM "E"

I(WE) HEREBY CERTIFY THAT THE ABOVE CLAIMS ARE ADJOINING AS SHOWN ON ATTACHED SKETCH

DATED AT Whitehorse

THIS 19th DAY OF December 1975

P.M. McAndless

P.M. McAndless, Agent for Noranda

Exploration Company, Limited

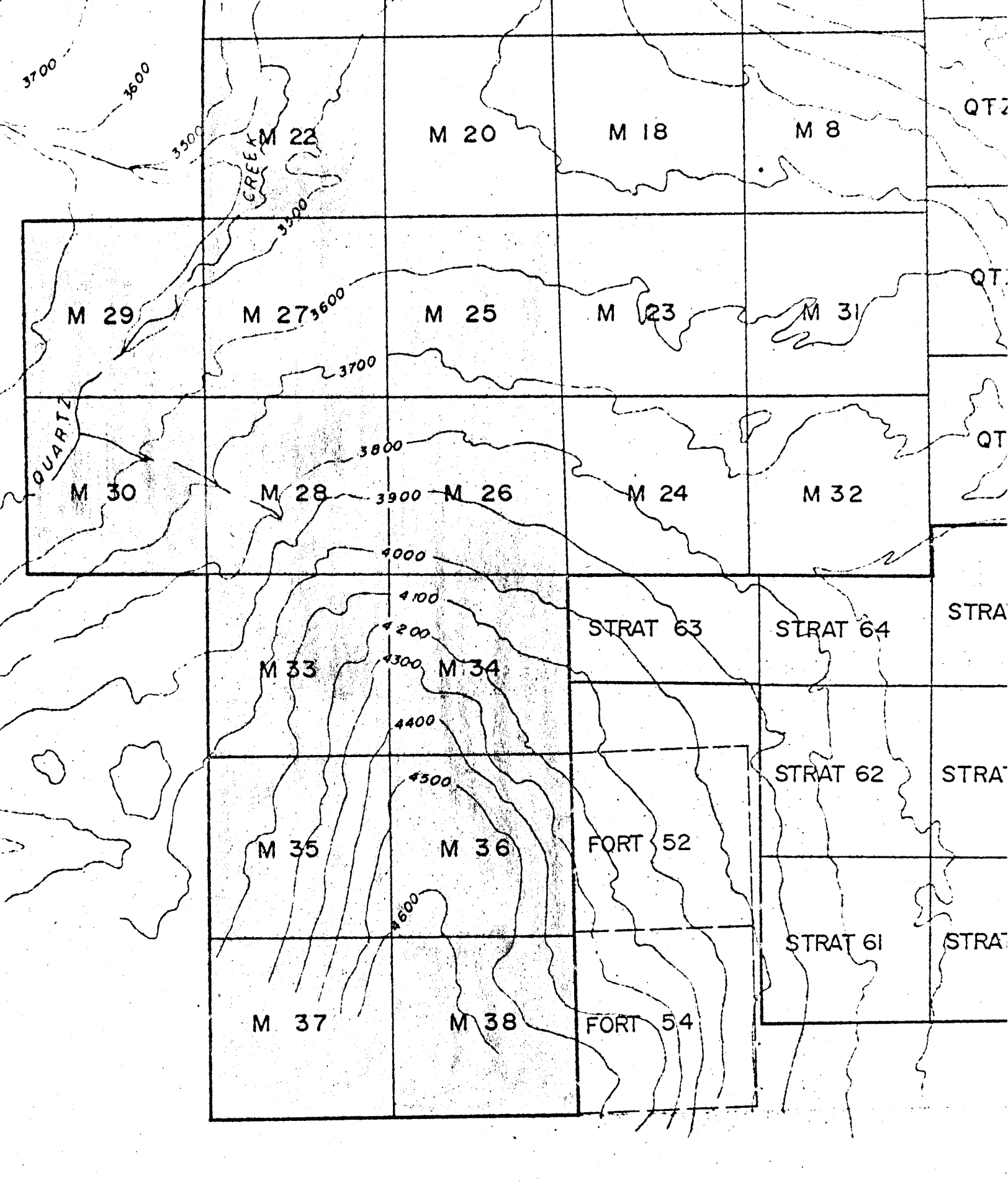
(NO PERSONAL LIABILITY)

FOR OFFICE USE ONLY.

FORM "E" NO. 1178

RECEIPT NO. B338186

DATE APPLIED: FEB 17 1976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QTZ
3300
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M 27
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M 23
M 31
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QUARTZ
3800
M 30
M 28
3900
M 26
M 24
M 32
QT
4000
4100
4200
STRAT 63
STRAT 64
STRA
M 33
4300
M 34
4400
STRAT 62
STRA
4500
M 35
M 36
FORT 52
4600
STRAT 61
STRA
M 37
M 38
FORT 54

Department of Indian Affairs and Northern Development

YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

(This form required in duplicate with sketch showing location of work.)

RECEIVED
DEC 23 1975
MINING RECORDER
LAND AGENT
WATSON LAKE, Y.T.
I.A. & N.D.

OFFICE DATE STAMP

I (Name) P.M. McAndless Occupation Geologist

(Postal Address) P.O. Box 2380 Vancouver, B.C. V6B 3T5

MAKE OATH AND SAY, THAT:-

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.

2. I have done, or caused to be done, wotk on the following mineral claim(s):
(Here list claims on which work was actually done by number and name)

70369 M 22

70459 M 25

situated at Quartz Lake Claim Sheet No. 95D/12

in the Watson Lake Mining District, to the value of at least $2600.00

dollars, since the 31st day of December 19 74,

to represent the following mineral claims under the authority of Grouping Certificate No. 1178
(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

Claim		Grant No.	Period	Assessment yrs.
M 22	70369	70369	Dec.31/75-Dec.31/77	2
M 25		70459	Dec.31/75-Dec.31/77	2
M 26		70460	Dec.31/75-Dec.31/77	2
M 27		70461	Dec.31/75-Dec.31/77	2
M 28		70462	Dec.31/75-Dec.31/77	2
M 29		70463	Dec.31/75-Dec.31/77	2
M 30		70464	Dec.31/75-Dec.31/77	2
M 33		70647	Dec.31/75-Dec.31/77	2
M 34		70648	Dec.31/75-Dec.31/77	2
M 35		70649	Dec.31/75-Dec.31/77	2
M 36		70650	Dec.31/75-Dec.31/77	2
M 37		70651	Dec.31/75-Dec.31/77	2
M 38		70652	Dec.31/75-Dec.31/77	2

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

Allowable portion of line cutting submitted as physical work (on claims not subject to Section 53 (4) of the Quartz Mining Act) for the period June 1-6/75 and July 1-31/75 as per accompanying Grid/Claim Map and Statutory Declaration of Costs.

Total allowable Line Cutting Costs	- $9502.17	
Balance brought forward	-	$4202.17
Less: Amount applied to this group	-	2600.00
Balance to bring forward		$1602.17

Sworn before me at Whitehorse

this 19th day of December 1975

Notary Public

P.M. McAndless

Applicant.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
Yukon Quartz Mining Act
APPLICATION TO GROUP MINERAL CLAIMS

RECEIVED
DEC 23 1975
MINING RECORDER
LAND AGENT
WATSON LAKE, Y.T.
I.A. & N.D.

OFFICE DATE STAMP

MINING DISTRICT Watson Lake	CLAIM SHEET NO. 95D/12

I(WE) THE UNDERSIGNED OWNER(S) OR AGENT(S) OF THE OWNER(S) OF THE FOLLOWING MINERAL CLAIMS

GRANT NUMBER(S)	CLAIM NAME(S)
Y84112	QTZ 1
Y84113	QTZ 2
Y84114	QTZ 3
Y84115	QTZ 4
Y84116	QTZ 5
Y84117	QTZ 6
Y84118	QTZ 7
Y84119	QTZ 8
69450	M 7
69451	M 8
70365	M 18
70367	M 20
70457	M 23
70458	M 24
70645	M 31
70646	M 32

* Above claims identified in attached sketch as green.

GIVE NOTICE OF INTENTION TO GROUP THE SAID CLAIMS FOR THE PERFORMANCE OF WORK AND DO HEREBY APPLY UNDER THE PROVISIONS OF SECTION 52 OF THE YUKON QUARTZ MINING ACT FOR A CERTIFICATE IN FORM "E"

I(WE) HEREBY CERTIFY THAT THE ABOVE CLAIMS ARE ADJOINING AS SHOWN ON ATTACHED SKETCH

DATED AT Whitehorse

THIS 19th DAY OF December 19 75

P.M. McAndless

P.M. McAndless, Agent for Noranda

Exploration Company, Limited

(NO PERSONAL LIABILITY)

FOR OFFICE USE ONLY.

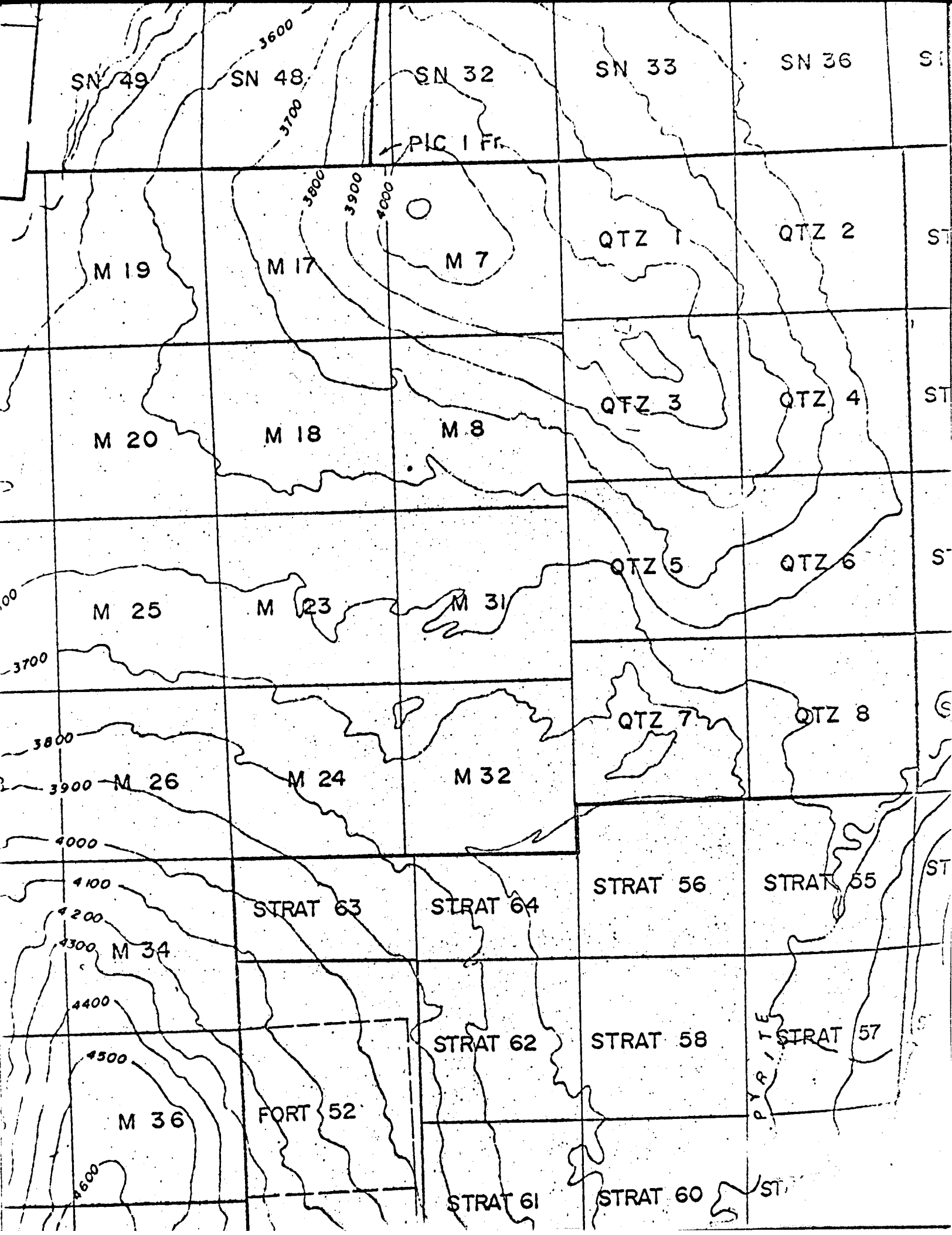
FORM "E" NO. 1179

RECEIPT NO. B 338186

DATE APPLIED: FEB 17 1976

FEB 17 1976

ROTS


SN 49
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M 17
M 7
QTZ 1
QTZ 2
M 20
M 18
M 8
QTZ 3
QTZ 4
M 25
M 23
M 31
QTZ 5
QTZ 6
3700
M 26
M 24
M 32
QTZ 7
QTZ 8
3800
3900
4000
4100
4200
4300
M 34
STRAT 63
STRAT 64
STRAT 56
STRAT 55
4400
4500
M 36
FORT 52
STRAT 62
STRAT 58
STRAT 57
PYRITE
4600
STRAT 61
STRAT 60

Department of Indian Affairs and Northern Development

YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

(This form required in duplicate with sketch showing location of work.)

RECEIVED DEC 23 1975 MINING RECORDER LAND AGENT WATSON LAKE, Y.T. I.A. & N.D.

OFFICE DATE STAMP

I (Name) P.M. McAndless Occupation Geologist

(Postal Address) P.O. Box 2380, Vancouver, B.C. V6B 3T5

MAKE OATH AND SAY, THAT:-

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.

2. I have done, or caused to be done, wotk on the following mineral claim(s):
(Here list claims on which work was actually done by number and name)

69450-51	M 7-8
70365	M 18
70367	M 20
70457	M 23
Y84112-15	QTZ 1-4

situated at Quartz Lake Claim Sheet No. 95D/12

in the Watson Lake Mining District, to the value of at least (1.)(1600.00) (2.) (800.00) = $2400.00

dollars, since the 31st day of December 19 74,

to represent the following mineral claims under the authority of Grouping Certificate No. 1179

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

Claim	Grant No.	Period	Assessment yrs.	Claim	Grant No.	Period	Assessment yrs.
(1.)M 7	69450	Dec.31/75-Dec.31/77	2	QTZ5	Y84116	Apr.22/76-Apr.22/77	1
M 8	69451	Dec.31/75-Dec.31/77	2	QTZ6	Y84117	Apr.22/76-Apr.22/77	1
M 18	70365	Dec.31/75-Dec.31/77	2	QTZ7	Y84118	Apr.22/76-Apr.22/77	1
M 20	70367	Dec.31/75-Dec.31/77	2	QTZ8	Y84119	Apr.22/76-Apr.22/77	1
M 23	70457	Dec.31/75-Dec.31/77	2				
M 24	70458	Dec.31/75-Dec.31/77	2				
M 31	70645	Dec.31/75-Dec.31/77	2				
M 32	70646	Dec.31/75-Dec.31/77	2				
(2.)QTZ1	Y84112	Apr.22/76-Apr.22/77	1				
QTZ2	Y84113	Apr.22/76-Apr.22/77	1				
QTZ3	Y84114	Apr.22/76-Apr.22/77	1				
QTZ4	Y84115	Apr.22/76-Apr.22/77	1				

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

(1) Allowable portion of line cutting submitted as physical work (on claims not subject to Section 53(4) of the Quartz Mining Act) for the period June 1-6/75 and July 1-31/75 as per accompanying Grid/Claim Map and Statutory Declaration of Costs.

Total Allowable Cost of Line cutting - $9502.17

Balance brought forward	$1602.17
Less: amount applied to Line cut portion of Group	1600.00
Balance	2.17 (1) 1600.0

(2) Allowable portion of Gravity survey submitted as exploratory work on claims (QTZ) (subject to Section 53(4) of the Quartz Mineral Act) for the period July/75-August /75 as per accompanying Report and Statutory Declaration of Costs.

Total Allowable Gravity Costs	805.93
Less amount applied to Gravity Surveyed Portion of Group	800.00
Balance	5.93
	(2) 800.0
TOTAL ALLOWABLE COST	$ 2400.0

Sworn before me at Whitehorse

this 19th day of December 1975

Notary Public

P M McAndless

Applicant