



42D14NW0043 10 PAYS PLAT LAKE

010

Diamond Drilling

0330

Area of Pays Plat Lake

Report N^o 10

Work performed by: Zenmac Metal Mines Ltd.

Claim N ^o	Hole N ^o	Footage	Date	Note
TB 42277 <i>a</i>	49	547'	Aug/52	
TB 42155 <i>b</i>	80	556.3'	Feb/53	
	81	745'	Mar/53	
TB 42159 <i>c</i>	83	546.5'	Mar/53	
TB 42157 <i>d</i>	92	603'	May/53	
(a) TB 42624	98	395'	June/53	
TB 88531	1-59	101' 6"	Oct/59	
	2-59	100' 4"	Oct/59	
TB 88532	3-59	101' 2"	Oct/59	
	4-59	101' 8" —	Oct/59	
(b) TB 111055 <i>e</i>	W-1	300'	Nov/65	
	W-2	420'	Nov/65	
(c) TB 111059	A-1	300'	Nov/65	
	A-2	423'	Nov/65	
TB 102808	104	181'	Nov/65	
	105	532'	Dec/65	
TB 102813	1	502'	Nov/66	
TB 102817	2	502'	Nov/66	

19577

Notes:

Diamond Drilling

Area of Pays Plat Lake

Report N^o 10

Work performed by: Zenmac Metal Mines Ltd.

	Claim N ^o	Hole N ^o	Footage	Date	Note
(d)	TB 111031	108	347'	Nov/66	
		113	185'	Jan/67	
		114	206.5'	Jan/67	
(e)	TB 111032	109	349'	Nov/66	
(a)	TB 111030	110	252'	Dec/66	
		111	363'	Dec/66	
		112	151'	Jan/67	
(f)	TB 111052	139	351'	Mar/67	
(g)	TB 111054	140	252'	Mar/67	

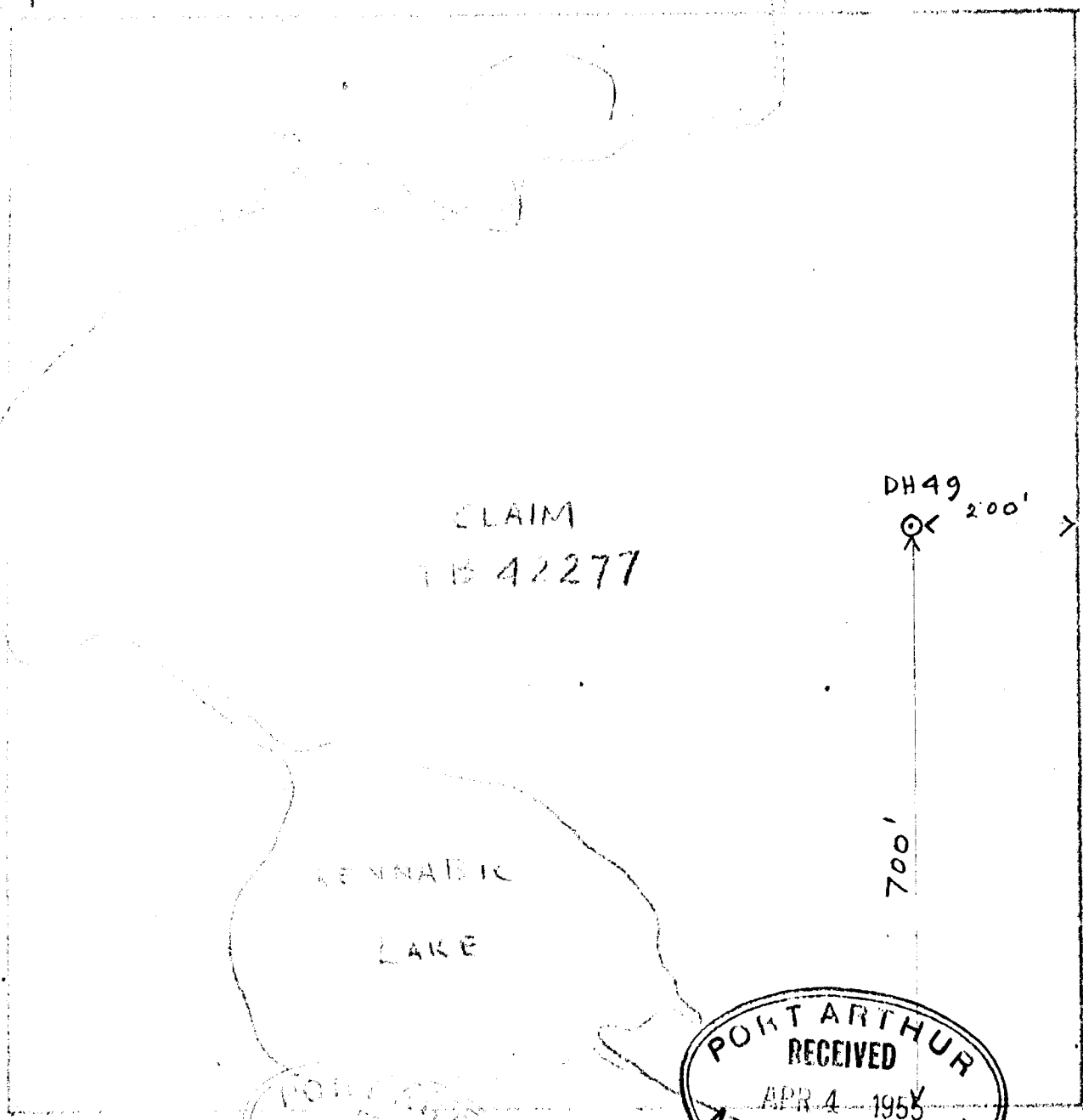
7

94142

Notes:

No. 1
Post

No. 1
Post

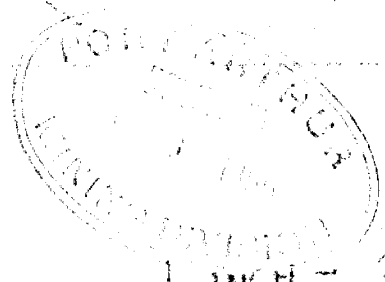


CLAIM
TB 42277

KINNABIC
LAKE

DH49
200'

700'



No. 2 Post

No. 2
Post

1 INCH = 200 FEET.

TB 42277

HOLE NUMBER: 49 ^{mark} (10)

PROPERTY: Zenmax Metal Mines Ltd

LOCATION: Claim TB 42277, N5100, E5900

SHEET NUMBER: 1

ELEVATION OF COLLAR: 9220.9

DATE STARTED: Aug 24, 1952

BEARING: Vertical

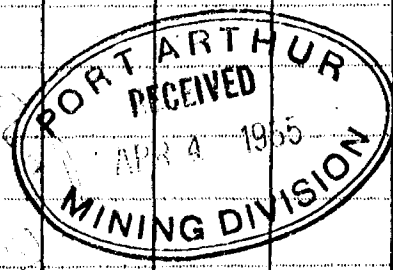
DATE COMPLETED: Sept 22, 1952

DIP: Vertical

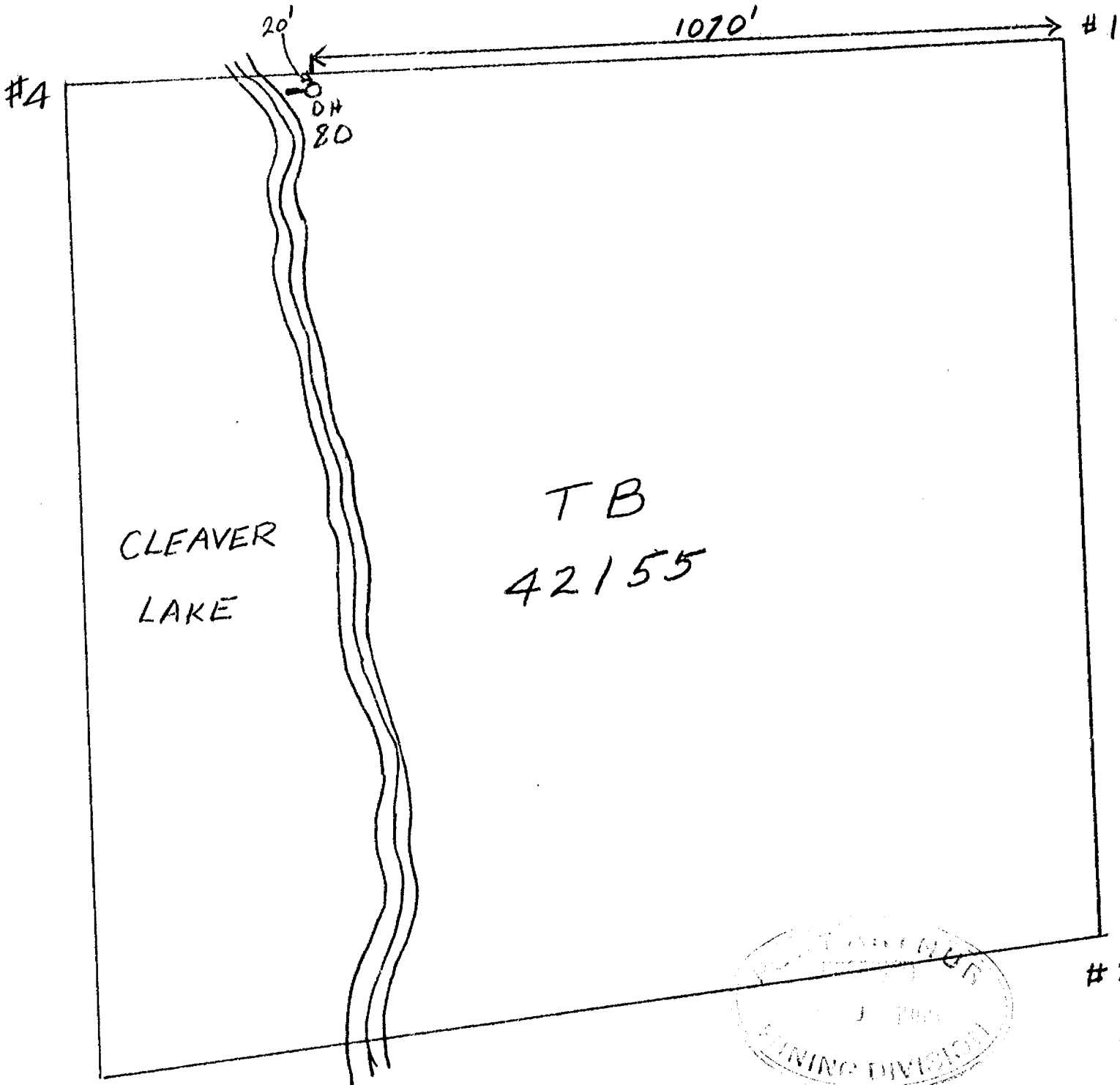
TOTAL LENGTH: 547

LOG			SAMPLES		ASSAYS			
FROM	TO	GEOLOGY	NO.	LENGTH				
0	5.0	Casing						
5	48.0	Diorite, intermediate texture; fine grain to						
48.0	86.5	Diorite - fine grain						
86.5	547.0	Diorite - intermediate to coarse texture - Trap dyke 5" at 311.5, also 365.5 - 371.0, occasional scattered light disseminated Zns & CuFeS below 450 - small quartz stringer with Zns at 526.						

4-5-79

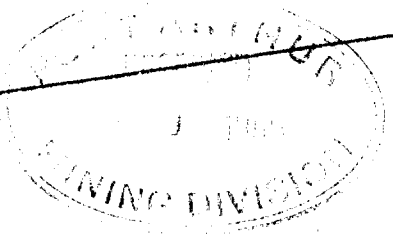


LOGGED BY: C. S. Johnston



CLEAVER
LAKE

TB
42155



1 INCH = 200 FT.

EDD (14)

PROPERTY: ZENMAC METAL MINES LIMITED HOLE NUMBER: 80.

LOCATION: TB 42155. SHEET NUMBER: 1

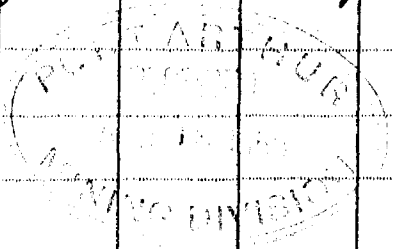
ELEVATION OF COLLAR: DATE STARTED: Feb 22, 1953

BEARING: 587° W. DATE COMPLETED: March 3, 1953

DIP: 45° TOTAL LENGTH: 556

4-3-57

LOG			SAMPLES		ASSAYS			
FROM	TO	GEOLOGY	NO.	LENGTH				
1	34.0	Casing						
34.0	94.0	Gneissic diorite, medium grained, 50% dark minerals Fault zone 88.5-94 - 4 ft lost core						
94.0	133.7	Sericate schist - light grey medium grain 80% feldspar - 20% sericate, 2% pyrite From 113.5 to 133.7 some pyrochloite and a little chalcopyrite						
133.7	227.	Syenite porphyry - dark grey, with medium grain, with mic. sized phenocrysts of feldspar in feldspar feldspar matrix. Vaguelly gneissic. Trace pyrite 133.7-142. - 142.5-157.5. felsite, almost white, 3% fine pyrochloite, 1% chalcopyrite 157.5-162.5 - 1% chalcopyrite, a little pyrochloite 162.5-167.5 - felsite-grey 1% sulphides 167.5-207.0 - 2% sulphides Character sample 195-200 assayed 0.23% Cu.						
227	374.	Syenite porphyry - light grey or pink, medium grain very slightly mineralized - 1.5 ft lamprophyre at 251.						



LOGGED BY: M. Ogden.

PROPERTY: ZENMAC METAL MINES LTD. HOLE NUMBER: 80

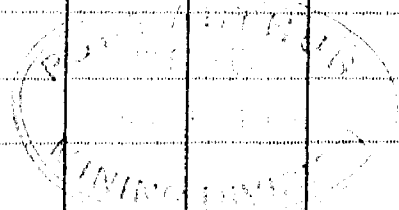
LOCATION: TB 42155. SHEET NUMBER: 2

ELEVATION OF COLLAR: DATE STARTED:

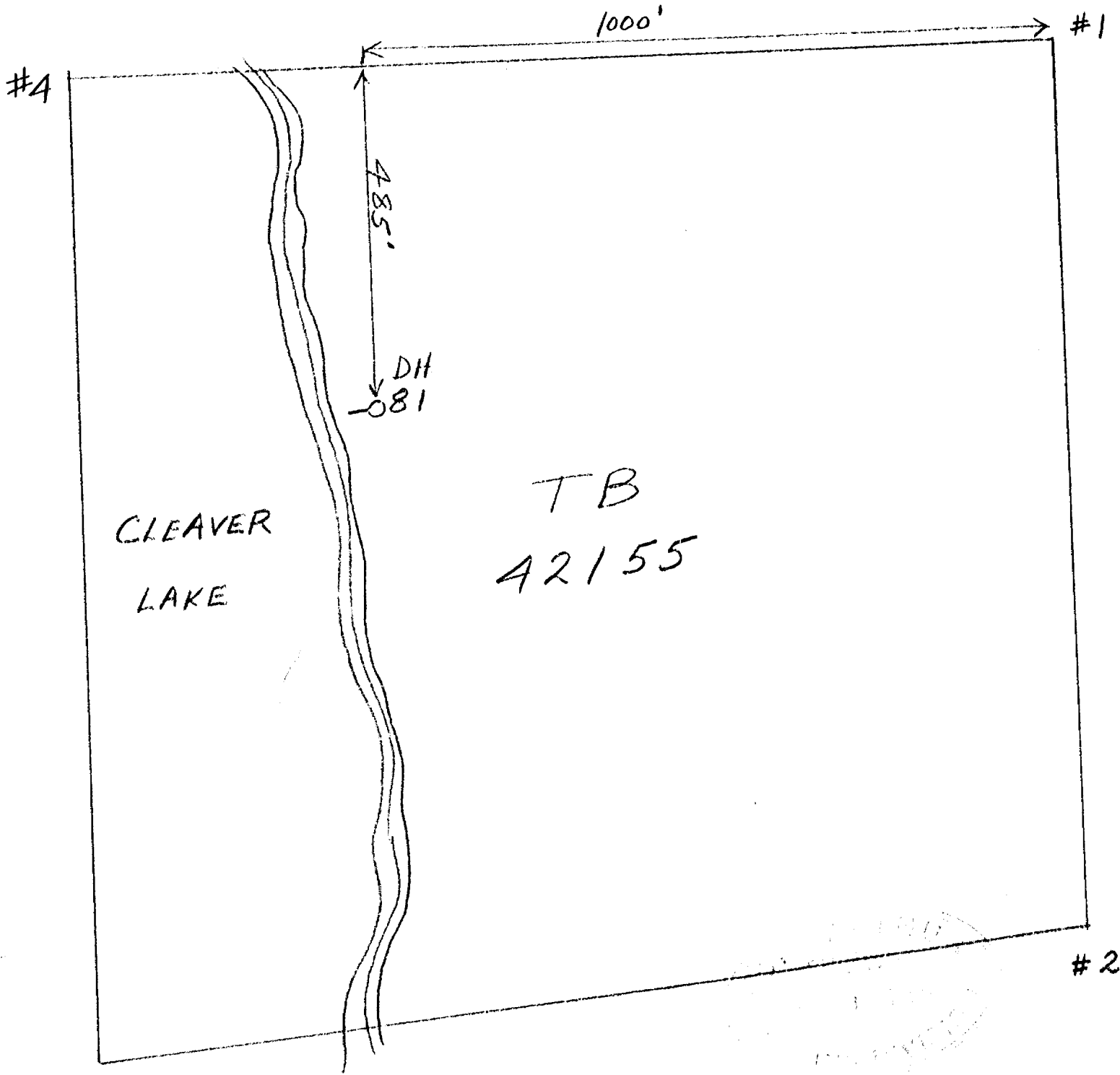
BEARING: DATE COMPLETED:

DIP: TOTAL LENGTH: 556

LOG		SAMPLES		ASSAYS			
FROM	TO	GEOLOGY	NO.	LENGTH			
374	401.5	Gneissic diorite - medium grain, dark gray very slightly mineralized					
401.5	499.5	Syenite porphyry - pink - medium grain very slightly mineralized. 412-420.5 - lamprophyre.					
499.5	509.0	Lamprophyre.					
509.0	556.3	Dark syenite porphyry - very slightly mineralized					



LOGGED BY: M. Ogden



CLEAVER
LAKE

TB
42155

1000'

485'

DH
081

#4

#1

#2

#3

1 INCH = 200 FT.

PROPERTY: ZENMAC METAL MINES LTD.

HOLE NUMBER: 81

LOCATION: TB 42155

SHEET NUMBER: 1

ELEVATION OF COLLAR:

DATE STARTED: Mar 6, 1953

BEARING: S 79 W

DATE COMPLETED: Mar 17, 1953

DIP: 50°

TOTAL LENGTH: 745 ft.

L O G			S A M P L E S		A S S A Y S			
FROM	TO	GEOLOGY	NO.	LENGTH				
0	5.0	Casing						
5.0	19.0	Greenish diorite - almost black, medium to fine grain, grades to green diorite near end of section.						
19.0	464.8	Light Syenite porphyry - very slightly mineralized.						
		91-92 - lamprophyre						
		103-104.5 - "						
		110.7-111.1 - (0.4') of 8% chalcopyrite - 2.36% Cu.						
		126.0-128.0 (2.0) 3% chalcopyrite - 2% pyrite - 0.95% Cu						
		128.3-133.0 - lamprophyre						
		255.2-259.2 - "						
		298.0-299.6 - "						
		441. - 442.5 - "						
464.8	517.0	Dark syenite porphyry - almost black, as with sections of dark, biotite rich rock heavily spotted with white feldspar phenocrysts - slightly mineralized.						
		483-485.3 - lamprophyre						
		486-487. - "						
		512 - 512.6 - "						

LOGGED BY: _____

PROPERTY: ZENMAC METAL MINES LTD HOLE NUMBER: 81

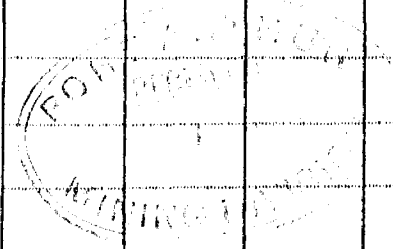
LOG ID: TB42155 SHEET NUMBER: 2

ELEVATION OF COLLAR: DATE STARTED:

BEARING: DATE COMPLETED:

DIP: TOTAL LENGTH: 745

L O G			S A M P L E S		A S S A Y S			
FROM	TO	GEOLOGY	NO.	LENGTH				
517.0	550.5	Diorite(?) fine grain, almost black, biotite rich, traces pyrite and chalcopyrite, particularly in sheared sections. Rock is similar to dark syenite porphyry without phonocrysts.						
550.5	571.0	Dark syenite porphyry, a little pyrite and chalcopyrite in 1/4" to 1" bands of						
571.0	636.4	2% sulphide						
571.0	636.4	Diorite, fine grain, almost black						
		571-575 - sheared and altered.						
		575-578.8 - Camp. porphyry						
636.4	745.0	Dark syenite Porphyry						



LOGGED BY: M. Ogden

#4

#1

640 ft

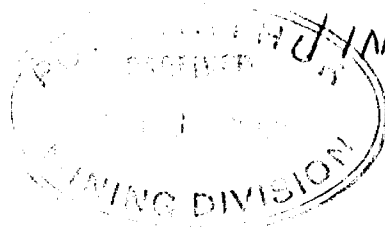
DH.83

TB
42159

CLEAVER
LAKE

#2

#3



1/4 INCH = 200 FEET

PROPERTY: ZENMAC METAL MINES LTD

HOLE NUMBER: 83

LOCATION: Claim T.B 42159

SHEET NUMBER: 1

ELEVATION OF COLLAR:

DATE STARTED: March 21, 1953

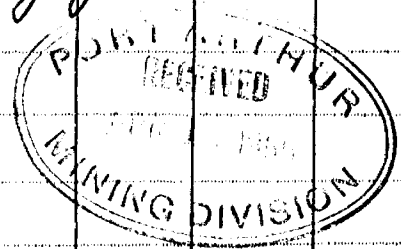
BEARING: S 71° W.

DATE COMPLETED: March 28, 1953

DIP: 45°

TOTAL LENGTH: 547 feet.

L O G			S A M P L E S		A S S A Y S			
FROM	TO	GEOLOGY	NO.	LENGTH				
0	7.0	Casing.						
7.0	181.2	Greissidiorite, fine grained, almost black, lincation @ 80° to the core, occasional speck of interstitial pyrite and chalcopirite. The odd thread of chalcopirite in a parallel to quartz stringer which are parallel to foliation						
		176-178 - Lamprophyre						
181.2	545	Light syenite porphyry - pink - slightly mineralized						
		201-202 - lamprophyre						
		215.5-218.7 - " "						
		225.5-226.5 - " "						
		229 - 231.5 - " "						
		243.8 - 244.8 - " "						
		425. - 426.5 - lamprophyre with vein quartz 3% pyrite in the quartz						
		466.5 - 468.0 - lamprophyre dyke						
5		490 - 546 - grey porphyry.						
545	546.5	Lamprophyre						

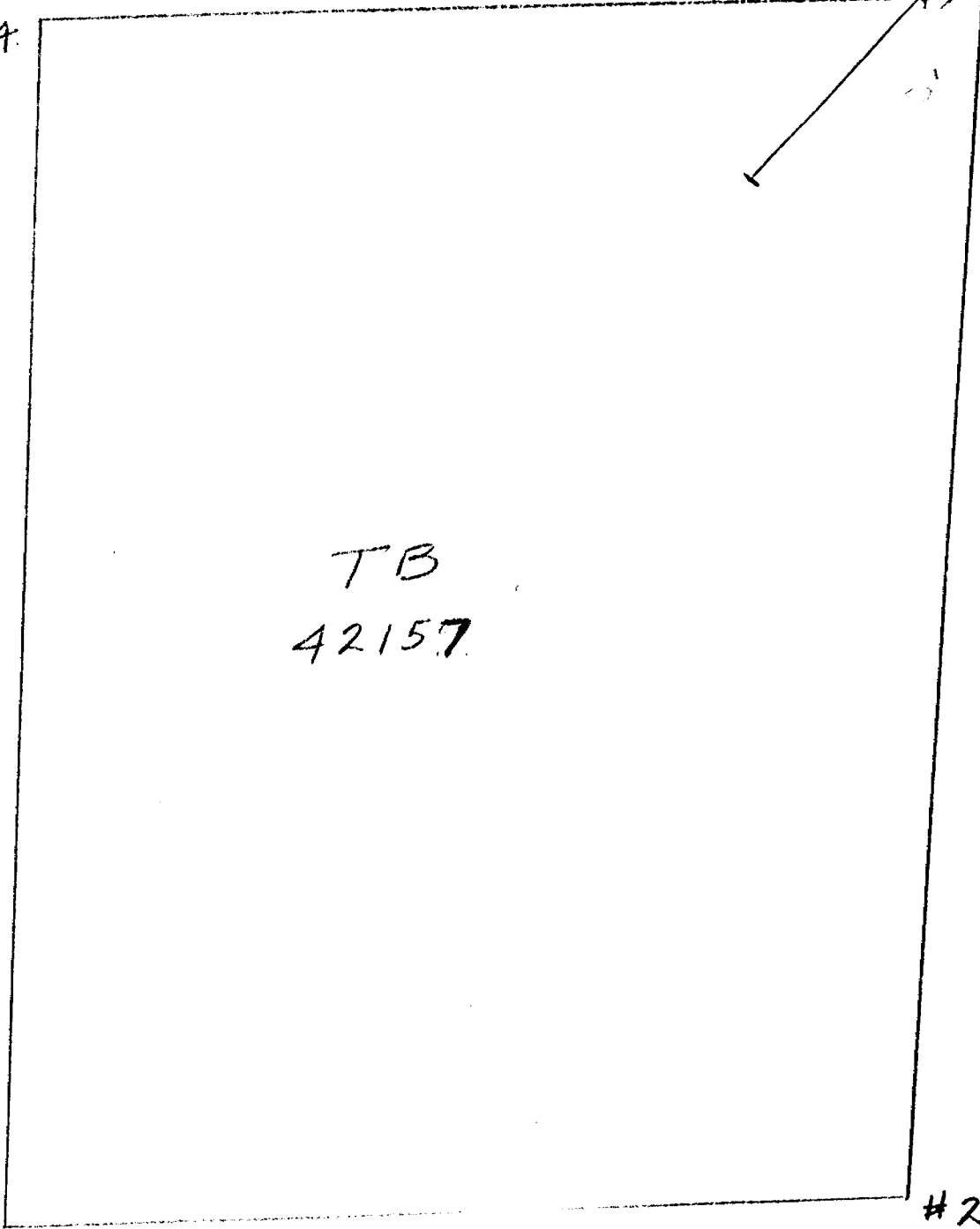


LOGGED BY: M. Ogden.

DH
92

#4

#1



TB
42157

#2

#3

1 INCH = 200 FEET



RICK
92 (11)

PROPERTY: ZENMAC METAL MINES LTD. HOLE NUMBER: _____
 LOCATION: TB42157- N3100- E 5860 SHEET NUMBER: _____
 ELEVATION OF COLLAR: 9100 ± DATE STARTED: May 2, 1953
 BEARING: South-west. DATE COMPLETED: May 8, 1953
 DIP: 60° at collar - 55° at 500 ft. TOTAL LENGTH: 603.

LOG			SAMPLES		ASSAYS			
FROM	TO	GEOLOGY	NO.	LENGTH				
0	7.0	Casing						
7.0	116.0	Green diorite - medium grain, even texture. Traces of chalcopyrite for 6" at 103.5						
116	132	Lamprophyre dyke						
132	150	Green diorite.						
150	160	Lamprophyre dyke						
160	174	Green diorite.						
174	225	Gabbro. diorite - contacts gradational						
225	250	Lamprophyre dyke						
250	330	Fine grained diorite						
330	417	Fresh diorite, medium grain. 324 - 2 ft. lamprophyre dyke 345 - 2 ft. lamprophyre dyke 382 - 5 ft lamprophyre dyke 405.5 - 2 ft pegmatite.						
417	438.5	Green diorite - contact gradational						
438.5	441.5	Hornblende dyke						
441.5	442.5	Pegmatite.						
442.5	483	Green diorite - basic - Coarse hornblende for 7 ft at 458						
483	535	Gabbro diorite						
535	603	Fresh diorite						

4-1-56

LOGGED BY: M. Ogden.

PROPERTY: ANDOWAN MINES - WINSTON LAKE

HOLE NUMBER: 98

LOCATION: NE corner Claim #A42624

SHEET NUMBER:

ELEVATION OF COLLAR:

DATE STARTED: June 15, 53

BEARING: S W

DATE COMPLETED: June 19, 53

DIP: ~~45~~ 60°

TOTAL LENGTH: 395

LOG			SAMPLES		ASSAYS			
FROM	TO	GEOLOGY	NO.	LENGTH				
0	1.5	Casing						
1.5	35.0	Diorite gneiss						
35.0	40.0	f mica gneiss						
40	61.0	mica schist, few specks sulphide						
61	62.5	lost core						
62.5	73.5	fine grained gneiss, epidote veinlets						
73.5	102	mica schist						
102	115	diorite - medium grained						
115	277	Mica Schist. much core lost - few specks of chalcoppyrite at 153						
277	280	diorite gneiss - medium grained						
280	395	mica gneiss + schist						
		+ mud seam and quartz stringer at 298						
		- 3" quartz with splat of chalc at 348						
		- 353-354 - fair showing of chalcoppyrite						
		361 - splat of chalc in quartz						
		End of hole 395						

LOGGED BY: R. A. Hale

1. OF ZENITHAL SURV. HOLDG. 1959
BOUNDARY PROPERTY

TB 88531

01-59

02-59

03-59

04-59

TB 88532



SCALE 1 INCH = 200 FEET

725 885316 2

DIAMOND DRILL LOG

PROPERTY: Zenmac Metal Mines Ltd.

HOLE NUMBER: 1 - 59

LOCATION: Aprox. 11 miles north of Rossport
Big Duck Lake Area.

DIP TESTS

Latitude 55° 0' E - 109° N from Dip: Vertical
No. 3 post of T.B. 88531

Footage Reading Corrected

Departure: Depth 101 ft. 6".

Elevation: Commenced: October 9, 1959

Azimuth: Finished: October 14, 1959 Logged by: J. Halonen

SAMPLE NUMBER	DESCRIPTION			
	0 - 12' 8"			
	12' 8" -			
	12' 8" - 18' 10"			
	18' 10" - 29'			
	29' - 47'			
	47' - 51'			
	51' - 60'			
	60' - 101'			
	101' - 101' 6"			
<p><i>Core located in boxes 50' east of door to cabin at Zenmac mine</i></p> <p><i>John E. Halonen</i></p>				

DIAMOND DRILL LOG

Sheet 1

PROPERTY: Zenmac Metal Mines Limited

HOLE NUMBER: 2, 59.

LOCATION: Approx. 11 miles north of Rossport,
Big Duck Lake Area

DIP TESTS

Latitude: 20°E-54°N of No. 3 Dip: Vertical
post of TB88531.

Footage

Reading

Corrected

Departure:

Depth: 100' 4"

Elevation:

Commenced: October 10, 1959.

Azimuth:

Finished: October 18, 1959.

Logged by: John Halonen

SAMPLE NUMBER	DESCRIPTION			
0' - 19'6"	dark andesite.			
19'6" - 25'	light andesite.			
21' - 26'	dark andesite.			
26' - 34'	light andesite with quartz stringers parraleling core.			
34' - 41'	dark andesite with minute particles of magnetite and small stringers of iron pyrite.			
41' - 100'4"	light andesite slightly more dioritic fractures at 45 degrees to core.			
<p><i>CORE located in trays 50' east of door to cabin at Zenmac Mines</i></p> <p style="text-align: right; font-size: 2em;"><i>John E. Halonen</i></p>				

DIAMOND DRILL LOG

Sheet 1

PROPERTY: Zenmac Metal Mines Limited

HOLE NUMBER: 4, 1959

LOCATION: Approz. 11 miles north of Rosspport,
Big Duck Lake Area.

DIP TESTS

Latitude: 330'S-102'E of No.4 Dip: Vertical
post of TB88532

Footage

Reading

Corrected

Departure:

Depth: 101'8"

Elevation:

Commenced: October 22, 1959

Azimuth:

Finished: October 26, 1959.

Logged by: John Halonen

SAMPLE NUMBER	DESCRIPTION			
0' - 34'	this section lightly mineralized with pyrite.			
0' - 4'2"	light grey sedimentary rock very siliceous "hard".			
4'2" - 2'5"	band of dark andesite.			
4'5" - 21'	quartz vein with pyrite			
21' - 34'	grey siliceous sediments.			
34' - 51'	dark andesite slightly porphyritic.			
51' - 101'8"	light grey andesite "soft" cut by several narrow quartz stringers.			
<p><i>Core located in boxes 50' east from door to cabin at Zenmac mine</i></p>				
<p><i>John E Halonen</i></p>				

DIAMOND DRILL LOG

Sheet 1

PROPERTY: Zenmac Metal Mines Limited

HOLE NUMBER: 3-59

LOCATION: Approx. 11 miles north of Rossport
Big Duck Lake Area.

DIP TESTS

Latitude: 170E-142S of No. 4 Dip: Vertical

Footage

Reading

Corrected

Departure:

Depth: 101'2"

Elevation:

Commenced: October 19, 1959

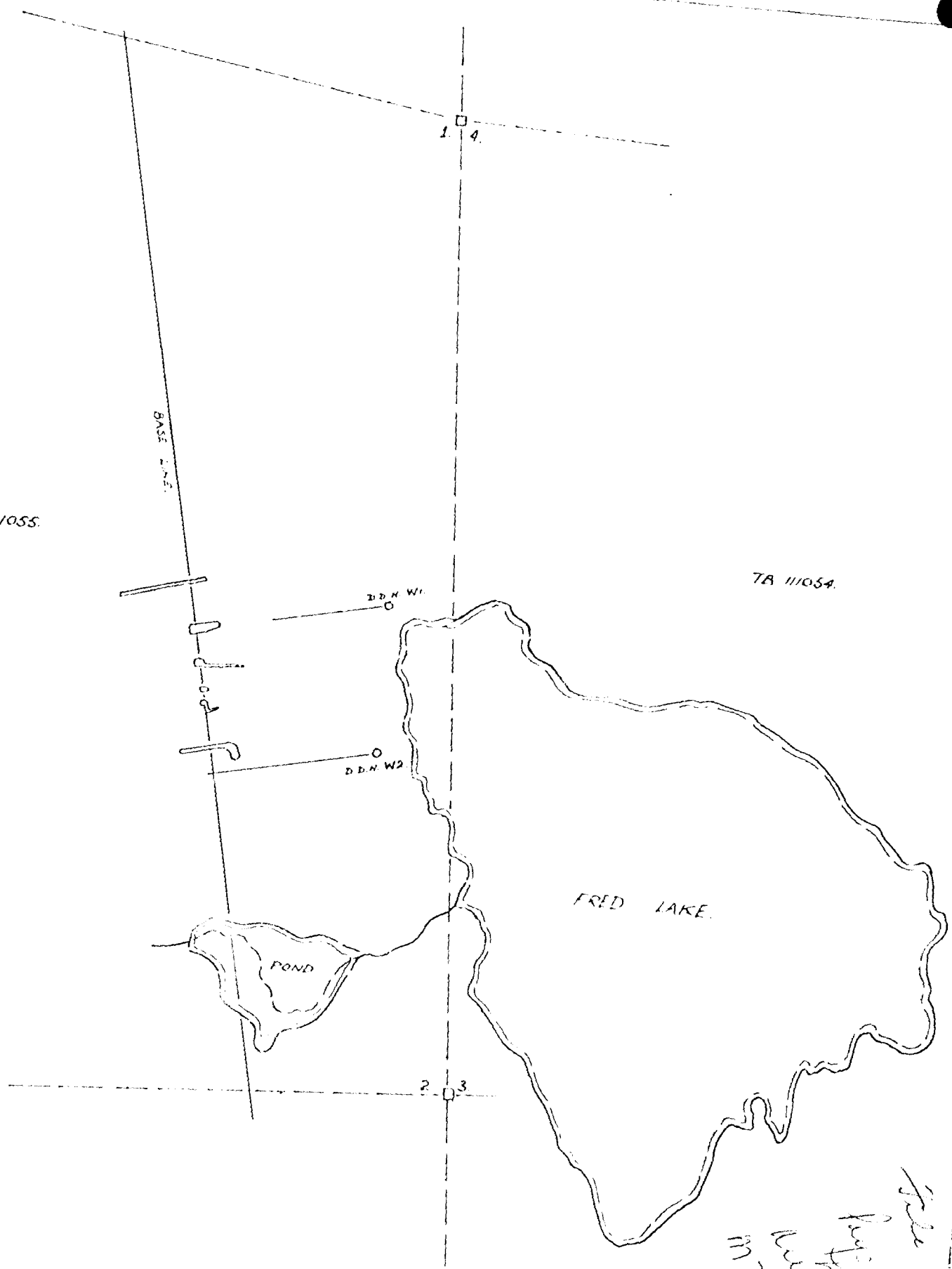
Azimuth:

Finished: October 22, 1959. Logged by: John Halonen

SAMPLE NUMBER	DESCRIPTION			
0 - 101'2"	light grey soft andesite cut by several narrow quartz stringers natural partings are at 50 degrees to core.			
<p><i>Core located in boxes in front of main camp on Zenmac mines. 50' east of door to cabin.</i></p>				
<p><i>John E Halonen</i></p>				

TB 111055

TB 111054



*File 111055
 Fred Lake
 D.D.N. W1
 D.D.N. W2*

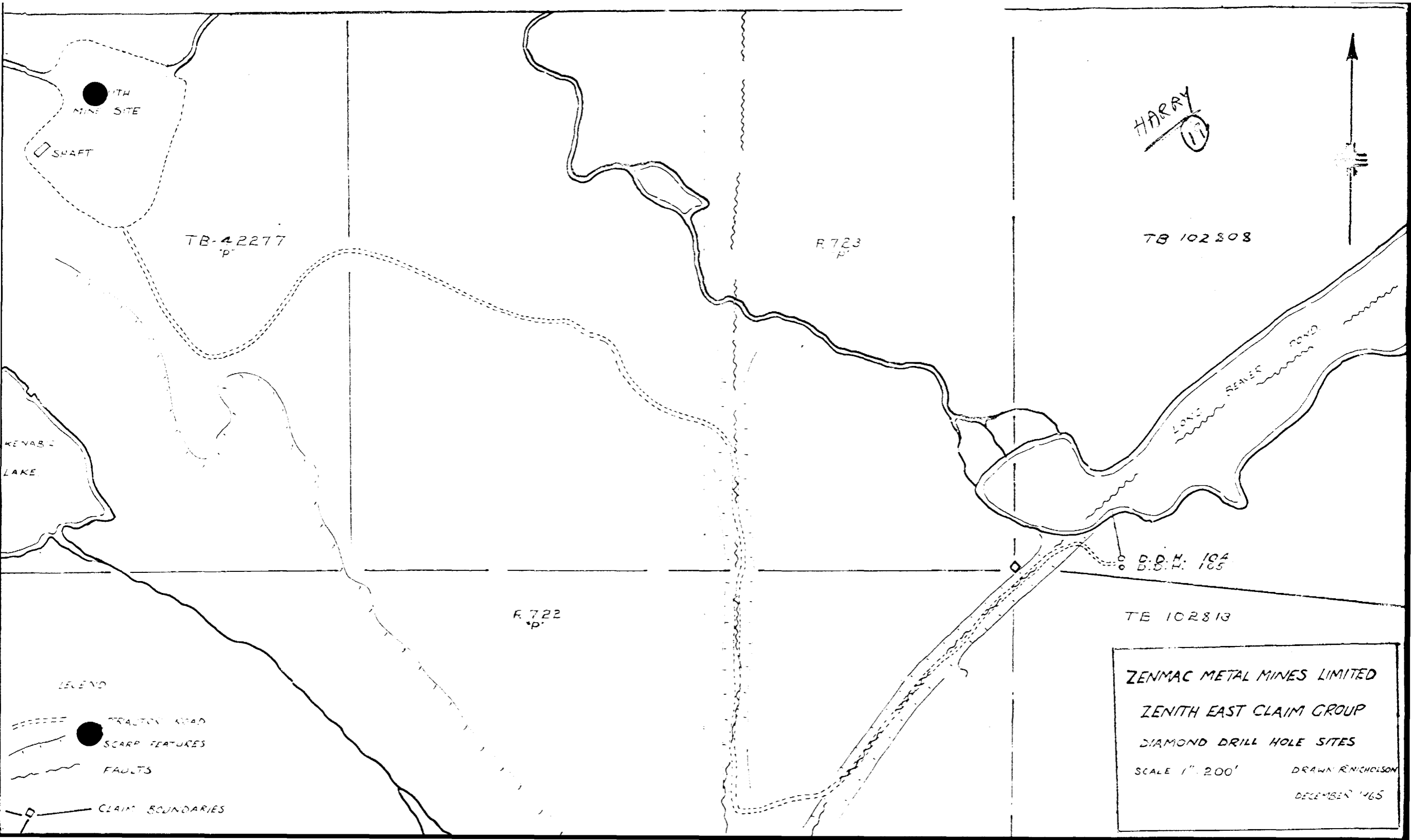
PT. ARTHUR
 MINING DIV.
R E C E I V E D
 MAR 10 1966
 AM 789101112123456 PM

ZENMAC METAL MINES LIMITED.
 WINSTON ZINC PROPERTY
 PLAN OF DRILL HOLE LOCATIONS.
 SCALE 1"=200'
 DRAWN: R. NICHOLSON
 NOVEMBER 1965.



PT. ARTHUR
WINSTON DIV.
R E C E I V E D
MAR 10 1966
BY 78940412-123456 PW

ZENMAC METAL MINES LIMITED,
WINSTON ZINC PROPERTY,
PLAN OF DRILL HOLE LOCATIONS,
SCALE 1"=40' DRAWN R. NICHOLSON
NOVEMBER 1965.



MINE SITE

SHAFT

TB-42277
P

R.723
P

TB 102808

KENABE LAKE

LONG REAPER POND

D.D.H. 104
D.D.H. 105

R.722
P

TE 102813

LEGEND

- TRACTOR ROAD
- SCARP FEATURES
- ~~~~~ FAULTS
- CLAIM BOUNDARIES

ZENMAC METAL MINES LIMITED

ZENITH EAST CLAIM GROUP

DIAMOND DRILL HOLE SITES

SCALE 1" = 200'

DRAWN R. NICHOLSON

DECEMBER 1965

File 111059 pay plat Yukon area 1125-2

DIAMOND DRILL LOG

18
HOLE NUMBER: A-1

PROPERTY: ZENMAC METAL MINES LIMITED - ANDERSON COPPER

LOCATION: WINSTON LAKE, PAYE PLAT LAKE AREA, ONTARIO
N. E. CORNER OF CLAIM TB-111059

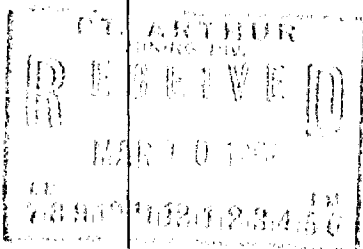
DIP TESTS

Latitude:)	Dip: 60°	Footage	Reading	Corrected
Departure:)	Depth: 300'	150	60°	
		300	60°	
Elevation:	Commenced: NOVEMBER 16, 1965			
Azimuth: 300°	Finished: NOVEMBER 18, 1965			Logged by: R. NICHOLSON

SAMPLE NUMBER	DESCRIPTION	INTERSECTION	ANGLE	DEPTH
0.0- 20.0'	OVERBURDEN			
20.0- 55.0'	QUARTZ-MICA GNEISS, FINE TO MEDIUM GRAIN, WITH SLIGHT TEXTURAL VARIATION CONTINUOUS THROUGHOUT, COMPACT, UNIFORM MID-GREY, WITH MARKED GNEISSOSITY. LOCAL MINOR QUARTZ VEINING.		80	22
			51	47
			62	53
50.0-65.0'	GNEISS, SLIGHTLY MORE SILICEOUS THAN ABOVE, WITH LOCAL DEVELOPMENTS OF A DISSEMINATED FINELY GRANULAR BRICK-RED MINERAL, PROBABLY FELDSPAR. SOME MINOR FRACTURING, WITH DEVELOPMENT OF CHLORITE AT 60°.			
65.0- 74.0'	SANDSTONE, MICACEOUS, MEDIUM GRAINED, MASSIVE, CONTAINING VARIED PROPORTIONS (TO 30%) OF RED FELDSPAR, APPARENTLY OF SECONDARY ORIGIN. MINOR QUARTZ VEINING PARALLEL TO CORE AXIS CIRCA 70°.		54	77
74.0-135.0'	QUARTZ-MICA GNEISS, FINE TO MEDIUM GRAIN, WITH TEXTURE VARYING SLIGHTLY THROUGHOUT. UNIFORM MID-GREY, WITH MARKED GNEISSOSITY. NUMEROUS THIN PELITIC BANDS, FREQUENTLY WITH ASSOCIATED MINOR QUARTZ VEINING, CONTAINS COARSE GRAINED DEVELOPMENTS OF MICA AND CHLORITE.		53	102
			61	127
135.0-140.0'	GNEISS, AS ABOVE, FRACTURED OBLIQUE TO GNEISSOSITY. RED FELDSPAR DEVELOPED LOCALLY AS DISSEMINATED FINE CRYSTALS.		45	137
			70	137
140.0-148.0'	GNEISS, AS ABOVE, WITH FRACTURING AND FELDSPAR DEVELOPMENT LESS PRONOUNCED.			(FRACTURING)
148.0-156.5'	GNEISS, FINE GRAINED, MID GREY, WITH SLIGHT GNEISSOSITY. 3 MM SEAM OF PYRITE AT 154°.		74	154
156.6-160.0'	APLITE VEIN, MEDIUM - COARSE GRAIN QUARTZ-FELDSPAR ROCK, PRESERVING RELICT STRUCTURE OF HOST ROCK.			
160.0-165.0'	QUARTZ-MICA GNEISS, FINE GRAINED, MID-GREY, WITH SLIGHT GNEISSOSITY. ONE-INCH SEAMS CIRCA 165° CONTAIN CONCENTRATIONS OF SUBHEDRAL GARNETS.		74	164
165.0-182.0'	GNEISS, QUARTZ-MICA-GARNET, MID-GREY, UNIFORM TEXTURE WITH SLIGHT GNEISSOSITY.		70	177
182.0-185.0'	QUARTZ-MICA GNEISS, COARSE GRAIN, VARIEGATED BLACK AND WHITE, WITH MICRO-AUGEN TEXTURE.			
185.0-213.0'	QUARTZ-MICA GNEISS, MEDIUM GRAINED GREY. TEXTURE VARIES SLIGHTLY THROUGHOUT, WITH MICAS LOCALLY COARSE. MINOR PYRITE, CHALCOPYRITE (UNDER .5%) DISSEMINATED IN GNEISSOSITY AT 191°, 194-199.5°.		70	193
			73	208
213.0-213.7'	SILICEOUS BAND, WITH CHLORITIC INTERBANDING, CONTAINING ONE THIN (2MM) SEAM CHALCOPYRITE.			

PL. ARKNER
M. G. B. V. E. CO.
MART 10 1965
78-91041121128 1128

SAMPLE NUMBER	DESCRIPTION	INTERSECTION	ANGLE	DEPTH
213.7-221.8'	GNEISS, MEDIUM COARSE GRAIN, WITH VARIED TEXTURE, MID GREY. MINOR DISSEMINATED PYRITE, CHALCOPYRITE 215-216, 219-220. THIN SEAMS (2MM) SULPHIDE 220-220.5.			
221.8-223.0'	ARGILLITE, BROWN, FINE GRAINED, LAMINATED, WITH THIN SEAMS PYRRHOTITE CHALCOPYRITE (.5% SULPHIDE) QUARTZ-MICA GNEISS, WITH PYRRHOTITE, CHALCOPYRITE DISSEMINATED THROUGHOUT. SULPHIDE ALSO OCCURS IN THIN, MASSIVE SEAMS.		72	223
223.0-225.0'	QUARTZ-MICA GNEISS. MEDIUM - COARSE GRAIN, VARIEGATED BROWN - WHITE.			
225.0-230.2'	MICA-CHLORITE SCHIST. FINE GRAINED, BROWN ROCK LAMINATED, WITH GREEN (CHLORITIC) INTERBANDS, MINOR PYRITE, PYRRHOTITE AND CHALCOPYRITE FINELY DISTRIBUTED THROUGHOUT, PRINCIPALLY AS THIN SEAMS FOLLOWING THE SCHISTOSITY. 4" SEAM OF MORE MASSIVE PYRRHOTITE OCCURS 229.4-229.8'.		80	228
230.2-231.0'	GRANITE SEAM. DARK BIOTITE GRANITE, DISCORDANT		69	238
231.0-247.0'	QUARTZ-MICA-GARNET GNEISS, MEDIUM GRAINED, WITH COLOUR AND TEXTURE VARYING SLIGHTLY THROUGHOUT. GARNETS FORM ABOUT 10% OF ROCK, UNEVENLY DISTRIBUTED, MINOR DISSEMINATED PYRITE, CHALCOPYRITE OCCUR 231-235, 242-247 (FORM LESS THAN 0.5% OF ROCK. 2MM SEAM MASSIVE SULPHIDE AT 236'.		58	244
247.0-248.5'	QUARTZ-MICA GNEISS. FINE GRAINED, GREY.		73	253
248.5-270.0'	QUARTZ-MICA-GARNET GNEISS, FINE GRAINED MEDIUM-DARK GREY, GARNETS FORM 15-20% OF ROCK, OCCURRING AS DISCRETE SUBHEDRAL CRYSTALS UP TO 1 CM. ACROSS, AND IN GRANULAR AGGREGATES. MINOR PYRITE AND PYRRHOTITE OCCUR IN THIN SEAMS FOLLOWING GNEISSOSITY 250-255'.		73	263
270.0-273.0'	"GRANITE" GNEISS. QUARTZ-FELDSPAR-MICA ROCK, FINE TO MEDIUM GRAIN. PYRITE FORMED IN THIN OBLIQUE FRACTURES AT 273'.			
273.0-276.5'	QUARTZ-BIOTITE GNEISS, GREY, FINE GRAINED. SCATTERED MINOR PYRITE.		70	274
276.5-290.0'	GRANITE GNEISS, MEDIUM GRAINED, GREY-PINK.			
290.0-292.0'	APLITE DYKE.			
292.0-293.5'	GRANITE GNEISS, AS ABOVE.			
293.5-294.5'	QUARTZ-MICA GNEISS, GREY.			
294.5-300.0'	GRANITE GNEISS, WITH MINOR APLITE SEAMS.			
300.0'	END OF HOLE.			



DIAMOND DRILL LOG

PROPERTY: ZENMAC METAL MINES LIMITED - ANDERSON COPPER

HOLE NUMBER: A-2

LOCATION: WINSTON LAKE, PAYS PLAT LAKE AREA, ONTARIO.
N. E. CORNER OF CLAIM TB-111059

DIP TESTS

Latitude:) SEE MAPS.	Dip: 60°	Footage	Reading	Corrected
Departure:)	Depth: 423'	200'	60°	
Elevation:		Commenced: NOVEMBER 21, 1965	400	63°	
Azimuth: 300°		Finished: NOVEMBER 24, 1965	Logged by: R. NICHOLSON		

SAMPLE NUMBER	DESCRIPTION	INTERSECTION	ANGLE	DEPTH
0.0- 2.0'	OVERBURDEN			
2.0- 7.0'	QUARTZ-BIOTITE-GARNET GNEISS. FINE GRAINED, GREY-GREEN ROCK, WITH HIGH SILICA CONTENT. GARNETS, WITH GRAIN SIZE UP TO 1 MM FORM 5-15% OF ROCK.			
7.0- 18.0'	QUARTZ-BIOTITE GNEISS. FINE GRAINED, MID-GREY COMPACT ROCK, WITH MARKED GNEISSOSITY, COMPOSED OF APPROXIMATELY EQUAL PROPORTIONS QUARTZ AND MICA. MINOR QUANTITIES SECONDARY RED FELDSPAR INTRODUCED INTO AN ALTERATION ZONE, 7'-9'.		44	14
18.0- 26.0'	QUARTZ-BIOTITE-CHLORITE-GARNET SCHIST. VARIEGATED PALE GREY-GREEN ROCKS, WITH GNEISSOSITY MARKED PRINCIPALLY BY THE FINE SEGREGATION OF DIFFERENT MINERALS. MEDIUM-COARSE GRAIN, WITH GARNETS UP TO 3 MM. ACROSS FORMING ABOUT 15% OF THE WHOLE.			
26.0- 27.5'	BRECCIATED ZONE IN GNEISS, WITH QUARTZ INVASION.			
27.5- 34.0'	QUARTZ-MICA GNEISS, PALE GREY-GREEN COLOUR MEDIUM GRAINED. THE ROCK IS EXTENSIVELY FRACTURED AND VEINED WITH QUARTZ AND APLITE. SECONDARY RED FELDSPAR OCCURS AS INTERSTITIAL GRAINS, AND IN THE QUARTZ APLITE VEINS.		69	33
34.0- 42.5'	QUARTZ-BIOTITE-GARNET GNEISS. GREY-GREEN, FINE-MEDIUM GRAINED ROCK, WITH FAINT GNEISSOSITY. GARNET, UP TO 2 MM ACROSS, FORM ABOUT 10%.			
42.5- 43.5'	QUARTZ-BIOTITE GNEISS, FINE GRAINED, PALE GREY ROCK, WITH THIN (1/2 MM.) TABULAR SEGREGATIONS BIOTITE LYING PARALLEL TO THE GNEISSOSITY.		64	43
43.5-45.0'	QUARTZ-BIOTITE-GARNET GNEISS. GREY-GREEN, FINE-MEDIUM GRAINED.			
45.0- 57.0'	QUARTZ-BIOTITE-GARNET GNEISS, PALE GREY-GREEN FINE-MEDIUM GRAIN. PELITIC BAND 50-52' SHOWS STRONG DEVELOPMENT OF COARSE MICAS, IN SEAMS UP TO 1 CM. WIDE.		40	51
57.0- 67.5'	QUARTZ-MICA GNEISS. FINE GRAINED, MID GREY COMPACT, PARTLY SILICIFIED, WITH MINOR SECONDARY RED FELDSPAR. QUARTZ-FELDSPAR VEIN 64-64.6'.			
67.5- 70.5'	APLITE. VARIEGATED RED-WHITE QUARTZ FELDSPAR ROCK. SUBHEDRAL.			
70.5- 75.0'	QUARTZ-MICA GNEISS, FINE GRAINED, COMPACT, SILICIFIED MID-GREY ROCK. NO APPARENT FOLIATION.			
75.0- 85.0'	QUARTZ-MICA GNEISS, FINE TO MEDIUM GRAIN, MID-GREY. VARIEGATED APPEARANCE ACCENTUATES BLIGHT GNEISSOSITY.		50	89

REPORT
 MARCH 10 1966
 283456

SAMPLE NUMBER	DESCRIPTION	INTERSECTION	ANGLE	DEPTH
85.0-109.0'	QUARTZ-MICA GNEISS. FINE TO MEDIUM GRAIN MID-GREY-GREEN ROCK, GENERALLY MASSIVE WITH LOCAL FRACTURING, APLITE SEAMS 93-94', 109'.		42 40	99 105
109.0-112.0'	QUARTZ-MICA GNEISS. MEDIUM COARSE GRAIN, PALE GREY, SILICEOUS.			
112.0-122.8'	QUARTZ-MICA GNEISS, MID GREY-GREEN, MEDIUM GRAINED, WITH LOCAL MINOR QUARTZ VEINING.			
122.8-138.5'	GRANITE, MEDIUM GRAINED, VARIEGATED GREY		62	130
138.5-155.4'	QUARTZ-MICA GNEISS, FINE-MEDIUM GRAIN, DARK GREY, WITH MODERATELY STRONG FOLIATION. LOCAL PELITIC BANDS WITH CHLORITE CIRCA 146'. MINOR GRANITE SEAMS (TO 6") DISTRIBUTED THROUGHOUT.			
155.4-158.0'	GRANITE, MEDIUM GRAINED, GREY.		71	167
158.0-186.0'	GNEISS, FINE-MEDIUM GRAIN, DARK, COMPACT. PELITIC SEAM WITH COARSE MICA, CHLORITE 171.6-172.0'.		36	171.5
186.0-212.0'	QUARTZ-MICA GNEISS, MEDIUM-FINE GRAIN, PALE, GREEN-GREY, WITH SECONDARY RED FELDSPAR DEVELOPED ADJACENT TO FRACTURE PLANES THROUGHOUT. MINOR QUARTZ VEINS 186-188. APLITE VEIN 191-192.5.		68 71	189 200
212.0-237.0'	QUARTZ-MICA GNEISS, MEDIUM-COARSE GRAIN, PALE GREY, WITH COARSELY MICACEOUS DARK BANDS UP TO 1/2" WIDE AT INTERVALS OF 2-6", GRANITE SEAM 213.5-215'.		80	231
237.0-240.0'	QUARTZ-BIOTITE GNEISS, COARSE GRAINED UNIFORM VARIEGATED GREY BROWN COLOUR, WITH MINOR FINELY DISSEMINATED PYRITE.		69	238
240.0-244.0'	MICACEOUS SANDSTONE, PALE GREY, UNIFORM GRANULAR TEXTURE, FAINT GNEISSOSITY. FINELY DISSEMINATED MINOR PYRITE THROUGHOUT.		80	242
244.0-245.0'	GRANITE, GREY, FINE GRAINED.			
245.0-246.5'	MICA GNEISS, FINE GRAINED, UNIFORM, COMPACT, DARK GREY, WITH MINOR PYRITE.			
246.5-269.2'	QUARTZ-BIOTITE GNEISS. COARSE GRAINED UNIFORM VARIEGATED BROWN-GREY ROCK WITH MARKED GNEISSOSITY. FINELY DISSEMINATED PYRITE (1%) THROUGHOUT. MINOR CHALCOPYRITE 267-269'.		78 80	248 262
269.2-269.7'	GNEISS, WITH MASSIVE PYRITE, PYRRHOTITE, MINOR CHALCOPYRITE.		68	273
269.7-271.0'	QUARTZ-BIOTITE GNEISS, COARSE GRAINED, UNIFORM VARIEGATED BROWN-GREY, WITH DISSEMINATED PYRITE (TO 5%).			
271.0-272.0'	BRECCIATED ZONE, WITH QUARTZ INVASION.			
272.0-285.4'	QUARTZ-MICA GNEISS, MEDIUM-COARSE GRAIN, VARIEGATED GREY-BROWN. FEW SMALL GARNETS, 1% PYRITE DISSEMINATED AND IN THIN SEAMS.		80	282
285.4-294.6'	QUARTZ-BIOTITE-GARNET GNEISS. MEDIUM COARSE GRAIN VARIEGATED BROWN-GREY-PINK. GARNETS, UP TO 5 MM. ACROSS, FORM 30% OF ROCK. PYRITE (1%) OCCURS FINELY DISSEMINATED AND IN THIN SEAMS, INCREASING TO 10% IN LOWEST 2-3".			
294.6-302.0'	QUARTZ-MICA GNEISS, FINE GRAINED, MID-GREY, EVEN TEXTURED.		73	297

SAMPLE NUMBER	DESCRIPTION	INTERSECTION	ANGLE	DEPTH
302.0-340.0'	GRANITE GNEISS. FINE-MEDIUM GRAIN, PINK-GREY, GNEISSOSITY WELL DEFINED. MINOR QUARTZ AND APLITE VEINING THROUGHOUT.		84 90	315 325
340.0-343.0'	BIOTITE-QUARTZ GNEISS. FINE-MEDIUM GRAINED, COMPACT, DARK GREY.			
343.0-423.0'	GRANITE GNEISS, MEDIUM GRAINED, WITH NUMEROUS QUARTZ AND APLITE VEINS, THIN RELICT SEAMS MICA GNEISS 410-420', WITH MINOR PYRITE		69 63 70	350 373 410
423.0'	END OF HOLE.			

DIAMOND DRILL LOG

PROPERTY: ZENMAC METAL MINES LIMITED - WINSTON ZINC

HOLE NUMBER: W-1

LOCATION: FRED LAKE, PAYS PLAY LAKE AREA, ONTARIO
CLAIM #111055

DIP TESTS

Latitude:	}	Dip: 55°	Footage	Reading	Corrected
Departure:	} SEE MAPS	Depth: 300'	150	56°	
Elevation:		Commenced: NOVEMBER 2, 1965	300	58°	
Azimuth: 257°		Finished: NOVEMBER 4, 1965			Logged by: R. NICHOLSON

SAMPLE NUMBER	DESCRIPTION		
0.0- 5.5'	OVERBURDEN, ORGANIC MATTER.		
5.5- 26.0'	QUARTZ-GARNET-MICA SCHIST. FINE TO MEDIUM GRAIN MID GREY ROCK, WITH ALTERNATING QUARTZ AND MICA-RICH BANDS UP TO 5 MM. WIDE. GARNETS OCCUR AS DISCRETE SUBHEDRAL CRYSTALS UP TO 1 CM. ACROSS, AND IN AGGREGATES OF FINE ANHEDRAL GRAINS; FORM 20% OF ROCK. LOCAL QUARTZ VEINS OCCUR CONCORDANT WITH SCHISTOSITY.		
26.0- 27.0'	QUARTZ MICA SCHIST, WITH QUARTZ VEIN.		
27.0- 31.0'	QUARTZ-MICA-GARNET SCHIST. GARNETS FORM ABOUT 10% OF ROCK.		
31.0- 36.0'	QUARTZ-MICA GNEISS, PALE GREY MEDIUM GRAIN COMPACT ROCK. NORMAL QUARTZ VEIN AT 31.5' CUT BY TRANSVERSE SHEARS, WITH EPIDOTE DEVELOPED IN QUARTZ. FELDSPAR PORPHYROBLASTS (2MM) DEVELOPED 32.5-33.0. THIN QUARTZ-PYRITE VEIN AT 32.7'.		
36.0- 41.0'	QUARTZ GARNET MICA SCHIST. HIGH QUARTZ CONTENT (70%). GARNETS FORM 6-8%.		
41.0- 51.0'	QUARTZ MICA GNEISS. FINE - MEDIUM GRAINED PALE GREY COMPACT ROCK, BANDED. HIGH SILICA CONTENT.		
51.0- 57.0'	QUARTZ - MICA - CHLORITE SCHIST. MEDIUM GRAIN GREY-GREEN ARGILLACEOUS ROCK, SHEAR PLANES WARPED. AGGREGATES OF FINE GRAINED RED FELDSPAR DEVELOPED LOCALLY IN SHEARS.		
57.0- 73.0'	QUARTZ-MICA GNEISS, MEDIUM GRAIN GREY ROCK WITH SLIGHT VARIATION IN SILICA-MICA RATION THROUGHOUT. MINOR LOCAL DEVELOPMENTS OF SMALL FELDSPAR GRAINS. SPARSE SUBHEDRAL GARNETS (TO 5 MM. DIAMETER) 70' - 72'.		
73.0- 91.0'	MICACEOUS QUARTZITE, MEDIUM GRAINED, PALE GREY, BANDED. SPARSE GARNETS AT 74', 84-86', 89'.		
91.0- 93.0'	BIOTITE-QUARTZ-CHLORITE SCHIST. MOTTLED GREY-GREEN ROCK, WITHOUT COHERENT STRUCTURE.		
93.0- 98.0'	QUARTZ MICA GNEISS.		
98.0-118.0'	MICACEOUS QUARTZITE. MEDIUM GRAINED GREY AND WHITE BANDED ROCK WITH GARNETS AT 113'.		
118.0-127.0'	MICA-CHLORITE SCHIST. DARK GREY ROCK, FINE TO MEDIUM GRAIN, MASSIVE.		
127.0-129.5'	CHLORITE-MICA SCHIST, MASSIVE, FINE GRAINED, GREEN-GREY.		
129.5-133.5'	MICA GNEISS, DARK, FINE GRAINED, MASSIVE.		

R. NICHOLSON
 MAR 10 1966
 2891041849826

SAMPLE NUMBER	DESCRIPTION		
133.5-161.0'	QUARTZ-MICA GNEISS. MEDIUM GRAINED, BANDED GREY ROCK. PELITIC BANDS AT 138', 143' SHOW SLIGHT WARPING. SPARSE GARNETS IN NARROW BEAM AT 148'. ROCK BECOMES MORE SILICEOUS, WITH PRONOUNCED BANDING, BELOW 150'.		
161.0-166.0'	BIOTITE-QUARTZ SCHIST, COARSE GRAINED DARK ROCK, WITH LAMINAE SLIGHTLY WARPED. LOCAL MINOR QUARTZ VEINS.		
166.0-176.0	MICACEOUS QUARTZITE. PALE GREY, BANDED ROCK, FRACTURED AND SILICIFIED FROM 166.5-169', AND AT 174'. FRACTURES ARE STEEPLY INCLINED TO THE CORE AXIS (30°) AND ARE ASSOCIATED WITH DEVELOPMENT OF RED MINERAL, POSSIBLY FELDSPAR. BRECCIA AT 174' CONTAINS CHLORITE.		
176.0-193.0'	QUARTZ-MICA GNEISS. MEDIUM GRAINED BANDED GREY ROCK.		
193.0-199.5'	BIOTITE SCHIST. COARSE GRAINED DARK COMPACT SCHIST, WITH CRYSTALS OF WHITE MINERAL DEVELOPED LOCALLY.		
199.5-206.5'	QUARTZ-MICA GNEISS. BANDED, PALE GREY WITH SLIGHT CROSS SHEARING. APLITE VEIN 205.3-206.5'.		
206.5-210.0'	BIOTITE-QUARTZ SCHIST. FINE-MEDIUM GRAIN, DARK COMPACT ROCKS, WITH VERY FINE DISSEMINATED PYRITE.		
210.0-212.0'	MICACEOUS QUARTZITE, BANDED.		
212.0-215.0'	BIOTITE QUARTZ SCHIST.		
215.0-217.5'	MICACEOUS QUARTZITE.		
217.5-220.0'	BIOTITE-QUARTZ SCHIST.		
220.0-263.6'	QUARTZ-BIOTITE GNEISS. UNIFORM MID-GREY ROCK, MEDIUM GRAIN, COMPACT, WITH SLIGHT BANDING. APLITE VEIN AT 243'. BANDING MORE PRONOUNCED 260-263.5'. STREAKS OF RED MINERAL, PROBABLY FELDSPAR, DEVELOPED OBLIQUE TO SCHISTOSITY FROM 250 TO 265'.		
263.5-264.7	APLITE VEIN. BRIGHT PINK QUARTZ-FELDSPAR ROCK, MEDIUM GRAINED.		
264.7-300.0	QUARTZ - MICA GNEISS, BANDED WITH SPARSE GARNETS THROUGHOUT.		
300.0	END OF HOLE		

DIAMOND DRILL LOG

PROPERTY: ZENMAC METAL MINES LIMITED - WINSTON ZINC

HOLE NUMBER: W-2

LOCATION: FRED LAKE, PAYS PLAT LAKE AREA, ONTARIO.
CLAIM #111055

DIP TESTS

Latitude:)	Dip: 55°	Footage	Reading	Corrected
Departure:) SEE MAPS	Depth: 420 FEET	200	60°	
Elevation:	Commenced: NOVEMBER 5, 1965	400	61°	
Azimuth:	Finished: NOVEMBER 8, 1965	Logged by: R. NICHOLSON		

SAMPLE NUMBER	DESCRIPTION	ANGLE	DEPTH
0.0- 6.0'	OVERBURDEN		
6.0- 17.0'	QUARTZ-MICA-GARNET GNEISS. MEDIUM GRAINED GREY ROCK, WITH FINE INTERBANDING (TO 1.5 CH.) OF QUARTZ-AND MICA-RICH FRACTIONS. GARNETS IN SUBHEDRAL CRYSTALS UP TO 1.5 CH, ACROSS, FORM ABOUT 10% OF ROCK. COARSE MICAS AND CHLORITE DEVELOPED IN NARROW BAND AT 12.5'. APLITE VEINING AT 8.5', 10.5', AND 12-14'.		
17.0- 26.0'	QUARTZ-MICA GNEISS. MEDIUM GRAINED, MID-GREY BANDED	85	22
26.0- 31.0'	QUARTZ-MICA GNEISS, FINE GRAINED, UNIFORM MID-GREY WITH LOCAL PALE BANDS.	87	27
31.0- 32.5'	MICACEOUS QUARTZITE, PALE GREY, MEDIUM GRAIN, WITH FINE MICACEOUS BANDS.		
32.5- 35.0'	QUARTZ MICA GNEISS. FINE GRAINED, UNIFORM DARK GREY.		
35.0- 45.0'	MICACEOUS QUARTZITE, MEDIUM-COARSE GRAINED WITH VARIABLE COLOUR AND TEXTURE. GENERALLY PALE GREY WITH MICACEOUS AND LOCALLY CHLORITIC BANDS. CHLORITE AND FELDSPAR DEVELOPED ADJACENT TO OBLIQUE FRACTURE AT 42', MINOR PYRITE CONCORDANT WITH SCHISTOSITY AT 41'	82	42
45.0- 51.0'	QUARTZ-MICA GNEISS, DARK GREY, FINE GRAINED, SLIGHTLY BANDED.		
51.0- 56.5'	MICACEOUS QUARTZITE. BANDED PALE GREY, MEDIUM-COARSE GRAIN. APLITE SEAM AT 53.5'.		
56.5- 65.5'	QUARTZ-MICA GNEISS, LOCALLY CHLORITIC, BANDED AND SILICIFIED.		
65.5- 67.0'	MICACEOUS QUARTZITE. WHITE, MEDIUM GRAINED ROCK, WITH FINE INTERBANDING OF PELITIC MATERIAL.		
67.0- 71.5'	QUARTZ-MICA-GNEISS. MEDIUM GRAINED, BANDED GREY ROCK, WITH 10% GARNETS 69-70'.		
71.5- 71.8'	CHLORITE-MICA SCHIST. DARK, COARSE GRAIN.		
71.8- 74.0'	QUARTZITE, WHITE, WITH FINE MICACEOUS INTERBEDS	74	72
74.0- 75.0'	QUARTZ-MICA GNEISS, WITH GARNETS.		
75.0- 77.8'	MICACEOUS QUARTZITE, PALE GREY, BANDED. FELDSPAR DEVELOPED AT 77'.		
77.8- 80.5'	QUARTZ-MICA GARNET GNEISS. MID-GREY, FINELY BANDED, GARNETS, UP TO 3 MM DIAMETER, FORM 20% OF ROCK.	70	78
80.5- 81.3'	MICACEOUS QUARTZITE.		
81.3- 82.5'	CHLORITE MICA SCHIST, COARSE GRAINED, DARK GREY-GREEN. LAMINAE STEEPLY INCLINED TO CORE AXIS.	52	82

SAMPLE NUMBER	DESCRIPTION	ANGLE	DEPTH
82.5--86.5'	MICACEOUS QUARTZITE. PALE GREY-WHITE, MEDIUM GRAINED, SILICIFIED, BANDED.		
86.5- 90.0'	QUARTZ-CHLORITE-MICA GNEISS. FINE GRAINED, DARK COMPACT ROCK, LOCALLY BANDED WITH MORE SILICEOUS FRACTIONS.		
90.0- 96.0'	QUARTZITE, MEDIUM GRAINED, MID GREY BANDED ROCK, MICACEOUS AND CHLORITIC. SILICIFIED, WITH DEVELOPMENTS OF RED MINERAL (FELDSPAR). OBLIQUE FRACTURING.	42	91
96.0-99.0'	QUARTZ-CHLORITE GNEISS. GREENISH, FINE GRAINED COMPACT ROCK. CHLORITE DEVELOPED IN OBLIQUE FRACTURES 96-97'.	84	97
99.0-106.0'	QUARTZITE, MEDIUM GRAINED, GREY, MICACEOUS AND CHLORITIC. BANDED AND SILICIFIED.		
106.0-108.0'	QUARTZ-MICA-CHLORITE GNEISS.		
108.0-113.0'	QUARTZITE. MID GREY, SILICIFIED	90	107
113.0-118.0'	MICA-CHLORITE-QUARTZ SCHIST. COARSE GRAINED GREENISH GREY ROCK. LAMINAE WARPED.		
118.0-122.5'	QUARTZ-MICA GNEISS. CLUSTER OF SMALL GARNETS AT 121.5'.	88	122
122.5-124.0'	QUARTZ-GARNET-MICA GNEISS. MEDIUM GRAIN, MID GREY WITH PALE BANDS. GARNETS FORM 20-25% OF ROCK.		
124.0-139.0'	QUARTZ-GARNET-MICA GNEISS. MEDIUM GRAIN, COMPACT BANDED GREY ROCK, WITH SPARSE GARNETS (TO 5%) 127-134.	82	137
139.0-144.0'	MICA-CHLORITE-QUARTZ SCHISTS. DARK GREY-GREEN MEDIUM COARSE GRAIN PELITIC ROCK, WITH WARPED STRUCTURE. 4" QUARTZ VEIN AT 144'.		
144.0-148.0'	QUARTZ-MICA GNEISS. MEDIUM GRAINED, GREY, BANDED.		
148.0-149.0'	MICA CHLORITE QUARTZ SCHIST. DARK GREY-GREEN, COARSE GRAINED.		
149.0-172.5'	QUARTZ-MICA-CHLORITE GNEISS. MEDIUM TO COARSE GRAIN ROCK, WITH RELATIVELY LOW SILICA CONTENT. GREY-GREEN BANDED.	84	164
172.5-182.0'	QUARTZ-MICA GNEISS. GREY, MEDIUM-COARSE GRAIN ROCK, WITH SOME ORIGINAL FELDSPAR	80	176
182.0-191.0'	FELDSPATHIC QUARTZITE, FINE TO MEDIUM GRAIN, GREY-PINK COLOUR. GENERALLY MASSIVE, BUT LOCALLY WITH DISTINCT BEDDING. GREEN MINERAL (?CHLORITE) DEVELOPED IN BEDDING PLANES AND FRACTURES. BAND FROM 185 TO 187 SILICIFIED, FELDSPAR RECRYSTALLIZED.	86	178
191.0-223.5'	QUARTZITE. FINE GRAINED, PALE GREY, WITH THIN MICACEOUS INTERBEDS.	87	201
223.5-224.8'	APLITE DYKE. DISCORDANT, WITH IRREGULAR CONTACT.		
224.8-248.5'	QUARTZITE, FINE GRAINED, GREY, MASSIVE. PALER, MORE SILICEOUS, WITH PELITIC INTERBEDS TO 3" BELOW 234'.	90	238
248.5-249.5'	BIOTITE GNEISS. DARK, FINE GRAINED, COMPACT.		
249.5-270.0'	QUARTZITE, MICACEOUS, FINE GRAINED, COMPACT, BANDED ACCORDING TO SLIGHT VARIATION IN MICA - SILICA RATIO. THIN BIOTIC BANDS 265-270'.	90	248

SAMPLE NUMBER	DESCRIPTION	ANGLE	DEPTH
270.0-275.4'	QUARTZ-BIOTITE-GARNET GNEISS. FINE TO MEDIUM GRAIN GREY ROCK, WITH HIGH QUARTZ CONTENT. SPARSE GARNETS, TO 1 CM. DIAMETER, FORM 5% OF ROCK.		
275.4-286.0'	QUARTZ-BIOTITE-GARNET GNEISS. COARSE GRAINED, STRONGLY BANDED. GARNETS, IN SUBHEDRAL CRYSTALS UP TO 1 CM. DIAMETER FORM ABOUT 15% OF ROCK.	87	282
286.0-311.0'	QUARTZ BIOTITE GARNET GNEISS. FINE TO MEDIUM GRAINED, MORE UNIFORM THAN SECTION ABOVE. GARNETS SMALL (4 MM) FORM NOT MORE THAN 5% OF ROCK.	88	298
311.0-315.0'	MICA QUARTZ GNEISS. DARK, FINE GRAINED COMPACT PELITIC ROCK.		
315.0-316.0'	GRANITE SEAM, DISCORDANT, WITH CONTACT INCLINED AT 70° TO CORE AXIS.		
316.0-318.0'	MICA-QUARTZ GNEISS. FINE GRAINED, DARK.		
318.0-336.0'	QUARTZ-MICA GNEISS, MID GREY, STRONGLY BANDED, FINE-GRAINED, WITH SPARSE GARNETS.	88	325
336.0-337.0'	GNEISS, AS ABOVE, WITH APLITE VEINS.	90	337
337.0-340.5'	MICA-QUARTZ-CHLORITE GNEISS. FINE GRAINED, DARK GREY-GREEN ROCK.		
340.5-345.5'	QUARTZITE, WHITE, COARSE GRAINED WITH FINE MICACEOUS INTERBEDS.	86	341
345.5-352.0'	MICA-QUARTZ GNEISS, FINE GRAINED, COMPACT DARK GREY-GREEN ROCK. EPIDOTE (?) DEVELOPED IN FRACTURE.	88	346
352.0-353.5'	QUARTZITE, WHITE, COARSE GRAINED, WITH APPARENT SLUMP BEDDING.	88	368
353.5-363.8'	MICA-QUARTZ GNEISS. FINE GRAINED, DARK, WITH QUARTZITE BANDS AT 357, 358, 359'.		
363.8-364.6'	QUARTZITE, WHITE, COARSE GRAINED.		
364.6-389.5'	QUARTZ-MICA GNEISS, MEDIUM GRAINED, MID GREY ROCK, COMPRISING EQUAL PROPORTIONS OF QUARTZ AND MICA. THIN, DISCORDANT GRANITE VEINS AT 371, 379'.	80	378
389.5-393.0'	QUARTZITE, PALE GREY, SILICIFIED, WITH FINE ARGILLACEOUS INTERBEDS. LOCAL MINOR QUARTZ VEINING, DEVELOPMENT OF PINK FELDSPAR. ARGILLACEOUS BANDS AT BASE.	78	392
393.0-396.0'	QUARTZ-MICA GNEISS. DARK GREY, FINE GRAINED, COMPACT.		
396.0-401.0'	QUARTZ-GARNET-MICA GNEISS. COARSE GRAINED, DARK. GARNETS, IN SUBHEDRAL CRYSTALS UP TO 1 1/2 CM. DIAMETER FORM UP TO 30% OF ROCK.		
401.0-420.0'	QUARTZ-MICA GNEISS. MEDIUM GRAINED, MID GREY, BANDED.		
420.0'	END OF HOLE.		

DIAMOND DRILL LOG 4-4-462

PROPERTY: ZENMAC METAL MINES LIMITED - 13 CLAIMS N. & E. OF ZENITH HOLE NUMBER: 104

LOCATION: CLAIM TB-102808 IN S.W. CORNER.

DIP TESTS

Latitude: 5920' Dip: 60° Footage Reading Corrected

Departure: 7090' Depth: 181'

Elevation: 9190' (APPROX.) Commenced: NOVEMBER 25, 1965

Azimuth: 340° Finished: DECEMBER 1, 1965

Michael Ogden
Logged by: MICHAEL OGDEN.

SAMPLE NUMBER	DESCRIPTION		
0.0- 3.3'	CASING		
3.3- 45.5'	4B. MOSTLY COARSE GRAINED GABBRO 4.5-17.6 4A (HIGH FELDSPAR) INTERMITTENT SECTIONS (1'-4') MEDIUM GRAINED DIORITE.		
45.5- 94.5'	4B.2 COARSE GRAINED GABBRO, PARTIALLY CHLORITISED GRANULAR TEXTURE OBBURED. FREQUENT QUARTZ THREADS (12 TO THE FOOT) UP TO 1 INCH WIDE. LAST 20' FEWER QUANTZ THREADS, VAGUE DARK BANDING AT 60° TO CORE.		
94.5-110.0'	4B. MEDIUM GRAINED GABBRO, BLACK BANDING PERSISTS.		
110.0-135.5'	4B.2 PARTLY CHLORITISED GABBRO WITH FREQUENT THREADS AND STRINGERS. SHATTERED ZONE WITH FAULT GORGE AT 112.4-115.0. FREQUENT PINK ALTERATION IN STRINGERS THROUGHOUT SECTION.		
135.5-165.5'	4B. MEDIUM GRAINED GABBRO (STILL WITH VAGUE BLACK BANDING TO 148') COARSER GRAIN BELOW 148', WITH HIGHER FELDSPAR CONTENT, PARTICULARLY AT 152-153.5, 162-168.		
165.5-181.0'	4B. COARSE GRAINED GABBRO, PALER THAN ABOVE, SLIGHTLY CHLORITISED.		
181.0'	END OF HOLE.		

TB-102808

TB-102809

TB-102813

R-722

TB-102814

#1

TB

42158

TB-102817

#2

TB-102818



TB-121039

ZENMAC METAL MINES LTD.

EAST BLOCK

DIAMOND DRILLING

SCALE: 1 IN. = 400 FT. DEC/66

M. Ogden

DIAMOND DRILL LOG

PROPERTY: ZENMAC METAL MINES LIMITED.

HOLE NUMBER: 1

LOCATION: In Claim 102813 (See Sketch)

DIP TESTS

Latitude: Dip: 45° Footage Reading Corrected

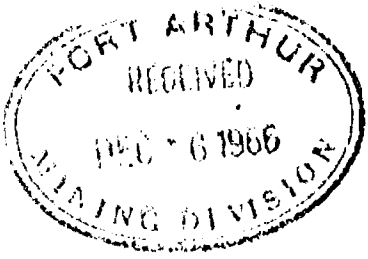
Departure: Depth: 502

Elevation: Commenced: Nov. 7, 1966

Azimuth: 135° True Finished: Nov. 22, 1966

Logged by: M. Odgen

Michael Odgen

SAMPLE NUMBER	DESCRIPTION		
0-5:	Casing		
5-502:	Gabbro		
502:	End of hole.		
			

DIAMOND DRILL LOG

PROPERTY: ZENMAC METAL MINES LIMITED.

HOLE NUMBER: 2

LOCATION: In Claim 102817 (See Sketch)

DIP TESTS

Latitude: Dip: 45° True Footage Reading Corrected

Departure: Depth: 502

Elevation: Commenced: Nov. 25, 1966

Azimuth: 135° True

Finished: Dec. 4, 1966

Logged by: M. Odgen

Michael Odgen

SAMPLE NUMBER	DESCRIPTION		
0-35:	Casing		
35-502:	Gabbro		
502:	End of Hole.		



TB-111077

PERMIT
LAND

TB-111032

TB-111031

TB-111080

ZENMAC ROAD

DDH-108

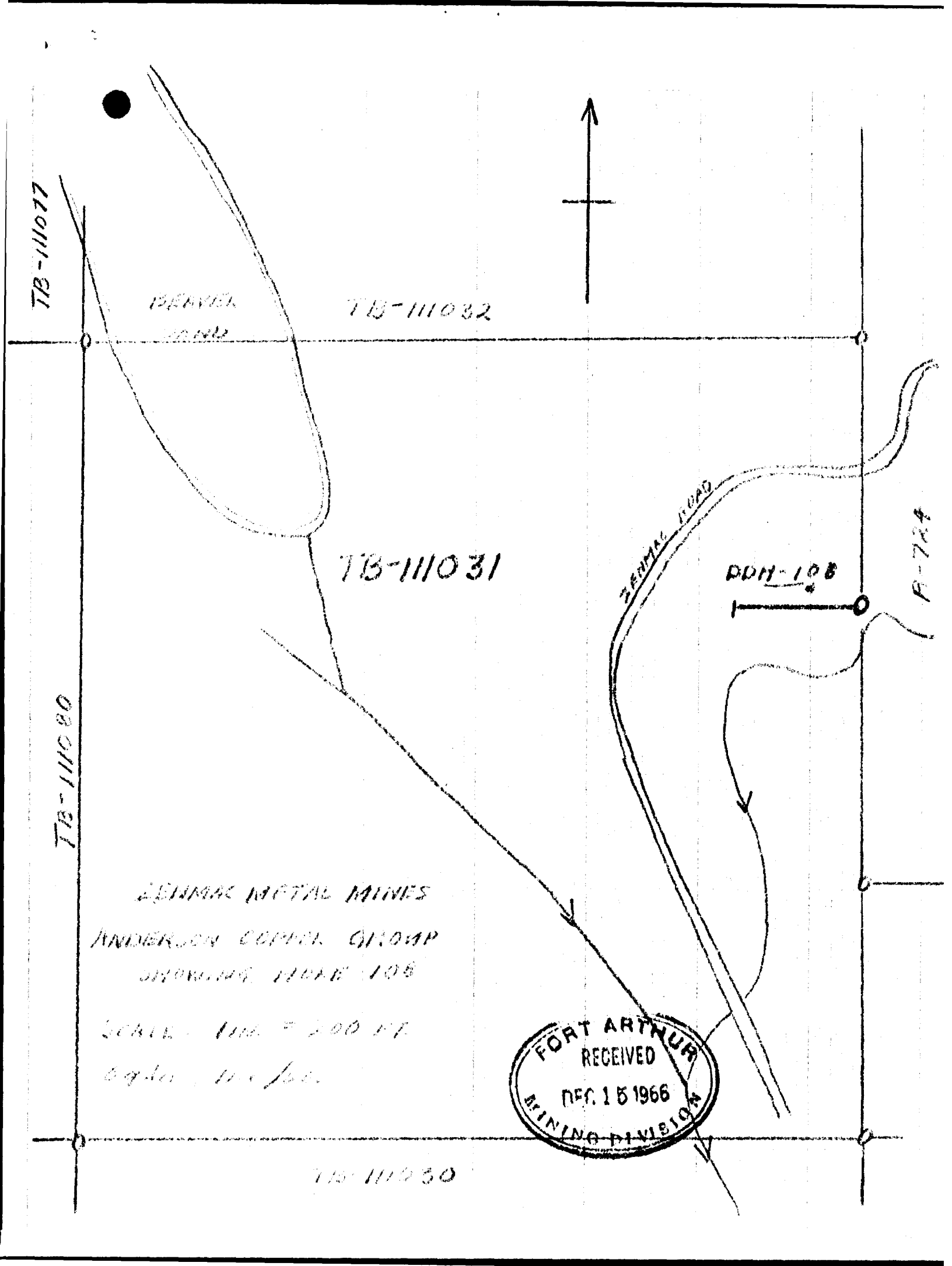
P-724

ZENMAC METAL MINES
ANDERSON COPPER GROUP
SHOWING HOLE 108

SCALE - 1" = 200 FT.

69-40-10-100

TB-111230



File 111031

Proprietor L. H. ...
M.S. ...

DIAMOND DRILL LOG

PROPERTY: Zenmac Metal Mines Limited
 LOCATION: In N. E. Portion of Claim TB-111031 on East Boundary @ 500 Ft. South of No. 1 Post. This is the Anderson Copper Group of 17 Claims.

HOLE NUMBER: 108

DIP TESTS

Latitude: Dip: 45° Footage Reading Corrected

Departure: Depth: 347 Ft.

Elevation: Commenced: Nov. 9, 1966.

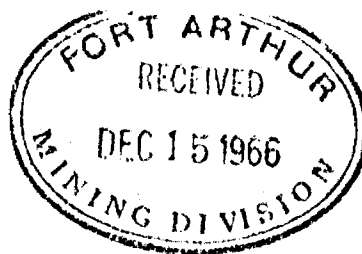
Michael Ogden

Azimuth: 270° True Finished: Nov. 21, 1966. Logged by: Michael Ogden

SAMPLE NUMBER	DESCRIPTION		
0-90:	<p>Grey gneiss, fine grained, table salt size, even textured, light to very dark grey rock of 75% feldspar, 15% muscovite and 10% fine quartz with a little copper and iron sulphides as detailed below.</p> <p>There are bands and sections of poorly banded, grey, pink or white very fine grained quartzite. In fact the grey gneiss is surely an impure quartzite.</p>		
0-2,8:	Pinkish quartzite with 3% sulphide, pyrite, chalco, possibly molybdenite and or bornite.		
	5.0-7.0: Intermixed quartzite and gneiss.		
	9.0-10.0: Intermixed quartzite and gneiss.		
S-6201	<p>0-10: 1% chalcopryrite (cp.) and 1% pyrite (py) both disseminated and usually separately. The first 2 feet is pinkish quartzite possibly also with molybdenite (mo) and or bornite (bo). The last foot is the same and between 5-7 there is intermixed quartzite and gneiss.</p>		
S-6202	10-18: 2% py. 1% cp., disseminated and in stringers.		
S-6203	18-28: Grey quartzite, 1½% fine py. and 1% cp.		
S-6204	28-38: Grey gneiss, 2% py., 1% pyrrhotite (po) and ½% cp.		
S-6205	38-45: Grey quartzite, 1% py. and ½% cp.		
	45-64: 1% py. fr. cp.		
	64-74: 3% py. fr. cp.		
	74-90: 1% py.		

SAMPLE NUMBER	DESCRIPTION			
	90-94: 3% py.			
90-111:	Soft schist, 20% phlogopite, 10% chlorite and 70% altrus feldspar. Trace cp. <u>Note:</u> The gneissosity throughout the hole is almost at right angles to the core, unless noted as otherwise.			
	105-107: Lost core.			
111-132:	Grey gneiss as before - more massive, $\frac{1}{2}$ % disseminated py. and trace cp. disseminated. Contact gradational.			
132-172:	Soft schist, greenish mica gneiss as in 90-111 but greener and it has 2% py. and trace to 1% cp.			
	141-144: Lost core.			
	149-150: Lost core.			
172-176:	Grey gneiss as before 1% py, $\frac{1}{2}$ % cp.			
176-235 $\frac{1}{2}$:	Soft schist green gneiss as before. Fine disseminate py. and cp.			
	210-218: 1% py., 1% cp., 1% po., disseminated with a 6" quartz vein (Q.V.) @ 217 V.L.M.			
235 $\frac{1}{2}$ -264:	Grey gneiss as before, more phlogopite therefore softer. The initial contact is clear @ 60° and not chilled. 2% fine py. and $\frac{1}{2}$ % cp. Lamination @ 60° to core.			
	248-249: Shear zone @ 30°.			
	257-262: Mostly bull quartz as 2" to 12" irregular bands at 60° to core.			
264-282:	Light grey plagioclase gneiss, coarse grain. 80% plagioclase in grains and bands @ 90° to core with much inclusions of biotite and chloritic hornblende. N.V.M.			
282-337:	Grey gneiss @ 80° to core, with threads, stringers and odd flecks of pyrite (py) up to 1% of the rock. Odd trace of cp.			

SAMPLE NUMBER	DESCRIPTION			
	284: 3" Quartz vein (Q.V.) @ 80°.			
	286: 4" Q.V. @ 90°.			
	295: 1 ft. lost core.			
	301: 2" Q.V.			
	307-312: 5 ft. of lost core (L.C.). No indication of shearing.			
	320-320½ & 321: 2" Q.V. @ 80°.			
	332-336: L.C. No apparent shearing.			
337-347:	Light grey, hard, banded gneiss @ 60° to core, a few stringers of py. as above. This is a closely banded almost white and dark grey rock. There are a couple of 2" Q.V. @ 60°.			
	342-344: L.C. shattered, no shearing.			
347:	End of hole.			



715-111033

111034

111034

TB-111032

BEAVER
POND

DDM-109

TB-111031



ZENMAC METAL MINES
 PORTION OF WINSTON TUG GLE
 SCALE: 1 IN. = 200 FT.
 Ogden Dec/66.

File 111032

Page Plot of X. ... M75rv

DIAMOND DRILL LOG

PROPERTY: Zenmac Metal Mines Limited. HOLE NUMBER: 109
 LOCATION: In the S.E. Corner of Claim TB-111032 at 200 ft. N. of No. 2 Post. This is in the Winston Zinc Group of 18 Claims. DIP TESTS
 Latitude: Dip: 45° Footage Reading Corrected
 Departure: Depth: 349 Ft.
 Elevation: In draw. Commenced: Nov. 22, 1966. *Michael Ogden*
 Azimuth: 263° Finished: Nov. 26, 1966. Logged by: Michael Ogden.

SAMPLE NUMBER	DESCRIPTION		
0-12 Feet:	Casing.		
12-53:	Gabbro, gneissic @ 70° (4b.1). The common sugary to rock salt size grain. The odd short stringer of py. The last foot shows a diminishing grain size that looks like chilling except that a glass phase is never approached.		
	49-50: Cemented shear and old breccia zone @ 30° to core.		
53-79½:	Basalt. A fine grain, very dark green to black rock with a fine thread like banding only in the first 10 feet. The initial contact @ 53-59 is gradational with lessening of the pepper-like gabbro grains.		
	59-64: There is the odd porphyroblast of plagioclase.		
	61-62: ½% py.		
	76-78: 1% py. in stringers.		
79½-86:	Closely banded, light grey, hard, gneiss @ 60°. 1% py. disseminated and in stringers, odd speck of cp.		
86-115:	Dark grey gneiss. A variously textured rock resembling a (4b.3). A basalt and a true grey gneiss which it is with variations.		
	110-115: ½% py. disseminated.		
115-144:	Closely banded light grey gneiss at 70° ½% disseminated py. and odd flake of cp.		
	126-144: The light and dark banding yet very vague and almost disappears.		

DIAMOND DRILL LOG

PROPERTY: Zennac Metal Mines Limited **HOLE NUMBER:** 111
LOCATION: In Claim TB-111030 of the Anderson Copper Group,
 East of Mine Road. **DIP TESTS**
Latitude: 4462 N. **Dip:** 45° **Footage** **Reading** **Corrected**
Departure: 292 E. **Depth:** 362 Feet.
Elevation: 10 ft. above **Commenced:** Dec. 17/66.
 Cleaver Lake **Finished:** Dec. 20/66. **Logged by:** *Michael Ogden*
Azimuth: 245°

SAMPLE NUMBER	DESCRIPTION
0-32;	Casing.
32-193;	Vague grey porphyry (5). 5-25% biotite, all @ 90 plus or minus 10° to core. 38½-42½: Fine gabbro or basalt. A dyke of 4b.2' @ 70° to core. 43: A one foot dyke of quartz eye porphyry pink granite dyke @ 75° to core. 46-51: Frequent vague quartz bands. 59-62: Light grey hard siliceous zone. 45-58: Odd flake of chalcopyrite. "Cp". 76: An 8 inch zone of quartz matrix breccia, probable old fault. 75-80: A few stringers of fine pyrite (Py) 80-91: " " " " "Cp" cutting the gneissosity @ 20° 100-104½: Soft schist (11) 50-70% brown phlogopyte. N.V.M. Contacts gradational over one foot. 105-135: Disseminated flakes & stringers of Cp. with a little Py. particularly between 116-120 where the rock would run 1% Cp. 118: 6 inches of lost core (drill error) 125-128.5: Lost core = 3½ feet (" ") 145-158: Softer, more biotite, up to 30%. 169-193: Vague zone of silicification, much harder, even grey, no crystal remnants and carries Cp. 175-180: ½% fine disseminated Cp. 190-193: " " " " " " .
193-218;	Fine hornblende gneiss (8).
	205-214: Lighter grey slightly silicified zone with frequent flakes, threads, disseminations and irregular streak of Cp with lesser Py. usually at a low angle to the gneissosity. (Est - 1/2 % gs.)

SAMPLE NUMBER	DESCRIPTION			
	<p>201-205: 1% Cp.in 3 Cp stringers per foot plus some disseminated and a little Py. 210: 3 Cp stringers over a foot.</p>			
211-232:	<p>Dark grey hornblende gneiss with contact gradational over 6 inches. (8)</p> <p>218-222: A little shearing @ low angles to the bedding and with a total of 2% Py mostly in stringers and bands.</p>			
232-252:	<p>Black hornblende porphyry (7). A greenish grey rock with lineation @ 80° to core and heavily flecked with white feldspar. N.V.M.</p>			
252:	<p>End of hole.</p>			



SAMPLE NUMBER	DESCRIPTION
144-198:	Grey gneiss at 90°. The usual rather soft, medium to dark grey rock of 8-10% fine biotite and 90% grey minerals, mostly plagioclase, but too fine to identify. ½% disseminated mixed sulphides, py., ph. and a very little cp.
	189: 4 inch shear zone @ 80°.
198-283:	Quartz banded grey gneiss @ 80°. A fine grain grey gneiss with about 1/3 the rock composed of 1/8 to 1 inch vague bands of impure and some pure quartz. Trace of py.
	200-202: Q.V.
	204-213: ½% cp. trace py.
	230-273: ½% py. in stringers and flakes.
	241: 3" Q.V.
	241-243: ½% cp.
	249-252: ½% cp.
	255: 8 inch irregular Q.V. with 2% py. 1% cp.
	260-269: A few scattered garnets.
	272: 3 inch band of silicification with 2% cp. There are similar bands not as silicious and without cp.
283-349:	Amphibolite gneiss. An almost massive rock of coarse hornblende and chlorite with 20% altered plagioclases. The initial contact is gradational over 10 ft. with ever increasing grain size but this is not chilling. There is scattered fine magnetite. N.V.M.
	325: 3" white Q.V.
	336: 3" white Q.V.
349:	End of hole.



DIAMOND DRILL LOG

PROPERTY: **Zenmac Metal Mines Limited**

HOLE NUMBER: **110**

LOCATION: **In Claim TB-111030, 300 ft. South of No. 1 post
& 26 ft. East of the East Claim line of the Anderson Group.**

DIP TESTS

Latitude: **4363 N.** Dip: **45°** Footage Reading Corrected

Departure: **300 E.** Depth: **252'**

Elevation: *871 Above sea* Commenced: **Dec. 10/66.**

Azimuth: **245°** Finished: **Dec. 13/66.**

Logged by: *Michael Ogden*

SAMPLE NUMBER	DESCRIPTION
0-29:	Casing.
29-211:	Vague grey porphyry (5)
	29-127: Disseminated Py. & Cp.
	29-62 : The occasional stringers of 50% Cp. $\frac{1}{2}$ to $\frac{1}{8}$ " wide e.g. @ 36 feet there are 4 stringers over 3 inches. At 44 = 1 stringer and @ 51 the same.
	55-56: A fine Cp stringer lengthwise to the core.
	62-79: About one Cp. stringer per foot on average. These stringers are parallel to the bedding in or alongside of dark biotite bands or stringers but for every stringer there are about 6 similar loci.
	101: A few specks of Cp in Q.V. of 1".
	105: A few flocks of Cp.
	110-112: 6 little stringers of 50% g.
	118-119: A few flocks of Cp.
	125-127: 1% Cp disseminated & in stringers. Some of the stringers cut across the bedding @ 20°.
	148-159: Quartz banded gneiss. A buff coloured rock with $\frac{1}{8}$ to 1 inch bands of almost white feldspar and quartz. N.V.H.
	159-167: About 2 fine stringers of Cp per foot.
	169-187: Zone of silicification (6) with coarse sugar size well formed feldspars flecked throughout. Some very fine Cp.
	187-211: Light grey gneiss or zone of silicification. (5)

SAMPLE NUMBER	DESCRIPTION			
218-363:	<p>Greenish-grey, even textured, medium grained, gneissic diorite (10). Rice to rock-salt sized biotite or chlorite grains in a sugary white feldspar groundmass heavily flecked or salted with pin-head size white feldspar.</p> <p>220-230: A few 1" to 6" bands of basalt parallel to the gneissosity @ right angles to the core.</p> <p>241: One foot of minor shearing parallel to bedding - possible dyke.</p> <p>265-273 A few quartz bands @ 30° to core.</p> <p>311-317: More vague 6" basalt dykes.</p> <p>337-338: Fine grain grey dyke @ 60°</p> <p>340: 6" feldspar dyke with a few flakes of molybdenite.</p> <p>344-345: 6" feldspar dyke with a few flakes of molybdenite.</p>			
363:	End of hole.			

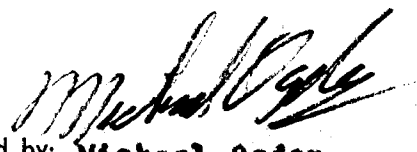


DIAMOND DRILL LOG

PROPERTY: **Zenmac Metal Mines Limited**
 LOCATION: **Anderson Copper Group of Claims in TB-111030.**
200 Feet North of 111.

HOLE NUMBER: **112**

Latitude: **4589 N.** Dip: **45°** Footage Reading Corrected
 Departure: **160 E.** Depth: **151'**
 Elevation: **Cleaver Lake + 8 feet.** Commenced: **Jan. 6/67.**
 Azimuth: **240° True** Finished: **Jan. 10/67.** Logged by: **Michael Ogden.**



SAMPLE NUMBER	DESCRIPTION		
0-44:	Casing through gravel & boulders.		
44-129:	Vague grey porphyry (5) with disseminated Cp.		
	45-52: 1/2% Cp concentrated in vague stringers, particularly between 52-53.		
	54-58 1/2: Quartzite like, light coloured spotted grey, hard. Both contacts are clear @ 60° to 70°. this is <u>NOT</u> silicification. A few splashes of Cp with minor quartz veins.		
	59-66: Very little Cp.		
	64 1/2-66: Quartzite as above, the Cp. in the Qtz.		
	88-94: Vague zone of silicification, fine grain and hard otherwise similar to remainder.		
129-151:	Dark grey hornblende gneiss (8). Contact gradational over 10 feet. N.V.N.		
	140-141: Shear zone @ 30° to core almost re-cemented, rusty band in it.		
	147-148: 1/2% Cp. in thin, recent fractures @ 20° to core. Also disseminated.		
151:	End of hole.		



DIAMOND DRILL LOG

PROPERTY: **Zenmac Metal Mines Limited**

HOLE NUMBER: **113**

LOCATION: **Cleaver Lake Area - Claim TB-111031 of the Anderson Group of Claims.**

DIP TESTS

Latitude: **4880 N.**

Dip: **45°**

Footage

Reading

Corrected

Departure: **253 E.**

Depth: **185'**

Elevation: *5000 Above L.M.* Commenced: **Jan. 13/67**

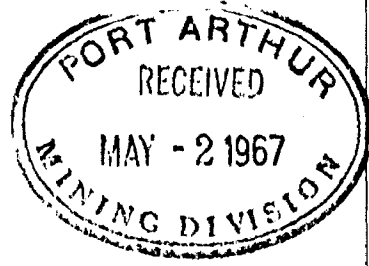
Azimuth: **240°**

Finished: **Jan. 15/67**

Logged by: *Michael Ogden*
Michael Ogden

SAMPLE NUMBER	DESCRIPTION
0-40	Casing.
40-42½:	Fine, dark grey, hornblende gneiss (8)
42½-49:	Very fine grey banded feldspar & muscovite gneiss (4).
49-115:	Mostly gneissic diorite (10) with a muscovite phlogopite groundmass.
52-55:	(4) as above.
67-68½:	Phlogopite and quartz in contorted beds.
68½-71:	Quartz N.V.M.
72-72½:	Lost core - (drillers fault)
92-97:	(4) as above.
97:	2" quartz vein.
84-85:	Tr. of fine disseminated Cp.
115-135:	(4) Banded gneiss as above.
135-159:	Phlogopite schist (11) with variable amounts of disseminated chalcopryrite and a little Py. Initial contact gradational over a foot, final clear.
	139: 1" shear 70° across the schist the other way. Tr. Cp.
	135-146: Tr. Cp.
	146-152: Black banded hornblende gneiss with gs. in hornblende bands occasionally.
S#	154-159: Soft schist with fine disseminated Cp.
159-177½:	Fine granular amphibolite. (12) A green rock, soft, of hornblende & chlorite.
177½-185:	Black hornblende porphyry (7) many phenocrysts of plagioclase. Initial contact

SAMPLE NUMBER	DESCRIPTION			
177½-185:	chilled and sheared over 1½ feet.			
185:	End of hole.			



DIAMOND DRILL LOG

PROPERTY: Zenmac Metal Mines Limited **HOLE NUMBER:** 114
LOCATION: Anderson Copper Group TB-111031 **DIP TESTS**
Latitude: 4785 - N **Dip:** Vertical **Footage** **Reading** **Corrected**
Departure: 160 - E **Depth:** 207
Elevation: Cleaver L † 4 Ft. **Commenced:** Jan. 16/67 **Abandoned & restarted**
Finished: Jan. 26/67 **Jan. 25th.**
Azimuth: N/A **Logged by:** *M. J. [Signature]*

SAMPLE NUMBER	DESCRIPTION		
0- 22:	Casing.		
22-105 : Unit 4	60% Feldspar in bands up to 1" thick remainder Biotite.		
	29: A pear size blob of Cp.		
105 -165: Unit 5	Biotite becoming more abundant after 125'.		
	130-136: Occasional stringers and bands of Cp in Qtz.		
165 -175: Unit 11	With a little Cp. in Qtz. Stringers from 170-173.		
175-188½: Unit 8	Green like 4b.2, occasional Py., contacts gradational.		
188½-201½: Unit 7	40% Phenocrysts. Grades through 8 from 193½-196½.		
201½-206½: Unit 7			
206½ :	End of hole.		



File 111052 Page 1 Plat 4. Well m257v

DIAMOND DRILL LOG

PROPERTY: Zenmac Metal Mines Limited HOLE NUMBER: 139
 LOCATION: Winston Zinc Group on Claim TB-111052 on East Shore of North Cleaver Lake midway along. DIP TESTS
 Latitude: Line 94 N Dip: 45° Footage Reading Corrected
 Departure: At Base Line Depth: 351
 Elevation: 6 Ft. above Lake Commenced: 17th March, 1967
 Azimuth: 245° Finished: 19th March, 1967 Logged by: M. Ogden. *Michael Ogden*

SAMPLE NUMBER	DESCRIPTION		
0- 5:	Casing.		
5-240:	Grey muscovite gneiss (No.3) sugar to rice grained with a faint lination of grain at 90° to core.		
	7-9: 50% hornblende		
	7-0: 3" barren, Quartz vein.		
	9-0: 2" of a few fine pyrite (Py) stringers and a couple of chalcopryrite (Cp) stringers.		
	15-16: Mostly barren quartz in veins @ 90°		
	18-19: 20% barren quartz in veins @ 90°		
	26.5-29.0: Mostly chlorite, soft, fairly sharp contacts.		
	32.3-35.5: B.D. or fine grained hornblende gneiss, contacts vague.		
	20.5-22.5: Basalt Dyke (B.D.) but with vague contacts @ 90°		
	38.5-39.0: Barren quartz.		
	53.0-56.3' Mostly chlorite, some hornblende.		
	120-121: A few specks of chalcopryrite.		
	126-127: B.D. contacts vague.		

SAMPLE NUMBER	DESCRIPTION	% Zn.	% Cu.
	<p style="text-align: center;">202.5</p> <p>201-205: Lost core - ground up. The previous 2 feet is in disks such that the whole section from 199½ to 202½ looks to be fractured and faulted.</p> <p>204-205: Mostly quartz.</p> <p>218-219: Lost core - ground.</p> <p>230.5-231.0: Quartz @ 90° to core, with chloritic slips on edge to within.</p>		
240-275:	Grey biotite gneiss (No.1) similar to the above, but the muscovite has changed to biotite and phlogopite.		
6219	<p>254-264: Vague grey porphyry (No.5) with gradational contacts.</p> <p>264: 2" quartz vein (Q.V.) @ 90° to core.</p> <p>265-266: Lost core - ground.</p> <p>266.0-267.7 : 1.7 feet of no visible mineralization</p>	0.58	0.02
275-351:	Grey hornblende gneiss (No.8) greenish, soft, chloritic but similar grain size to the above.		
6217	298.5-303.5: 5.0 ft of a few specks of pyrite like most of the core. There is a few specks Cp in some 2" of Quartz about midway along the sample. 5.0 ft of	0.09	0.02
6218	305.1-308.6: 3.5 feet of similar to #6217 above.	0.15	0.01
	<p>300-351: The rock is becoming more and more chloritic.</p> <p>336-340: Dark spotted gneiss with about 5% fine magnetite, probably in the fine spots.</p> <p>342.2, 344.7, 348.0 & 348.5: shears or shear zones in highly chloritic rock.</p>		
351:	End of hole.		
	<p>NOTE: The weak assays are probably due to contamination more than to mineral in the rock.</p>		

BASE
PICKET
LINE

188-N

126-N

129-N

182-N

120-N

118-N

TB-111054

DDH-140

FRED LAKE



LOCATION SKETCH
FOR HOLE 140
1 IN. = 200 FT.

SAMPLE NUMBER	DESCRIPTION			
	<p>170-180: Mostly hornblende gneiss but no contacts or detectable change is seen on the surface of the core.</p> <p>194: 1" cemented fault zone @ 70°.</p> <p>198.4 to 199.2: Vague fault breccia, 20% garnets.</p> <p>200-201: The odd speck of chalcopyrite.</p> <p>203: 4" Q.V. @ 90°.</p> <p>212: 2" irregular quartz @ 90°.</p>			
220-252:	<p>Grey hornblende gneiss (No. 8) very fine grain, only 5-30% hornblende, Vague lineation is still @ 90° to core.</p> <p>233: ¼" shear @ 80°.</p>			
252:	<p>End of hole.</p>			



DIAMOND DRILL LOG

R²/24

PROPERTY: Zeniac Metal Mines Limited.

HOLE NUMBER: 140

LOCATION: Winston Zinc Group in Claim TB -111054

DIP TESTS

Latitude: Line 124-N

Dip: 45°

Footage

Reading

Corrected

Departure: 365-West

Depth: 252 Ft.

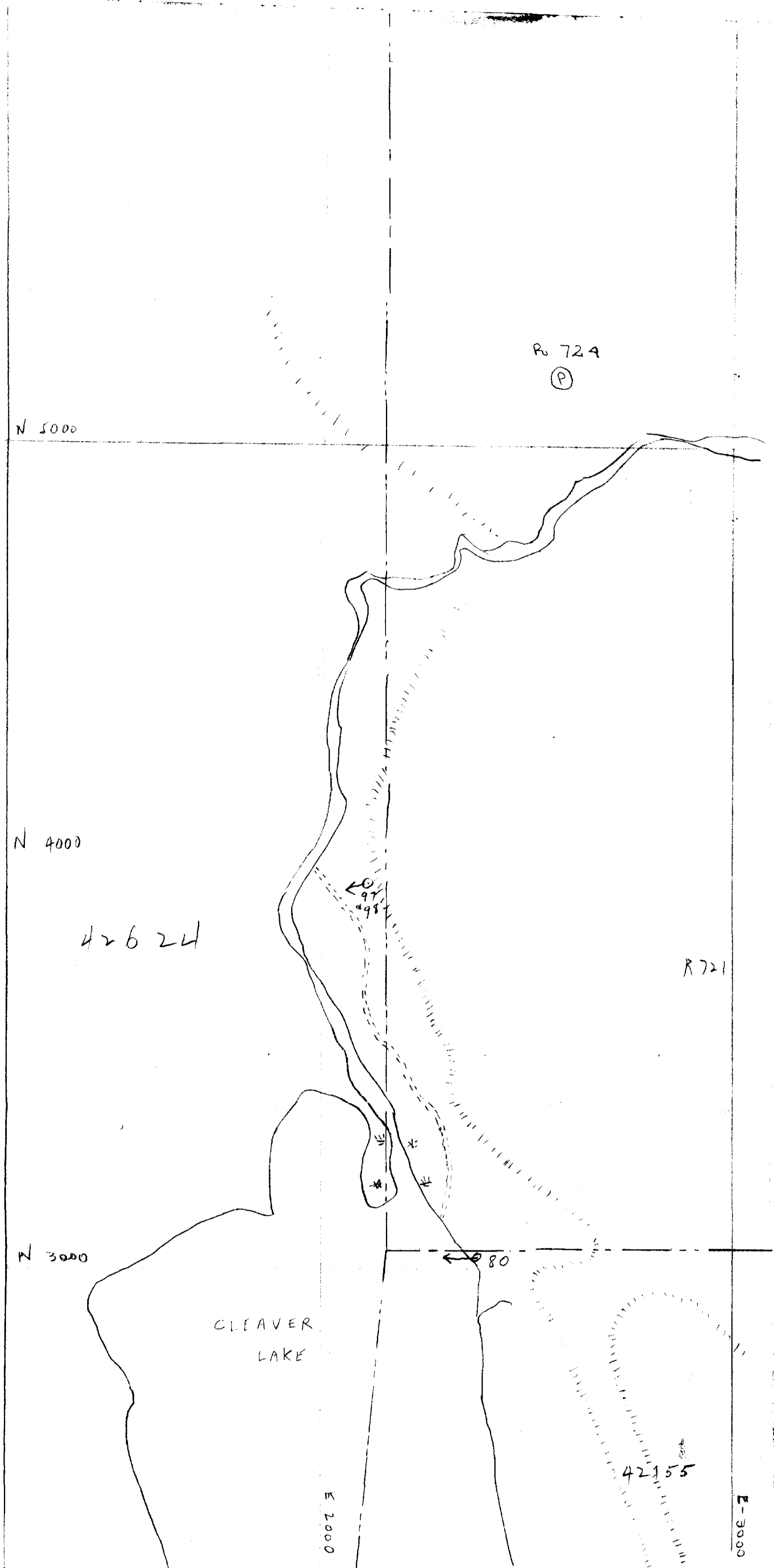
Elevation: At Fred Lake level Commenced: Mar. 24/67

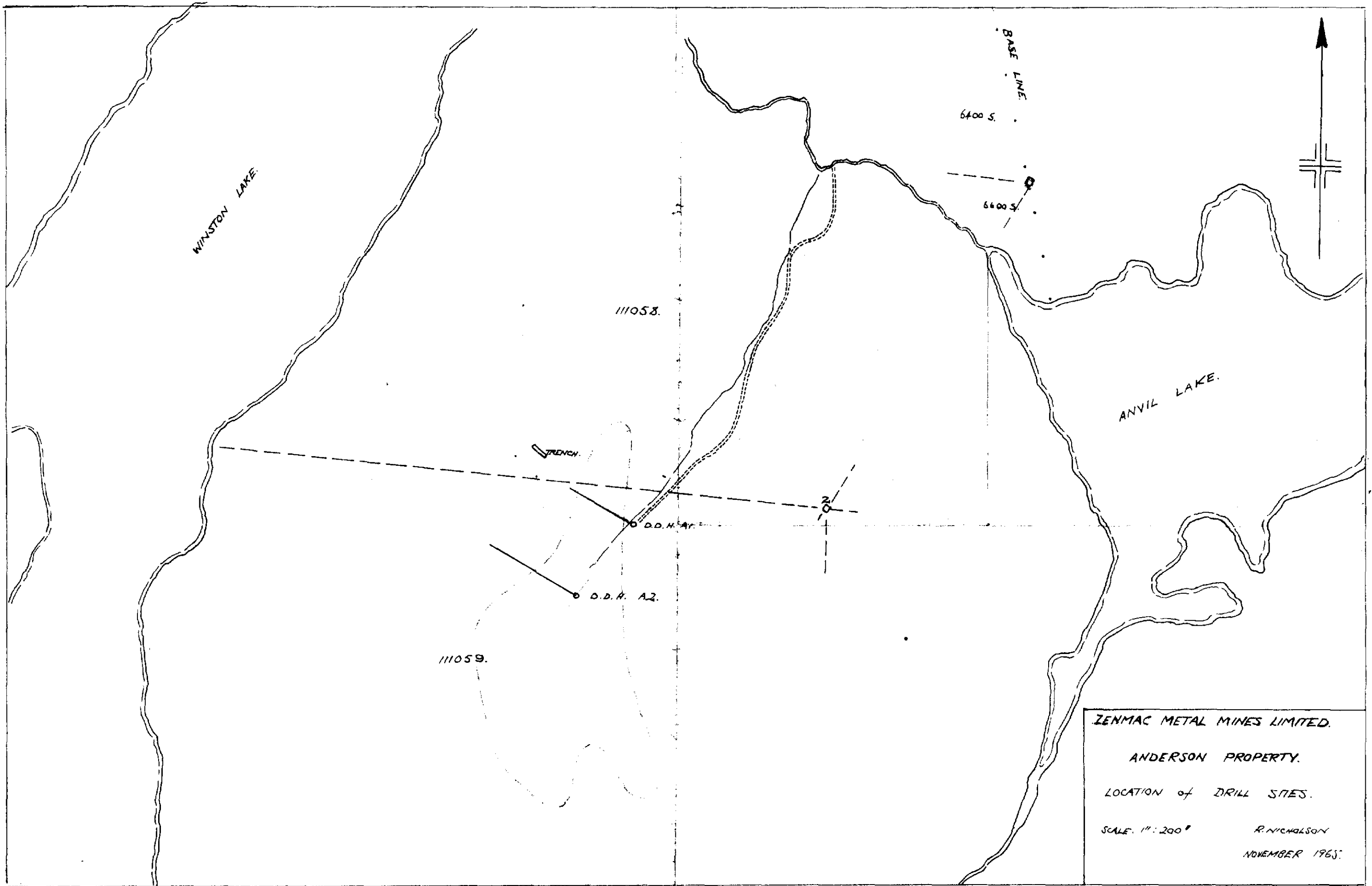
Azimuth: 245°

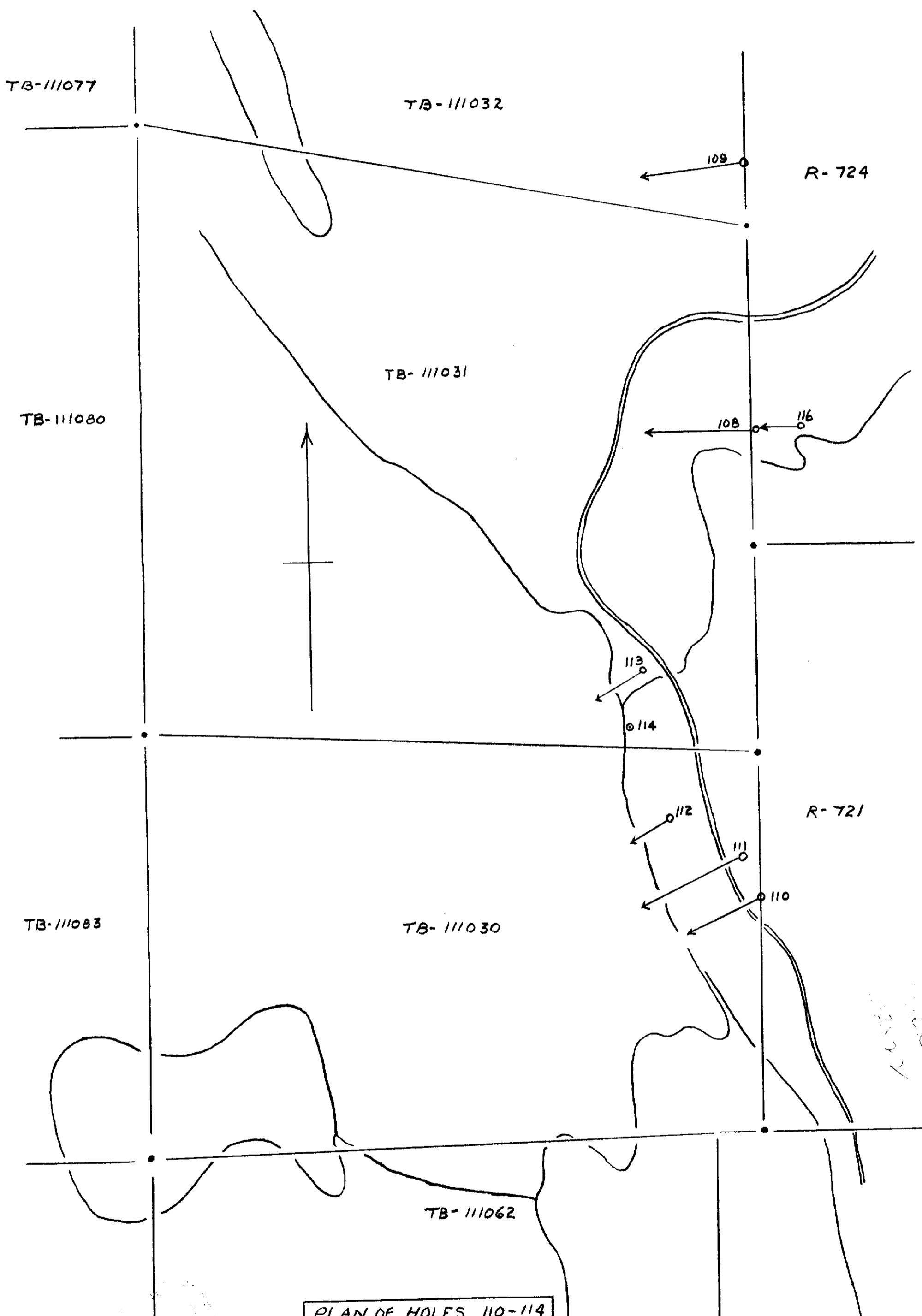
Finished: Mar. 25/67

Michael Ogden
Logged by: H. Ogden.

SAMPLE NUMBER	DESCRIPTION		
0- 5:	Casing.		
5- 35:	<p>Grey muscovite gneiss as in 139 (No. 3). The rock has a variable content of Biotite or phlogopite. Faint lineation of grain @ 90° to core.</p> <p>12.0-12.5: Some vein Quartz.</p> <p>31: 8" of black biotite gneiss with sharp contacts @ 90°. It has pea size garnets scattered through it.</p>		
35-155:	<p>Vague grey porphyry (No.5), very little mica, increasing garnet content and up to pea size grains of plagioclase and garnet. There is the odd speck of disseminated pyrite. 1/4" to 1" quartz veins cross the core at about every 5 feet.</p> <p>91: 8" of intermixed quartz.</p> <p>92 1/2: 3" Q.V. @ 90°.</p> <p>99 1/2: 6" B.D. @ 90°.</p> <p>103-104: A couple of specks of chalcopyrite.</p> <p>115-116: A couple of specks of chalcopyrite.</p> <p>NOTE: The development of the vague phenocrysts is clearly an alteration or metamorphic change.</p>		
155-220:	<p>Variable, banded feldspar and mica gneiss (No. 4) mostly phlogopite with many scattered pea size garnets, most of which seem to have pushed the lineation out around themselves. Garnets make up about 8% of the rock.</p>		







PLAN OF HOLES 110-114
 SCALE: 1 IN. = 200 FT.
 ON ANDERSON COPPER
 GROUP OF CLAIMS

