



41089NW0017 2.6395 MALLARD

010

FINAL REPORT
on
THE 1983 EXPLORATION PROGRAM
on
Fifty one Unpatented Mining Claims
owned by
ADELINE INTERNATIONAL MINES LTD.
located in
MALLARD TOWNSHIP, PORCUPINE MINING DIVISION
ONTARIO, CANADA

RECEIVED

FEB 10 1984

MINING LANDS SECTION

February 5, 1984

David Constable, H.BSc., F.G.A.C.
CONSTABLE CONSULTING INC.
Sudbury, Ontario



41009NW0017 2.6395 MALLARD

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Maps in Pocket:

Two Drill Hole Location Plans	Scale 1" = 200'
Three Drill Hole Sections	Scale 1" = 100'

SUMMARY

Adeline International Mines, Ltd.'s (AIM Ltd.) property consists of fifty one (51) contiguous unpatented mining claims and thirteen (13) patented claims located in central Mallard township, Porcupine Mining Division. The property covers approximately 2560 acres and is accessible via the Eddy Paper Products Limited main haulage road and a series of bush roads. The subject group is located in the Swayze greenstone belt which is host to several gold deposits. The claim group is underlain by interbedded metavolcanic and metasediments which trend east-west and dip steeply southward at 60-80°. EM-VLF, magnetics and geology surveys were completed over the property in 1979-80. In late 1983 a diamond drilling and mechanical stripping program was completed and this report was assembled to summarize and, if warranted, to recommend a further gold exploration program. The 1983 program encountered gold values in felsic and intermediate tuffs in the western portion of the subject property with values of 0.181 ounces per ton gold over 3.0', 0.112 ounces per ton gold over 3.0', 0.340 ounces per ton gold over 1.0' and 0.131 ounces per ton gold over 1.0'.

A future exploration program has been recommended in this report to include lithogeochemistry, overburden or biogeochemistry and diamond drilling.

INTRODUCTION

We have been asked to assemble this report by Mr. Arthur E. Kaplan, president of Adeline International Mines Ltd., Chicago, Illinois in order to summarize, assess and, if warranted, to recommend further exploration on the company's Mallard township property. Sources of material utilized in this report include Ontario assessment reports, publications and maps, in addition to recent unpublished results of the 1983 exploration report. The property consists of thirteen (13) patented and fifty-one (51) unpatented mining claims straddling the Opeepeesway River in central Mallard township, Porcupine Mining Division. Access is via the Eddy Paper Products Limited haulage road and a network of smaller bush roads. The claims are held in the name of Arthur E. Kaplan. This report deals only with the 1983 exploration program on the fifty-one (51) unpatented claims.

<u>Claim Number</u>	<u>Recording Date</u>	<u>Original Staker</u>	<u>Present Owner</u>
P-548421	January 24/80	S. M. Malouf	Arthur E. Kaplan
P-548423	January 24/80	S. M. Malouf	Arthur E. Kaplan
P-548425	January 24/80	S. M. Malouf	Arthur E. Kaplan
P-548430	January 24/80	S. M. Malouf	Arthur E. Kaplan
P-548431	January 24/80	S. M. Malouf	Arthur E. Kaplan
P-548432	January 24/80	S. M. Malouf	Arthur E. Kaplan
P-548433	January 24/80	S. M. Malouf	Arthur E. Kaplan
P-548434	January 24/80	S. M. Malouf	Arthur E. Kaplan
P-548435	January 24/80	S. M. Malouf	Arthur E. Kaplan
P-548436	January 24/80	S. M. Malouf	Arthur E. Kaplan
P-548437	January 24/80	S. M. Malouf	Arthur E. Kaplan
P-548438	January 24/80	S. M. Malouf	Arthur E. Kaplan
P-548439	January 24/80	S. M. Malouf	Arthur E. Kaplan
P-545440	January 24/80	S. M. Malouf	Arthur E. Kaplan
P-548442	January 24/80	S. M. Malouf	Arthur E. Kaplan
P-548450	January 24/80	J. D. Malouf	Arthur E. Kaplan
P-545484	November 2/79	T. Otter	Arthur E. Kaplan
P-545485	November 2/79	T. Otter	Arthur E. Kaplan
P-545486	November 2/79	T. Otter	Arthur E. Kaplan
P-565299	August 28/80	L. Ensley	Arthur E. Kaplan
P-565300	August 28/80	L. Ensley	Arthur E. Kaplan
P-565301	August 28/80	L. Ensley	Arthur E. Kaplan

TOTAL OF 51 CLAIMS

Figure 1 shows the claim block and the small inset map indicates the regional location of the claims. The block is located roughly 60 air miles southwest of Timmins and 100 air miles northwest of Sudbury at latitude 47° 42' 30" and longitude 82° 16' 30".

PROPERTY DESCRIPTION, LOCATION, ACCESS AND PHYSIOGRAPHY

The property, in addition to 13 patented claims, consists of 51 contiguous, unpatented claims held in the name of Arthur E. Kaplan (License # 43793). The claims are presently under extension until February 15th, 1984. The claim block may be further described:

<u>Claim Number</u>	<u>Recording Date</u>	<u>Original Staker</u>	<u>Present Owner</u>
P-544305	November 2/79	C. Martin	Arthur E. Kaplan
P-544306	November 2/79	C. Martin	Arthur E. Kaplan
P-544307	November 2/79	C. Martin	Arthur E. Kaplan
P-544308	November 2/79	C. Martin	Arthur E. Kaplan
P-544309	November 2/79	C. Martin	Arthur E. Kaplan
P-544310	November 2/79	C. Martin	Arthur E. Kaplan
P-544311	November 2/79	C. Martin	Arthur E. Kaplan
P-544312	November 2/79	C. Martin	Arthur E. Kaplan
P-544313	November 2/79	C. Martin	Arthur E. Kaplan
P-544314	November 2/79	C. Martin	Arthur E. Kaplan
P-545427	October 10/79	S. M. Malouf	Arthur E. Kaplan
P-545428	October 10/79	S. M. Malouf	Arthur E. Kaplan
P-545429	October 10/79	S. M. Malouf	Arthur E. Kaplan
P-545430	October 10/79	S. M. Malouf	Arthur E. Kaplan
P-545431	October 10/79	S. M. Malouf	Arthur E. Kaplan
P-545432	October 10/79	S. M. Malouf	Arthur E. Kaplan
P-545433	October 10/79	S. M. Malouf	Arthur E. Kaplan
P-545434	October 10/79	S. M. Malouf	Arthur E. Kaplan
P-545435	October 10/79	S. M. Malouf	Arthur E. Kaplan
P-545436	October 10/79	S. M. Malouf	Arthur E. Kaplan
P-545437	October 10/79	S. M. Malouf	Arthur E. Kaplan
P-545438	October 10/79	S. M. Malouf	Arthur E. Kaplan
P-545439	October 10/79	S. M. Malouf	Arthur E. Kaplan
P-545440	October 10/79	S. M. Malouf	Arthur E. Kaplan
P-545475	November 2/79	J. Shecapio	Arthur E. Kaplan
P-545476	November 2/79	J. Shecapio	Arthur E. Kaplan
P-545477	November 2/79	T. Otter	Arthur E. Kaplan
P-545478	November 2/79	T. Otter	Arthur E. Kaplan
P-545487	November 2/79	T. Otter	Arthur E. Kaplan

Access is by paved highway 144 north from Sudbury or south from Timmins to the highway 560 turnoff. One can proceed westward on the turnoff on an all-weather haulage road towards the village of Ramsay. About 3.5 miles north of Ramsay is a four-corner intersection of bushroads. The north, fair-weather road leads to the property, a further distance of six miles to the bridge over the Opeepeesway River located in the centre of the property. Access in good weather is by two-wheeled vehicle, however a four-wheeled vehicle is recommended during foul weather.

AIM Ltd.'s Mallard township property has little topographic relief. Outcrop is scarce (2-3%) and the property is covered by a mixture of glacial outwash sands and swamps. Soil cover is generally shallow (0-25 feet), however locally it can be over 100 feet deep.

Most of the property is covered with second growth jackpines, black spruce, poplars and scrubbrush. A few mature white pines are also present.

Drainage goes into the Opeepeesway River where it flows northward into the Arctic watershed.

The last observed glacial ice direction is southward. The nearest major population centre is Chapleau to the northwest. Hydro would have to be brought into the property, water is plentiful. Custom gold mills are located in Timmins, 110 road miles to the northeast.

GENERAL AND PROPERTY GEOLOGY

The AIM LTD. property is located in the Superior Province of the Canadian Precambrian Shield. This area has been an abundant producer of gold, silver and basemetals. Specifically, the property lies within the Swayze Greenstone Belt; an assemblage of volcanics, sediments and younger intrusions; which lies between Timmins and Sudbury, west of highway 144. The following is a stratigraphic column for the area:

Diabasic Dykes
(intrusive contact)

Mafic Intrusions
(intrusive contact)

Felsic Intrusions
(intrusive contact)

Temiskaming Sediments with Minor Volcanics
(unconformity)

Archean Volcanics with Interbedded Sediments

The rocks in the belt strike N55°W and dip steeply north and south. The rocks have been folded, generally along axes parallel to subparallel to the regional strike. The folding is closed and generally has shallow (20-30°) plunges in either direction. Regional metamorphism is lower to upper greenschist facies.

The AIM Ltd. property conforms to the general description

given above. Specifically it contains intercalated, intermediate volcanic flows, coarse agglomerates, tuffs and metasediments. Horizons of chemical sediments, such as iron formations (sulfide and oxide facies) and cherts, are also observed near and on AIM Ltd.'s property.

The Swayze area has been explored as a spinoff from the Porcupine camp (Timmins) since the early 1900's. Most of the early work was for gold. The camp contains several minor old producers, but has yet to produce a major gold deposit, although the Orofino deposit is considering 1984 production from a deposit with one million tons of 0.17 ounces per ton gold.

Gold deposits in the belt include the following environments.

- (a) Gold in quartz veins related to shear zones and intrusions
- (b) Gold in replacement zones in intrusions
- (c) Gold in sulfides disseminated along tuff/sediment horizons
- (d) Gold in chemical sediments (cherts and iron formations)

The AIM Ltd.'s property contains gold in environments (a) and (c). Gold values of up to 0.25 ounces per ton over 11.0', 0.33 ounces per ton over 5.6' and 0.26 ounces per ton over 4.7'

have been located by trenching on the AIM Ltd. property (Dr. S. Malouf's Reports).

Earlier drilling on the AIM Ltd. property also reported intersections up to 0.21 ounces per ton gold over 13.5'.

Alteration generally found associated with the gold mineralization is carbonatization, pyritization, silicification and quartz veining.

PREVIOUS WORK

Work to date on the AIM Ltd. property has concentrated on the thirteen (13) patented claims, which are the site of the original gold showings. However, work was performed in 1980 over the fifty one (51) unpatented claims and consisted of:

- (a) Linecutting
- (b) Ground Magnetometry Survey
- (c) Electromagnetic Surveys (VLF):
 - (i) Cutler, Maine Station
 - (ii) Annapolis, Maryland Station
(partial coverage)
- (d) Geological Survey (North Half of the Property)
- (e) Rock Geochemical Survey

The EM-VLF Surveys have delineated numerous conductive zones ranging from weak to very strong conductors. Most of the conductors are short and conformable; all the conductors are untested, except the main showing area. The magnetic

survey shows an area of 1000-1300 gamma relief with most of the area showing only 200-400 gamma relief. The magnetic survey delineates rock types, defines probable north-south faulting and suggests an extension of the main gold showing zone.

The geological survey described the rock type distribution and noted several areas of sulfide mineralization. The rock geochemical survey sampled several old trenches and mineralized areas. The best result came from Trench # 15 which assayed 0.30 ounces per ton gold over 3.0'. Similarly Trench # 10, on the unpatented mining claims, gave a value of 0.29 ounces per ton gold in a grab sample.

THE 1983 PROGRAM

The 1983 exploration program consisted of a 5000-foot diamond drill contract and extensive mechanical stripping in two areas. At the conclusion of the previous work AIM Ltd. had a property with gold showings known on the patented claims. The general geology was known, magnetic and EM-VLF coverage was nearly complete. The 1983 program attempted to test the stratigraphy, both east and west along strike from the gold showings known within the patented claims. My experience in this area indicated EM-VLF targets were of little help. Magnetics were of some help, particularly to trace the iron formations as stratigraphic reference horizons. Some gold values were known in trenches on the unpatented claims, it remained to confirm the grades and depth-strike continuity of these zones.

Triangle Drilling Limited of Sudbury was contracted to do the drilling, 5000' of BQ core. Erana Mines Limited, also of Sudbury, did the mechanical stripping. The program commenced November 15th, 1983 and was completed by December 23, 1983; although the assay results were not completed until early February, 1984.

RESULTS AND CONCLUSIONS

A total of ten (10) holes were completed ranging from 400 to 650-foot depths. All holes were drilled at -45° dip. Hole AIM-83-1 to 4 tested the east side of the group while holes AIM-83-5 to 10 tested the western area. The results are summarized in the logs in this report. Two areas stand out; hole AIM-83-5 cut scattered gold values from 410.0' to 450.0' ranging from 0.054 ounces per ton gold to 0.340 ounces per ton gold. These values were confined to a sericitic felsic tuff and the quartz veins contained within the unit. Pyrite content throughout the unit varied from 2 to 5% usually as disseminates. Increasing pyrite content did not bear a direct relationship to the gold content however secondary quartz content appeared to be relatable to the gold content of the rock. The second hole with an interesting value was hole AIM-83-9 from 177.8' - 180.8' which graded 0.112 ounces per ton gold in a quartz vein-rich zone. This zone is coincident with the old trench No. 10 values of 0.29 ounces per ton gold (grab). This area was extensively stripped although surface sampling was not possible during 1983 due to the extensive snow cover.

The sections split and assayed in all the holes exhibited anomalous gold values of 0.009 to 0.032 ounces per ton gold. It seems reasonable to conclude:

(a) That the AIM Ltd. Mallard township property is underlain by a metavolcanic and metasedimentary sequence generally anomalous in gold values from 200 ppbs. to 1000 ppbs.

(b) That EM-VLF conductors were generally not explained by drilling and so probably have a surficial source.

(c) The economic gold values appear unrelated to pyrite content but directly relatable to secondary quartz content.

(d) Felsic and intermediate tuffs appear to be the best rock types to expect anomalous gold values.

RECOMMENDATIONS

The Mallard township property of AIM Ltd. remains a gold exploration bet. I recommend the following future exploration program:

I. Lithogeochemistry

(a) A database should be established to ascertain what elements or major oxides can be related to the known gold showings both in the 1983 drill holes and on the patented claim gold showings.

(b) Extensive rock sampling should be completed over the entire property to attempt to outline anomalous alteration halos.

II. Overburden Sampling or Biogeochemistry

(a) A series of profiles should be completed across the known gold zones to ascertain the effectiveness and variables of each method.

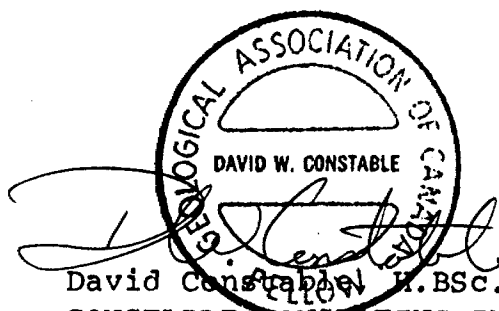
(b) The entire property should be covered by the method exhibiting the best profiles.

III. Diamond Drilling

(a) A series of holes should be commenced to test the AIM-83-5 and 9 gold values plus the gold showings on the patented claims.

(b) Additional footage will likely be necessary to test targets indicated by Phases I and II.

February 5, 1984
Sudbury, Ontario


David Constable, H.B.Sc., F.G.A.C.
CONSTABLE CONSULTING INC.

DIAMOND DRILL RECORD

LOGGED BY D. Constable

CONSTABLE CONSULTING INC.

PROPERTY KAPLAN - MALLARD TOWNSHIP

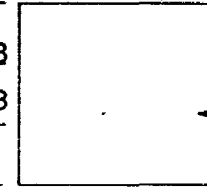
BQ CORE

D.D.H. No. AIM-83-1 PAGE 1/7

LATITUDE 60 + 00 E BEARING OF HOLE GRID NORTH (036⁰) STARTED NOV. 20, 1983

DEPARTURE 8 + 50 S DIP OF HOLE -45⁰ COMPLETED NOV. 22, 1983

ELEVATION ---- DIP TESTS NONE TAKEN DEPTH 500.0'



CLAIM No. P. 545435

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY						
FROM	TO			FROM	TO								
0	12.0	Casing											
12.0	18.3	Mafic Tuff											
		Dark green, medium to coarse-grained, poorly bedded, chloritic, biotitic, soft.											
18.3	133.0	Intermediate Tuff											
		Dark to medium green, fine-grained, finely to fairly well bedded, traces of pyrite crystals. Bedding is at 64% to C.A. chloritic and slightly sericitic. contains small (<1') sections of medium grained tuff.											
		Very narrow Py sections at 60.4', 69.8' and 72.8'.											
		Narrow white quartz at 81.0' and 82.0'. Veins are 2-4" wide.											
		At 116.8' bedding is 55 ⁰ to C.A.											

Sharp conformable out contact.

DIAMOND DRILL RECORD

LOGGED BY D. Constable

CONSTABLE CONSULTING INC.

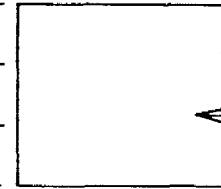
PROPERTY KAPLAN - MALLARD TOWNSHIP

D.D.H. No. AIM-83-1 PAGE 4/7

LATITUDE 60 + 00 E BEARING OF HOLE GRID NORTH (036°) STARTED NOV. 20, 1983

DEPARTURE 8 + 50 S DIP OF HOLE -45° COMPLETED NOV. 22, 1983

ELEVATION ----- DIP TESTS NONE TAKEN DEPTH 500.0'



CLAIM No. P.545435

DIRECTION AND DISTANCE FROM
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY						
FROM	TO			FROM	TO								
235.0	237.2	Intermediate Tuff.											
		Dark to medium green, fine-grained, finely-bedded, chloritic. Traces of pyrite.											
237.2	254.5	Felsic Tuff.											
		Grey, fine-grained with < 1" chloritic interbeds but mostly sericitic, finely-bedded, traces of pyrite. Sharp conformable out contact.											
254.5	273.3	Intermediate Tuff.											
		Medium green, fine-grained to medium-grained, finely- bedded. Traces of pyrite, chloritic and sericitic. Sharp conformable out contact.											

Sharp conformable out contact.

DIAMOND DRILL RECORD

LOGGED BY D. Constable

CONSTABLE CONSULTING INC.

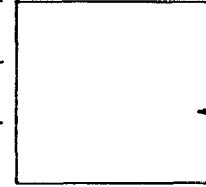
PROPERTY KAPLAN - MALLARD TOWNSHIP

D.D.H. No. AIM-83-1 PAGE 4/7

LATITUDE 60 + 00 E BEARING OF HOLE GRID NORTH (036°) STARTED NOV. 20, 1983

DEPARTURE 8 + 50 S DIP OF HOLE -45° COMPLETED NOV. 22, 1983

ELEVATION ----- DIP TESTS NONE TAKEN DEPTH 500.0'



CLAIM No. P.545435

DIRECTION AND DISTANCE FROM
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY						
FROM	TO			FROM	TO								
235.0	237.2	Intermediate Tuff.											
		Dark to medium green, fine-grained, finely-bedded, chloritic. Traces of pyrite.											
237.2	254.5	Felsic Tuff.											
		Grey, fine-grained with < 1" chloritic interbeds but mostly sericitic, finely-bedded, traces of pyrite. Sharp conformable out contact.											
254.5	273.3	Intermediate Tuff.											
		Medium green, fine-grained to medium-grained, finely- bedded. Traces of pyrite, chloritic and sericitic. Sharp conformable out contact.											

Sharp conformable out contact.

DIAMOND DRILL RECORD

LOGGED BY D. Constable

CONSTABLE CONSULTING INC.

PROPERTY KAPLAN - MALLARD TOWNSHIP

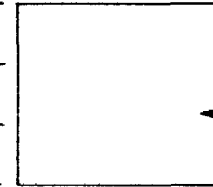
D.D.H. No. AIM-83-1

PAGE 7/7

LATITUDE 60 + 00 E BEARING OF HOLE GRID NORTH (036°) STARTED NOV. 20, 1983

DEPARTURE 8 + 50 S DIP OF HOLE -45° COMPLETED NOV. 22, 1983

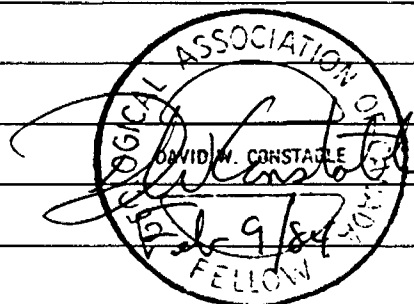
ELEVATION ----- DIP TESTS NONE TAKEN DEPTH 500.0'



CLAIM No. P.545435

DIRECTION AND DISTANCE FROM
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY						
FROM	TO			FROM	TO								
426.0	500.0	Felsic Tuff.											
		Grey to grey-green, fine-grained, finely-bedded, sericitic, traces of pyrite.											
		From 440.6' - 441.9' felsic tuff is hematized and contains 1/2 % pyrite (disseminated).											
		From 496.0' - 498.2' intermediate tuff, green, poorly-bedded, chloritic.											
		END OF HOLE 500.0' AIM-83-1											



DIAMOND DRILL RECORD

LOGGED BY D. Constable

CONSTABLE CONSULTING INC.

PROPERTY KAPLAN - MALLARD TOWNSHIP PROPERTY

BQ CORE

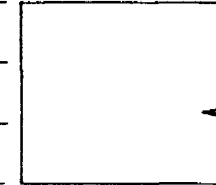
D.D.H. No. AIM-83-2

PAGE 1/6

LATITUDE 56 + 00 E BEARING OF HOLE GRID NORTH (036°) STARTED DEC. 1, 1983

DEPARTURE 4 + 50 S DIP OF HOLE -45° COMPLETED DEC. 5, 1983

ELEVATION ----- DIP TESTS ----- DEPTH 400.0'



CLAIM No. P.545432

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	Au oz./ton	ASSAY	
FROM	TO			FROM	TO				
0	42.0	CASING							
42.0	110.1	Felsic Tuff							
		Grey with minor grey-green (chloritic) sections, fine-grained, finely-bedded, sericitic, average hardness.							
		Bedding is at 65° to C.A. Nil to trace sulfides.							
		50.7' - 54.0' chloritic, green intermediate tuff section.							
		61.0' - 68.0' trace to 1% pyrite cubes (disseminated).	9093	61.0	65.0	4.0	0.012		
		Rock shows evidence of tight macro-scale folding with schistosity parallel bedding parallel to C.A. in places.	9094	65.0	68.0	3.0	0.012		
		Sharp conformable out contact.							
110.1	116.4	Intermediate Tuff							
		Dark green, medium to fine-grained, poorly-bedded, massive,							

DIAMOND DRILL RECORD

LOGGED BY D. Constable

CONSTABLE CONSULTING INC.

PROPERTY KAPLAN - MALLARD TOWNSHIP PROPERTY

BQ CORE

D.D.H. No. AIM-83-3 PAGE 1/8

LATITUDE 56 + 00 E

BEARING OF HOLE GRID NORTH (036°)

STARTED NOV. 28, 1983

DEPARTURE 1 + 00 S

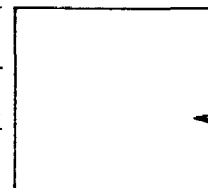
DIP OF HOLE -45°

COMPLETED NOV. 30, 1983

ELEVATION -----

DIP TESTS -----

DEPTH 408.0'



CLAIM No. 133' in P. 545432
275' in P. 545433

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	Au oz/ton	ASSAY	
FROM	TO			FROM	TO				
0.0	51.0	CASING							
51.0	63.7	Interbedded Intermediate and Felsic Tuff							
			9089	61.3	62.3	1.0	0.005		
		Dark green to grey, interbedded, chloritic, medium-grained tuff and sericitic, fine-grained felsic tuff.							
		Trace pyrite. Well-bedded at 55° to C.A.							
		Sharp out contact.							
63.7	86.4	Mafic Tuff							
		Dark green, medium-grained, poorly-bedded chloritic and soft.							
		From 80.4' - 83.9' white to tan felsic tuff, sericitic.							
		Sharp out contact.							

DIAMOND DRILL RECORD

LOGGED BY D. Constable

CONSTABLE CONSULTING INC.

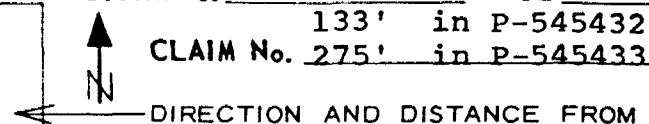
PROPERTY KAPLAN - MALLARD TOWNSHIP PROPERTY

D.D.H. No. AIM-83-3 PAGE 2/8

LATITUDE 56 + 00 E BEARING OF HOLE GRID NORTH (036°) STARTED NOV. 28, 1983

CLAIM No. 133' in P-545432
275' in P-545433

DEPARTURE 1 + 00 S DIP OF HOLE -45° COMPLETED NOV. 30, 1983



ELEVATION ----- DIP TESTS _____ DEPTH 408.0'

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	Au Oz/TON	ASSAY	
FROM	TO			FROM	TO				
86.4	103.1	Interbedded Intermediate and Felsic Tuff							
		86.4' - 88.1' Intermediate Tuff							
		88.1' - 91.7' Felsic Tuff							
		91.7' - 98.5' Intermediate Tuff							
		98.5' - 103.1' Felsic Tuff (quartz vein at contact - 2" wide)							
103.1	158.0	Intermediate Tuff							
			9090	151.7	153.5	1.8	Tr.		
		Dark to medium green, fine to medium-grained, soft, chloritic, poorly to finely-bedded. Trace to nil pyrite.							
		152.2' - 154.0' grey felsic tuff, trace pyrite.							
		Gradational out contact.							

DIAMOND DRILL RECORD

LOGGED BY D. Constable

CONSTABLE CONSULTING INC.

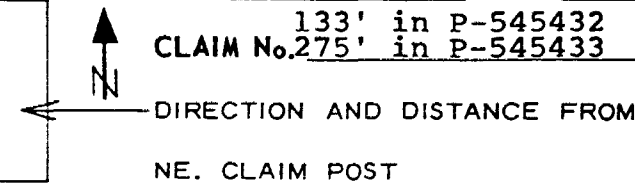
PROPERTY KAPLAN - MALLARD TOWNSHIP PROPERTY

D.D.H. No. AIM-83-3 PAGE 3/8

LATITUDE 56 + 00 E BEARING OF HOLE GRID NORTH (036°) STARTED NOV. 28, 1983

CLAIM No. 133' in P-545432
275' in P-545433

DEPARTURE 1 + 00 S DIP OF HOLE -45° COMPLETED NOV. 30, 1983



ELEVATION ----- DIP TESTS _____ DEPTH 408.0'

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	Au oz/ton	ASSAY	
FROM	TO			FROM	TO				
158.0	184.8	Mafic Tuff							
		Dark green, medium-grained, poorly-bedded. nil to trace pyrite, chloritic.							
		175.9' - 176.4' porphyry section.							
		Gradational out contact.							
184.8	259.7	Felsic Tuff							
		Grey to grey-green, fine-grained, finely to poorly-bedded, sericitic. soft to medium hard. Bedding is at 63° to C.A.	9091	187.3	188.9	1.6	0.003		
		215.7' - 219.2' - grey feldspar porphyry, 10% white phenocrysts							
		230.2' - 232.3' - mafic tuff							
		232.3' - 234.7' - grey feldspar porphyry, 8% white phenocrysts. Gradational contacts with							

DIAMOND DRILL RECORD

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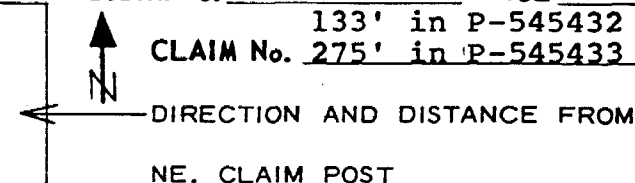
PROPERTY KAPLAN - MALLARD TOWNSHIP PROPERTY

D.D.H. No. AIM-83-3 PAGE 8/8

LATITUDE 56 + 00 E BEARING OF HOLE GRID NORTH (036°) STARTED NOV. 28, 1983

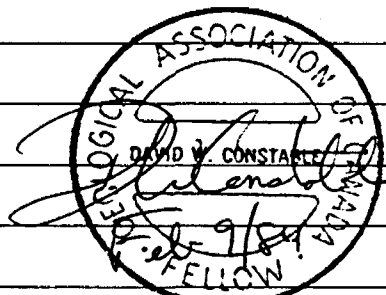
133' in P-545432
CLAIM No. 275' in P-545433

DEPARTURE 1 + 00 S DIP OF HOLE -45° COMPLETED NOV. 30, 1983



ELEVATION ----- DIP TESTS _____ DEPTH 408.0'

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	Au oz/ton	ASSAY	
FROM	TO			FROM	TO				
354.6	404.0	Felsic Tuff							
		Grey to grey-green, fine-grained, well-bedded, sericitic with chloritic sections. Nil pyrite. 5-10% white-green feldspar phenocrysts are present in 1-2' sections.							
		370.6' - 374.1' Mafic tuff, dark green, chloritic							
		383.7' - 384.5' Mafic tuff, dark green, chloritic							
		385.5' - 391.0' Mafic tuff, dark green, chloritic							
		396.1' - 397.8' Intermediate tuff, green, chloritic	9092	396.9	397.6	0.7	0.005		
		medium to fine-grained, at 397.6' 1/4" wide massive pyrite bed.							
404.0	406.6	Intermediate Tuff							
406.6	408.0	Mafic Tuff							
		408.0' END OF HOLE AIM-83-3							



DIAMOND DRILL RECORD

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PROPERTY KAPLAN - MALLARD TOWNSHIP

D.D.H. No. AIM-83-4 PAGE 9/9

LATITUDE LINE 56 + 00 E BEARING OF HOLE GRID NORTH (036°) STARTED NOV. 24, 1983

CLAIM No. P.545433

DEPARTURE 2 + 00 E DIP OF HOLE -45° COMPLETED NOV. 27, 1983

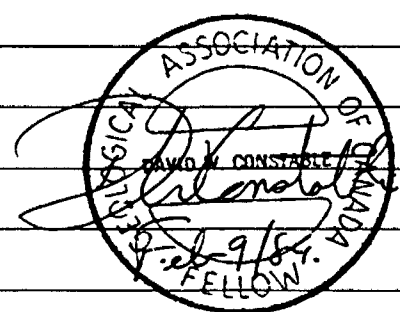


DIRECTION AND DISTANCE FROM

ELEVATION ----- DIP TESTS NONE DEPTH 500.0'

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	Au oz/ton	ASSAY	
FROM	TO			FROM	TO				
452.0		Intermediate Tuff							
		Medium to dark green, fine to medium-grained, finely-bedded, sericitic with chloritic sections and feldspar porphyroblasts (< 2%)							
		489.0' - 492.0' - grey colored tuff, trace pyrite							
		492.0' - 497.0' - grey-white, felsic tuff with clear quartz eyes. Traces of pyrite as blebs of pyrite. Subvolcanic porphyry unit.	9078	493.7	497.0	3.3	0.008		
		497.0' - 500.0' - Mafic tuff, chloritic. Bedding is at 85° to C.A.							
		500.0' END OF HOLE							



DIAMOND DRILL RECORD

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CONSTABLE CONSULTING INC.

PROPERTY KAPLAN - MALLARD TOWNSHIP PROPERTY

BQ CORE

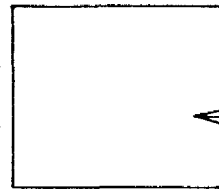
D.D.H. No. AIM-83-5

PAGE 1/4

LATITUDE Line 8 + 00 W BEARING OF HOLE Grid North (036°) STARTED DEC. 17, 1983

DEPARTURE 23 + 00 S DIP OF HOLE -45° COMPLETED DEC. 20, 1983

ELEVATION ----- DIP TESTS ----- DEPTH 500.0'



CLAIM No. P-548437

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	Au oz/ton	ASSAY	
FROM	TO			FROM	TO				
0	70.5	CASING							
70.5	88.7	Diorite							
		Salt and pepper color. medium-grained, 60% feldspar							
		40% ferro-magnesian, nil to trace pyrite. Extremely blocky.							
		Intrusive, baked, out contact.							
88.7	150.0	Cherty Iron Formation							
		Black to brick-red, extremely fine-grained, graphitic on fractures at contact for 4". Finely bedded, with alternating pale green/brick red beds. Bedding is at 65° to C.A. Nil to trace pyrite. Epidotized in splashes and along fractures.	9281	89.2	90.0	0.8	0.020		
			9274	90.0	93.0	3.0	0.008		
			9275	93.0	96.0	3.0	0.012		
			9276	96.0	99.0	3.0	0.013		
			9277	99.0	102.0	3.0	0.008		
			9278	102.0	105.0	3.0	0.015		
			9279	105.0	108.0	3.0	0.015		
			9280	108.0	109.5	1.5	0.005		

DIAMOND DRILL RECORD

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CONSTABLE CONSULTING INC.

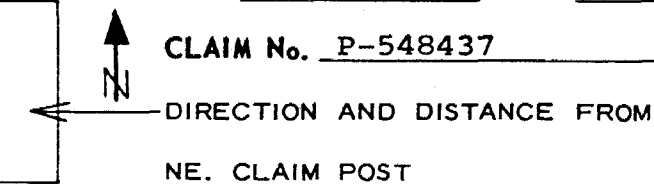
PROPERTY KAPLAN - MALLARD TOWNSHIP PROPERTY

D.D.H. No. AIM-83-5 PAGE 3/4

LATITUDE LINE 8 + 00 W BEARING OF HOLE Grid North (036°) STARTED DEC. 17, 1983

CLAIM No. P-548437

DEPARTURE 23 + 00 S DIP OF HOLE -45° COMPLETED DEC. 20, 1983



ELEVATION ---- DIP TESTS ----- DEPTH 500.0'

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	Au oz/ton	ASSAY		
FROM	TO			FROM	TO					
		230.0' - 250.0' - finer-grained phase of diorite.								
		Sharp out contact.								
290.0	310.0	Interbedded Intermediate and Felsic Tuff	9257	298.7	301.7	3.0	0.008			
		Grey to black to medium-green, fine to medium-grained,	9258	301.7	304.7	3.0	0.005			
		finely-bedded at 58° to C.A. Nil to trace pyrite.	9259	304.7	307.7	3.0	0.013			
			9260	307.7	308.4	0.7	0.007			
			9249	310.0	310.6	0.6	0.005			
			9250	310.6	312.8	2.2	0.010			
			9251	312.8	315.8	3.0	0.013			
			9252	315.8	318.8	3.0	0.007			
310.0	410.0	Intermediate Tuff	9253	318.8	321.8	3.0	0.010			
			9254	321.8	324.8	3.0	0.009			
			9255	324.8	327.8	3.0	0.008			
			9256	327.8	330.0	3.2	0.012			
		Medium-green, medium to fine-grained, poorly to well-	9247	330.0	333.0	3.0	0.007			
		bedded. Nil to traces of pyrite in euhedral cubes.	9248	333.0	335.0	2.0	0.013			
		Chloritic. Minor feldspar porphyroblastic sections are	9244	350.0	353.0	3.0	0.009			
		present.	9245	353.0	356.0	3.0	0.010			
		By 343.0' unit becomes spotted with dark chlorite clots (25%)	9246	356.0	358.6	2.6	0.014			

DIAMOND DRILL RECORD

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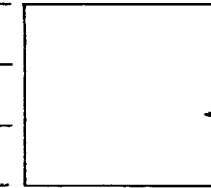
PROPERTY KAPLAN - MALLARD TOWNSHIP PROPERTY

D.D.H. No. AIM-83-5 PAGE 4/4

LATITUDE LINE 8 + 00 W BEARING OF HOLE Grid North (036°) STARTED DEC. 17, 1983

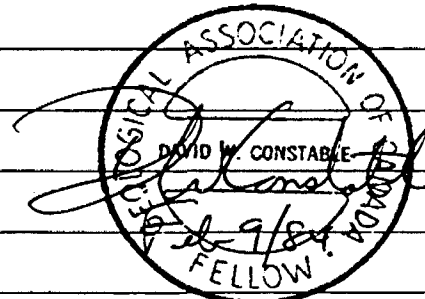
DEPARTURE 23 + 00 S DIP OF HOLE -45° COMPLETED DEC. 20, 1983

ELEVATION ----- DIP TESTS _____ DEPTH 500.0'



CLAIM No. P-548437
DIRECTION AND DISTANCE FROM
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	Au oz/ton	ASSAY	
FROM	TO			FROM	TO				
410.0	500.0	Felsic Tuff	9241	410.0	413.0	3.0	0.065		
			9242	413.0	416.0	3.0	0.010		
		Tan to pink to medium-green, fine-grained, finely-bedded	9243	429.1	430.0	0.9	0.005		
		at 71° to C.A. Hematized, sericitic. Box appears to have	9233	430.0	431.0	1.0	0.008		
		<u>been emptied and core lost - approximately 2 feet lost.</u>	9234	431.0	432.0	1.0	0.131		
		Trace pyrite.	9235	432.0	433.0	1.0	0.022		
			9236	433.0	436.0	3.0	0.054		
			9237	436.0	437.0	1.0	0.008		
			9238	437.0	439.0	2.0	0.067		
			9239	439.0	440.0	1.0	0.012		
			9240	440.0	443.0	3.0	0.181		
		From 430.9' - 432.9' - white quartz vein with traces of	9301	443.0	446.0	3.0	0.010		
		pyrite.	9302	446.0	449.0	3.0	0.007		
			9303	449.0	450.0	1.0	0.340		
			9304	450.0	450.8	0.8	0.012		
			9225	450.8	452.6	1.8	0.021		
			9226	452.6	454.4	2.8	0.010		
		From 457.1' - 458.1' - hematized pyritized felsic tuff	9227	454.4	457.4	3.0	0.012		
		section with 1% pyrite (disseminated).	9228	457.4	458.6	1.2	0.005		
			9229	458.6	461.6	3.0	0.003		
			9230	461.6	464.6	3.0	0.015		
			9231	464.6	467.6	3.0	0.007		
			9232	467.6	470.0	2.4	0.007		
		500.0' - END OF HOLE AIM-83-5	9224	489.0	490.0	1.0	0.022		
			9223	490.0	491.4	1.4	0.005		



DIAMOND DRILL RECORD

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PROPERTY KAPLAN - MALLARD TOWNSHIP PROPERTY

BQ CORE

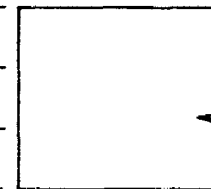
D.D.H. No. AIM-83-6

PAGE 1/3

LATITUDE LINE 8 + 00 W BEARING OF HOLE GRID NORTH (036°) STARTED DEC. 4, 1983

DEPARTURE 19 + 00 S DIP OF HOLE -45° COMPLETED DEC. 12, 1983

ELEVATION ----- DIP TESTS _____ DEPTH 500.0'



CLAIM No. P-548437

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	Au oz/ton	ASSAY	
FROM	TO			FROM	TO				
0	39.0	CASING							
39.0	85.3	Mafic Tuff							
		Black to dark green, similar to the mylonitized unit in hole AIM-83-8 from 338.2' - 368.7' except this unit is more competent but blocky. Poorly-bedded, medium-grained brecciated in places with several inch long angular fragments seen throughout the unit. Nil to trace pyrite. Sharp conformable out contact.							
85.3	328.3	Intermediate Tuff							
		Green to grey-green, fine to medium-grained, poorly to well-bedded at 36° to C.A. Nil to trace pyrite. Chloritic with	9128	150.6	153.6	3.0	0.008		
			9129	153.6	154.0	0.4	0.007		

DIAMOND DRILL RECORD

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PROPERTY KAPLAN - MALLARD TOWNSHIP PROPERTY

BQ CORE

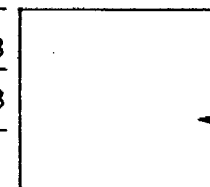
D.D.H. No. AIM-83-7

PAGE 1/6

LATITUDE LINE 8 + 00 W BEARING OF HOLE GRID NORTH (036°) STARTED DEC. 13, 1983

DEPARTURE 15 + 00 S DIP OF HOLE -45° COMPLETED DEC. 16, 1983

ELEVATION ----- DIP TESTS _____ DEPTH 550.0'



CLAIM No. 135' in P.548437
~~415' in P.548438~~

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	Au oz/ton	ASSAY		
FROM	TO			FROM	TO					
0	11.0	CASING								
11.0	31.0	Argillite								
		Olive green, fine-grained, poorly-bedded, soft, massive rock with a poor foliation.								
31.0	93.2	Argillite and Interbedded Intermediate Tuff								
		Medium green, very fine-grained to fine-grained, well-bedded, bedding is at 42° to C.A. but rolls to a lower angle (down to 20°), Chloritic.								
		39.1' - 48.6' - 1-2% pyrite along beds	9118	39.0	40.0	1.0	0.006			
			9119	42.4	45.4	3.0	0.032			
		49.7' - 50.2' - grey hard fine-grained chert	9120	45.4	48.4	3.0	0.012			
			9121	48.4	48.7	0.3	0.013			

DIAMOND DRILL RECORD

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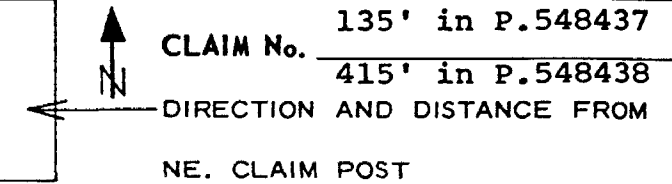
PROPERTY KAPLAN - MALLARD TOWNSHIP PROPERTY

D.D.H. No. AIM-83-7 PAGE 5/6

LATITUDE LINE 8 + 00 W BEARING OF HOLE GRID NORTH (036°) STARTED Dec. 13, 1983

DEPARTURE 15 + 00 S DIP OF HOLE -45° COMPLETED Dec. 16, 1983

ELEVATION ----- DIP TESTS ----- DEPTH 550.0'



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	Au oz/ton	ASSAY		
FROM	TO			FROM	TO					
484.4	539.9	Argillite								
		Medium green, fine-grained, finely bedded at 51° to C.A.	9282	484.2	487.0	2.8	0.015			
		Trace to 1% pyrite in euhedral crystals and along quartz fractures.	9283	487.0	490.0	3.0	0.017			
			9284	490.0	493.0	3.0	0.017			
			9285	493.0	496.0	3.0	0.009			
			9286	496.0	499.0	3.0	0.009			
			9287	499.0	501.8	2.8	0.012			
			9292	501.8	505.0	3.0	0.009			
			9293	505.0	508.0	3.0	0.009			
		at 492.5' narrow (1/8") seam of chalcopryrite and quartz.	9294	508.0	511.0	3.0	0.012			
			9295	511.0	514.0	3.0	0.006			
			9296	514.0	517.0	3.0	0.020			
			9297	517.0	520.0	3.0	0.015			
		at 519.5' narrow (1/8") seam of chalcopryrite and quartz.	9298	520.0	521.2	1.2	0.008			
			9102	522.0	525.0	3.0	0.009			
		at 533.8' 1/2" wide quartz and chalcopryrite vein.	9103	525.0	528.0	3.0	0.009			
			9104	528.0	531.0	3.0	0.015			
			9105	531.0	534.0	3.0	0.009			
			9106	534.0	537.0	3.0	0.006			
			9107	537.0	540.0	3.0	0.012			
			9108	540.0	541.4	1.4	0.009			
			9288	541.4	543.0	1.6	0.005			

DIAMOND DRILL RECORD

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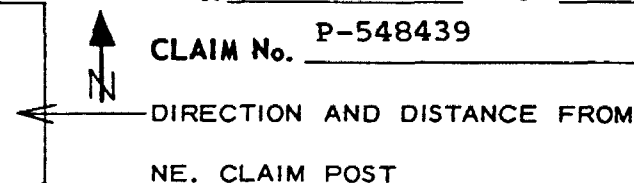
PROPERTY KAPLAN - MALLARD TOWNSHIP PROPERTY

D.D.H. No. AIM-83-8 PAGE 2/6

LATITUDE LINE 8 + 00 W BEARING OF HOLE Grid North (036°) STARTED Dec. 7, 1983

CLAIM No. P-548439

DEPARTURE 4 + 00 S DIP OF HOLE -45° COMPLETED Dec. 10, 1983



ELEVATION ----- DIP TESTS _____ DEPTH 650.0'

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	Au oz/ton	ASSAY	
FROM	TO			FROM	TO				
116.5	196.9	Mafic Tuff							
		Dark green, medium to fine-grained, poorly-bedded, chloritic and amphibolitic. Contains 5% irregular quartz-carbonate veinlets and veins. Trace to nil pyrite. Due to metamorphic mineral development unit has a spotted appearance. At 169.7' white quartz vein with blebs of chalcopyrite. Sharp conformable out contact.							
196.9	327.6	Intermediate Tuff							
		Grey to green-grey, fine-grained, finely-bedded, chloritic and sericitic, trace to nil pyrite. Some minor, sericitic, felsic tuff sections are contained in the unit.	9177	249.7	250.7	1.0	0.007		

DIAMOND DRILL RECORD

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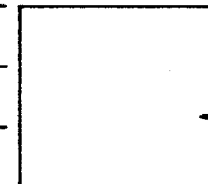
PROPERTY KAPLAN - MALLARD TOWNSHIP PROPERTY

D.D.H. No. AIM-83-8 PAGE 4/6

LATITUDE LINE 8 + 00 W BEARING OF HOLE Grid North (036°) STARTED Dec. 7, 1983

DEPARTURE 4 + 00 S DIP OF HOLE -45° COMPLETED Dec. 10, 1983

ELEVATION ----- DIP TESTS _____ DEPTH 650.0'



CLAIM No. P-548439

DIRECTION AND DISTANCE FROM
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	Au oz/ton	ASSAY	
FROM	TO			FROM	TO				
		amphiboles, feldspars and carbonates. Unit begins as massive and competent but after 3 feet becomes soft enough to break with your fingers.							
		Sharp, chilled and apparently conformable out contact.							
368.7	378.0	Interbedded Intermediate Tuff and Graphitic Sediments	9169	368.6	371.6	3.0	0.008		
		Alternating black and green, fine-grained, finely bedded. By 378. feet, graphitic sediments end. Trace to nil pyrite.							
378.0	468.0	Intermediate Tuff							
		Green to grey-green, fine-grained, finely-bedded at 42° to							

DIAMOND DRILL RECORD

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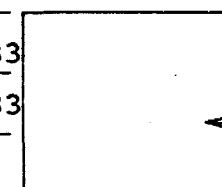
PROPERTY KAPLAN - MALLARD TOWNSHIP PROPERTY

D.D.H. No. AIM-83-8 PAGE 5/6

LATITUDE LINE 8 + 00 W BEARING OF HOLE Grid North (036°) STARTED Dec. 7, 1983

DEPARTURE 4 + 00 S DIP OF HOLE -45° COMPLETED Dec. 10, 1983

ELEVATION ----- DIP TESTS _____ DEPTH 650.0'



CLAIM No. P-548439

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	Au oz/ton	ASSAY		
FROM	TO			FROM	TO					
		C.A. Nil to trace pyrite, chloritic and in sections sericitic.								
		At 391.' - 6" quartz vein with pyrite	9172	391.0	391.5	0.5	0.012			
		At 458.' - 8" white quartz vein	9159	447.6	450.6	3.0	0.008			
		At 459.' - 4" quartz vein	9160	457.6	459.2	1.6	0.010			
		Gradational conformable out contact								
468.0	582.3	Mafic Tuff								
		Dark green, medium-grained, unbedded to poorly-bedded, chloritic, trace pyrite. The unit contains minor sub-rounded, white feldspar porphyroblasts from 10 mm. to 2 cm. in diameter.	9156	485.4	486.4	1.0	0.010			
			9155	493.0	494.0	1.0	0.010			
		Conformable Gradational out contact.								
			9179	503.4	504.4	1.0	0.005			

DIAMOND DRILL RECORD

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CONSTABLE CONSULTING INC.

PROPERTY KAPLAN - MALLARD TOWNSHIP PROPERTY

D.D.H. No. AIM -83-8 PAGE 6/6

LATITUDE LINE 8 + 00 W BEARING OF HOLE Grid North (036°) STARTED Dec. 7, 1983

DEPARTURE 4 + 00 S DIP OF HOLE -45° COMPLETED Dec. 10, 1983

ELEVATION ----- DIP TESTS _____ DEPTH 650.0'

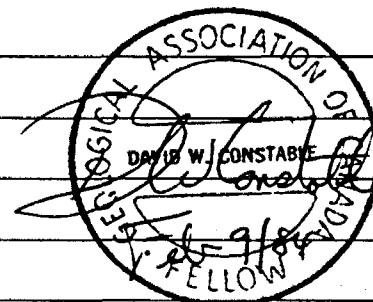


CLAIM No. P-548439

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	AU oz/ton	ASSAY	
FROM	TO			FROM	TO				
582.3	650.0	Felsic Tuff							
		Green to grey-green, fine-grained, finely-bedded at 75°							
		to C.A. Trace to nil pyrite, sericitic with minor chlorite.							
		At 593.7' - 2" zone of narrow sulfide (po-py) beds with							
		very minor fuchsite development.							
		From 630.3' - 633.9' zone of breccia filled with white	9150	630.3	633.3	3.0	0.012		
		quartz-carbonate and 1-2% pyrite	9151	633.3	634.0	0.7	0.007		
		and chalcopyrite.							
		643.7'- 644.5' development of quartz eyes.							
		650.0' END OF HOLE AIM-83-8							



DIAMOND DRILL RECORD

LOGGED BY D. Constable

CONSTABLE CONSULTING INC.

PROPERTY KAPLAN- MALLARD TOWNSHIP PROPERTY

BQ CORE

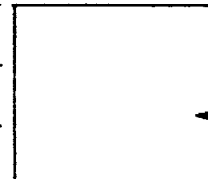
D.D.H. No. AIM-83-9

PAGE 1/5

LATITUDE LINE 0 + 20 E BEARING OF HOLE Grid North (036°) STARTED Dec. 14. 1983

DEPARTURE 14 + 00 S DIP OF HOLE -45° COMPLETED Dec. 15, 1983

ELEVATION ----- DIP TESTS _____ DEPTH 400.0'



CLAIM No. P-548438

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	Au oz/ton	ASSAY		
FROM	TO			FROM	TO					
0	14.0	CASING								
14.0	45.9	Diorite								
		Salt and pepper color, medium-grained rock with 60% feldspar, 40% ferro-magnesian. Out contact is chilled, black, fine-grained and intrusive. No sulfides present in the diorite.								
			9174	46.0	49.0	3.0	0.010			
45.9	68.5	Chert	9175	49.0	52.0	3.0	0.008			
			9176	52.0	53.0	1.0	0.009			
			9161	53.0	56.0	3.0	0.014			
		Grey-green, hard, fine-grained, nearly conchoidal fracture, finely bedded at 25° to C.A. Disseminated and beds of pyrite, pyrrhotite and very minor chalcopyrite present up to 2% of the unit. For the last 8-10 ft. the chert unit shows signs of 1-2"-wide intermediate tuff units.	9162	56.0	59.0	3.0	0.010			
			9163	59.0	62.0	3.0	0.011			
			9164	62.0	65.0	3.0	0.007			
			9165	65.0	68.0	3.0	0.011			
			9166	68.0	71.0	3.0	0.007			

DIAMOND DRILL RECORD

LOGGED BY D. Constable

CONSTABLE CONSULTING INC.

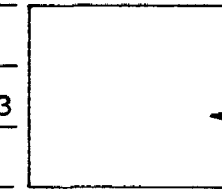
PROPERTY KAPLAN - MALLARD TOWNSHIP PROPERTY

D.D.H. No. AIM-83-9 PAGE 3/5

LATITUDE LINE 0 + 20 E BEARING OF HOLE Grid North (036°) STARTED Dec. 14, 1983

DEPARTURE 14 + 00 S DIP OF HOLE -45° COMPLETED Dec. 15, 1983

ELEVATION ----- DIP TESTS ----- DEPTH 400.0'



CLAIM No. P-548438

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	AU oz/ton	ASSAY		
FROM	TO			FROM	TO					
		The last 6 feet of the conglomerate gradually becomes an argillite that has been hematized to a brick-red colour with 1-2% disseminated pyrite.	9152	136.3	139.3	3.0	0.011			
			9153	139.3	142.1	2.8	0.005			
140.4	400.0	Intermediate Tuff								
		Medium to dark green, fine to medium-grained, well-bedded with trace pyrite present. Chloritic, soft to average hardness.	9154	146.6	147.7	1.1	0.007			
		158.0' - 160.9' pink hematized section with 1-2% pyrite along fractures.	9157	158.0	161.0	3.0	0.010			
			9158	161.0	162.3	1.3	0.010			
		Quartz augens are infrequently present throughout as well as beds of pink porphyry (?) but instead of fragments only as beds. Some sections have more than the normal traces of sulfide.	9306	174.8	177.8	3.0	0.002			
			9146	177.8	180.8	3.0	0.112			
			9147	180.8	183.8	3.0	0.019			
			9148	183.8	184.5	0.7	0.010			

DIAMOND DRILL RECORD

LOGGED BY D. Constable

CONSTABLE CONSULTING INC.

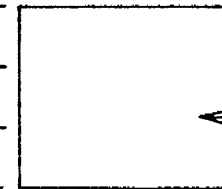
PROPERTY KAPLAN - MALLARD TOWNSHIP PROPERTY

D.D.H. No. AIM-83-9 PAGE 4/5

LATITUDE LINE 0 + 20 E BEARING OF HOLE Grid North (036°) STARTED Dec. 14, 1983

DEPARTURE 14 + 00 S DIP OF HOLE -45° COMPLETED Dec. 15, 1983

ELEVATION ----- DIP TESTS _____ DEPTH 400.0'



CLAIM No. P-548438
DIRECTION AND DISTANCE FROM
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	Au oz/ton	ASSAY					
FROM	TO			FROM	TO								
	175.8' - 181.6'	1-2% pyrite and quartz veins. This intermediate tuff shows definitely more sedimentary affinity than normal. Some sections contain sericite in significant (10%) quantities. An S ₁ has been developed parallel to S ₀ with flat (20°) lying (?), east-west (?), lineations across the S ₁ /S ₀ plane.											
	229.8' - 234.7'	rusty pink, hematized section with 1-2% disseminated pyrite and kink banding at 70-90° to the C.A.	9139	229.5	232.5	3.0	0.010						
			9140	232.5	234.7	2.2	0.015						
			9141	238.0	240.5	2.5	0.011						
	At 265.0'	bedding is at 66° to C.A.											
	339.0' - 361.9'	white to yellow rust color due to addition of quartz beds and sericite and 1-2%	9134	352.4	355.4	3.0	0.013						
			9135	355.4	356.2	0.8	0.005						

DIAMOND DRILL RECORD

LOGGED BY D. Constable

CONSTABLE CONSULTING INC.

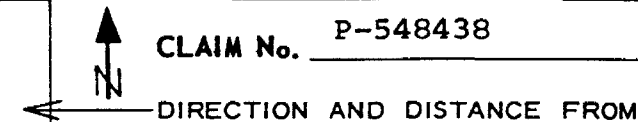
PROPERTY Kaplan - MALLARD TOWNSHIP PROPERTY

D.D.H. No. AIM-83-9 PAGE 5/5

LATITUDE LINE 0 + 20 E BEARING OF HOLE Grid North (036°) STARTED Dec. 14, 1983

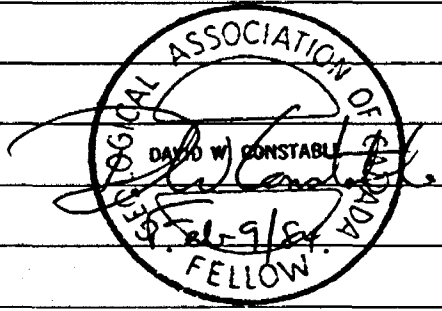
CLAIM No. P-548438

DEPARTURE 14 + 00 S DIP OF HOLE -45° COMPLETED Dec. 15, 1983



ELEVATION ----- DIP TESTS ----- DEPTH 400.0'

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY						
FROM	TO			FROM	TO								
		pyrite - (hematized ?)											
		At 361.9' - 362.4' definite green argillite (sedimentary) bed,											
		From 370' onward to the end the rock becomes intermediate tuff with interbedded argillite beds.											
		400.0' END OF HOLE AIM-83-9											



DIAMOND DRILL RECORD

LOGGED BY D. Constable

CONSTABLE CONSULTING INC.

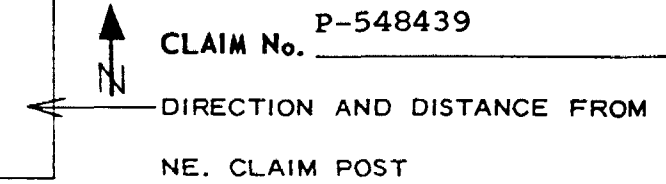
PROPERTY KAPLAN - MALLARD TOWNSHIP PROPERTY

D.D.H. No. AIM-83-10 PAGE 4/4

LATITUDE LINE 8 + 00 W BEARING OF HOLE Grid North (036°) STARTED Dec. 11, 1983

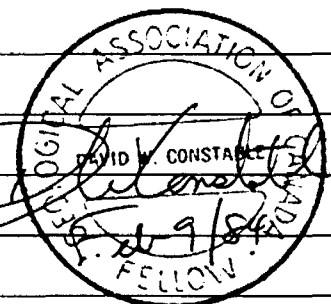
CLAIM No. P-548439

DEPARTURE 10 + 00 S DIP OF HOLE -45° COMPLETED Dec. 13, 1983



ELEVATION ----- DIP TESTS _____ DEPTH 592.0'

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	AU		ASSAY	
FROM	TO			FROM	TO		oz/ton			
		From 437.7' - 442.5' Dark green, medium-grained, mafic tuff section.								
			9180	503.4	504.4	1.0	0.007			
		506.3' - 511.0' Dark green, medium-grained, spotted mafic tuff.								
		592.0' END OF HOLE AIM -83-10								



DK - 8/3/84

Assessor

Approved Reports of Work
sent out

Notice of Intent filed

Approval after Notice of Intent
sent out

Duplicate sent to Resident
Geologist

Duplicate sent to A.F.R.O.

Our File:2.6395

1984 03 05

Bruce W. Hanley
Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We have received data for Assaying submitted under Section 77(19) of the Mining Act R.S.O. 1980 for Mining Claims P 545432 et al in the Township of Mallard.

This material will be examined and assessed and a statement of assessment work credits will be issued.

We do not have a copy of the report of work which is normally filed with you prior to the submission of this technical data.

Yours very truly,

J.R. Morton
Acting Director
Land Management Branch

Whitney Block
Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1380

A. Barr:dg

cc: Arthur E. Kaplan
c/o 10 Kingston Crt.
Sudbury, Ontario.
P3A 1C9



GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Mun. Act. (86)-(18) Assays & Analysis
Township or Area MALBARD TOWNSHIP
Claim Holder(s) ARTHUR E. KAPLAN
610 KINGSTON CRT SUDBURY P3A1C9
Survey Company CONSTABLE CONSULTING INC.
Author of Report DAVID CONSTABLE
Address of Author 10 KINGSTON COURT SUDBURY
Covering Dates of Survey NOV 15/83 - FEB 5/84 P3A1C9
(linecutting to office)
Total Miles of Line Cut N/A

MINING CLAIMS TRAVERSED
List numerically

P. 545 432
(prefix) (number)
P. 545 433
P. 548 437
P. 548 438
P. 548 439

Assaying

SPECIAL PROVISIONS
CREDITS REQUESTED

DAYS
per claim

ENTER 40 days (includes
line cutting) for first
survey.

ENTER 20 days for each
additional survey using
same grid.

- Geophysical _____
- Electromagnetic _____
- Magnetometer _____
- Radiometric _____
- Other _____
- Geological _____
- Geochemical _____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Feb 9/84 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

RECEIVED

FEB 10 1984

MINING LANDS SECTION

TOTAL CLAIMS _____

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS -- If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: Fixed transmitter Shoot back In line Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION
RESISTIVITY

Instrument _____

Method Time Domain Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____
(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____
(specify for each type of survey)

Accuracy _____
(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____



Constable Consulting Inc.

TEL. (705) 566-5931

10 KINGSTON COURT SUDBURY, ONTARIO P3A 1C9

February 5, 1984

INVOICE

4 days drafting, copying and folding maps @ \$300. per day	\$1200.
4 days upgrading logs and writing report @ \$300. per day	1200.
Typing Reports and copying costs	310.
	<u>\$2710.</u>

*ahoy
Invoice - Paid
Feb 8/84
D. Constable*

RECEIVED

FEB 10 1984

MINING LANDS SECTION

Erana Mines Ltd.
106 Fielding Road
Sudbury, Ontario

INVOICE NO. 438

DATED: February 6, 1984

189 assays for gold @ \$10.00 per sample	\$ 1890.
1 assay for copper @ 4.00 per sample	<u>4.</u>
	<u>\$ 1894.</u>

Paid Feb. 9/84/eb.

RECEIVED
FEB 10 1984
MINING LANDS SECTION

ADELINE INTERNATIONAL MINES, LTD.

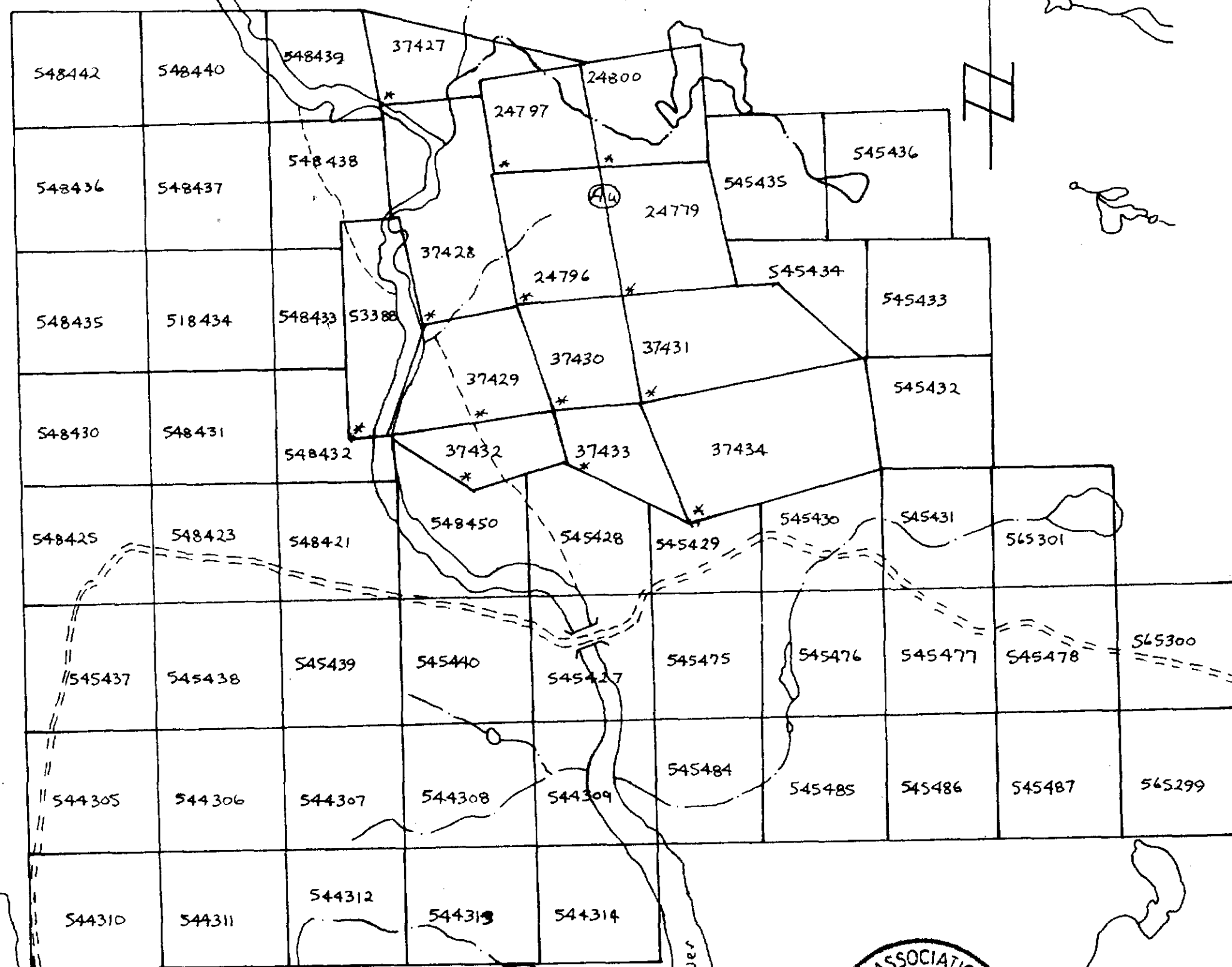
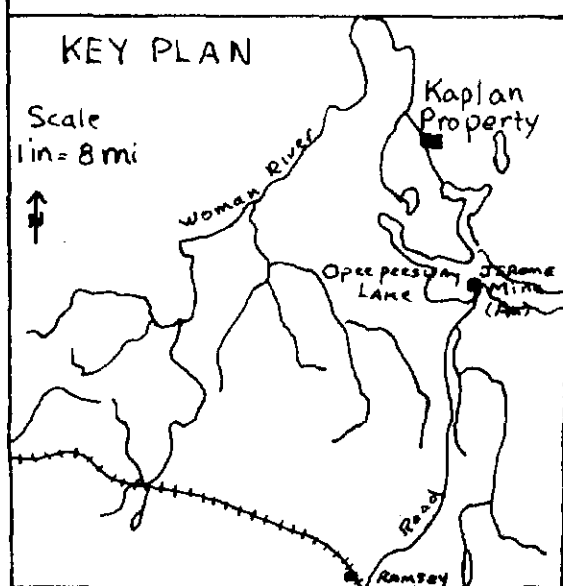
Mallard Township

Sudbury Mining
Division

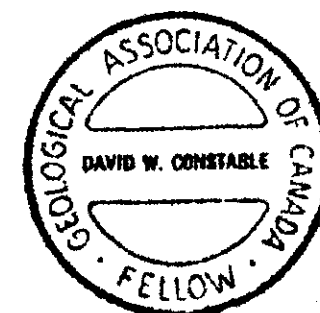
Scale: 1 inch = 1/4 mile

Figure 1

26395

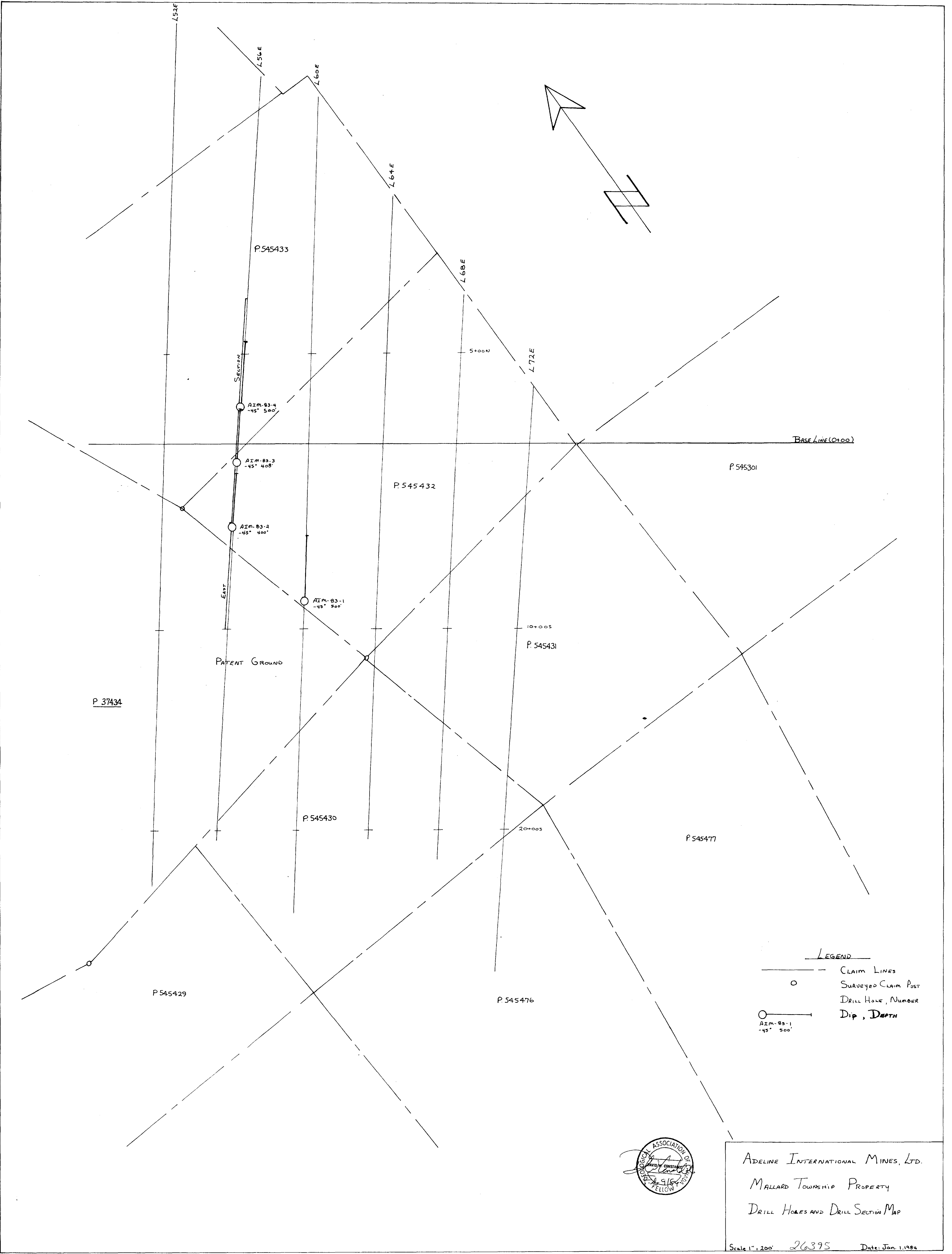


* Patent Claims



CONSTABLE CONSULTING INC.

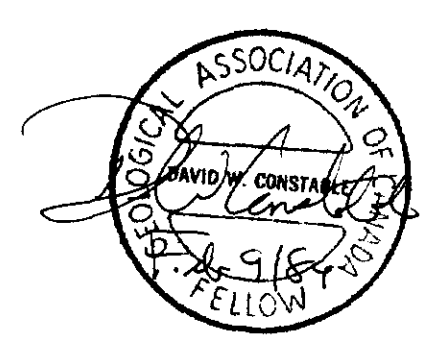




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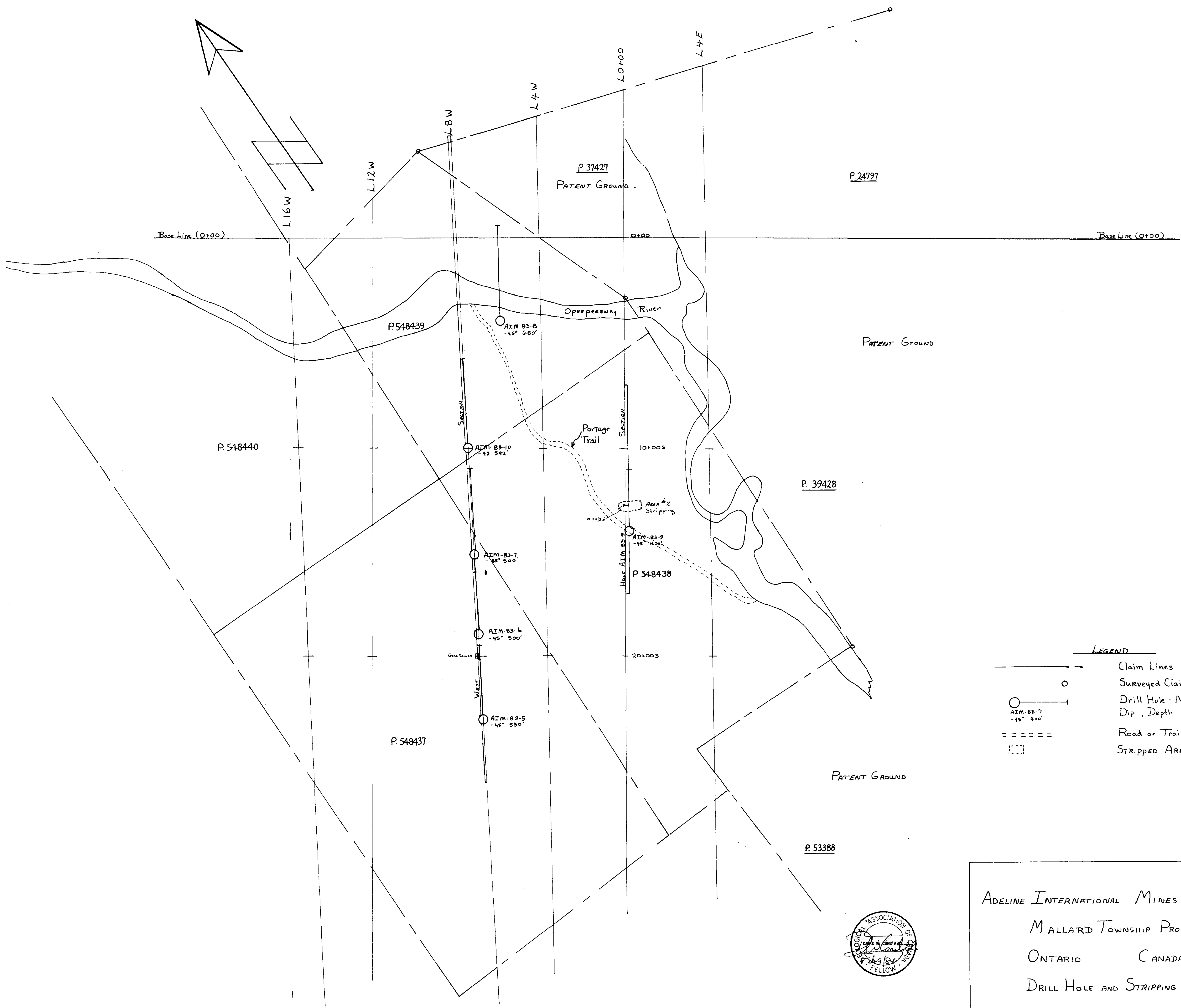
- CLAIM LINES
- SURVEYED CLAIM POST
- DRILL HOLE, NUMBER
- Dip, DEPTH

AIM-83-1
-45° 500'



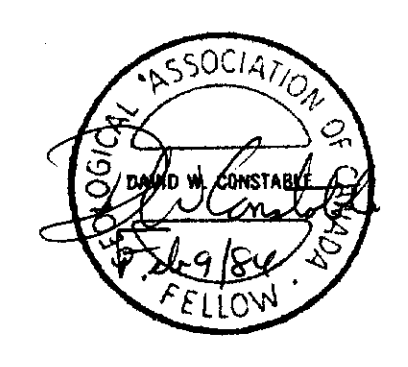
ADELINE INTERNATIONAL MINES, LTD.
 MALLARD TOWNSHIP PROPERTY
 DRILL HOLES AND DRILL SECTION MAP

Scale 1" = 200' 26395 Date: Jan. 1, 1984

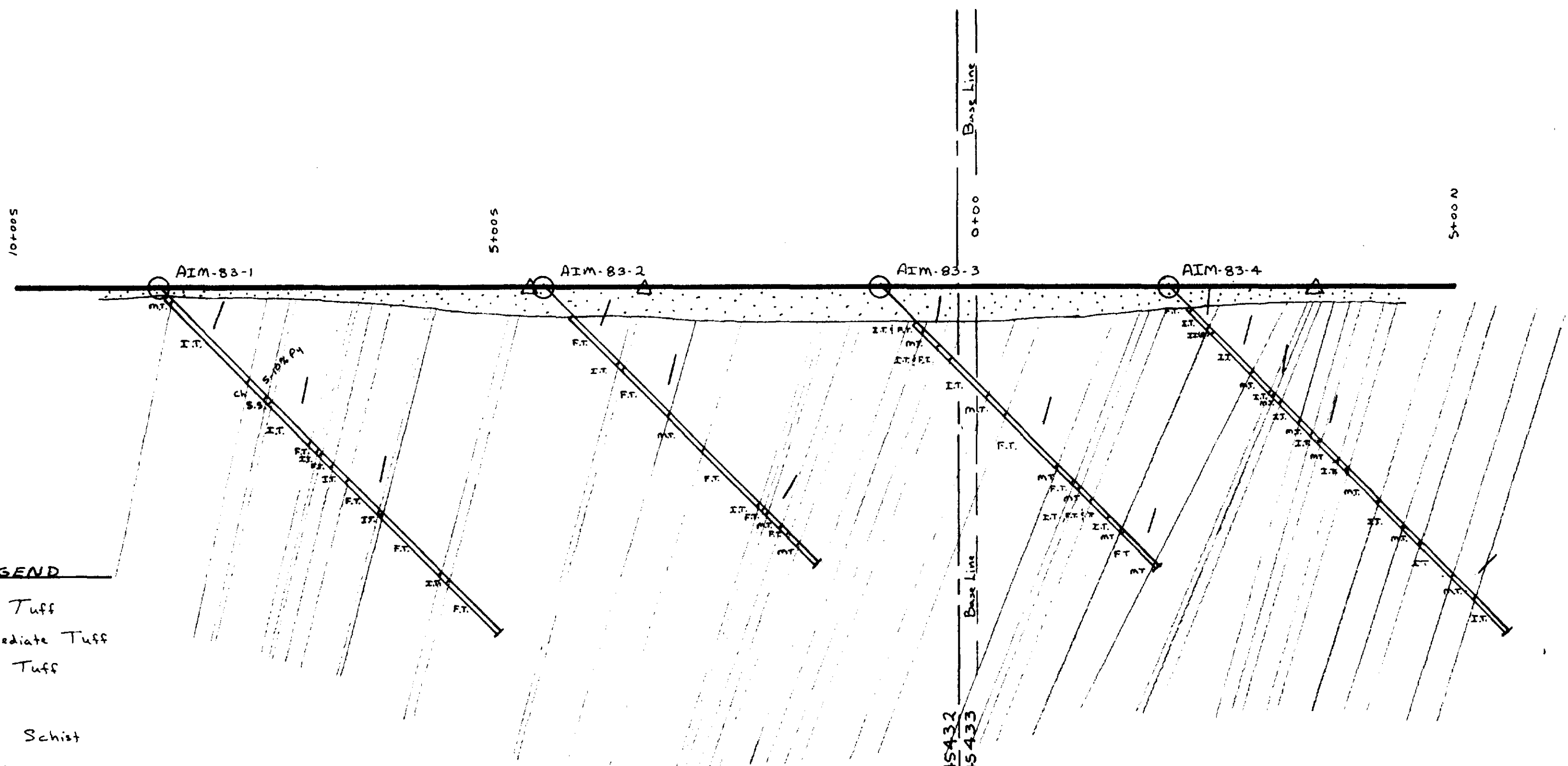
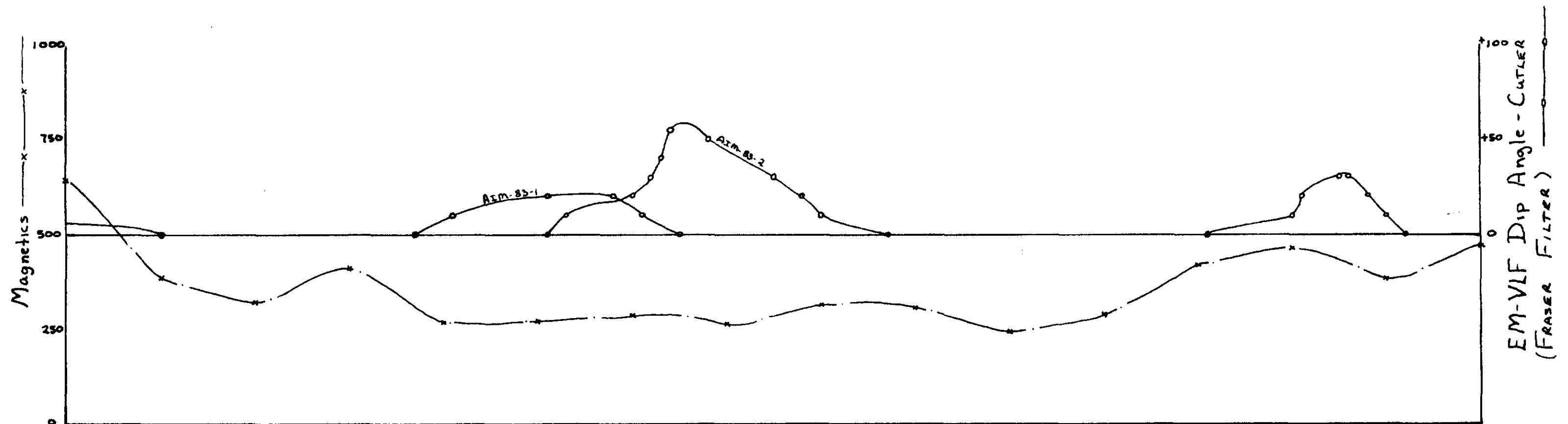


LEGEND

---	Claim Lines
○	Surveyed Claim Post
○ —	Drill Hole - Number Dip, Depth
----	Road or Trail
□	STRIPPED AREA



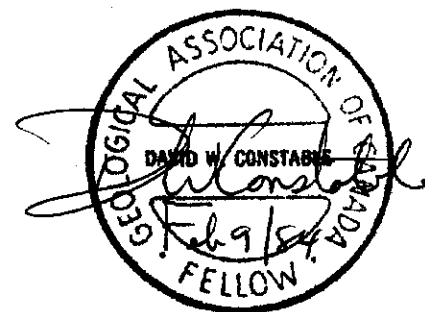
ADELINE INTERNATIONAL MINES, LTD.
 MALLARD TOWNSHIP PROP.
 ONTARIO CANADA
 DRILL HOLE AND STRIPPING
 Scale 1" = 200' 26395 JAN. 1, 1984



LEGEND

- F.T. - Felsic Tuff
- I.T. - Intermediate Tuff
- M.T. - Mafic Tuff
- Ch. - Chert
- S.S. - Sericitic Schist
- π - Porphyry
- ▽ - EM-VLF Conductor Axes
- Overburden
- / Bedding angle to the Core Axes

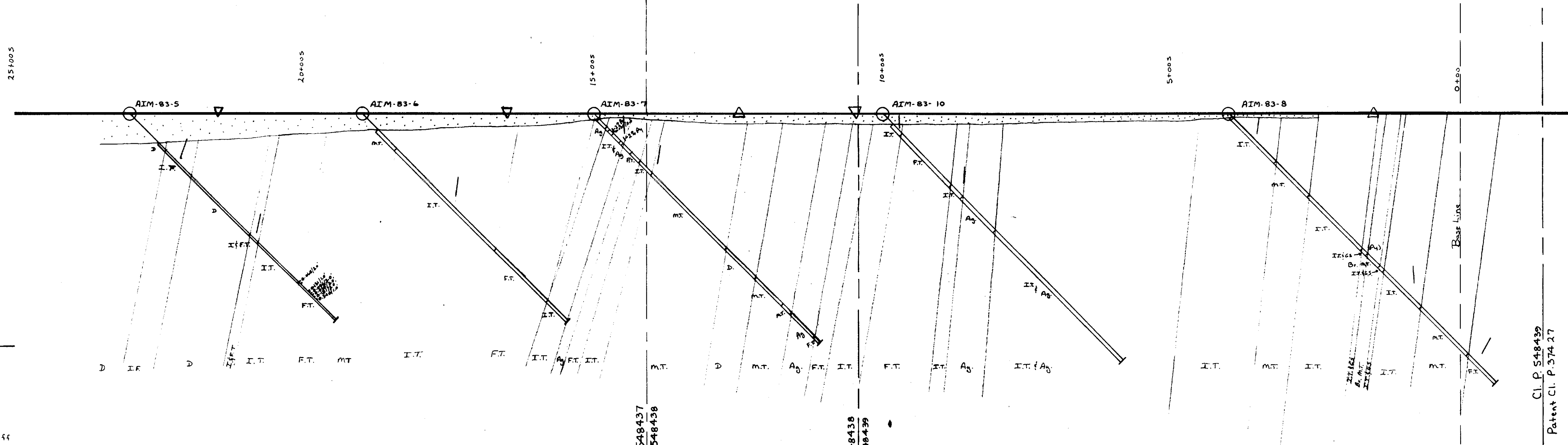
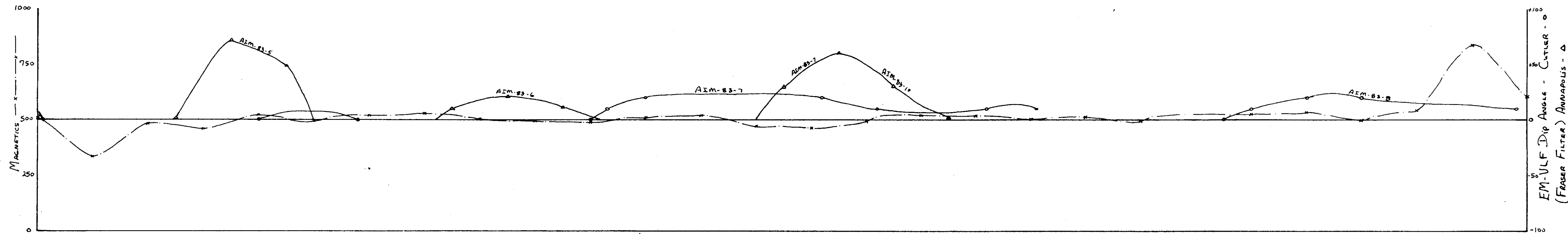
Cl. P. 545432
Cl. P. 545433



ADELINE INTERNATIONAL MINES LTD
MALLARD TOWNSHIP PROPERTY
DRILL SECTION - 56+00 EAST
LOOKING WEST

Scale 1"=100' 26395 Date: Jan 2, 1984

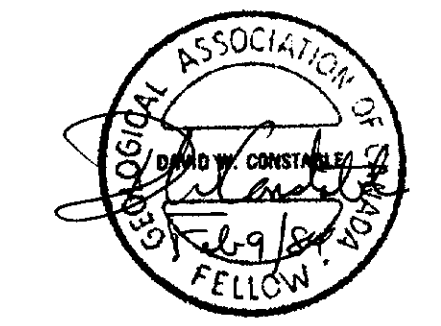




LEGEND

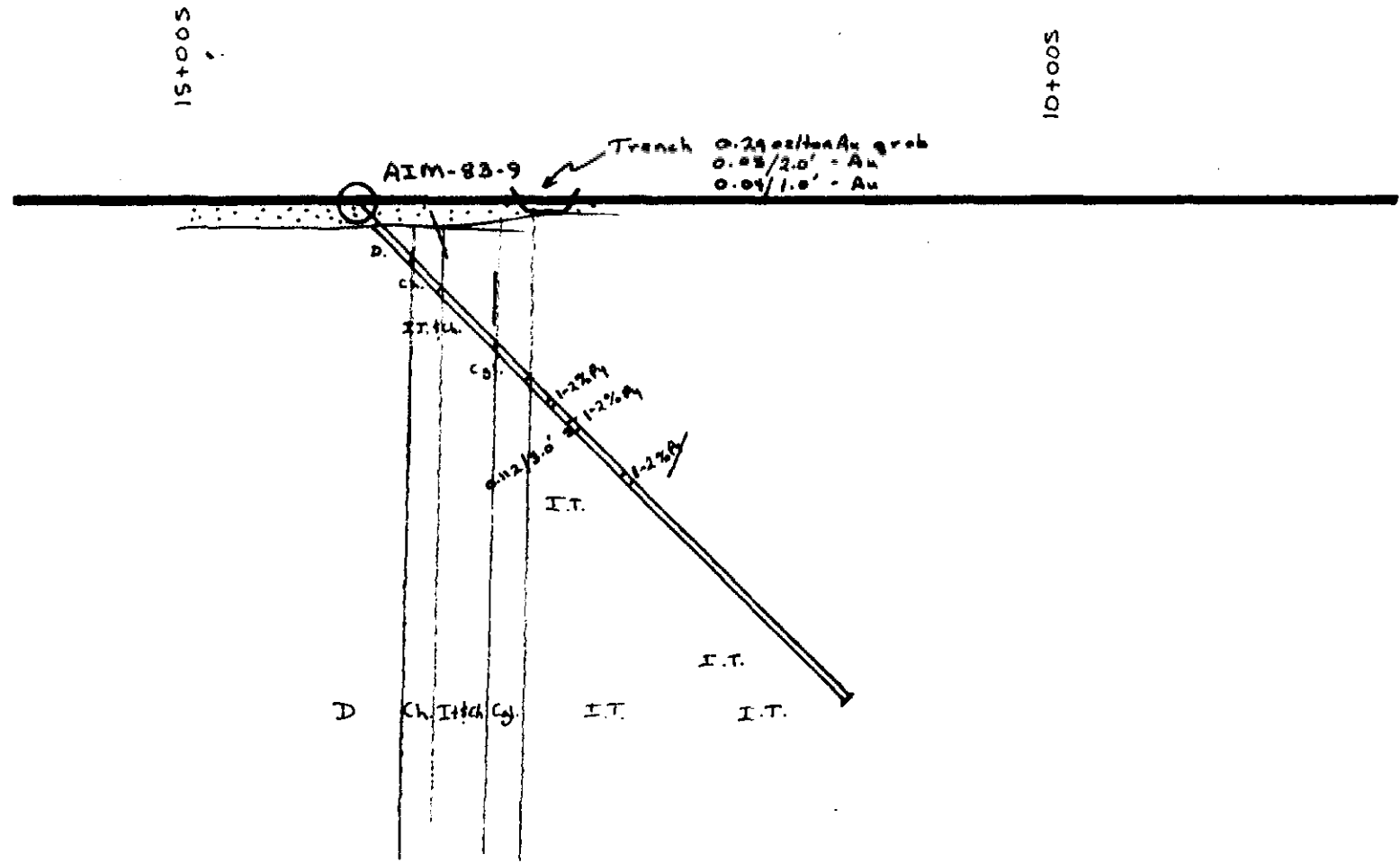
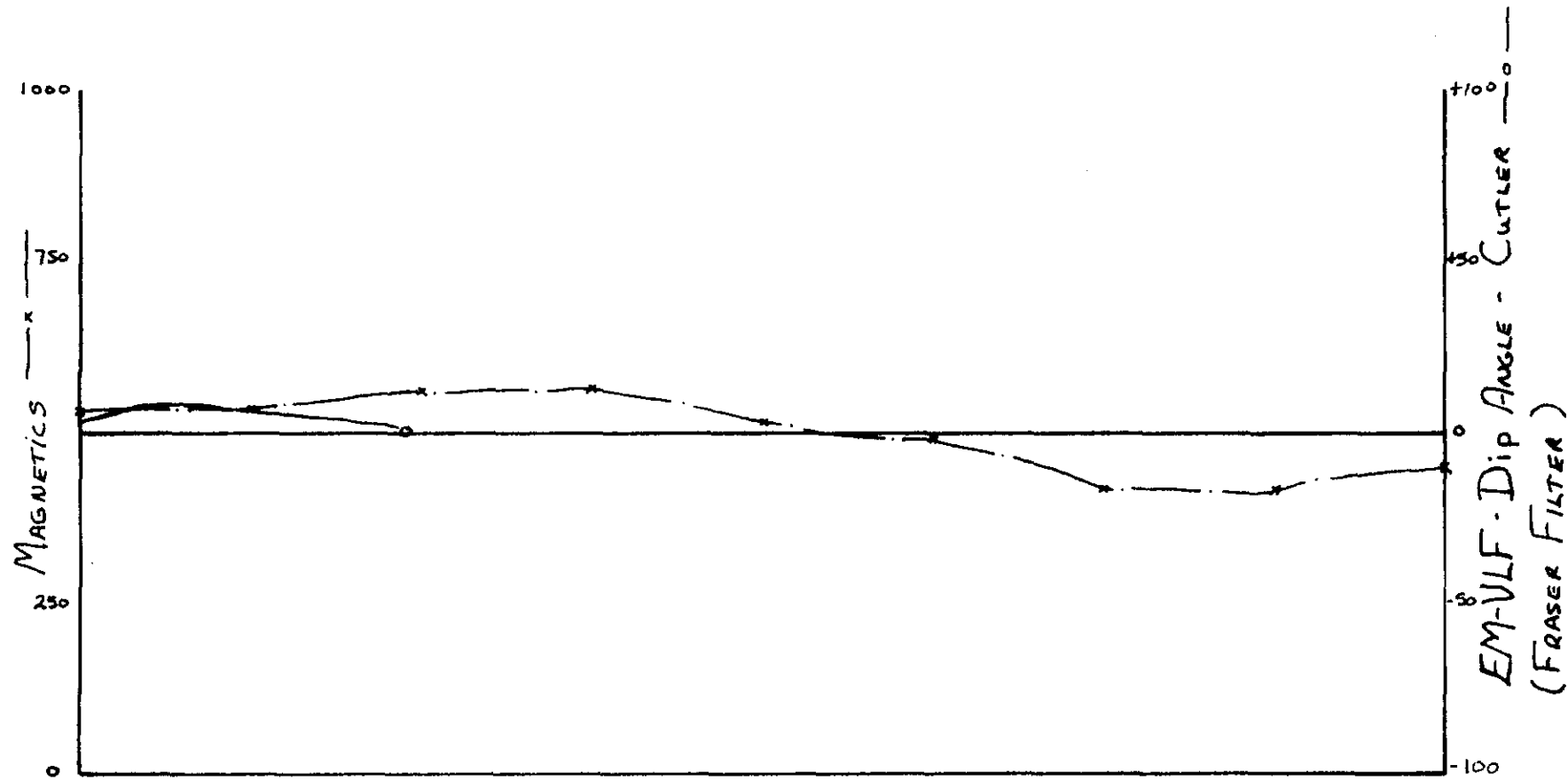
- D - Diorite
- Ag - Anorthite
- IF - Iron Formation
- FT - Felsic Tuff
- IT - Intermediate Tuff
- MT - Mafic Tuff
- G.S. - Graphitic Sediments
- Bx - Breccia
- ▽ - EM-ULF Conductor Axis
- Overburden
- 0.340/110' - Gold values in ounces per ton over width in feet.
- / - Bedding angles to the Core Axis

Cl. P. 548437
Patent Cl. P. 574 27



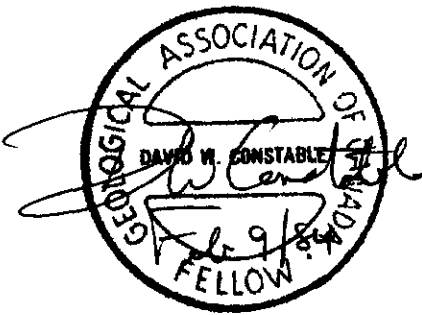
ADELINE INTERNATIONAL MINES LTD.
MALLARD TOWNSHIP PROPERTY
DRILL SECTION - LINE 8+00W
LOOKING WEST

Scale 1"=100' 26395 Date Jan. 2, 1984



LEGEND

- D - Diorite
- Ch - Chert
- Cgl - Conglomerate
- I.T. - Intermediate Tuff.
- W - Trench
- - Overburden
- / - Bedding angle to the core axes



ADELINE INTERNATIONAL MINES LTD
Mallard Township Property
DRILL SECTION - LINE 0+20 EAST
LOOKING WEST

Scale 1" = 100' 26395 Date: Jan. 2, 1984

