



32D04NW0131 63.3922 GAUTHIER

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REPORT ON
STRIPPING AND TRENCHING - 22 CLAIM
GROUP
CASAN MINING LIMITED
GAUTHIER TOWNSHIP
EAST KIRKLAND LAKE GOLD AREA
ONTARIO

Date: January 15, 1982

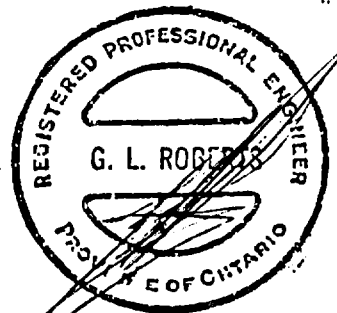
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President

G.C. Roberts
Exploration Manager

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Plan No. 15A

Details of Site #3
Scale 1"=200'
Pits and Line Locations

Plan No. 15B

Details of Sites #1 & #2
Scale 1"=200'
Pits and Line Locations

INTRODUCTION

This report describes the results of a program of stripping, rock sampling and trenching conducted and carried out under the supervision of Candale Mining Management Services Limited, covering a twenty-two claim group property of Casan Mining Limited, located in Gauthier Township, East Kirkland Lake gold area, Ontario. The work was carried out by the writer and his assistants in July and August of the year of 1981, using a line grid originally established on the property in the fall of 1976. All work was carried out in coordination with the Dynamic Construction Limited Drilling Program.

SURVEYED AREA

The twenty-two claims covered by this report are continuous and are identified as follows:

L-482773	L-489658	L-440934	L-440940
L-482774	L-489659	L-440935	L-440941
L-482775	L-489660	L-440936	L-440942
L-482776	L-489661	L-440937	L-440943
L-482777		L-440938	L-440944
L-482778		L-440939	L-440945

LOCATION AND ACCESS

The property is located at the north central part of Gauthier Township, one mile north of Dobie, tying onto the north of Upper Canada Mine. It extends northwesterly with its northwest part adjoining the northeast of Crestland Mines Limited, formerly Northland Mines Limited.

Access was made by truck from Kirkland Lake via Highway #66 to Northlands Park, and by a bush road from Northland Mines to the bush road which runs across the central part of the property.

PREVIOUS WORK

In the winter of 1976-77, the Company conducted a program of geophysical surveys on this twenty-two claim group. The surveys were carried out by Cana Exploration Consultants Limited, and the results were described by Dr. S.S. Szetu in a report dated January 20, 1977. Readers are referred to this report for the geophysical data and also to the history of the property.

It should be noted here that the airborne E.M. anomaly referred to in said report was conducted by Upper Canada Mines Ltd., apparently prior to May, 1966, and the ground follow-up E.M. surveys were conducted in March and May 1966 by Moreau Woodward and Company Limited, of Toronto. While the first survey failed, the second survey succeeded in detecting a conductor zone at an inferred depth of over 210' on the ground held under option by Upper Canada Mines. The conductor zone opens to the west to a patented claim then held by Northland Mines.

Data in the office of the Resident Geologist at Kirkland Lake also showed one hole drilled in 1966 on the then known as Taylor Option, logged by J.G. Bragg, Chief Geologist, Upper Canada Mines. This hole was located at the central part of then Claim 79866 across the eastern section of the airborne E.M. anomaly, which showed stronger conduction to the west. The hole cut a narrow band of

graphite sediments with occasional bands and nodules of pyrite at a considerable depth.

Another hole was drilled to a shallow depth of 148.6' at a location further east by the then owner of the property, Mr. T.C. Taylor, for assessment work purposes. According to Mr. Taylor, the drill site found near L28N, 1450'E was the setup for this shallow hole.

As Casan Mining Limited now has claims covering the full length of the airborne conductor, including the unchecked and apparently more outstanding western section, detailed information about these drill holes and other relevant data will be added to the Company's compilation map for further evaluation. During the month of June 1978, the Company, Casan Mining Limited, conducted two programs, a geological survey and a radiation survey, on this twenty-two claim group. The surveys were carried out by Cana Exploration Consultants Limited under the direction of Dr. S.S. Szetu and the results are described by the author, Dr. S.S. Szetu, in his reports dated July 29th, 1978 and August 21st, 1978.

The geological report produced for Casan Mining Limited by Cana Exploration Consultants Limited and written by Dr. S.S. Szetu dated July 29, 1978, requested that detailed surface sampling of the claims held by this Company be carried out before any drilling exploration be undertaken.

Casan Mining Limited contracted with Dynamic Construction Ltd. of Toronto to undertake the excavation of trenches and surface

blasting, trenching and drilling that would allow detailed sampling of the rock areas available for exploration. This work was carried out in 1978 and submitted in our report dated December 10, 1978.

A thorough geochemical survey was undertaken and completed in 1980, and the results demonstrated an extremely strong relationship and coordination between the geochemical anomalic areas and the E.M. anomalic areas already defined. The results and map produced can be found in our report dated October 20, 1980.

Casan Mining contracted Dynamic Construction of Toronto to drill selected anomalic areas in 1980 and 1981. The results of each drilling program are expressed in their corresponding reports, dated October 29, 1980 and October 25, 1981. In the summer of 1981, a geochemical survey of the four claim block was undertaken by Candale Mining Management Services Limited. The results appear in our report dated April 21st, 1982.

GEOLOGY

The north part of the property is mostly underlain by Keewatin acid volcanics and the central part is underlain by Timiskaming sediments with two narrow zones of interbanded acid volcanics. The southwest part of the property is underlain by Algoman Syenite and Porphyry Syenite, intruding the sediments.

The volcanics and sediments are steeply dipping and apparently schistosed to various degrees. The contacts between the various rock formations are all covered by overburden.

TOPOGRAPHY

Most of the area covered by the claims involved is covered with glacial sand overburden to depths of up to 150'. Few areas have rock exposed on or near the surface which would allow sampling to a definitive extent. Many swamps and a few creeks are present. Sand eskers rising to 100' are common.

GENERAL WORK UNDERTAKEN

Dynamic Construction under our direction opened up the following for inspection:

- 1) Five trenches 2 ft. x 2 ft. x 3 ft. deep
- 2) Five trenches 5 ft. x 2 ft. x 5 ft. deep
- 3) Two trenches 10 ft. x 8 ft. x 4 ft. deep
- 4) One trench 20 ft. x 20 ft. x 2-4 ft. deep

Breakdown by site:

<u>Site</u>	<u>No. Trenches</u>	<u>Length feet</u>	<u>Width feet</u>	<u>Depth feet</u>
Proposed Diamond Drill Hole, Site #1; approx. L20N, 22 + 50 (See Plan 15B)	A	5	2	5
	B	5	2	5
	C	10	8	4
	D	2	2	3
	E	2	2	3
	F	2	2	3
Proposed Site of Diamond Drill Hole #2; approx. location L12N, 23 + 00 (See Plan 15B)	G	5	2	5
	H	10	8	4
	I	2	2	3
	J	2	2	3

<u>Site</u>	<u>No. Trenches</u>	<u>Length feet</u>	<u>Width feet</u>	<u>Depth feet</u>
Proposed Site of Diamond Drill Hole #3; approx. location L16N, 4 + 00 (See Plan 15A)	K	20	20	2-4
	L	5	2	5
	M	5	2	5

TRENCHING

In July and August of 1981, Dynamic Construction Limited of Toronto, in coordination with Candale Mining Management Services, began trenching at the proposed location of our first Diamond Drill Hole. On line L20N, at approximately 22 + 00, two 5'x2'x5' trenches, A and B respectively, were dug. They were separated by approximately twenty-five feet and were dug by hand with pickaxe and shovel. The proposed depths of these trenches - seven feet - could not be reached, as the wall began to collapse at a depth of five feet. The presence of 'quick' sand was the cause of many trenching problems. Next, a slightly shallower trench was begun. The larger, broader trench, C, measures ten feet by eight feet and was dug four feet deep. The labour here was also completed by hand with pick and shovel. No rock was exposed, but detailed information about the types of overburden was recorded.

Three test trenches, all small, were dug to the east of the other trenches. Trenches D, E and F were dug, each separated by 10', were put down, but no indications of rock outcroppings could be found.

The trenching was shifted to L12N at approximately 23 + 00

. This, the second proposed area for a drill hole, was

at that time extensively trenched.

Trenches I and J were sunk at the boundaries of one of the larger sand dunes, in the hopes of discovering some shallower bedrock. The sand was quick dry and no signs of bedrock were found.

Trench G was located in the muskeg away from all sand dunes, but again, the presence of 'quick' sand made it necessary to stop the depth at five feet. No outcrops were found, but notice of extensive ground water was taken.

Trench H was dug more shallowly, but larger (10'x8'x4'). No rock was found.

The most significant trenching done was completed near the proposed site for DDH #3. With the help of the geological map prepared by S.S. Szetu, Cana Explorations Ltd. in 1978, a small outcrop was rediscovered in the side of a large sand esker. The limits of the boundaries of the outcrop were outlined with bore holes. Once completed, a flushing-water trenching method was used, and with the aid of a high-pressure pump, depths between 2 to 4 feet of overburden were cut away in an area of twenty feet by twenty feet (Trench K).

The outcrop exposed measured approximately twenty feet in length with widths of thirteen to three feet. Shovels and brooms were used to further expose the boundaries; it was found that the outcrop descended vertically into the esker. (See Appendix for location and detailed drawings). Two small five by two foot trenches (L & M)

both five feet deep, were dug at the ends of the outcrop, but no further extension of the outcrop was found. Cross-width sampling of the rock was carried out and sampling of all boundary areas was done.

Cross sectional drawings and detailed specifications of each trench can be found in the Appendix, and also in Plans 15A and 15B, providing the locations of all trenches and the site areas.

CONCLUSIONS AND RECOMMENDATIONS

The information acquired from the trenching project provided details of the possible types of overburden and of the soils with which the property is covered. The glacial till and sands with layers of pebbles and boulders have presented our future plans of extensive drilling with many questions. The lack of outcrops at a shallow depth indicate that extensive casing and mud drilling techniques will be required.

Information concerning the presence of large quantities of ground water raises questions about underground springs and add to the belief that the geochemical soil sampling results are not due to gold in the soil which has been transported some distance and deposited on the surface by glacial means.

The rock outcropping in Trench K presents an interesting area of exploration, as it seems to be situated in an area of great interest and has never been drilled before.

It is felt that more trenching should be carried out around Trench K and that both north and south directed drill holes should be sunk.

APPENDIX

TRENCH ANALYSIS SUMMARIES

TRENCH AND PIT ANALYSIS SUMMARY

- 1/ LOCATION - Trench A
L20N 23 + 00
offset NE 350 feet

- 2/ DRAWING REFERENCE - Plan No. 15B
Line No. L20N

- 3/ TOPOGRAPHY - cut ground
Muskeg & bush overburden

- 4/ DATE - July 1981

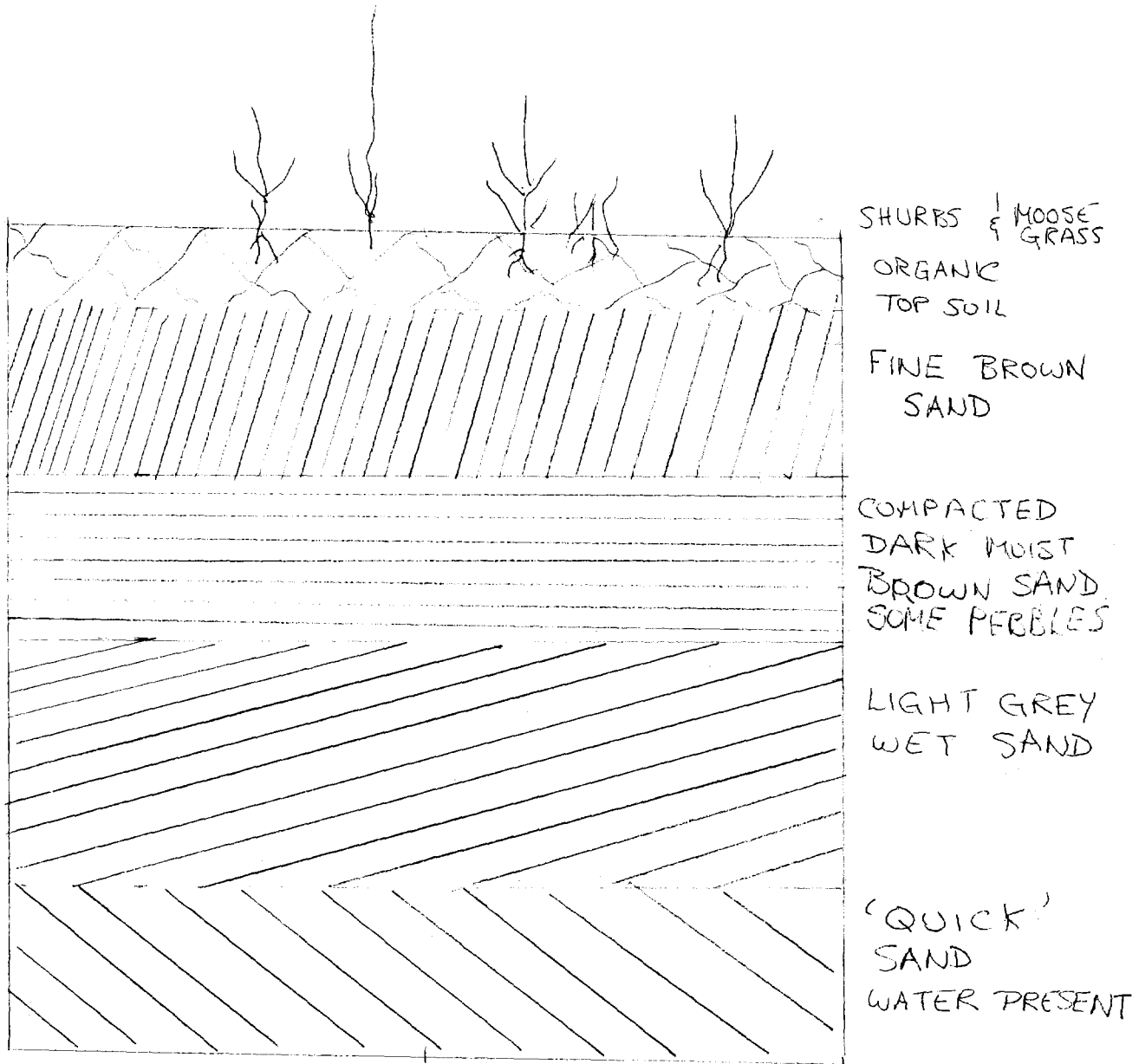
- 5/ DETAILS OF PIT - five feet long, 2 feet wide
five feet deep
various sands
(See cross-section over)

- 6/ SAMPLING CARRIED OUT BY
- no sampling carried out

- 7/ DETAILS OF SAMPLING - none

- 8/ RESULTS OF ASSAY - none

- 9/ EXCAVATION CARRIED OUT BY - Dynamic Construction



CROSS SECTION TRENCH 'A'

SCALE 1" = 1'

NOTE: WIDTH NOT SHOWN 2'

TRENCH AND PIT ANALYSIS SUMMARY

- 1/ LOCATION - Trench B
L20N 23 + 00
offset 3 + 75 feet NE

- 2/ DRAWING REFERENCE - Plan No. 15B
Line No. L20N

- 3/ TOPOGRAPHY - Cut ground
Muskeg and Shrub Overburden

- 4/ DATE - July 1981

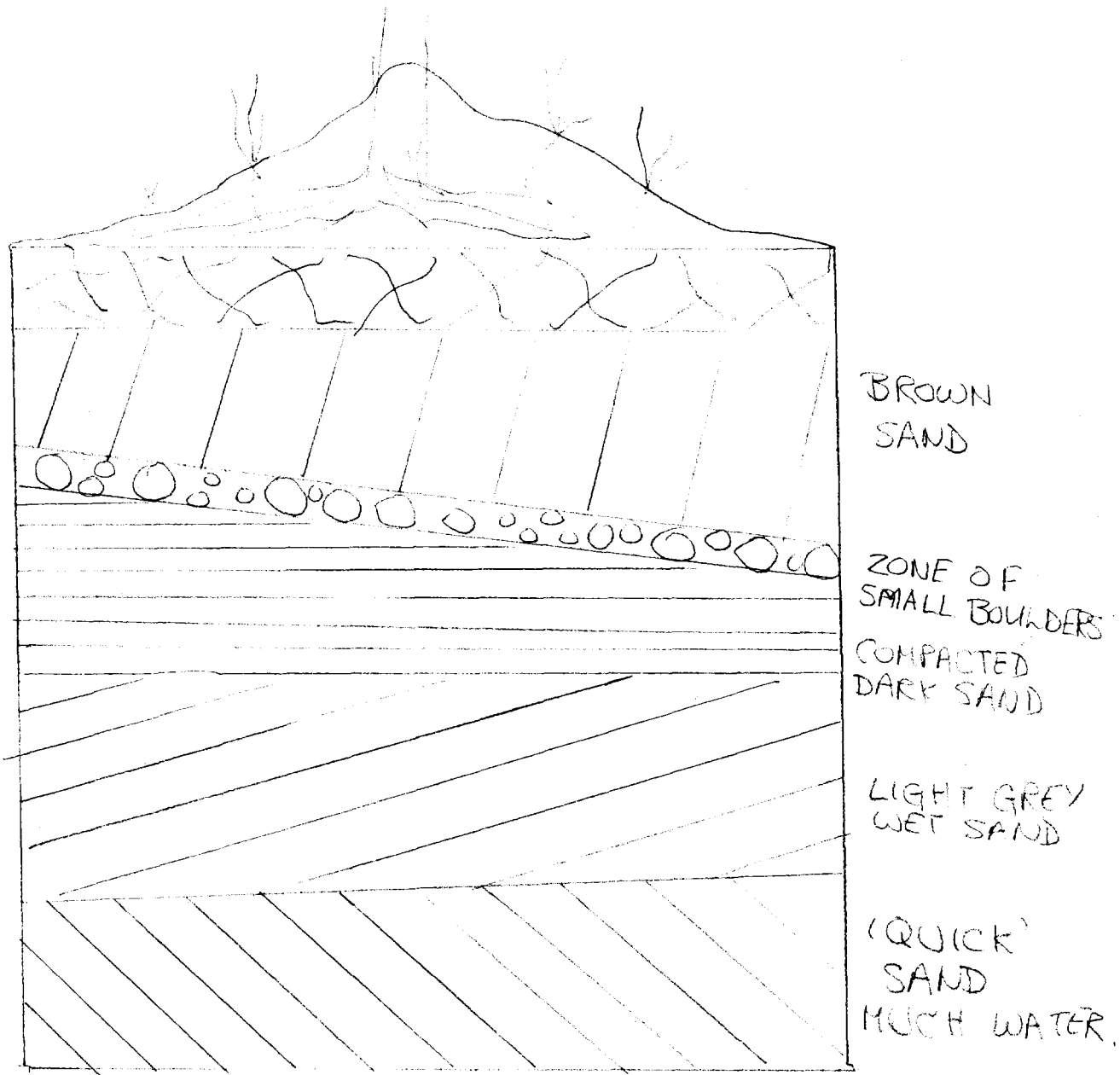
- 5/ DETAILS OF PIT - 5 feet long, 2 feet wide
5 feet deep
various Sands - (Quicksand)
Ground Water
(See Cross-section over)

- 6/ SAMPLING CARRIED OUT BY - no sampling carried out

- 7/ DETAILS OF SAMPLING - none

- 8/ RESULTS OF ASSAY - none

- 9/ EXCAVATION CARRIED OUT BY - Dynamic Construction Ltd.



CROSS SECTION TRENCH 'B'

SCALE 1" = 1'

WIDTH OF TRENCH 2'

TRENCH AND PIT ANALYSIS SUMMARY

- 1/ LOCATION - Trench C
L20N 23 + 00
offset 4 + 00 NE

- 2/ DRAWING REFERENCE - Plan No. 15B
Line No. L20N

- 3/ TOPOGRAPHY - Cut ground
Sand Dunes
Shrub Overburden

- 4/ DATE - July 1981

- 5/ DETAILS OF PIT - New Pit, 10 feet long, 8 feet wide
4 feet deep
No Outcrop; Various Sands
(See Cross-section over)

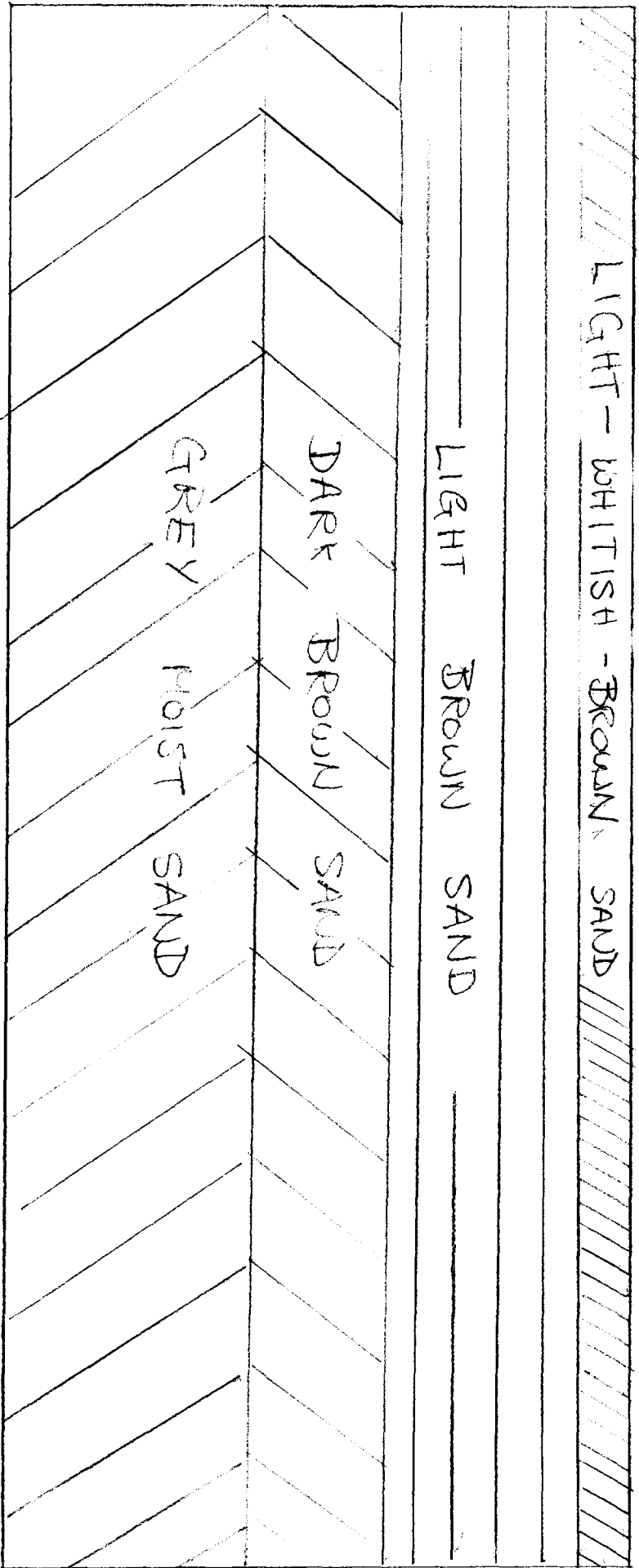
- 6/ SAMPLING CARRIED OUT BY - no sampling carried out

- 7/ DETAILS OF SAMPLING - none

- 8/ RESULTS OF ASSAY - none

- 9/ EXCAVATION CARRIED OUT BY - Dynamic Construction Ltd.

- NO TOP - SOIL, FEW WOOD CUTTINGS -



CROSS SECTION TRENCH (C)

WIDTH = 8'

SCALE 1" = 1'

(

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TRENCH AND PIT ANALYSIS SUMMARY

- 1/ LOCATION - Trench D
L20N 23 + 00
offset 4 + 10 feet

- 2/ DRAWING REFERENCE - Plan 15B
Line No. L20N

- 3/ TOPOGRAPHY - Muskeg & Shrub Overburden
Cut over Area

- 4/ DATE - July 1981

- 5/ DETAILS OF PIT - New Pit 2 feet long, 2 feet wide
3 feet deep
Various sands; No Outcrop
(See Cross-section over)

- 6/ SAMPLING CARRIED OUT BY - no sampling carried out

- 7/ DETAILS OF SAMPLING - none

- 8/ RESULTS OF ASSAY - none

- 9/ EXCAVATION CARRIED OUT BY - Dynamic Construction Ltd.

TRENCH AND PIT ANALYSIS SUMMARY

- 1/ LOCATION - Trench E
L20N 23 + 00
offset 4 + 15 NE

- 2/ DRAWING REFERENCE - Plan No. 15B
Line No. L20N

- 3/ TOPOGRAPHY - Muskeg & Swamp Cover
Cut over Area

- 4/ DATE - July 1981

- 5/ DETAILS OF PIT - New Pit, 2 feet long, 2 feet wide
3 feet deep
Various Sands; No Outcrops
Some ground Water
(See Cross-section over)

- 6/ SAMPLING CARRIED OUT BY - no sampling carried out

- 7/ DETAILS OF SAMPLING - none

- 8/ RESULTS OF ASSAY - none

- 9/ EXCAVATION CARRIED OUT BY - Dynamic Construction Ltd.

TRENCH AND PIT ANALYSIS SUMMARY

- 1/ LOCATION - Trench F
L20N 23 + 00
offset 4 + 20 NE

- 2/ DRAWING REFERENCE - Plan No. 15B
Line No. L20N

- 3/ TOPOGRAPHY - Muskeg and Swamp Cover
Sand Dunes,
Cut Area

- 4/ DATE - July 1981

- 5/ DETAILS OF PIT - New Pit, 2 feet long, 2 feet wide
3 feet deep.
No Outcrop & Various Sands
Pebbles & Ground Water
(See Cross-section over)

- 6/ SAMPLING CARRIED OUT BY - no sampling carried out

- 7/ DETAILS OF SAMPLING - none

- 8/ RESULTS OF ASSAY - none

- 9/ EXCAVATION CARRIED OUT BY - Dynamic Construction Ltd.

TRENCH AND PIT ANALYSIS SUMMARY

- 1/ LOCATION - Trench G
L12N 22 + 00
offset 0 + 50 NE

- 2/ DRAWING REFERENCE - Plan No. 15B
Line No. L12N

- 3/ TOPOGRAPHY - Dunes, Muskeg & Shrub Cover
Cut over Area

- 4/ DATE - July 1981

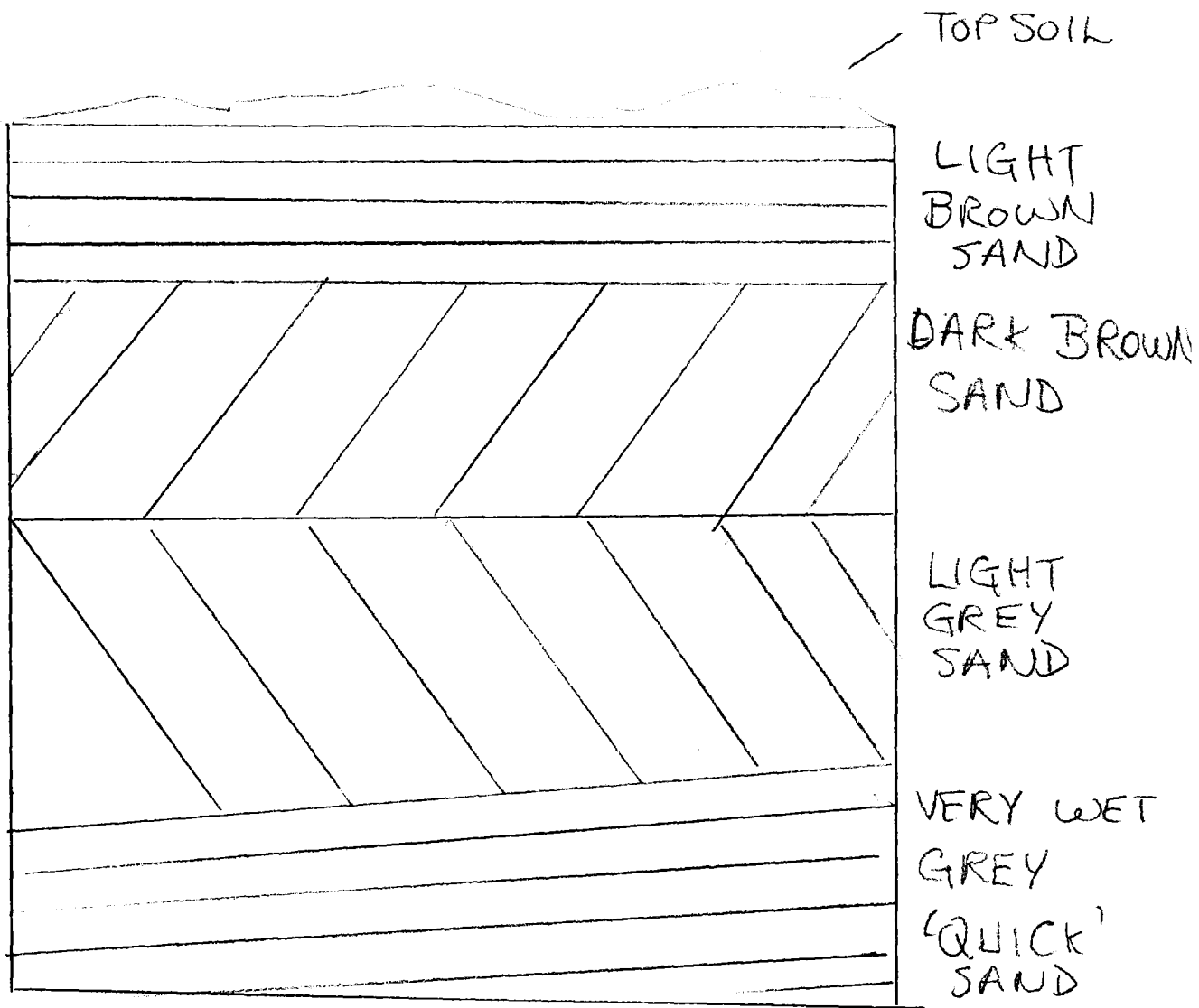
- 5/ DETAILS OF PIT - New Pit, 5 feet long, 2 feet wide
5 feet deep
Various Sands, Ground Water, No Rock
(See Cross-section over)

- 6/ SAMPLING CARRIED OUT BY - no sampling carried out

- 7/ DETAILS OF SAMPLING - none

- 8/ RESULTS OF ASSAY - none

- 9/ EXCAVATION CARRIED OUT BY - Dynamic Construction Ltd.



CROSS SECTION
TRENCH 'G'

SCALE 1" = 1'

TRENCH AND PIT ANALYSIS SUMMARY

- 1/ LOCATION - Trench H
L12N 23 + 00
offset 0 + 75 E

- 2/ DRAWING REFERENCE - Plan No. 15B
Line No. L12N

- 3/ TOPOGRAPHY - Dunes/ Shrub cover
Cut over Areas

- 4/ DATE - July 1981

- 5/ DETAILS OF PIT - New Pit, 10 feet long, 8 feet wide
4 feet deep
Various Sands; No Water & No
Rock Outcrops
(See Cross-section over)

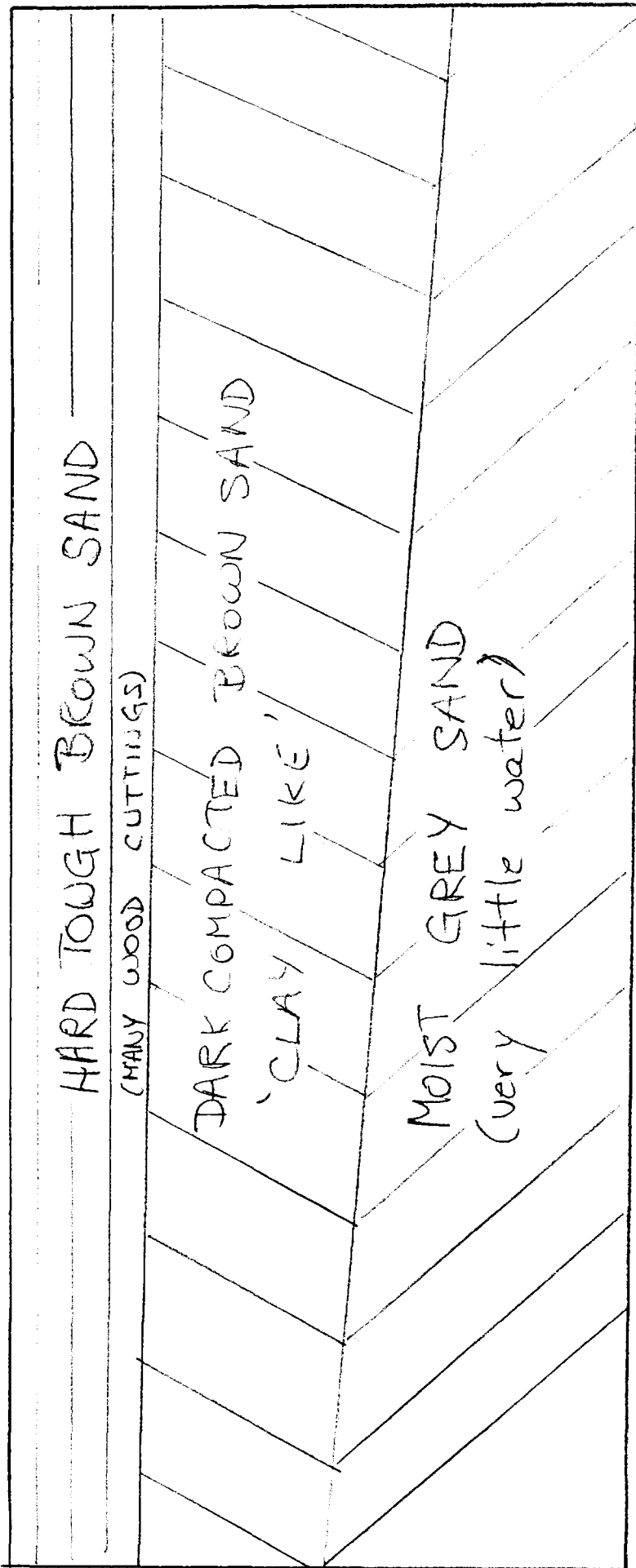
- 6/ SAMPLING CARRIED OUT BY - no sampling carried out

- 7/ DETAILS OF SAMPLING - none

- 8/ RESULTS OF ASSAY - none

- 9/ EXCAVATION CARRIED OUT BY - Dynamic Construction Ltd.

- NO TOP SOIL -



HARD TOUGH BROWN SAND

(MANY WOOD CUTTINGS)

DARK COMPACTED BROWN SAND

'CLAY LIKE'

MOIST GREY SAND

(very little water)

CROSS SECTION TRENCH 'H'

WIDTH 4'

SCALE 1" = 1'

TRENCH AND PIT ANALYSIS SUMMARY

- 1/ LOCATION - Trench I
L12N 22 + 00
offset 1 + 00 SE

- 2/ DRAWING REFERENCE - Plan No. 15B
Line No. L12N

- 3/ TOPOGRAPHY - Dunes, Level Ground
Cut Area

- 4/ DATE - July 1981

- 5/ DETAILS OF PIT - New Test Pit
2 feet long, 2 feet wide, 3 feet deep
Various Sands, No Water, No Outcrop
(See Cross-section over)

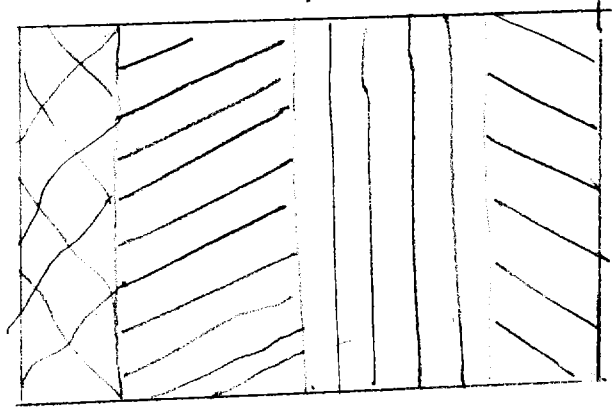
- 6/ SAMPLING CARRIED OUT BY - no sampling carried out

- 7/ DETAILS OF SAMPLING - none

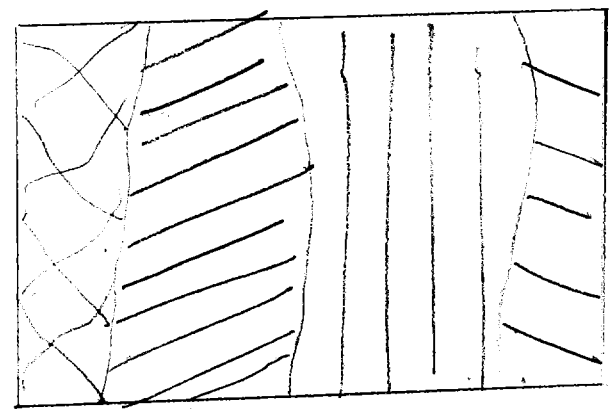
- 8/ RESULTS OF ASSAY - none

- 9/ EXCAVATION CARRIED OUT BY - Dynamic Construction Ltd.

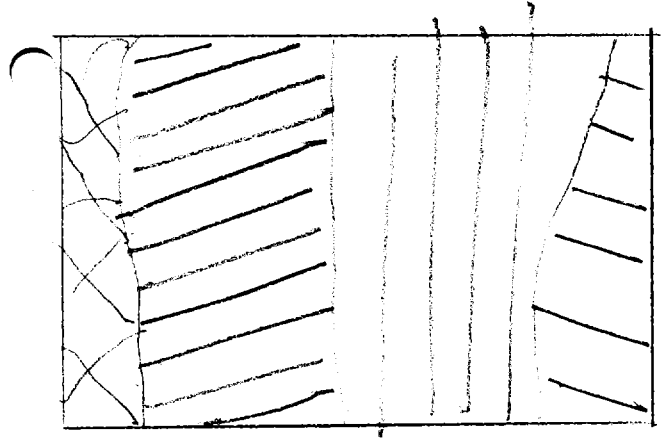
CROSS SECTIONS



TRENCH 'D'



TRENCH 'E'



TRENCH 'F'

WIDTH OF EACH TRENCH 2'

SCALE 1" = 1'

TRENCH AND PIT ANALYSIS SUMMARY

- 1/ LOCATION - Trench J
L12N 22 + 00
offset 1 + 10 SE

- 2/ DRAWING REFERENCE - Plan No. 15B
Line No. L12N

- 3/ TOPOGRAPHY - Dunes, Level Ground
Cut Area, some Regrowth

- 4/ DATE - July 1981

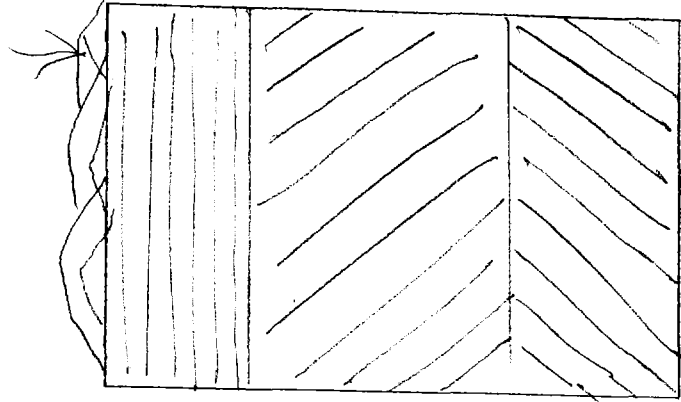
- 5/ DETAILS OF PIT - New Test Pit
2 feet long, 2 feet wide, 3 feet deep
Various Sands, No Water, No Outcrop
(See Cross-section over)

- 6/ SAMPLING CARRIED OUT BY - no sampling carried out

- 7/ DETAILS OF SAMPLING - none

- 8/ RESULTS OF ASSAY - none

- 9/ EXCAVATION CARRIED OUT BY - Dynamic Construction Ltd.



TOE SOIL

HARD COMPACTED

BROWN SAND

MANY WOOD PARTICLES

DARK BROWN

SAND

SLIGHTLY

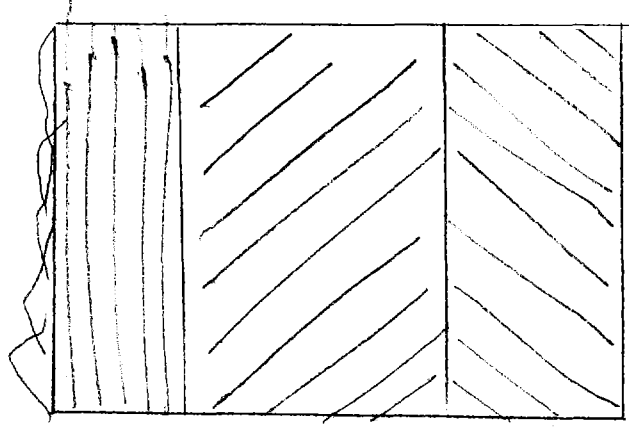
MOIST GREY

SAND

TRENCH 'I'

CROSS

SECTIONS



TRENCH 'J'

SCALE 1" = 1'

TRENCH AND PIT ANALYSIS SUMMARY

- 1/ LOCATION - Trench K
L16N 4 + 00
offset 1 + 00 E

- 2/ DRAWING REFERENCE - Plan No. 15A
Line No. L16N

- 3/ TOPOGRAPHY - Sand Esker, Cliff
Spruce Trees, Hillside, Much Vegetation

- 4/ DATE - August 1981

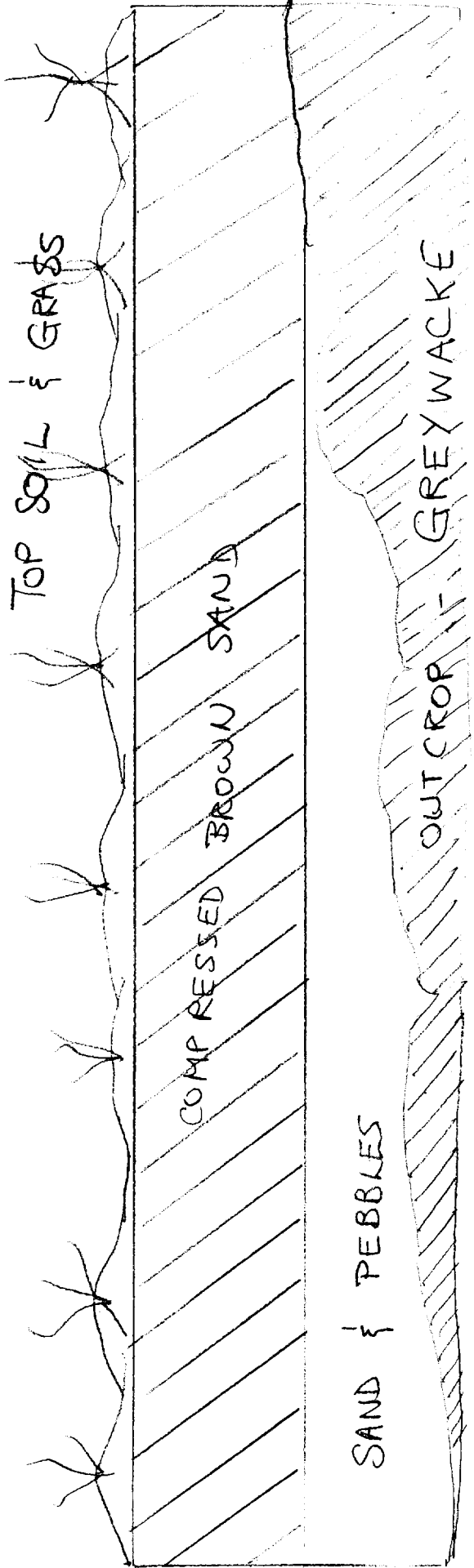
- 5/ DETAILS OF PIT - New Pit
20 feet long, 20 feet wide, 2-4 feet deep
Various Sands
Outcrop- Basic Greywacke
(See Cross-section over)

- 6/ SAMPLING CARRIED OUT BY G. Christopher Roberts

- 7/ DETAILS OF SAMPLING - Cross Width Sampling
& Boundary Sampling

- 8/ RESULTS OF ASSAY - Samples not assayed as of yet

- 9/ EXCAVATION CARRIED OUT BY - Dynamic Construction Ltd.



(- outcrop Calcareous in places)

CROSS SECTION TRENCH 'K'

WIDTH OF TRENCH 20'

SCALE 1" = 2'

TRENCH AND PIT ANALYSIS SUMMARY

- 1/ LOCATION - Trench L
L16N 4 + 00
offset 2 + 00 E

- 2/ DRAWING REFERENCE - Plan No. 15A
Line No. L16N

- 3/ TOPOGRAPHY - Cliff- Hillside
Heavy Vegetation Growth
Sand Eskers
Boulder Field

- 4/ DATE - August 1981

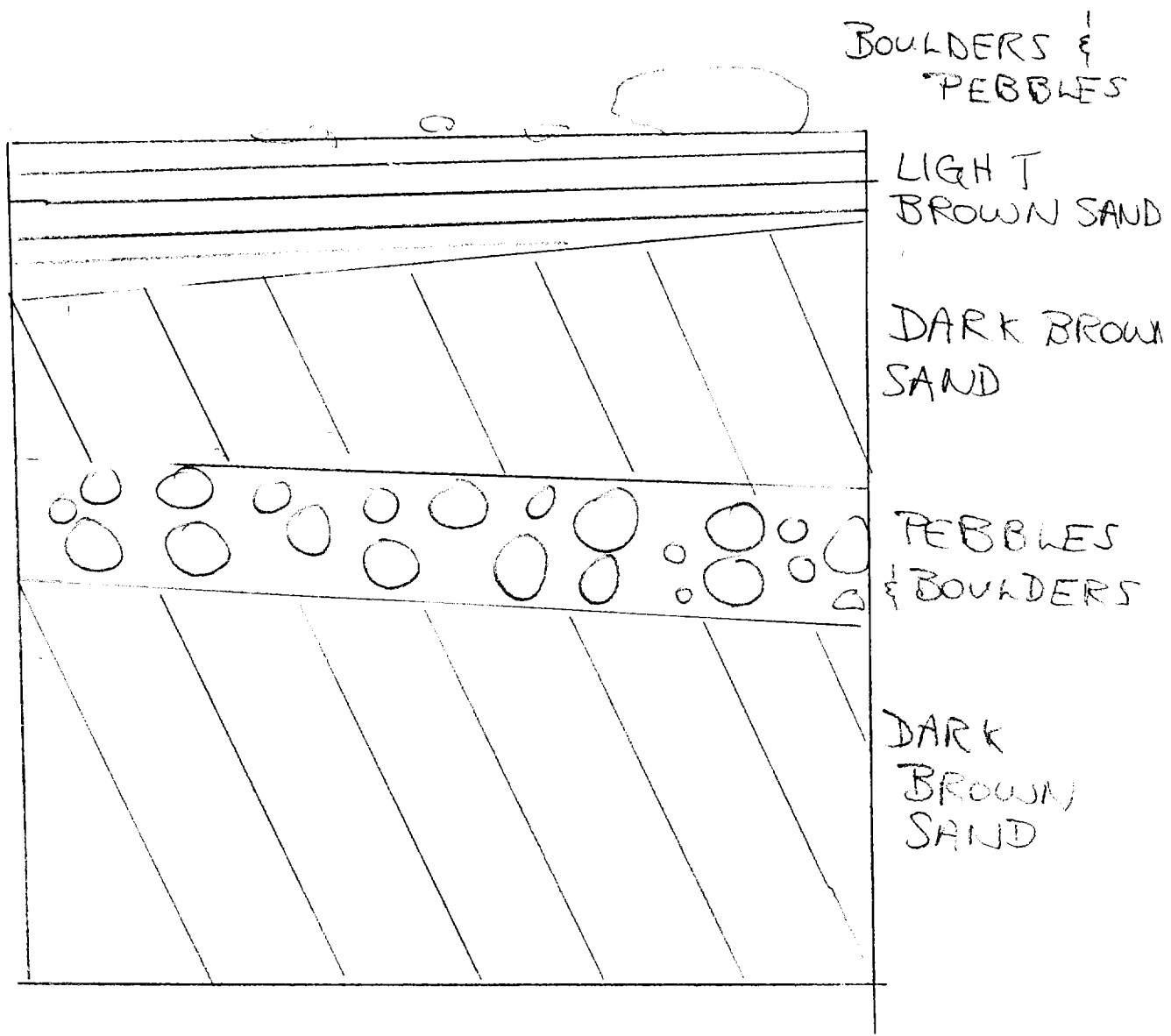
- 5/ DETAILS OF PIT - New Pit
5 feet long, 2 feet wide, 5 feet deep
Various Sands, Boulders
No Outcrop & No Water
(See Cross-section over)

- 6/ SAMPLING CARRIED OUT BY - no sampling carried out

- 7/ DETAILS OF SAMPLING - none

- 8/ RESULTS OF ASSAY - none

- 9/ EXCAVATION CARRIED OUT BY - Dynamic Construction Ltd.



BOULDERS & PEBBLES

LIGHT BROWN SAND

DARK BROWN SAND

PEBBLES & BOULDERS

DARK BROWN SAND

CROSS SECTION
TRENCH 'L'

WIDTH = 2'

SCALE 1" = 1'

TRENCH AND PIT ANALYSIS SUMMARY

- 1/ LOCATION - Trench M
L16N 4 + 00
offset 1 + 50 E

- 2/ DRAWING REFERENCE - Plan No. 15A
Line No. L16N

- 3/ TOPOGRAPHY - Cliff - Hillside
Sand Eskers
Boulder Field

- 4/ DATE - August 1981

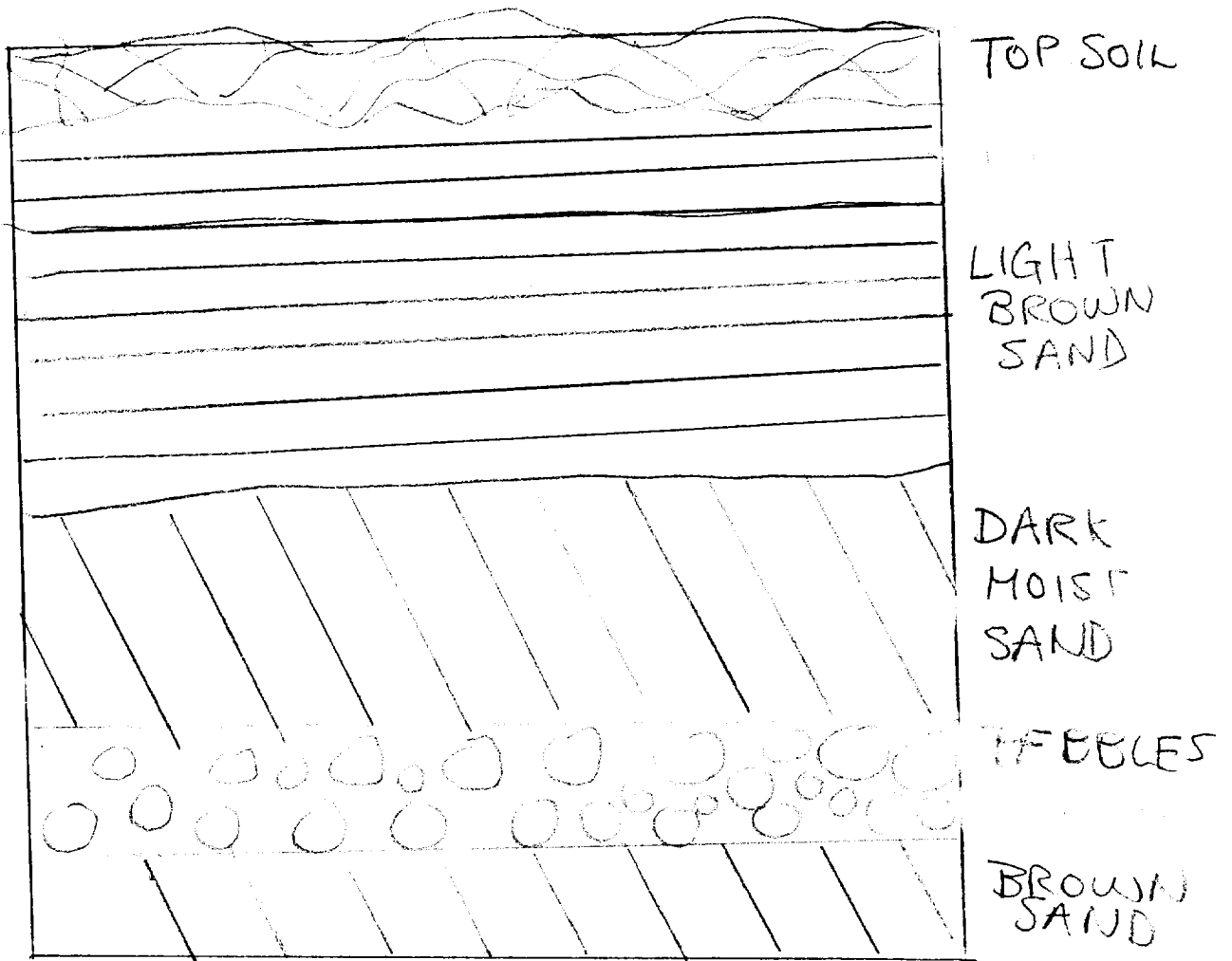
- 5/ DETAILS OF PIT - New Pit
5 feet long, 2 feet wide, 5 feet deep
Various Sands, Boulders
No Outcrop, No water
(See Cross-section over)

- 6/ SAMPLING CARRIED OUT BY - no sampling carried out

- 7/ DETAILS OF SAMPLING - none

- 8/ RESULTS OF ASSAY - none

- 9/ EXCAVATION CARRIED OUT BY - Dynamic Construction Ltd.
Dym



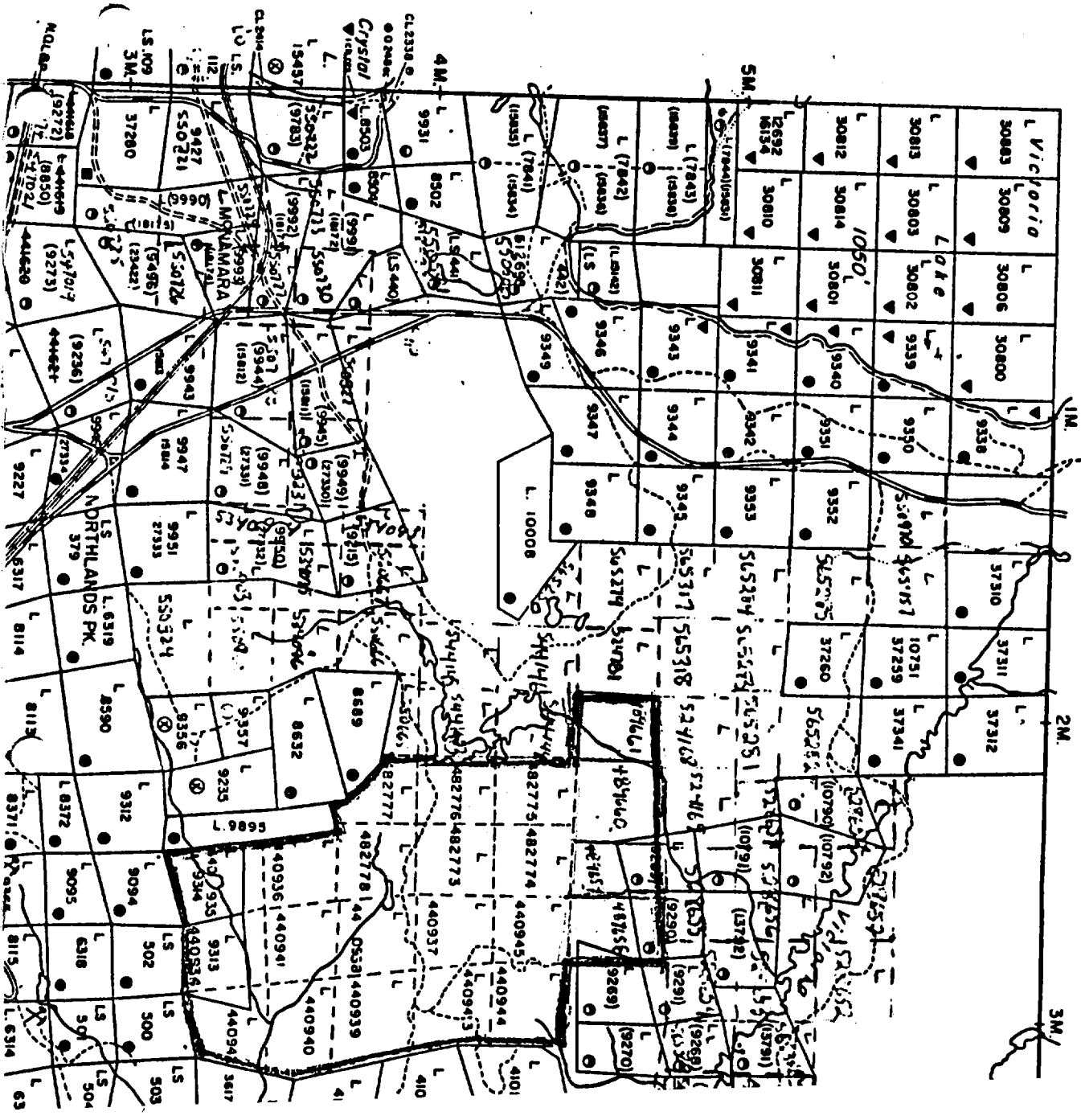
CROSS SECTION
TRENCH 'M'

WIDTH = 2'

SCALE 1" = 1'

APPENDIX II

Map of Claim Area

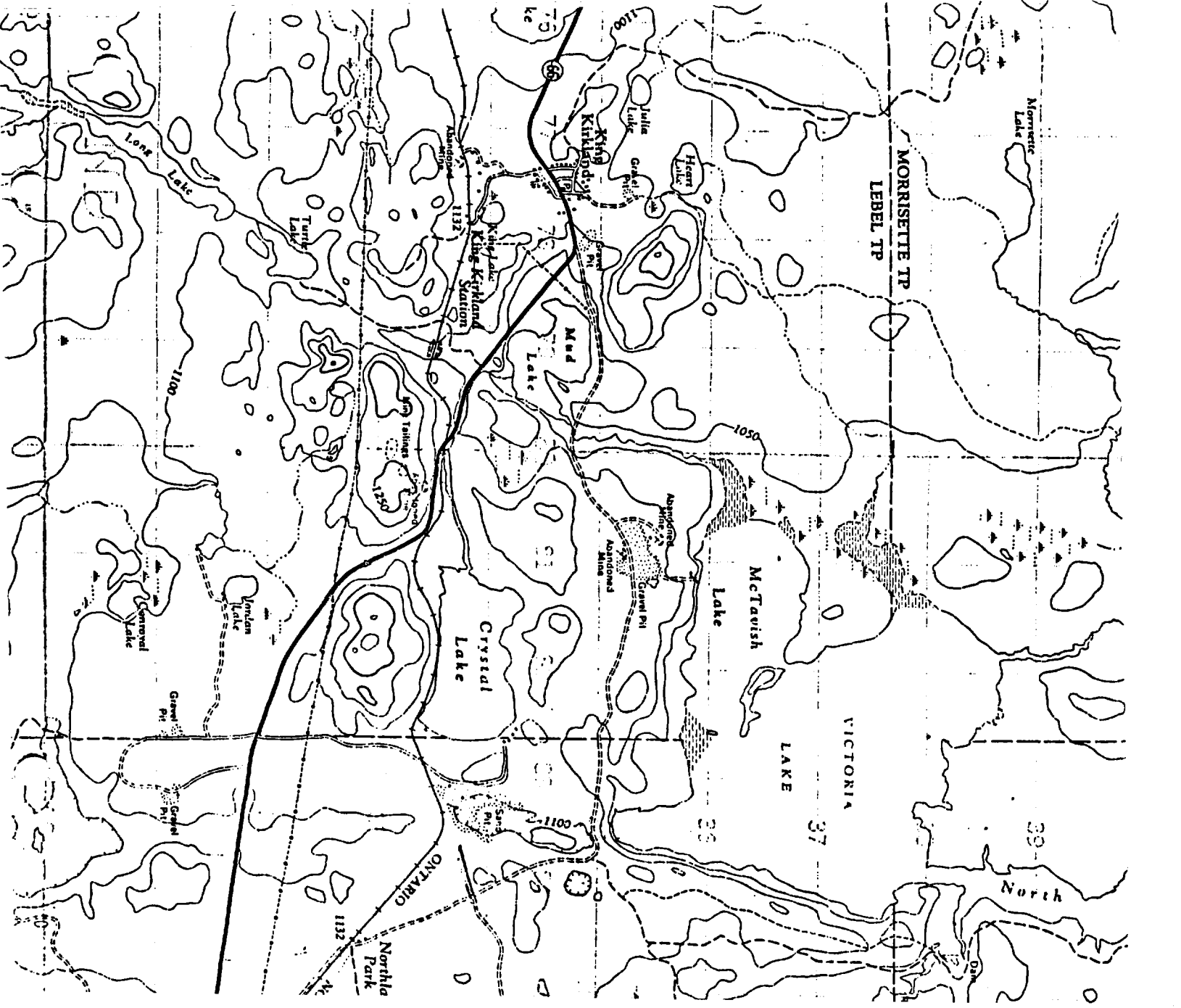


ARNOLD TP.

APPENDIX III









Map Showing Topographic Contours



Of Claim Area



PLAN 15A

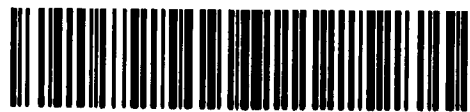
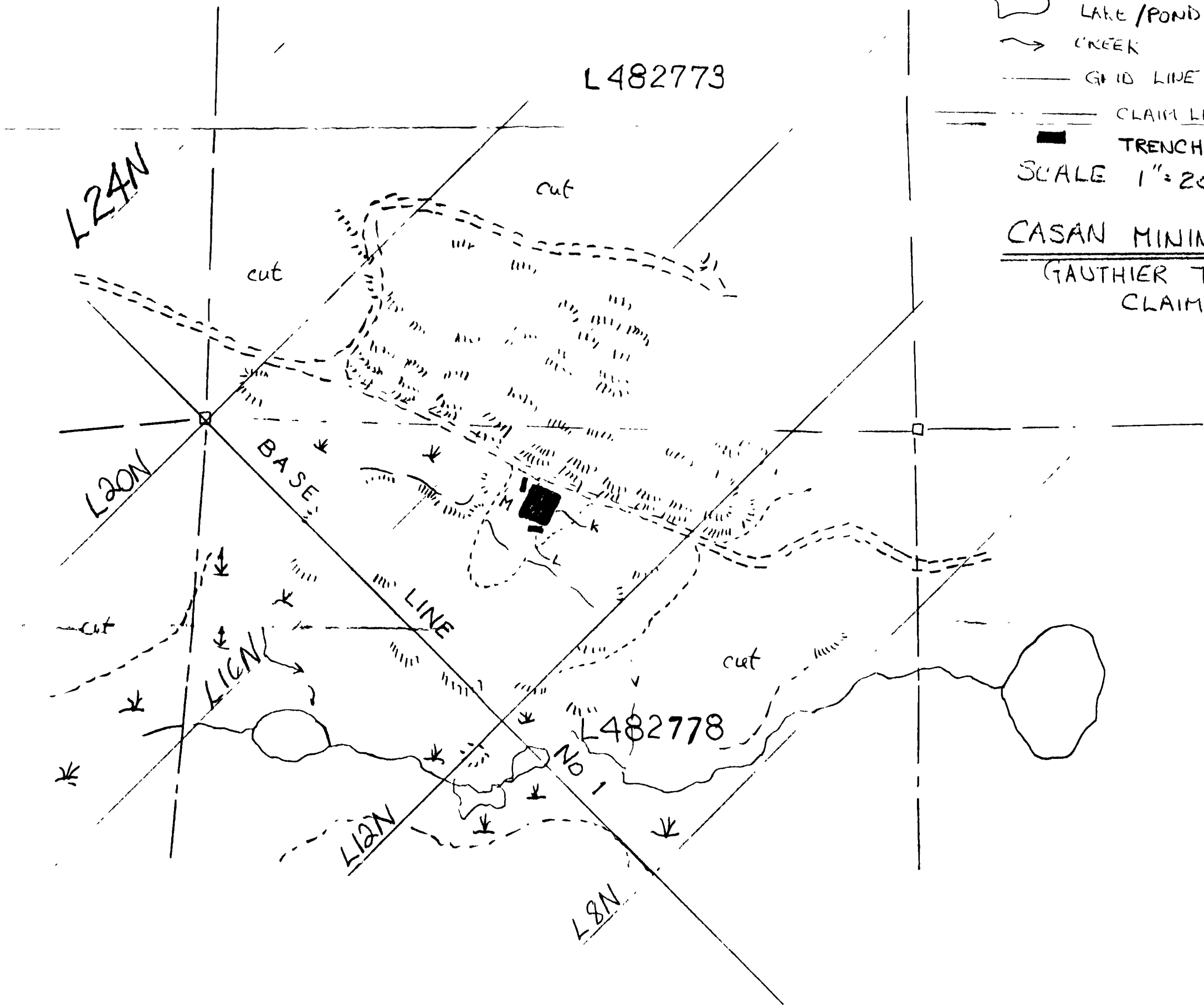
LEGEND

-  SWAMP
-  ALDER SWAMP
-  HIGH GROUND
-  BU II ROAD
-  BOUNDARY
-  LAKE/POND
-  CREEK
-  GRID LINE

-  CLAIM LINE
-  TRENCH











SCALE 1" = 200'

CASAN MINING LTD
GAUTHIER TOWNSHIP
CLAIMS



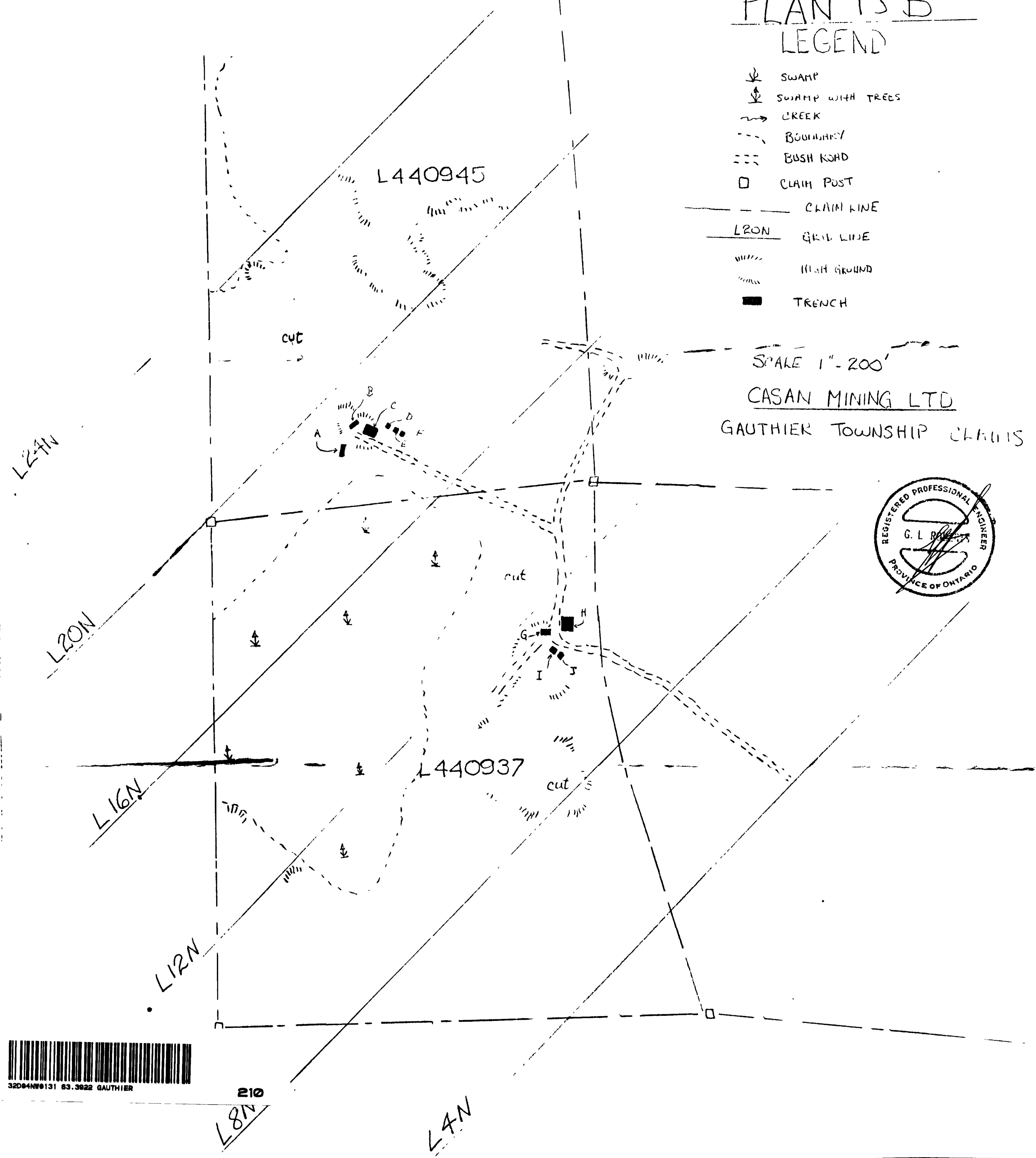
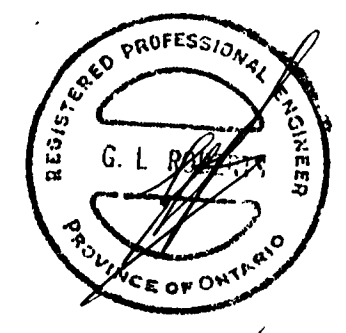
PLAN 15 B

LEGEND

-  SWAMP
-  SWAMP WITH TREES
-  CREEK
-  BOUNDARY
-  BUSH ROAD
-  CLAIM POST
-  CLAIM LINE
-  L20N GRID LINE
-  HIGH GROUND
-  TRENCH

SCALE 1" = 200'

CASAN MINING LTD
GAUTHIER TOWNSHIP CLAIMS



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