2.841

SHARTNER PROPERTY
CHARTERS/LEITH TOWNSHIPS
GOWGANDA AREA, ONTARIO

This report pertains to t

010

Charters Township
265415; 265417; 265418; 265419 265420; 265436; 265437; 318400.

Leith Township

213398; 213399; 213400; 297110; 297111; 297114; 297115.

all of which are held by G.Shartner, Gowganda, Ontario

Geological work was carried out on this property during the period from September 13, 1971 to November 5, 1971.

Persons employed in the survey:

	Address	Position	Days
E.Grabowski	Gowganda, Ontario	Assistant	36
D.Otterman	Val D'Or, Quebec	Geologist	36
			10
G.Shartner	Gowganda, Ontario	Assistant	10

All assessment work is submitted to the credit of G. Shartner

David W. Otterman.

D.W.Otterman,
Val D'Or, Quebec,
March 27, 1972

Introduction

The property consists of two claim groups: the Lily Pond area of 11 claims in the southeast corner of Leith township, Ontario and the Montreal River area of 32 claims in south central and southwest Charters township, Ontario.

These claims cover part of a semi-circular outcrop area of diabase. The diabase body is the northern part of a large regional basin called the Smoothwater Lake Basin, but is cut off from this basin by the O'Gorman fault.

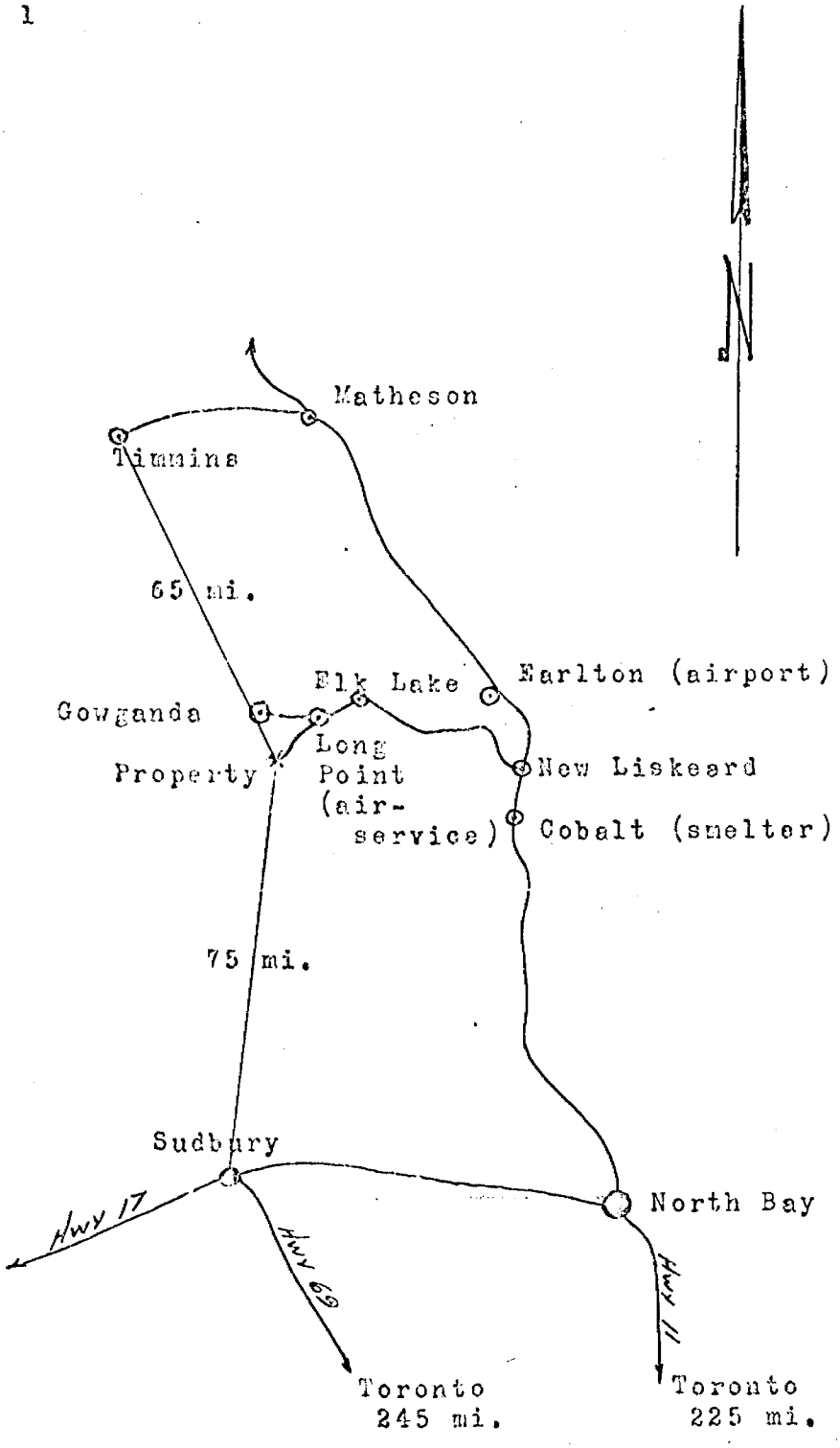
The basin is similar to that of the well known Miller Lake area . Its exploration potential for silver is excellent considering this similarity. Previous exploration activities located two silver producing properties and many showings in the northern part of the basin.

DECEMBER 19, 1991

Access

Access to the exploraton area is optimum. An unpaved road runs through southern Charters township to southeastern Leith township where it ends at the Rusty Lake Mine. Both claim groups are traversed by this road. It joins Highway #560 at Long Point Lake, approximately halfway between the communities of Elk Lake and Gowganda. The property is 15 miles to the south from this junction.

sketch map 1



LOCATION MAP

Scale: 1 inch = 35 miles app.

after G.S.

Exploration Work Completed to Date

During the summer of 1971, extensive trenching and blasting reopened 2 old showings in the Lily Pond area and 4 old showings near the Montreal River. Plans at a scale of 1" to 10' were made of these showings. The showings were sampled but only in selective places because the narrowness of the veins and leaching did not permit regular channel sampling. Important values are shown on the plans. The samples were assayed for silver only. Maps 1 and 2 were made for the Montreal River area and the Lily Pond area to show the geological relationships of the showings. Lines with permanent survey points were established to connect important points. Elevations were taken in the Montreal River area. Geological mapping was carried out by tape and compass and pace and compass traverses. These traverses were tied to the survey points.

The old shaft of Showing "C",(South Trench) was dewatered and examined.

Claims to cover the centre of the basin were staked.

Description of Veins on the Property

All veins on the property are found within the diabase. Those of the Lily Pond area are on the west side of the basin and those of the Montreal River area are on the east side of the basin, north of the O'Gorman fault. No veins

were seen during a brief reconnaissance of the northernmost parts of the sill although many old trenches were discovered.

The veins uncovered are approximately 100' long but continue beyond the limits of the trenching. The widths of the veins varies from a fraction of an inch to 12 inches but mineralized zones as wide as 24 inches occur where veinlets branch from the main veins. Typically, in this basin, the veins are associated with aplite. In any one vein the aplite can occur on both sides or just one side of the calcite. Often bands of calcite, aplite, diabase, and diabase with stringers of calcite form the vein. The calcite often traverses the aplite and then horsetails into the diabase. This happens especially in places where the diabase is well jointed or fractured. These areas usually carry high grade silver values (see Plan 2, showing "B"). In the south end of the vein Showing "D", the aplite forms oblong and irregular shaped, breccia pieces in a calcite matrix.

In a few of the veins very shallow dipping faults were seen to displace the veins for short distances (eg. shaft on Showing "C" and north trench of Showing "D").

All of the veins of the property area have cobalt bloom at various points along their length. The only occurrence of nickel bloom is at the Lily Pond, West Showing. Native silver was seen at two points in the area (see plans 1 & 4). Assays in the vicinity of these points gave values as high as 325 oz./ton.

Most of the veins are leached, often to a depth of 2' below surface. Fresh samples are therefore difficult to obtain. The vein of Showing "D" however has a large content of quartz and is not highly leached. Fresh samples from this vein show the presence of chalcopyrite, cobaltite, arsenopyrite, pyrite and galena. Chalcopyrite is fairly common in the veins of the property and in the diabase immediately adjacent to the veins.

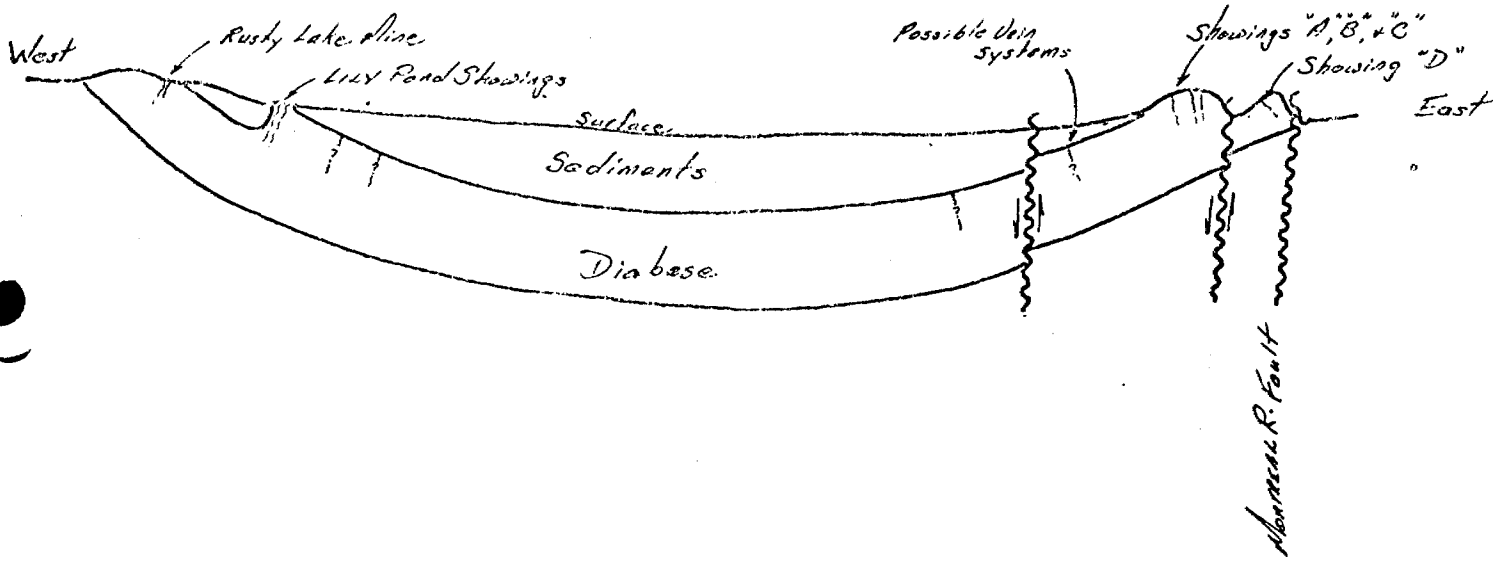
Considering a fairly consistent dip of 10° to 15° of the diabase towards the centre of the basin, all of the veins, except that of Showing "D", are within 300' of the upper contact.

Summary and Conclusions

The possibility of a sizeable ore body being located in the property area is excellent. The similarity in geological detail of the Smoothwater Lake Basin to the Miller Lake Basin suggests orebodies of the same type and size. Discovery potential is increased by the adjacency of the property in the Lily Pond area to the Rustex Mine. Further underground development at Rustex would have to be made to the south east (i.e. normal to the strike of the veins and down the dip of the sill) in order to intersect parallel veins (see sketch 3). The Lily Pond property is only 400 feet from the vein system mined at Rustex.

The veins of the Montreal River Showings "A", "B", & "C" are at approximately the same horizon in the sill as those mined on the opposite side of the basin at Rustex.

sketch map 3



Diagrammatic Cross Section of The Smoothwater Basin in the vicinity of Lily Pond + Montreal River Properties (looking N.N.E.)

Scale. 1 inch = 0.8 miles horizontal
1 inch = 2000 feet vertical

Recommendations

The next step in the exploration is drilling. High grade silver mineralization is usually sporadic along the length of its veins. This makes a difficult target for drilling. A series of short drill holes has been plotted on the plans for each showing. These holes have been plotted to intersect at depth the areas of the veins where surface indications gave high silver values or evidence of good ore zone structure. Each showing should receive at least 3 double drill holes along its length. Only two sets have been plotted however, the position of the third being relative to the results of the first two. If no encouraging values are found in these holes a series of three holes of about 150' to 175' should be put down between Showings "A" & "B" and 3 holes between the North and South Trenches of Showing "C". Similar holes between East and West showings at Lily Pond are optional.

The property between Rusty Lake Mine and Lily Pond area and that bordering the east side of the Lily Pond area which is owned by other interests should be acquired as soon as possible, to enable ownership of a complete block of ground across this section of the basin.

Long term exploration of the whole Smoothwater Lake Basin could be carried out from the point of view of locating and acquiring other favourable areas.

David W. Otterman
19/11/'71

DRILLING IN ORDER OF PRIORITY

1. First Program

Showing "B"

D.D.H. No.	Location	Bearing	Dip	Length
1	100' from TO @ 65°	308° (N52°W)	-30°	75'
2	100' from TO @ 65°	308° (N52°W)	-45°	95'
3	153' from TO @ 95°	308° (N52°W)	-30°	75'
4	153' from TO @ 95°	308° (N52°W)	-45°	95'
5				
6				

Showing "A"

D.D.H. No.	Location	Bearing	Dip	Length
7	83' from T21 @ 75°	315° (N45°W)	-30°	75'
8	83' from T21 @ 75°	315° (N45°W)	-45°	95'
9	46' from T21 @ 113°	315° (N45°W)	-30°	75'
10	46' from T21 @ 113°	315° (N45°W)	-45°	95'
11				
12				

Between Showings "A" & "B" (to be drilled only if above holes fail to locate high grade veins)

D.D.H. No.	Location	Bearing	Dip	Length
13	150' from TO @ 41°	320° (N40°W)	-30°	175'
14	160' from T23 @ 85°	320° (N40°W)	-30°	175'
15	200' from T23 @ 35°	320° (N40°W)	-30°	175'

Showing "C" : North Trench

D.D.H. No.	Location	Bearing	Dip	Length
16	70' from T16 @ 140°	342° (N18°W)	-30°	60'
17	70' from T16 @ 140°	342° (N18°W)	-45°	70'
18	65' from T16 @ 175°	342° (N18°W)	-30°	60'
19	65' from T16 @ 175°	342° (N18°W)	-45°	70'
20				
21				

South Trench

22	75' from T20 @ 105°	315° (N45°W)	-30°	75'
23	75' from T20 @ 105°	315° (N45°W)	-45°	95'
24	105' from T20 @ 88°	315° (N45°W)	-30°	75'
25	105' from T20 @ 88°	315° (N45°W)	-45°	95'
26				
27				

Between North and South trenches of Showing "C" (to be drilled only if the previous holes fail to locate high grade veins)

D.D.H. No.	Location	Bearing	Dip	Length
28	At T19	345° (N15°W)	-30°	150'
29	150' from T19 @ 40°	345° (N15°W)	-30°	150'
30	100'.from T16 @ 180°	345° (N15°W)	-30°	150'

2. Second Program

Showing "D"

D.D.H. No.	Location	Bearing	Dip	Length
31	7' from D11 @ 305°	125° (S55°E)	-15°	100'
32	7' from D11 @ 305°	125° (S55°E)	-30°	115'
33	25' from D13 @ 320°	125° (S55°E)	-30°	65'
34	25' from D13 @ 320°	125° (S55°E)	-45°	95'
35	35' from D14 @ 255°	110° (S70°E)	-30°	75'
36	35' from D14 @ 255°	110° (S70°E)	-45°	105'
37				
38				
39				
40				

3. Third Program

Lily Pond: West Showing

D.D.H. No.	Location	Bearing	Dip	Length
41	70' from L2 @ 265°	95° (S85°E)	-30°	75'
42	70' from L2 @ 265°	95° (S85°E)	-45°	95'
43	70' from L2 @ 265°	70° (N70°E)	-30°	150'
44	62' from L2 @ 300°	70° (N70°E)	-30°	200'
45				
46				

Lily Pond: East Showing

D.D.H. No.	Location	Bearing	Dip	Length
47	80' from L0 @ 312°	110° (S70°E)	-30°	75'
48	80' from L0 @ 312°	110° (S70°E)	-45°	95'
49	75' from L0 @ 275°	110° (S70°E)	-30°	75'
50	75' from L0 @ 275°	110° (S70°E)	-45°	95'
51				
52				

Between East and West Showings, Lily Pond (to be drilled only if the previous holes fail to locate high grade veins)

D.D.H. No.	Location	Bearing	Dip	Length
53	At L2	130° (S50°E)	-30°	150'
54	100' from L1 @ 110°	130° (S50°E)	-30°	150'
55	225' from L1 @ 45°	130° (S50°E)	-30°	150'

Note: The following drill holes are to be positioned relative to the results of the series of drill holes which immediately preceed them.

5, 6, 11, 12, 20, 21, 26, 27, 37, 38, 39, 40,

45, 46, 51, 52.

Cost Estimate

1. First Program

Initial drilling	3000' @ $6.50/foot	$19,500.00
Follow-up drilling	3000' @ $6.50/foot	19,500.00
Supplies - core boxes, etc.		1,500.00
Assays - sludge and core		1,500.00
Transportation		1,500.00
Coreshack		2,000.00
Supervision		$ 5,000.00
		$50,500.00
Contingencies 10%		$ 5,050.00
Total		$55,550.00

2. Second Program

Initial drilling	1000' @ $6.50/foot	$ 6,500.00
Follow up drilling	1000' @ $6.50/foot	6,500.00
Supplies- core boxes, etc.		500.00
Assays - sludge & core		500.00
Transportation		500.00
Supervision		$ 2,000.00
		$16,500.00
Contingencies 10%		$ 1,650.00
Total		$18,150.00

3. Third Program

Initial drilling	2000' @ $6.50/foot	$13,000.00
Follow-up drilling	2000' @ $6.50/foot	$13,000.00
Supplies - core boxes, etc.		1,000.00
Assays - sludge & core		1,000.00
Transportation		1,000.00
Supervision		$ 3,000.00
		$32,000.00
Contingencies 10%		$ 3,200.00
Total		$35,200.00

Total Cost of Three Programs $108,900.00

Addendum

History and Production of the Gowganda Silver Area

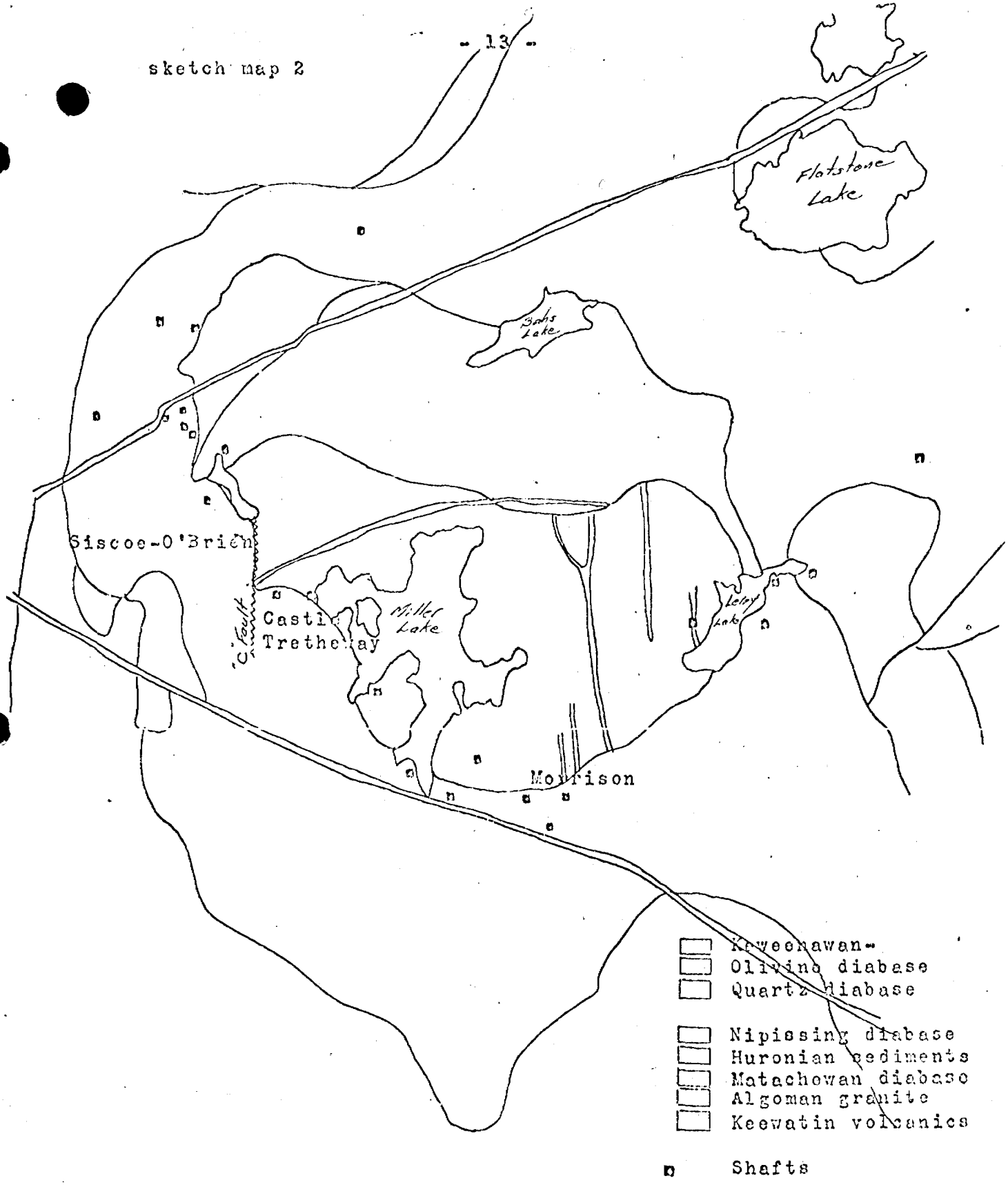
Discoveries of silver at Cobalt, Ontario in the early 1900's urged prospectors to extend their search to the Elk Lake-Gowganda area.to the west, where geological conditions appeared to be similar to those at Cobalt. In 1907 the first discovery of mineralization of the Cobalt type was found near Bloom Lake in Haultain township. By 1908 some spectacular discoveries had been made, and a village had been erected at the North end of Gowganda Lake. The diabase body which eventually contained 14 mines came to be known as the Miller Lake Basin. (see sketch map 2)

To date the total production from this basin has been in excess of 60,000,000 ounces of silver. Most of this production came from the Siscoe-O'Brien and Castle-Tretheway mines.

Siscoe-O'Brien	23,730,000 oz.
Castle-Tretheway	17,500,000 oz.
Others	19,000,000 oz.
Total	60,230,000 oz.

It is interesting to note that the Siscoe-OBrien Mine has operated continuously since 1907. The highest production period was during the years 1927 to 1939 when a total of 12,000,000 ounces of silver was produced. During the years 1940 to 1947, production was at a minimum but was reactivated in 1948 when Siscoe Metals acquired the property and

sketch map 2



MILLER LAKE BASIN, GOWGANDA SILVER AREA.

Scale: 1 inch = ½ mile

after Moore, D.M.O. 1955-3

production has been steady since that time.

Activity in the Miller Lake area spread to the Smoothwater Basin area and here the first discovery of silver was made in 1908 in southeastern Leith township. This property became the Hudson Bay Silver Mine and was mined as recently as 1966 by Rustex Mining Corporation. Total production to 1966 recorded by Rustex was approximately 90,000 ounces of Silver. Production prior to this by Hudson Bay is unrecorded, but it is known that in their operation both cobalt and silver was produced. The only other recorded production from the northern part of the basin was from the Kell mine in southwest Corkill township. It was operated as recently as 1968 by Ourgold Mining Co. Ltd., and produced 1,620 oz. of silver.

At present both of the above properties are inactive. Known reserves of ore on the Rustex property are in excess of 150,000 ounces of silver.

Table of Lithologic Units

CENOZOIC
Recent
swamp, lake, and stream deposits

Pleistocene
till, lacustrine sand, outwash sand, clay

Unconformity

PRECAMBRIAN
PROTEROZOIC
Late Mafic Intrusives
Keweenawan
olivine diabase dikes
quartz diabase dikes

Nipissing
quartz diabase, granophyre sills

Intrusive Contact

Huronian Supergroup
Cobalt Group
Lorrain formation
quartzite, feldspathic quartzite, arkose

Gowganda formation
siltstone, sandstone, greywacke, arkose, conglomerate.

Unconformity

ARCHAEN
Early Mafic Intrusives
Matachewan
diabase

Intrusive Contact

Felsic intrusives
granodiorite, feldspar porphyry, granite, syenite, gneiss

Intrusive Contact

Felsic Metavolcanics
quartz porphyry, rhyolite, felsite, minor banded Fe. formation

Intermediate to Mafic Metavolcanics
andesite, basalt, tuff, agglomerate, quartz sericite schist

Iron Formation.

Geology: Comparison of the Miller Lake and Smoothwater Basins

The similarity of the Miller Lake Basin and the Smoothwater Basin is immediately evident especially in geological detail and in exploration potential. The more extensive exploration and production history of the Miller Lake Basin has supplied a large amount of geological data which is of great value in the present exploration program of the properties in the Smoothwater Basin. Most of the following information has been taken from previous reports, in particular those of Moore 1956 and McIlwaine 1971, but all points are supported by personal observation.

Nipissing Diabase: The Nipissing Diabase is the most important rock type in the Gowganda / Elk Lake area from an economic point of view as it is the host for all the known silver occurrences. Except for the list of lithologic units and occasional mention where necessary, the other rock types in the area will not be discussed.

The Nipissing Diabase had originally been assumed to be in the form of a large sill originating in the Cobalt area and extending west to Gowganda and further. It had been suggested that the small sill like bodies of diabase scattered throughout the area were part of this large sill. Recent writers (Moore, Hester, & McIlwaine) believe that this explanation is mechanically impossible. "Such a sill would have to traverse,

in a distance of over 75 miles, a variety of structures and formations, and it is simpler to assume that there is more than one sill fed by local feeders---."[1] Feeders could have supplied diabase magma at sveral points, and this magma then rose to a level where its temperature and pressure made it easier for it to spread out laterally, coalesce and form what appears to have been originally one great intrusion. The Miller Lake Basin originated from a feeder directly beneath it where it is thickest and from where it spread out in all directions. The basin is essentially a trough of Keewatin rocks in a granite batholith. From mining and drilling the thickness of the sill in the vicinity of the Siscoe Mine is 950' thick. At Castle it is 900 feet thick. The sill evidently thins rapidly to the north and south of these mines and to a lesser degree to the east and west. Workings at Siscoe reached to a depth of 1200 feet below the surface and to 1425 feet at Castle.

The Smoothwater Basin , as seen in the vicinity of the exploration property, is a simplified version of the Miller Lake Basin. Here the diabase has"been intruded between highly folded and metamorphosed Archean mafic and felsic lavas and tuffs" to enter "the overlying, relatively undisturbed, unmetamorphosed Cobalt Group of sedimentary rocks---"[2]

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[1] Moore, 1956 page 12

[2] McIlwaine, 1971 page32

The diabase is 800' thick at the #3 shaft of the Rustex Mine, but is much less at the #1 shaft. The diabase appears to become thinner from west to east due to faulting and subsequent erosion, as well as by lateral spreading in the east. The effect of faulting is evident in the Montreal River area of the property where north/south striking faults show upward displacement of their east sides relative to their west sides.

In both basins local irregularities in the upper contact of the sill, alter a fairly consistent dip of 10^{o} to 15^{o} toward the centre , to vertical in places. These rolls in the contact are generally favourable for the occurrence of veins and have some bearing on fracturing in the sill. Rolls in the contact are very evident in the Miller Lake basin and the diabase body of the Lily Pond area is consideredto be this type of feature.

Cylindroidal and columnar joints are a common and interesting feature of the Miller Lake diabase but are not as common or as large in the property area. Roughly parallel vertical joints are common to both basins as well as many small vertical and flat dipping faults. From the mines of the Miller Lake area it has been found that although faulting appears to have played an important role in the origin of the veins, the columnar jointing has had a minor

effect in their location. In some places the ore zones are widened by small veins branching from the main veins and running around the columns.

In both basins the majority of faults not confined to the sill are of a normal type and strike in a north/south direction. The relationship between these faults and the ore is not known, there being much conflicting evidence as to the relative age of ore emplacement and faulting. The faults are important in that the ore deposits are localized near them. The north/south strike of the major veins in the property area hints at a possible association with faulting. It is certain that important fractures were in existence when ore-bearing solutions invaded the sill and post ore move ment occurred on them and others in their vicinity. Secondary flat-dipping faults, probably the result of movement along joint planes, are very evident along the west side of the Montreal River Fault. These have slightly disturbed the veins.

Petrography: The sills are composed of nearly uniform quartz diabase with minor variations in texture. Since the petrography of the sill has been found to be of little aid in determining the location of ore veins, only a few important points need be discussed.

Granophyre occurs throughout the sills from top to bottom but is generally more abundant in the upper part. "Red rock"

or adinole, which is found along the contact of the sills with the Huronian sediments, includes a gradation from pure granophyre to altered sediments and is probably a contact mixture of diabase or granophyre and sedimentary rock.

Aplite dikes and dikelets are a common feature of the diabase, and form sharp contact with or grade into the host.

More basic differentiation products with large crystals and forming large or small bodies but no dikes occur throughout the sill.

Veins and Mineralization: Silver and cobalt are the only metals that have been mined commercially in both areas although small quantities of copper, zinc, lead, nickel, bismuth, antimony and gold occur. Silver, cobalt and nickel are usually closely associated but cobalt and cobalt-nickel veins with little or no silver occur as well as silver veins with little (but always some) of the other metals. The proportion of silver to cobalt and nickel is greater here than at Cobalt but in both the Gowganda and Cobalt camps the main veins are of small size and great richness. In the Millerett mine a vein of only 2 inches wide with a couple of feet of disseminated ore in the walls produced 611,822 ounces of silver and 5,000 pounds of cobalt.

The veins are mostly fissure fillings, but considerable replacement of their walls by ore occurs in some of them. They are numerous but small. Valuable veins range in size from a fraction of an inch to about one foot wide, most

being approximately 6 inches wide. Cracks in the diabase may carry paper thin sheets of silver.

Most of the ore veins are short but some have attained lengths of more than 1000 feet. The #3 vein on the Mann property was trenched for 1300 feet and its maximum width never exceeded 5½ inches. At Rustex the main Hudson Bay Vein is over 1100 feet long. Few veins have ore for their full length most shoots being less than 100 feet long but some have attained lengths of up to 300 feet. Where the diabase is highly jointed and fractured, the veins branch forming a series of parallel veins and widening the ore zone. The most noteable example of this is at the Siscoe/O'Brien Mine where ore was stoped out to a width of 40 feet in what was named "the Glory Hole". More commonly in a stope width of 4 feet there may be 4 different sets of veins with the ore shoots being erratically distributed in these veins. Beyond these zones the branching veins may converge again with the main vein.

The veins tend to run vertical and parallel to the upper contact of the sills with minor deviations and some crosscutting veins. The majority of productive veins have been found in the sills within 300 to 400 feet of their upper contacts, even though calcite veins are found all through the sills.

Although important veins, such as the rich discovery vein at Castle-Tretheway, have been found in rocks of the Miller Lake area other than the diabase, on the whole these rocks are considered to be unfavourable hosts. This also holds true fo the Smoothwater Lake Basin property, but it must be remembered that diabase under these rocks is highly favourable.

The most common gangue mineral is calcite, but in a few veins it is exceeded in quantity by quartz. Veins of calcite up to 3 feet in width are found, but these large veins are usually void of silver. Grey calcite is considerable to be favourable for ore in the Miller Lake area and pink calcite in the Rustex Mine area.

Most of the ore veins of the Smoothwater basin are banded with aplite. In the Miller Lake Basin this is seen on a large scale only in the Morrison Mine although such veins are found in the Siscoe-O'Brien Mine and the Castle-Tretheway. In the Morrison, aplite occurs next to the diabase walls, quartz next, and then calcite with silver in the centre. This is essentially the same order as is seen in the veins of the property area and at Rustex. In any one vein the aplite can occur on both sides or just one side of the calcite. The calcite often traverses and in places as can be seen in showing"D", Montreal River area, the aplite forms oblong and irregular shaped breccia pieces in a calcite matrix.

At Rustex, irregardless of the number of calcite veins present over the width of the drift, only one calcite vein will have aplite associated with it.

The aplite may contain disseminated metallic minerals, however no report has stated the presence of silver in the aplite as in the Cobalt camp.

Reference

Burrows, A.G., 1926 "Gowganda Silver Area" Ontario Dept. of Mines, Vol. 35, Pt. 3

Eakins, P.R., 1961 "Cylindroidal Jointing in Diabase at Gowganda, Ontario" Geological Assoc. of Canada, Vol. 13

Hester, B.W., 1967 "Geology of the Silver Deposits near Miller Lake, Gowganda" CIMM Transactions Vol LXX?, pp. 277-286

McIlwaine, W.H., 1971 "Geology of Leith, Charters, and Corkill Townships District of Timiskaming" ODM & NA, GR 89

Moore, E.S., 1956 "Geology of the Miller Lake Portion of the Gowganda Silver Area". ODM Vol.34, Pt.5

Shartner, G., 1971 "Report on the Silver Property in Charters-Leith Townships Gowganda Area, Ontario"

Preliminary maps (Ontario Dept. Mines) P.502, 503,504, 558, 559, 584

W-531

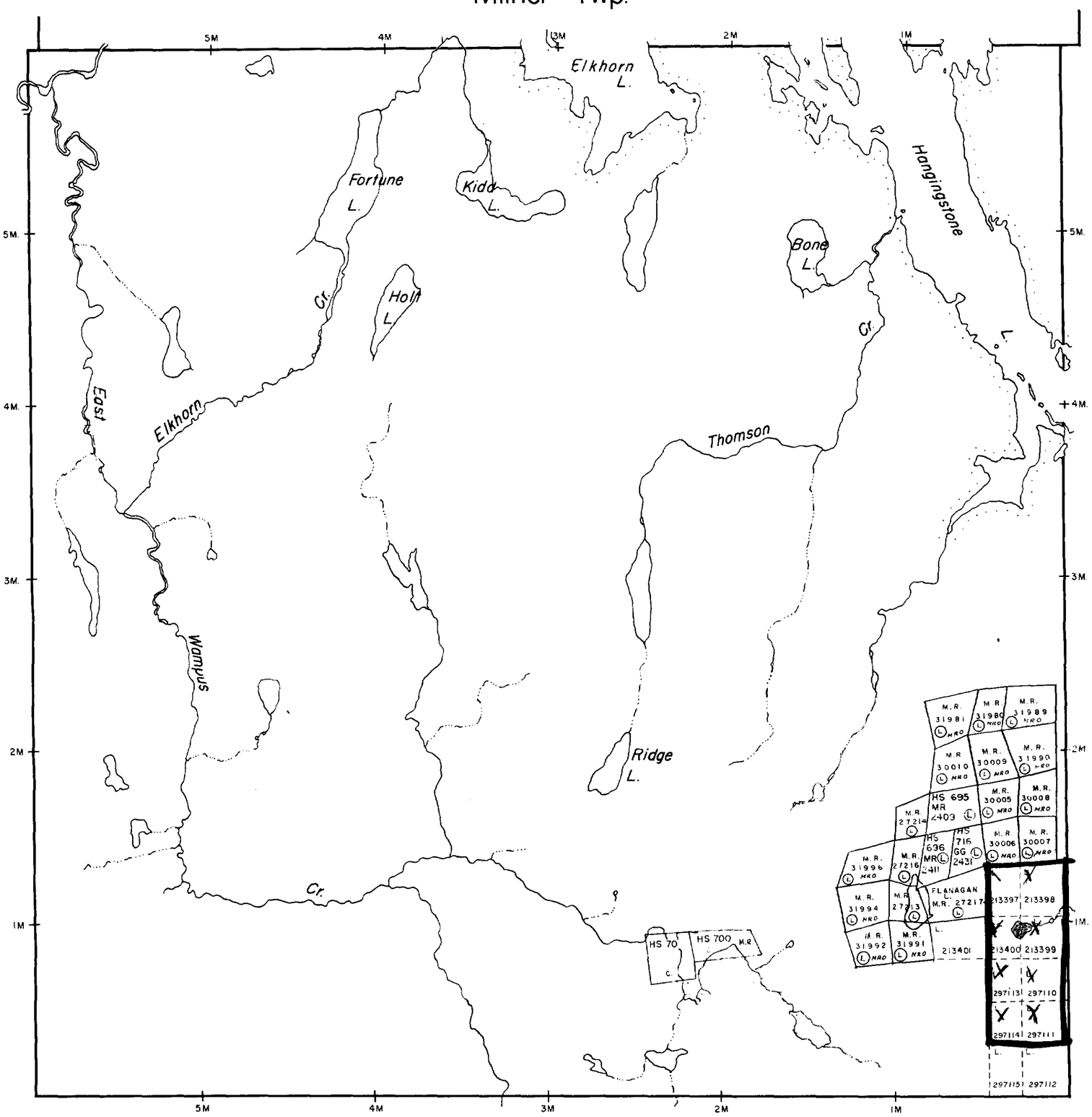
TWP. LEITH

Milner Twp.

Leonard Twp.

Charters Twp.

Ray Twp



41P10SE0602 2.841 CHARTERS

200

THE TOWNSHIP OF

LEITH

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	

NOTES

400' Surface rights reservation around all lakes and rivers.

2.841

DATE OF ISSUE
MAY 1972
ONTARIO DEPARTMENT OF MINES AND NORTHERN AFFAIRS

PLAN NO - M - 231

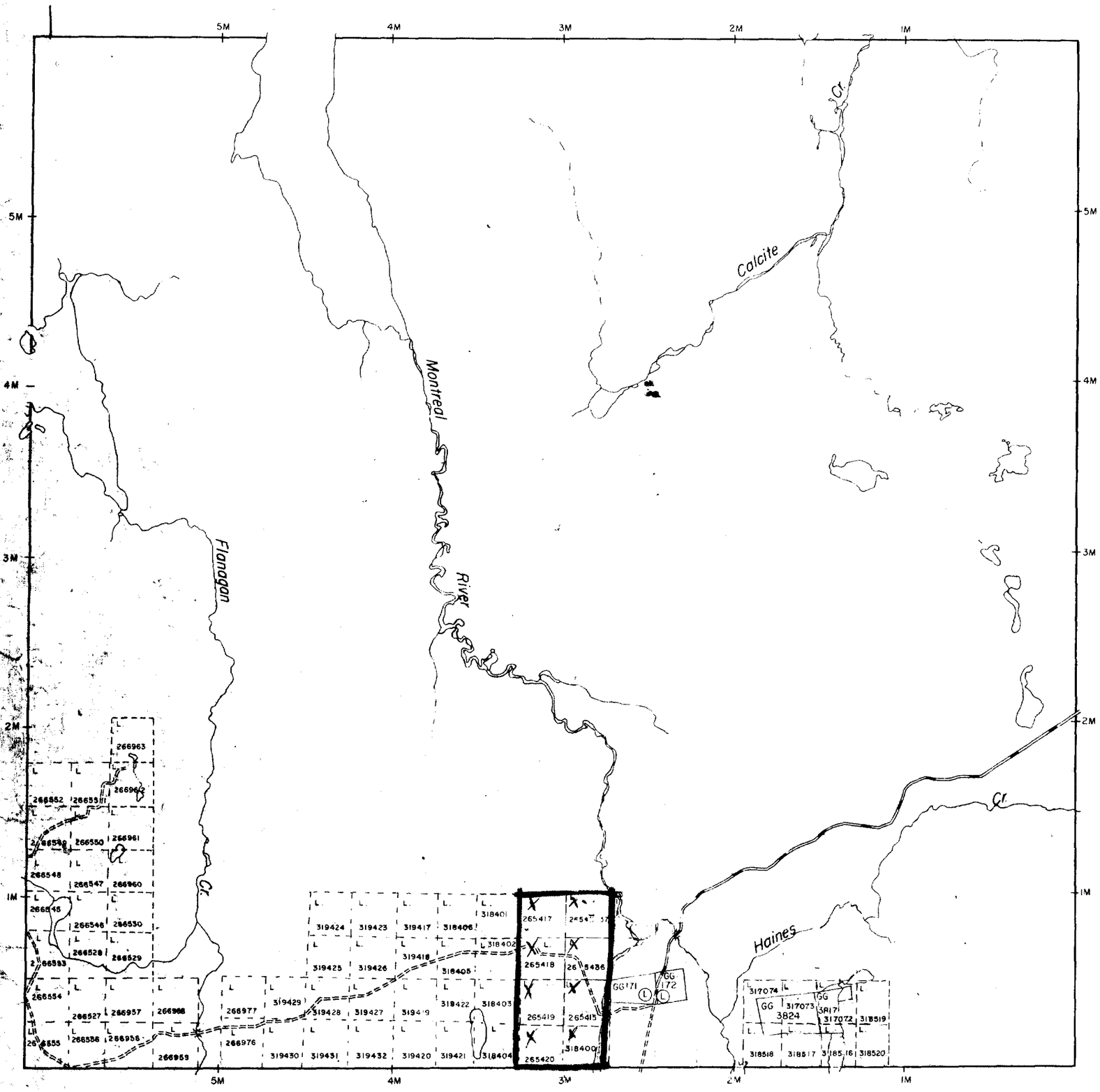
ONTARIO DEPARTMENT OF MINES AND NORTHERN AFFAIRS

W-531

Nicol Twp.

Donovan Twp.

Corkill Twp.



THE TOWNSHIP OF CHARTERS

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH= 40 CHAINS

LEGEND

PATENTED LAND	P.
CROWN LAND SALE	C.S.
LEASES	L
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	

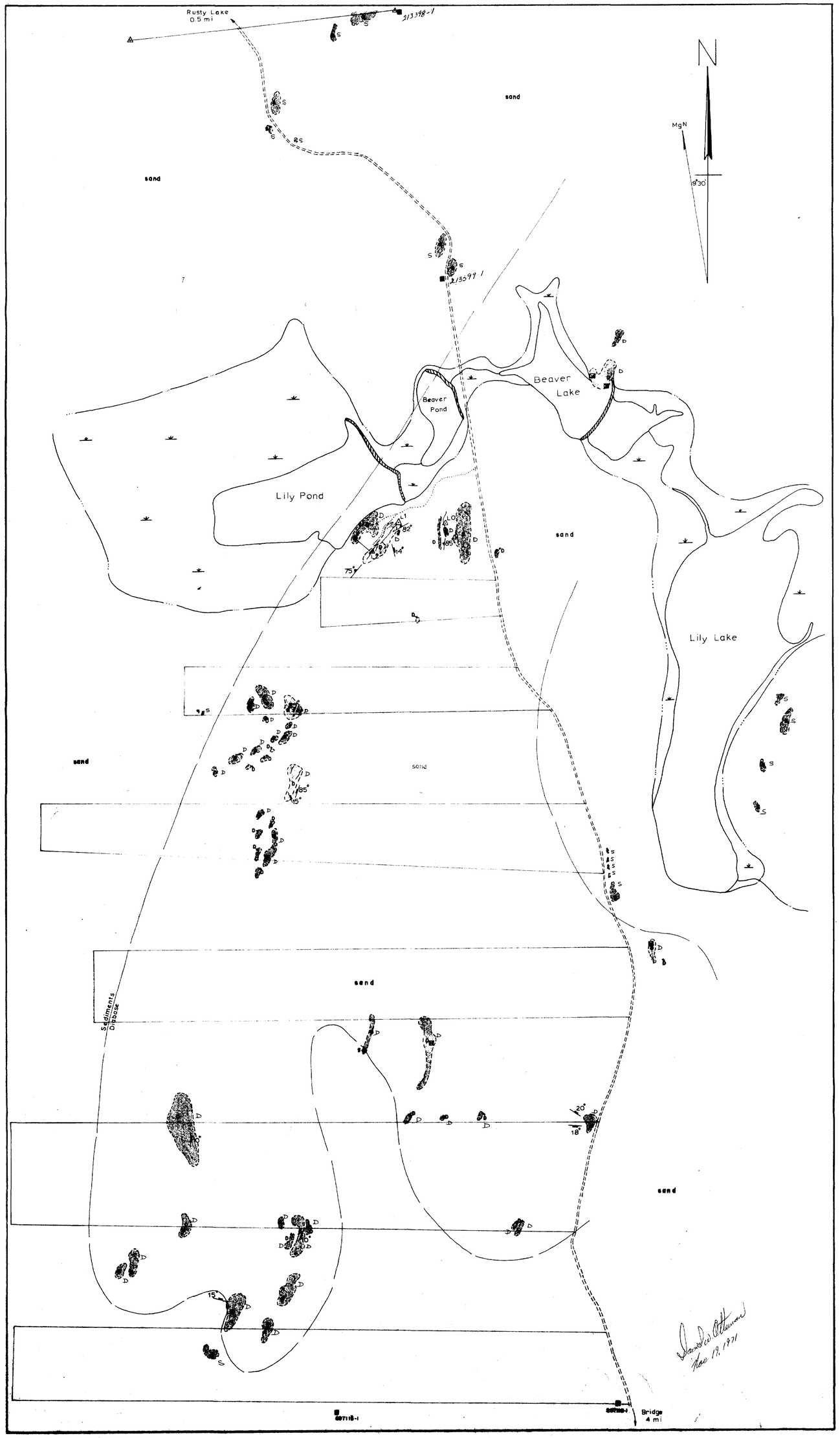
NOTES

400' Surface rights reservation around all lakes and rivers.

2.841

PLAN NO.- M. 212

DEPARTMENT OF MIN
—ONTARIO—



LEGEND

GEOLOGY

D — DIABASE INTRUSIONS

S — SEDIMENTARY ROCKS (SANDSTONE, SHALE, CONGLOMERATE)

BEDDING & JOINT MEASUREMENTS

VERTICAL BEDDING

JOINT ORIENTATION

DIABASE DIP

DIAMOND DRILL HOLE

TOPOGRAPHY

ROAD

SWAMP

BEAVER DAM

PERMANENT BENCH MARK

CONTOUR

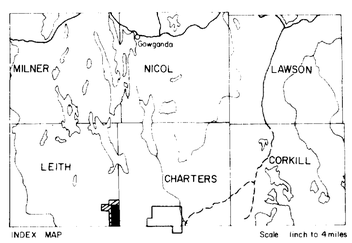
TRAVERSE LINE & UNIT

Map 2

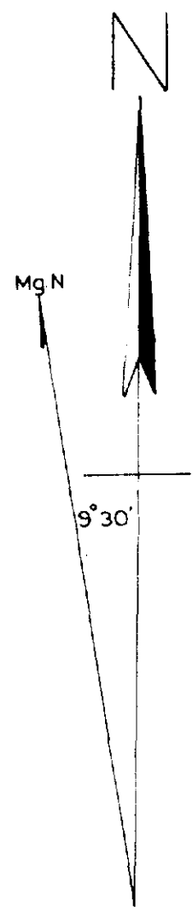
LILY POND

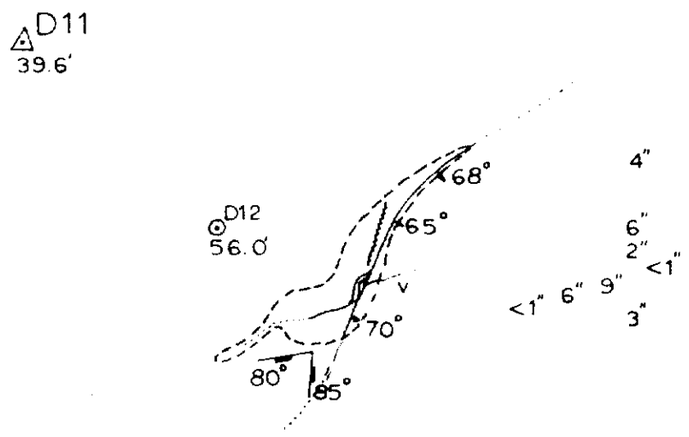
GEOLOGY

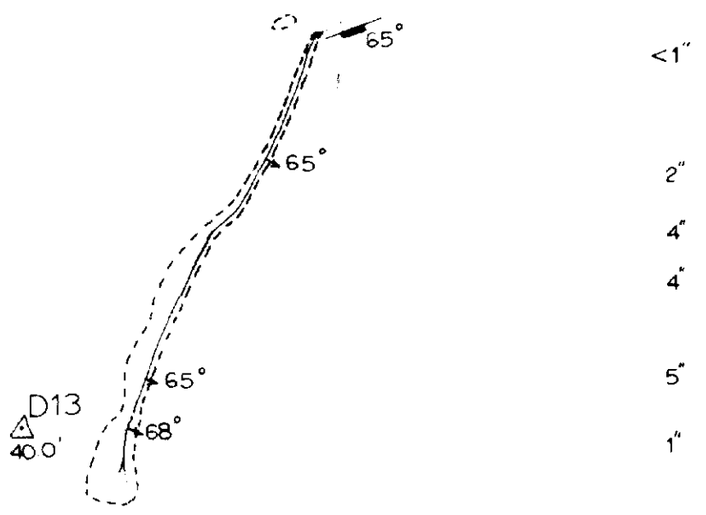
Scale: 1 inch = 200 feet



D.W.O. Nov. '71







LEGEND

- SURVEY POINT
- 65° 2" VEIN, INCLINATION, WIDTH (inches)
- 80° JOINT, INCLINATION
- FAULT
- OUTLINE OF TRENCH
- 50'@-40° DDH PROPOSED (length, inclination)
- PROSPECT PIT

230

Plan 5

SHOWING "D"

Scale 1 inch = 20 feet

DWO Nov. 1971

2.8411

LEGEND

SURVEY POINT

80° 2" VEIN, INCLINATION, WIDTH (inches)

65° JOINT, INCLINATION

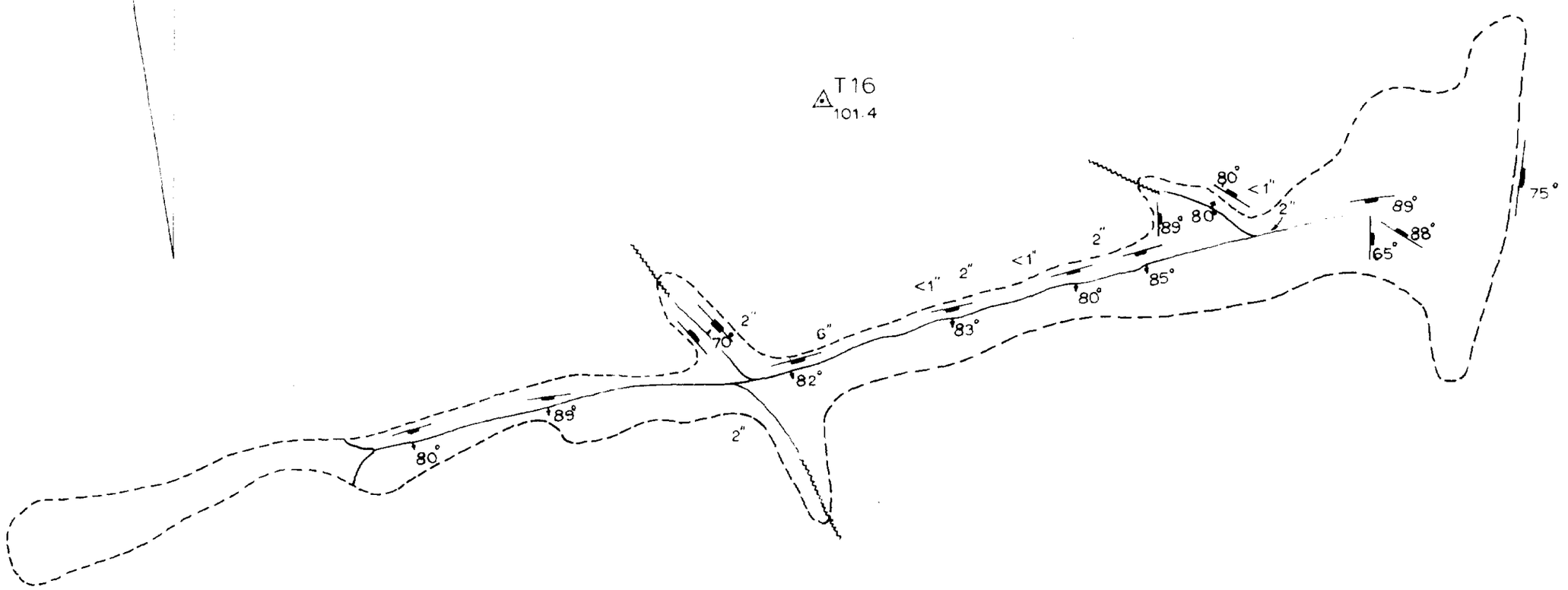
FAULT

OUTLINE OF TRENCH

70@-45° DDH PROPOSED (length, inclination)

MgN

9°30'



Plan 3

SHOWING "C"

NORTH TRENCH

Scale: 1 inch = 10 feet

19/11/1971

DWO Nov. 1971

2.841

LEGEND

SURVEY POINT

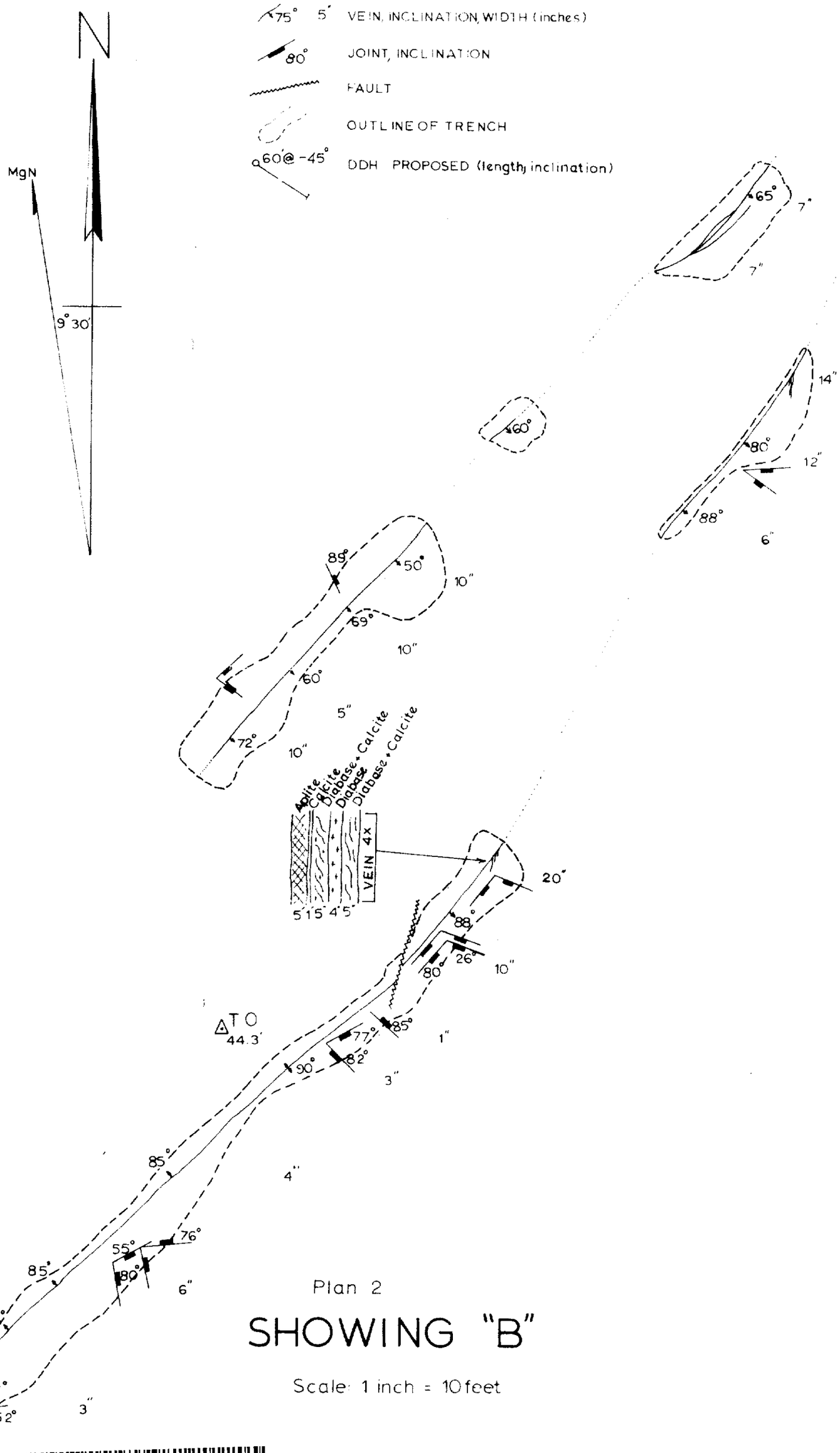
75° 5" VEIN, INCLINATION, WIDTH (inches)

80° JOINT, INCLINATION

FAULT

OUTLINE OF TRENCH

60'@ -45° DDH PROPOSED (length, inclination)



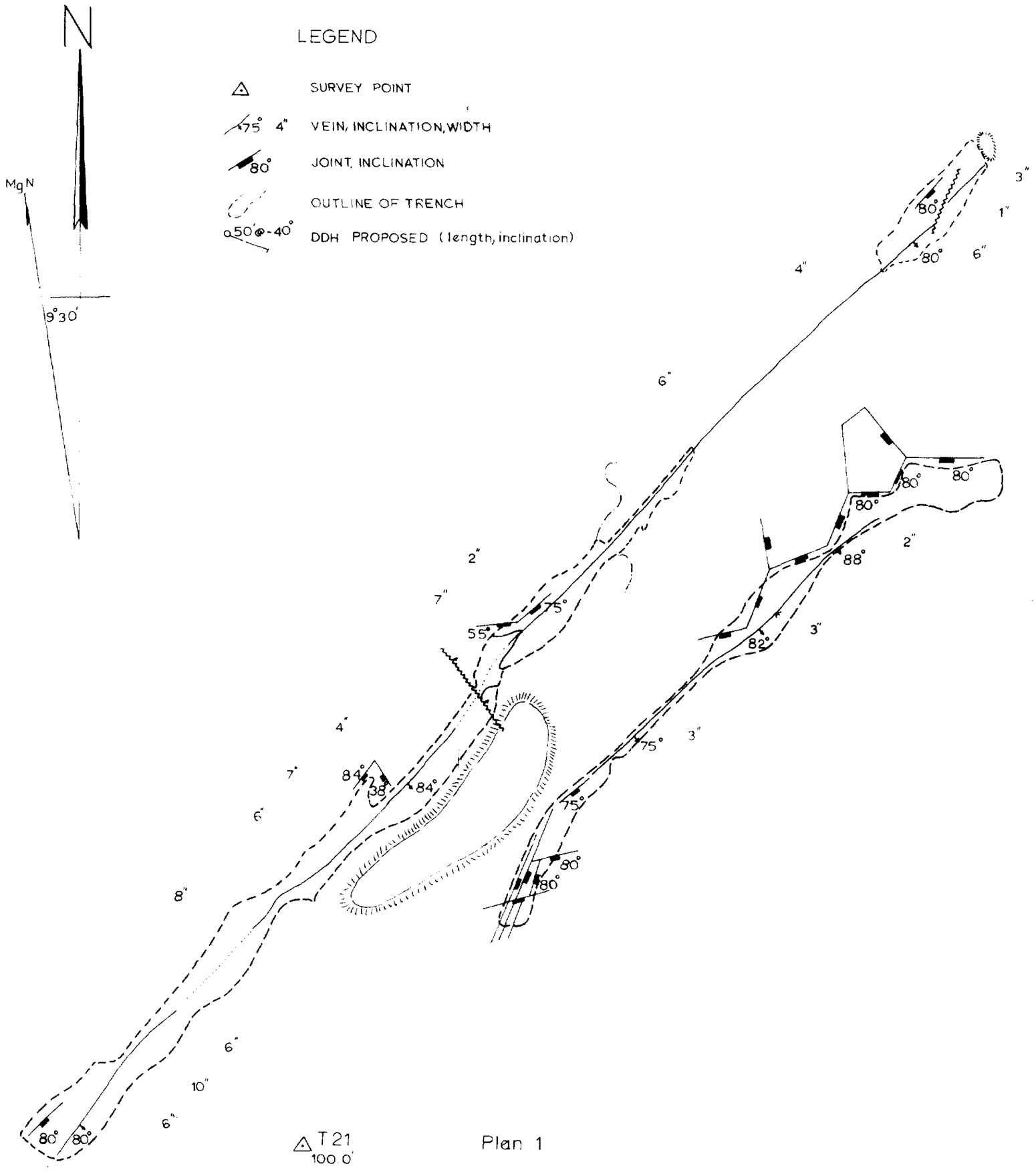
Plan 2

SHOWING "B"

Scale: 1 inch = 10 feet

DWO Nov 1971

2.841



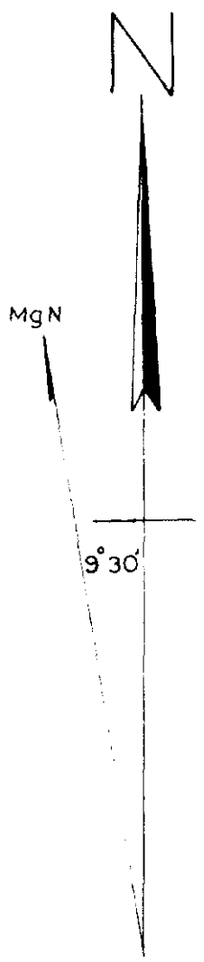
Plan 1

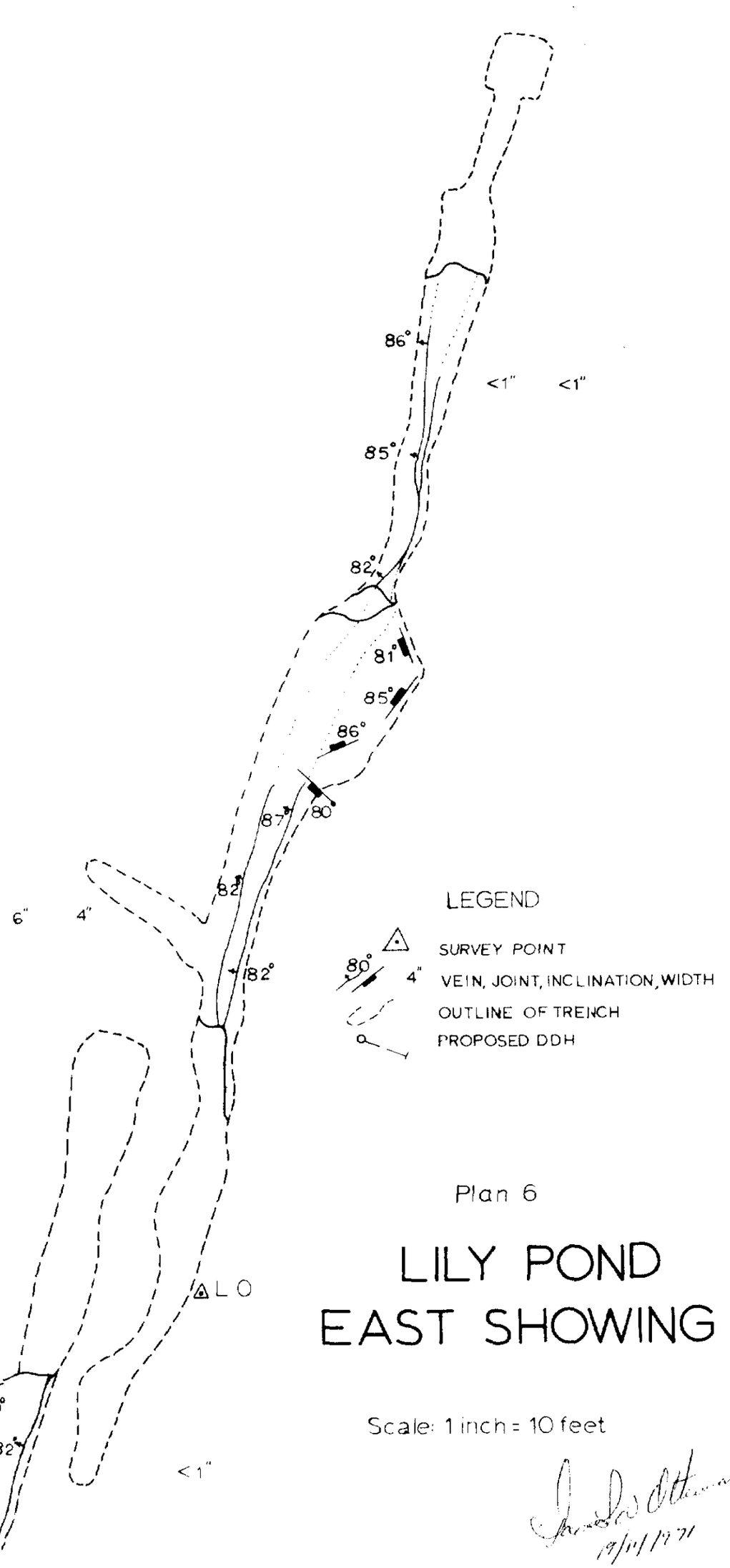
SHOWING "A"

Scale: 1 inch = 10 feet

DWO Nov. 1971

2.841





LEGEND

- SURVEY POINT
- VEIN, JOINT, INCLINATION, WIDTH
- OUTLINE OF TRENCH
- PROPOSED DDH

Plan 6

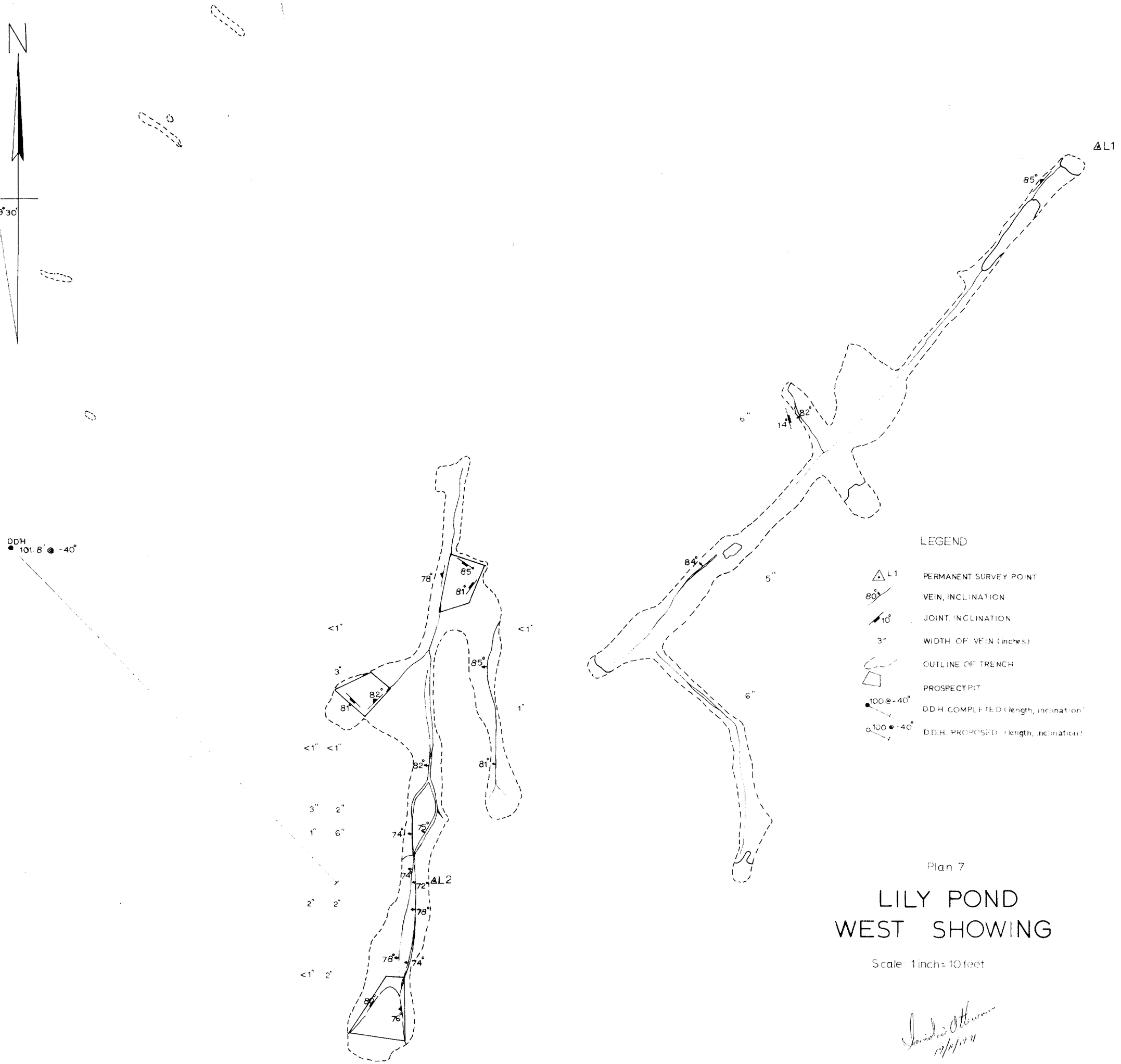
LILY POND EAST SHOWING

Scale: 1 inch = 10 feet

19/11/1971

DWO Nov 1971

2.841

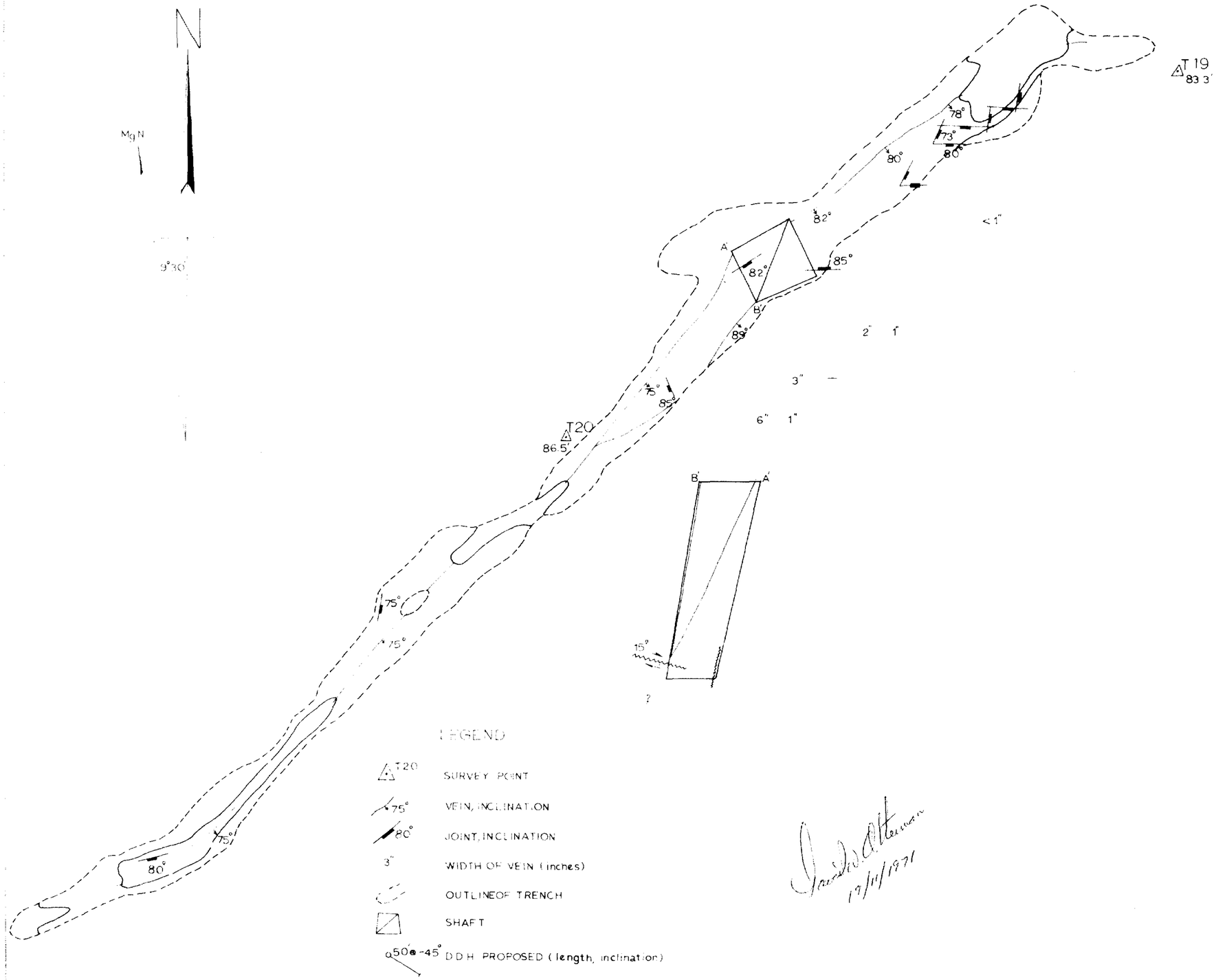


Plan 7

LILY POND WEST SHOWING

Scale: 1 inch = 10 feet

D.W.O. Nov. 1971



Plan 4

SHOWING "C"

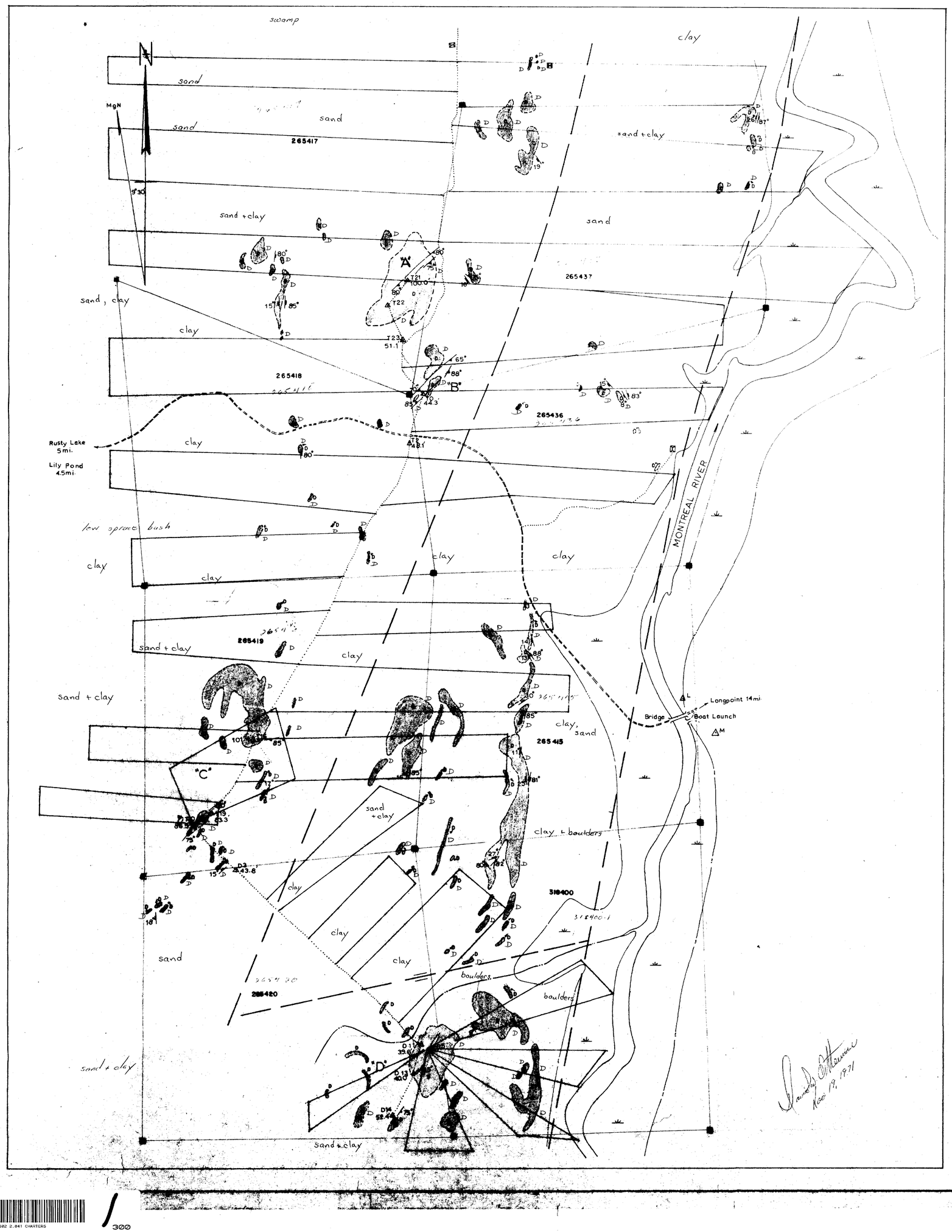
TRENCH SOUTH

Scale: 1 inch = 10 feet

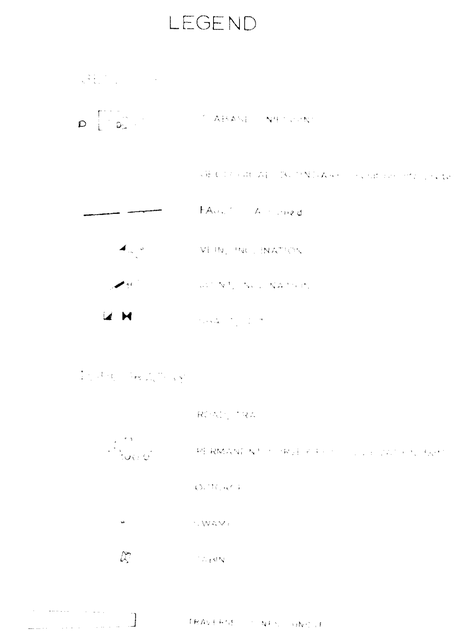
19/11/1971

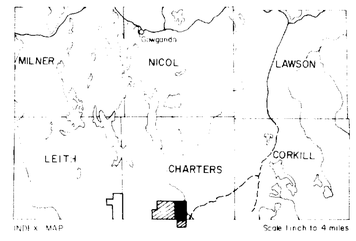
DWO Nov 1971

2.841



LEGEND





Map 1

MONTREAL RIVER

GEOLOGY

Scale: 1 inch = 200 feet

DWO Nov. 1971

1/300

2.841