

31D16NW0035 10 MONMOUTH

010

Diamond Drilling

Township of Monmouth

Report No: 10

Work performed by: Canadian All Metals Explorations Ltd.

Claim No	Hole No	Footage	Date	Note
EO 12707	1	223'	Apr/55	
	2	115'	Apr/55	
	3	114'	May/55	
	4	116'	May/55	
	5	246.4'	May/55	
	7	191'	May/55	
	8	49'	May/55	
	9	51'	May/55	
	10	45.5'	May/55	
	EO 12708	6	99'	May/55
EO 12705	11	69'	May/55	
	12	69.3'	May/55	
	13	69.3'	May/55	
	14	63.5'	May/55	
	15	124'	May/55	
	16	40'	May/55	
	17	204'	May/55	
	18	167.5'	May/55	
	19	75'	May/55	
	20	50'	May/55	
	21	95'	May/55	
EO 12709	22	473.5'	June/55	
	23	114'	June/55	
	24	137'	June/55	
	25	187'	June/55	
	26	172'	June/55	
	27	393.0'		

Notes:



ENGINEER'S REPORT

ON

CANADIAN ALL METALS EXPLORATIONS LIMITED

URANIUM PROPERTY, MONMOUTH TOWNSHIP

HALIBURTON BANCROFT URANIUM CAMP

Marmora, Ontario
June 8th, 1955

This report covers the exploration and mining operations on your property in the Township of Monmouth, Haliburton County, Ontario.

PROPERTY

The property consists of eight (8) mining claims in Monmouth Township, Haliburton Co., as listed below:

<u>Claim No.</u>	<u>Lot</u>	<u>Conc</u>	
12704	S 1/2 Lot 5	IX	Monmouth Tp., Haliburton Co., Ontario
12705	N 1/2 Lot 6	"	"
12706	N 1/2 Lot 7	"	"
12707	E 1/2 Lot 7	"	"
12708	N 1/2 Lot 8	"	"
12709	E 1/2 Lot 8	"	"
12794	N 1/2 Lot 5	"	"
12795	E 1/2 Lot 6	"	"

The property totals 400 acres more or less and apart from McQue Creek is not overlain with water.

ACCESS AND LOCATION

Highway No. 35 from Lindsay to Bancroft passes within 3/4 miles of the property and a good gravelled bush road has been put in to the camp and workings. The end of this road is 3 miles east of Gooderham and 2-3/4 miles west of Tory Hill. To the uranium refinery at Port Hope, Ontario, the distance is 96 miles.

The tracks of the Irondale, Bancroft and Ottawa branch of the Canadian National Railway traverses the entire property from east to west.

Ample water for any possible mining and milling operations is provided by McCue Creek which is a sizable stream with a year-round flow.

POWER

Hydro-electric power lines are within $1\frac{1}{2}$ miles of the showing.

DEVELOPMENT

Work started in April of this year and includes -

- (a) The construction of a temporary cookery, office and core shack.
- (b) The building of access roads, culverts and bridges.
- (c) Diamond drilling - the 26 holes completed to date total 3433.2 ft. in AK and BX sizes.
- (d) A large amount of stripping and trenching by bulldozer and by hand.
- (e) A thorough and systematic traverse of the claims by Geiger Counter and Scintillometer. This work is still in progress.
- (f) An adit cross-sectioning the dipping formation (56 degrees) for about 500-600 feet on an azimuth of 314 degrees, 30 min., to intersect the two zones at holes 19 and 20, has been started. The portal has been cleared and the initial rounds blasted.

A third parallel zone is indicated on surface and will also be intersected. Based on underground evidence, as it develops, the balance of the 1000 ft. of underground work contracted for will consist of drifting on the vein or veins.

GEOLOGY

The general area is underlain by the ancient Grenville sediments invaded by granites.

The sediments consist of limestones altered to crystalline limestone, gneisses, amphibolites, conglomerates, sandstones and arkoses.

Movement and thermal alteration has produced a wide variety of metamorphosed rocks, sometimes difficult to differentiate.

The claims themselves lie largely in altered and crystalline limestones with a massive granite batholith along the northerly boundary. This granite and associated pegmatite dikes are no doubt the source of the radioactive materials on these claims, although the dikes have not been intersected.

The usual sequence of alteration products are present including amphibolites, quartzite, orange-colored calcite and gneiss in minor amounts.

The radioactive assays have almost uniformly been found in equilibrium with the chemical assays indicating a minimum amount of thorium.

The bedded sediments, in general, strike 50 degrees and dip about 56 degrees to the south east.

Uraninite is found in both crystalline limestone and in the orange-colored calcite and not necessarily at the contact of these two alteration phases.

* Very frequently, but not always, a favorable site for values is near the lower horizon or footwall of quartzite beds but in the adjacent limestone.

Dioptase, while present and occasionally radioactive, is not a reliable marker. As yet, apart from the quartzite-limestone contact, the ore pattern is not fully clarified.

DIAMOND DRILLING

The contract with Hardec Development Co. covers diamond drilling AX and BX core. The holes are at angles from 45 degrees to vertical and as yet, are to shallow depths to give as quickly as possible, lateral coverage. Two zones have been drilled to date.

South Zone

This zone traverses claims E.O.12707 and E.O.12708 in a north easterly direction and Holes 1 to 10 inclusive and No. 22 - eleven in all, have been drilled.

North Zone

This zone traverses claims 12705 and 12706 on an average azimuth of 51 degrees and Holes 11 to 27 (exclusive of No.22) have been completed but not fully logged or assayed and Holes No. 28 and 29 are being currently drilled.

In the main, these holes intersect two ore zones about 40 feet apart with surface indications of what may be a third zone parallel and about 110 ft. further south.

The adit should intersect these three zones with maximum backs of about 70 to 90 feet and at a horizon of 70 ft. below the collar of Diamond drill hole No. 20.

There have been 8 intersections of material that will grade as ore in these holes. They appear to line up with the base line that approximates the surface radioactive readings. The drill log profiles indicate two parallel zones over a length to date of 470 ft.

The assays in these holes range from 0.11 to 0.29 U_3O_8 by chemical analysis. The numerical average is 0.18% U_3O_8 and since no assays higher than 0.29 have been included, this method can be justified as being a fair average.

Widths range from 15" to 63" with a numerical average of 49".

The relative uniformity both in width and assays is noteworthy.

MILL TEST

A mill test of a bulk sample of open cut material has been run at the mill of Munatic Mills, Ltd., Wilberforce, Ontario., Jas. Moore, Supt.

A 1000 lb. sample was halved to 500 lbs. and concentrated. The heads were 0.18% U_3O_8 . The concentrate assayed 43.9% U_3O_8 , with a recovery as reported by the metallurgist of 98.2%.

MINERALOGICAL STUDY

A typical sample of ore-bearing material was examined microscopically and by "auto-radiograph" by the Dept. of Geological Sciences, of Toronto University.

The host rock was crystalline limestone composed of white and orange calcite ($CaCO_3$).

Polished specimens with a 15-hour contact with photographic film in a light tight box blackened the film at each radio-active grain.

X-ray studies show that at least the majority of the uranium present is in the form of the mineral uraninite.

This precludes the presence of thorium in appreciable amounts which is borne out by the results of radiometric assays as compared to the chemical assays.

PROGRAM

It is proposed to do the following work:

1. Carry on active surface prospecting of the claims to uncover additional showings.
2. Continue diamond drilling. The detailed program will be adapted to the results as the work progresses.
3. Finish the adit crosscut and drift on the various zones that are intersected.
4. From the northerly end of the adit drill a long relatively flat hole to prospect ground to the north at minimum expense.

5. Bulk sampling of all underground ore intersections.

ASSAYS

A large number of assays of surface samples have been made ranging up to 4.21% U_3O_8 , but are not listed herewith.

Diamond drill core assays are listed below:

<u>Hole No.</u>	<u>I N T E R S E C T I O N S</u>			<u>Chem. Assay</u> <u>U_3O_8</u>	<u>Radio Metric</u>
	<u>From</u>	<u>To</u>	<u>Length Ins</u>		
13	40'-6"	45'-4"	58"	0.22	0.22
14	38'-6"	43'-9"	63"	0.23	0.23
16	21'-0"	23'-6"	30"	0.13	0.13
17	30'-10"	35'-9"	59"	0.18	0.19
19	48'-2"	52'-4"	50"	0.18	0.18
20	103'-9"	110'-0"	15"	0.29	0.29
24	60'-10"	63'-3"	29"	0.13	0.13
26	140'-0"	143'-4"	40"	0.11	0.11

Notes:

- (a) While diamond drill holes 21, 22 and 23 showed radioactivity, no assays were made.
- (b) The close concordance of the chemical and radiometric assays indicates equilibrium and minimum thorium content.
- (c) The arithmetical average assays is 0.18% and the average width is 49".

(sgd) "J.D. CUMING)

The writer of this report has no stock or share interest in this property.

(sgd) J.D. CUMING, P. Eng.
Mining Engineer

TOWNSHIP of NONMOUTH
LOT 7 CON IX

LOT 8 CON IX

LOT 6 CON IX

LOT 5 CON IX

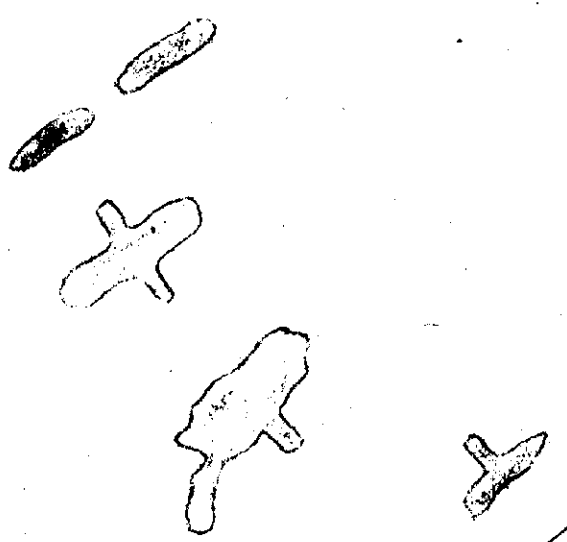
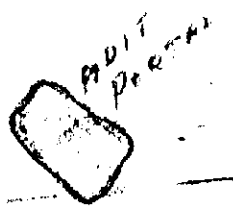
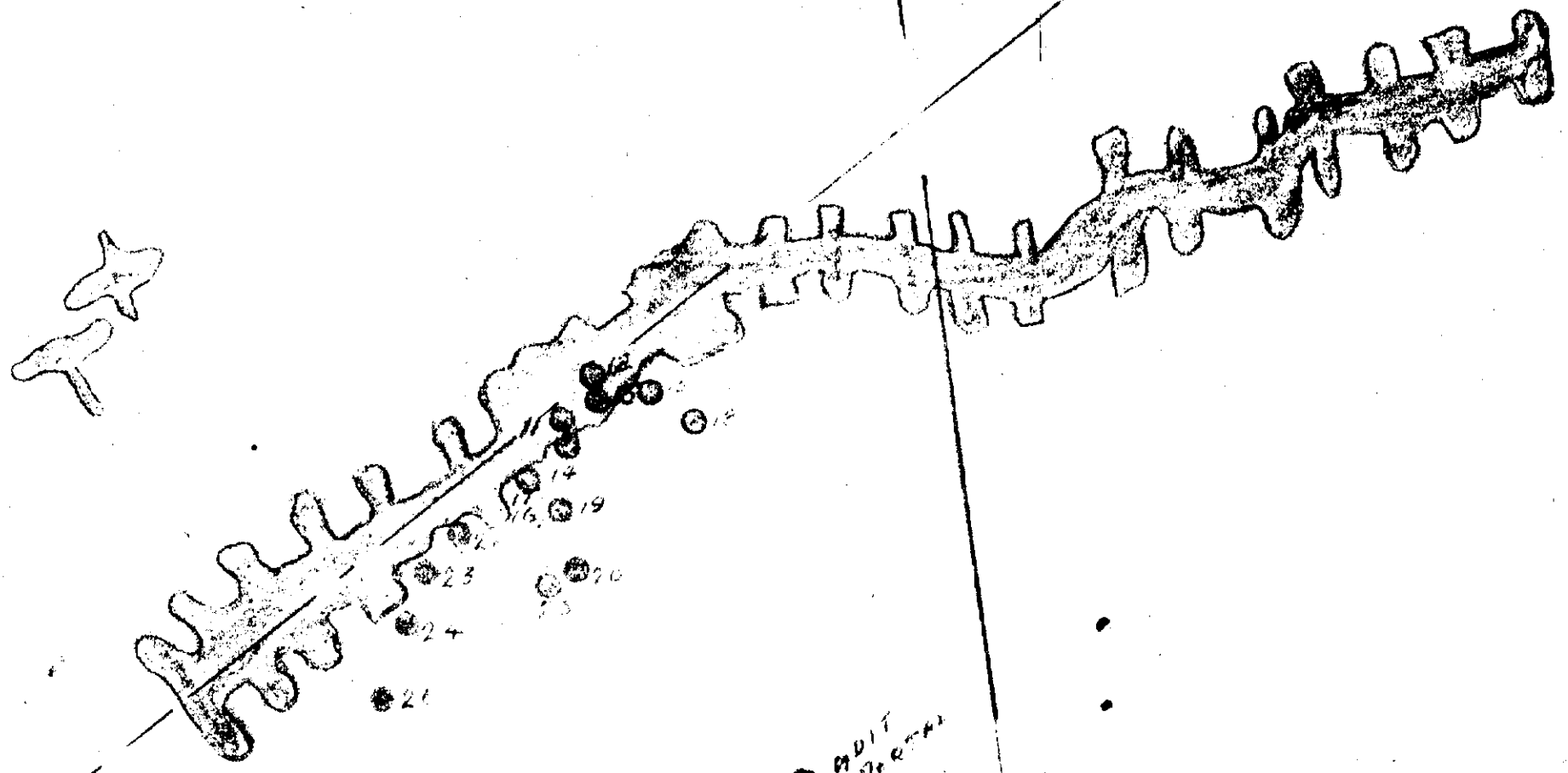
EO 12706

EO 12708

EO 12797

EO 12705

67°0'



67

EO 12709

EO 12707

EO 12702

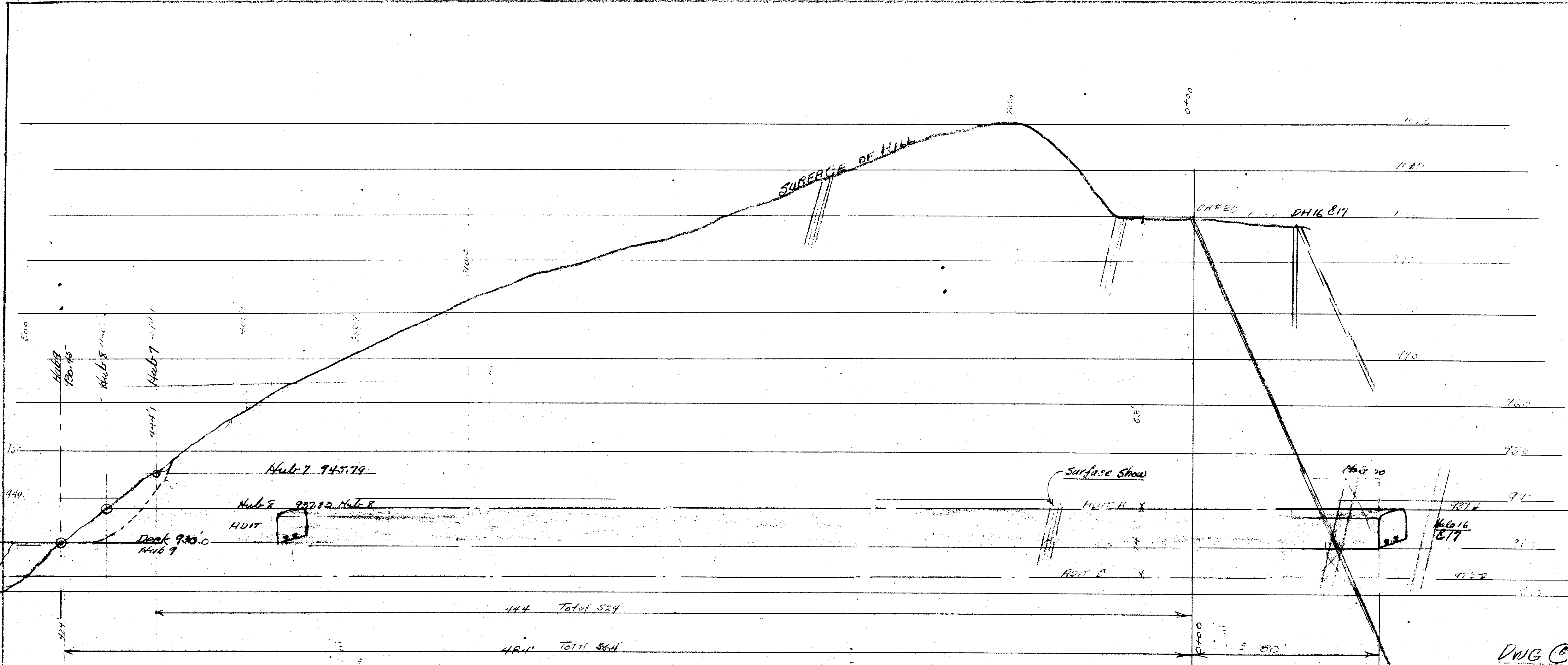
EO 12704

TO ACCOMPANY REPORT OF WORK
for
ONTARIO DEPT. of MINES

CANADIAN ALL METALS EXPLORATIONS LTD
199 BAY ST. TORONTO

FENCING & STRIPPING	
DRILL HOLE LOCATIONS	
SCALE 1" = 200'	
(2x2 1/2) Nonmouth #10	





KRM 20 50
 M.H. 1260
 240 1034 - 11010
 110 V 8420 115
 H 7000

DWG ©
 PROFILE OF FDIT

Hor Scale 1" = 100'
 Vert Scale 1" = 10'
 June 12/51

MONROE NO #10

