

1957 Year 1 015476

08236 County WARREN-MONTGOMERY
Job No. _____
Changes _____ Project Ident. WAR-MOT-25-(846)
(0.00)

STORAGE DATA	
Folder	
Section File No.	FEP-39
Record Center No.	5A-035/4D-03
Tracings	
Section File No.	FET-41
Record Center No.	4-M-41

 Proj. No. _____
 Topo Sheet _____
 Project Code

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 Begin Sta. _____
 End Sta. _____
 Rev. _____

Design By _____ Length 4.41 Miles

Drafting By	D.M.	
Comp. Date	8/7/57	
Drafting Hrs.		

	RECON	AUGER	CORE	DRIVE ROD	RESISTIVITY
By	LOT	BEB CAC, JAG	WLT		
Dates	8/14-15/57	12/3/56/57 8/29/57	1/7-9/57		
No. of Holes or Soundings		64	1		
Footage		658.0	25.0		
Samples Tested		183			

No. of Tracings 7

Remarks _____

☐ Samples Accounted

Transmittal Date 10-7-57 Revisions _____ Refer to _____

Length	Auger Data			Core Data			Drive Rod Data		Resistivity
	No. of Holes	Footage	Samples	No. of Holes	Footage	Samples	No. of Soundings	Footage	No. of Locations
4.41	64	658.0	183	1	25.0		-	-	-

Form TE-155

* See Reverse Side

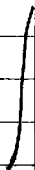
MONT. 25

12/6/56

J. A. GORDON

D. J. HILLEBRANDT

H. SCHIAPPA



SILT < P.L.

WITH GRAVEL

SILT. WITH GRAVEL + STONE FRAG.

SILT (G.P.)

GRAVEL / WATER

DEEPER

GRAVEL (MOIST)

GRAVEL + BOULDERS < P.L.

12-10-12-56

MOT-25-0.0

CRABTREE

CAMPBELL

GALENTINE



Rock Frag. Refused: < PL

HAND-MADE

> PL

GRAVEL & STONE FRAG DUE
COARSE AT 1/2"

R
DITCH)

GRAVEL & STONE FRAG < PL

GRAVEL STONE FRAG (SMALL Boulders) < PL

$$= 131 + 75 \text{ 80' LT EL} =$$

$$953.2$$

T < PL

BOULDERS

$$= 126 + 82 \text{ 57' LT}$$

$$EL = 953.6$$

T WITH GRAVEL & STONE FRAG PL

TO GAIN EXCESS WITH RIG (FIELDS SOFT)

WET

GRAVEL WET

00 - 2 + 1.2

GRAVEL
WITH STONE FRAG < PL

GRAVEL & STONE FRAG < PL

VEL & STONE FRAG < PL

WITH GRAVEL & STONE FRAG < PL

165400 - 2

ITH ROCK FRAG WET

GRAVEL & STONE FRAG < PL

EP

H GRAVEL & STONE FRAG > PL

EL < PL REFUSAL

PL

AL

GRAVEL & STONE FRAG MOIST

L Pk

WET

VEL & STONE FREE WET

4'

WITH GRAVEL & STONE FRAG LPL
GRAVEL & STONE FRAG LPL
GRAVEL & STONE FRAG LPL
GRAVEL & STONE FRAG LPL
GRAVEL & STONE FRAG LPL
GRAVEL & STONE FRAG LPL
GRAVEL & STONE FRAG LPL
IN ACCESS WITH RIG

HARD

12-344-56

WAR & MINT-25

TURNPIKE

CRABTREE

CAMPBELL

(A)

< PL

GRAVEL < PL

WITH GRAVEL MOIST

MOIST

MOIST

EL MOIST

< PL

FEW STONE FRAG > PL

FEW STONE FRAG > PL

VEL & STONE FRAG < PL

DIST

IAL FOR BAG SAMPLE BELOW

7 PL

GRAVEL & STONE FRAG < PL

AVEL & STONE FRAG

ION ENCOUNTERED AT 155 AT STA

STA 44700-R

MOIST

GRAVEL LAL

SIT

5

15' RT

EL = 693.9

MOIST

GRAVEL

> PL

DENSE

DENSE

30' RT

EL = 692.8

122252

36868

6

78' RT

EL=692.2

DENSE

~~W/PL~~

GRAVEL & STONE FRAG < PL

& STONE FRAG < PL DENSE

& STONE FRAG < PL DENSE

12-546-56

WAR-MOT-25

TURNPIKE 411

CRABTREE

GALENTINE

CAMPBELL

DENSE

MOIST

WITH GRAVEL & STONE FRAG $< PL$

GRAVEL MOIST

& STONE FRAG $> PL$

MOIST

& STONE FRAG $< PL$

H WOOD CHIPS WET
STONE FRAG WET

SE

STONE FRAG CPL

DENSE

MAY 187

GRAVEL \geq PL

WET

VEL & STONE FRAG \geq PL DENSE

& STONE FRAG \leq PL

VEL & STONE FRAG \geq PL

\leq PL.

WITH GRAVEL & STONE FRAG \leq PL

GRAVEL & STONE FRAG \leq PL

22563

11

L.S. FRAG < PL
FRAG < PL

STONE FRAG < PL

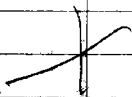
GRAVEL & STONE FRAG

L.S. FRAG < PL

L.S. FRAG < PL

WITH FEW STONE FRAG < PL

EL = 924.6



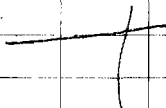
EL = 913.0

AL



EL = 900.1

LS FRAG L PL



S OF L.S.

14

Sta 135+00 - R = 134+95 - 43' RT

16 0.0-0.3 SOD

60 91 0.3-3.8 BR CLAY SILT WITH L.S.

REFUSAL L.S.

Sta 130+00 - R = 129+98 - 16' RT

20 0.0-0.3 SOD

65 92 0.3-2.5 BR CLAY SILT LPL

44 93 2.5-7.5 BR SANDY CLAY SILT WITH SANDY

44 94 7.5-9.5 BR CLAY SILT WET

44 95 9.5-14.0 LIGHT BR CLAY SILT WITH

44 96 14.0-16.5 GR CLAY SILT WITH L.S.

REFUSAL AT 16.5

44 E 6 9.0-13.0 BR SANDY CLAY SILT

44 E 7 13 9.0-13.0 BR SANDY CLAY SILT

44 E 8 11.2-14.2 H 9.5-14.0 LIGHT BR CLAY SILT WITH

44 E 9 12.7-14.3 14.0-16.5 GR CLAY SILT WITH L.S.

EL = 890.1

FRAG & LOOSE SLABY L.S. BOULDERS

EL = 906.4

STONE FRAG LPL

L.S. FRAG LPL DENSE

FRAG AND L.S. BOULDERS LPL

WITH STONE FRAG LPL

WET

L.S. FRAG LPL

FRAG & L.S. BOULDERS LPL

LS FRAG

WITH GRAVEL & STONE FRAG > PL

GRAVEL & STONE FRAG < PL

EL & STONE FRAG < PL DENSE

STONE FRAG < PL DENSE

AVEL & STONE FRAG < PL DENSE

DENSE

GRAVEL < PL

WITH GRAVEL WET

DENSE

WET

GRAVEL > PL

GRAVEL & STONE FRAG > PL

DENSE

FRAG LPL

MOIST

DENSE

GRAVEL & STONE FRAG LPL

WAR.

25

12-5-56

J. A. GORDON

HILLBRANDT

SCHIAFFA

D

RT

EL = 693.0

< P.L

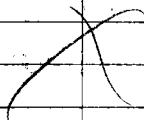


190' RT

EL = 692.4

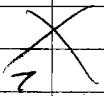
NEAR P.L.

> P.L



20+18 - 93' RT

EL = 1692.7



HOLE CLOSING

P.L.

< P.L.

SILT WITH GRAVEL < P.L.

WITH GRAVEL < P.L.

< P.L.

(Moist)

(Moist)

@ P.L.

3

WITH GRAVEL

ELEV. -1.0'

WITH GRAVEL <P.L.

SM. + LG. GRAVEL <P.L.

BED ROCK

WAR-1-25

12-6-56

GORDON

HILLEBRANDT

SCHLAPPA

WITH GRAVEL < P.L.
GRAVEL < P.L.

P.L.
(5).

< P.L.

WITH GRAVEL < P.L.

NEAR P.L.

(S)

BED ROCK, WATER AT 13.5

(MOIST)

GRAVEL + BROKEN ROCK FRAG.

(S)

(S)

+ STONE FRAG. < P.L.

(S)

AT 24'

(6)

WITH GRAVEL @ P.L.

GRAVEL < P.L.

ROCK

ROCK

WITH GRAVEL + BOULDERS < P.L.

⑦

AUGER
FIELD)

GRAVEL @ P.L.
HAND AUGER

(S)

WITH GRAVEL

CAVE IN REFUSAL

6.0

GRAVEL

COARSE GRAY SAND CAVE IN REFUSAL

7.0

SAND CAVE IN REFUSAL

6.0

WITH BOULDERS

CLAY

WITH STONE

12

WITH BOULDERS REFUSAL

4

WITH GRAVEL

REFUSAL

9

II

32

WITH BOULDERS

6.5

WITH BOULDERS

10

EL = 953.9

8

-2'

WITH STONE

8.

ELEV. SAME AS ~~2~~

10

~~III~~

So

WITH GRAVEL + STONE

WITH GRAVEL + STONE

20

WITH SMALL STONE

CLAY

WITH STONE

15

WITH SMALL STONE

CLAY WITH GRAVEL

9

WITH SCATTERED GRAVEL

8

WITH BOULDERS

WITH GRAVEL

2 HOLES REFUSAL
ON FIRST BOULDERS 10'

30

100

WITH STONE + GRAVEL

WITH STONE + GRAVEL

SILT WITH GRAVEL

18

WITH STONE

8

SANDY

SILT WITH STONE REFUSAL

7

WITH SMALL STONE REFUSAL

8

WITH STONE BOULDER REFUSAL

6

WITH BOULDERS

REFUSAL

4

100

WITH GRAVELSTONE BOULDER REFUSAL 6

WITH STONE BOULDER REFUSAL 3

SAME RESULTS 6

WITH GRAVELSTONE REFUSAL 8

GRAVELSTONE BOULDER REFUSAL 7

WITH GRAVELSTONE REFUSAL 10

SECTION

GRAVEL

WITH SMALL GRAVEL

WITH SMALL STONE

20

WITH STONE

WITH STONE

WITH PEBBLES

12

STONE

10

WITH STONE

WITH STONE

CLAY WITH SMALL PEBBLES

20

VII

WITH STONE

CLAY

SILT WITH BOULDERS

WITH GRAVEL BOULDER REFUSAL 15

BOULDER REFUSAL 11.5

11

11

4.

BOULDERS

STONE

SILT WITH STONE

20

GRAVEL SAND + WATER RATIO 10

SAND & GRAVEL ROCK AT BOTTOM

10

CLAY WITH GRAVEL & STONE

WITH STONE

D & GRAVEL

WITH STONE

19

1 STONE & GRAVEL FRAG (VERY L)

2

Auger @ 2.0 ON LARGE GRAVEL

GRAVEL & STONE CAVE IN REFUSAL

6.5

MIXED WITH BOULDERS

45

MOT-25-3.74

I

FIELD

CLAY

WITH VERY SMALL GRAVEL

WITH SMALL GRAVEL

10

SOIL

CLAY

WITH GRAVEL UP TO 2"

10

WITH GRAVEL

WITH GRAVEL

WITH GRAVEL, BOULDER REFSAL

16.5

II

WITH BOULDERS REFUSAL
2 HOLES

4.5'
4.5'

WITH STONE

SHALE WITH WATER, REFUSAL

9.5'

WITH GRAVEL

SILT WITH STONE

SILT WITH SMALL GRAVEL

20'

1
HAND AUGER

HAND AUGER

BOULDERS < PL

EL = + 5.9

SHOWS BOULDERS, & FINE TO
10'

WOODED

GRAVEL & STONE FRAG LPL

WOODED

FR

FRAG

EL = +1.4

GRAVEL LPL

L & FLAT ROCK

FRAG LPL

EL = +1.0'

FLAT ROCK & CLAY SILT

INATED FLAT ROCK & CLAY SILT TO -12

BED AT -12'

4

133

Sta 236+00 - R

ROCK LEDGE IN CREEK
CREEK BED AT -5.5

134

Sta 238+00 - ~~R~~ HAND

~~0.0-0.4 ROOTS~~

~~0.4-1.0 LIKE #7XS~~

REFUSAL STONE FRAG

135

Sta 241+50 - ~~R~~ ~~W~~ DANGER

~~0.0-0.4 ROOTS, MODED~~

~~4.8X~~⁶ 0.4-3.5 B ~~SANDY~~ CLAY SILT

4402

4

BANK AT ^{MINUS} 2.5 ROCK IN

UGER

1 STONE FRAG ≤ 121

GRAVEL LPL

GRAVEL LPL

0 COBBLE SIZE MOIST

BULL

COBBLE SIZE MOIST

1 GRAVEL LPL

COBBLE SIZE MOIST

1 GRAVEL LPI

SMALL AMOUNT OF SAND 50' 50'

GENERAL GEOLOGY

WAR-MOT 25

FROM STA 1+00 TO STA.
40+00 THE LINE TRAVERSES
THE FLOOD PLAIN EAST OF
THE MIAMI RIVER WHICH
IS NOW OCCUPIED IN PART
BY CLEAR CREEK. THE
SOILS ARE ALLUVIAL IN
ORIGIN AND SAND AND
GRAVEL ARE ABUNDANT.
THE FILL IN THE VALLEY
IS DEEP, EXCEEDING 175'.
FROM STA. 40+00 IN WARREN
COUNTY TO STA. IN
MONTGOMERY COUNTY, THE
SOILS ARE DERIVED FROM
THE THIN GLACIAL DRIFT
WHICH COVERS THE AREA.

GENERAL GEOLOGY

WAR. MOT 25

THE PRIMARY SOILS ARE SILTS, BOTH OF THE SANDY AND CLAYEY VARIETY. THESE SILTS ARE GENERALLY UNDERLAIN BY COARSER MATERIAL OR BY BEDROCK.

FROM THE STANDPOINT OF COMPETENCE, THE SOILS FOUND ON THIS LINE SHOULD PROVE SATISFACTORY. DRAINAGE IS OF PRIME IMPORTANCE IN THE SILTY SOILS, WITH REGARD TO THEIR BEHAVIOR AS A SUBGRADE MATERIAL.

1
WAR MOT 25

Tule, Stapleton, McDonald, Make

THE FOLLOWING PEOPLE

ARE TO BE CONTACTED
PRIOR TO DRILLING ON
THE WARREN-MONTGOMERY
NO. 2 TURN-~~E~~ LINE.

RELATIVE TO BURIED TELEPHONE
CABLE CALL J.A. MARK OR
A.A. ANDERSON (CABLE REPAIR
FOREMEN) AT OHIO BELL TELE-
PHONE CO, DAYTON, O. TEL.
AD-9977. THEY WILL SEND A
MAN WITH DRILLING CREW.

RELATIVE TO GAS LINES OF
THE DAYTON POWER & LIGHT
CO. CALL MR. MINER AT
DAYTON, TEL. HE-0441 EXT.
7438. THEY WILL SEND A

MAN WITH DRILLING CREW.

FOR CINCINNATI GAS & ELECTRIC
CO. CALL A MR. PFEIFFER,
VICE PRESIDENT, GAS DIVISION
AT DUNBAR 12000 IN CINCINNATI.

Warren - Montgomery 25

Gore Drill locations

Sta	Depth	Offset
145+00	25'	75' LT
175+00	40'	£
Mont. 75+00	50'	£

Job No. 08236

State garage located in
Lebanon

S.R. (725)

x 3 hole

Merritsburg - Springboro Rd

Water

N

Wood Rd

County line
x x x x x x x x x

Pennroyal

Pennroyal

(141)
741

S.R.

x 2 hole

Water

1 hole

CHURCH - FRANKLIN

S.R. (73)

Franklin

Water

S.R.

(123)

To Lebanon

ST3 145400 75'LT 25'

Accessibility - The site is
Accessible To Equipment under
Favorable weather conditions.

The site is Located 1700+ Ft.
West of Clear Creek Franklin
Rd, at the Luther Swafford
property.

There is no necessity of
pumping water because it is
believed that the Truck can
reach drill site under favorable
weather conditions.

Availability of water - The
closest and best place is at
the intersection of Route 73 &
Clear Creek - Franklin Rd.
(marked on map).

STG 175400 £ 40'

Accessibility - The site is readily Accessible To all equipment because it is at the intersection of Clear Creek - Franklin Rd & Pennyroyal Rd. Hole is located at edge of road.

Water - Best place is as mentioned before and also there will be no need of pumping.

Montgomery

Sta 75+00 \pm 50'

Location of Site - The site is
located 0.5 Mile \pm West of
S.R. 741, Approx 0.5 Mile North
of the intersection of S.R. 741
with the Miamisburg - Springboro
Rd, at the E.C. Weber property.

Accessibility -

Weather conditions will
determine Accessibility

Water - Closest source is
on Miamisburg - Springboro Rd.

FIELD DATA - SOIL LOG

Location No. #2 County: WARREN CO.

Pier-Abut. Bridge No.

Station: 145.00 Over OHIO TURNPIKE

Offset: 75.61

Started: 1-7-57 Equipment: CCRT-11

Completed: 1-9-57 Diameter

Proposed Footer:

Water Level:

Depth Feet	Log	Samples Elevation	Ground Line
0			
1-3			BROWN SILTY CLAY
3.5-5			GRAY CLAY WITH BOWLDERS
5-5.3			GRAY LIMESTONE WITH CLAY SEAMS
10			RUN-REC.
10.5			5.0 5.0
15			LIMESTONE WITH CLAY AND SHALE SEAMS
15.5			RUN-REC
			5.0 5.0
20			LIMESTONE WITH SHALE SEAMS
20.5			RUN-REC
			5.0 - 5.0
25			LIMESTONE WITH SHALE SEAMS
25.5			RUN-REC
			5.0 5.0

26

30

35

40

45

50

55

60

Remarks:

Party BRIDGEMAN

Chief of Party THOMPSON

DEPTH	ELEV.	Description	Lab. No. So.	Class	Core Loss in Percent
0		BROWN SILTY CLAY WITH LIMESTONE BOULDERS.			
		<u>TOP OF ROCK</u>			
5.5		SHALE, GRAY, CALCAREOUS, GENERALLY FIRM BUT SOFT IN TOP 4.0' AND WITH SOFT SEAMS THROUGHOUT; WITH NUMEROUS STRINGERS AND THIN LAYERS (5" MAX. THICKNESS) OF LIMESTONE (GRAY, GENERALLY CRYSTALLINE, HARD, FOSSILIFEROUS, WITH MARL STRINGERS).			0
25.5		BOTTOM OF HOLE.			

SOIL PROFILE PROJECT SUMMARY

COUNTY, RT. NO., & SEC. NO. **WAR-MoT-25-(8.46)(0.00)**
 FEDERAL NO. **I-1101** LENGTH **4.41** MILES
 BEGIN PROFILE STA. **0+00, 0+00** END PROFILE STA. **208+00, 25+00**
 PRESENT SURFACE _____ PROPOSED SURFACE _____
 RECON. BY **L.O.T** FIELD WORK STARTED **12-1-58** FIELD WORK COMPLETED **8-22-57**
 EARTH AUGER: NO. OF HOLES **64** LIN.FT. BORING **658.0** BY **C.B.C.** DAYS **52**
 CORE DRILL: NO. OF HOLES **7** LIN.FT. BORING **25.0** BY **W.H.T.** DAYS **3**
 EARTH AUGER: SAMPLES INSP. **70** SAMPLES TESTED **183** TOTAL SAMPLES **253**
 CORE DRILL: SAMPLES INSP. _____ SAMPLES TESTED _____ TOTAL SAMPLES _____
 DRAFTING BY **D.M.** DRAFTING COMPLETED **9/17/57** LETTER OR PROFILE SENT _____
 REMARKS _____

FEB GROUP DESIGNATION	ORIG GROUP DESIGNATION	AGGREGATE %	COARSE SAND %	FINE SAND %	SILT %	CLAY %	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	NO. SAMPLES TESTED	DENSITY DATA		
											NO. DENSITY SAMPLES	OPTIMUM MOISTURE	MAX. DRY WT. LBS/CU. FT.
A-1-a(0)	A-1-a	65	17	8	7	3	NT	9	6	6			
A-1-b(0)	A-1-b	42	23	18	13	4	NT	5	10	10			
A-3 (0)	A-3												
-	A-3a	7	23	46	19	5	NT	5	3	3			
A-2-4(0)	A-2-4	43	14	14	20	9	22	6	19	4			
A-2-5(0)	A-2-5												
A-2-6(1)	A-2-6	40	16	11	13	20	32	14	8	1			
A-2-7 ()	A-2-7												
A-4 (4)	A-4a	16	9	18	35	22	20	7	12	83			
A-4 (0)	A-4b	2	3	10	65	20	16	4	19	24			
A-5 ()	A-5												
A-6 (10)	A-6a	9	3	8	38	42	31	13	18	35			
A-6 (11)	A-6b	5	3	9	39	44	37	17	19	13			
A-7-5()	A-7-5												
A-7-6(14)	A-7-6	4	2	6	40	48	45	23	23	6			

LAB. NOS. SAMPLES TESTED **55411, 55432-55438 incl. 55450-55454 incl. 55456-55472 incl. 55480-55487 incl. 55492 incl. 55530-55537 incl. 55667-55672 incl. 72113-72172 incl. 72289-72295 incl. 72303-72304 incl.**
 LAB. NOS. MOISTURE DENSITY SAMPLES
55431-55438 incl.

COUNTY **WARREN-MONTGOMERY**

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No. & Section

WAR-MOT-25-(8.46)(0.00)

1
2

Lab. No. So.	Field No.	Station	Depth in Feet	Mechanical Analysis					Physical Charact.			Density		SHTL Class	Remarks
				Agg %	C Sand %	F Sand %	Silt %	Clay %	LL	PI	Water Cont. %	Opt.	Max. Dry Wt.		
		total - 6		390	102	47	41	20	35	6	56			A-1a	
		Averages		65	17	8	7	3	17.5	1	9.3				
		total - 10		419	232	178	129	42	39	3	53			A-1-a	
		Averages		42	23	18	13	4	20	.3	5				
		total - 3		21	69	139	56	15	NP		16			A-3a	
		Averages		7	23	46	17	5	NP		5				
		total - 4		170	55	56	81	35	87	25	74			A-2-4	
		Averages		43	14	14	20	9	22	6	19				
		total - 1		40	16	11	13	20	32	14	8			A-2-6	
		total - 83		1300	711	1526	2940	1782	1682	514	995			A-4a	
		Averages		16	9	18	35	22	20	7	12				

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No. & Section

WAR-MOT-25-(8.46) (0.00)

2

2

Lab. No. So.	Field No.	Station	Depth in Feet	Mechanical Analysis					Physical Charact.			Density		SHTL Class	Remarks
				Agg %	C Sand %	F Sand %	Silt %	Clay %	LL	PI	Water Cont. %	Opt.	Max. Dry Wt.		
		total - 22		54	68	220	1419	448	396	82	425			A-4b	
		Averages		2	3	10	65	20	16	4	19				
		total - 35		504	110	271	1303	1424	1095	456	644			A-6a	
		Averages		9	3	8	38	42	31	13	18				
		total - 13		63	43	113	508	593	482	227	250			A-6b	
		Averages		5	3	9	39	44	37	17	19				
		total - 6		24	11	39	238	288	269	140	140			A-7-6	
		Averages		4	2	6	40	48	45	23	23				
				VISUALS											
55534	93	129+98	15' RT.	2.5-7.5'	Sandy silt and gravel samples spiled //									A-4a	
55535	94	"	"	7.5-9.5'								10		A-4a	

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No. & Section WAK-MCT 25 (191100)1
13

Lab. No. So.	Field No.	Station	Depth in Feet	Mechanical Analysis					Physical Charact.			Density		SHTL Class	Remarks
				Agg %	C Sand %	F Sand %	Silt %	Clay %	LL	PI	Water Cont. %	Opt.	Max. Dry Wt.		
5414	1	1111	1	71	1	7	4	1	NP	NP	4			A-1-C	CL
5417	1	1111	"	61	16	1	1	2	NP	NP	3			"	"
5453	12	42110	"	61	15	1	6	4	10	2	11			"	"
5467	26	11110	"	61	16	9	4	1	NP	NP	12			"	"
5476	31	12150	"	51	14	15	11	5	NP	NP	4			"	"
5412	41	13155	"	65	17	1	1	6	13	4	14			"	"
5419	28	12110	"	60	20	2	10	2	NP	NP	5			"	"
5412	6X	12110	"	72	31	3	2	2	NP	NP	10			"	"
		11110-11		53	127	22	53	23	85	6	63				
		AVG		67	16	2	6	3	17	1	7				
55430	1-E	51100	1	48	27	12	11	2	N	P	3	24	1380	A-1-C	CL
55460	11	41785	"	41	23	18	11	5	N	P	2			"	CL
55463	22	55100	"	57	14	11	14	4	N	P	6			"	"
55464	23	30100	"	66	13	16	13	4	19	2	6			"	"
55470	29	30100	"	46	16	14	15	5	N	P	5			"	"
55468	28	19110	"	49	16	17	13	9	N	P	5			"	"
55465	48	41120	356	47	13	19	16	5	N	P	3			"	"
55478	22	48100	"	49	25	26	15	5	N	P	4			"	"
55479	32	4	"	31	34	36	13	2	N	P	3			"	"
55476	17	121100	1	45	14	21	15	5	N	P	17			"	"
55409	133	111110	"	47	16	13	11	6	N	P	14			"	"
55477	141	161110	"	26	27	29	13	3	N	P	16			"	"
				51	250	277	16				11				

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No. & Section WAR-MUT-25 (53) R-401

Lab. No. So.	Field No.	Station	Depth in Feet	Mechanical Analysis					Physical Charact.			Density		SHTL Class	Remarks	
				Agg %	C Sand %	F Sand %	Silt %	Clay %	LL	PI	Water Cont. %	Opt.	Max. Dry Wt.			
		116-12		507	258	247	165	51	19	2	11	1.4	128.0	A-1-6		
		Ave		43	21	18	14	4	19	0	2	7.4	123.0			
55443	2	1+00	B	35'-6"	16	32	35	16	2	N	F	2		A-2-4	CRAYOL	
55464	25	15100	"	35'-6"	15	22	41	23	3	N	F	7		"	"	
55438	32A	120+00	"	38'-10"	6	39	31	17	5	N	F	15		"	"	
		116-3			37	98	97	52	16	4	7	27				
		Ave			12	33	23	17	5	N	F	8				
55433	52	72+00	B	6'-8"	64	9	8	15	6	26	9	26		A-2-4	" CRAYOL	
55507	46	87+00	"	8'-6"	25	28	10	20	8	13	7	17		"	CRAYOL	
55528	67	169+00	"	45'-6"	96	12	7	13	16	21	7	6		"	CRAYOL	
55554	113	479+00	"	9'-10"	44	21	8	25	5	26	6	10		"	CRAYOL	
55634	17A	41+00	"	21A-26	34	16	15	21	12	19	6	12		"	"	
55708	121	110+00	"	4'-5.5"	37	9	21	22	11	15	4	14		"	"	
		116-6			297	97	77	120	59	133	41	85				
		Ave			41	16	13	20	10	22	7	14				
55432	38	424+00	B	3'-10.5"	7	16	17	42	22	17	6	11	11.9	126.7	A-2-4	I
55442	46	444+00	"	2'-13"	19	11	18	23	19	19	5	9.7	124.3	"	F	
55481	56	"	"	13'-19"	27	16	12	31	15	16	6	8.7	124.3	"	F	
435	86	136+00	"	13'-2.5"	12	6	19	23	21	13	4	9	11.0	132.0	"	E

7 11 19 77 75 41 26 41.3 126.3

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No. & Section War-Met 25 1-S-2 (Rock)

14

Lab. No. So.	Field No.	Station	Depth in Feet	Mechanical Analysis					Physical Charact.			Density		SHTL Class	Remarks
				Agg %	C Sand %	F Sand %	Silt %	Clay %	LL	PI	Water Cont. %	Opt.	Max. Dry Wt.		
55116	E-7	130+00	1	15	14	20	22	19	17	3	12	91	122.0	149	E
55137	E-8	"	"	15	5	10	39	31	23	2	8	102	124.2	"	H
55138	E-9	"	"	22	5	7	27	29	24	9	5	107	111.3	"	J
55145	E-10	131+00	"	16	7	15	31	30	20	7	15	110	126.3	"	Run
55146	E-11	"	"	16	1	17	36	31	18	5	16	107	119.3	"	F
55147	E-11	"	"	11	9	14	46	24	21	8	-	76	138.0	"	E
55148	E-12	71+00	2	20	6	14	46	14	11	12	10	119	121.7	"	E
55149	2X	1+00	"	14	11	14	31	20	22	9	11			"	
55150	2X	1+00	"	11	7	14	39	27	22	7	13			"	
55151	1	1+00	"	3	7	17	49	24	21	4	16			"	
55152	5	5+00	"	13	15	27	16	27	15	25	9	13		"	
55153	7	8+75	"	12	7	9	46	26	21	6	11			"	
55154	8	"	"	12	7	24	27	19	19	4	11			"	
55155	7	9+00	"	16	11	20	33	17	12	5	16			"	
55156	10	"	"	18	6	17	42	17	19	7	12			"	
55157	11	"	"	18	9	17	34	22	19	5	11			"	
55158	12	24+00	"	23	10	16	29	18	16	4	10			"	
55159	15	"	"	23	10	12	31	19	16	5	9			"	
55160	21	35+00	"	4	2	36	24	35	36	7	24			"	
55161	31	"	"	2	3	33	25	27	24	7	19			"	
55162	27	25+00	"	6	1	36	42	26	25	7	19			"	
55163	32	51+00	"	7	6	22	32	22	21	7	21			"	6
55164	33	"	"	25	5	23	26	15	19	1	23			"	6
55165	36	35+25	"	17	7	18	36	17	21	6	13			"	
55166	37	"	"	16	8	17	46	17	18	7	11			"	

Charles W. H. Hall

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No. & Section Wade-McC 25 100 (1,000)4
14

Lab. No. So.	Field No.	Station	Depth in Feet	Mechanical Analysis					Physical Charact.			Density		SHTL Class	Remarks
				Agg %	C Sand %	F Sand %	Silt %	Clay %	LL	PI	Water Cont. %	Opt.	Max. Dry Wt.		
55472	31	19105	2	16	7	11	26	34	19	7	12	52		4-84	
55481	30	19105	"	12	10	21	28	1	N	1	9			"	
55483	32	"	"	23	15	18	22	17	19	6	11			"	
55485	40	13100	"	30	18	11	22	18	21	7	11			"	
55486	48	"	"	31	12	19	23	18	18	9	11			"	
55487	48	13100	"	12	9	12	37	22	19	5	11			"	
55490	49	22100	"	26	5	19	31	18	20	4	11			"	
55491	50	"	"	1	2	26	25	17	23	7	16			"	
55492	51	"	"	9	9	28	35	24	25	7	29			"	
55495	54	26111	"	2	11	31	33	16	17	2	11			"	
55500	59	86100	"	6	9	22	30	9	N	1	19			"	
55503	62	86105	"	13	22	22	25	9	N	1	6			"	
55507	67	89101	"	20	12	17	31	20	18	6	11			"	
55509	68	83105	"	15	9	17	31	28	25	10	13			"	
55513	72	19105	"	17	16	18	37	13	19	2	13			"	
55514	73	"	"	13	5	15	40	27	24	6	13			"	
55518	76	"	"	19	9	13	32	27	24	10	12			"	
55519	78	"	"	26	13	10	27	24	22	6	10			"	
55519	77	109100	"	51	4	3	17	21	25	1	7			"	
55521	80	159100	"	7	7	16	41	31	24	6	13			"	
55523	82	164100	"	12	11	17	34	26	19	6	10			"	
55524	83	"	"	21	9	14	33	24	24	9	13			"	
55529	89	167100	"	24	6	15	33	22	23	8	10			"	
55536	15	126100	"	18	4	9	41	28	25	9	11			"	
55537	36	"	"	31	3	4	24	18	23	9	9			"	

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No. & Section WAR-Mt 25 (1.33) (1.0.0)

19

Lab. No. So.	Field No.	Station	Depth in Feet	Mechanical Analysis					Physical Charact.			Density		SHLL Class	Remarks
				Agg %	C Sand %	F Sand %	Silt %	Clay %	LL	PI	Water Copt. %	Opt.	Max. Dry Wt.		
5539	98	42+00	2-5' 6"	23	11	14	32	16	23	8	16			A-4	
5540	100	"	" 3-15"	20	9	17	33	21	22	7	7			"	
5547	106	27+00	" 3-15"	11	11	36	39	14	17	1	10			"	
5549	108	22+00	" 2-5' 7"	12	21	17	30	20	22	3	21			"	
5550	109	"	" 1-12"	17	11	16	32	22	21	7	13			"	
5551	110	17+41	" 5-12"	17	14	22	32	15	17	4	10			"	
5556	115	56+10	" 4-5' 8"	17	11	15	32	24	21	5	8			"	
5560	4X	12+00	" 2-5' 6-5"	0	2	24	47	27	36	10	19			"	
5561	7X	20+20	2-5' 1-5"	0	2	24	44	32	38	9	17			"	
5564	8X	"	" 4-5' 50"	0	5	21	41	23	36	9	9			"	
5567	13X	44+00	2-5' 12-5"	16	9	19	35	21	30	6	11			"	
5568	14X	"	" 4-5' 11-5"	15	9	15	36	19	17	6	9			"	
5568	21X	78+00	" 2-5' 8-5"	13	11	20	34	23	19	6	11			"	
55630	24X	105+30	2-5' 8-5"	20	10	18	30	22	20	6	10			"	
55631	25X	"	" 5-12-5"	14	10	17	33	26	15	5	7			"	
55633	27X	116+00	2-5' 8"	19	8	11	31	31	25	9	13			"	
55634	28X	"	" 2-5' 8-5"	19	10	13	31	27	23	2	9			"	
55636	30X	118+75	" 2-5' 12"	11	9	10	38	33	23	8	13			"	
55652	31X	120+00	" 4-5' 5"	14	10	18	32	21	20	3	11			"	
55659	32X	"	" 2-5' 12"	15	12	12	37	17	16	6	10			"	
55662	34X	125+00	" 4-5' 10"	20	11	17	33	12	18	4	11			"	
55665	35X	176+00	" 5-6"	20	10	12	25	25	21	7	9			"	
55680	44X	204+00	" 5-6"	17	10	22	29	22	22	7	11			"	
55680	70X	234+00	" 2-5' 8"	14	5	9	36	7	23	5	21			"	C
55689	116X	126+00	" 2-5' 5"	12	5	16	42	21	25	4	27			"	C

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SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No. & Section War. Not 25 (913) 10016
14

Lab. No. So.	Field No.	Station	Depth in Feet	Mechanical Analysis					Physical Charact.			Density		SHTL Class	Remarks
				Agg %	C Sand %	F Sand %	Silt %	Clay %	LL	PI	Water Cont. %	Opt.	Max. Dry Wt.		
58871	164	120+10	4	11-14	16	6	14	45	14	17	1	12		149	a
58872	204	"	"	12-13	11	7	11	43	22	11	2	13		"	
58873	244	125+10	"	2-4	8	1	25	46	15	22	5	22		"	a
58874	234	145+10	"	2-6	6	6	21	43	22	26	6	19		"	
58875	244	"	"	6-8	11	8	16	35	22	22	8	14		"	
58876	274	141+30	"	13-1	25	7	11	39	19	36	6	22		"	
58877	284	"	"	1-55	13	6	19	45	22	19	3	13		"	
58878	119	145+10	"	3-45	17	5	20	46	12	N	P	11		"	
58879	120	140+10	"	13-45	27	7	19	34	13	31	6	16		"	
58880	123	130+00	"	04-1	7	4	15	49	25	23	8	22		"	
58881	126	148+25	"	25-9	23	16	16	31	7	N	P	14		"	
58882	127	"	"	8-12	16	11	20	39	15	17	3	13		"	
58883	128	155+10	25	63-5	16	16	19	33	23	31	8	11		"	
58884	129	"	"	5-16	17	15	19	34	15	16	4	11		"	
58885	131	148+10	2	6-10	26	7	16	32	17	16	7	11		"	
58886	136	120+10	"	15-55	17	7	20	34	20	19	6	26		"	a
58887	139	140+10	"	24-65	27	12	19	28	13	17	8	12		"	
58888	142	145+00	"	6-8	22	11	16	32	18	19	6	16		"	
58889	145	141+00	"	5-11	12	11	17	42	70	12	5	14		"	
58890	146	"	"	11-14	13	11	17	37	22	20	8	11		"	
58891	147	"	"	11-17	16	9	15	32	26	20	7	11		"	

341 147 212 797 303 141 159 316

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No. & Section WINE Mt 25 (153) (100)7
14

Lab. No. So.	Field No.	Station	Depth in Feet	Mechanical Analysis					Physical Charact.			Density		SHTL Class	Remarks
				Agg %	C Sand %	F Sand %	Silt %	Clay %	LL	PI	Water Cont. %	Opt.	Max. Dry Wt.		
			4	70	41	73	139	77	72	11	26	11.3	11.3	A-49	
			25	320	195	461	906	558	520	147	326	114	115.4		
			25	317	234	458	863	548	536	157	320				
			25	109	250	414	908	518	441	145	304				
			21	361	189	368	719	363	381	109	316				
		total-100		1077	99	1824	5813	1080	171	59	1222	42	1222		
		Ave		17	9	18	35	21	21	6	13	9.7	12.7		
58445	4	1+10	2	15-16'	10	7	19	51	13	N	P	12		A46	
58454	13	28+10	"	15-19	0	1	8	92	7	N	P	20		"	
58458	17	39+15	"	28-5	0	1	10	81	5	N	P	21		"	
58471	30	22+50	"	13-35	C	3	35	50	22	33	B	20		"	
58494	43	13+00	"	13-25	C	4	16	52	26	38	B	23		"	
58498	97	68+00	"	25-4'	C	1	5	77	17	N	P	21		"	
58504	63	18+85	"	6-9	C	2	7	70	21	18	B	16		"	
58505	64	"	"	7-10	C	0	2	87	11	N	P	14		"	
58510	69	93+345	"	15-6'	B	7	8	53	24	30	10	25		"	
58512	71	"	"	8-10	4	7	19	58	12	N	P	14		"	
58622	KX	44+00	"	21-21.5	C	1	1	55	45	27	7	23		"	
58624	18A	"	"	24-27	C	6	30	84	16	N	P	20		"	
58625	29A	14+75	"	35-40'	8	3	4	71	14	32	2	23		"	
58640	34A	125+00	"	6-1.5	C	1	2	73	24	38	3	26		"	
58643	37X	178+00	"	45-2'	C	2	8	53	37	33	9	22		"	

30 37 165 112 219 209 119 302

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No. & Section Wax. Mot 25 (953) (000)

1
14

Lab. No. So.	Field No.	Station	Depth in Feet	Mechanical Analysis					Physical Charact.			Density		SHTL Class	Remarks	
				Agg %	C Sand %	F Sand %	Silt %	Clay %	LL	PI	Water Cont. %	Opt.	Max. Dry. Wt.			
55863	16N	124+80	2	7'-10'	0	1	4	34	98	12	6	21		A-90	0	
55867	18N	124+100	"	1-5'	1	2	5	38	91	7	23			"		
55872	17N	"	"	11-12'	1	4	4	26	21	3	19			"	"	
55887	34N	28+100	"	1-5'	0	4	3	25	27	3	27			"	"	
55890	37N	28+100	"	1-5-6'	1	2	9	25	28	2	28			"		
55908	13E	114+80	"	1-3-25'	6	5	23	53	70	15	5	22		"		
			15		31	32	168	100	100	100	68	232				
					31	57	216	100	100	100	72	235				
		total = 21														
		Ave			1	3	10	62	22	26	4	21				
55899	5N	70+30	2	1-2'	24	5	17	19	35	22	11	15	42	1242	A-69	H
55910	8N	1+00	"	4'-5'	19	6	6	33	38	29	11	14		"		
55918	4N	12+00	"	4'-2'	2	3	12	36	47	36	15	25		"		
55912	5N	"	"	1'-3'	2	1	8	10	29	22	13	29		"		
55913	6N	"	"	3-4'	13	12	23	31	16	28	11	26		"	"	
55914	7N	4+25	"	1-25'	11	8	16	35	30	32	13	21		"		
55917	16	29+25	"	1-2-25'	0	2	6	39	52	52	14	29		"		
55919	18	"	"	1'-8'	0	0	1	47	52	52	14	35		"		
55915	24	50+00	"	1-5-9'	16	9	5	33	37	23	12	15		"		
55916	25	"	"	1'-10.5'	0	1	1	38	60	30	11	18		"		
55925	34	71+00	"	1-5-12'	0	0	2	33	65	34	14	27		"		
55926	35	55+25	"	1-2-4'	0	0	2	33	65	31	14	28		"		

87 62 97 437 521 383 163 260

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No. & Section WAR-MOT 25/9.53/10001
14

Lab. No. So.	Field No.	Station	Depth in Feet	Mechanical Analysis					Physical Charact.			Density		SHTL Class	Remarks
				Agg %	C Sand %	F Sand %	Silt %	Clay %	LL	PI	Water Copt. %	Opt.	Max. Dry Wt.		
55880	56	17+00	1-5'	1	2	9	44	45	12	15	17			A-6	
55886	56	76+00	55-2'	1	1	4	49	46	25	11	18			"	
55892	56	"	7-12'	7	6	12	41	32	24	11	16			"	
55897	57	30+00	14-18'	15	6	21	36	29	33	13	31			"	
55899	58	"	15-6'	6	1	3	49	41	36	11	17			"	
55901	60	"	8'-10'	1	1	1	36	64	38	13	23			"	
55904	70	93+00	1-4'	50	4	6	28	12	27	11	21			"	
55909	70	159+00	7-8'	45	5	4	22	24	36	14	7			"	
55915	84	164+00	7-9'	24	11	7	32	25	29	11	10			"	
55916	85	168+00	3-25'	1	3	12	38	46	23	11	16			"	
55927	86	"	25-45'	1	2	5	13	36	35	15	19			"	
55931	10	41+00	2-5'	38	4	1	23	29	31	13	9			"	
55932	11	135+00	1-25'	1	1	1	34	34	36	15	16			"	
55940	79	42+00	1-9'	13	4	13	32	28	35	11	11			"	
55942	114	27+00	2-6'	10	1	12	36	36	32	15	13			"	
55943	102	"	1-10'	12	2	14	35	32	26	11	12			"	
55945	102	32+00	25-6'	13	5	13	34	35	31	15	20			"	
55946	85	"	6-7'	1	3	9	39	29	28	11	24			"	
55952	111	47+00	25-5'	1	4	12	49	35	34	14	18			"	
55953	112	"	5-9'	12	7	13	31	37	28	11	14			"	
55957	11	16+00	15-45'	1	0	20	46	34	37	15	19			"	
55967	114	44+00	2-9'	8	1	14	37	32	25	11	13			"	
55968	124	"	4-6'	11	7	13	34	35	36	11	15			"	
55975	134	"	27-30'	1	0	1	39	60	31	12	20			"	
55976	144	78+00	15-2'	1	3	14	39	44	34	15	17			"	

267 AC 144 744 862 753 313 407

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No. & Section WAR. Mt. 25 (1.53) (1.00)

15
17

Lab. No. So.	Field No.	Station	Depth in Feet	Mechanical Analysis					Physical Charact.			Density		SHTL Class	Remarks
				Agg %	C Sand %	F Sand %	Silt %	Clay %	LL	PI	Water Cont. %	Opt.	Max. Dry Wt.		
55922	36A	116+100	1	45-35	0	3	11	42	35	31	11	30		HC9	6
55926	46A	117+100	"	45-3	33	6	11	26	38	33	11	6		"	
55964	11A	111+50	"	45-45	0	3	9	34	38	14	28			"	
55966	13A	"	"	45-25	17	8	14	36	38	13	12			"	
55982	29A	70+30	"	55-45	0	4	4	40	56	31	12	15		"	
55983	30A	"	"	45-5	0	2	4	37	55	27	11	16		"	
55984	31A	"	"	45-10.5	19	6	7	34	36	27	11	14		"	
55985	32A	"	"	45-10.5	11	4	4	26	25	26	11	14		"	
55988	34A	78+00	"	45-3.5	0	1	1	67	81	35	18	24		"	
55991	36A	"	"	35-4	13	5	10	38	34	33	14	16		"	
55991	38A	63+100	"	45-6	0	0	6	31	63	33	15	15		"	
55998	11A	115+00	"	45-3	7	7	21	30	35	23	15	21		"	
55999	12A	116+100	"	45-5	37	5	12	24	20	28	11	20		"	
55999	12B	118+85	"	45-25	0	3	12	51	29	31	12	20		"	
56007	13A	110+00	"	45-5.5	6	7	16	40	29	37	11	19		"	
56016	14A	115+100	"	45-3	0	2	10	53	35	33	11	23		"	
56020	15A	121+00	"	45-5	10	6	13	43	28	25	12	15		"	
56025	16A	68+00	"	35-15	0	1	1	81	57	30	13	13		"	
			11		14	69	119	713	115	42	223	221			
			12		17	52	77	637	527	583	153	260			
			24		267	146	289	231	362	262	212	402			
		total			539	227	510	3071	2054	1632	199	498			
		avg			10	4	9	30	39	31	13	10	112	1292	

14 17 119 713 115 42 223 221

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No. & Section WAR-MIT 25 (3.53 KILL)11
14

Lab. No. So.	Field No.	Station	Depth in Feet	Mechanical Analysis					Physical Charact.			Density		SHTL Class	Remarks
				Agg %	C Sand %	F Sand %	Silt %	Clay %	LL	PI	Water Cont. %	Opt.	Max. Dry Wt.		
55407	66	62+1.0	2	12-25	0	1	4	38	57	37	12	20		A-6	
55408	53	76+1.0	"	14-25	1	3	10	35	53	41	22	17		"	
55409	61	83+1.85	"	13-25	3	1	6	56	34	37	18	16		"	
55410	65	99+1.6	"	12-35	24	12	15	29	21	35	16	20		"	
55411	76	157+1.6	"	12-35	12	2	10	35	34	35	17	16		"	
55412	79	159+1.0	"	13-35	0	4	14	40	42	37	16	24		"	
55413	89	149+1.50	"	13-25	4	1	4	47	44	38	17	21		"	
55414	92	130+1.0	"	13-25	0	3	8	43	46	38	16	20		"	
55415	77	42+1.0	"	13-25	11	5	14	32	33	36	17	17		"	
55416	84	12+1.0	"	7-25	1	0	0	37	41	36	16	26		"	
55417	132	94+1.0	"	12-25	1	0	1	33	66	35	16	24		"	
55418	75A	125+1.0	"	13-35	18	9	11	25	37	40	17	21		"	
55419	78A	173+1.0	"	13-55	6	6	15	35	38	38	17	27		"	
55420	43A	182+1.0	"	15-35	5	4	15	38	38	37	20	22		"	
55421	44A	84+1.0	"	15-25	3	2	4	43	43	40	14	19		"	
55422	50A	"	"	13-25	1	3	1	36	57	39	18	17		"	
55423	70A	"	"	12-55	1	1	16	35	38	37	18	34		"	
55424	174	111+1.0	"	15-45	7	4	11	29	49	37	19	9		"	
55425	202	72+1.0	"	13-55	1	1	2	66	37	37	19	25		"	
55426	264	"	"	13-45	42	8	7	23	23	34	16	23		"	
55427	116	33+1.0	"	12-25	1	3	8	37	52	40	16	21		"	
55428	135	176+1.0	"	14-15	11	6	15	38	36	35	16	15		"	
55429	137	180+1.0	"	14-25	15	8	12	25	37	38	17	19		"	

117 13 15 78 18* 56 42 475

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No. & Section WAR. Mot 25 (S 23) / 10.000

12
14

Lab. No. So.	Field No.	Station	Depth in Feet	Mechanical Analysis					Physical Charact.			Density		SHTL Class	Remarks
				Agg %	C Sand %	F Sand %	Silt %	Clay %	LL	PI	Water Cont. %	Opt.	Max. Dry Wt.		
		10.126-23		169	93	218	478	162	96	412	475				
		Ave		7	4	9	30	42	37	17	21				
5846	3N	88+00	2	68-65	6	1	3	83	53	47	16	34		A 7.5	Grasholm
5847	122	135+00	1	64-75	6	2	7	82	39	48	17	30		"	"
		10.126-2			6	3	10	93	42	43	33	64			
		Ave			6	2	4	47	46	40	17	32			
5848	1K	1+00	2	65-2	6	1	2	62	35	41	21	18		A 7.6	
5849	7	114+00	1	63-25	6	2	10	36	33	42	22	20		"	
5850	103	32+00	4	64-25	5	5	14	37	44	41	19	22		"	
5851	107	22+00	4	62-35	6	3	7	81	44	49	25	32		"	
5852	114	52+00	1	61-35	6	3	7	74	41	46	24	17		"	
5853	121	44+00	1	65-3	6	1	1	36	48	46	24	23		"	
5854	31K	172+00	1	65-2	6	1	4	25	40	43	31	16		"	
5855	43A	182+00	2	65-15	6	2	7	71	49	44	25	28		"	
5856	114	63+00	2	67-15	6	2	6	45	43	41	17	28		"	
5857	3N	"	1	65-25	15	4	10	29	42	46	25	21		"	
5858	6N	73+00	1	65-2	6	0	0	31	49	44	25	26		"	
5859	8N	77+00	1	68-1	6	1	3	49	47	41	16	31		"	
5860	15N	120+00	4	67-25	6	1	5	50	44	44	25	35		"	
5861	22N	118+00	1	65-2	5	2	14	36	42	42	18	24		"	

26 30 70 100 169 46 27 34

13
14

Lab. No. So.	Field No.	Station	Depth in Feet	Mechanical Analysis					Physical Charact.			Density		SHTL Class	Remarks
				Agg %	C Sand %	F Sand %	Silt %	Clay %	LL	PI	Water Cnt. %	Opt.	Max. Dry Wt.		
55875	32N	175+00	6	5	3	19	26	42	42	18	24			A-7-6	
55913	117	15+00	"	7	3	8	49	33	42	22	20			"	
55906	130	160+00	"	4	5	12	39	45	43	20	23			"	
55913	137	175+00	"	6	4	21	36	39	43	23	23			"	
55919	143	171+00	"	6	3	17	32	49	50	24	28			"	
55924	148	62+00	"	6	3	7	59	36	42	24	23			"	
			"	16	26	31	44	44	42	24	24				
		161ME-20		26	30	30	400	452	412	24	24				
				42	50	171	844	253	476	400	476				
		AVE		2	3	9	42	44	44	22	24				
55334	93	120+10	6	25	25	14	40	40	40	25	25			A-7-6	
55335	94	"	"	15	15	"	"	"	"	"	"			"	
55136	32N	76+30	"	15	15	"	"	"	"	"	"			A-7-6	

[illegible]

Date, 11/11/44, 11/11/44 and 11/11/44
 Name, 11/11/44, 11/11/44
 No. 11
 11/11/44, 11/11/44

一、**總論**
 二、**經濟學**
 三、**社會學**
 四、**政治學**
 五、**法律學**
 六、**教育學**
 七、**心理學**
 八、**哲學**
 九、**宗教**
 十、**藝術**
 十一、**科學**
 十二、**其他**

7-1401
7-1401-15-(1.46)(0.00)
E-1401

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7-10-68 9-24-(10-6)(10-99).

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It is suggested that the following results for each of the three cases be compared with the results obtained from the analysis of the data for the three cases.

(The following information was obtained from the records of the FBI, New York Office, dated 6-10-68.)

The proposed grade indication was and will be subject to change. Drilling indicates that there will be control in soil with sandy silt to the 1-4 elevations being the predominant subgrade material. Between stations 143 and 152 bedrock was found to occur only slightly below grade. Subsequent foundation work was considered satisfactory.

[illegible]

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[illegible]

001: H. H. Hulsch Author: Marshall
 H. H. Hulsch Author: Hulsch
 S. S. S. (S) (No vol.)
 Ohio Geological Survey Author: J. J. Perry
 File
 Form (1)

August 6, 1957

Mr. Ted Belshelm
c/o Yule, Sticklen, Jordan & McNee
Consulting Engineers
P. O. Box 31
Worthington, Ohio

File: 13-3-1
Warren - Montgomery

Dear Mr. Belshelm:

In accordance with your request transmitted herewith is a print of the soil profile on the original line of WAR-MOT-25-(8.53)(0.00). We will schedule the additional borings and prepare a revised profile upon receipt of revised plans.

R. R. Litchner
Engineer of Tests

Per _____
N. E. Mason
Assistant Engineer

NEK:DMR:dd

Encl.

cc: R. E. Shultz Attn: H. E. Marshall
File
Found (2)

(8)

R. E. Schultz, Engineer of Location & Design

December 13, 1957

O. W. Gruebmeier

R. R. Litchiser, Engineer of Tests

Per: N. E. Mason

Foundation Boring Specifications and Contract
for WAR-25-8.48; MOT-25-0.00

File: 13-4-1
WAR MOT

In accordance with your request of December 12 by telephone and confirming the informal transmittal of December 13 there follows a clause relative to laboratory identification testing of disturbed soil samples which is a relaxation of our recommendations of December 2 and which may meet with approval of the Bureau of Public Roads.

"The following practice shall be followed with respect to laboratory classification testing of disturbed soil samples from test borings at bridge sites where subsurface conditions are indicated by the borings as being relatively uniform. A bridge site shall be considered as the immediate area to be occupied by either a single or twin structures.

1. Visual classification shall be performed in the Laboratory for all samples from a bridge site.
2. The moisture content test shall be performed on all samples from a bridge site, except samples of granular material free of soil fines and displaying no cohesion.
3. Two of the borings at each bridge site shall be selected as representative of subsurface conditions. In addition to the moisture content test and visual classification, the liquid limit, the plastic limit and the particle size distribution tests shall be performed on all samples from these two borings, except for samples of granular materials free of soil fines and displaying no cohesion. For granular samples the particle size distribution test shall be performed.

For sites with non uniform subsurface conditions such testing as described above shall be performed as required to adequately establish the classification of the soils involved."

With respect to triaxial tests, a quantity of nine test was proposed. This quantity is ~~attending~~ in that one test results in only one point on a shear curve requiring a minimum of three points for establishing the curve trend. A quantity of 27 tests was proposed in order that at least one shear strength curve could be provided for each structure. The unit price as set forth is entirely in line with that of other laboratories, assuming three points used to define a curve, the cost of a triaxial shear strength curve is therefore \$75.00, a price commonly quoted.

It is believed the points in question relative to the contract as reviewed by telephone have been covered.

R. R. Litchiser
Engineer of Tests

Per:

N. E. Mason
Assistant Engineer

NEM:bl

cc: Mason (2) ✓

SOIL PROFILE
WARREN & MONTGOMERY COS.
WAR-25-8.46
MOT-25-0.00
STATE HIGHWAY TESTING AND
RESEARCH LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

NOTE: THE INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS SECURED FOR THE USE OF THE STATE OF OHIO AND IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING THE CONSTRUCTION OF THE PROJECT.

End Profile
Sta. 25+00

MOIT

GRE

WARREN

Begin Profile
Sta. 0+00

Dayton

Atterring

McCarroll

25

23

74

49

725

Bullbrook

Caneyville

Warmsburg

Germantown

123

23

4

Franklin

73

25

Springboro

74

49

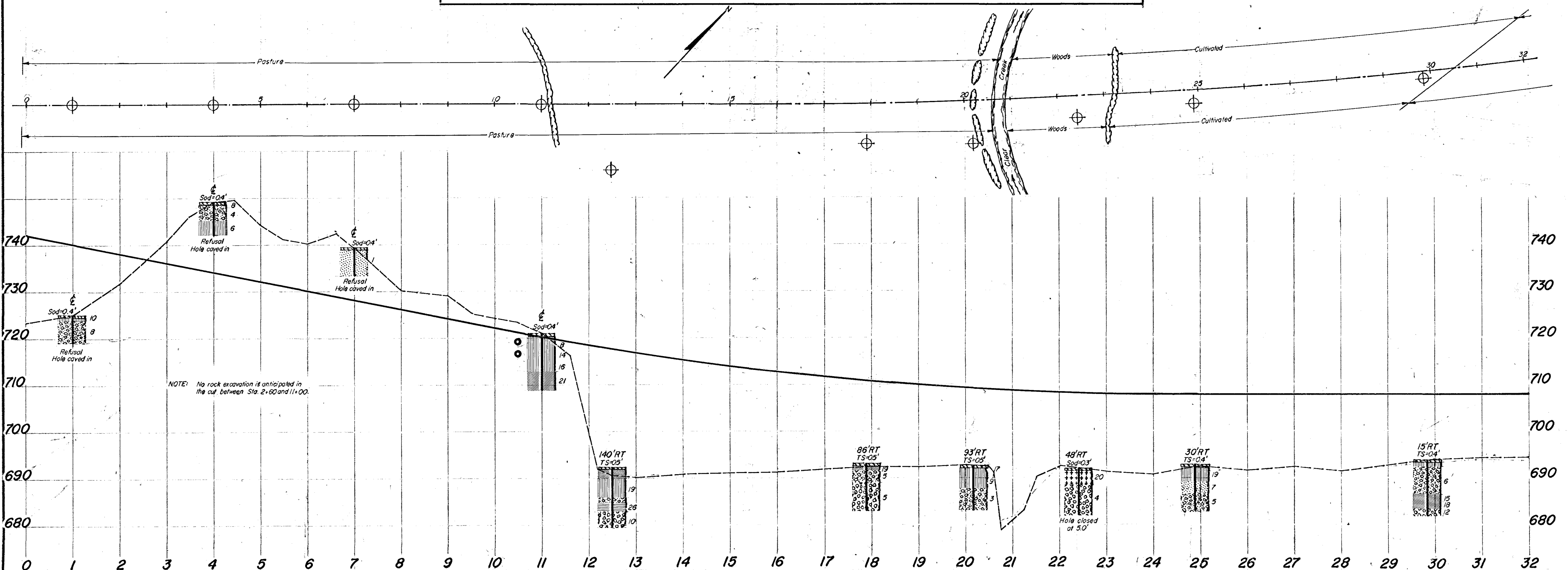
122

Middletown




















23

35

Recon. - L.O.T. - 8/15/57
Drilling - Auger - C.A.C. - JAG-BEB-8/29/57
Core - W.L.T. - 1/9/57
Drafting - D.M. - PAH-GKT-9/17/57



LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS - 183 SAMPLES TESTED

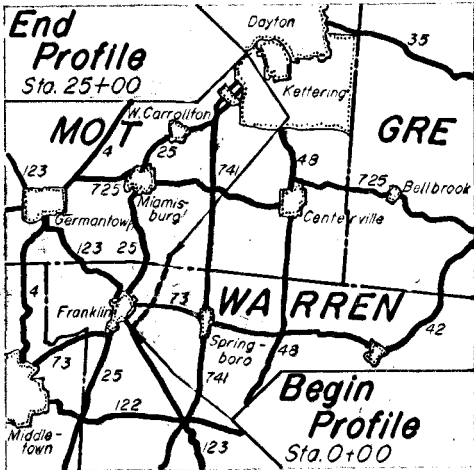
| DESCRIPTION | H. R. B.
CLASS | OHIO
CLASS | %
AGG. | %
C. SAND | %
F. SAND | %
SILT | %
CLAY | LIQUID
LIMIT | PLASTICITY
INDEX | WATER
CONTENT | SAMPLES
TESTED | | |
|---|---|---|---|---|--------------|-----------|-----------|-----------------|---------------------|------------------|---|--------------------------|--|
|  Gravel | A-1-a(0) | A-1-a | 65 | 17 | 8 | 7 | 3 | NP | NP | 9 | 6 | | |
|  Gravel with sand | A-1-b(0) | A-1-b | 42 | 23 | 18 | 13 | 4 | NP | NP | 5 | 10 | | |
|  Coarse and fine sand | — | A-3a | 7 | 23 | 46 | 19 | 5 | NP | NP | 5 | 3 | | |
|  Gravel or stone fragments with sand and silt | A-2-4(0) | A-2-4 | 43 | 14 | 14 | 20 | 9 | 22 | 6 | 19 | 4 | | |
|  Gravel with sand, silt, and clay | A-2-6(1) | A-2-6 | 40 | 16 | 11 | 13 | 20 | 32 | 14 | 8 | 1 | | |
|  Sandy silt | A-4(4) | A-4a | 16 | 9 | 18 | 35 | 22 | 20 | 7 | 12 | 83 | | |
|  Silt | A-4(8) | A-4b | 2 | 3 | 10 | 65 | 20 | 16 | 4 | 19 | 22 | | |
|  Silt and clay | A-6(10) | A-6a | 9 | 3 | 8 | 38 | 42 | 31 | 13 | 18 | 35 | | |
|  Silty clay | A-6(11) | A-6b | 5 | 3 | 9 | 39 | 44 | 37 | 17 | 19 | 13 | | |
|  Clay | A-7-6(4) | A-7-6 | 4 | 2 | 6 | 40 | 48 | 45 | 23 | 23 | 6 | | |
|  Overburden | Visual Classification |  | Sod & Topsoil = $X^{\frac{1}{2}}$ approx. depth | | | | | | | | Samples Taken
Lab. Nos. So.
55411
55432-55438 Incl.
55450-55454 Incl.
55456-55512 Incl.
55530-55537 Incl.
55607-55642 Incl.
72113-72172 Incl.
72289-72298 Incl.
72303-72304 Incl. | | |
|  Shale | Visual Classification |  | Berm material | | | | | | | | | | |
|  Auger boring plotted to vertical scale only. | | |  | This A-4a soil will be rubbery and unstable at water contents which exceed the optimum. | | | | | | | | | |
|  Auger boring-plan view | | |  | Water content nearly equal to or greater than liquid limit. | | | | | | | | | |
|  Core boring-plan view | Note: Figures beside borings indicate water contents in per cent. | | | | | | | | | | | Moisture Density Samples | |

Note: Figures beside borings indicate water contents in per cent.

Samples Taken
Lab. Nos. So.
55411

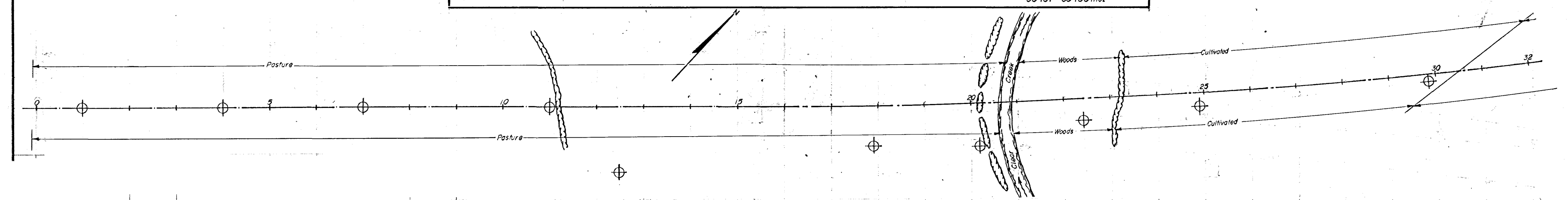
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72113-72172 Incl.
72289-72298 Incl.
72303-72304 Incl.

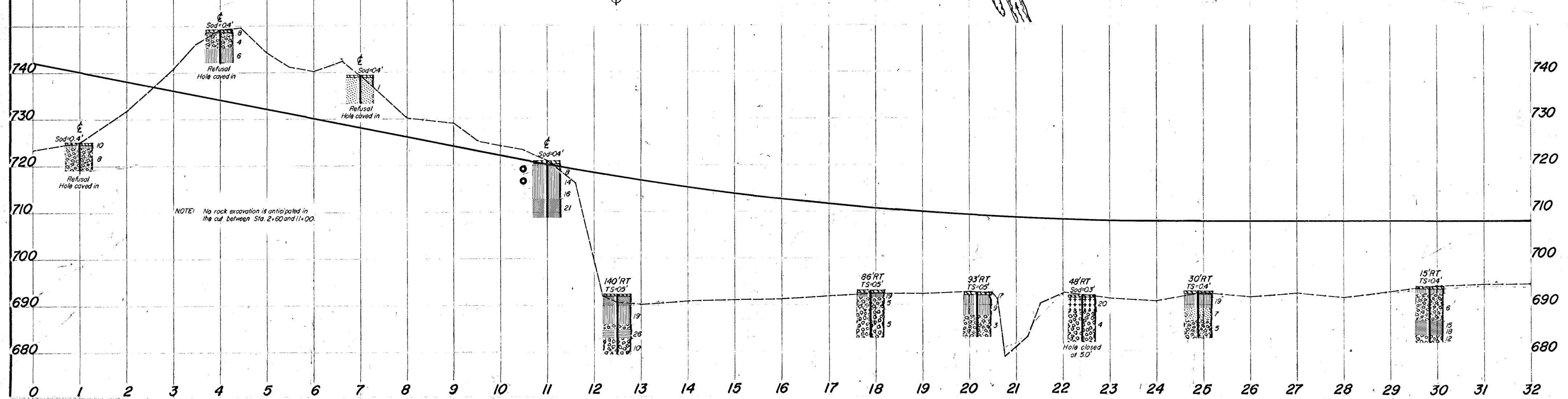
Moisture Density Samples
Lab. Nos. So.
55431-55438 Incl.

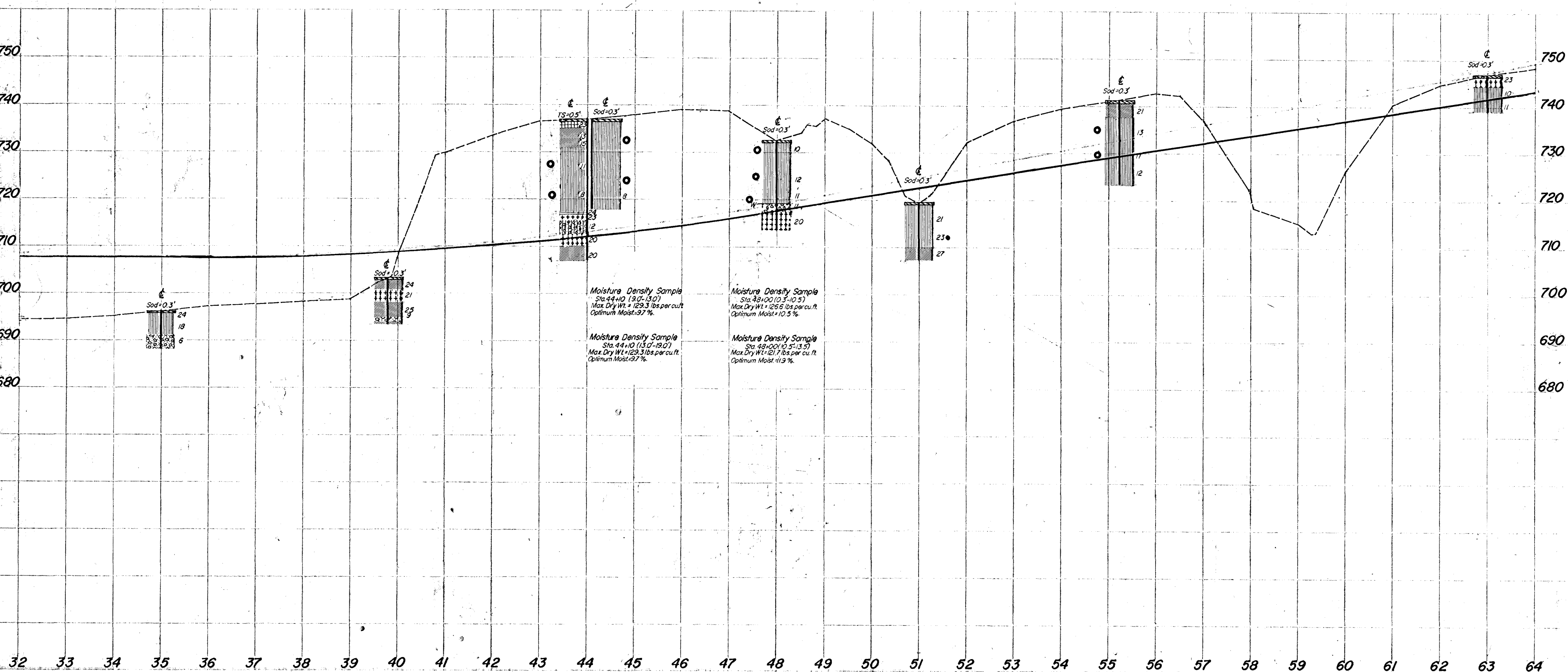
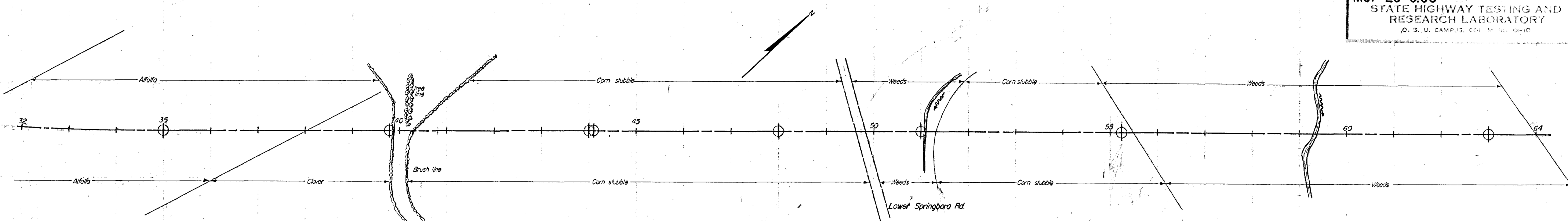


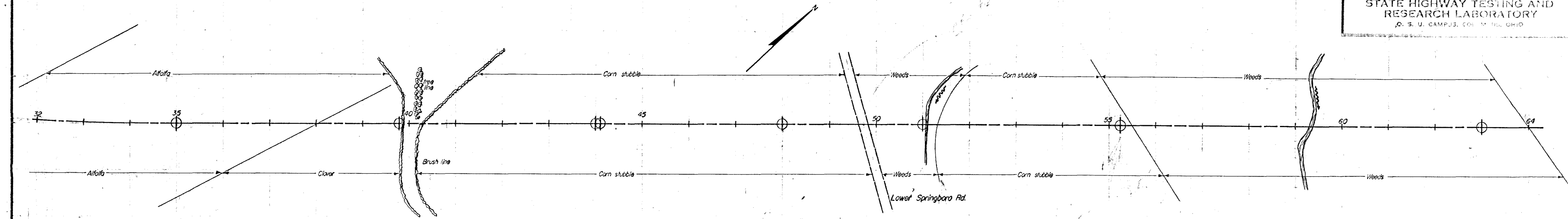
LOCATION MAP

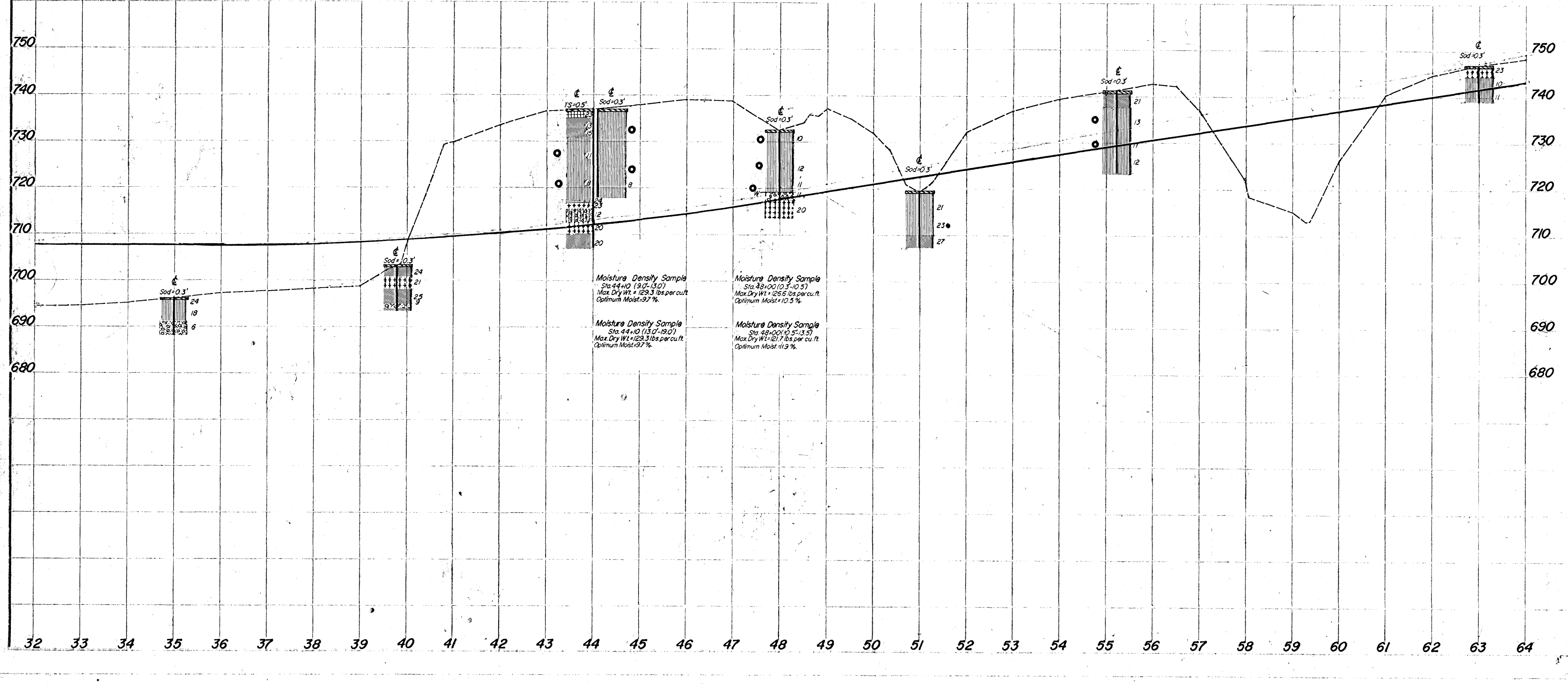
Recon - 1 OT - 8/15/57

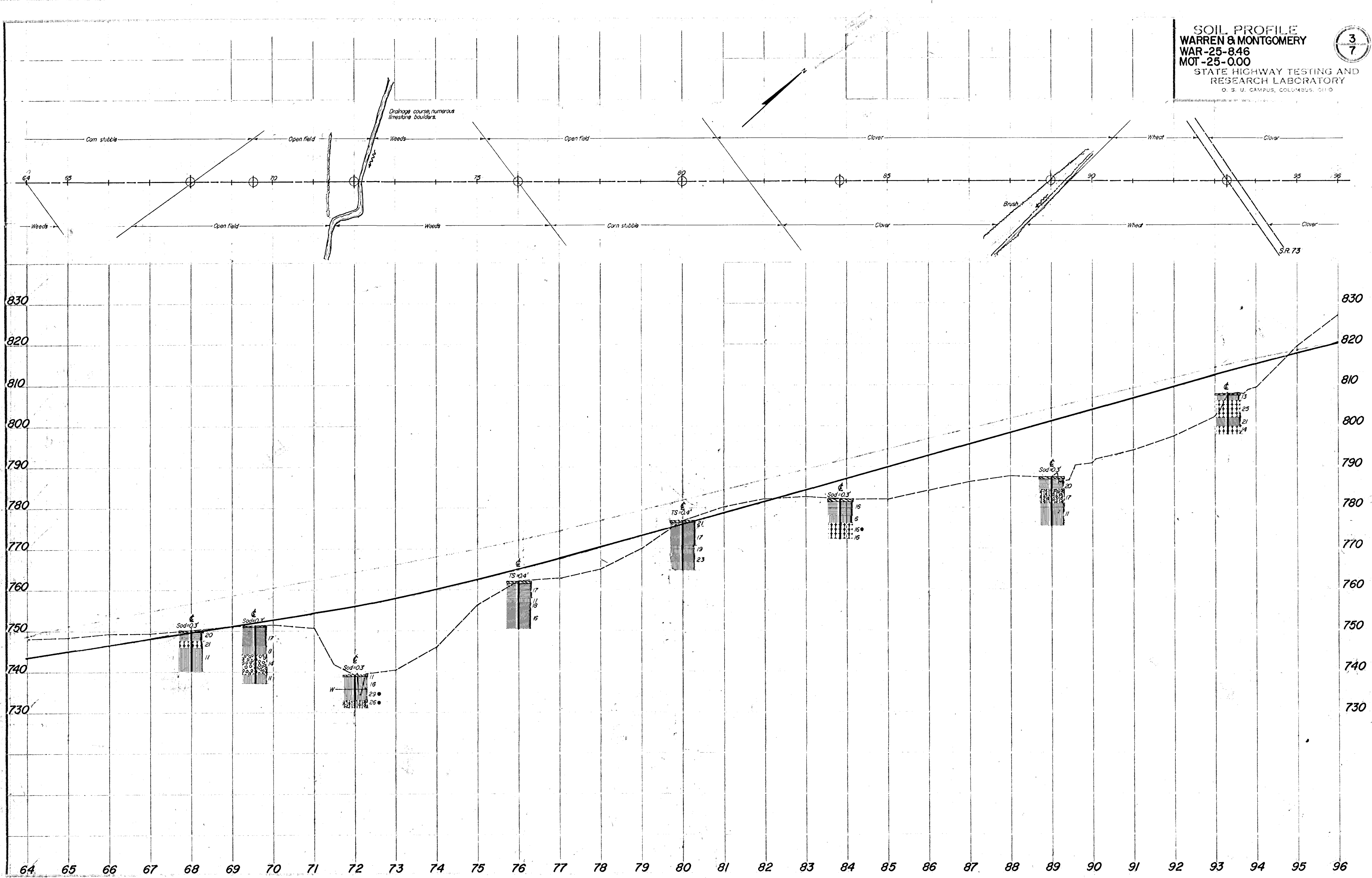








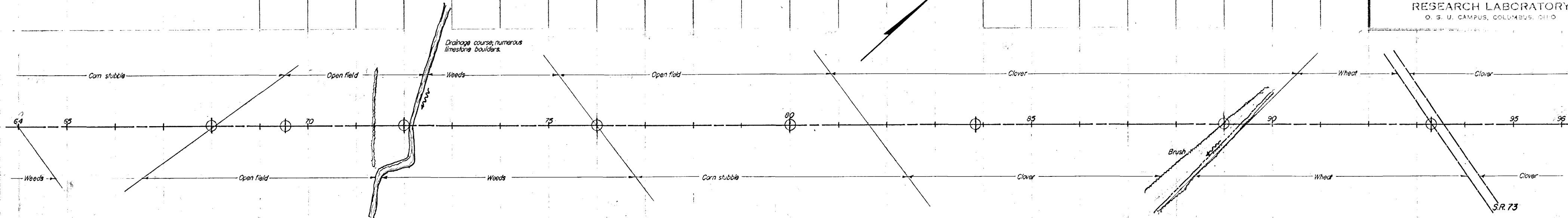


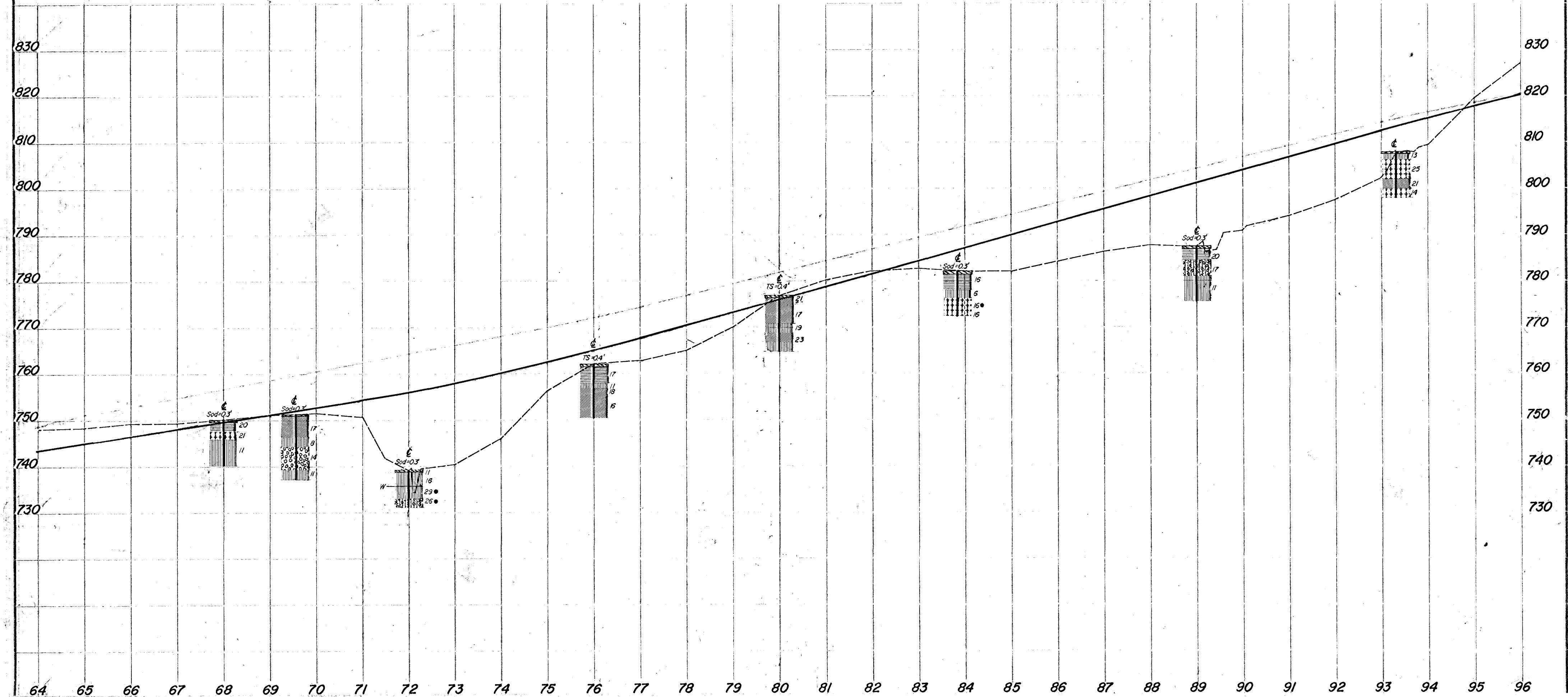


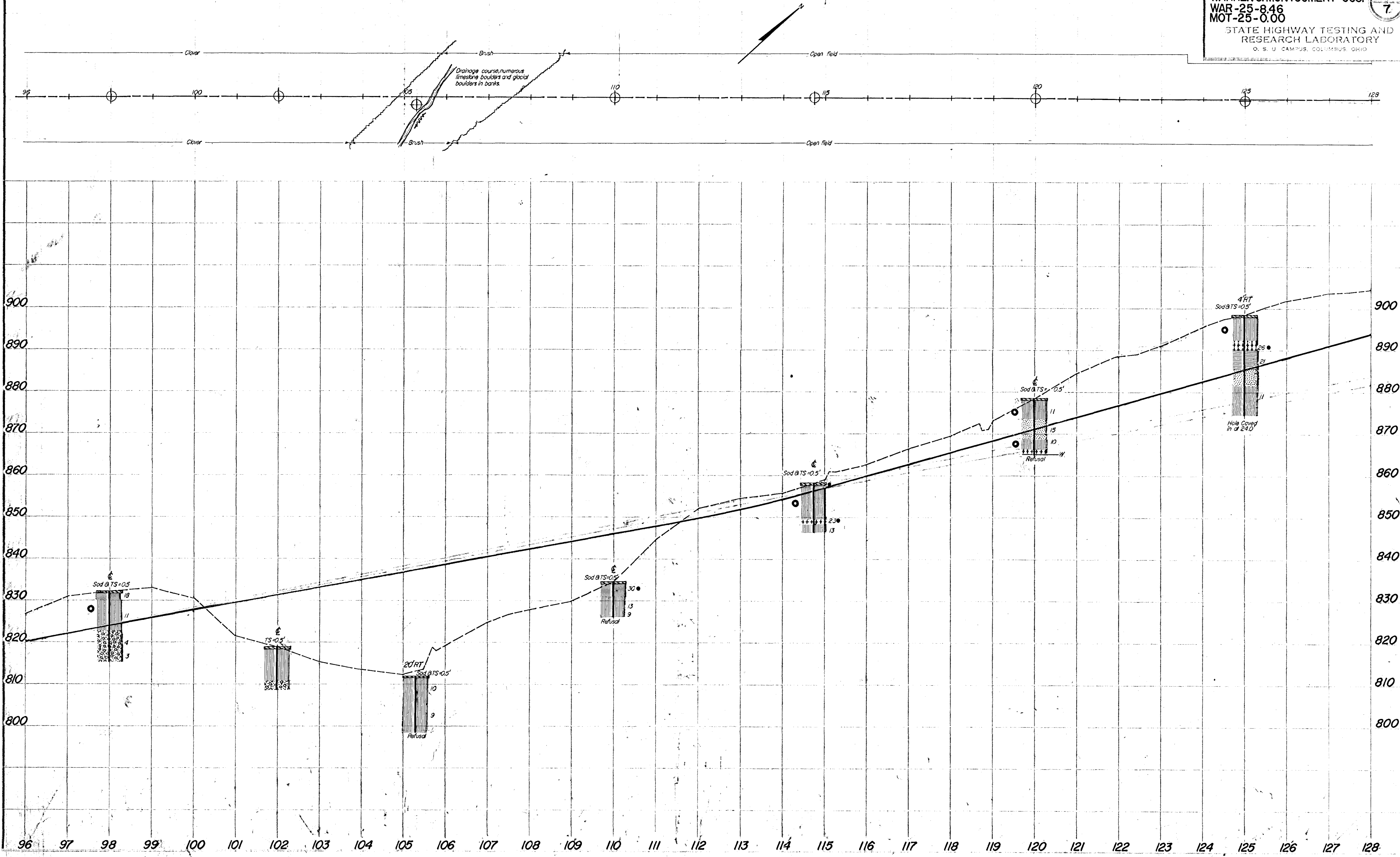
SOIL PROFILE
WARREN & MONTGOMERY
WAR-25-8.46
MOT-25-0.00

STATE HIGHWAY TESTING AND
RESEARCH LABORATORY

O. S. U. CAMPUS, COLUMBUS, OHIO





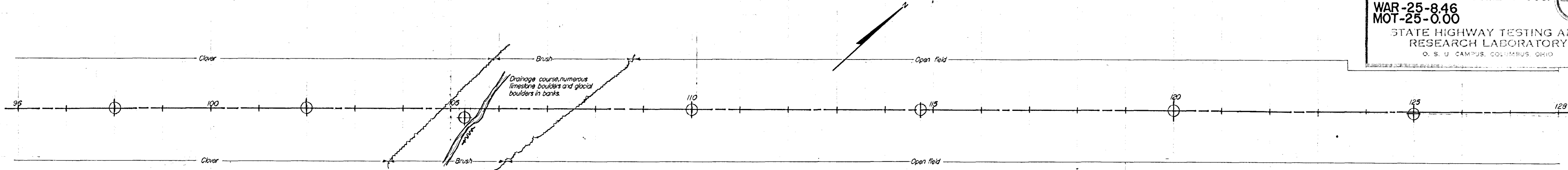


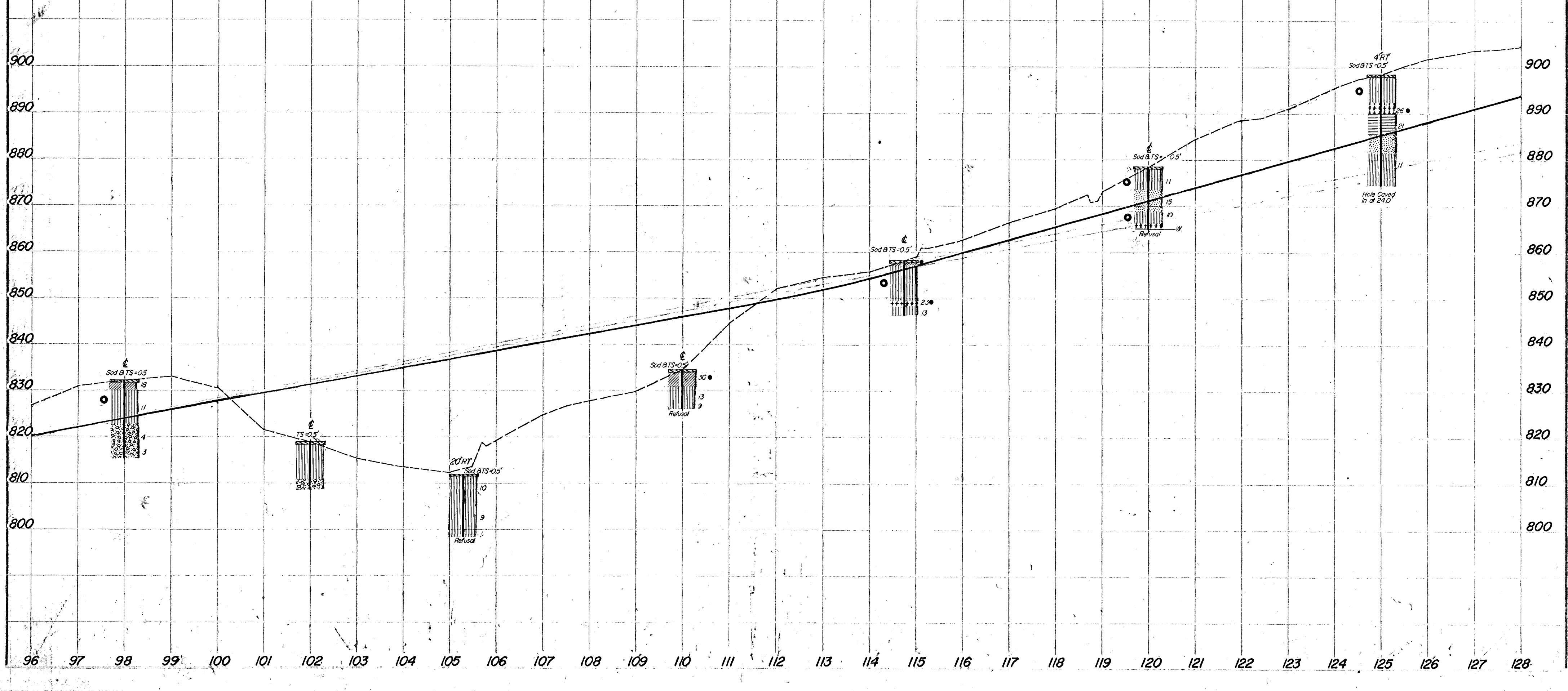
SOIL PROFILE
WARREN & MONTGOMERY COS.
WAR-25-8.46
MOT-25-0.00

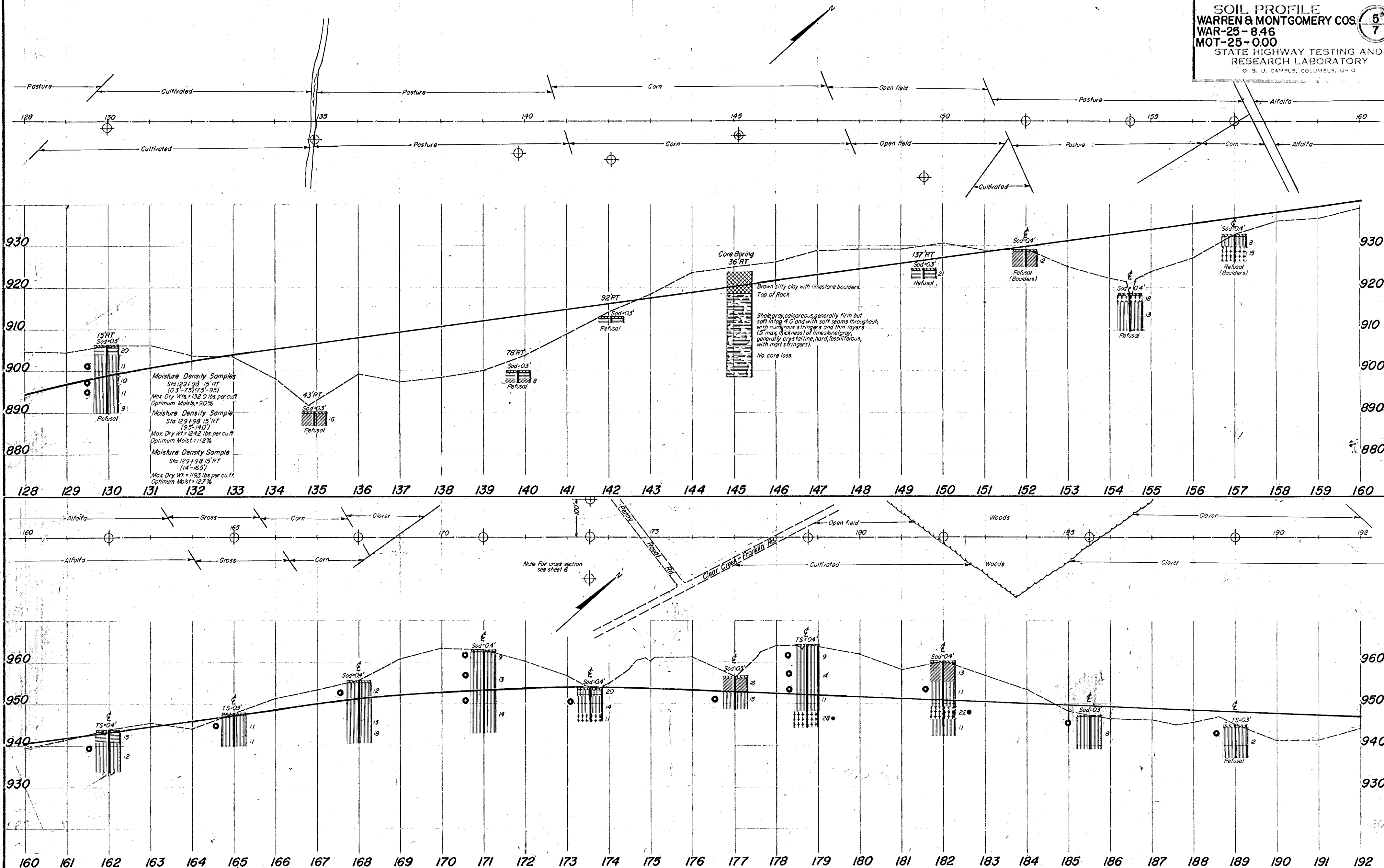


STATE HIGHWAY TESTING AND
RESEARCH LABORATORY

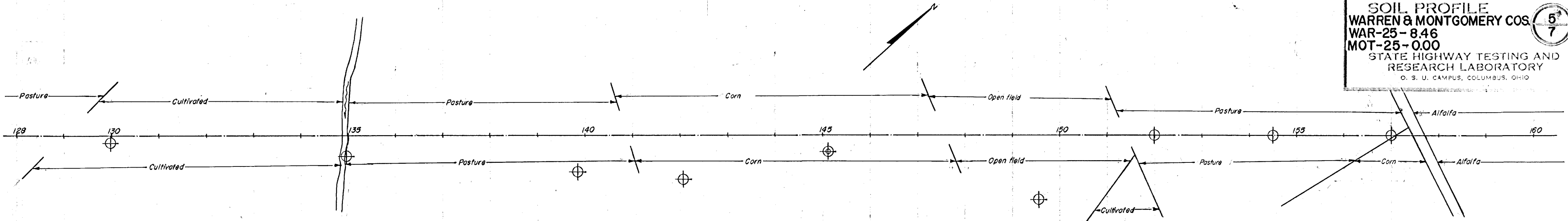
O. S. U. CAMPUS, COLUMBUS, OHIO

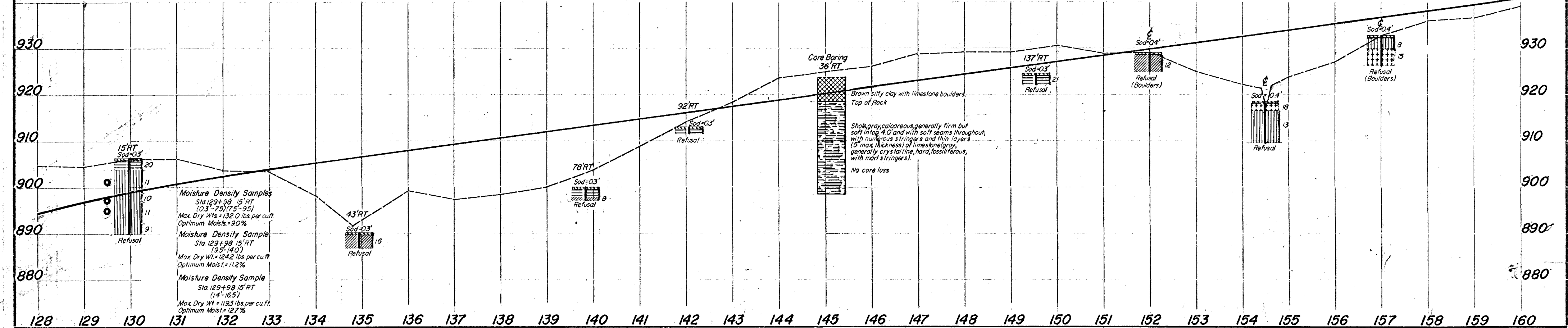


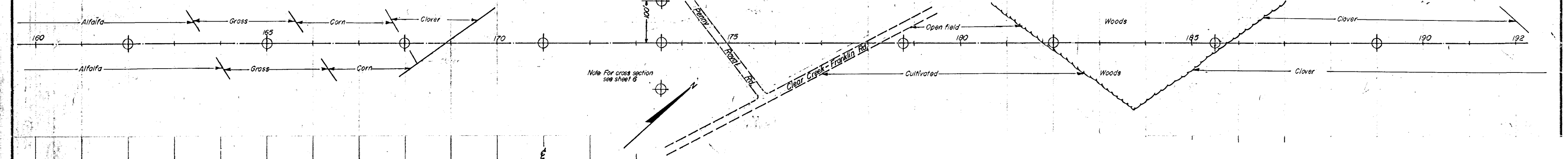


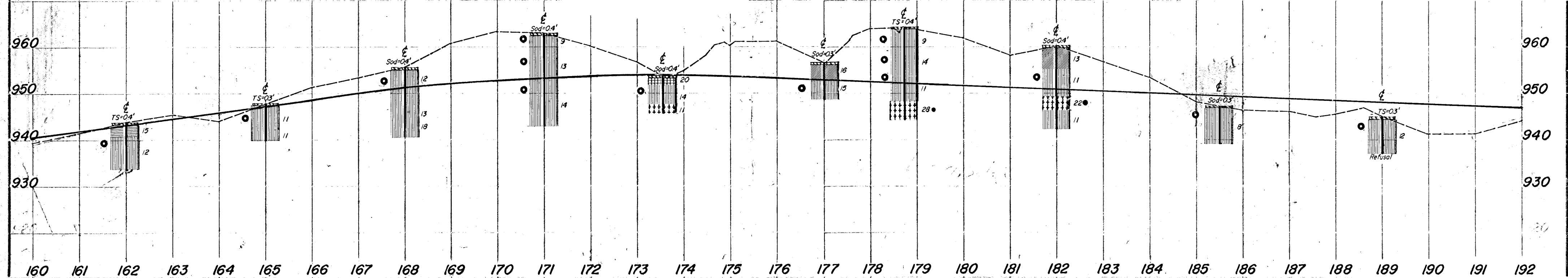


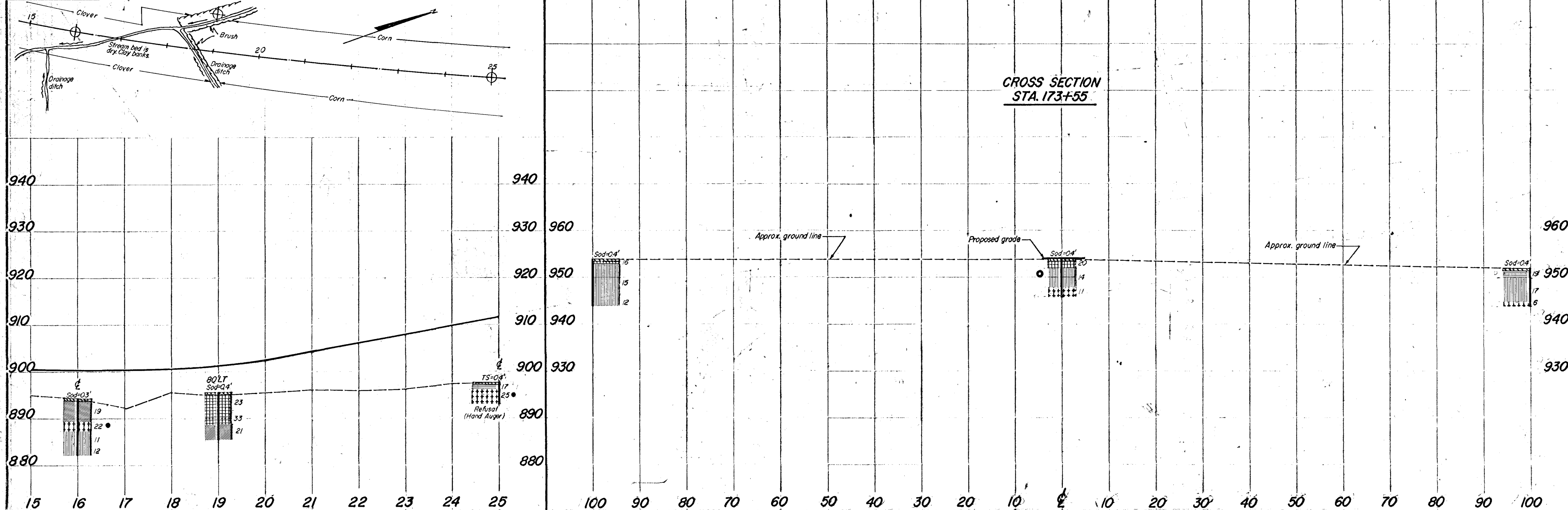
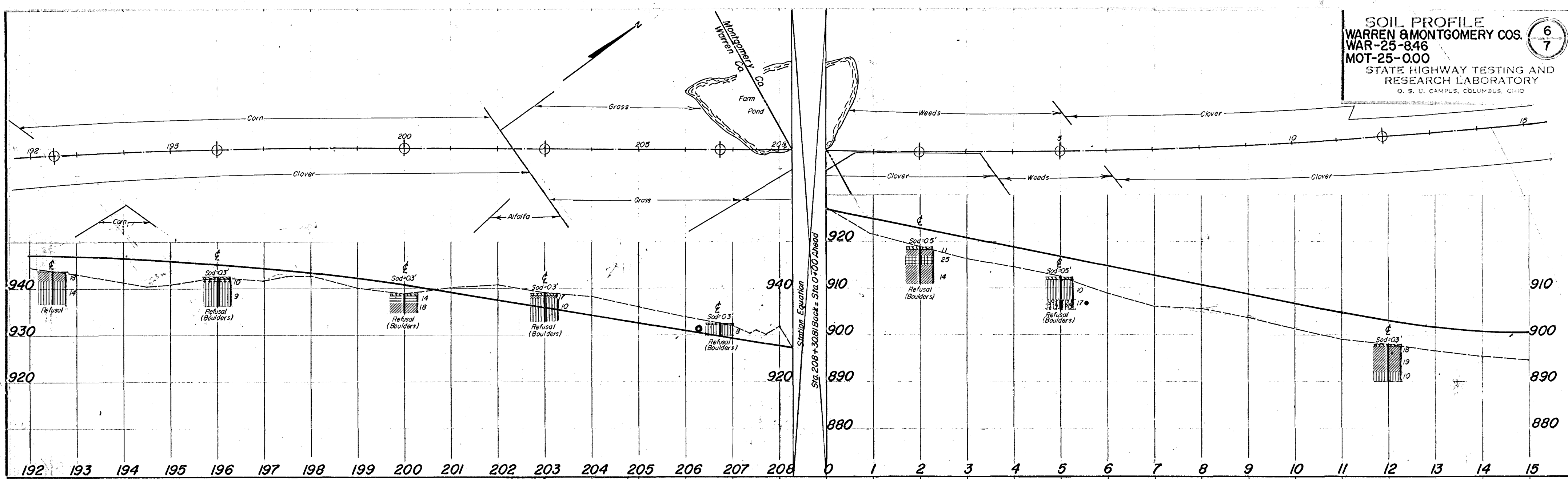
SOIL PROFILE
WARREN & MONTGOMERY COS.
WAR-25-8.46
MOT-25-0.00
STATE HIGHWAY TESTING AND
RESEARCH LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

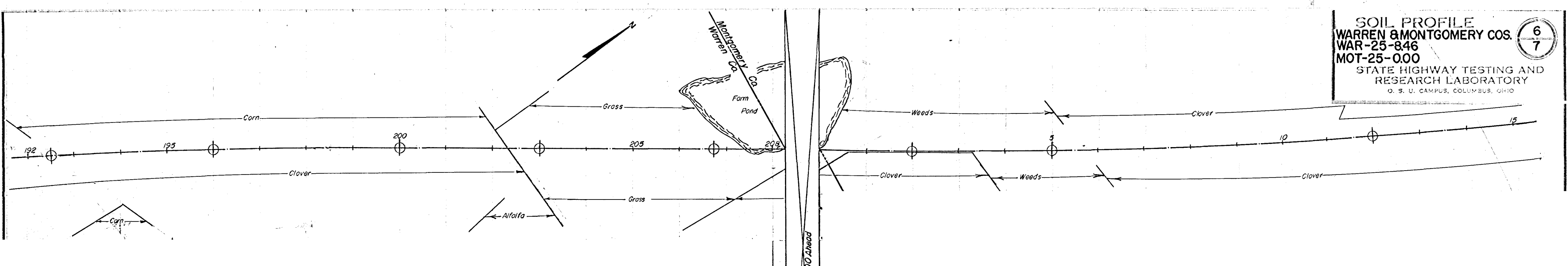


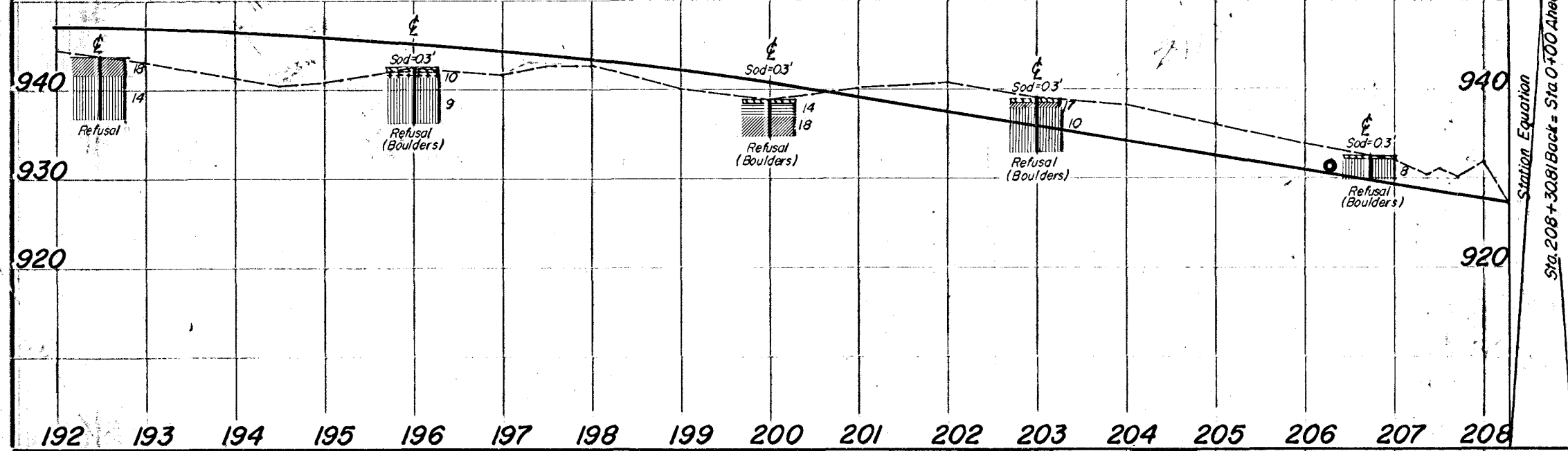




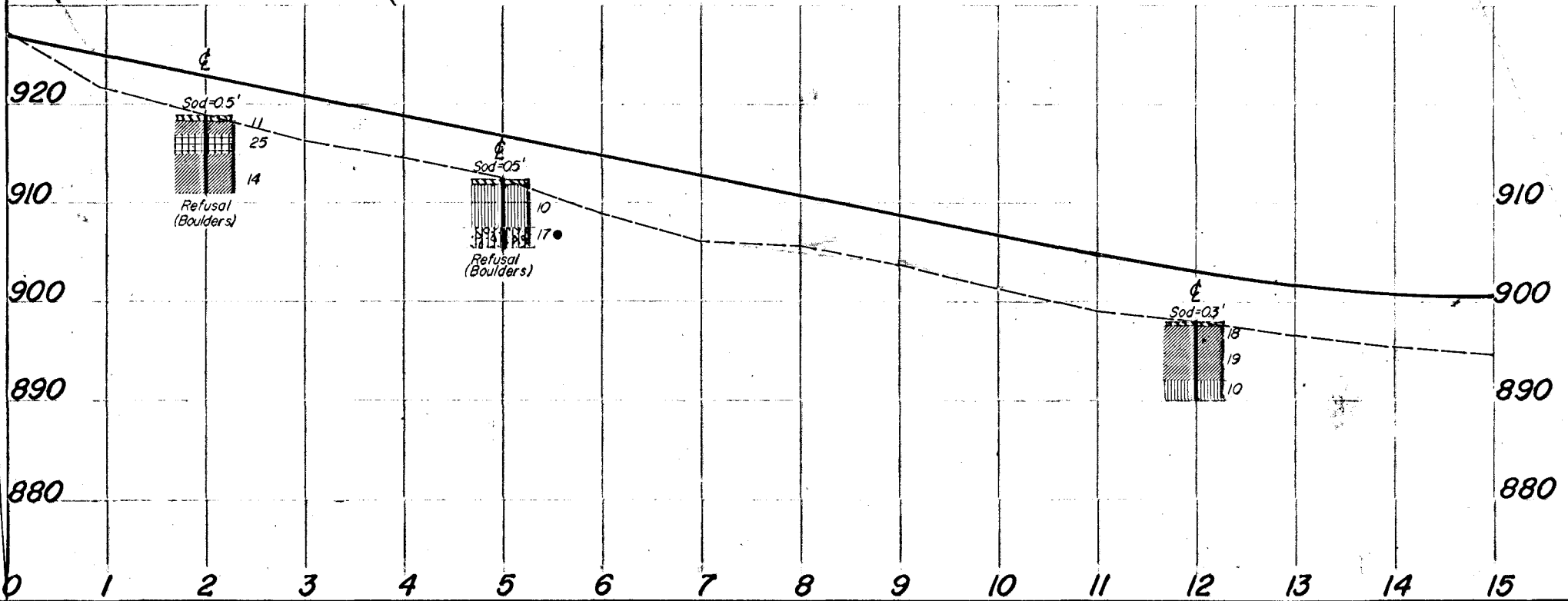


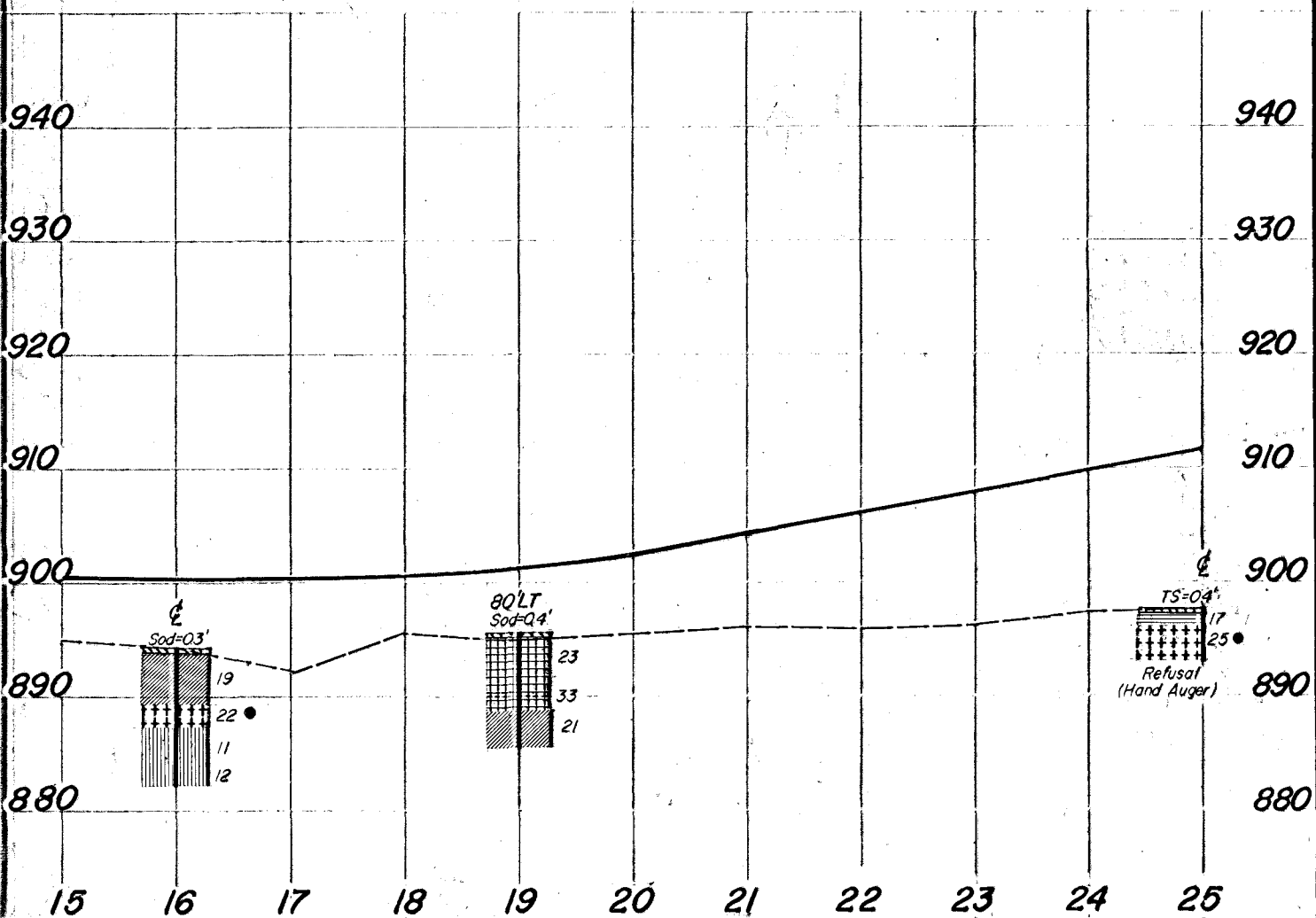
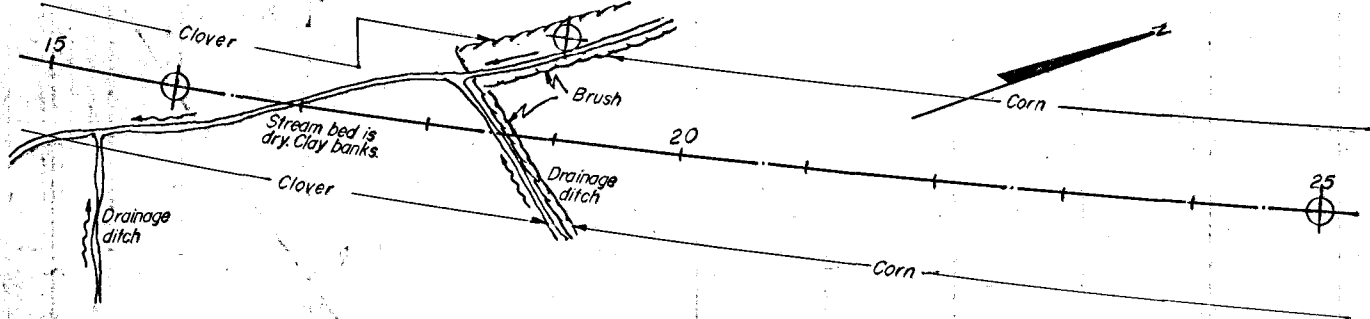




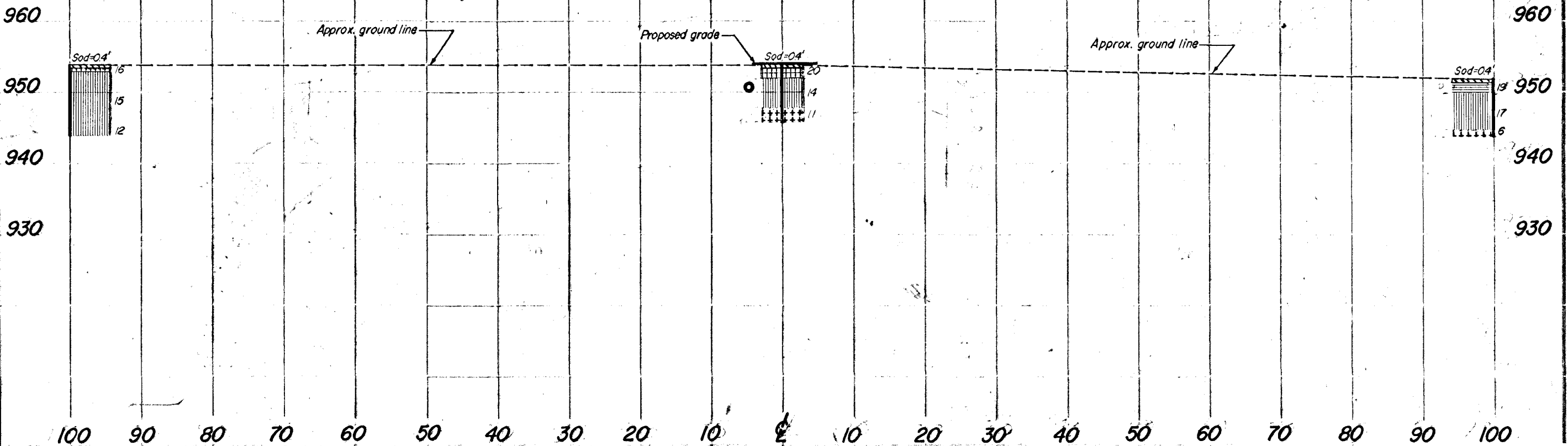


Sta. 208+30.8 Back = Sta 0+00 Ahead





CROSS SECTION
STA. 173+55



SUMMARY OF SOIL TEST DATA

| Station & Offset | Depth From-To | % Agg. | % C.S. | % F.S. | % Silt | % Clay | LL | PI | % W.C. | SHTL Class. |
|------------------|---------------|--------|--------|--------|--------|--------|----|----|--------|-------------|
| 1+00 CL | 0.4-1.0' | 13 | 8 | 25 | 28 | 6 | 25 | 9 | 10 | A-4a |
| | 1.0-6.0' | 61 | 16 | 7 | 11 | 5 | 20 | 1 | 8 | A-1-b |
| 4+00 CL | 0.4-1.0' | 40 | 16 | 11 | 13 | 20 | 32 | 14 | 8 | A-2-6 |
| | 1.0-4.0' | 14 | 47 | 29 | 8 | 2 | NP | NP | 4 | A-1-b |
| | 4.0-7.0' | 0 | 5 | 54 | 39 | 2 | NP | NP | 6 | A-4a |
| 7+00 CL | 0.4-6.0' | 0 | 8 | 77 | 14 | 1 | NP | NP | 1 | A-3a |
| 11+00 CL | 0.4-3.0' | 13 | 12 | 19 | 37 | 19 | 22 | 7 | 8 | A-4a |
| | 3.0-6.0' | 15 | 9 | 20 | 39 | 17 | 18 | 5 | 14 | A-4a |
| | 6.0-9.0' | 12 | 10 | 20 | 40 | 18 | 20 | 5 | 16 | A-4a |
| | 9.0-12.0' | 13 | 1 | 3 | 36 | 47 | 28 | 11 | 21 | A-6a |
| 12+50 140' Rt. | 2.5-6.5' | 0 | 2 | 24 | 47 | 27 | 26 | 10 | 19 | A-4a |
| | 6.5-9.5' | 0 | 0 | 0 | 39 | 36 | 16 | 26 | 16 | A-6b |
| | 9.5-13.0' | 72 | 21 | 3 | 2 | 2 | NP | NP | 10 | A-1-a |
| 17+90 86' Rt. | 0.5-1.5' | 0 | 0 | 20 | 46 | 34 | 37 | 15 | 19 | A-6a |
| | 1.5-4.0' | 49 | 16 | 17 | 13 | 5 | NP | NP | 5 | A-1-b |
| | 4.0-10.0' | 60 | 20 | 8 | 10 | 2 | NP | NP | 5 | A-1-a |
| 20+18 93' Rt. | 0.5-1.5' | 0 | 2 | 22 | 44 | 32 | 28 | 9 | 17 | A-4a |
| | 1.5-5.0' | 0 | 5 | 31 | 41 | 23 | 26 | 9 | 2 | A-4a |
| | 5.0-9.5' | 47 | 13 | 19 | 16 | 5 | NP | NP | 3 | A-1-b |
| 22+42 48' Rt. | 0.3-3.5' | 0 | 3 | 25 | 50 | 22 | 23 | 3 | 20 | A-4b |
| | 3.5-10.0' | 56 | 14 | 15 | 10 | 5 | NP | NP | 4 | A-1-a |
| 24+90 30' Rt. | 0.4-3.5' | 0 | 1 | 26 | 47 | 26 | 25 | 7 | 19 | A-4a |
| | 3.5-6.0' | 15 | 22 | 31 | 23 | 9 | NP | NP | 7 | A-3a |
| | 6.0-10.0' | 40 | 26 | 14 | 15 | 5 | NP | NP | 5 | A-1-b |
| 29+86 15' Rt. | 1.5-7.5' | 60 | 13 | 10 | 13 | 4 | 19 | 2 | 6 | A-1-b |
| | 7.5-9.0' | 16 | 9 | 5 | 33 | 37 | 28 | 12 | 15 | A-6a |
| | 9.0-10.5' | 0 | 1 | 1 | 38 | 60 | 30 | 11 | 18 | A-6a |
| | 10.5-12.0' | 68 | 18 | 9 | 4 | 1 | NP | NP | 12 | A-1-a |
| 35+00 CL | 0.3-2.5' | 4 | 3 | 26 | 32 | 35 | 30 | 7 | 24 | A-4a |
| | 2.5-5.0' | 2 | 3 | 33 | 35 | 27 | 24 | 9 | 18 | A-4a |
| | 5.0-8.0' | 57 | 14 | 11 | 14 | 4 | NP | NP | 6 | A-1-b |
| 39+80 CL | 0.3-2.5' | 0 | 2 | 6 | 39 | 53 | 36 | 14 | 24 | A-6a |
| | 2.5-5.0' | 0 | 1 | 10 | 81 | 8 | NP | NP | 21 | A-4b |
| | 5.0-8.0' | 0 | 0 | 1 | 47 | 52 | 31 | 14 | 25 | A-6a |
| | 8.0-9.0' | 41 | 23 | 15 | 11 | 5 | NP | NP | 9 | A-1-b |
| 44+00 CL | 0.5-2.0' | 0 | 1 | 1 | 30 | 68 | 46 | 24 | 23 | A-7-6 |
| | 2.0-4.0' | 8 | 9 | 14 | 37 | 32 | 25 | 11 | 13 | A-6a |
| | 4.0-6.0' | 11 | 7 | 13 | 34 | 35 | 26 | 11 | 15 | A-6a |
| | 6.0-12.5' | 16 | 9 | 19 | 35 | 21 | 20 | 6 | 11 | A-4a |
| | 12.5-19.5' | 18 | 9 | 18 | 36 | 19 | 17 | 6 | 8 | A-4a |
| | 19.5-20.0' | 0 | 0 | 1 | 33 | 65 | 35 | 16 | 24 | A-6b |
| | 20.0-21.5' | 0 | 0 | 0 | 55 | 45 | 27 | 7 | 23 | A-4b |
| | 21.5-24.0' | 34 | 18 | 15 | 21 | 12 | 19 | 6 | 12 | A-2-4 |
| | 24.0-27.0' | 0 | 0 | 0 | 30 | 54 | 16 | NP | NP | A-4b |
| | 27.0-30.0' | 0 | 0 | 1 | 39 | 60 | 31 | 12 | 20 | A-6a |
| 44+10 CL | 9.0-13.0' | 19 | 14 | 18 | 33 | 19 | 18 | 5 | 8 | A-4a |
| | 13.0-19.0' | 27 | 10 | 17 | 31 | 15 | 18 | 6 | | A-4a |

| Station & Offset | Depth From-To | % Agg. | % C.S. | % F.S. | % Silt | % Clay | LL | PI | % W.C. | SHTL Class. |
|------------------|---------------|--------|--------|--------|--------|--------|----|----|--------|-------------|
| 48+00 CL | 0.3-5.0' | 18 | 10 | 20 | 33 | 19 | 18 | 5 | 10 | A-4a |
| | 5.0-10.0' | 14 | 8 | 17 | 42 | 19 | 19 | 7 | 12 | A-4a |
| | 10.0-13.0' | 18 | 9 | 17 | 34 | 22 | 19 | 5 | 11 | A-4a |
| | 13.0-15.0' | 69 | 15 | 6 | 6 | 4 | 16 | 2 | 11 | A-1-a |
| | 15.0-19.0' | 0 | 1 | 8 | 82 | 9 | NP | NP | 20 | A-4b |
| 51+00 CL | 0.3-5.0' | 2 | 6 | 33 | 32 | 22 | 21 | 7 | 21 | A-4a |
| | 5.0-9.5' | 25 | 5 | 23 | 32 | 15 | 19 | 1 | 23 | A-4a |
| | 9.5-12.0' | 0 | 0 | 2 | 33 | 65 | 34 | 14 | 27 | A-6a |
| 55+25 CL | 0.3-4.0' | 0 | 0 | 2 | 33 | 65 | 33 | 14 | 27 | A-6a |
| | 4.0-10.0' | 19 | 8 | 18 | 36 | 19 | 21 | 6 | 13 | A-4a |
| | 10.0-13.5' | 18 | 8 | 17 | 40 | 17 | 18 | 7 | 11 | A-4a |
| | 13.5-18.0' | 18 | 7 | 11 | 30 | 34 | 24 | 7 | 12 | A-4a |
| 61+00 CL | 0.3-2.5' | 0 | 4 | 18 | 52 | 26 | 28 | 8 | 23 | A-4b |
| | 2.5-5.0' | 30 | 18 | 11 | 23 | 18 | 21 | 7 | 11 | A-4a |
| | 5.0-8.0' | 31 | 10 | 18 | 23 | 18 | 18 | 4 | 11 | A-4a |
| 68+00 CL | 0.3-2.5' | 0 | 1 | 4 | 38 | 57 | 37 | 17 | 20 | A-6b |
| | 2.5-4.0' | 0 | 1 | 5 | 77 | 17 | NP | NP | 21 | A-4b |
| | 4.0-10.0' | 12 | 9 | 18 | 39 | 22 | 18 | 5 | 11 | A-4a |
| 69+55 CL | 0.3-5.0' | 0 | 2 | 9 | 44 | 45 | 32 | 15 | 17 | A-6a |
| | 5.0-7.0' | 12 | 30 | 21 | 28 | 9 | NP | NP | 8 | A-4a |
| | 7.0-12.0' | 65 | 14 | 6 | 9 | 6 | 19 | 4 | 14 | A-1-a |
| | 12.0-14.0' | 23 | 10 | 18 | 32 | 17 | 18 | 5 | 11 | A-4a |
| 72+00 CL | 0.3-1.5' | 26 | 5 | 24 | 31 | 14 | 22 | 4 | 11 | A-4a |
| | 1.5-3.5' | 0 | 2 | 36 | 45 | 17 | 23 | 7 | 16 | A-4a |
| | 3.5-6.0' | 8 | 8 | 28 | 35 | 21 | 25 | 7 | 29 | A-4a |
| | 6.0-8.0' | 64 | 9 | 8 | 13 | 6 | 26 | 9 | 26 | A-2-4 |
| 76+00 CL | 0.4-4.5' | 0 | 2 | 10 | 35 | 53 | 40 | 22 | 17 | A-6b |
| | 4.5-5.5' | 0 | 10 | 41 | 33 | 16 | 17 | 2 | 11 | A-4a |
| | 5.5-7.0' | 0 | 2 | 4 | 48 | 46 | 25 | 11 | 18 | A-6a |
| | 7.0-12.0' | 7 | 6 | 13 | 40 | 34 | 24 | 11 | 16 | A-6a |
| 80+00 CL | 0.4-1.5' | 18 | 6 | 21 | 26 | 29 | 33 | 13 | 21 | A-6a |
| | 1.5-6.0' | 6 | 1 | 3 | 49 | 41 | 30 | 11 | 17 | A-6a |
| | 6.0-8.0' | 0 | 8 | 53 | 30 | 9 | NP | NP | 19 | A-4a |
| | 8.0-10.0' | 0 | 0 | 0 | 36 | 64 | 34 | 13 | 23 | A-6a |
| 83+85 CL | 0.3-4.5' | 3 | 1 | 6 | 56 | 34 | 37 | 16 | 16 | A-6b |
| | 4.5-6.0' | 13 | 22 | 22 | 35 | 8 | NP | NP | 6 | A-4a |
| | 6.0-9.0' | 0 | 2 | 7 | 70 | 21 | 18 | 2 | 16 | A-4b |
| | 9.0-10.0' | 0 | 0 | 2 | 87 | 11 | NP | NP | 16 | A-4b |
| 89+00 CL | 0.3-3.0' | 24 | 12 | 15 | 28 | 21 | 35 | 16 | 20 | A-6b |
| | 3.0-6.5' | 25 | 28 | 18 | 20 | 9 | 23 | 9 | 17 | A-2-4 |
| | 6.5-12.0' | 20 | 12 | 17 | 31 | 20 | 18 | 6 | 11 | A-4a |
| 93+31.15 CL | 0.3-1.5' | 15 | 9 | 17 | 33 | 28 | 25 | 10 | 13 | A-4a |
| | 1.5-6.0' | 8 | 2 | 8 | 33 | 24 | 30 | 10 | 25 | A-4b |
| | 6.0-8.0' | 50 | 4 | 6 | 28 | 12 | 27 | 11 | 21 | A-6a |
| | 8.0-10.0' | 4 | 7 | 19 | 58 | 12 | NP | NP | 14 | A-4b |
| 98+00 CL | 0.5-2.0' | 0 | 3 | 14 | 39 | 44 | 34 | 15 | 18 | A-6a |
| | 2.0-9.5' | 13 | 10 | 20 | 34 | 23 | 19 | 6 | 11 | A-4a |
| | 9.5-15.0' | 29 | 25 | 26 | 15 | 5 | NP | NP | 4 | A-1-b |
| | 15.0-17.0' | 21 | 34 | 20 | 15 | 2 | NP | NP | 3 | A-1-b |

| Station & Offset | Depth From-To | % Agg. | % C.S. | % F.S. | % Silt | % Clay | LL | PI | % W.C. | SHTL Class. |
|------------------|---------------|-------------|--------|--------|--------|--------|----|----|--------|-------------|
| 105+30 20' Rt. | 0.5-5.0' | 20 | 10 | 18 | 30 | 22 | 20 | 6 | 10 | A-4a |
| | 5.0-13.5' | 14 | 10 | 17 | 33 | 26 | 18 | 5 | 9 | A-4a |
| 110+00 CL | 0.5-3.5' | 0 | 3 | 11 | 48 | 38 | 31 | 11 | 30 | A-6a |
| | 3.5-8.0' | 19 | 8 | 11 | 31 | 31 | 25 | 9 | 13 | A-4a |
| | 8.0-8.5' | 19 | 10 | 13 | 31 | 27 | 23 | 2 | 9 | A-4a |
| 114+75 CL | 8.5-10.0' | 3 | 3 | 4 | 71 | 14 | 22 | 2 | 23 | A-4b |
| | 10.0-12.0' | 11 | 8 | 10 | 38 | 33 | 23 | 8 | 13 | A-4a |
| 120+00 CL | 0.5-5.0' | 14 | 10 | 18 | 37 | 21 | 20 | 8 | 11 | A-4a |
| | 5.0-9.5' | 6 | 39 | 31 | 19 | 5 | NP | NP | 15 | A-3a |
| | 9.5-12.0' | 15 | 12 | 19 | 37 | 17 | 18 | 6 | 10 | A-4a |
| 125+00 4' Rt. | 6.0-8.5' | 0 | 1 | 2 | 73 | 24 | 28 | 8 | 26 | A-4b |
| | 8.5-13.0' | 18 | 9 | 11 | 25 | 37 | 40 | 17 | 21 | A-6b |
| | 13.0-20.0' | 20 | 11 | 19 | 33 | 17 | 18 | 4 | 11 | A-4a |
| 129+98 15' Rt. | 0.3-2.5' | 0 | 3 | 8 | 43 | 46 | 38 | 16 | 20 | A-6b |
| | 2.5-7.5' | Visual | | | | | | | | A-4a |
| | 7.5-9.5' | Visual | | | | | | | | A-4a |
| | 9.5-14.0' | 18 | 4 | 9 | 41 | 28 | 25 | 9 | 11 | A-4a |
| | 14.0-16.5' | 51 | 3 | 4 | 24 | 18 | 23 | 9 | 9 | A-4a |
| 134+95 43' Rt. | 0.3-3.0' | No Material | | | | | | | | A-6a |
| 139+85 78' Rt. | 2.0-3.0' | 38 | 4 | 6 | 23 | 29 | 31 | 13 | 8 | A-6a |
| 140+56 137' Rt. | 0.3-2.5' | 4 | 1 | 4 | 47 | 44 | 38 | 17 | 21 | A-6b |
| 152+00 CL | 0.4-4.0' | 21 | 5 | 10 | 29 | 35 | 32 | 15 | 12 | A-6a |
| 154+50 CL | 0.4-2.0' | 3 | 2 | 8 | 60 | 27 | 30 | 9 | 18 | A-4b |
| | 2.0-9.0' | 18 | 10 | 19 | 33 | 20 | 23 | 7 | 13 | A-4a |
| 157+00 CL | 0.4-3.0' | 42 | 9 | 6 | 22 | 21 | 25 | 8 | 8 | A-4a |
| | 3.0-6.5' | 5 | 8 | 62 | 20 | 25 | 5 | 15 | | A-4b |
| 162+00 CL | 0.4-3.0' | 4 | 6 | 22 | 27 | 41 | 38 | 19 | 15 | A-6b |
| | 3.0-10.0' | 8 | 9 | 19 | 41 | 23 | 19 | 6 | 12 | A-4a |
| 165+00 CL | 0.3-6.0' | 9 | 7 | 19 | 42 | 23 | 27 | 9 | 11 | A-4a |
| | 6.0-8.0' | 14 | 10 | 18 | 35 | 23 | 20 | 9 | 11 | A-4a |
| 168+00 CL | 0.4-9.0' | 7 | 6 | 11 | 43 | 33 | 24 | 9 | 12 | A-4a |
| | 9.0-11.0' | 22 | 9 | 14 | 40 | 15 | 19 | 4 | 13 | A-4a |
| | 11.0-15.0' | 19 | 8 | 12 | 39 | 22 | 20 | 5 | 18 | A-4a |
| 171+00 CL | 0.4-2.0' | 11 | 11 | 18 | 37 | 23 | 24 | 8 | 9 | A-4a |
| | 2.0-11.0' | 13 | 10 | 18 | 38 | 21 | 19 | 5 | 13 | A-4a |
| | 11.0-20.0' | 7 | 6 | 13 | 46 | 28 | 19 | 5 | 14 | A-4a |
| 173+55 CL | 0.4-2.0' | 14 | 4 | 14 | 29 | 39 | 44 | 25 | 20 | A-7-6 |
| | 2.0-6.0' | 14 | 7 | 14 | 39 | 26 | 27 | 7 | 14 | A-4a |
| | 6.0-8.0' | 4 | 5 | 13 | 50 | 28 | 19 | 5 | 11 | A-4b |
| 173+55 100' Rt. | 0.4-2.0' | 5 | 5 | 20 | 34 | 36 | 35 | 20 | 19 | A-6b |
| | 2.0-7.0' | 36 | 6 | 10 | 28 | 20 | 22 | 7 | 17 | A-4a |
| | 7.0-8.0' | 6 | 6 | 6 | 68 | 16 | NP | NP | 6 | A-4b |

| Station & Offset | Depth From-To | % Agg. | % C.S. | % F.S. | % Silt | % Clay | LL | PI | % W.C. | SHTL Class. |
|------------------|---|---------------------|--------------------|----------------------|----------------------|----------------------|----------------------|--------------------|----------------------|------------------------------|
| 173+55 | 100' Lt.
0.4-1.0
1.0-9.0
9.0-10.0 | 0
9
8 | 1
7
7 | 7
17
15 | 52
42
44 | 40
25
26 | 41
27
19 | 21
7
4 | 16
15
12 | A-7-6
A-4a
A-4a |
| 178+75 | CL
0.4-5.0
5.0-10.0
10.0-16.0
16.0-20.0 | 9
10
15
0 | 7
7
9
2 | 16
17
18
4 | 41
45
38
75 | 27
21
20
19 | 26
19
18
NP | 10
6
6
NP | 9
14
11
28 | A-4a
A-4a
A-4a
A-4b |
| 182+00 | CL
0.4-5.0
5.0-11.0
11.0-14.0
14.0-18.0 | 12
24
6
18 | 6
6
10
10 | 12
41
17
16 | 41
35
55
37 | 39
25
21
19 | 25
20
19
19 | 11
6
6
4 | 13
11
22
11 | A-6a
A-4a
A-4b
A-4a |
| 185+50 | CL
0.3-8.0 | 19 | 7 | 16 | 35 | 23 | 23 | 8 | 8 | A-4a |
| 189+00 | CL
0.3-8.0 | 10 | 8 | 16 | 37 | 29 | 23 | 6 | 12 | A-4a |
| 192+50 | CL
0.2-2.0
2.0-7.0 | 9
27 | 7
9 | 18
7 | 38
29 | 28
28 | 28
23 | 12
7 | 18
14 | A-6a
A-4a |
| 196+00 | CL
0.3-1.0
1.0-7.0 | 3
27 | 2
9 | 7
8 | 59
31 | 29
25 | 26
24 | 8
8 | 10
9 | A-4b
A-4a |
| 200+00 | CL
0.3-2.0
2.0-4.0 | 5
21 | 1
8 | 4
11 | 51
37 | 39
33 | 36
31 | 16
13 | 14
18 | A-6b
A-6a |
| 203+00 | CL
0.3-1.0
1.0-6.0 | 0
36 | 1
9 | 3
9 | 62
25 | 34
21 | 33
22 | 15
7 | 17
10 | A-6a
A-4a |
| 206+75 | CL
0.3-3.0 | 27 | 8 | 9 | 31 | 25 | 27 | 10 | 8 | A-4a |
| 2+00 | CL
0.5-2.0
2.0-4.0
4.0-8.0 | 0
10
26 | 3
4
3 | 11
10
3 | 55
49
30 | 31
27
33 | 31
34
31 | 12
23
15 | 11
25
14 | A-6a
A-7-6
A-6a |
| 5+00 | CL
0.5-5.0
5.0-7.0 | 12
47 | 6
9 | 16
3 | 35
26 | 31
9 | 27
7 | 7
3 | 10
17 | A-6a
A-2-4 |
| 12+00 | CL
0.3-1.5
1.5-6.0
6.0-8.0 | 2
27
11 | 5
7
14 | 17
9
17 | 39
30
32 | 37
27
26 | 37
25
24 | 15
11
9 | 18
19
10 | A-6a
A-6a
A-4a |
| 16+00 | CL
0.3-5.0
5.0-7.0
7.0-10.5
10.5-12.0 | 0
0
32
10 | 0
2
10
11 | 1
4
13
25 | 31
24
29
36 | 68
20
16
28 | 35
23
13
5 | 14
6
6
12 | 19
22
11
12 | A-6a
A-4b
A-4a
A-4a |
| 19+00 | 80' Lt.
0.4-4.0
4.0-7.0
7.0-10.0 | 0
0
0 | 1
0
0 | 4
3
3 | 41
37
38 | 54
60
62 | 47
49
33 | 22
24
15 | 23
33
21 | A-7-6
A-7-6
A-6a |
| 25+00 | CL
0.4-1.5
1.5-4.5 | 0
7 | 2
10 | 8
12 | 52
52 | 38
19 | 38
28 | 19
8 | 17
25 | A-6b
A-4b |