MAP DRAFTING
and
RELATED COMPUTATIONS
for
PLANE SURVEYING

FIELD BOOK

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and
RELATED COMPUTATIONS
for
PLANE SURVEYING

FIELD BOOK

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for the

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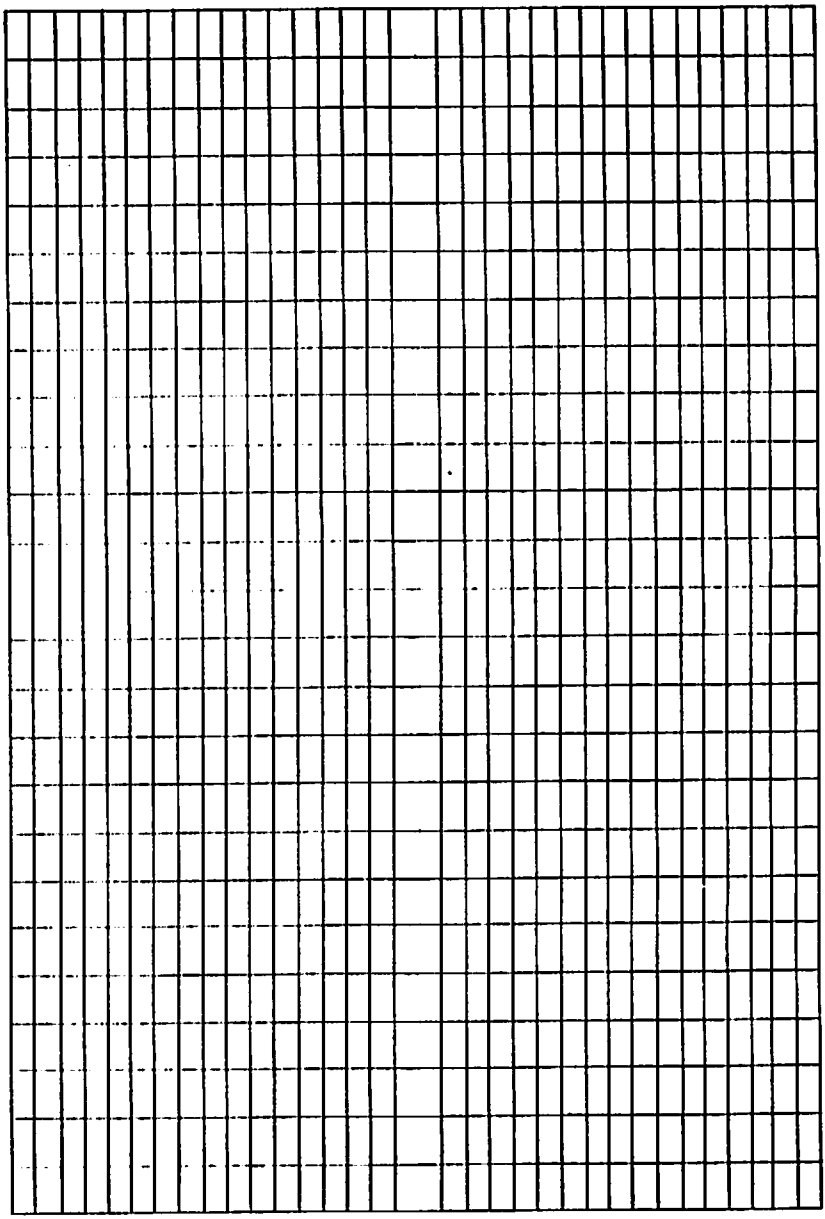
OF LOUISIANA



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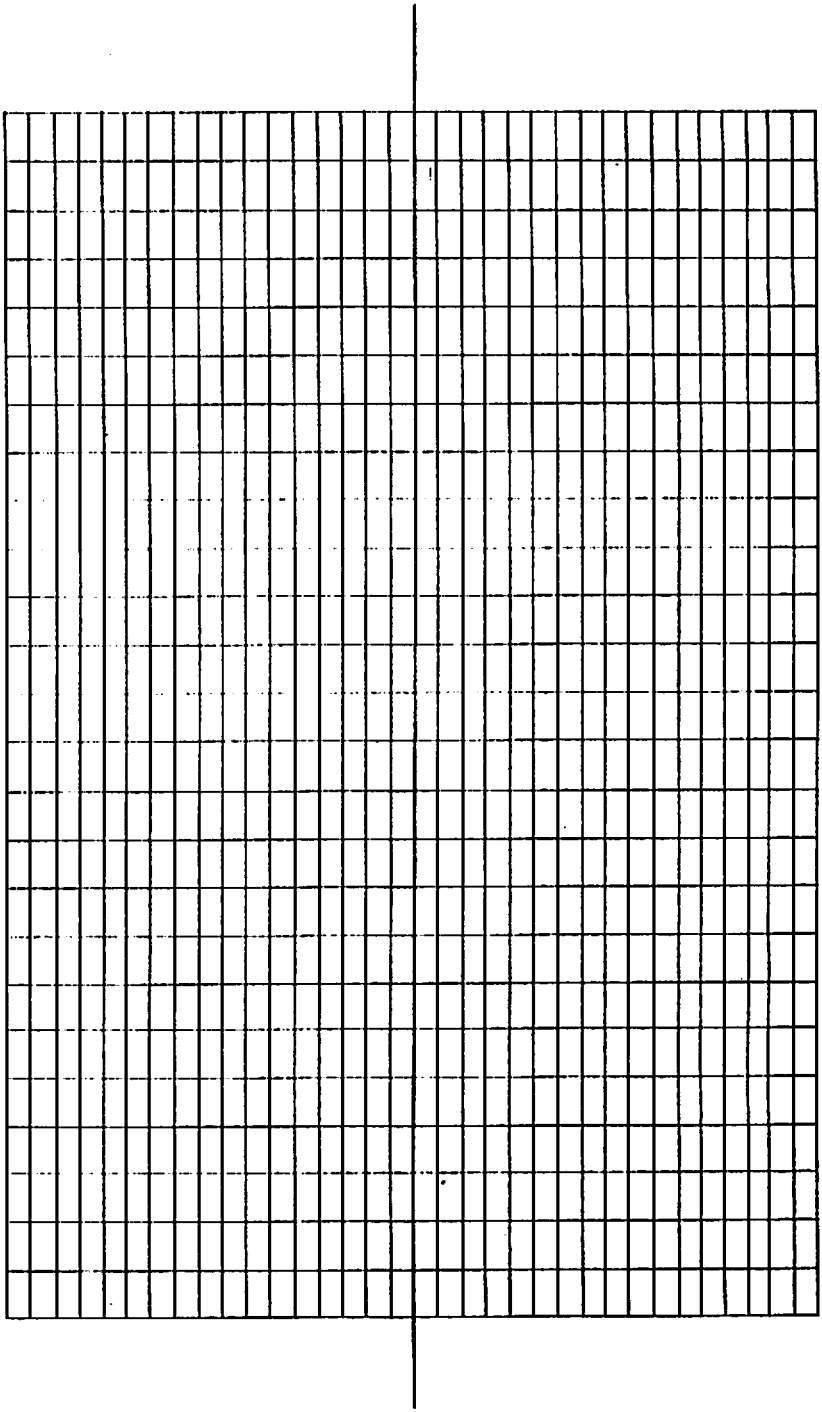


Notes for Fig. 1, Plate 1

Sta.	Def. ∠	Mag. B.	Cal. B.	Remarks
20				
19				
⊙18+79	47°45' L	N55°30'E	N55°27'E	Point D
18				
17				
16				
15				
14				
13				
⊙12+42	48°05' R	S76°45'E	S76°48'E	Point C
12				
11				
10				
9				
8				
7				
⊙ 6+27	97°45' L	N55°15'E	N55°07'E	Point B
6				
5				
4				
3				
2				
1				
⊙ 0+00		S27°08'E	S27°08'E	Point A

C. Richard, T
J. Soiseau, N.C.
G. Carrier, R.C.
June 18, 1964
Wx. Fair - Warm

Garley Transit
No. 601452

Note: 1. Hubs set at lettered points and tack pointed. Guard stakes set and marked.
2. Bearing of line A-B determined by Solar Observation
3. Line stakes set at station points and tacked.

Beginning of Line

Notes for Fig. 1, Plate 1, con't.

Sta.	Def ∠	Mag. B	Col. B	Remarks
32+97				Point F
32				
31				
30				
29				
28				
27				
⊙26+09	104°15'R	S20°15'E	S20°18'E	Point E
26				
25				
24				
23				
22				
21				

End of Line

Finished 4:30 P.M.

Notes for Fig. 2, Plate 1

Sta.	Col. Bearing		Remarks.
20			
19			
18			
17			
⊙16+41	N 66° 51' E		Point D
16			
15			
14			
13			
12			
11			
⊙10+20	S 24° 35' E		Point C
10			
9			
8			
7			
6			
5			
⊙4+25	N 46° 52' E		Point B
4			
3			
2			
1			
⊙ 0+00	S 56° 27' E		Point A

Gurley Transit
No. 601692

C. Richard, ↑
G. Carrier, H.C.
J. Soileau, C.C.
June 18, 1964
Wx. Fair-Warm

Note: Bearings calculated
from Deflection Angle
Survey made today by
above listed field crew

Beginning of Line

Notes For Fig 2, Plate 1, con't.

Sta.	Cal. Bearing			Remarks	
32+57				Point H	
32					
31					
30					
29					
28					
⊙27+36	S 29° 35' E			Point G	
27					
26					
25					
24					
⊙23+69	N 84° 31' E			Point F	
23					
22					
21					
⊙20+31	N 55° 08 E			Point E	

End of Line Finished work 3:20 P.M.

Notes for Fig. 3. Plate I

Sta.	Def ∠	Mag. B.	Cal. B	Remarks
19				
18				
17				
16				
⊙15+80	59°32'L	N66°00'E	N66°25'E	Point J
15				
14				
13				
12				
⊙11+35	32°38'R	S54°30'E	S54°03'E	Point G
11				
10				
9				
8				
7				
6				
5				
⊙4+74	57°22'R	S86°45'E	S86°41'E	Point D
4+25				
4				
3				
2				
1				
⊙0+00		N35°57'E	N35°57'E	Point A

K&E Transit
No. 151205

J. Fontanot, T
M. LeBlanc, HC.
L. Cormier, RC.
June 19, 1964
Wx. Cloudy-Warm

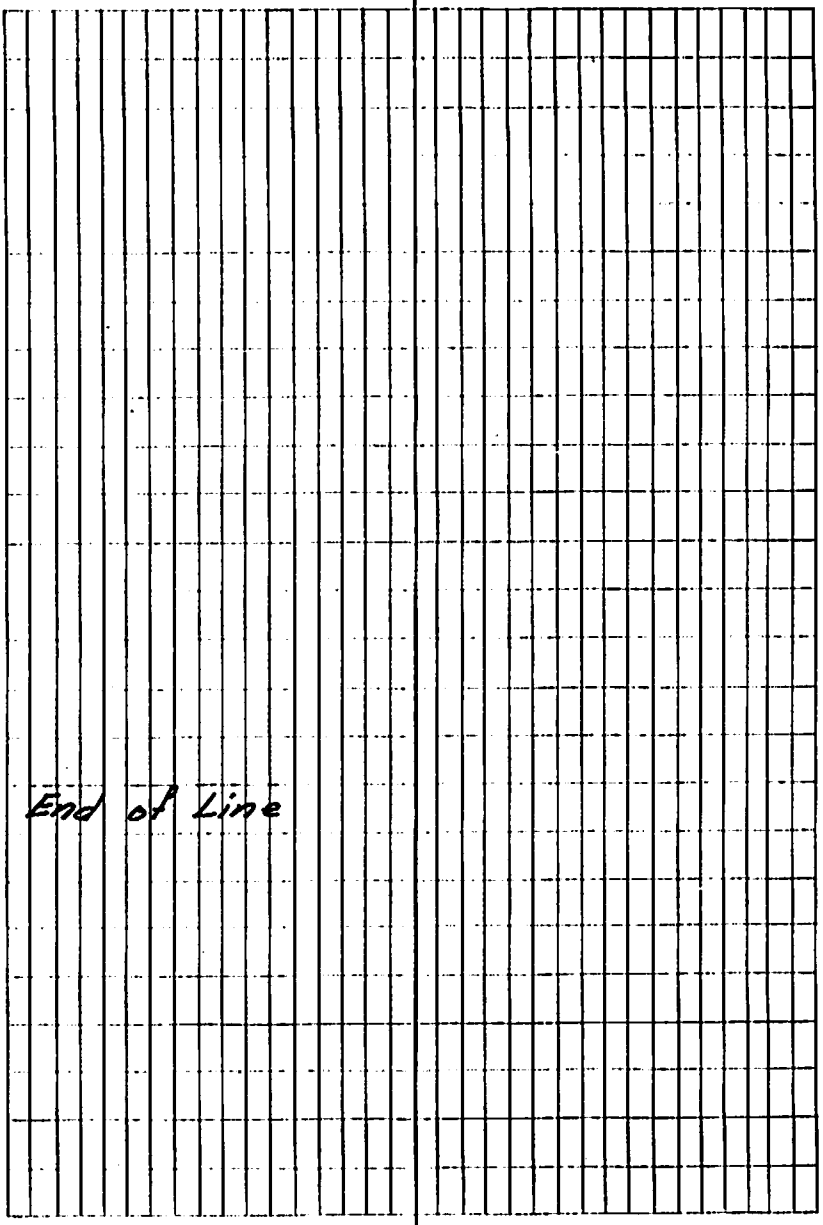
Note: Hubs set and tacked at changes in direction of line and Guard Stakes set over hubs

Drainage ditch ═══ 2' wide, 1' deep

Beginning of Line

Notes for Fig. 3, Plate 1, con't.

Sta.	Def. 4	Mag. B	Col. B.	Remarks
27+05				Point M
27				
26				
25				
24				
23				
22				
21				
20				


End of Line

Notes for Fig. 4, Plate 1

Sta.	Dist. Ft.	Cal. B.	Cal. Lat.	Cal. Dep.
1				
	793	N33°59'E	657.6N	443.3E
2				
	490	N59°14'E	250.7N	421.0E
3				
	764	S18°36'E	724.1S	243.7E
4				
	700	N66°15'E	281.9N	640.7E
5				
	567	S24°10'E	517.3S	232.1E
6				
	496	N48°26'E	329.1N	371.1E
7				

J. Fontanot, Computor
M. LeBlanc, Assistant

Monroe Calculator June 9, 1964

Note: Latitudes and Departures calculated for each course from Deflection Angle Traverse ran June 19, 1964 by J. Sonnier, PLeBlanc and J. Zeringue

Notes for Fig. 5, Plate 1

Sta.	Def. ∠	Mag. B	Cal. B	Remarks
⊙19+99	26°30' R	S66°30'E	S66°20'E	Point Q
19				
18				
17				
16				
15				
14				
⊙13+99	23°20' L	N87°00'E	N87°10'E	Point M
13				
12				
11				
10				
9				
⊙8+85	41°00' R	S69°30'E	S69°30'E	Point K
8				
7				
6				
⊙5+29	45°00' R	N69°30'E	N69°30'E	Point C
5				
4				
3				
2				
1				
⊙0+00		N24°30'E	N24°30'E	Point A

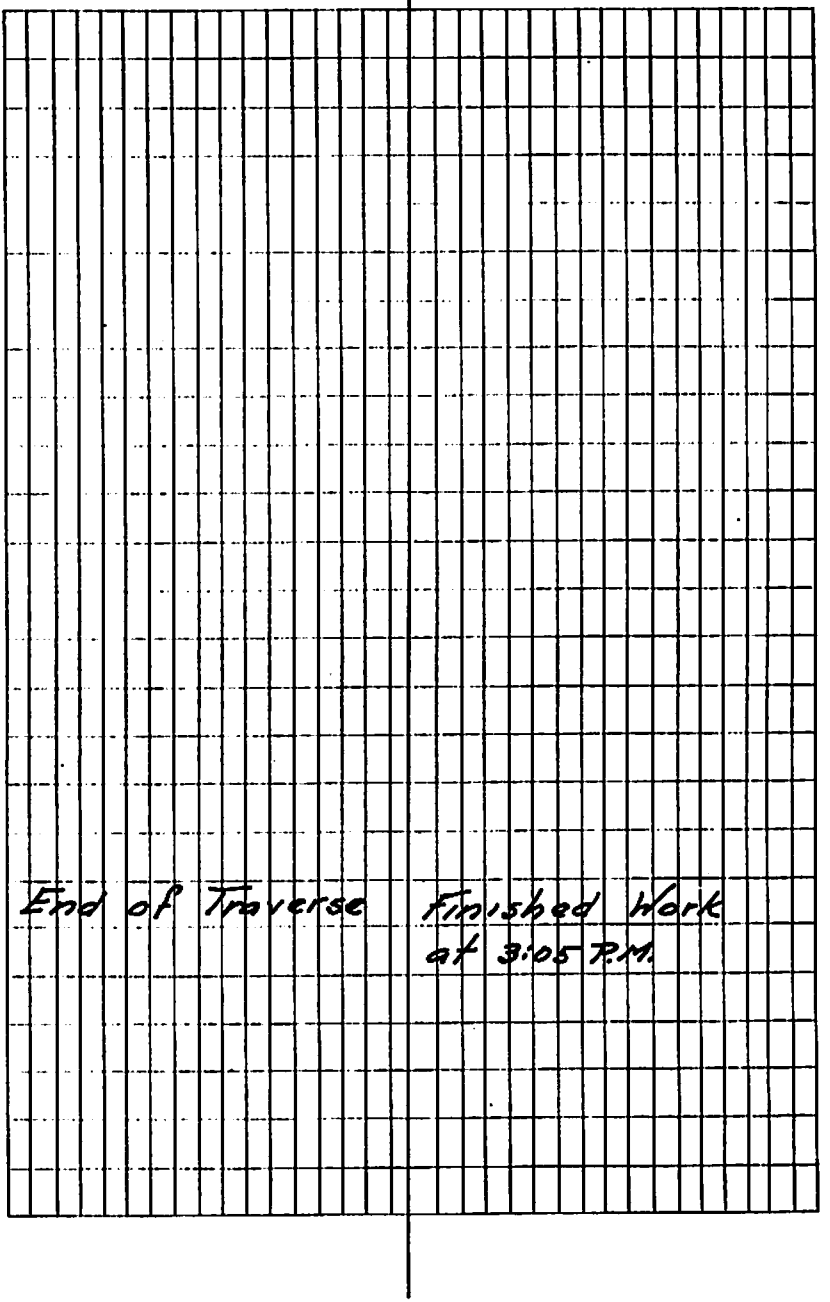
K&E Transit
No. 151205

J. Fontenot, 木
P. LeBlanc, H.C.
M. LeBlanc, P.C.
June 20, 1964
Wx. Hot - Clear

Note: Bearing of
Line A-C determined
with Gurley Solar Transit
112T No. 600500

Notes for Fig. 5, Plate 1, cont.

Sta.	Def. ∠	Mag. B	Cal. B.	Remarks
25+99				Point T
25				
24				
23				
22				
21				
20				


End of Traverse
Finished Work
at 3:05 P.M.

Notes for Plate 2

Azimuth Control Traverse

Sta.	Obj.	Dist. Ft.	Azimuth	Mag. B	Cal. B.
M	N		150°23'	S29½°E	S29°37'E
↕→	13	488.32	96°04'	S84°E	S83°56'E
13	M		276°04'	N84°W	N83°56'W
↕→	14	545.44	93°01'	S87°E	S86°59'E
14	13		273°01'	N87°W	N86°59'W
→	15	525.88	82°19'	N82½°E	N82°19'E
15	14		262°19'	S82½°W	S82°19'W
↕→	16	134.95	82°49'	N82½°E	N82°49'E
16	15		262°49'	S82½W	S82°49'W
→	T	98.51	108°11'	S71½°E	S71°49'E
T	16		288°11'	N71½°W	N71°49'W
↕	U	403.97	184°52'	S5°W	S4°52'W
U	T		4°52'	N5°E	N4°52'E
↕→	V	195.57	178°40'	S1½°E	S1°20'E
V	U		358°40'	N1½°W	N1°20 W
↓→	W	210.67	181°41'	S1½°W	S1°41'W
W	V		1°41'	N1½°E	N1°41'E
	X	76.26	184°57'	S5°W	S4°57'W
X	W		4°57'	N5°E	N4°57'E
	Y	706.96	277°24'	N82½°W	N82°36'W
Y	X		97°24'	S82½°E	S82°36'E
	Z	345.07	268°37'	S88½W	S88°37'W

South City Park, Opelousas, La.

Gurley Transit J. Zeranque, T
No. 601652 A. Saileau, H.C.
G. Carrier, R.C.
June 17, 1964
Wx. Hot - Clear

Note: 1. Azimuth from North
2. Azimuth of line M-13 determined with Gurley Solar Transit 1127, No. 600500
3. Declination determined to be 7½° East. Compass ring set for needle to read true bearings
4. Hubs set and tacked at corners.

Notes for Plate 2 cont.

Sta.	Obj.	Dist. Ft.	Az.	Mag. B	Cal. B.
Z	Y		88°37'	N88½°E	N88°37'E
	C	417.72	268°37'	S88½W	S88°37'W
C	Z		88°37'	N88½°E	N88°37'E
—	B	228.73	359°20'	N0½°W	N0°40'W
B	C		179°20'	S0½°E	S0°40'E
—	A	99.87	0°00'	North	North
A	B		180°00'	South	South
—	N	383.47	332°45'	N27¼°W	N27°15W
N	A		152°45'	S27¼°E	S27°15'E
—	M	191.35	330°23'	N29¼°W	N29°37'W
M	N		150°23'	S29¼°E	S29°37'E
	Az.	Error	0°00'		

Capped pipe set in concrete

Capped pipe set in concrete

Notes for Plate 3

Deflection Angle Traverse

Stg.	Dist. Ft.	Def ∠	Cal. B.	T. Lat.	T. Dep.
A		27°15'L		0.0	0.0
	383.47		N27°15'W		
N		2°22'L		340.9N	175.6W
	191.35		N29°37'W		
M		125°41'R		From O 507.3N	270.2W
	488.32		383°56'E		
13		3°03'L		455.6N	215.4E
	545.44		386°59'E		
14		10°42'L		426.9N	760.1E
	525.88		N82°19'E		
15		0°30'R		497.2N	1281.3E
	134.95		N82°49'E		
16		25°22'R		514.0N	1415.2E
	98.51		S71°49'E		
T		76°41'R		483.3N	1508.8E
	403.97		S4°52'W		
U		6°12'L		80.7N	1474.5E
	195.57		S1°20'E		
V		3°01'R		114.8S	1479.1E
	210.67		S1°41'W		
W		3°16'R		325.4S	1472.9E
	76.26		S4°57'W		
X		92°27'R		401.3S	1466.3E

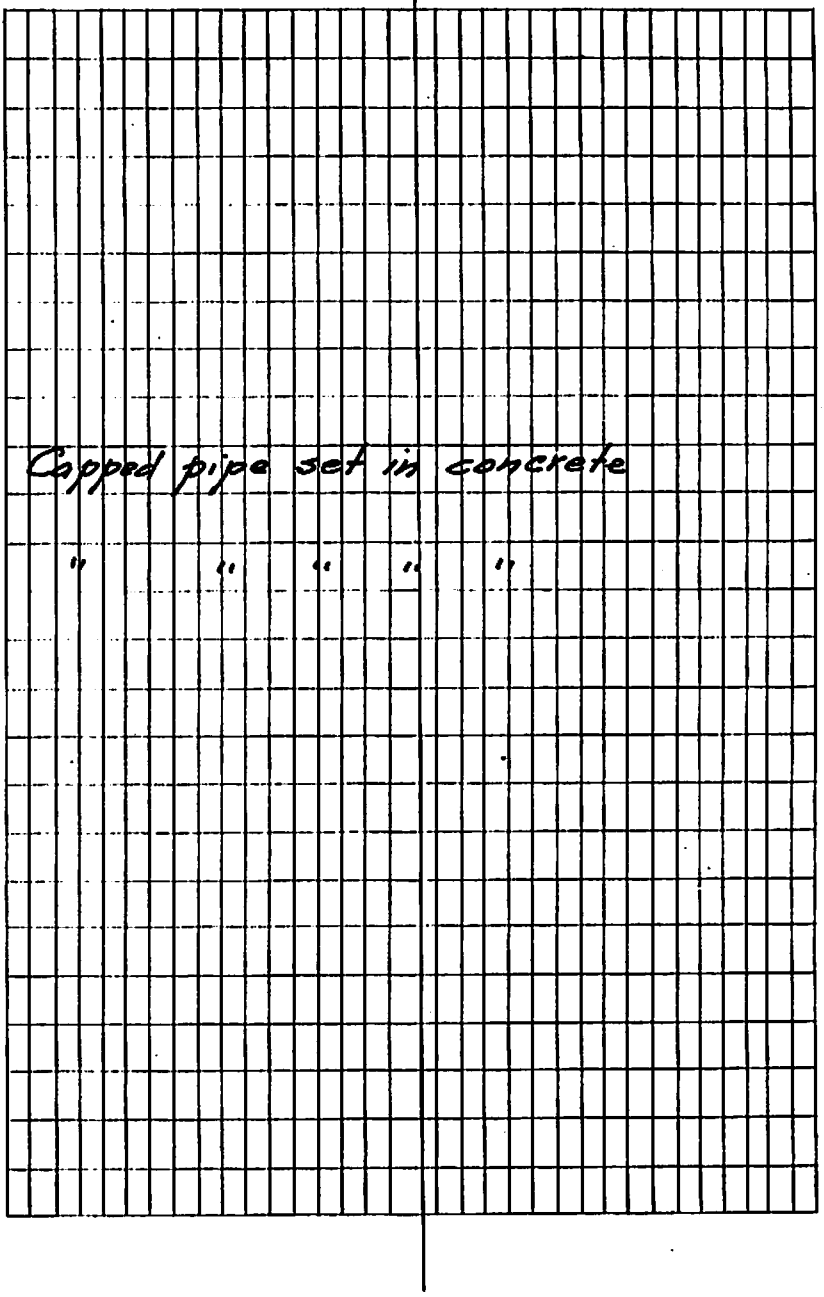
J. Sommier, m
J. Fontenot, H.C
M. LeBlanc, R.C
Wx. Fair-Warm
July 17, 1964

Note: 1. Latitudes and Departures computed by Sommier and Fontenot on 7-16-64 and entered in columns 5 & 6 of these notes for plotting purposes.

2. True Bearing of Line A to N known from Solar Observation

Notes for Plate 3, con't.

Sta.	Dist. Ft	Def. ∠	Cal. B	T. Lat.	T. Dep.
X		92°27'R		401.3S	1466.3E
	706.96		N82°36'W		
Y		8°47'L		310.1S	765.3E
	345.07		S88°37'W		
Z		0°00'		318.5S	420.3E
	417.72		S88°37'W		
C		90°43'R		328.6S	2.7E
	228.73		N0°40'W		
B		0°40'R		99.9S	0.00
	99.87		North		
A					


Capped pipe set in concrete
" " " " "

Notes for Fig. 1, Plate 4

Deflection Angle Traverse 1

Sta.	Dist. Ft.	Def ∠	Col. 8	Total Lat	Total Dep.
76+33.92				2195.1S	6227.2E
	831.22				
68+02.70		66°16L	N51°12E 39°	2715.9S	4579.4E
	1353.00				
54+49.70		44°56'R	S62°32E 333°	2091.9S	3378.9E
	1389.90				
40+59.80		36°46'R	N72°36E 17°	2507.5S	2052.6E
	804.00				
32+55.80		72°30'L	N36°46E 53°	3151.6S	1571.4E
	853.60				
24+02.20		62°48L	S70°44E 341°	2870.0S	765.6E
	1495.20				
9+07.00		30°08R	S7°56'E 278°	1389.1S	559.2E
	907.00				
0+00			S38°04E 308°	675.0S	0.0

P1

Marks, T
Johns, H.C
Briggs, R.C.
June 12, 1964
Wx. Warm - Clear

Gurley Transit
No. 601652

Note: Bearing of Line
0+00 to 9+70.00 determined
by Solar Observation on 6-11-64

Notes for Fig. 2, Plate 4

Deflection Angle Traverse 2

Sta.	Dist. Ft.	Def. ∠	Col. B	Total Lat.	Total Dep.
73+43.35				660.8 S	5255.1 E
	850.00				
64+93.35		75°00' R	S58°32'E	217.1 S	4530.1 E
	982.95		329		
55+10.40		43°06 L	N46°28'E	894.1 S	3817.5 E
	925.00		44		
45+85.40		45°16' R	N79°34'E	1061.6 S	2907.8 E
	800.00		10		
37+85.40		48°26' L	N34°18'E	1722.5 S	2457.0 E
	1025.00		56		
27+60.40		52°46' L	N82°44'E	1852.1 S	1440.2 E
	728.67		4		
20+71.33		33°42' L	S44°30'E	1332.4 S	929.5 E
	1356.43		315		
6+75.30		79°12' R	S10°48'E	0.0	675.3 E
	675.30				
0+00			East	0.0	0.0

P.I

Marks, T
Briggs N.C.
Anderson R.C.
Wx. Warm - Cloudy
June 14, 1964

Note: Line 0+00 to 6+75.30
staked out due East
with Gurley Solar Transit

Notes for Curve Data Fig. 1, Plate 4

Sta.	Point	Def. ∠	Bearing	Curve
20		1°46'		Data.
19+56.0	⊙ P.C.			
19 8°				
18				
17				
16				
15				
14				
13				
12				
11				
10+70.4	⊙ P.T.	15°05	S7°56'E	D=9°R
10 183°		11°55'		I=30°10'
9		7°25'		T=171.8'
8		2°55'		R=637.3'
7+35.2	⊙ P.C.			L=335.2'
7 218'				
6				
5				
4				
3				
2				
1				
0+00			S38°04'E	

Marks, Computor
Briggs, Asst. Computor
Friden Automatic Anderson, Checker
Calculator $\sqrt{SRW}$ June 20, 1964

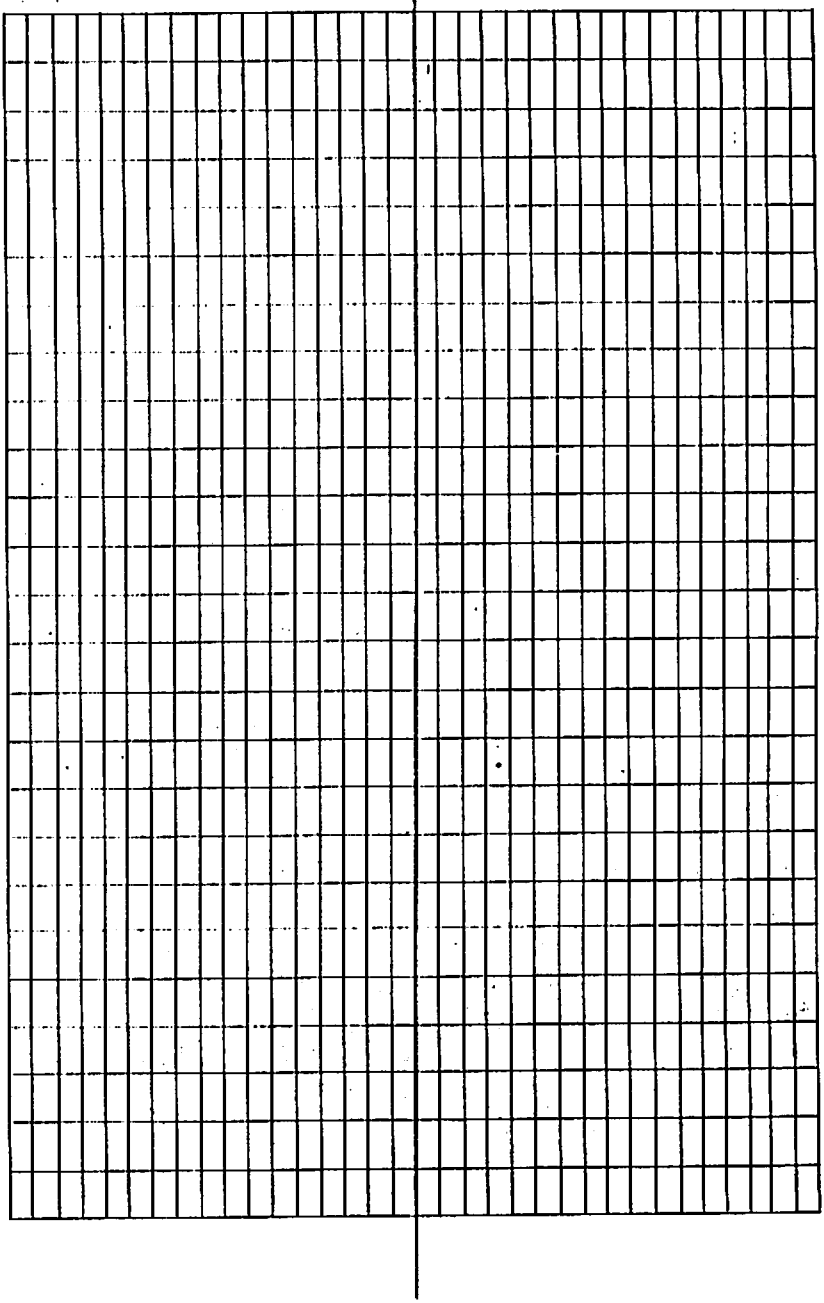
Curves calculated and entered by above men. Notes prepared for staking out curves in field and for plotting. Chord Method and Chord Definition used.

Marks, M
Briggs, H.C.
Anderson, R.C.
June 24, 1964

Curves for Traverse 1 staked out in field - marks

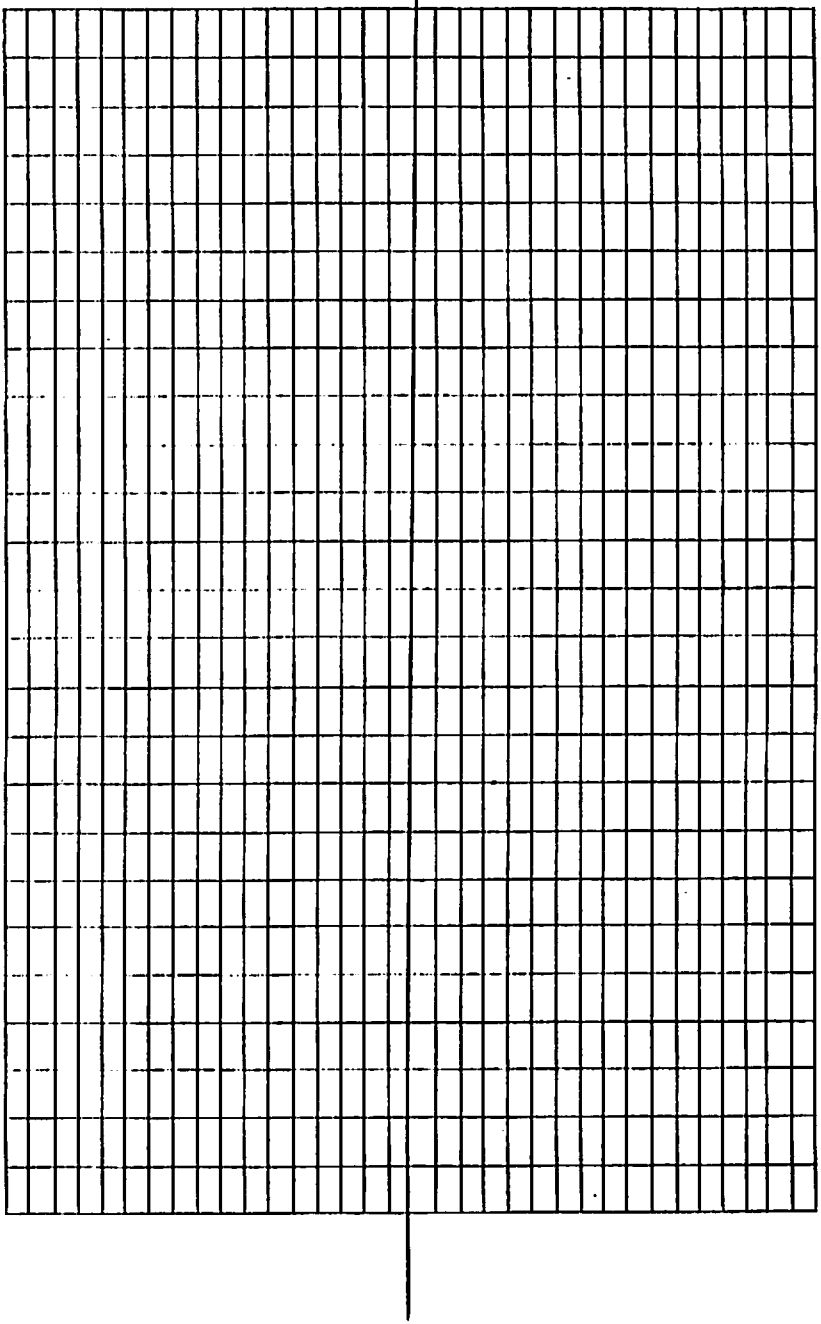
Notes for Curve Data, Fig 1, Plate 4 con't.

Sta.	Point	Def. ∠	Bearing	Curve Data
41		15°16'		
40		12°53'		D = 4°46' R
39		10°30'		I = 35°46'
38		8°07'		T = 388.2
37		5°44'		R = 1203.1
36		3°21'		L = 750.4
35		0°58'		
34+59.2	P.R.C.	36°15'		
34	143°	33°16'		
33		28°13'		D = 10°06' L
32		23°10'		I = 72°30'
31		18°07'		T = 415.8
30		13°04'		R = 567.1
29		8°01'		L = 717.8
28		2°58'		
27+41.4	⊙ P.C.C.	31°25'		
27	71°	29°46'		
26		25°46'		D = 8° L
25		21°46'		I = 62°50'
24		17°46'		T = 437.8
23		13°46'		R = 716.7
22		9°46'		L = 785.4
21		5°46'		



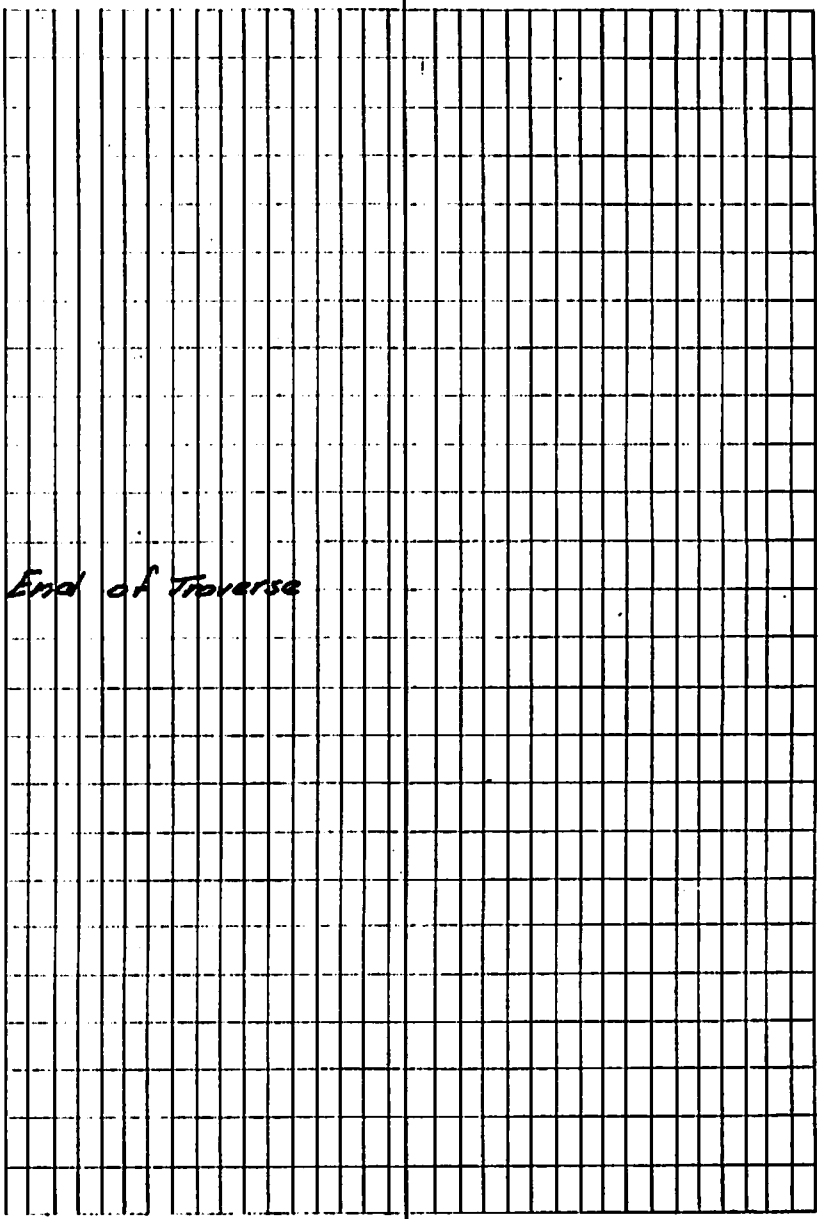
Notes for Curve Data Fig 1, Plate 4, con't.

Sta.	Point	Def. ∠	Bearing	Curve Data.	
61					
60					
59					
58					
57					
56					
55+65.2	⊙ P.T	22°25'	S62°32'E		
55	62	20°31'		D = 6°	R
54		17°31'		I = 44°	56'
53		14°31'		T = 395.0	
52		11°31'		R = 955.3	
51		8°31'		L = 748.9	
50		5°31'			
49		2°31'			
48+16.3	.P.C.				
48	287				
47					
46					
45					
44					
43					
42+09.6	⊙ P.T.	17°53'	N72°36'E		
42	107	17°39'			



Notes for Curve Data, Fig 1, Plate 4, con't.

Sta.	Point	Def. ∠	Bearing	Curve Data
72+55.82				
72				
71				
70				
69				
68				
67+85.1	⊙ P.T. 309	33°08'	N51°12'E	
67		28°27'		D = 11°L
66		22°27'		I = 66°16'
65		17°27'		T = 340.5
64		11°57		R = 521.7
63		6°27'		L = 602.4
62		0°57'		
61+82.7	⊙ P.C. 63			


End of Traverse

Notes for Curve Data, Fig 2, Plate 4

Sta.	Chord	Def. ∠	Point	Curve Data	
20	99.96	11°13'		D = 5°31' L	
19	99.96	8°28'		I = 33°42'	
18	99.96	5°43'		R = 1041.74	
17	99.96	2°58'		T = 315.51	
16	7.72	0°13'		L = 612.73	
15+92.28			⊙ P.C.		
15					
14					
13					
12					
11					
10					
9+57.7	57.64	39°36'	⊙ P.T.		S 10°48' E
9	99.83	36°17'		D = 11°30' R	
8	99.83	30°32'		I = 79°12'	
7	99.83	24°47'		R = 498.22	
6	99.83	19°02		T = 406.34	
5	99.83	13°17'		L = 688.70	
4	99.83	7°32'		320	
3	31.01	1°47'			
2+69.0			⊙ P.C.		
2					
1					
0+00					East

269

Sonnier, Computer
LeBlanc, Ass't. Computer
Zerangue, Checker
June 21, 1964

Friden Automatic Calculator 45RW

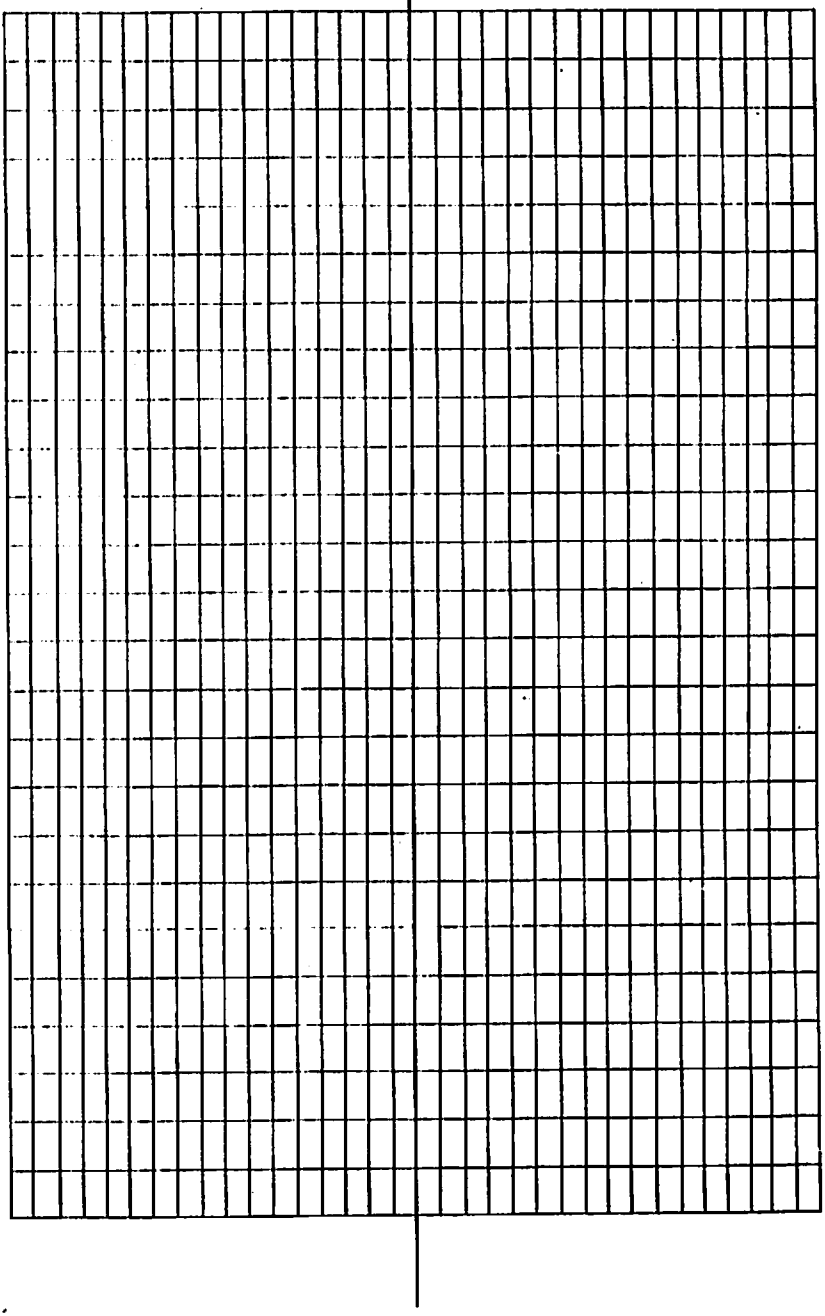
Note: Curves for Traverse 2 calculated and entered in notes for staking out and plotting. Arc Definition of degree of curve used. Curve tables used.

Sonnier, "
LeBlanc, H.C
Zerangue, R.C.
Wx. Fair - Warm
June 25, 1964

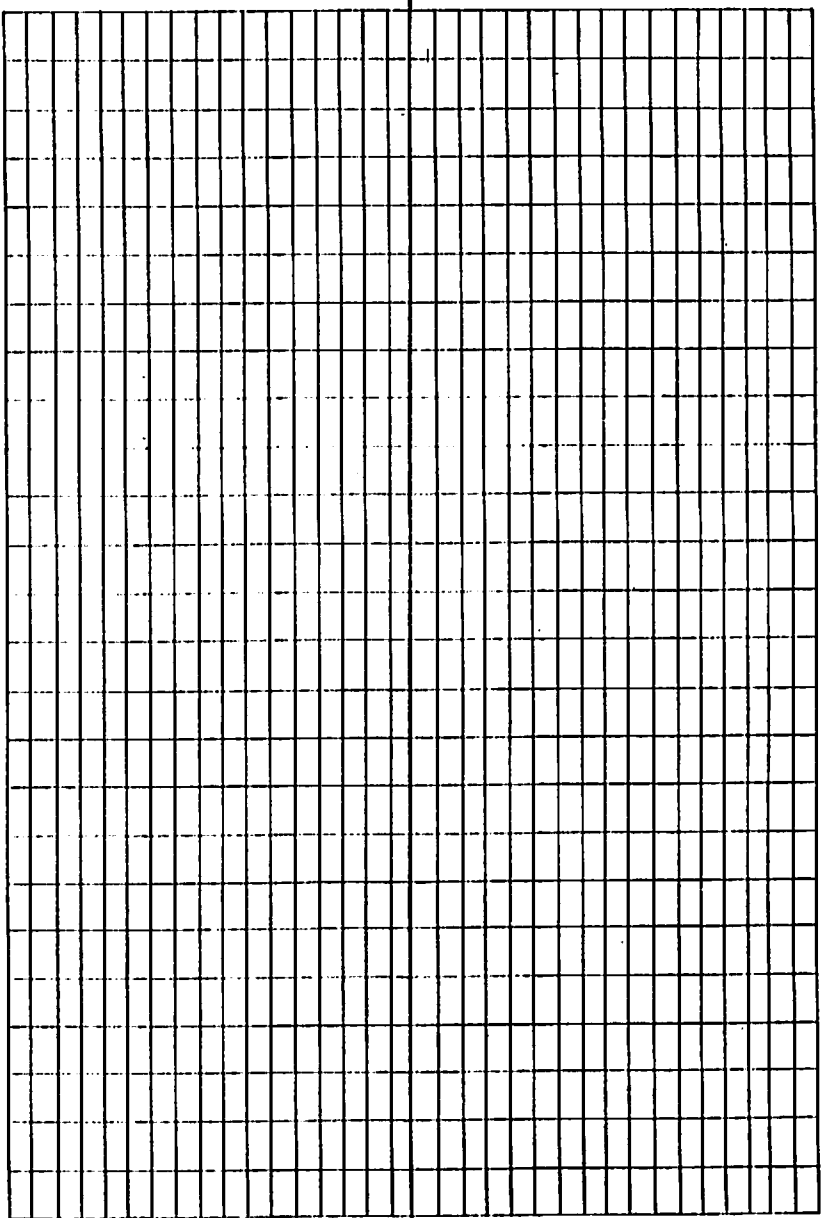
Curves for Traverse staked in field - Sonnier

Notes for Curve Data, Fig 2, Plate 4, con't.

Sta.	Chord	Def ∠	Point	Curve Data.	
40					
39+07.72	7.72	24°13'	P.T.		N34°18'E
39 146	99.94	23°57'		D = 7°	
38	99.94	20°27'		I = 48°26	
37	99.94	16°57'		R = 818.58	
36	99.94	13°27'		T = 368.17	
35	99.94	9°57'		L = 691.90	
34	99.94	6°27'		31	
33	84.14	2°57'			
32+15.82			P.C.		
32 277					
31					
30					
29+72.15	72.13	26°23'	P.T.		N82°44'E
29 97	99.94	23°54'			
28	99.94	20°28'		D = 6°52.7'	
27	99.94	17°01'		I = 52°46'	
26	99.94	13°35'		R = 832.98	
25	99.94	10°09'		T = 413.19	
24	99.94	6°42'		L = 767.14	
23	94.96	3° 16'		341	
22+05.01	5.01	16°51'	P.C.C.		
22 225	99.96	16°43'			
21	99.96	13°58'			



Notes for Curve Data			Fig. 2, Plate 4, con't.		
Sta.	Chord	Def ∠	Point	Curve	Data
59	99.83	16°07'		D = 11°30'	
58	99.83	10°22'		I = 75°00'	
57	99.83	4°37'		R = 498°22'	
56+19.64	80.25		P.C.	T = 382.30, L = 652.17	
56 314				6	
55					
54+73.11	73.08	16°33'	PT		N46°28E
54 319	99.94	14°06'		D = 6°42'	
53	99.94	10°45'		I = 33°06'	
52	99.94	7°24'		R = 855.16	
51	99.94	4°03'		T = 254.12	
50	20.92	0°42'		L = 494.03	
49+79.08			P.C.	27	
100 49					
48					
47					
46+06.81	6.81	22°38'	P.T.		N77°34'E
100 46	99.92	22°22'		D = 8°	
45	99.92	18°22'		I = 45°16'	
44	99.92	14°22'		R = 716.20	
43	99.92	10°22'		T = 298.61	
42	99.92	6°22'		L = 565.84	
41	59.01	2°22'		33	
40+40.97			P.C.		
326					



Notes for Curve Data, Fig. 2, Plate 4, con't.

Sta	Chord	Def. ∠	Point	Curve	Data
67+32.61					
67					
66					
65					
64					
63					
62+71.61	71.76	37°30'	P.T.		S58°32'E
62	99.83	33°22'			
61	99.83	27°37'			
60	99.83	21°52'			

End of Line

Notes for Plate 6

DEFLECTION ANGLE TRAVERSE

Sta	Def ∠	Mag B	Col B
34+48.4			
26+00	22°13'L	N75°45'E	N75°45'E
	TURN -D=		
14+89.0	12°32'R	S82°0'E	S82°02'E
0+00		N85°30'E	N85°26'E

Gurley Transit G. Carrier, ~~H~~
1127 No. 600500 J. Fontenot, H.C
J. Zeranque, R.C.
Wx. Fair - Warm
July 18, 1964

Note: Bearing of Line
0+00 to 11+89 from Solar
Observation

Tacked hubs set at
changes in direction.
Stakes set at all other
stations

Hub set

Hub set

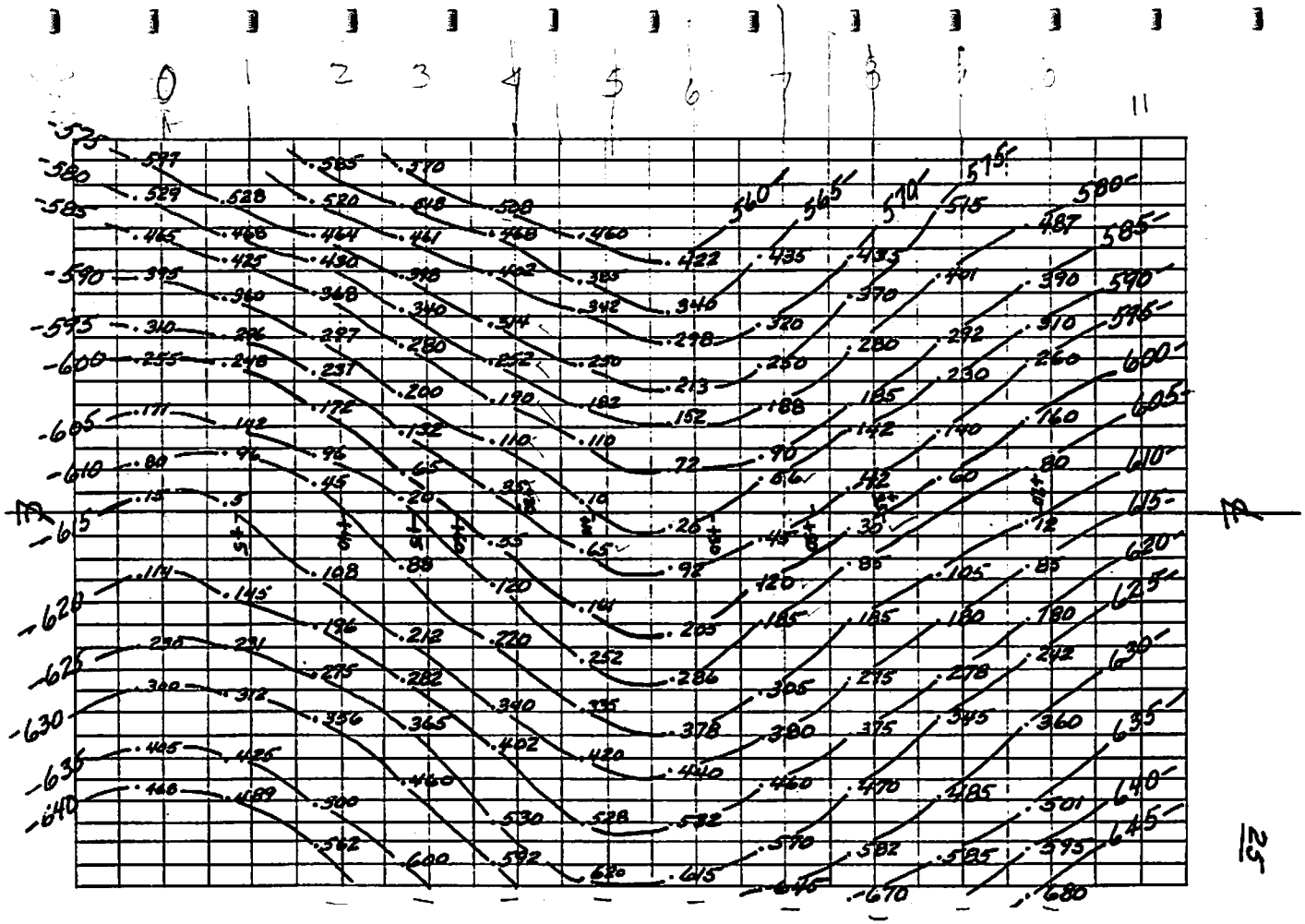
Hub set

Iron pipe

NOTES FOR PLATE 6

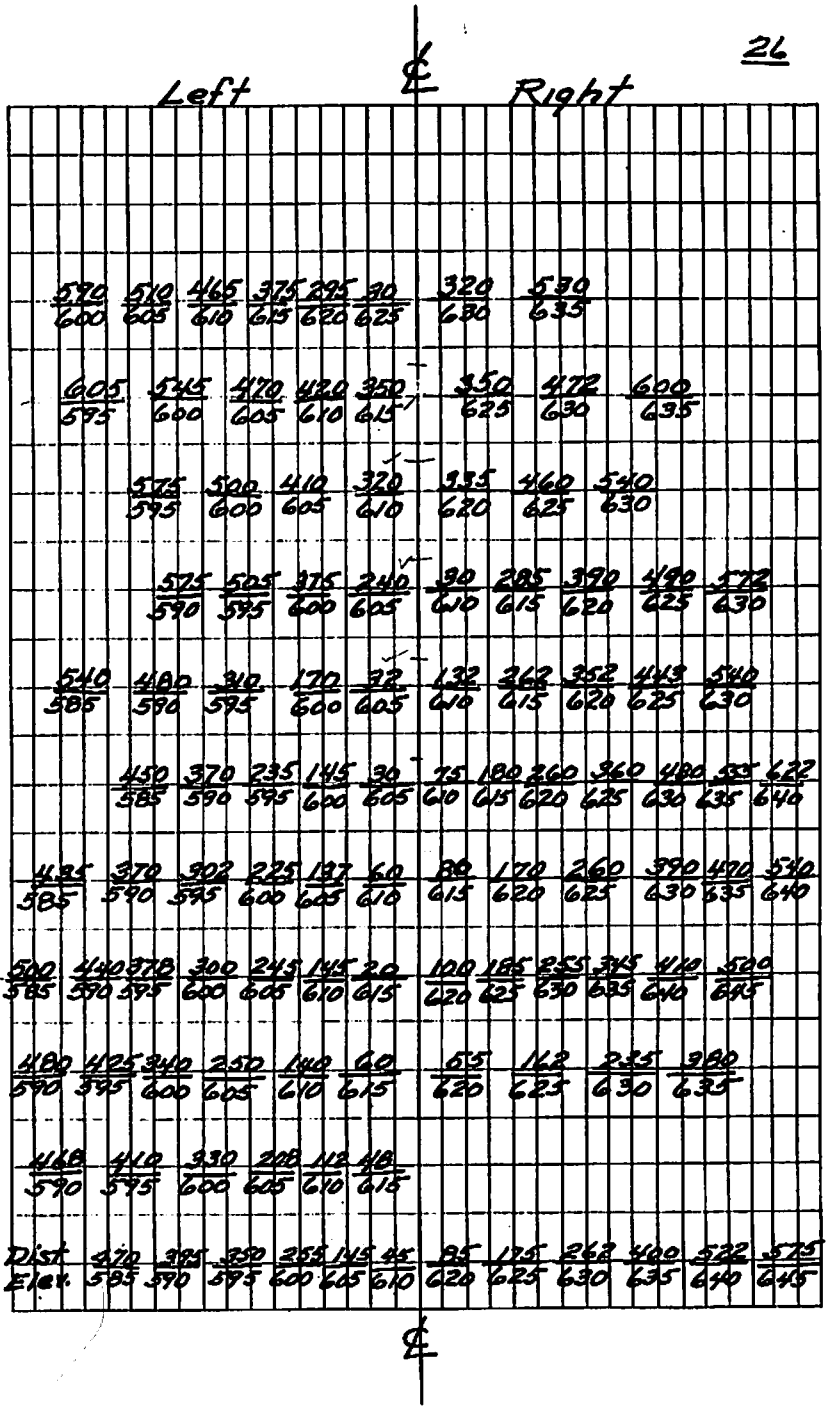
CROSS SECTIONS

Sta.	Def. & Cal. B	Elev.
10		609.3
9		605.0
8		598.2
7		593.3
6		589.2
5		590.2
4		597.2
3		605.8
2		611.9
1		615.1
0+00	N85°26E	615.8


0
1
2
3
4
5
6
7
8
9
10
11
-575
-580
-585
-590
-595
-600
-605
-610
-615
-620
-625
-630
-635
-640
-645
-650
-655
-660
-665
-670
-675
-680
-685
-690
-695
-700
-705
-710
-715
-720
-725
-730
-735
-740
-745
-750
-755
-760
-765
-770

Notes for Plate 6, con't.

Sta.	Def ∠	Col. B	Elev.		
20			625.3		
+90			625.0		
19			620.0		
18			615.0		
[illegible]+10			610.0		
17			609.5		
16			606.1		
[illegible]+90			605.0		
15			606.1		
[illegible]+45			610.0		
14			612.2		
[illegible]+12			615.0		
13			615.8		
12			617.8		
11+89	12°32'R	S82°02E	617.8		
11			615.0		


Left
℄
Right
570/600 510/605 465/610 375/615 295/620 90/625 320/630 530/635
605/595 545/600 470/605 420/610 350/615 350/625 472/630 600/635
575/595 500/600 410/605 320/610 335/620 460/625 540/630
575/590 505/595 375/600 240/605 90/610 285/615 390/620 490/625 572/630
540/585 480/590 340/595 170/600 72/605 132/610 262/615 352/620 443/625 540/630
450/585 370/590 235/595 145/600 30/605 75/610 180/615 260/620 360/625 480/630 535/635 622/640
485/585 370/590 302/595 225/600 137/605 60/610 80/615 170/620 260/625 390/630 470/635 540/640
500/585 440/590 378/595 300/600 245/605 145/610 20/615 100/620 185/625 255/630 345/635 410/640 500/645
480/590 425/595 340/600 250/605 140/610 60/615 65/620 162/625 235/630 280/635
468/590 410/595 330/600 208/605 112/610 48/615
Dist. 470 385 330 255 145 45 85 175 262 400 522 575
Elev. 595 590 595 600 605 610 620 625 630 635 640 645
℄

Notes for Plate 6, con't.

Sta.	Def ∠	Col. B.	Elev.		
26					
26+00	22°13'L	N75°45'E	631.4		
25					
25			631.0		
24					
24			632.5		
23					
23			634.9		
22					
22			634.5		
21					
21			630.4		

℄

Left | Right

570/600 475/605 Rt Ls to S82°02'E Line

422/610 300/615 220/620 130/625 20/630 70/635 130/640 192/645 245/650 333/655

514/600 438/605

372/610 255/615 180/620 100/625 15/630 58/635 115/640 168/645 270/650

500/600 436/605

365/610 255/615 180/620 100/625 30/630 30/635 75/640 165/645 530/650

525/600 470/605

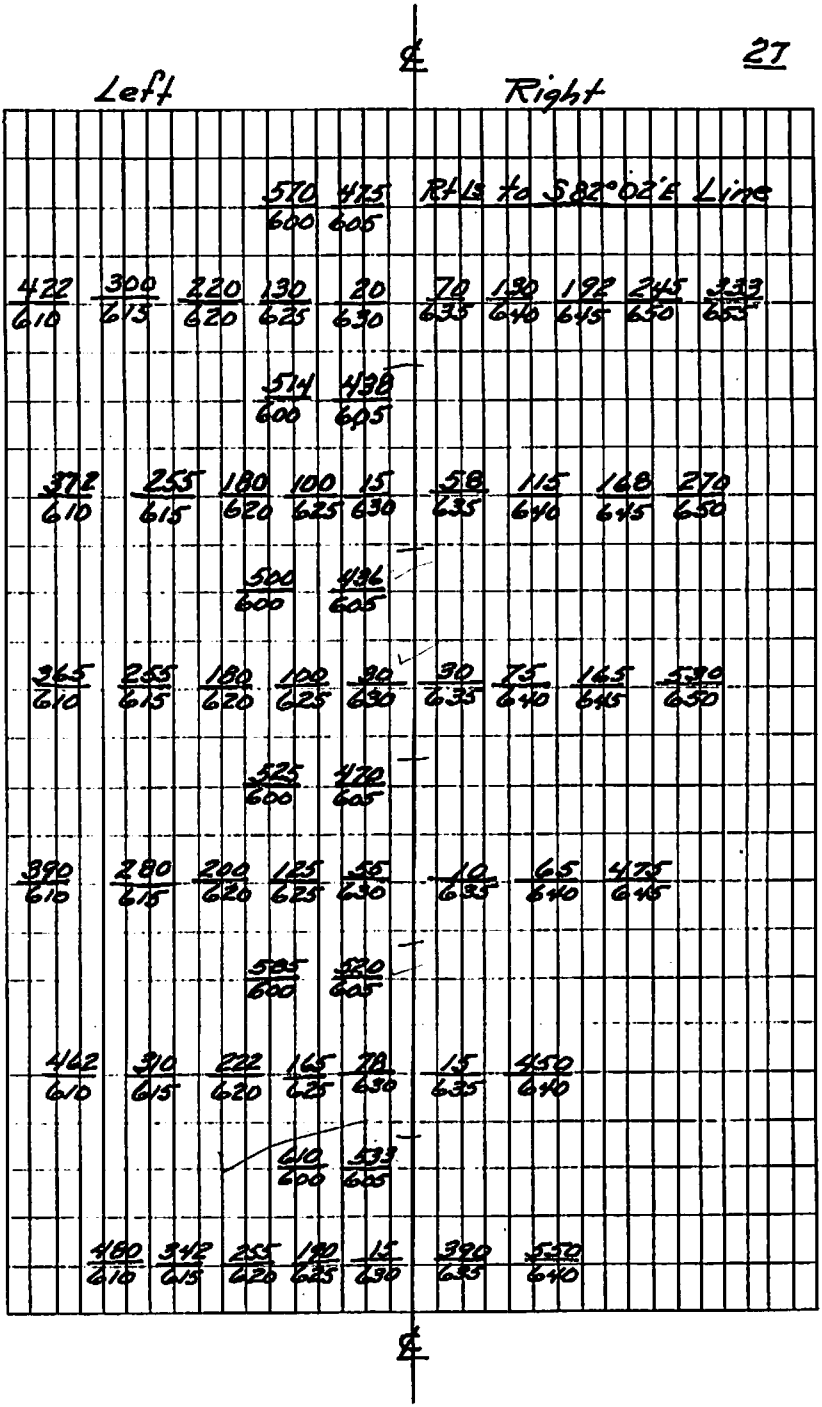
390/610 280/615 200/620 125/625 55/630 10/635 65/640 475/645

585/600 520/605

462/610 310/615 222/620 165/625 78/630 15/635 450/640

610/600 533/605

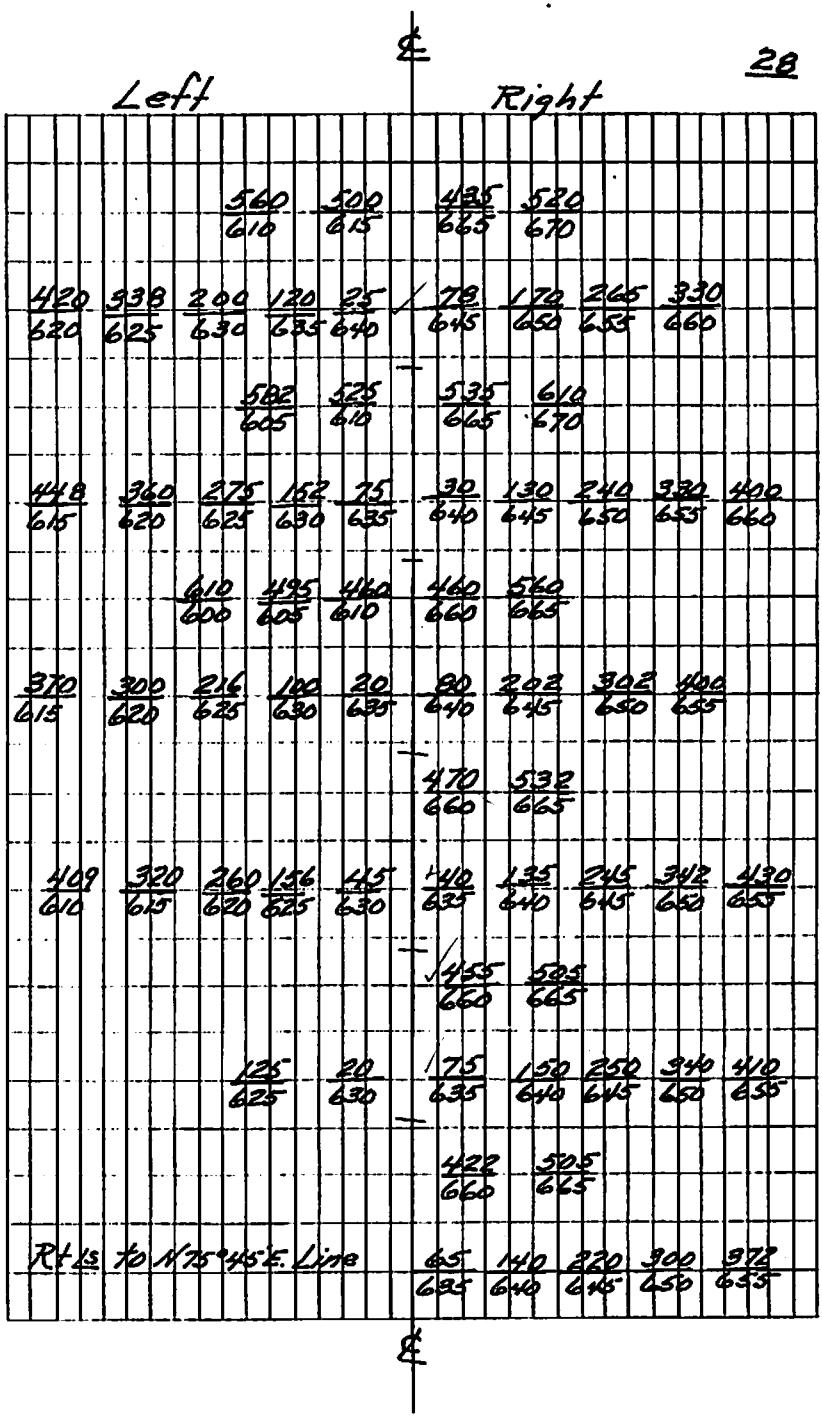
480/610 342/615 255/620 190/625 15/630 390/635 550/640



℄

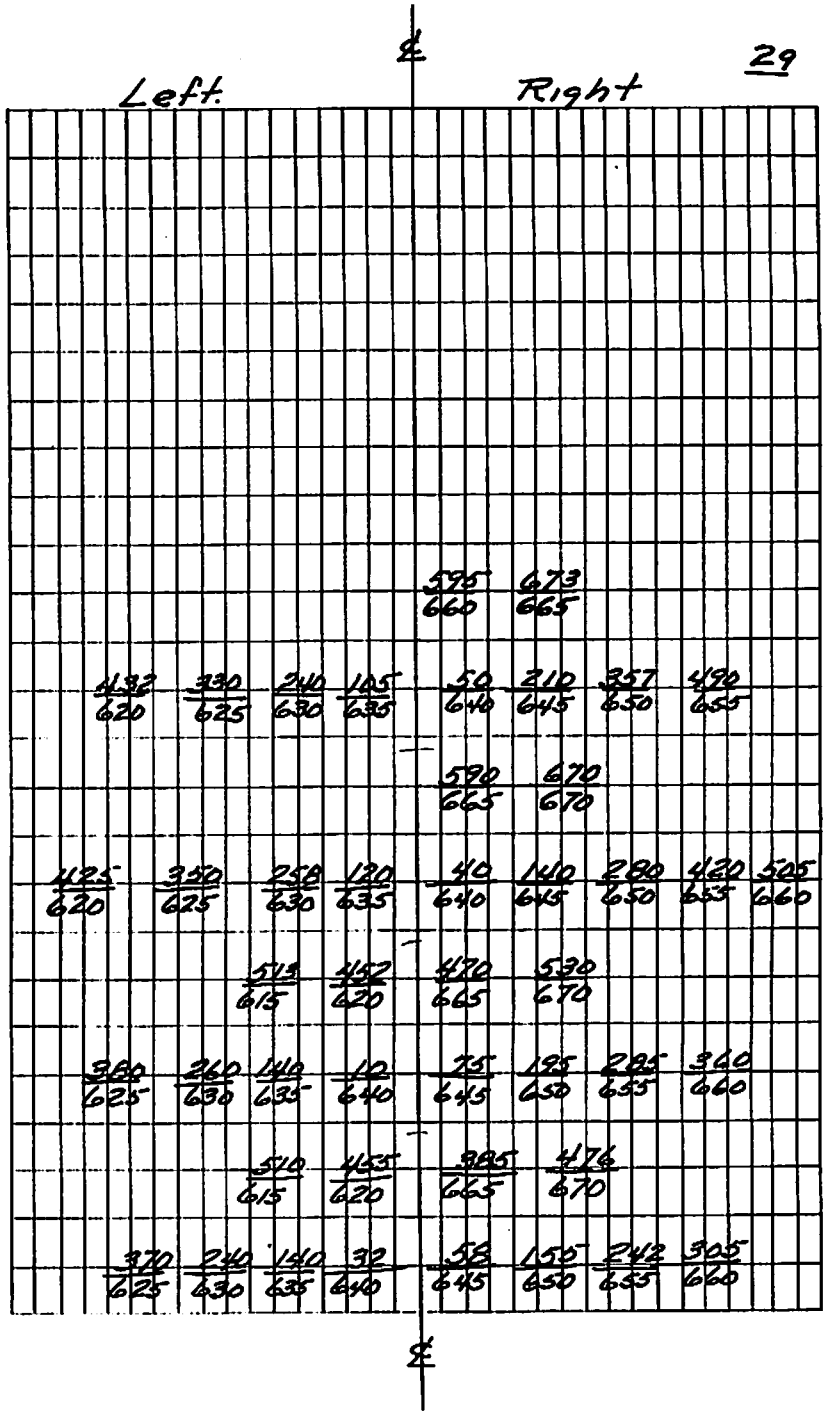
Notes for Plate 6, cont.

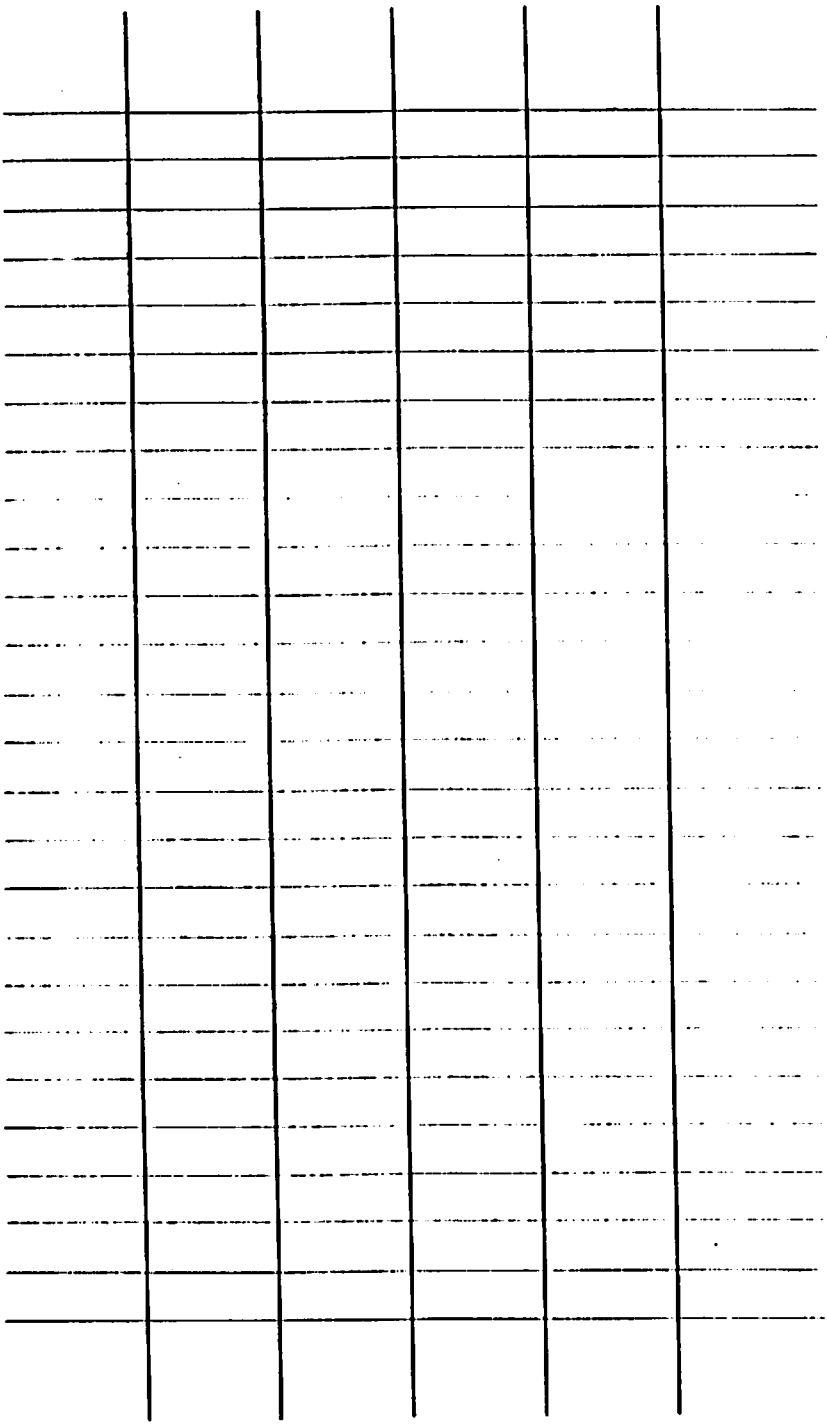
Stk.	Def 4	Cal. B	Elev.		
31					
31			640.8		
30					
30			638.9		
29					
29			635.8		
28					
28			632.5		
27					
27			630.8		
26					
26					


℄
Left
Right
560/610 500/615 435/665 520/670
420/620 938/625 200/630 120/635 25/640 78/645 170/650 265/655 330/660
582/605 525/610 535/645 610/670
448/615 360/620 275/625 162/630 75/635 30/640 130/645 240/650 330/655 400/660
610/600 495/605 460/610 460/660 560/665
370/615 300/620 216/625 100/630 20/635 80/640 202/645 302/650 400/655
470/660 532/665
409/610 320/615 260/620 136/625 45/630 140/635 135/640 245/645 342/650 430/655
455/660 505/665
125/625 20/630 175/635 150/640 250/645 340/650 410/655
422/660 505/665
Rt Ls to N 75° 45' E. Line 65/635 140/640 220/645 300/650 372/655
℄

Notes for Plate 6, cont'd

Sta.	Def. ℄	Cal. B	Elev.		
34+48.4					
34+48.4			638.3		
34					
34			638.8		
33					
33			640.3		
32					
32			642.3		


℄
Left.
Right
℄
575/660
673/665
432/620
330/625
240/630
105/635
50/640
210/645
357/650
480/655
590/665
670/670
425/620
350/625
258/630
130/635
40/640
140/645
280/650
420/655
505/660
515/615
482/620
470/665
530/670
380/625
260/630
140/635
12/640
75/645
195/650
285/655
360/660
510/615
455/620
395/665
476/670
370/625
240/630
140/635
32/640
58/645
150/650
242/655
305/660



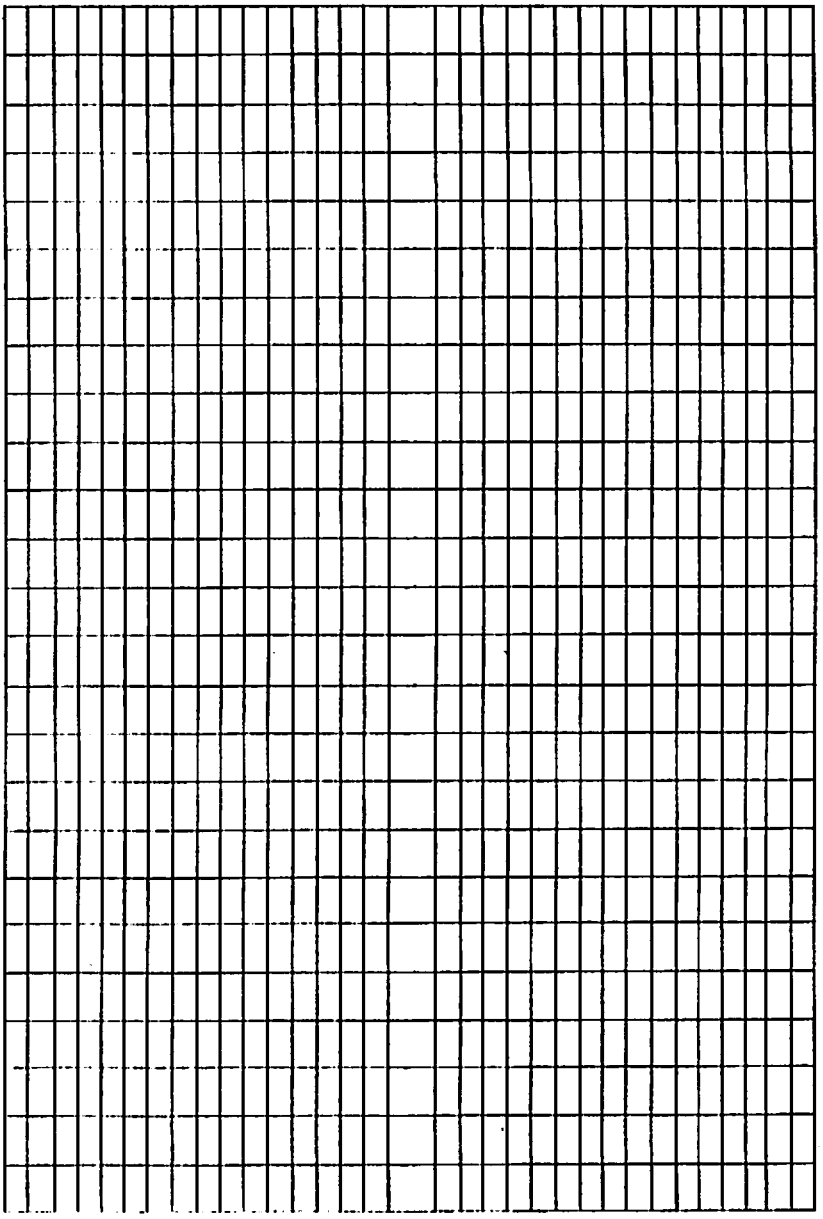


PLATE 7

Deflection Angle Control Traverse

Sta	Dist. Ft.	Def. ∠	Cal. B	Cal. Az.
A		81°01'R		
	595.30		N8°58W	351°02'
B		18°29'R		
	686.76'		N9°31'E	9°31'
C		33°28'R		
	552.35		N42°59'E	42°59'
D		76°53'R		
	712.24		S60°08'E	119°52'
E		60°04R		
	375.47		S0°04'E	179°56'
F		9°34'L		
	491.12		S9°38'E	170°22'
G		64°02R		
	781.86		S54°24'W	234°24'
H		35°37R		
	461.90		N89°59W	270°01'
A				
		Σ 360° ck ok		

K. & E. Transit
No. 62500

L. Carmier, Pt.
M. LeBlanc, Notes
P. LeBlanc, H.C.
G. Carrier, R.C
Wx. Warm - Cloudy
June 8, 1964

Note: 1. Bearing of Line A-B determined with Gurley Solar Transit N2E #600800

2. Bearings and Azimuths calculated by F. Bodreaux on 6-9-64

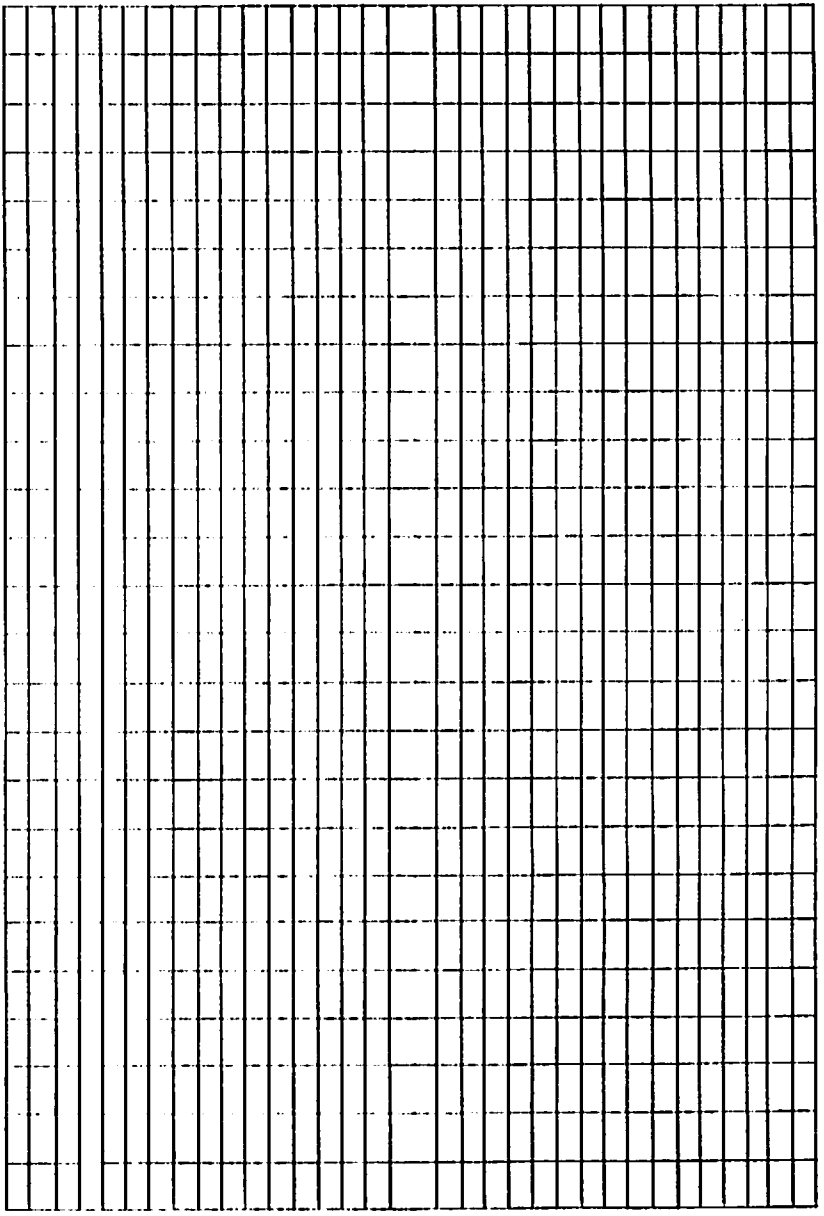


PLATE 7

CALCULATION OF COORDINATES FOR

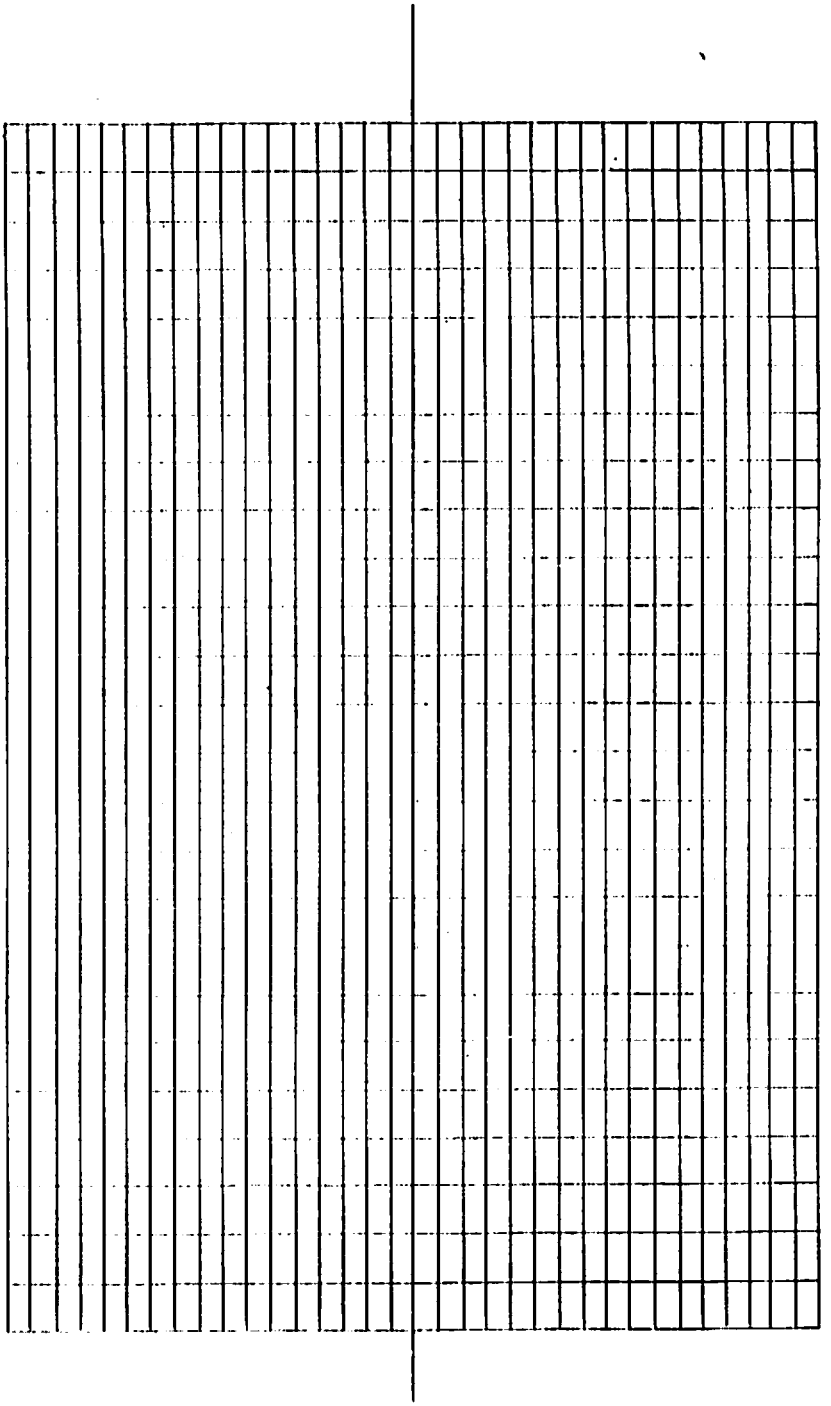
Sta	Adjusted Lat N	Adjusted Lat S	Adjusted Dep E	Adjusted Dep W
A				
	588.02			92.81
B				
	677.29		113.63	
C				
	404.08		376.57	
D				
		354.70	617.54	
E				
		375.47	0.40	
F				
		484.20	82.17	
G				
		465.18		635.70
H				
	0.16			461.90
A				
Σ's	1669.55	1669.55	1190.41	1190.41
	checks O.K.			

HORIZONTAL CONTROL TRAVERSE

J. Zaranque, Computor
T. LeBlanc, Asst. Comp.
June 10, 1944

Monroe Calculator

Total Lat.	Total Dep.
370.00N	450.00E
958.02N	357.19E
1635.31N	470.82E
2038.39N	847.39E
1684.69N	1465.03E
1309.22N	1465.43E
825.02N	1547.60E
369.84N	911.90E
370.00N	450.00E



NOTES FOR PLATE 7

Inst. at Sta. A Elev. 463.5 H.I. 4.7

Obj.	Az.	Vert ∠	Rod Int.	Diff. El.	Hor. Dist.
		Azimuth		from North	
B	351°02'				
1	115°14'	-2°32'	3.06	-13.5	305
2	121°30'	-2°50'	2.74	-13.5	273
3	133°16'	-2°52'	2.71	-13.5	270
4	148°35'	-3°12'	2.43	-13.5	242
5	162°40'	-2°48'	2.77	-13.5	276
6	178°31'	-2°29'	3.13	-13.5	312
7	185°00'	-2°08'	3.63	-13.5	362
8	122°55'	-2°36'	2.07	-9.4	207
9	132°10'	-2°46'	1.94	-9.4	194
10	139°12'	-2°53'	2.06	-10.3	205

L. Cormier, ℄
E. Anderson, Rod
A. Soileau, Notes
June 15, 1964
Wx: Fair-Clear

Elev.	
450.0	Water Edge
450.0	" "
450.0	" "
450.0	" "
450.0	" "
450.0	" "
450.0	" "
454.1	N.E. Cor. 20'x30' Camp - Rear
454.1	N.W. Cor. 20'x30' Camp with 15'x16' Porch
453.2	℄ 10' Road

Note: 1. At each set-up Rod Index always same as HI to simplify elevation calculations
2. Azimuth From North

PLATE 7, cont

Inst. at Sta. A Elev. 463.5 H.I 4.7

Obj	Az.	Vert. ∠	Rod Int.	Diff. El.	Hor. Dist.
11	173°05'	-2°24'	1.36	-5.7	136
12	223°38'	-0°22'	1.56	-1.0	156
13	250°33'	+1°04'	2.62	+4.9	262
14	289°05'	+2°29'	0.92	+4.0	92
15	37°04'	+0°48'	2.51	+3.5	251
16	44°03'	+0°32'	4.11	+3.8	411
17	246°42'	+0°45'	3.68	+4.8	368
18	243°45'	+0°27'	4.72	+3.7	472
19	18°00'	+1°41'	2.52	+7.4	252
20	328°04'	+2°56'	2.41	+12.3	240
21	305°10'	+2°51'	3.65	+18.1	364
22	300°04'	+2°35'	4.86	+21.9	485

Elev.	
457.8	℄ 10 Road
462.5	" " "
463.4	℄ Junction of Roads
467.5	℄ 10' Road
467.0	" " "
467.3	" " "
468.3	" " "
467.2	G.P
470.9	"
475.8	"
481.6	"
485.4	"

PLATE 7, con't

Inst. at Sta A Elev. 463.5 H.I. 4.7

Obj	Az.	Vert. ∠	Rod Int.	Diff. El.	Hor. Dist.
23	276°15'	+2°02'	3.82	+13.6	382
24	288°52'	+2°41'	2.10	+9.8	209
25	63°40'	-0°35'	1.68	-1.7	168
26	226°47'	-0°10'	3.02	-0.9	302
27	230°04'	-0°08'	4.90	-1.1	490
28	209°38'	-1°06'	3.72	-7.1	372
29	188°47'	-1°54'	2.26	-7.5	226
30	130°58'	-2°44'	1.28	-6.1	128
31	105°15'	-2°09'	2.50	-9.4	250

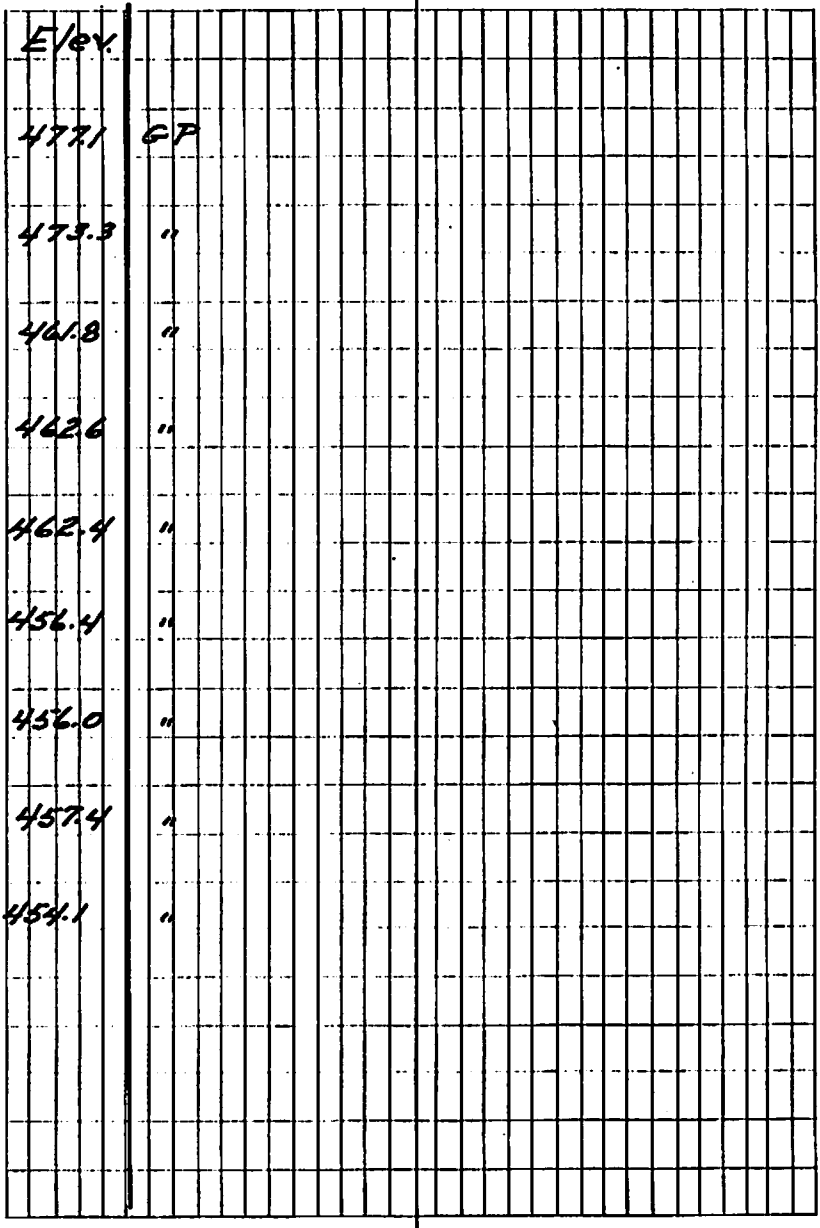

Elev.
477.1 CP
473.3 "
461.8 "
462.6 "
462.4 "
456.4 "
456.0 "
457.4 "
454.1 "

PLATE 7, cont.

Inst at Sta B Elev. 490.6 HI 5.0

Obj	Az.	Vert ∠	Rod Int.	Diff El	Hor Dist
A	171°02'				
1	51°51'	-1°21'	6.65	-15.6	665
2	50°52'	-1°03'	5.87	-10.7	587
3	38°24'	-0°52'	4.20	-6.3	420
4	16°34'	-0°27'	3.90	-3.1	390
5	346°34'	+0°39'	3.86	+4.4	386
6	330°47'	+1°50'	3.61	+11.5	361
7	316°32'	+2°54'	2.32	+11.4	232
8	353°33'	+1°16'	1.98	+4.4	198
9	31°20'	+0°08'	2.10	+0.5	210
10	56°43'	-0°39'	3.01	-3.4	301
11	67°46'	-1°09'	4.60	-9.2	460

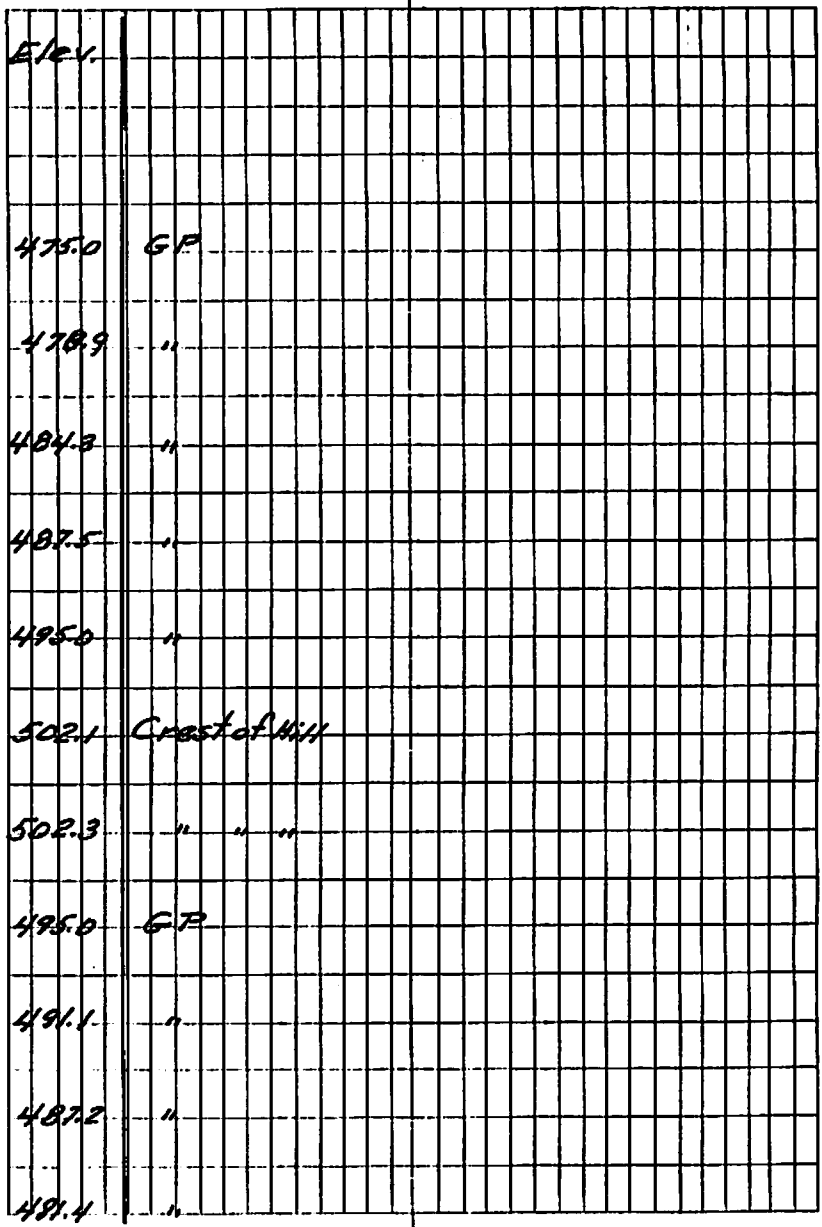

Elev.
475.0 GP
478.9 "
484.3 "
487.5 "
495.0 "
502.1 Crest of Hill
502.3 " " "
495.0 GP
491.1 "
487.2 "
481.4 "

PLATE 7 con't.

Inst. at Sta. B Elev. 490.6 H.I. 5.0

Obj	Az.	Vert. ∠	Rod Int.	Diff. El.	Hor. Dist.
12	92°05'	-2°07'	4.91	-18.1	490
13	103°10'	-2°19'	3.32	-13.4	332
14	91°20'	-2°10'	1.58	-6.0	158
15	231°53'	-0°29	0.72	-0.6	72
16	272°10'	+1°15'	2.38	+5.2	238
17	286°20'	+0°32'	3.57	+3.3	357
18	246°19'	+0°06'	3.49	+0.6	349
19	209°01'	-1°13'	2.31	-4.9	231
20	185°31'	-2°11'	3.88	-14.8	387
21	196°00'	-2°56'	3.04	-15.5	303

472.5	G.P
477.2	"
484.6	"
490.0	"
495.8	"
493.9	"
491.2	"
485.7	"
475.8	"
473.1	

PLATE 7, con't

Inst. at Sta. C, Elev. 483.4, H.I. 5.0

Obj	Az.	Vert. ∠	Rod Int.	Diff. El.	Hor. Dist.
D	42°59'				
1	346°59'	-0°08'	6.21	-1.4	621
2	334°27'	+0°19'	6.62	+3.6	662
3	352°26'	-0°07'	4.53	-0.9	453
4	336°10'	+0°43'	4.55	+5.7	455
5	322°10'	+0°59'	5.18	+8.9	518
6	18°30'	-1°02'	2.92	-5.3	292
7	353°40'	+0°02'	2.39	+0.1	239
8	322°51'	+1°17'	2.94	+6.6	294
9	302°26'	+1°59'	3.99	+13.8	398
10	292°41'	+2°55'	3.66	+18.6	365
11	263°30'	+3°05'	3.47	+18.6	346

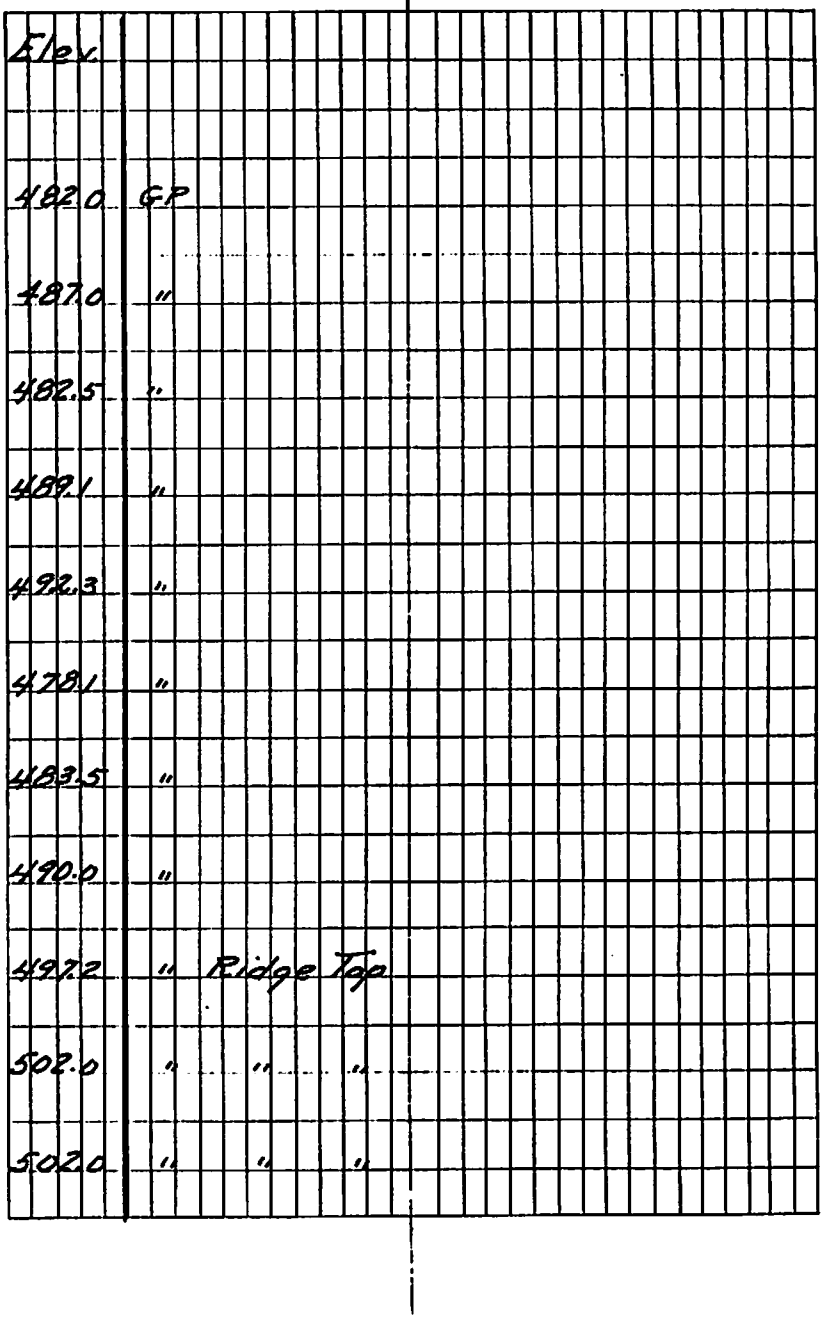

Elev.
482.0 GP
487.0 "
482.5 "
489.1 "
492.3 "
478.1 "
483.5 "
490.0 "
497.2 " Ridge Top
502.0 " " "
502.0 " " "

PLATE 7 con't

Inst at Sta C Elev. 483.4 H.I. 5.0

Obj	Az.	Vert ∠	Rod Int.	Diff El.	Hor. Dist
12	278°31'	+2°30'	2.60	+11.3	260
13	321°42'	+1°02'	0.78	+1.4	78
14	77°06'	-3°11'	1.52	-8.4	151
15	109°53'	-2°19'	3.20	-12.9	319
16	131°41'	-1°33'	1.89	-5.1	189
17	201°00'	+0°59'	1.34	+2.3	134
18	238°42'	+2°07'	1.78	+6.6	178
19	249°31'	+2°10'	3.61	+13.6	360
20	232°51'	+2°00'	3.93	+13.7	393
21	247°37'	+1°16'	4.72	+10.4	472
Sta I	281°54'	+3°17'	3.42	+19.6	341

Elev.	
494.7	GP
484.8	"
475.0	"
470.5	"
478.3	"
485.7	"
490.0	"
497.0	" Ridge Top
497.1	" " "
498.8	GP
503.0	Sat Sta. I - needed to get data back of hill

PLATE 7 cont

Inst. at Sta D. Elev. 463.8 H.I 5.4

Obj Sta. E	Az.	Vert. ∠	Rod Int.	Diff. El.	Hor. Dist
	119°52'				
1	55°47'	-2°19'	4.66	-18.8	465
2	64°22'	-2°26'	4.42	-18.8	441
3	76°01	-2°21'	4.58	-18.8	457
4	90°06'	-2°12'	4.91	-18.8	490
5	94°15'	-2°00'	5.41	-18.8	540
6	88°02'	-2°11'	4.28	-16.3	427
7	90°54'	-2°07'	4.43	-16.3	442
8	94°58'	-1°59'	4.56	-15.8	455
9	104°50'	-1°39'	4.79	-13.8	479
10	49°06	-2°03'	3.87	-13.8	386
11	32°00'	-1°18'	2.90	-6.6	290

Elev	
445.0	Lake Edge
445.0	" "
445.0	" "
445.0	" "
445.0	" "
447.5	NW Cor. Rear 30'x20' Camp
447.5	S.W. Cor. Rear 30'x20' Camp
448.0	℄ and end of 10' Road
450.0	℄ 10' wide Road
450.0	GP
457.2	"

PLATE 7, con't

Inst at Sta D Elev. 463.8 H.I. 5.4

Obj	Az.	Vert ∠	Rad Int	Diff El	Hor Dist
12	0°06'	-0°34'	2.20	-2.2	220
13	323°32'	+0°29'	2.71	+2.3	271
14	307°14'	+0°56'	3.81	+6.2	381
15	298°08'	+1°23'	4.47	+10.8	447
16	282°17'	+2°11	2.60	+9.9	260
17	311°14'	+1°25'	1.21	+3.0	121
18	75°07'	-2°10'	1.22	-4.6	122
19	85°02'	-2°02'	3.00	-10.6	300
20	104°58'	-1°41'	3.90	-11.5	390
21	121°24'	-1°16'	2.58	-5.7	258
22	184°30'	+0°24'	1.67	+1.2	167
23	207°52'	+1°13'	2.51	+5.3	251

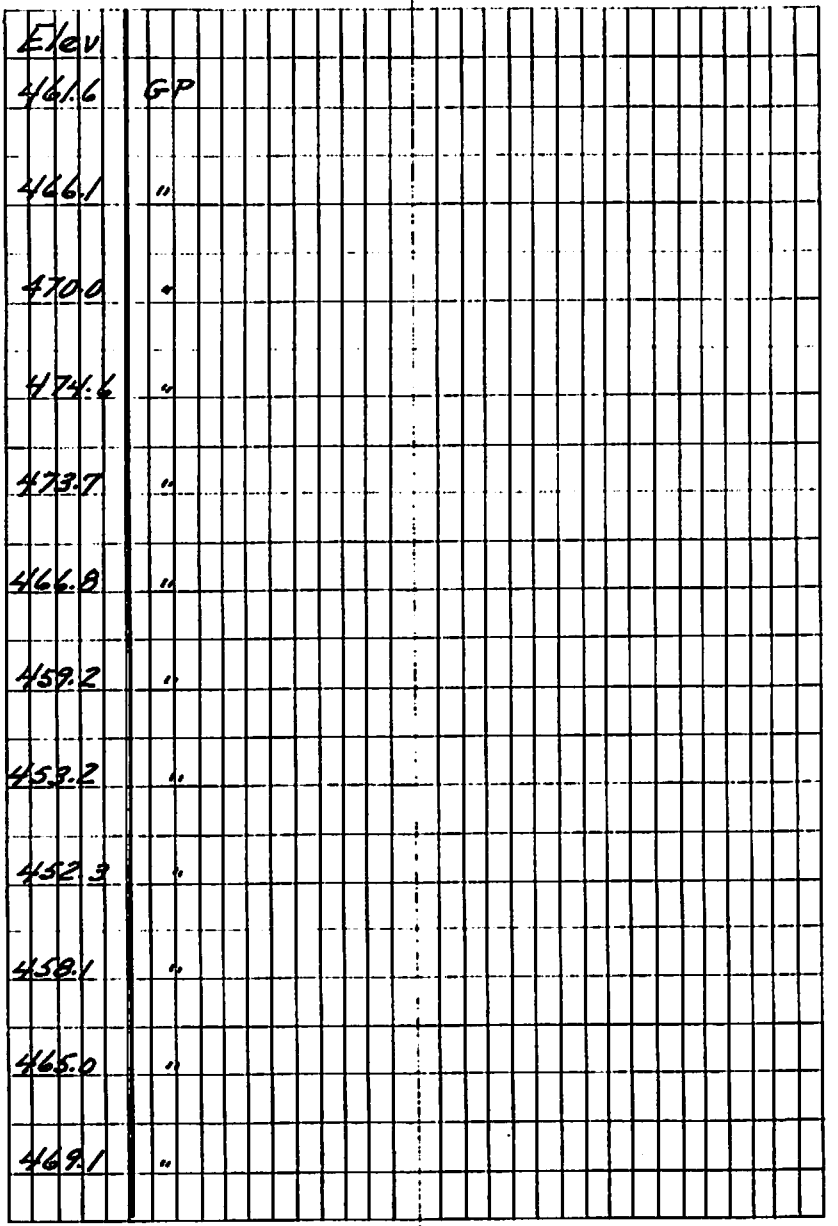

Elev
461.6 GP
466.1 "
470.0 "
474.4 "
473.7 "
466.8 "
459.2 "
453.2 "
452.3 "
458.1 "
465.0 "
469.1 "

PLATE 7, con't.

Obj	Az	Vert ∠	Rod Int	Diff El	Hor Dist
Inst at Sta D		Elev. 463.8		H.I 5.4	
24	195°58'	+0°46'	4.29	+5.8	429
25	161°13'	+0°03'	4.35	+0.4	435
26	123°40'	-1°03'	4.42	-8.1	442
Inst at Sta E		Elev. 451.5		H.I 4.9	
Sta. F	179°56'				
1	358°11'	-1°31'	2.45	-6.5	245
2	28°12'	-2°20'	1.60	-6.5	160
3	59°10'	-1°36'	2.32	-6.5	232
4	74°51'	-1°12'	3.09	-6.5	309
5	81°25'	-0°45'	5.02	-6.5	502
6	86°15'	-0°32	4.84	-4.5	484
7	88°31	-0°28'	4.89	-4.0	489

Elev.					
4696	GP				
4642	"				
4537	"				
4430	Waters	Edge			
4450	"	"			
4430	"	"			
4430	"	"			
4430	"	"			
4470	NW	Cor.	30	x 20	Comp
4475	SW	Cor.	30	x 20	Comp

PLATE 7. cont.

Inst. at Sta E Elev. 4515 H.I. 4.9

Obj.	Az.	Vert ∠	Rod Int.	Diff El	Hor Dist.
8	89°27'	-0°22'	5.21	-3.3	521
9	99°03'	-0°05	3.79	-0.6	379
10	119°21'	+0°30'	2.57	+2.2	257
11	159°43'	+1°12'	2.06	+4.3	206
12	201°28'	+1°21'	2.86	+6.7	286
13	230°04	+1°38'	1.58	+4.5	158
14	307°58'	+0°21'	1.81	+1.1	181
15 ✓	337°49'	-0°53'	0.98	-1.5	98
16 ✓	87°03'	-0°40'	1.62	-1.9	162
17	108°21'	+0°12'	4.45	+1.5	445
18	247°39	+1°43'	4.52	+13.5	452

Elev.	
448.2	℄ 10' wide road trail
450.9	" " " " " "
453.7	" " " " " "
455.8	" " " " " "
458.2	℄ Junction road trails
456.0	℄ road trail
452.6	" " "
450.0	GP
449.0	"
453.0	"
465.0	"

NOTE

PLATE 7 con't.

Inst at Sta. F Elev. 462.1 H.I. 5.0

Obj	Az.	Vert. ∠	Rod Int.	Diff. El.	Elev.
Sta. G	170°22'				
1	278°49'	0°08'	2.70	+0.6	462.7
2	257°33'	+0°30'	3.31	+2.9	465.0
3	235°40'	+0°38'	5.45	+6.0	468.1
4	253°30'	+1°12'	5.00	+10.4	472.5
5	229°58'	+1°07	2.78	+5.4	467.5
6	178°29'	+1°55	2.37	+7.9	470.0
7	125°38'	+0°35'	3.78	+3.8	465.9
8	114°39'	+0°12'	5.60	+2.0	464.1
9	98°51'	−0°15'	4.91	−2.2	459.9
10	98°08	−0°10'	2.70	−0.8	461.3
11	106°05'	+0°10'	1.35	+0.4	462.5

Hor. Dist.	
270	Bend in road ℄
331	℄ road
545	" "
500	GP
278	"
237	"
378	"
560	"
491	"
270	"
135	"

PLATE 7 cont.

Inst at Sta. F Elev. 462.1 HI 5.0

Obj	Az.	Vert. ∠	Rod. Int.	Diff. El.	Elev.
12	253°23'	+0°32'	1.80	+1.7	463.8
13	267°33'	+1°04	4.26	+7.9	470.0
14	287°46'	+0°01'	3.60	+0.1	462.2
15	61°32'	-1°02'	2.55	-4.6	457.5
16	74°45'	-0°45'	4.60	-6.0	456.1

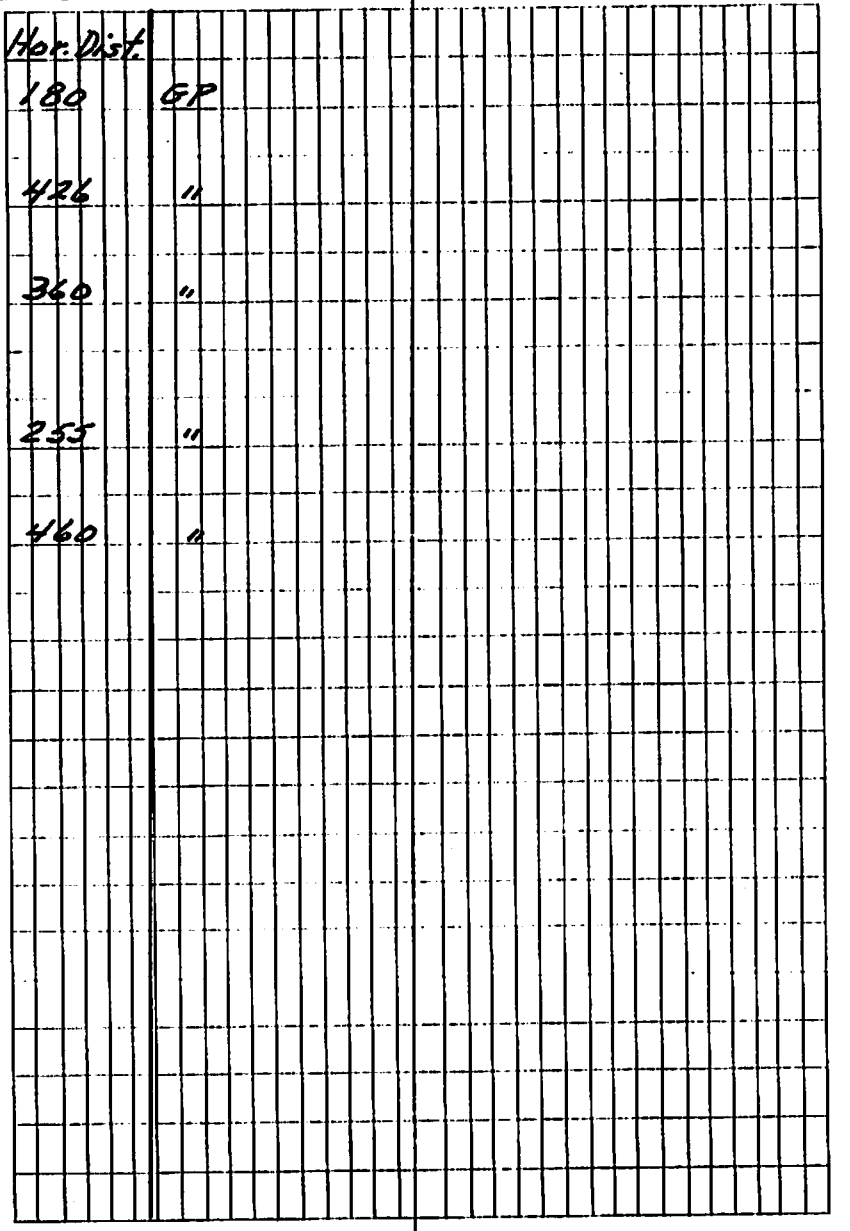

Hor. Dist.
180 GP
426 "
360 "
255 "
460 "

PLATE 7, cont'

Inst. at Sta G Elev. 481.7 H.I. 4.7

Obj	Az.	Vert ∠	Rod Int.	Diff. El.	Hor. Dist
Sta H	234°24'				
1	84°15'	-1°45'	3.92	-12.0	392
2	86°12	-1°55'	2.00	-6.7	200
3	300°32'	-0°53'	1.10	-1.7	110
4	278°47'	-0°49'	2.96	-4.2	296
5	301°26	-1°36'	4.86	-13.6	486
6	274°32	-1°29	5.62	-14.6	562
7	244°13'	-1°06	3.49	-6.7	349
8	239°28	+1°31'	1.25	+3.3	125
9	190°27	+2°41'	1.62	+7.6	162
10	168°04'	+2°14'	2.92	+11.4	292
11	204°50'	+0°10'	2.82	+0.8	282

Elev.	
469.7	G.P.
475.0	"
480.0	"
477.5	" Ridge Top
468.1	G.P.
467.1	"
475.0	"
485.0	" Ridge Top
488.3	" " "
493.1	" " "
482.5	G.P.

PLATE 7, cont'd

Inst. at Sta. G — Elev. 481.7 — H.I 4.7

Obj.	Az.	Vert ∠	Rod Int.	Diff. El.	Hor. Dist.
12	179°40'	+1°34'	3.04	+8.3	304
13	134°44'	+0°36'	3.59	+3.8	359
14	122°28'	+0°05	4.96	+0.7	496
15	107°47'	-0°50'	3.86	-5.6	386
16	118°55	-0°19'	1.97	-1.1	197
17	163°03	+2°23'	4.33	+18.0	432
18	160°45'	+2°16'	5.13	+20.3	512
19	139°25'	+0°51'	5.63	+8.3	563
20	169°32'	+1°35'	4.82	+13.3	482
21	190°50'	+0°22'	4.65	+3.0	465
22	154°27	+1°53	1.00	+3.3	100

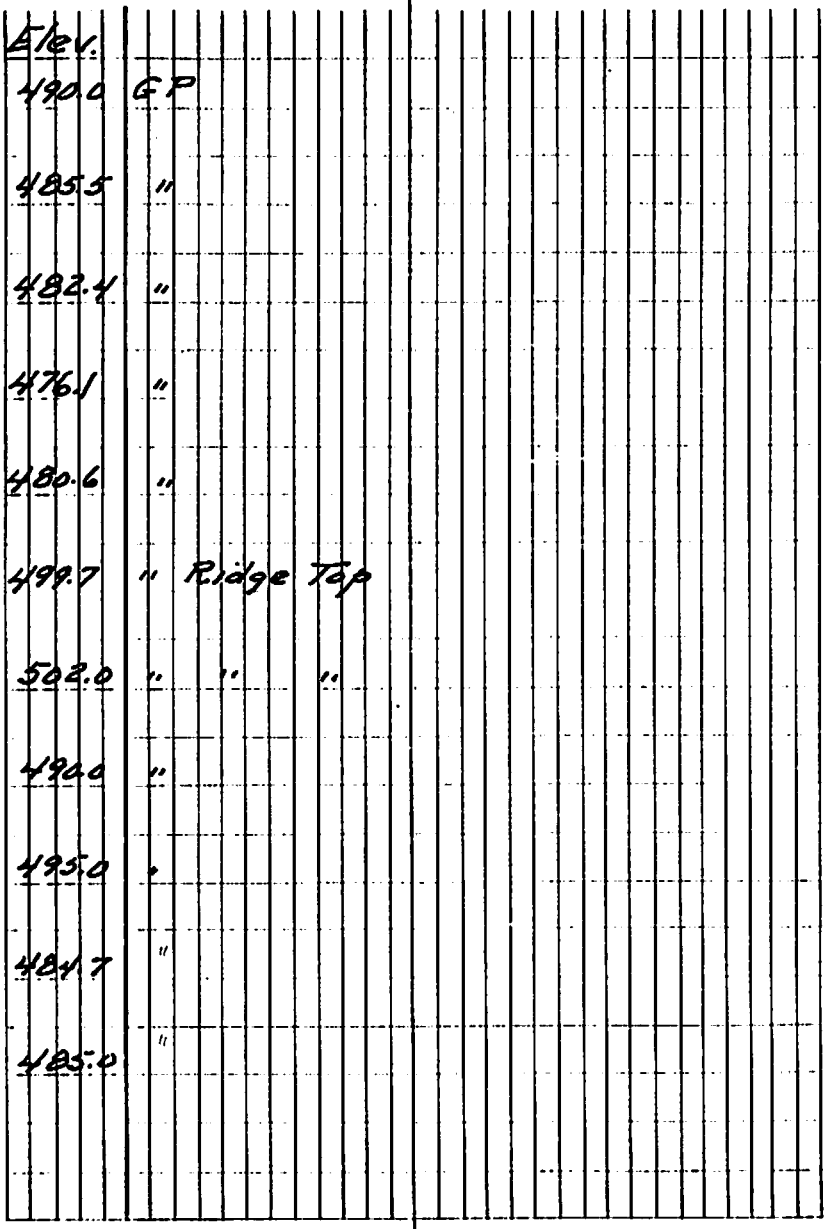

Elev.
490.0 GP
485.5 "
482.4 "
476.1 "
480.6 "
499.7 " Ridge Top
502.0 " " "
494.0 "
495.0 "
491.7 "
485.0 "

PLATE X. con't.

Inst. at Sta H Elev. 458.6 HI 4.6

Obj	Az.	Vert. ∠	Rod Int.	Diff. El.	Hor. Dist.
Sta. A	270°01'				
1	225°30'	-2°11'	2.25	-8.6	225
2	222°12'	-1°49'	2.70	-8.6	270
3	213°17'	-1°38	3.02	-8.6	302
4	213°17	-1°29'	3.32	-8.6	332
5	207°54'	-1°19'	3.75	-8.6	375
6	194°34'	-0°38'	3.28	-3.6	328
7	157°31'	+1°03'	3.13	+5.7	313
8	127°19	+2°11'	1.68	+6.4	168
9	215°33'	-1°43'	1.02	-3.0	102
10	321°14'	-0°43'	1.20	-1.5	120
11	356°11'	+0°20'	2.45	+1.4	245

Elev	
450.0	Lake water edge
450.0	" " "
450.0	" " "
450.0	" " "
450.0	" " "
455.0	G.P.
464.3	"
465.0	"
453.6	"
457.1	" Valley Line
460	" " "

Inst at Sta. H Elev. 458.6 H.I. 4.6

Obj	Az.	Vert. ∠	Rod Int.	Diff. El.	Hor. Dist.
12	2°42'	+0°56'	4.02	+6.6	402
13	358°30'	+0°56'	4.20	+6.8	420
14	23°08'	+1°34'	4.38	+12.0	438
15	45°20'	+2°05'	3.06	11.1	306
16	34°00'	+1°55'	1.85	+6.2	185
17	84°46'	+2°36'	3.06	+13.9	305
18	68°02'	+2°21'	4.20	+17.2	419

Inst at Sta. I Elev. 503.0 H.I. 4.9

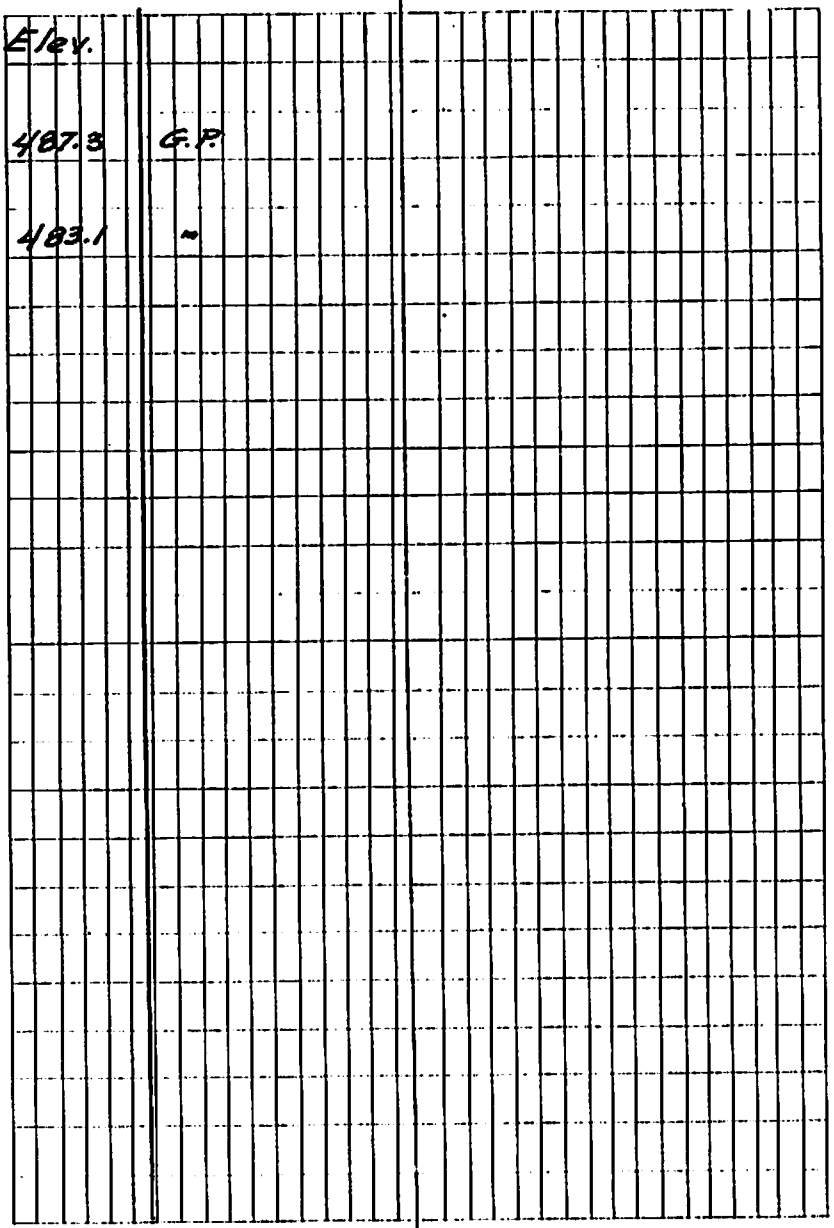
Sta. C	101°54'				
1	191°53'	-1°10'	4.68	-9.6	468
2	269°07	-4°17'	1.21	-9.0	120
3	338°57'	-2°40'	3.21	-14.9	320

Elev.	
465.2	GP Valley Line
465.4	" Bend in va' road
470.6	"
469.7	"
464.8	"
472.5	"
475.8	"
493.4	GP
494.0	"
488.1	"

PLATE J, con't

Inst at Sta I Elev. 503.0 H.I. 4.9

Obj	Az.	Vert. ∠	Rod Int.	Diff. El.	Hor. Dist.
4	350°30'	-1°57'	4.61	-15.7	460
5	350°50'	-2°00'	5.71	-19.9	570


Elev.
487.3
G.P.
483.1
~

NOTES FOR PLATE 8.

Cross-Sections, King Street

Sta	B.S.	H.I.	F.S.	Elev.	
B.M.	4.7	68.3		63.6	
					(Elev.)
0+00					(Dist.)
					(Rod)
0+25					
0+50					
0+75					
1+00					
1+25					

J. Zeronque, Jr.
G. Carrier, Rod
M. LeBlanc, Tape
July 14, 1944
Clear - Warm

61.5	59.8	60.0	59.7	61.3
0	5	17	29	34
6.8	8.5	8.3	8.6	7.0
62.4	60.2	60.4	60.0	61.5
0	5	17	29	34
5.9	8.1	7.9	8.3	6.8
63.2	60.4	60.8	60.4	61.8
0	5	17	29	34
5.1	7.9	7.5	7.9	6.5
63.8	60.4	61.0	60.6	61.3
0	5	17	29	34
4.5	7.9	7.3	7.7	7.0
63.8	60.8	61.2	60.8	63.0
0	5	17	29	34
4.5	7.5	7.1	7.5	5.3
64.1	61.0	61.4	60.9	63.3
0	5	17	29	34
4.2	7.3	6.9	7.4	5.0

PLATE 8 cont.

Sta.	B.S	H.I.	F.S.	Elev.	(Elev.) (Dist.) (Rod)
1+50					
T.P. 1	4.0	68.0	4.3	64.0	
1+75					
2+00					
2+25					
2+50					
2+75					

64.0	61.2	61.6	61.1	63.3
0	5	17	29	34
4.3	7.1	6.7	7.2	5.0
64.3	61.4	61.8	61.3	63.3
0	5	17	29	34
9.7	6.6	6.2	6.7	4.7
64.4	61.7	62.1	61.8	63.6
0	5	17	29	34
3.6	6.3	5.9	6.2	4.4
64.6	61.9	62.3	61.9	63.7
0	5	17	29	34
3.4	6.1	5.7	6.1	4.3
64.7	62.1	62.6	62.1	63.6
0	5	17	29	34
3.3	5.9	5.4	5.9	4.4
64.6	62.2	62.6	62.2	62.5
0	5	17	29	34
3.4	5.8	5.4	5.8	5.5

PLATE 8 con't

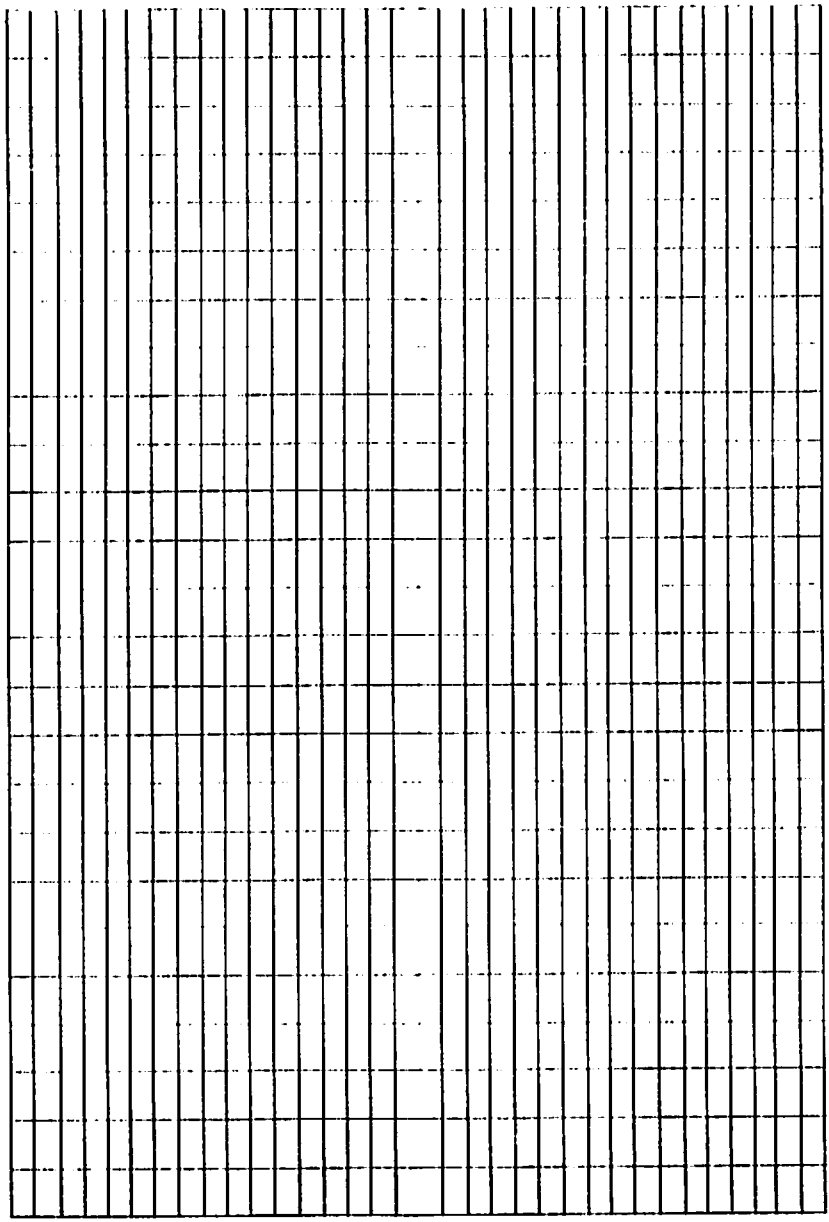
Sta.	B.S	H.I.	F.S.	Elev.	
		68.0			(Elev.)
3+00					(Dist.)
					(Rod)
3+25					
3+50					
T.P$_2$	4.2	68.9	3.3	64.7	
3+75					
4+00					
4+25					

64.7	62.2	62.6	62.3	63.3
0	5	17	29	34
3.3	5.8	5.4	5.7	4.7
64.7	62.3	62.7	62.4	64.0
0	5	17	29	34
5.3	5.7	5.3	5.6	4.0
64.7	62.4	62.8	62.4	64.1
0	5	17	29	34
3.3	5.6	5.2	5.6	3.9
64.6	62.5	62.9	62.5	63.1
0	5	17	29	34
4.3	6.4	6.0	6.4	5.8
64.7	62.6	63.0	62.5	63.5
0	5	17	29	34
4.2	6.3	5.9	6.4	5.4
64.9	62.6	63.0	62.6	63.3
0	5	17	29	34
4.0	6.3	5.9	6.3	5.6

PLATE 8 cont.

Sta.	B.S.	HI	FS	Elev.	
		68.9			(Elev.)
4+50					(Dist.)
					(Rod)
4+75					
5+00					
5+33					

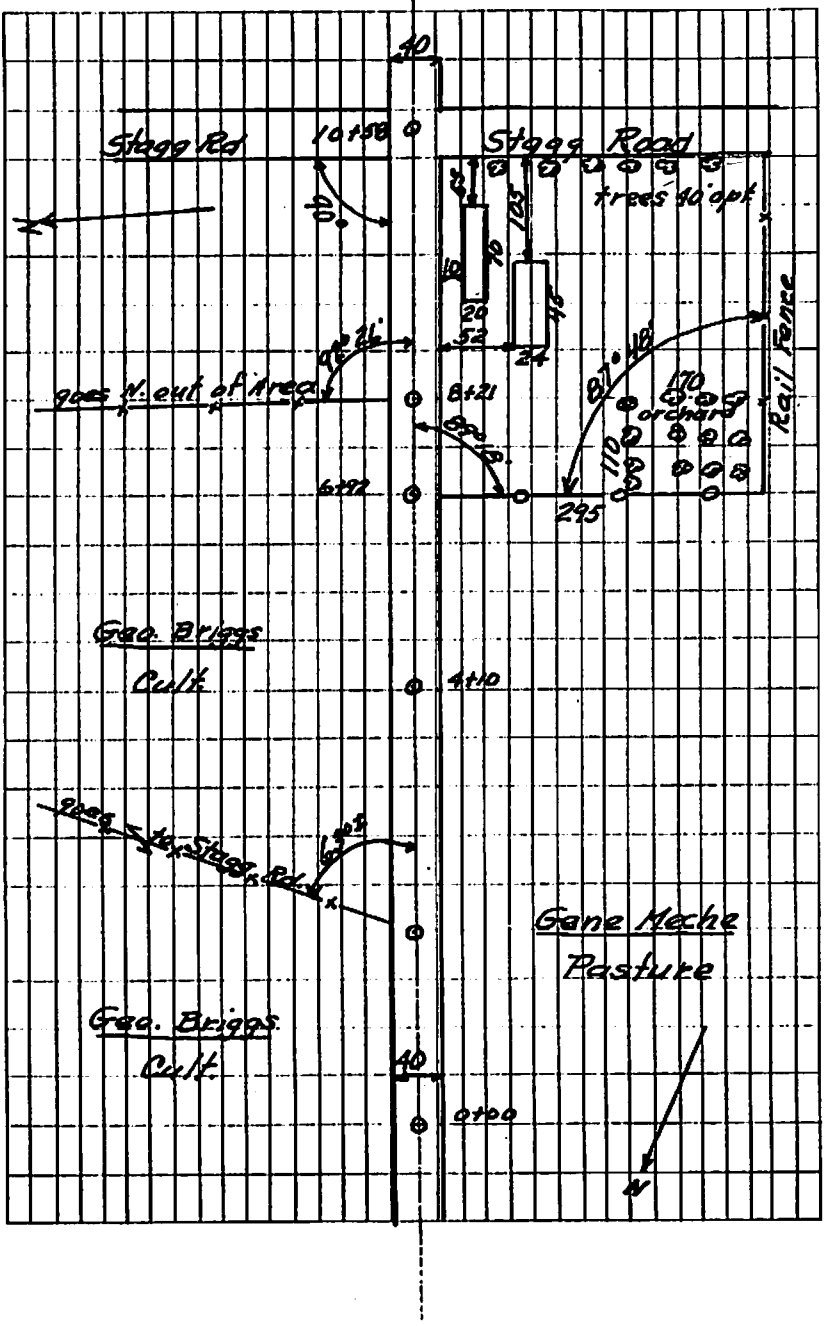
648	626	630	626	634
0	5	17	29	34
41	63	59	63	55
647	626	630	625	640
0	5	17	29	34
42	63	59	64	49
647	626	630	626	640
0	5	17	29	34
42	63	59	63	49
640	627	630	630	640
0	5	17	29	34
49	62	59	59	49



Notes for Plate 9

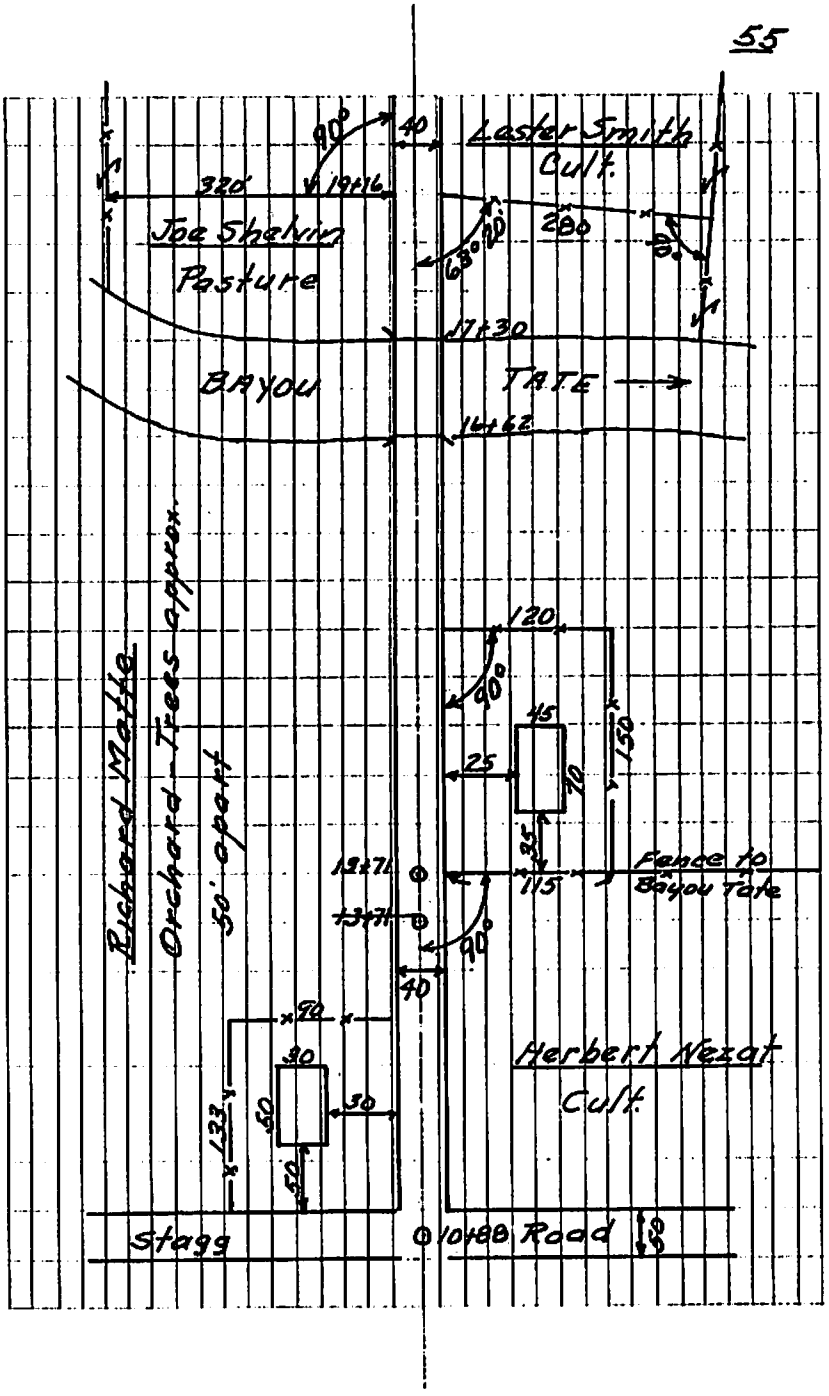
Wilson Road Traverse

Sta	Def ∠	Cal B	Remarks
10+58			Sta 10+58 ℄ Stagg ℄ Wilson Roads
8+21			Fence goes N. out of Area
6+92			Smooth wire fence
4+10	60°22'L	S87°18'E	Bend in Road
1+31			
0+00		S26°56'E	Sta 0+00 on map is on north border and 2½ in. East of left border


40
Stagg Rd
10+58
Stagg Road
trees 40' opt.
90°
105
70
10
20
52
24
45
Rail Fence
87°48'
170
orchard
110
goes N. out of Area
8+21
6+92
295
Geo. Briggs
Cult.
4+10
goes to Stagg Rd.
Gene Meche
Pasture
Geo. Briggs
Cult.
40
0+00
N

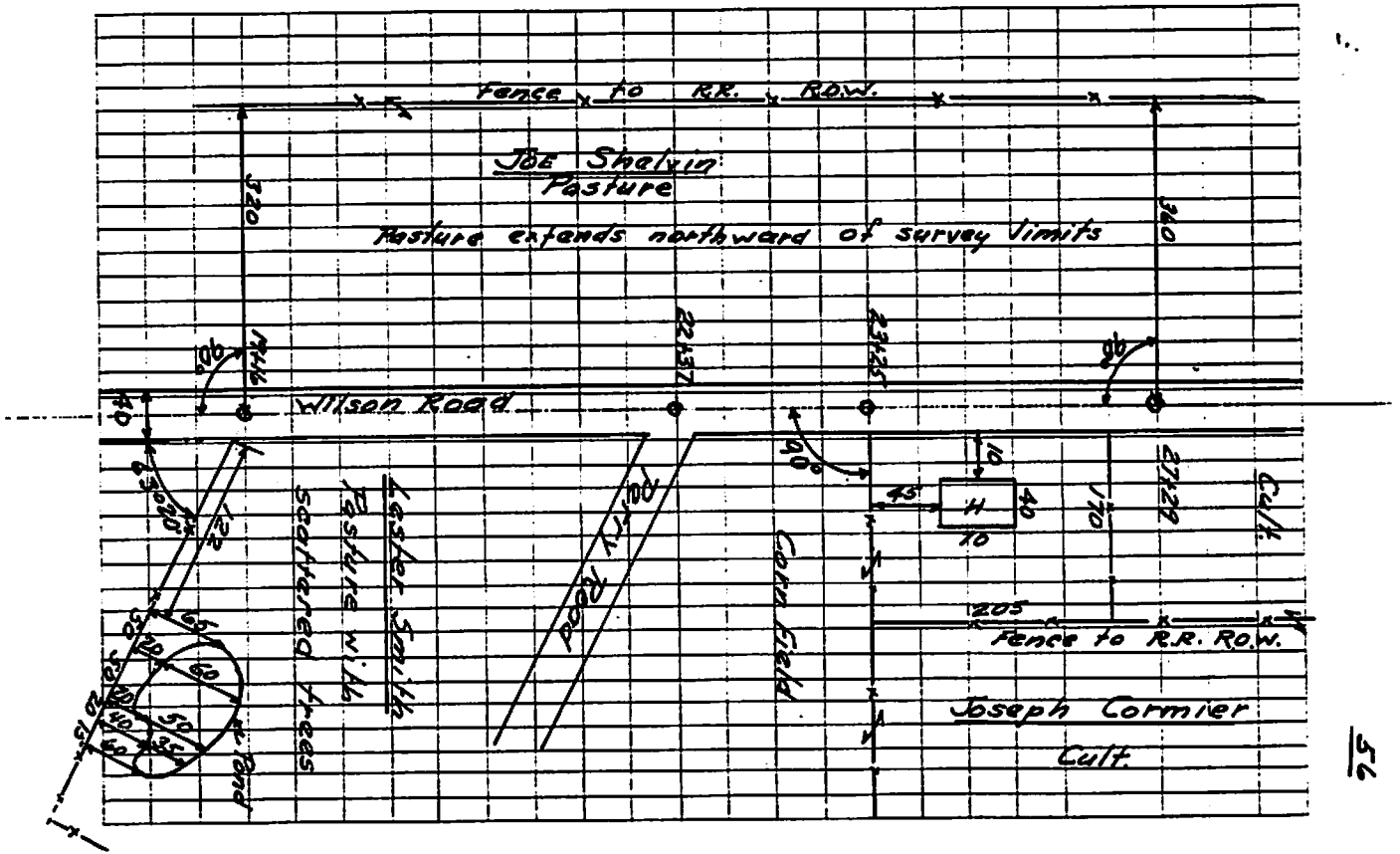
Wilson Road Traverse, Cont'

Sta.	Def.∠	Cal.B	Remarks
19+16			
17+30			East end bridge
16+62			West end bridge
13+71			
10+58			E Stagg & Wilson Rds.


Laster Smith
Cult.
90°
40
320'
19+16
Joe Shelvin
Pasture
68°
280
17+30
BAYOU
TATE
14+62
Richard Mathe
Orchard-Trees appox.
50' apart
120
90°
45
25
70
150
35
19+71
13+71
115
Fence to
Bayou Tate
90°
40
90
30
30
50
50
123
Herbert Nezat
Cult.
Stagg
10+88 Road
50

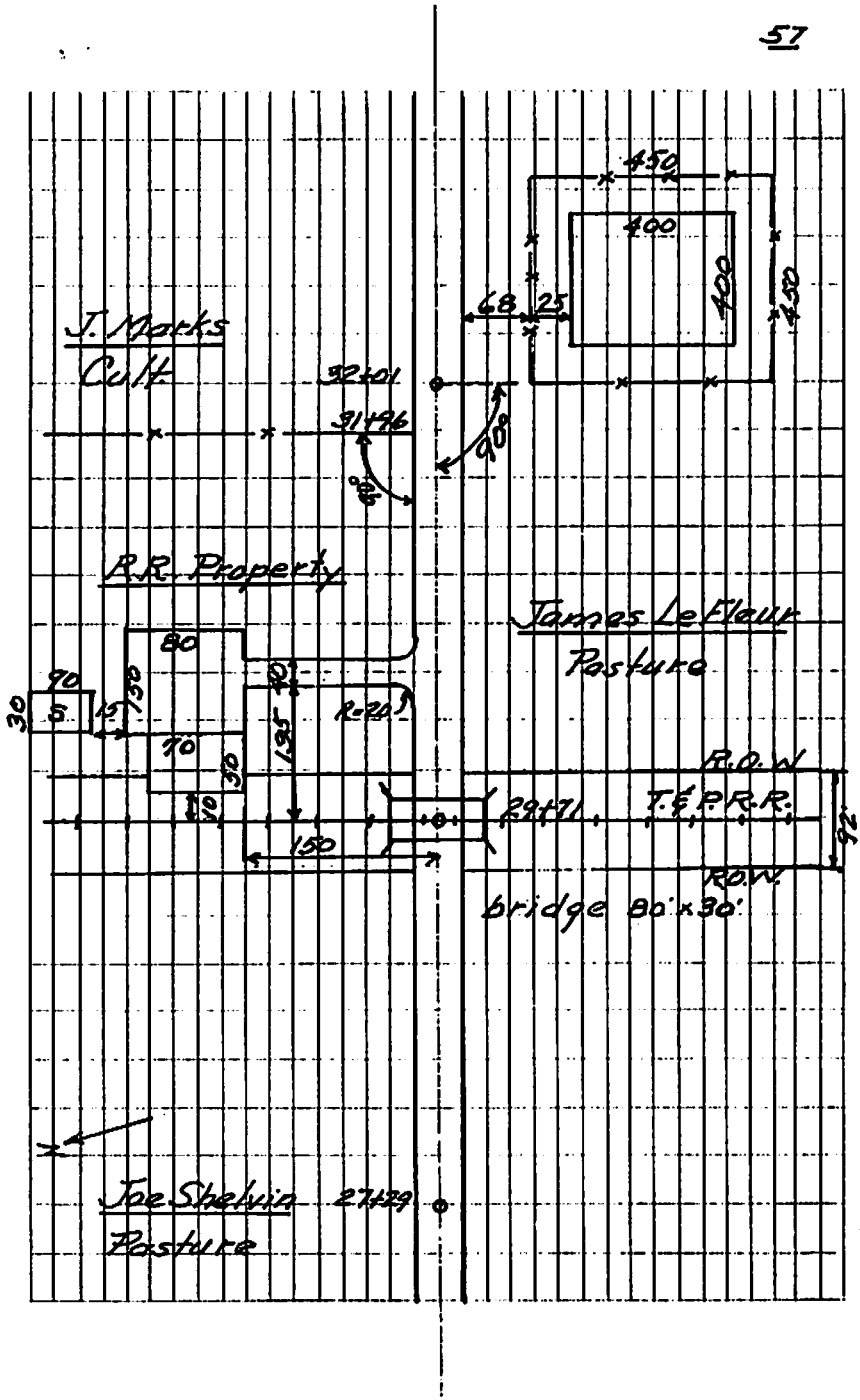
Wilson Road Traverse, Con't

Sta.	Def. 4	Col. B	Remarks
27+29	29°21' R	S57°57E	Bend in road
23+25			
22+37			℄ Wilson & ~~Hassett~~ Perry Rds.
19+16			


Fence to R.R. R.O.W.
Joe Shelvin
Pasture
Pasture extends northward of survey limits
320
360
17+46
22+37
23+25
27+29
90°
Wilson Road
40
Lester Smith
Pasture with
scattered trees
Perry Road
Corn Field
Cult.
Fence to R.R. R.O.W.
Joseph Cormier
Cult.
Pond
H
10
40
45
170
205
122
65
60
50
35
20
13

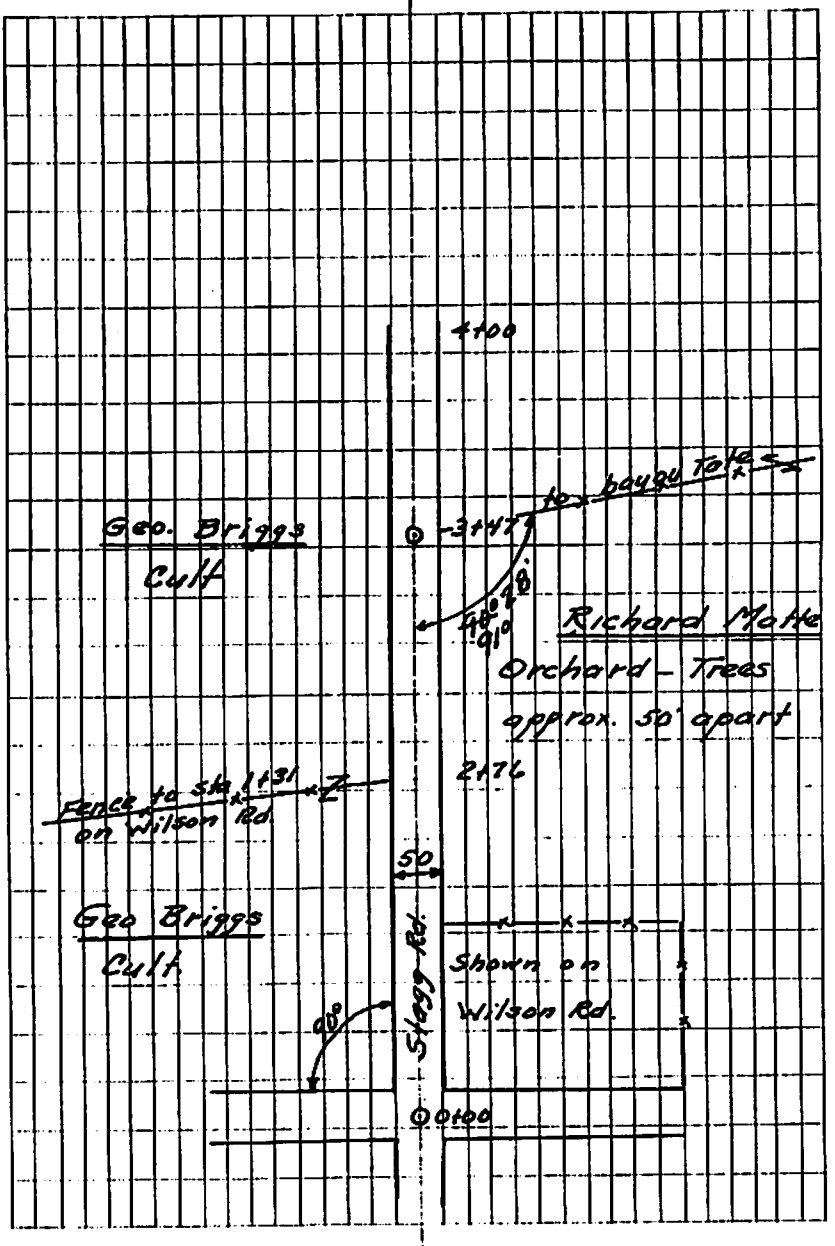
Wilson Road Traverse, Cont'd

Sta.	Def.∠	Cal.θ	Remarks
36+51			End of Survey
32+01			
31+96			
29+71			Sta. 29+71 ℄ R.R. tracks
			℄ Wilson Rd.
27+29			


450
400
400
450
68
25
J. Marks
Cult.
32+01
31+96
90°
90°
R.R. Property
James Le Fleur
Pasture
80
90
30
S
15
150
40
135
R=20
70
50
10
150
R.O.W.
29+71
T.&P.R.R.
92
R.O.W.
bridge 80'x30'
Joe Shelvin
Pasture
27+29

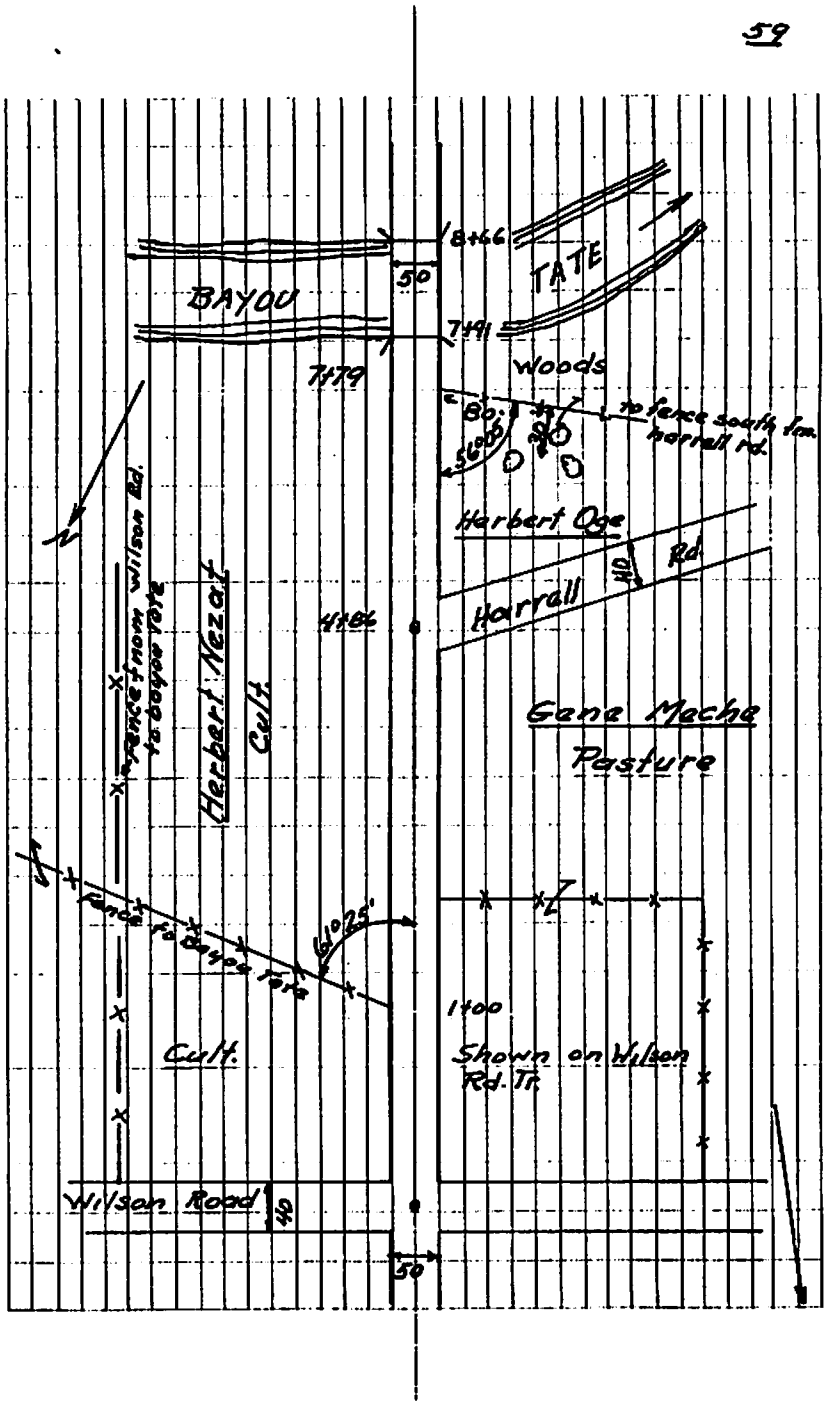
Stagg Road North

Sta	Def ∠	Cal. B	Remarks
4+00			End of Survey
3+47			
2+76			
0+00	90°L ✓	N2°42'E	℄ Stagg & Wilson Rd
			0+00 is Sta 10+58 on
			Wilson Rd Traverse


4+00
to bayou Tate
Geo. Briggs
Cult
-3+47
40°28'
91°
Richard Matte
Orchard - Trees
approx. 50' apart
2+76
Fence to sta 1+31
on Wilson Rd.
50
Geo Briggs
Cult
Stagg Rd.
Shown on
Wilson Rd.
90°
0+00

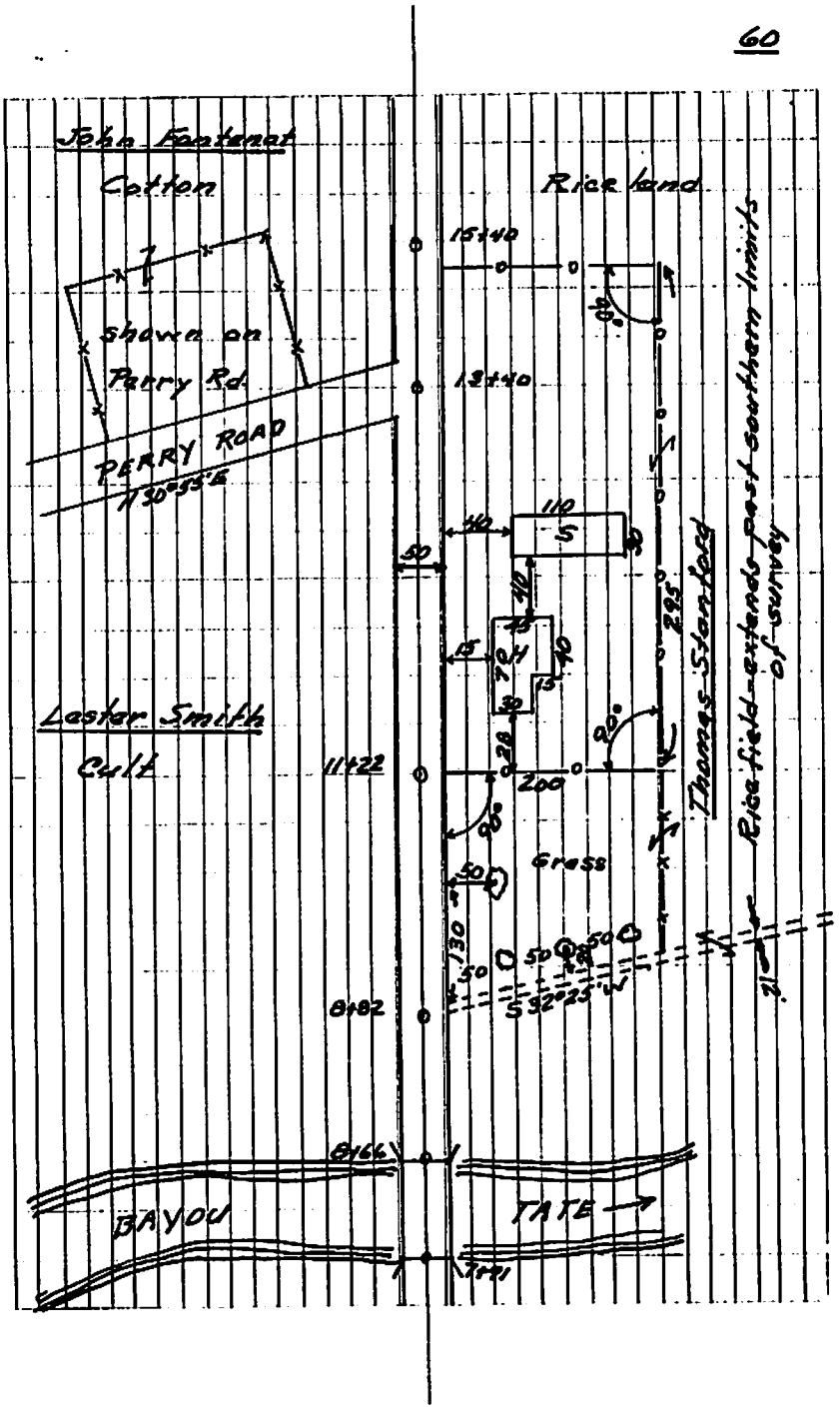
Stagg Road South Traverse

Sta	Def. ∠	Col. B	Remarks
8+66			S.E. end bridge
7+91			N.W end bridge
7+79			80' westward and 30 northly to center group 3 trees 30' apart
4+86	43°33'L	S40°51'E	℄ Stagg Rd & Harrell Rd. Bend in Stagg Rd.
1+00			
0+00	90°00'R	S2°42'W	0+00 is same as Sta. 10+58 Wilson Rd. Tr.


8+66
50
TATE
BAYOU
7+91
7+79
Woods
80
56°05'
to fence south fm. harrell rd.
Herbert Oge
Harrell
Rd
40
4+86
Fence from Wilson Rd. to Bayou Tate
Herbert Nezat
Cult.
Gene Meche
Pasture
Fence to Bayou Tate
61°25'
1+00
Cult.
Shown on Wilson Rd. Tr.
Wilson Road
40
50

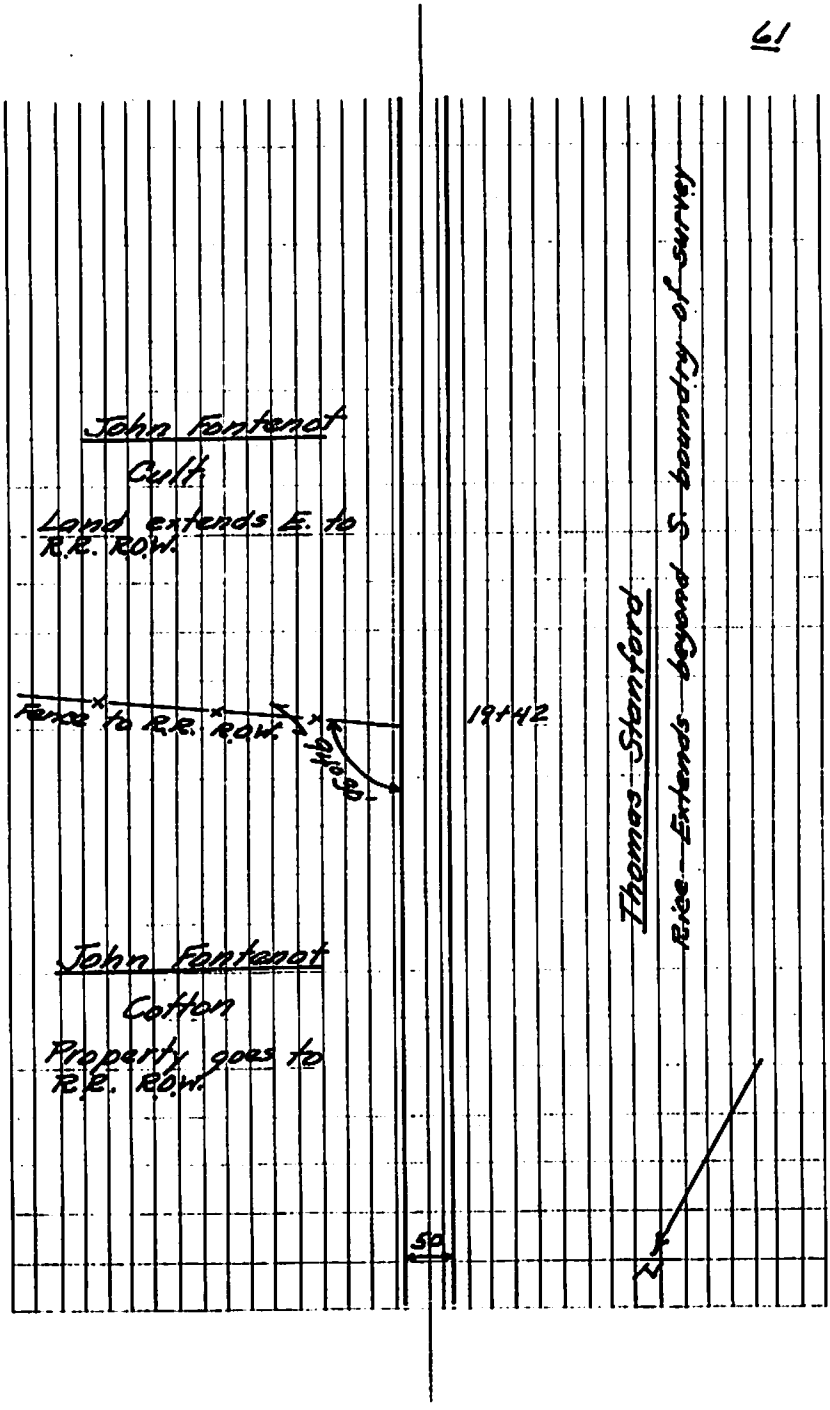
Stagg Road South, Con't.

Sta	Def. ∠	Cal. B.	Remarks	
15+40				
13+40	11°34'R	S29°17'E	℄ Stagg ℄ Perry	Roads ∫
			Bend in Stagg Rd.	
11+22				
8+82			N. side 12' dirt road	
8+66				
7+91				


John Fontenot
Cotton
Rice land
15+40
shown on
Perry Rd.
13+40
PERRY ROAD
N 30°55'E
110
S
40
50
40
295
15
70
H
40
15
30
Thomas Stanford
Rice field - extends past southern limits of survey
Lester Smith
Cult
11+22
28
200
90°
90°
Grass
50
130
50
50
50
S 32°25' W
21
8+82
8+66
BAYOU
TATE
7+71

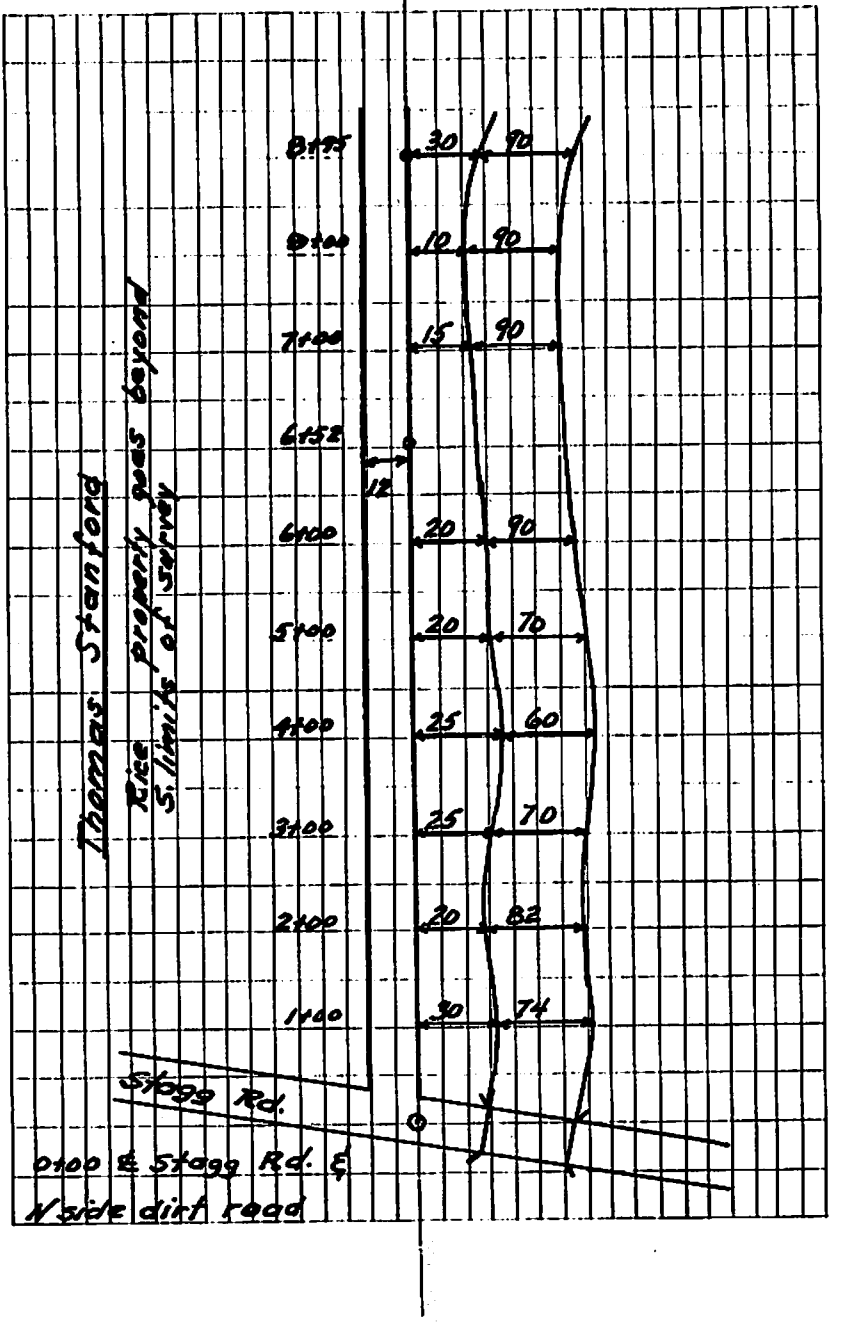
Stagg Road South, Con't

Sta.	Def's	Col. B.	Remarks
25+55			Traverse end, road continues
19+42			
15+40			


John Fontenot
Cult
Land extends E. to R.R. R.O.W.
Fence to R.R. R.O.W.
19+42
John Fontenot
Cotton
Property goes to R.R. R.O.W.
50
Thomas Stanford
Rice - Extends beyond S. boundry of survey

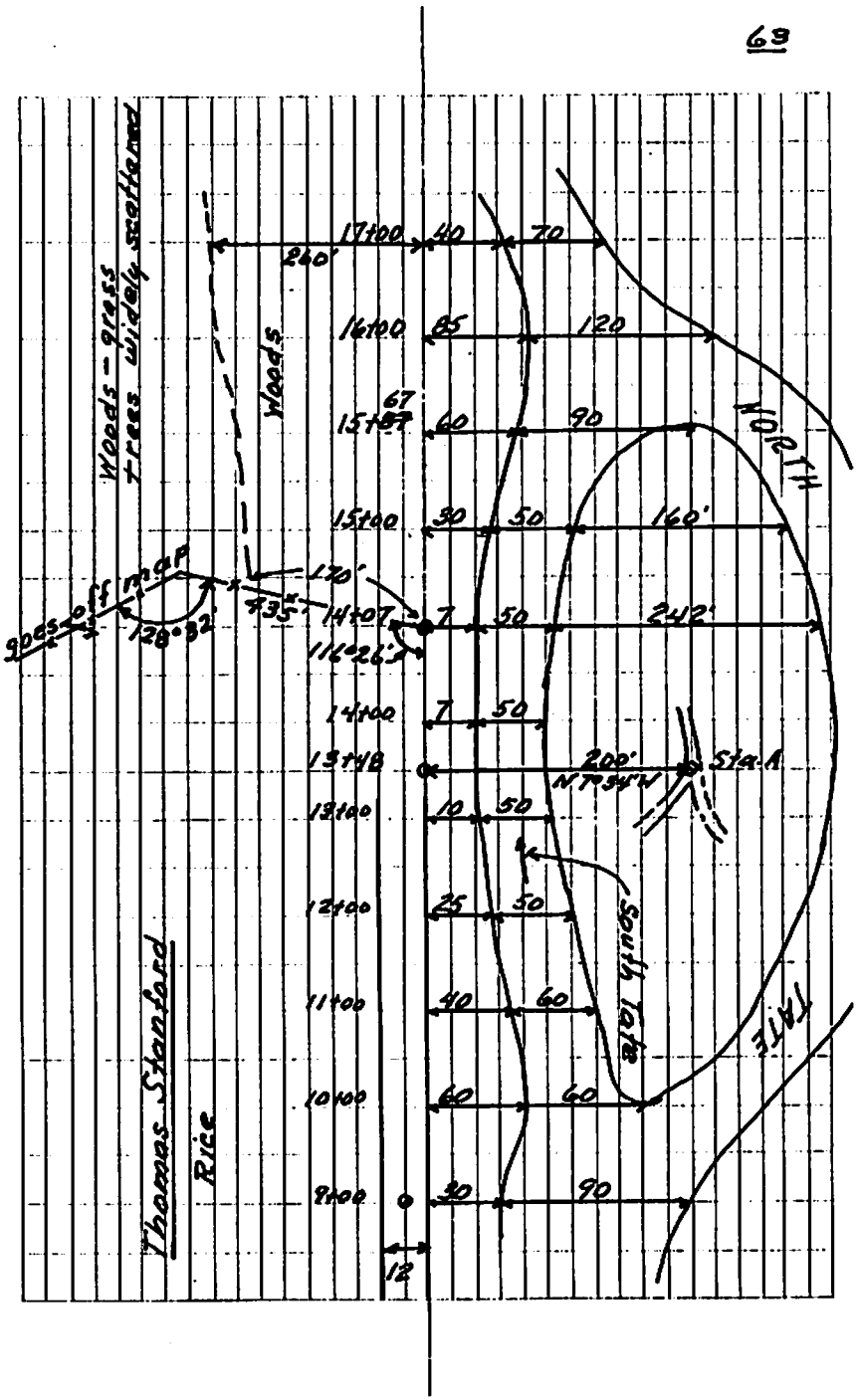
Bayou Tate Meander Line - South

Sta.	Def. ∠	Col. B.	Remarks
8+95	3°53'R	S82°26'W	Bend in Road
8+00			
7+00			
6+52	46°08'R	S78°33'W	Bend in Road
6+00			
5+00			
4+00			
3+00			
2+00			
1+00			
0+00	73°16'R	S32°25'W USE N.S. LINE	0+00 is same as Sta. 8+82 on Stagg Rd. S. Traverse on N. side of 12' dirt road


Thomas Stanford
Rice property goes beyond
S. limits of survey
8+75
30
90
8+00
10
90
7+00
15
90
6+58
12
6+00
20
90
5+00
20
70
4+00
25
60
3+00
25
70
2+00
20
82
1+40
30
74
Stagg Rd.
0+00 & Stagg Rd. ℄
N side dirt road

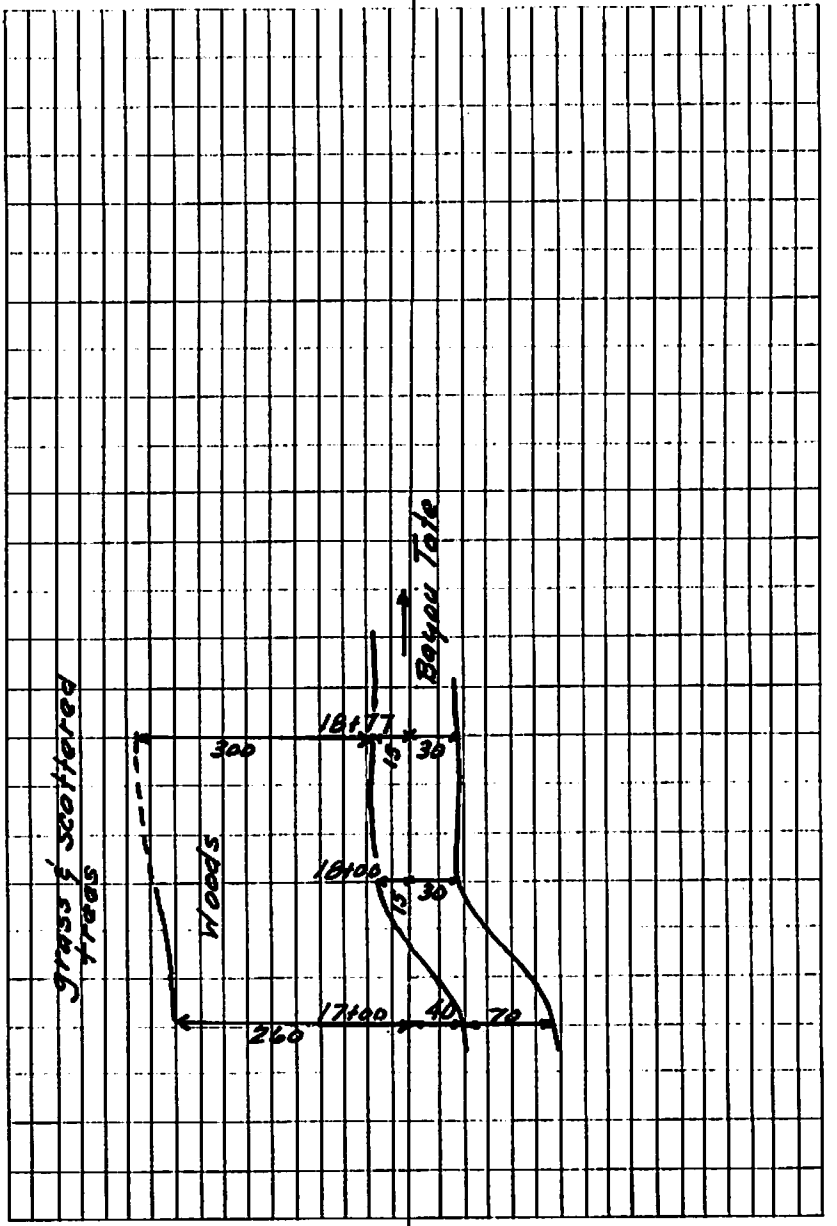
Bayou Tate Meander Line - South, Con't

Sta.	Def. ∠	Col. B	Remarks
17+00			
16+00			
15+67			
15+00			
14+07			
14+00			
13+48			Set Sta. A to be used later N 7°34'W dist. 200' ± to line
13+00			
12+00			
11+00			
10+00			
9+00			


Woods - grass trees widely scattered
Woods
goes off map
128°32'
435'
170'
260'
17+00
40
70
16+00
85
120
15+67
60
90
15+00
30
50
160'
14+07
7
50
242'
116°26'
14+00
7
50
13+48
200'
N 7°34' W
Sta. A
13+00
10
50
12+00
25
50
11+00
40
60
10+00
60
60
9+00
30
90
12
South Tate
NORTH
TATE
Thomas Stanford
Rice

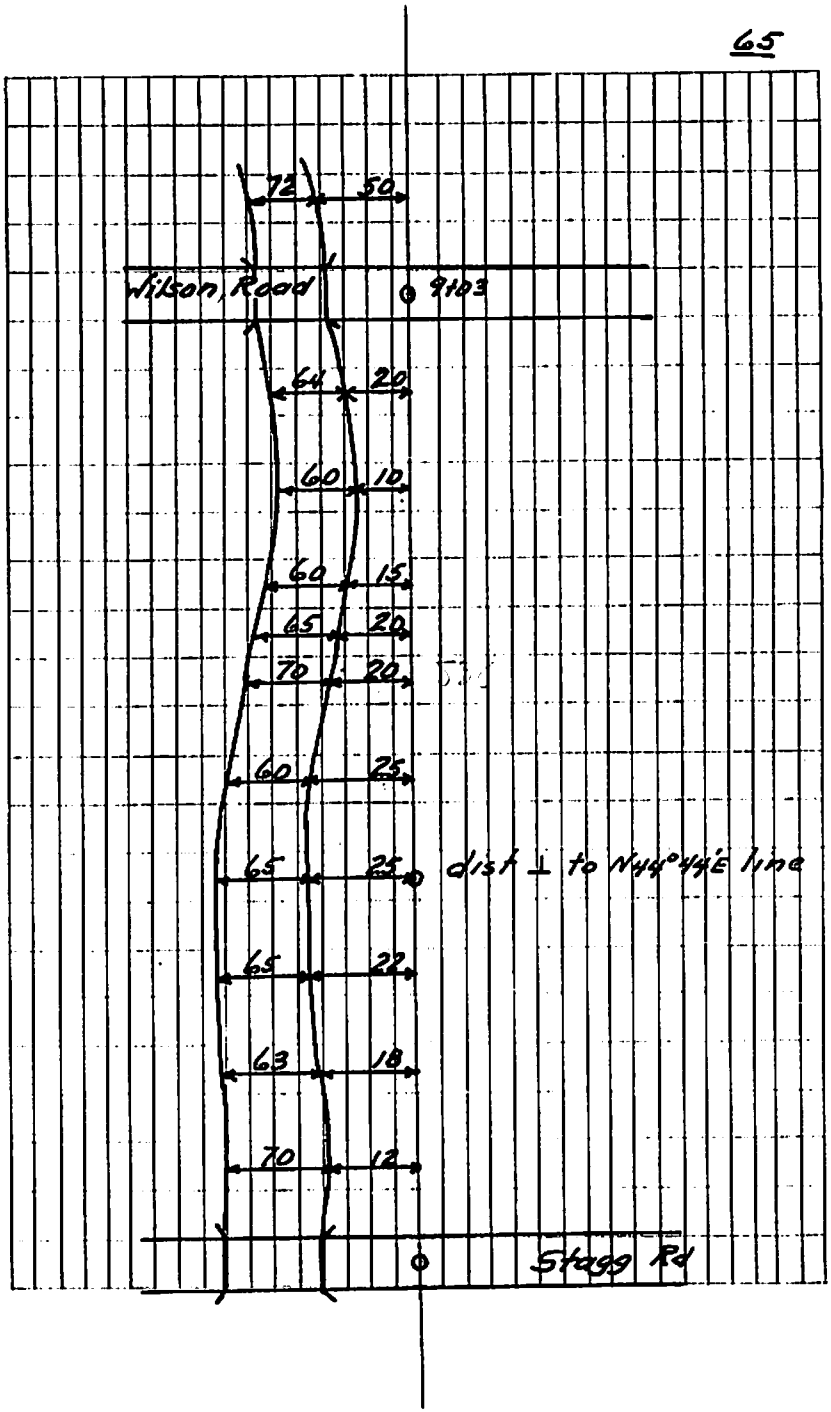
Bayou Tate Meander Line-South, Cont.

Sta.	Def. &	Cal. B	Remarks		
18+77			Survey ends - bayou continues on		
18+00					
17+00					


Bayou Tote
18+77
300
15
30
18+00
15
30
17+00
40
70
260
Woods
grass & scattered trees

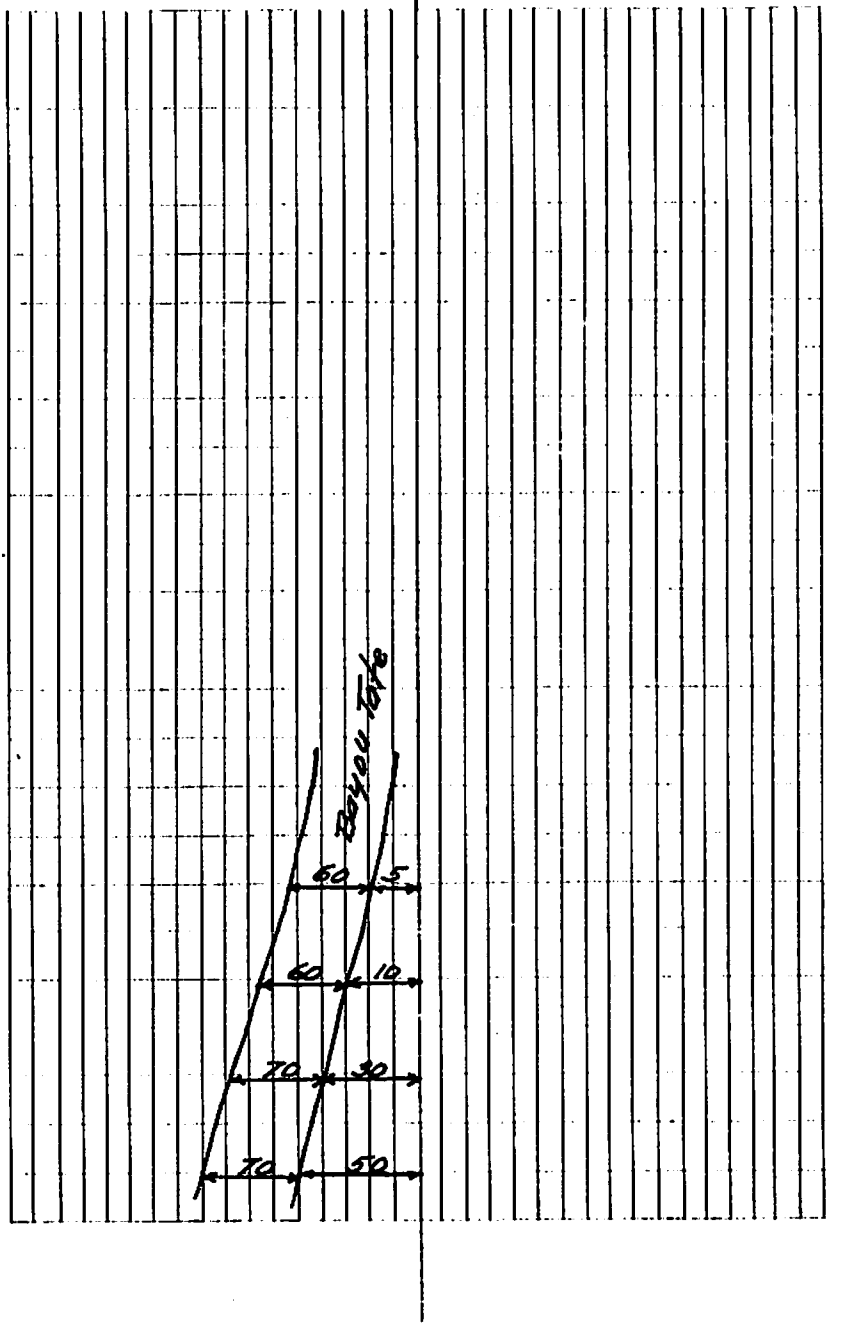
Bayou Tate Meander Line - North

Sta.	Def. ∠	Col. B.	Remarks
10+00			
9+03	13°00'L	N12°00E	Ties to Sta. 17+68 on Wilson Rd. Tr which is 38 East of bayou
8+30			
7+30			
6+30			
5+80			
5+30			
4+30			
3+30	19°44'L	N25°00E	
3+00			
2+00			
1+00			
0+00	94°25'L	N44°44E	0+00 is Sta. 8+82 on Stagg Rd. S. Tr.


72
50
Wilson Road
9+03
64
20
60
10
60
15
65
20
70
20
60
25
65
25
dist ⊥ to N44°44'E line
65
22
63
18
70
12
Stagg Rd

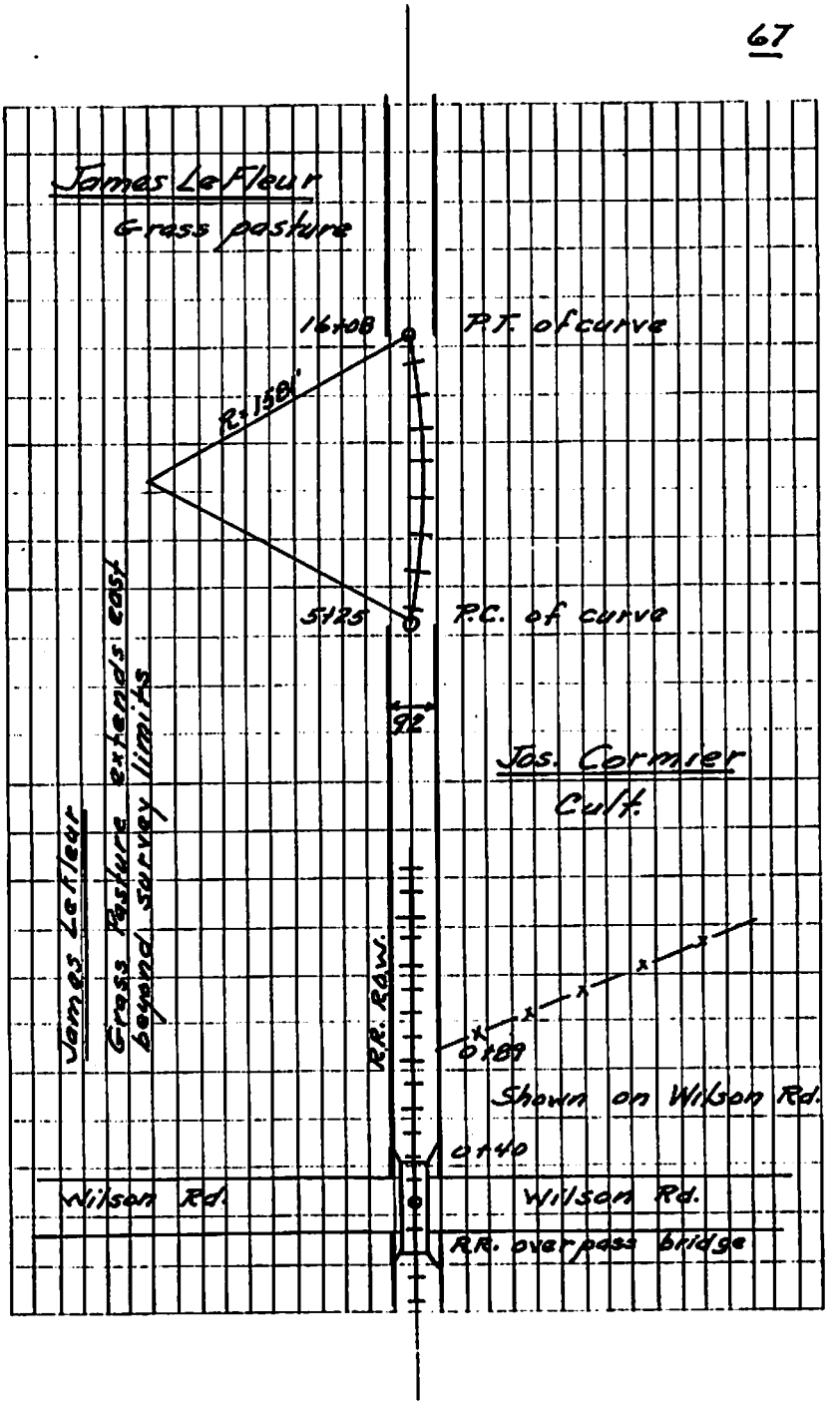
Bayou Tate Meander Line - North Cont.

Sta	Def ∠	Col. B	Remarks
13+48			End of survey - bayou continues
13+00			
12+00			
11+00			


Bayou Tate
60
5
60
10
70
30
70
50

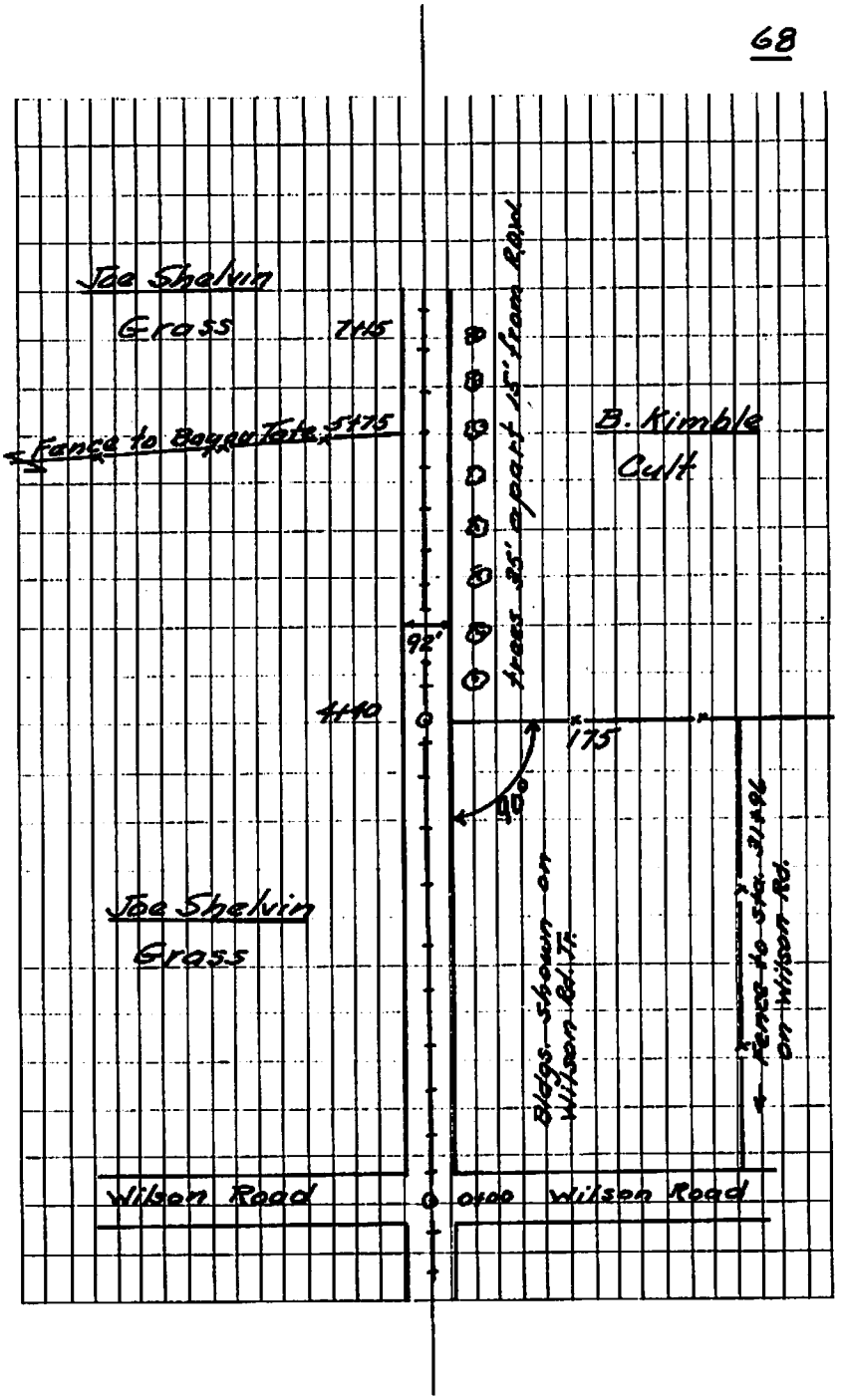
T & P. R.R. Traverse - Southward

Sta.	Def. ∠	Cal. B.	Remarks	
20+95			Survey Ends	R.R. con'ts
16+08	19°30'L	S7°42'E	R.O.W. 92' wide on curve and tangent	
5+25	19°30'L	S11°48'W	Survey line on long	
			chord of curve	
0+89				
0+40			R.R. bridge 80' x 30'	
0+00	89°15'R	S31°18'W	0+00 is Sta. 29+71 on	
			Wilson Rd. and ℄ R.R. tracks.	


James LeFleur
Grass pasture
16+08
P.T. of curve
R=1581'
5+25
P.C. of curve
92
Jos. Cormier
Cult.
James LeFleur
Grass Pasture extends east beyond survey limits
R.R. R.o.w.
0+89
Shown on Wilson Rd.
0+40
Wilson Rd.
Wilson Rd.
R.R. overpass bridge

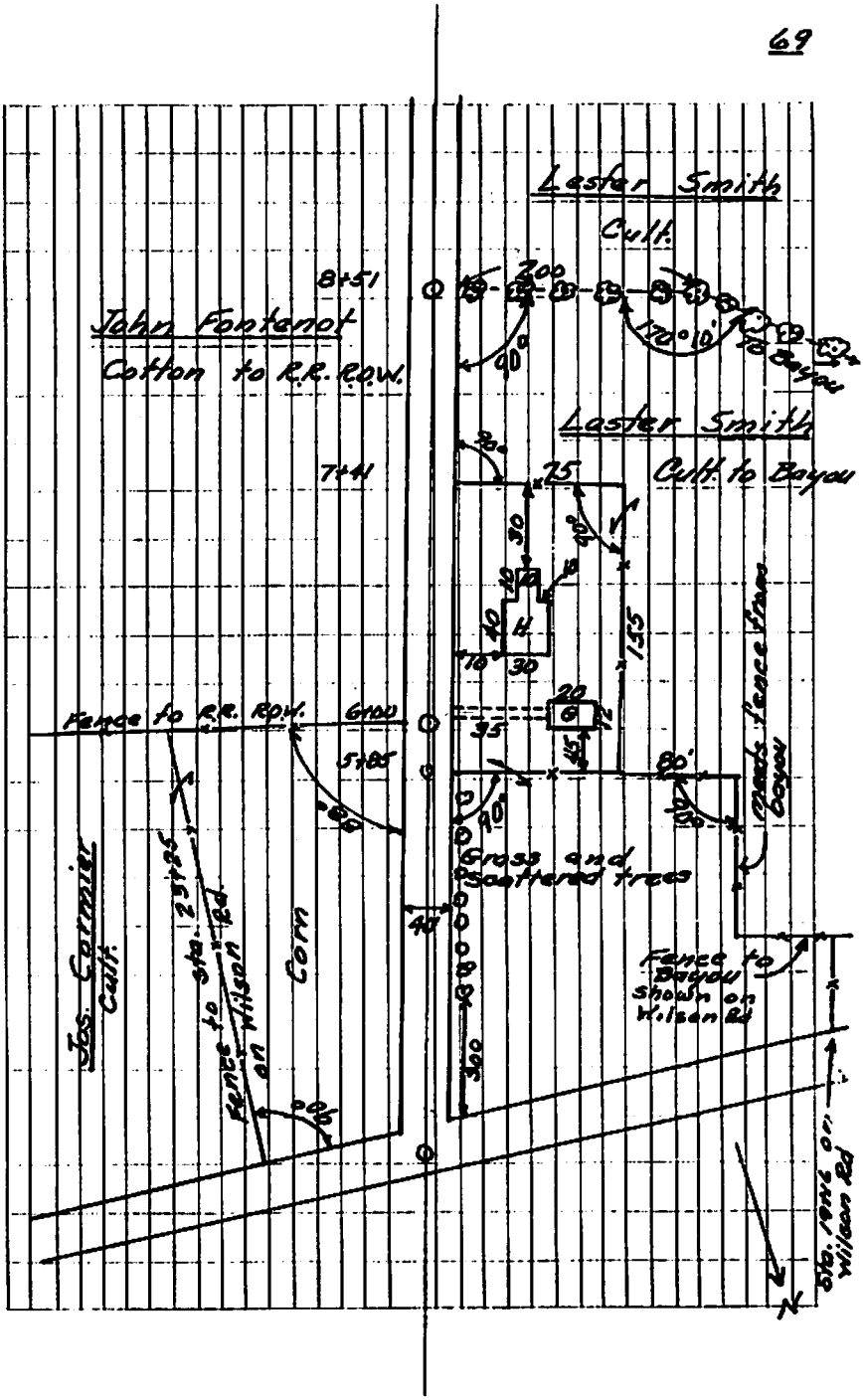
T. & P. R.R. Traverse — North

Sta	Def. ∠	Col. B.	Remarks
7+15			End of Survey
5+75			Ties to this fence made on Wilson Rd. Tr.
4+40			
0+00	90°45'L	N.31°18'E	0+00 is Sta. 29+71 on Wilson Rd. and ℄ R.R. tracks


Joe Shelvin
Grass
7+15
Fence to Bayou Tate 5+75
B. Kimble
Cult
trees 35' apart 15' from Road
92'
4+40
175
90°
Joe Shelvin
Grass
Bldgs. shown on Wilson Rd. Tr.
Fence to sta. 31+96 on Wilson Rd.
Wilson Road
0+00
Wilson Road

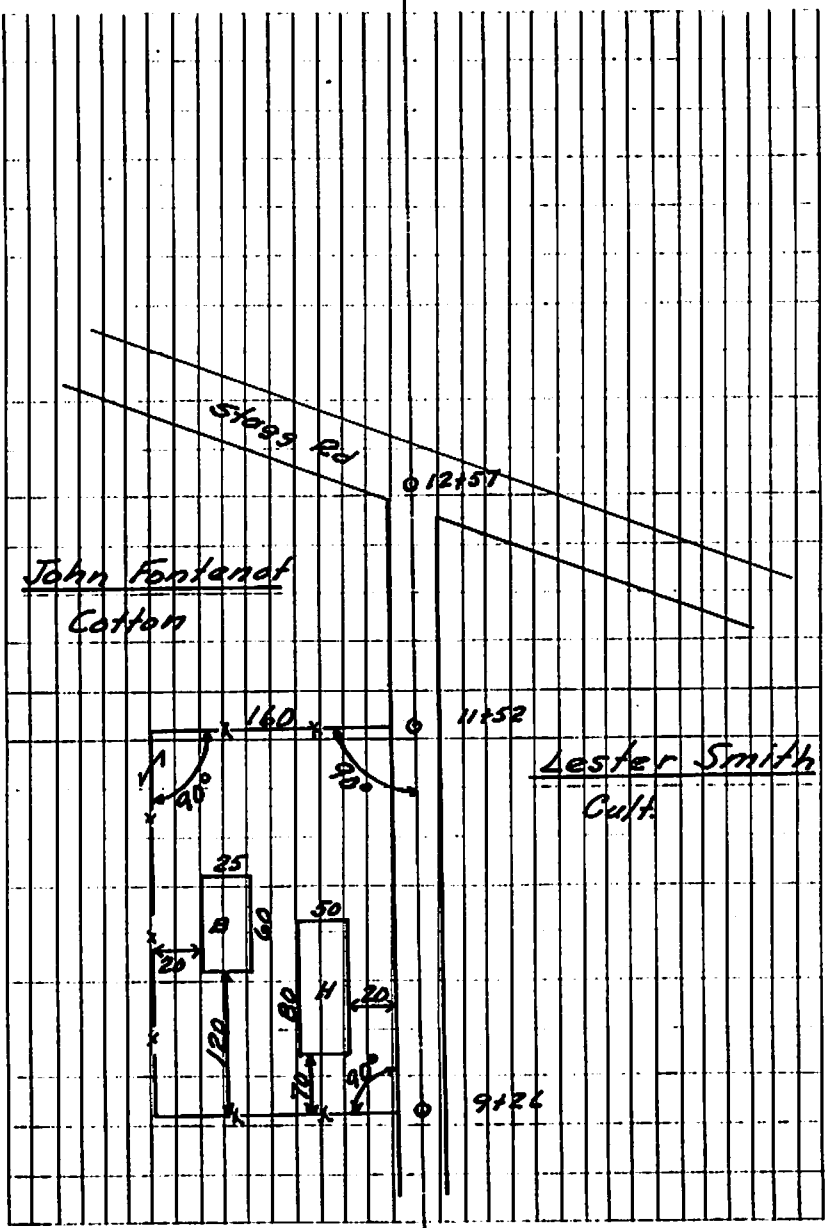
Perry Road Traverse

Sta	Def. ∠	Col. B.	Remarks		
8+51					
7+41					
6+00					
5+85					
0+00	118°13'R	S30°55'W	0+00 is Sta. 22+37 on Wilson Road & E. Wilson & Perry Roads		


Lester Smith
Cult.
8+51
200
90°
170°10'
To Bayou
John Fontenot
Cotton to R.R. R.O.W.
Lester Smith
Cult. to Bayou
7+41
75
30
90°
155
40
H
10
30
20
G
35
45
Fence to R.R. R.O.W.
6+00
5+85
80'
90°
Meets fence from Bayou
Gross and scattered trees
40
Fence to Bayou shown on Wilson Rd
Jos. Cormier
Cult.
Fence to sta. 23+25 on Wilson Rd
Corn
300
Sta. 19+46 on Wilson Rd
N

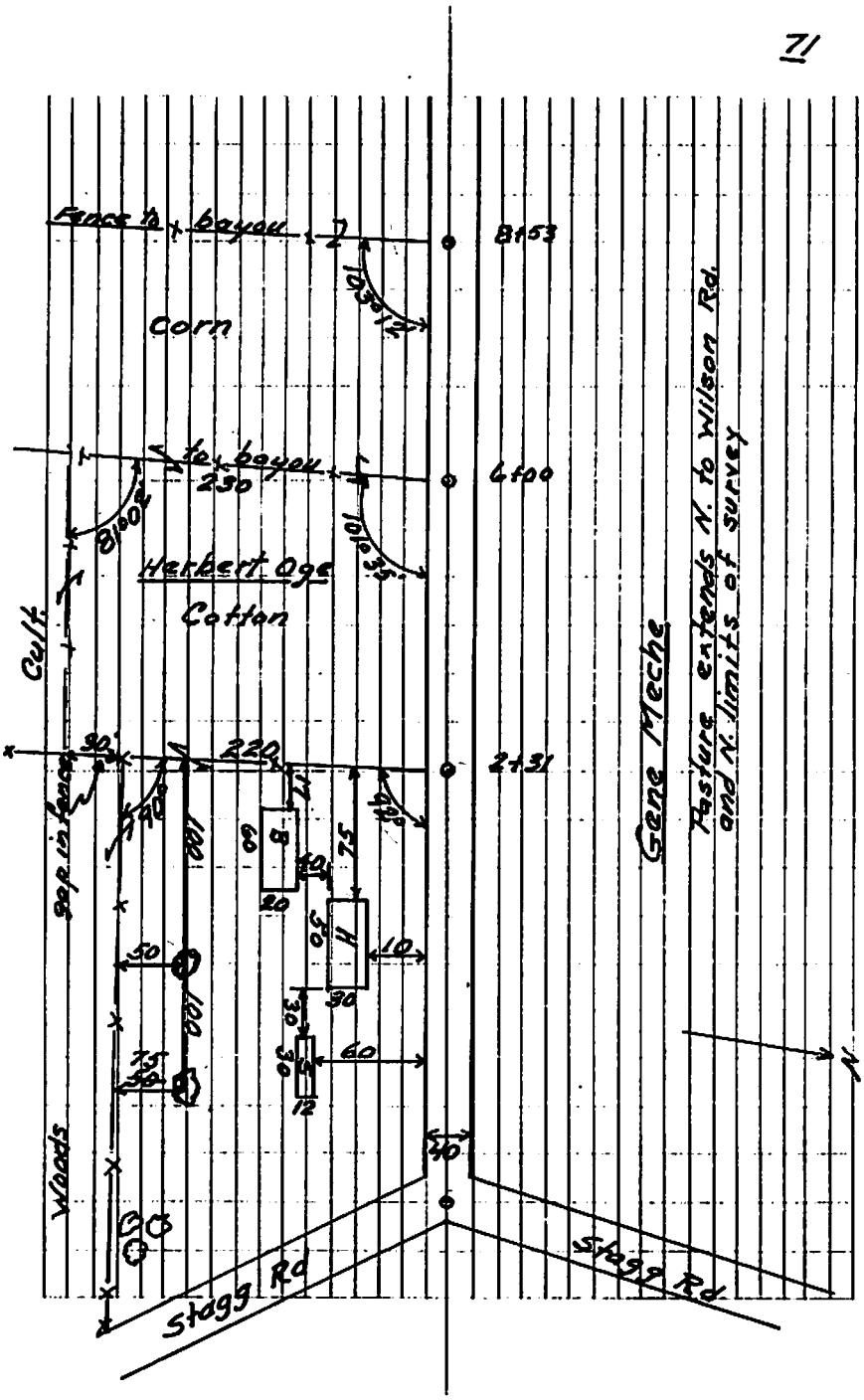
Parry Road Traverse cont.

Sta.	Def. ∠	Cal. B	Remarks
12+57			Ties to Sta 13+40 on Stagg Rd. Tr.
11+52			
9+26			


Stagg Rd
12+57
John Fontenot
Cotton
160
11+52
Lester Smith
Cult.
90°
90°
25
B
60
20
50
H
80
20
120
70
90°
9+26

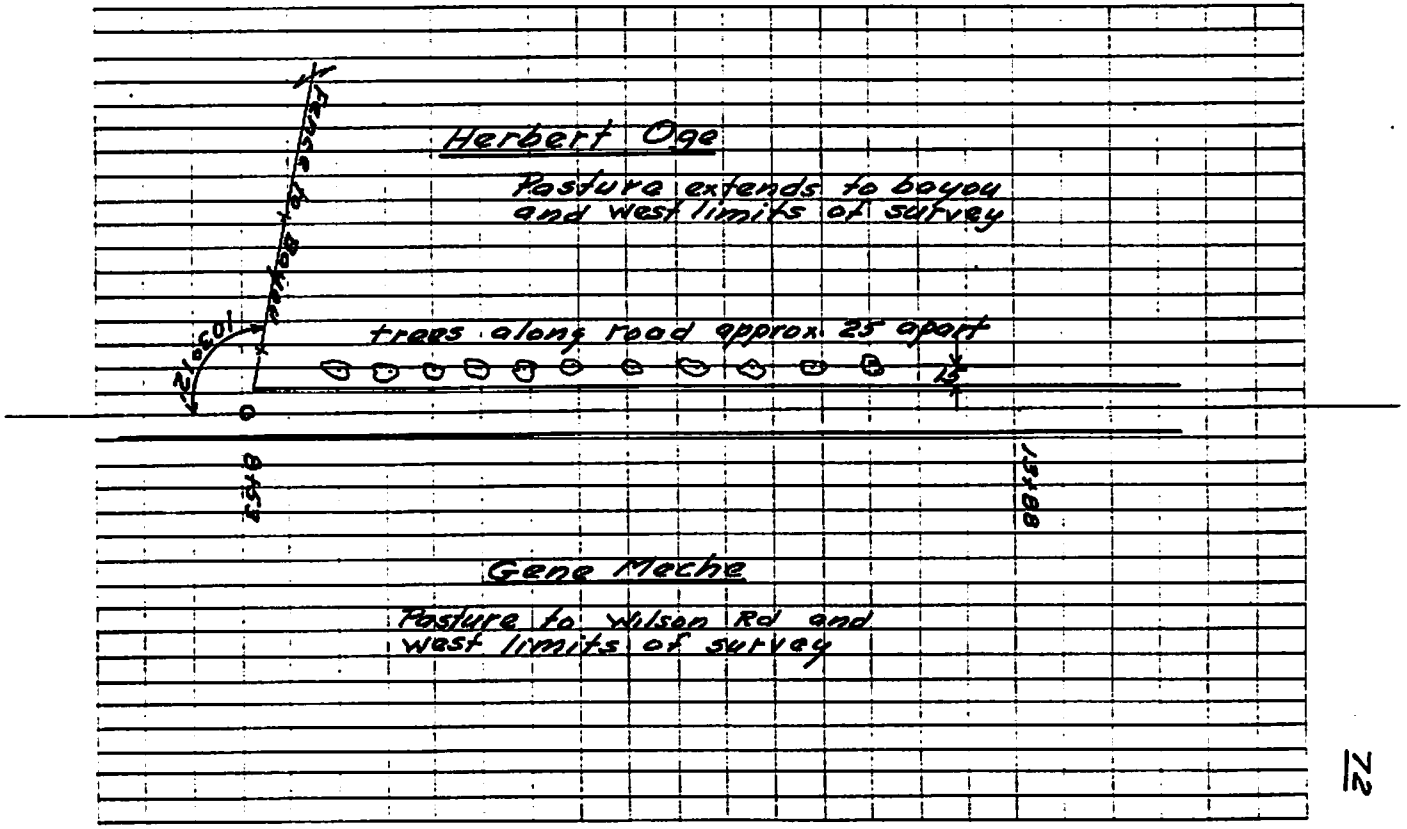
HARRELL ROAD TRAVERSE

Sta	Def ∠	Col. B.	Remarks
8+53	39°40'R	N57°28'W	Bend in road
6+00			
2+31			Fence goes straight to bayou, has 30' gap as shown
0+00	78°40'R	S81°22'W	℄ Stagg & Harrell Rds. 0+00 is Sta. 41+86 Stagg Rd. South


Fence to bayou
8+53
103°12'
Corn
to bayou
230
6+00
81°02'
101°35'
Herbert Oge
Cotton
Cult.
90
220
2+31
90°
90°
Gene Meche
Pasture extends N. to Wilson Rd.
and N. limits of survey
gap in fence
100
100
B
60
20
40
75
H
50
10
30
30
30
60
12
50
75
50
40
Woods
Stagg Rd
Stagg Rd
N

HARREL ROAD TRAVERSE, Con't.

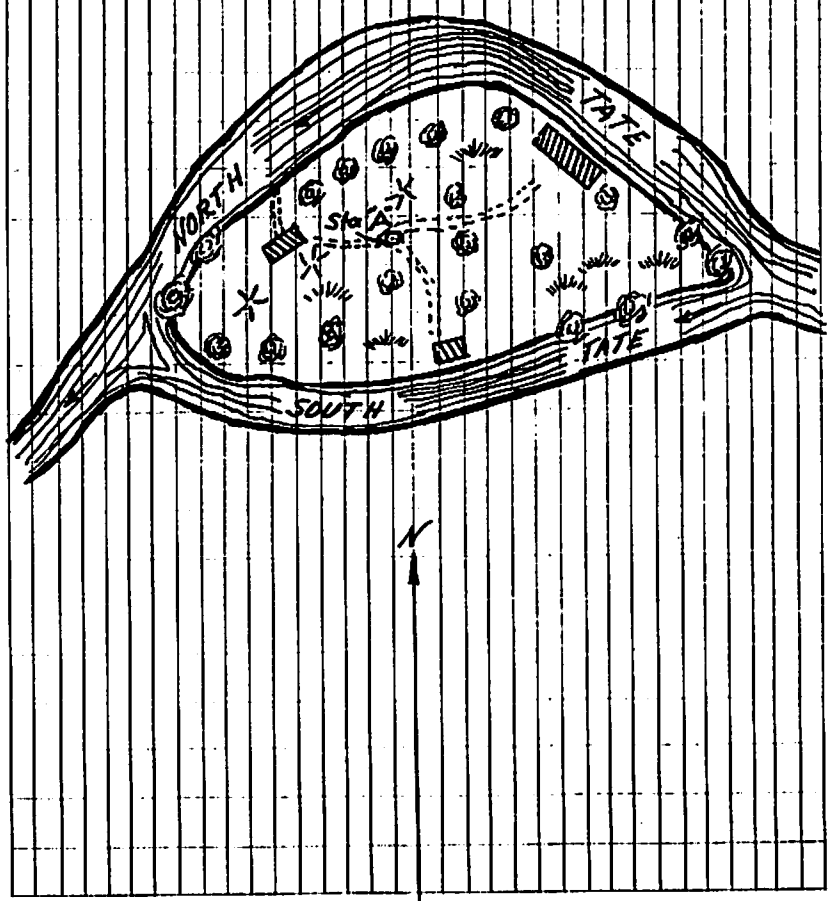
Sta.	Def. ∠	Col. B:	Remarks	
13+88			End of Survey	Rd. conts.
8+53	39°10'R	N59°28'W	Bend in rd.	


Herbert Oge
Pasture extends to bayou
and west limits of survey
Fence to Bayou
103°12'
trees along road approx. 25 apart
15
8+53
13+88
Gene Meche
Pasture to Wilson Rd and
west limits of survey

Island Survey
Inst. of Sta "A"

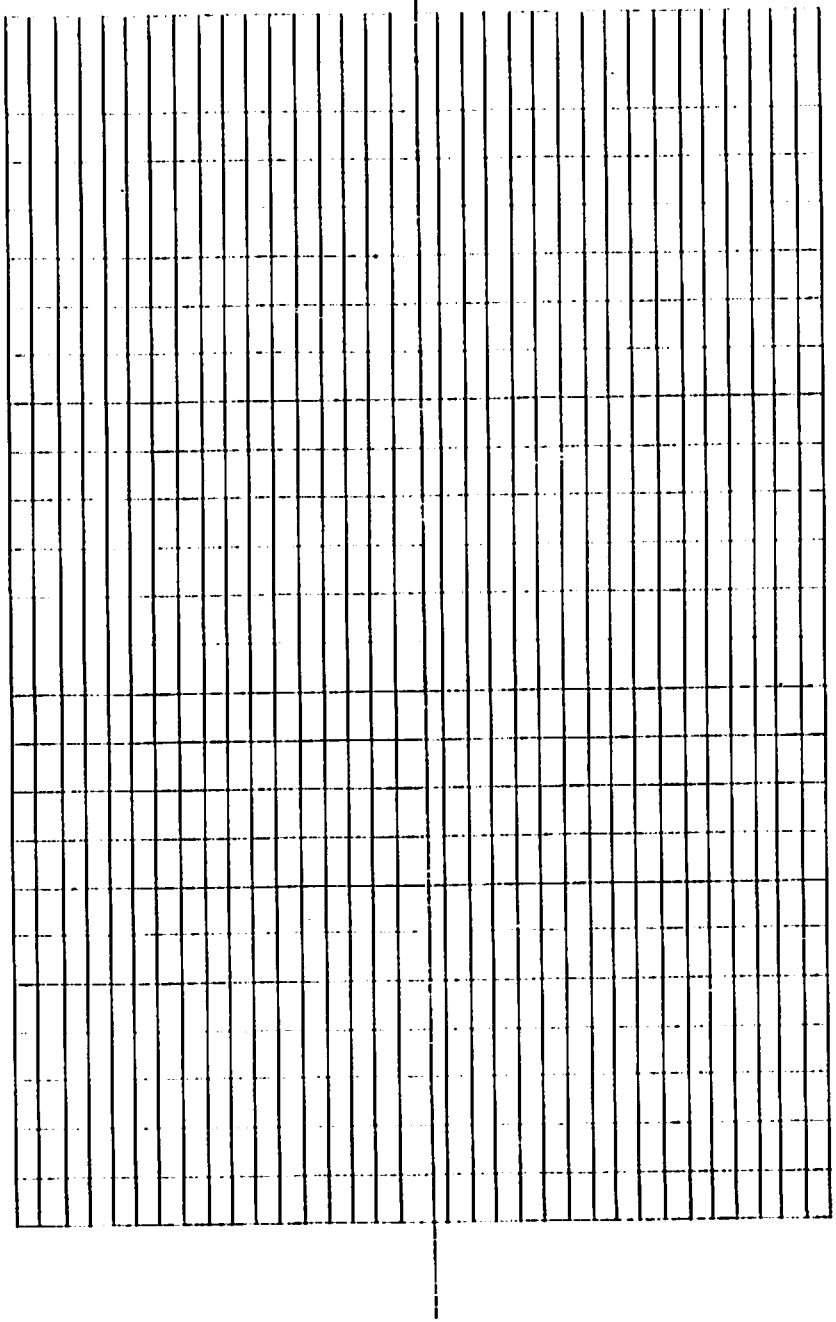
Sta	Az.	Dist.	Remarks
1	358°00'	90	⊕ Az. from North
2	358°00'	130	S. side Bayou
3	358°00'	220	N. " "
4	14°28'	50	*
5	23°28'	120	⊕
6	23°28'	175	S. side Bayou
7	23°28'	242	N. " "
8	43°50'	170	⊕
9	43°50'	200	S. side Bayou
10	43°50'	260	N " "
11	56°53'	200	N.W Cor. 70'x20' comp
12	56°53'	80	⊕
13	56°53'	210	S. side Bayou
14	56°53'	285	N. " "
15	77°10'	212	S.E. Cor. 70x20 comp
16	77°10'	260	S. side Bayou
17	77°10'	350	N. side Bayou
18	80°55'	225	⊕
19	93°00'	80	⊕
20	90°25'	315	⊕ at edge bayou
21	84°30'	280	S. side bayou
22	98°15'	160	⊕
23	95°21'	340	⊕ at bayou edge

Sta. "A" located from Sta. 13+48 on Bayou Tate South Tr.
Sta. in ℄ trail junctions - trail goes from Sta. "A"
to each camp and to bayou at camp N.W. on island



Island Survey, Con't.

Sta.	Az.	Dist	Remarks		
24	106°10'	260	⊗		
25	116°23'	210	⊗		
26	130°15'	105	⊗		
27	145°18'	130	N.E. Cor.	30'x20'	camp
28	158°24'	120	NW cor.	30'x20'	camp.
29	328°22'	85	⊗		
30	328°22	110	S. side	bayou	
31	328°22'	195	N. "	"	
32	300°54'	90	⊗		
33	300°54'	120	S. side	bayou	
34	300°54'	200	N. "	"	
35	278°00'	100	N.E. Cor.	40'x18'	camp
36	278°00'	160	S. side	bayou	
37	278°00'	235	N. "	"	
38	269°05'	190	⊗ on side	bayou	
39	269°05	260	N. side	bayou	
40	260°23'	125	S.W. Cor.	40'x18'	camp
41	260°23'	210	E. side	bayou	
42	260°23'	290	W. "	"	
43	253°50'	90	✕		
44	246°26'	160	✕		
45	238°05'	220	⊗		
46	226°12'	168	⊗		
47	210°02'	120	⊗		
48	256°18'	295	⊗		
49	180°00'	45	⊗		



NOTES FOR PLATE 10 & 10A

Deflection Angle Traverse

Sta.	Dist. Ft.	Def ∠	Mag B	Cal B.
A		81°01'R		
	595.2		N9°W	N9°02'W
B		18°29'R		
	686.4		N9½°E	N9°28'E
C		33°28'R		
	551.8		N43°E	N42°57'E
D		76°53'R		
	711.7		S60°E	S60°05'E
E		60°04'R		
	375.6		S	South
F		9°34'L		
	491.2		S9½°E	S9°34'E
G		64°02R		
	782.7		S54½°W	S54°25'W
H		35°37'R		
	462.4		W	West
A		81°01R		
		∑ 360° ck.		

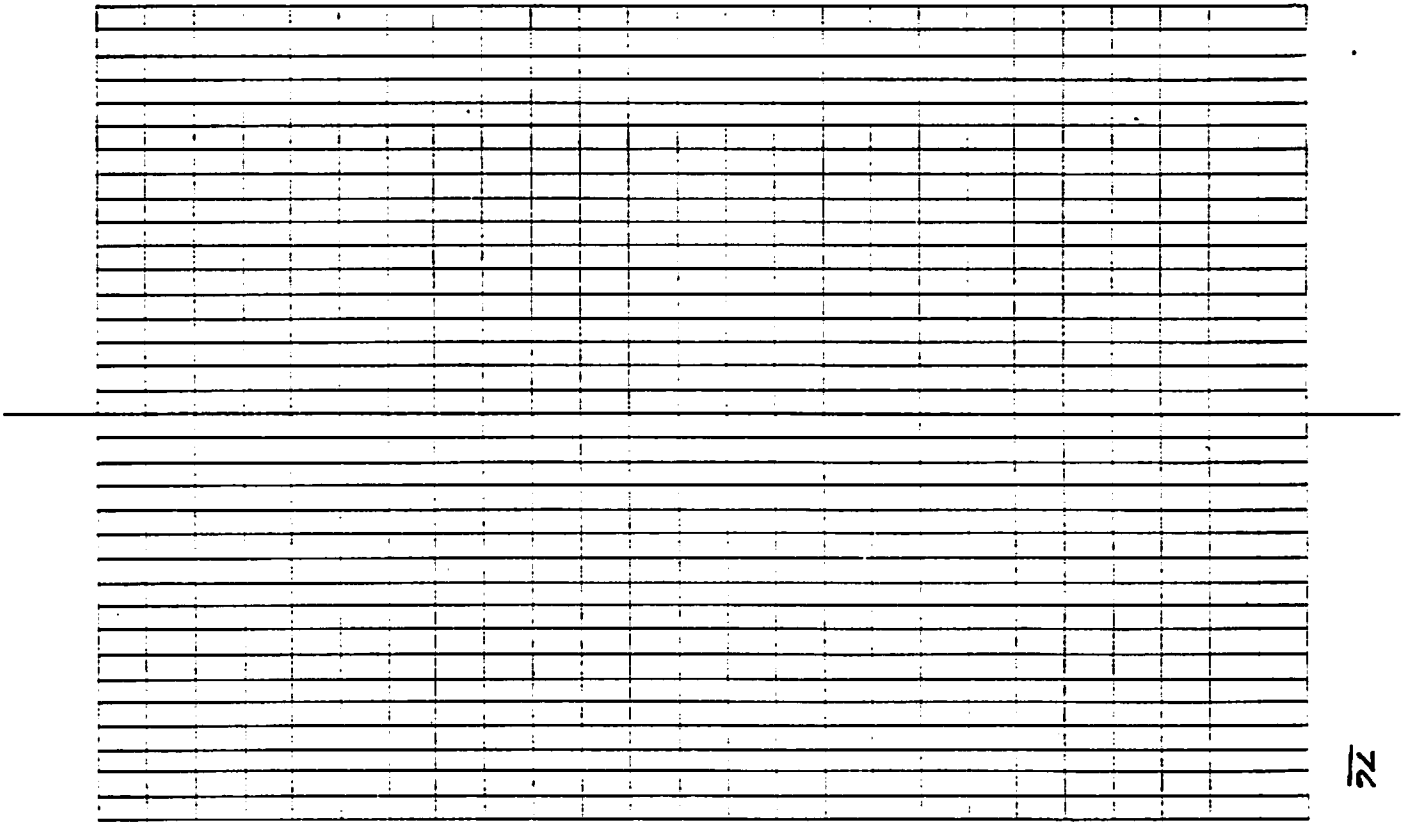
K&E Transit No

L. Cormier ⊼
P. LeBlanc, H.C.
G. Carrier, R.C.
Warm - Cloudy
June 20, 1964

Note: Bearing of Line A-B by Solar Observation with Gurley Solar Transit 112T #600500

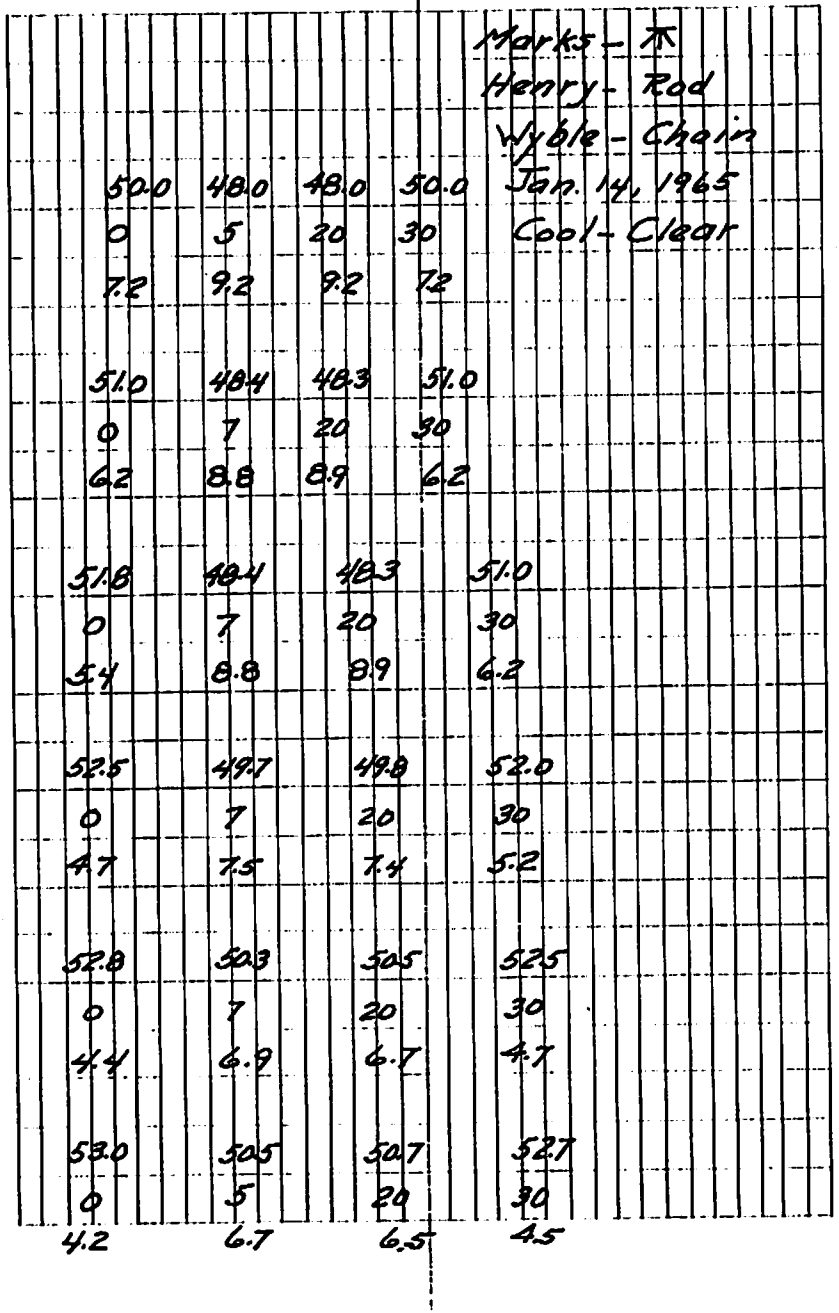
NOTES FOR PLATE II

Line	Length	Bearing
A-B	349.40	Due South
B-C	541.21	S 6° 50' E
C-D	158.82	N 87° 23' E
D-E	412.47	N 72° 00' E
E-F	313.04	S 50° 44' E
F-G	504.51	N 82° 07' E
G-H	471.47	N 15° 14' E
H-I	293.90	N 11° 59' W
I-J	106.84	S 88° 36' W
J-K	319.90	N 74° 28' W
K-L	350.33	S 74° 59' W
L-M	348.37	N 64° 53' W
M-A	349.00	Due West



NOTES FOR PLATE 12

Sta.	B.S.	H.I.	F.S.	Elev.	
BM	7.2	57.2		50.0	
					(Elev.)
0+00					(Dist)
					(Rod)
1+00					
2+00					
3+00					
4+00					
5+00					


Marks - 水
Henry - Rod
Wylie - Chain
Jan. 14, 1965
Cool - Clear
50.0 48.0 48.0 50.0
0 5 20 30
7.2 9.2 9.2 7.2
51.0 48.4 48.3 51.0
0 7 20 30
6.2 8.8 8.9 6.2
51.8 48.4 48.3 51.0
0 7 20 30
5.4 8.8 8.9 6.2
52.5 49.7 49.8 52.0
0 7 20 30
4.7 7.5 7.4 5.2
52.8 50.3 50.5 52.5
0 7 20 30
4.4 6.9 6.7 4.7
53.0 50.5 50.7 52.7
0 5 20 30
4.2 6.7 6.5 4.5

Notes for Plate 12, con't.

Sta.	B.S.	H.I.	F.S.	Elev.	
		57.2			(Elev.)
6+00					(Dist.)
					(Rod)
T.P.$_1$	4.9	57.5	4.6	52.6	
7+00					
8+00					
9+00					
10+00					
11+00					

53.0	50.7	50.8	52.6
0	5	19	30
4.2	6.5	6.4	4.6
52.6	49.4	49.6	52.0
0	4	19	30
4.9	8.1	7.9	5.5
52.4	49.5	49.7	52.3
0	5	20	30
5.1	8.0	7.8	5.2
53.3	50.4	50.6	52.4
0	6	20	30
4.2	7.1	6.9	5.1
52.3	49.3	49.4	51.9
0	6	22	30
5.2	8.2	8.1	5.6
52.0	49.6	50.0	51.7
0	6	22	30
5.5	7.9	7.5	5.8

Notes for Plate 12, con't.

Sta.	B.S.	H.I.	F.S.	Elev.	
		57.5			(Elev.)
12+00					(Dist.)
					(Rod)
$T.P_2$	4.7	57.1	5.1	52.4	
13+00					
14+00					
15+00					
16+00					
TP_3	4.8	58.4	3.5	53.6	
17+00					

52.5	50.2	50.5	52.4
0	6	22	30
5.0	7.3	7.0	5.1
53.0	50.6	50.7	53.0
0	6	22	30
4.1	6.5	6.4	4.1
53.0	49.7	49.9	52.5
0	5	21	30
4.1	7.4	7.2	4.6
53.6	50.5	50.6	53.2
0	5	21	30
3.5	6.6	6.5	3.9
53.6	50.8	51.0	53.6
0	5	21	30
3.5	6.3	6.1	3.5
52.8	50.2	50.4	52.6
0	5	21	30
5.6	8.2	8.0	5.8

Notes for Plate 12, con't.

Sta.	B.S.	H.I.	F.S.	Elev.	
		584			(Elev.)
18+00					(Dist.)
					(Rod)
18+45					

52.9	50.1	50.4	52.4
0	4	21	30
5.5	8.3	8.0	5.8
53.6	50.4	50.7	53.0
0	4	21	30
4.8	8.0	7.7	5.4

NOTES FOR PLATE 14

	DEFLECTION		ANGLE	TRAVERSE	
Sta.	Defl. ∠	Dist. Ft.	Cal. B.	Cal. Az.	Cal. Int. ∠
A	90°00'L				
		349.40	Due South		
B	6°50'L				
		541.21			
C	85°47'L				
		158.82			
D	15°23'L				
		412.47			
E	57°16'R				
		313.04			
F	47°09'L				
		504.51			
G	66°53'L				
		471.47			
H	27°13'L				
		293.90			
I	79°25'L				
		106.84			
J	16°56'R				
		319.90			
K	30°38'L				
		350.33			
L	40°13'R				

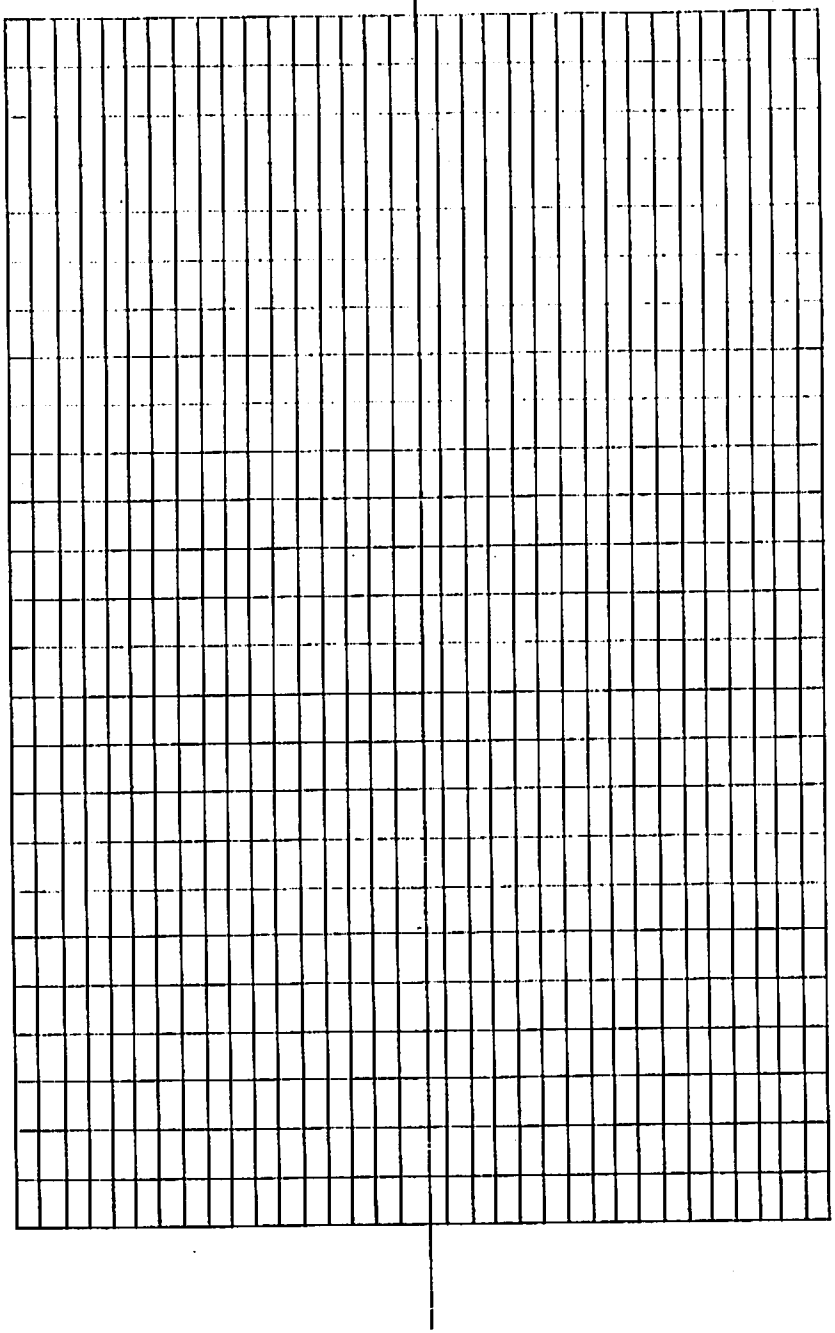
BOY SCOUT CAMP, WASHINGTON, LA

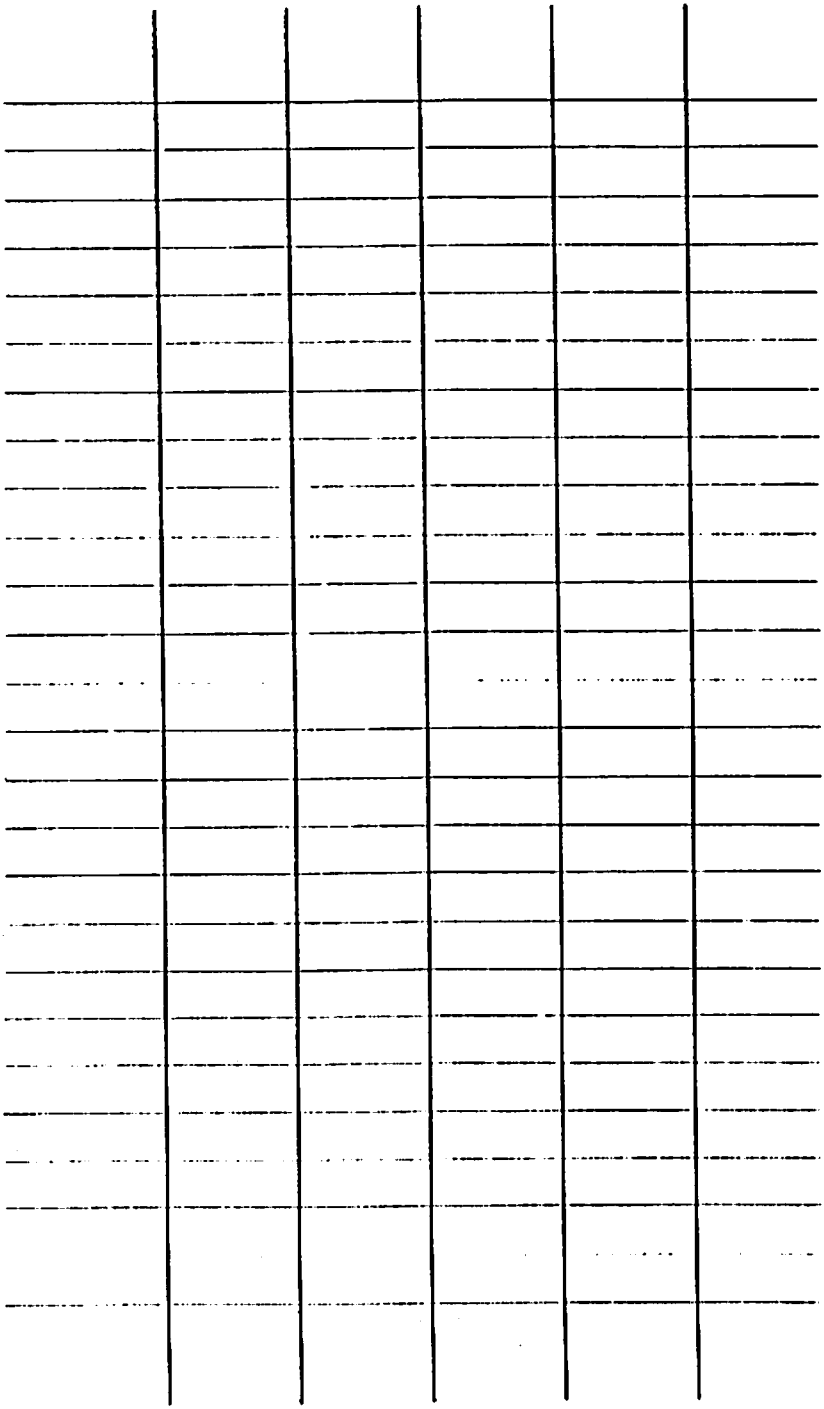
C. Mathe, T
J. Guillory, Notes
M. Shamneck, H.C.
C. Ellis, R.C.
June 16, 1963
Fair - Warm

Line A to B staked due South with Solar Transit

Notes for Plate 14, con't

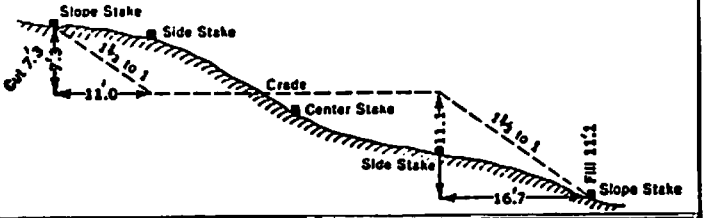
Sta.	Defl. ∠	Dist., Ft.	Cal. B.	Cal. Az.	Cal. Int. ∠
		348.37			
M	25°07L				
		349.00			
A					
E	360°00'				





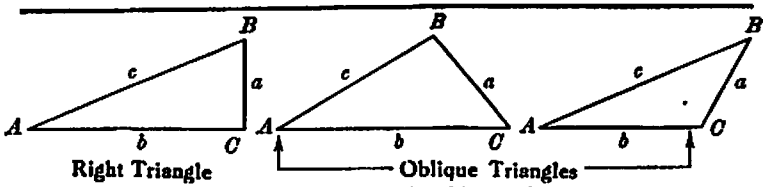
DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING
Roadway of any Width. Side Slopes 1½ to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right



Cut or Fill	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Cut or Fill
	Distance out from Side or Shoulder Stake										
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40

TRIGONOMETRIC FORMULÆ



Solution of Right Triangles

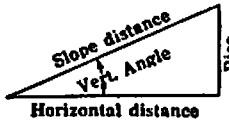
For Angle A. $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{b}$, $\operatorname{cosec} = \frac{c}{a}$

Given	Required	
a, b	A, B, c	$\tan A = \frac{a}{b} = \cot B, c = \sqrt{a^2 + b^2} = a\sqrt{1 + \frac{b^2}{a^2}}$
a, c	A, B, b	$\sin A = \frac{a}{c} = \cos B, b = \sqrt{(c+a)(c-a)} = c\sqrt{1 - \frac{a^2}{c^2}}$
A, a	B, b, c	$B = 90° - A, b = a \cot A, c = \frac{a}{\sin A}$
A, b	B, a, c	$B = 90° - A, a = b \tan A, c = \frac{b}{\cos A}$
A, c	B, a, b	$B = 90° - A, a = c \sin A, b = c \cos A$

Solution of Oblique Triangles

Given	Required	
A, B, a	b, c, C	$b = \frac{a \sin B}{\sin A}, C = 180° - (A + B), c = \frac{a \sin C}{\sin A}$
A, a, b	B, c, C	$\sin B = \frac{b \sin A}{a}, C = 180° - (A + B), c = \frac{a \sin C}{\sin A}$
a, b, C	A, B, c	$A + B = 180° - C, \tan \frac{1}{2}(A - B) = \frac{(a-b)\tan \frac{1}{2}(A+B)}{a+b}$, $c = \frac{a \sin C}{\sin A}$
a, b, c	A, B, C	$s = \frac{a+b+c}{2}, \sin \frac{1}{2}A = \sqrt{\frac{(s-b)(s-c)}{bc}}$, $\sin \frac{1}{2}B = \sqrt{\frac{(s-a)(s-c)}{ac}}, C = 180° - (A + B)$
a, b, c	Area	$s = \frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

REDUCTION TO HORIZONTAL



Horizontal distance = Slope distance multiplied by the cosine of the vertical angle. Thus: slope distance = 319.4 ft. Vert. angle = 5° 10′. From Table, Page IX. cos 5° 10′ = .9950. Horizontal distance = 319.4 × .9950 = 318.09 ft.

Horizontal distance also = Slope distance minus slope distance times (1 − cosine of vertical angle). With the same figures as in the preceding example, the following result is obtained. Cosine 5° 10′ = .9959. 1 − .9959 = .0041. 319.4 × .0041 = 1.31. 319.4 − 1.31 = 318.09 ft.

When the rise is known, the horizontal distance is approximately:—the slope distance less the square of the rise divided by twice the slope distance. Thus: rise = 14 ft., slope distance = 302.6 ft. Horizontal distance = $302.6 - \frac{14 \times 14}{2 \times 302.6} = 302.6 - 0.32 = 302.28$ ft.