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F.B. 995

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FIELD BOOK

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# KEUFFEL & ESSER CO.

## DRAWING MATERIALS AND SURVEYING INSTRUMENTS. NEW YORK.

CHICAGO. ST. LOUIS. SAN FRANCISCO. MONTREAL.

### TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.  
ROADWAY 18 FEET WIDE SIDE SLOPES 1 TO 1.  
FOR SINGLE TRACK EXCAVATION.

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	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	0
1	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	1
2	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	2
3	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	3
4	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	4
5	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	5
6	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	6
7	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	7
8	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	8
9	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	9
10	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	10
11	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	11
12	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	12
13	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	13
14	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	14
15	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	15
16	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	16
17	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	17
18	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	18
19	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	19
20	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	20
21	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	21
22	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	22
23	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	23
24	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	24
25	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	25
26	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	26
27	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	27
28	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	28
29	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	29
30	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	30
31	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	31
32	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	32
33	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	33
34	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	34
35	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	35
36	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.

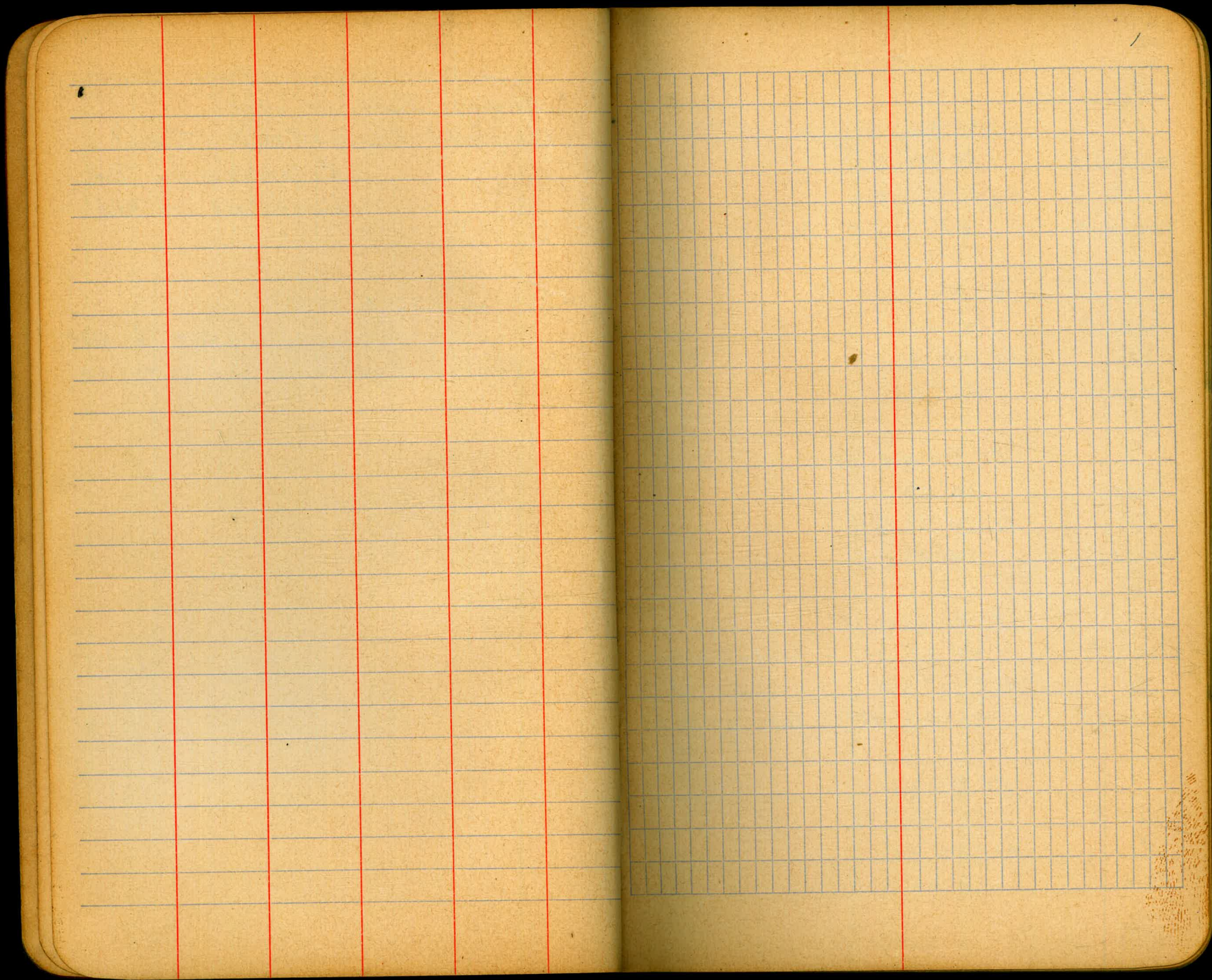
For Keith's Railroad Curve Tables see end of book.

RETURN TO CITY ENGINEER'S OFFICE  
 CITY HALL, SAN DIEGO, CAL.

Mission Valley Topog Survey  
Began June 17 1915  
Completed July 1-1915 Bub - Transit  
E. Schoedsack - Red  
C.L. Nichols - Red

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Triangulation system	1	—	10



# Triangulation

At Boundry N  
 Bound S  $68^{\circ}55'30''$   
 to  $4/275'42''$   
 Texas S  $68^{\circ}55'30''$  }  $104^{\circ}56'30''$  ✓

At Boundry N.  
 Texas S  $36^{\circ}01'$   
 to  $4/144^{\circ}04'$  ✓  
 Texas N  $36^{\circ}01'$

At Boundry S.  
 Texas S  $34^{\circ}43'$   
 to  $4/138^{\circ}53'30''$   
 Texas N  $34^{\circ}43'22.5''$  ✓

At Boundry S.	at Bound S
Texas N $50^{\circ}43'30''$	Total - Texas S -
to $4/202^{\circ}55'$	Highway $168^{\circ}10'$
Boundry N $50^{\circ}43'45''$	Sum $168^{\circ}9'30''$ ✓

At Boundry S.  
 Texas N  $62^{\circ}30'30''$   
 to  $4/250^{\circ}02'$   
 Peck  $62^{\circ}30'30''$

<sup>2</sup>  
 Length Base 12408  
 Course N  $27^{\circ}14'N$

At Boundry S

Peck 26° 40'  
to 4 | 106° 41'  
Mary 26° 40' 15"

At Boundry S

Mary 44° 16'  
to 4 | 177° 03'  
Highway 44° 15' 45"

At Texas S

Boundry S 25° 37' 30"  
to 4 | 202° 29' 30"  
Boundry N 25° 37' 22.5"

At Texas S

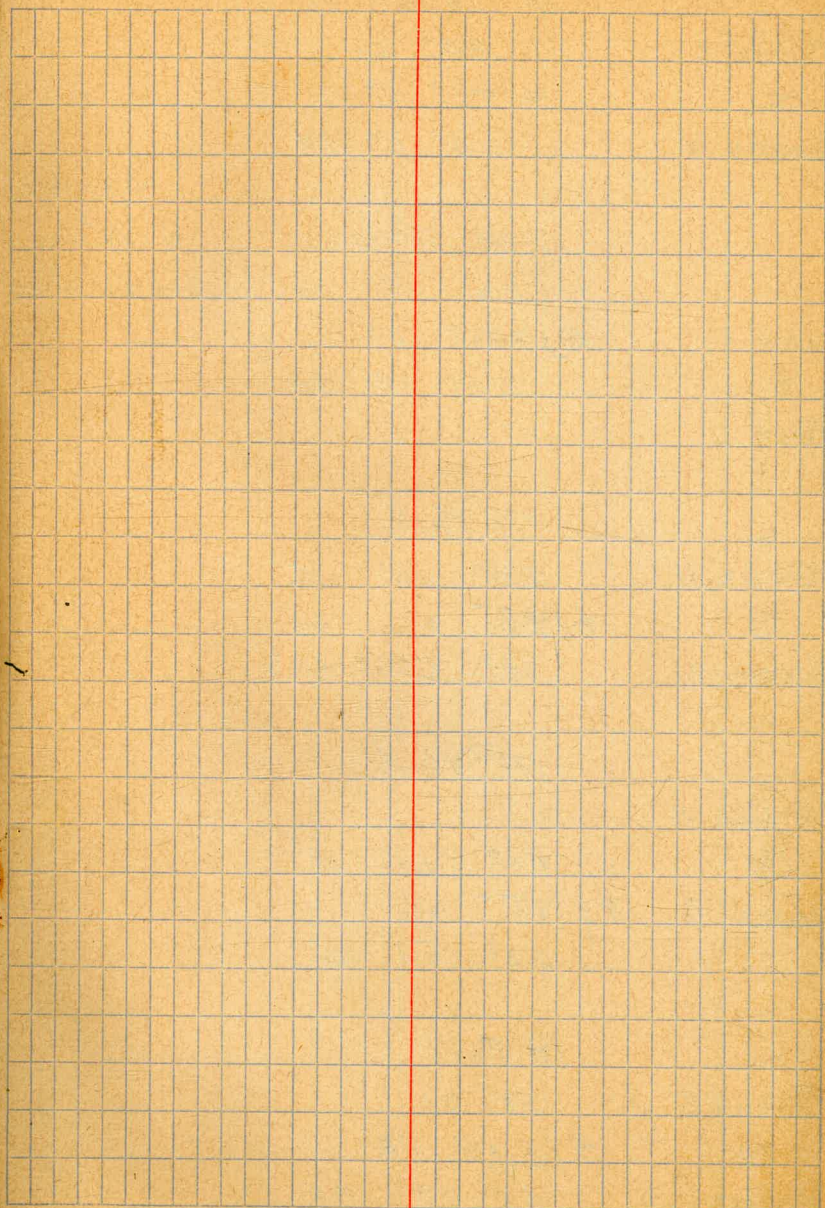
Boundry N 54° 36' 30"  
to 4 | 218° 20'  
Texas N 54° 36' 30"

At Texas S

Total - Bound S  
to Texas N - 80° 41'  
Sum 80° 13' 37"

At Texas N

Texas S 65° 3'  
to 4 | 126° 11'  
Bound S 65° 2' 45"



at Texas N  
Bound S  $24^{\circ} 20'$   
to  $4 | 97^{\circ} 19'$   
Boundary N  $24^{\circ} 19' 45''$

T-5 - Peck

At Texas N  $115^{\circ} 18'$   
 $50^{\circ} 15' 30''$  Sum  $115^{\circ} 18' 09''$   
Bound S  $5 | 251^{\circ} 17'$   
to  $50^{\circ} 15' 24''$   
Peck

at Peck  
Texas N  $23^{\circ} 22' 15''$   
to  $4 | 93^{\circ} 30' 30''$   
Texas S  $13^{\circ} 22' 37.5''$

at Peck  
Texas S  
to  $43^{\circ} 51' 15''$   
Bound S  $4 | 175^{\circ} 26'$   
 $43^{\circ} 51' 30''$

at Peck  
Bound S  $58^{\circ} 30'$   
to  $4 | 233^{\circ} 58'$   
Highway  $58^{\circ} 29' 30''$

At Peck  
Highway  $34^{\circ} 43'$   
to  $4 | 138^{\circ} 51' 30''$   
Mary  $34^{\circ} 42' 52.5''$

At Mary  
Peck  $60^{\circ} 06'$   
to  $4 | 240^{\circ} 29' 30''$   
Bound. S.  $60^{\circ} 07' 22.5''$

At Mary  
Bound. S.  $64^{\circ} 52' 30''$   
to  $4 | 259^{\circ} 33' 0''$   
Highway  $64^{\circ} 53' 15''$

At Mary  
Highway  $22^{\circ} 49' 30''$  Sum at Mary  
to  $4 | 91^{\circ} 18' 15''$   $218^{\circ} 20'$   
Gibson  $22^{\circ} 49' 33.8''$   $218 20 08.5$

At Mary  
Gibson  $70^{\circ} 29' 45''$   
to  $4 | 282^{\circ} 0' 0''$   
Gottesbin  $70^{\circ} 30'$



#1 Gottesburen  
 Mary 38° 52' 45"  
 to 4 | 155° 30' 00"  
 Highway 38° 52' 30"

#1 Gottesb'n  
 Highway 15° 22'  
 to 4 | 61° 27'  
 Gibson 15° 21' 45"

#1 Gottesb'n  
 Gibson 33° 18' 30"  
 to 4 | 133° 13' 00"

Ridge 33° 18' 15" #1 Gottesburen  
 #1 Gottesb'n <sup>total</sup> Mary to Sandy  
 Ridge 25° 26' 30" 112° 59' 30"  
 to 4 | 101° 44' 45" Sum 112° 56' 56.2"  
 Sandy 25° 26' 11.2"

#1 Sandy  
 Gottesb'n 78° 27'  
 to 4 | 313° 56'  
 Highway 78° 27' 30"

At Sandy  
 Highway 09° 17' 15"  
 to 4137° 11'  
 Gibson 09° 17' 45"

At Sandy  
 Gibson 47° 49' 45"  
 to 41191° 20'  
 Ridge 47° 50'

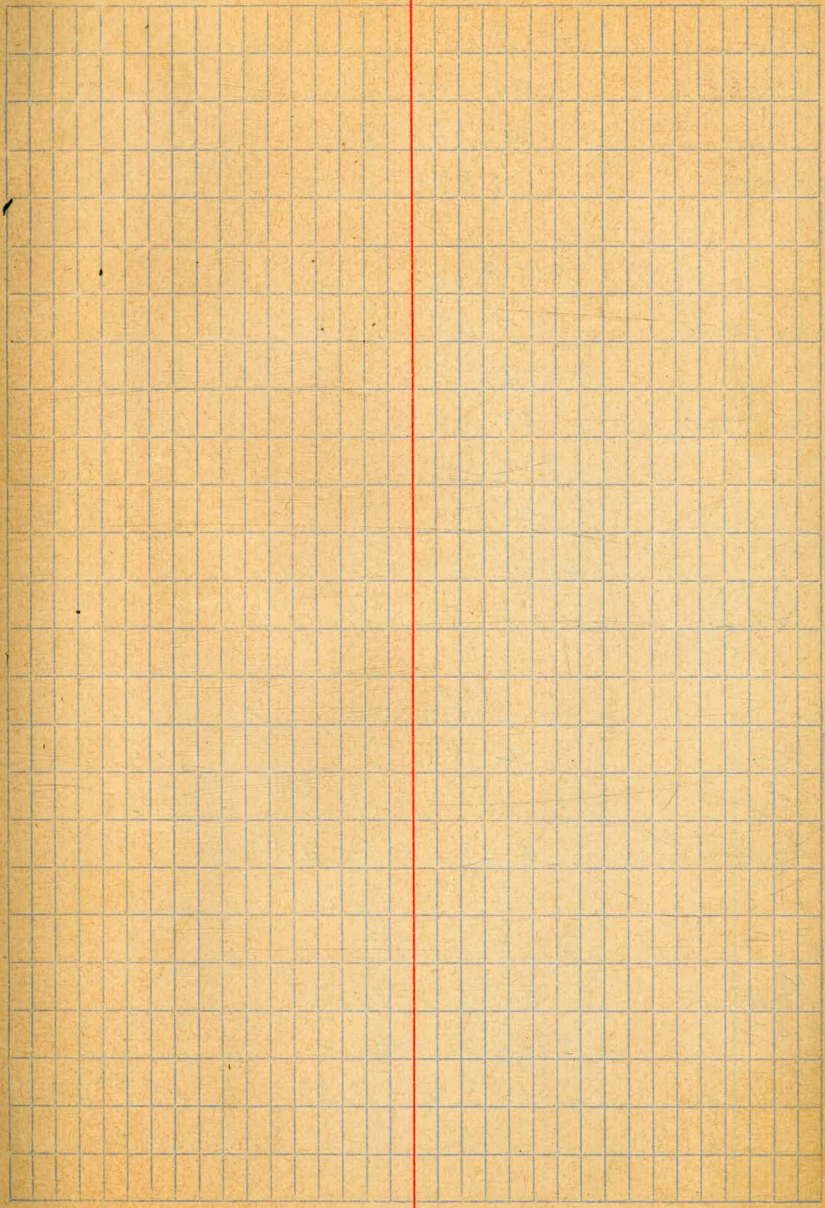
At Sandy  
 Ridge 91° 01'  
 to 41364° 04'  
 Knob 91° 01'

At Sandy  
 Total Gottesburen  
 to Knob 226° 31'  
 Sum

At Knob  
 Sandy 41° 45' 15"  
 to 41167° 00'  
 Ridge 41° 45'

At Knob  
 Ridge 42° 30'  
 to 41170° 00'  
 Bridge 42° 30'

At Knob  
 Total - Sandy to Bridge  
 84° 15'  
 Sum 84° 15'



At Bridge

Knob  $95^{\circ} 34'$   
 to  $4 | 382^{\circ} 17' 30''$   
 Ridge  $95^{\circ} 34' 22.5''$

At Ridge

Gibson  $57^{\circ} 16'$   
 to  $4 | 229^{\circ} 04'$   
 Gottesb'n  $57^{\circ} 16'$

At Ridge

Gottesb'n  $18^{\circ} 59'$   
 to  $4 | 75^{\circ} 54' 45''$   
 Sandy  $18 58 41.2$

At Ridge

Sandy  $47^{\circ} 14'$   
 to  $4 | 188^{\circ} 55' 45''$   
 Knob  $47^{\circ} 13' 56.25''$

At Ridge

Knob  $41^{\circ} 55' 30''$   
 to  $4 | 167^{\circ} 43'$   
 Bridge  $41^{\circ} 55' 45''$

At Ridge

Total Gibson  
 to Bridge  
 $165^{\circ} 24' 15''$

Sum  $165 24 22.5$

At Gibson  
 Highway 57° 51'  
 to 4 | 231° 25' 15"  
 Mary 57° 51' 18.75"

At Gibson  
 Mary 55° 15' 30"  
 to 4 | 221° 09'  
 Gottesbn 55° 15' 45"

At Gibson  
 Gottesbn 33° 30'  
 to 4 | 134° 01'  
 Sandy 33° 30' 15"

	At Gibson	Total
Sandy	55° 55' 30"	At Gibson
to	4   223° 41'	Highway to Ridge
Ridge	55° 55' 15"	202° 32.70"
		Sum 202° 32.70"

At Highway  
 Bound.S 50° 34' 15"  
 to 4 | 202° 18'  
 Peck 50° 34' 30"

At Highway  
 Peck 20° 16' 30"  
 to 4 | 81° 06'  
 Mary 20° 16' 30"

At Highway  
 Mary 47° 48'  
 to 4 | 191° 11' 30"  
 Gottesb'n 47° 47' 52.5"

At Highway  
 Gottesb'n 27° 25' 30"  
 to 4 | 109° 43' 30"  
 Sandy 27° 25' 52.5"

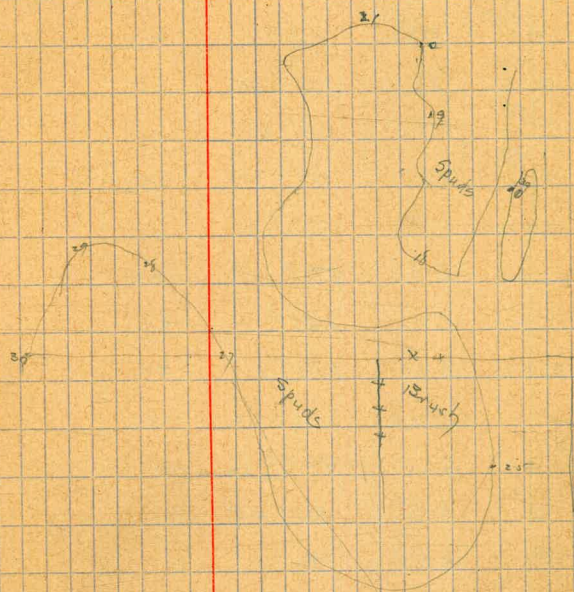
At Highway  
 Sandy 24° 05' 30"  
 to 4 | 96° 21'  
 Gibson 24° 05' 15"

Total  
 AT Highway  
 Bound. S. to  
 Gibson 170° 09' 20"  
 Sum 170° 10' 00"

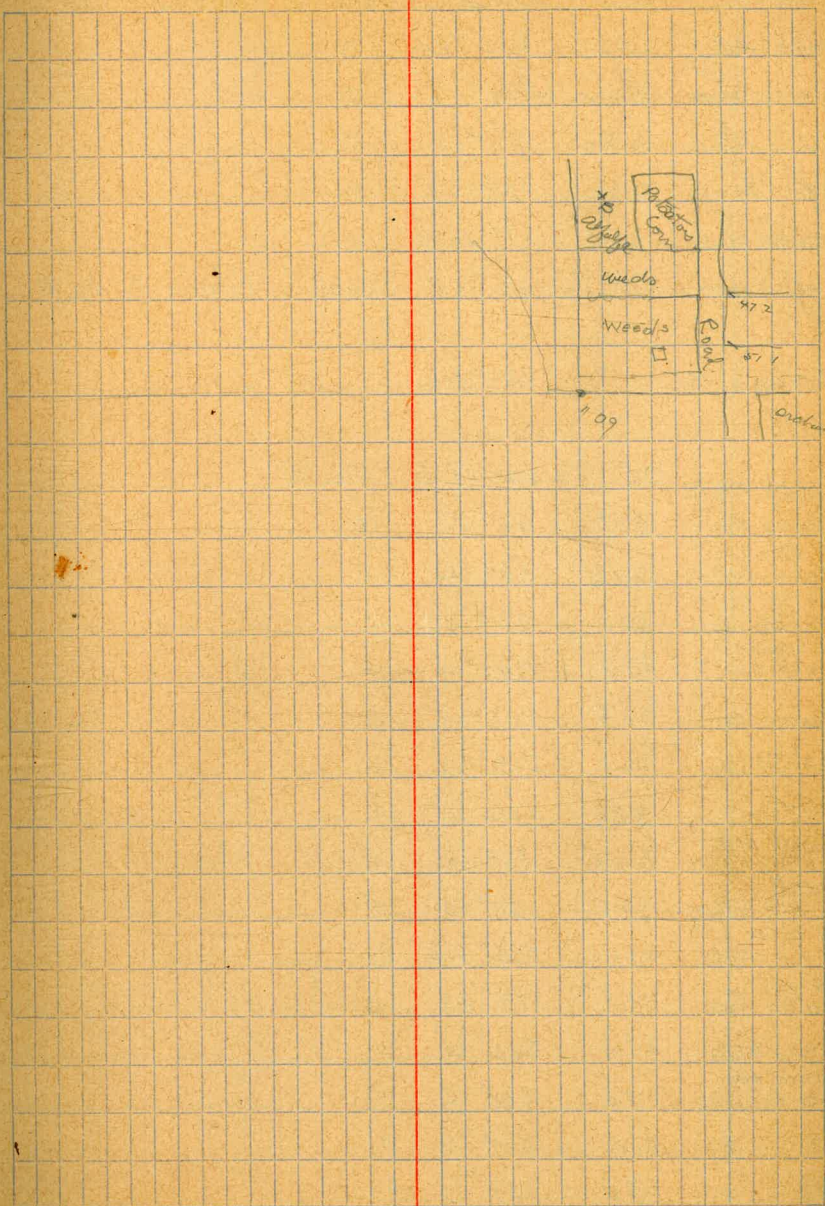
Sta	Dist	Azim	Vert L	Cor D	Red
At Texas N					
Sight Beck Zero Az to right					
Fence 29					
✓ Con 39 TB	190	129° 18'	00		
✓ TB old ch	55	133° 20'	00		
✓ 39 TB old ch	155	335	00		
Fence 27					
✓ 39	160	287° 45'	00		
✓ 39 gold chan	344	318° 30'	00		
✓ 39 29	620	320 25'	00		
Fence 30					
✓ 39	580	291 25'	00		
✓ 39 TB	300	346° 50'	00		
✓ 39 Creek Bed	460	16° 15'	00		
✓ 39 SBB	660	31° 35'	00		
✓ 39 SBB	450	29° 35'	00		
✓ 39 STB	150	104° 30'	00		
✓ 39 (R) Island	500	90° 15'	00		
✓ 39 (R) "	390	98° 05'	00		
✓ 39 (R) 4	400	109° 55'	00		
✓ 39 (R) 3	330	115° 0'	00		
✓ 39 T.B. N Bank	220	167° 0'	00		
Fence Cor	25	237° 0'	00		
✓ Texas N a	670	92° 17'	00		

At Texas N a Sight Tex N O Az R					
✓ TB North					
✓ 39 17	265	36° 20'	00		
✓ 39 TB North					
✓ 39 16	245	92° 5'	00		
✓ 39 TB N					
✓ 39 15	440	106° 15'	00		

June 21 1915  
 1346 - Transit  
 Schoedsock - Rod



Sta	Dist	Az	Vert L	Cor Dist	Red
✓ 39 TRN Nth ①	520'	109° 40'	00		
✓ 39 TRN Nth ③	700'	109° 45'	00		
✓ 39 BSS ⑦	1120'	110° 40'	00'		
✓ 39 BSS ⑩	1052'	111° 15'	00		
✓ 39 BSS ⑨	930'	112° 15'	00		
✓ 39 BSS ⑧	760'	112° 40'	00		
✓ 39 BSS ⑦	380'	114° 55'	00		
✓ 39 BSS ⑥	165'	117° 30'	00		
✓ Fence T. End	290'	315° 0'	00		
✓ SW Cor 1109	282'	271° 08'	00		
✓ Hole at Fence	310'	259° 15'	00		
✓ 43 ① Fence	390'	239° 25'	00		
✓ Wind Mill with 9 Road	365'	236° 25'	00		
✓ Fence Cor	470'	203° 25'	0		
✓ 43 Fence ②	415'	201° 45'	0		
✓ 43 ③	455'	186° 0'	0		
✓ Fence Cor	445'	185° 15'	0		
✓ Fence Cor	530'	190° 20'	0		
✓ " "	85'	161° 40'	0		
✓ Fence Cor 47 ①	440'	234° 45'	0		
✓ SW Cor	490'	233° 45'	0		
✓ Fence Cor	490'	233° 45'	0		
✓ 51 ①	500'	233° 30'	0		
✓ NE Cor Orchard Fence Cor	490'	243° 5'	0		
✓ Fence Cor 47 ③	520'	204° 35'	0		
✓ Bend in Road	580'	192° 10'	0		
✓ 47 ⑤	650'	175° 10'	0		



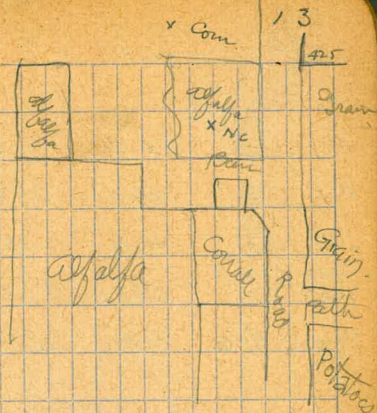
At Texas N a

S/A	Dist	Az	Vert	L	Cor Dist	Rod
Wind Mill	520	225° 20'	0			
NW Cor House	540	220° 18'	0			
51 ②	680	191° 10'	0			
51 ③	700	172° 55'	0			
Texas N.B	640	138° 24' 30"	0			
Sight Texas N a	Of Texas N B	check 1/2			Texas S	Az R

★ Texas S 292° 52' 30"

At Texas N b Az R

✓ NW Cor Alfalfa	410'	69° 25'	0	✓
✓ NW Corral	202	337° 45'	0	✓
✓ SW Corral	250	389° 55'	0	✓
✓ SE Alfalfa	270	241° 15'	0	✓
✓ Fence Cor	255	213° 45'	0	✓
✓ FENCE CR	305	213° 25'	0	✓
✓ " "	320	202° 15'	0	✓
✓ Bound 1109	365	186° 15'	0	✓
Outlet				
Dump fr Pump	375'	229° 10'	0	✓
N W Cor				
Pump House	400'	236° 55'	0	✓
40 x 50				
SW Cor Barn	335'	259° 42'	0	✓
NE Cor Potato	280	302° 20'	0	✓
Grain Field				
NW Fence Cor	280	300° 15'	0	✓
A3 4	800	339° 0'	0	✓
47 4	285	319° 0'	0	✓





		Az	Vert L	Cor Dist
5/4	Dist	At Texas N B		
43	③	240	254° 15'	0
47	③	290	272° 20'	0
51	④	400	263° 0'	0
Gas Pump Well for	380	237° 25'	0	0
Texas N C	530	239° 41'	0	0

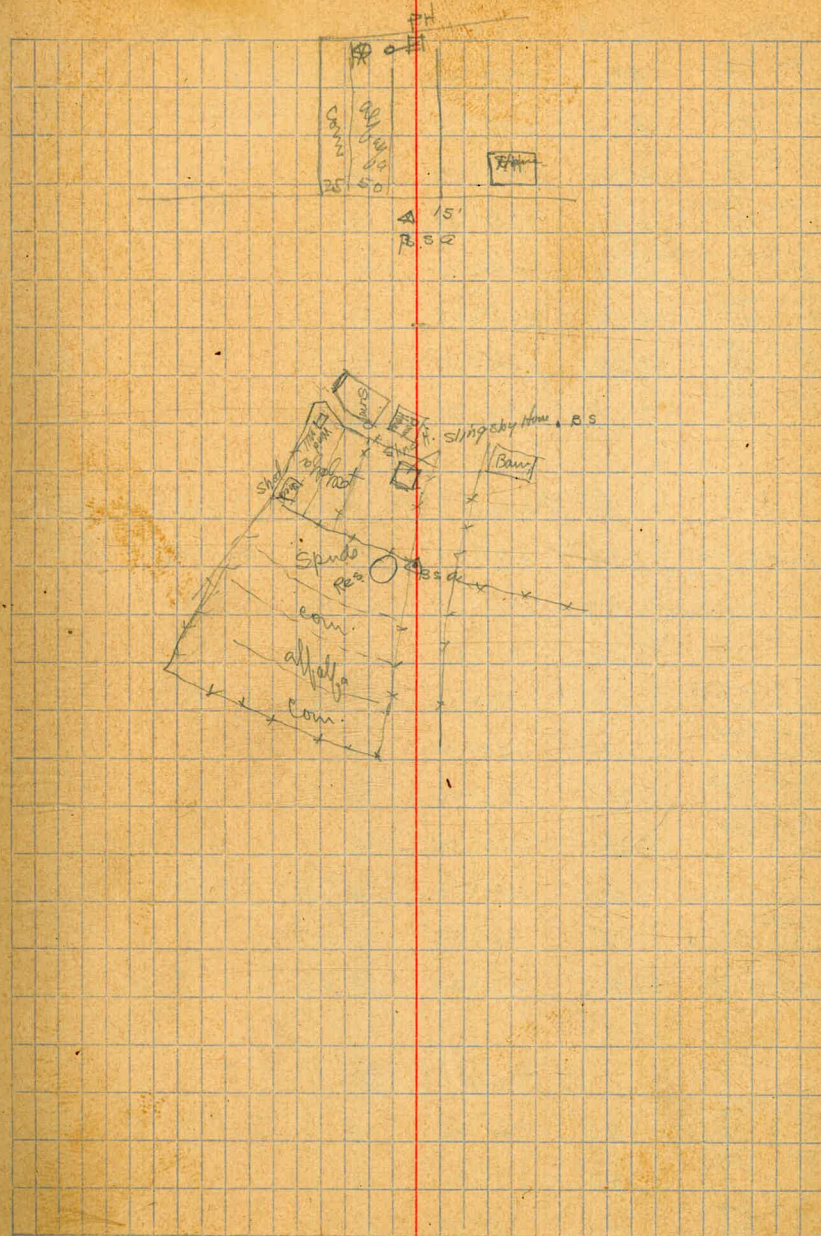
At Texas N - C Sight Texas N b Az R  
Tex 99 S 318° 12'

		At Texas N c	Sight Texas S	Az R
43	⑥	100	92° 40'	0
47	⑥a	00	Texas N c	0
SE Cov Barn	175	10° 25'	0	0
Alfalfa				
SW Cov Fence	143	3° 50'	0	0
51	⑤	110	222° 5'	0
55	⑦	138	237° 35'	0
Fence Cr. SE Cov Alfalfa	430	206° 05'	0	0
Fence Cov	425	212° 20'	0	0
43	⑦	347	168° 10'	0
47	⑧B	390	198° 20'	0

At Bound S. a Sight B. S. Az Right

55	②	265	135° 15'	0
SE Cov House	310	125°	0	0
NE Cov House	290	122° 36'	0	0

S/A	Dist	Az	V Angle	Cor	Dist
SE Fence Cor	750	181°35'	0	✓	
Alfalfa					
NE Fence Cor	760	189°50'	0	✓	
25 x 50					
NW Cor Barn	260	101°5'	0	✓	
Alfalfa					
NE Fence Cor	670	204°20'	0	✓	8
on Fence line					
59 (2)	92	131°40'	0	✓	
Fence Cor					
63 (1)	40	69°25'	0	✓	
Wind Mill	405'	217°30'	0	✓	
SE Cor					
Pump house	455'	125°20'	0	✓	
Bump-Well	450'	222°20'	0	✓	
43 (9)	470'	239°5'	0	✓	
on Fence line					
67 (2)	60'	16°0'	0	✓	
Fence Cor	15'	315°30'	0	✓	
47 (6)	320'	199°55'	0	✓	
June 22					
North Side Road					
Bend in Fence	150'	336°45'	0	✓	
SW Cor Sling House	205'	332°3'	0	✓	
NW Cor " "	210'	324°5'	0	✓	
City Lot Contact					
SW Cor No 1	290'	339°0'	0	✓	
63 (2)	25'	60°20'	0	✓	
on Fence line					
59 (2)	110'	270°0'	0	✓	
50 D					
Reservoir	12'	224°0'	0	✓	
55 (2)	220'	267°30'	0	✓	
Fence Cor No 2	415'	278°50'	0	✓	
" " " (3)	465'	278°0'	0	✓	
SE Cor Windmill	465'	277°45'	0	✓	
Slingby No 5					
NW Cor Fence	440'	264°35'	0	✓	
Fence Cor No	485'	277°0'	0	✓	



At Bound 5-@

Sta	Dist	Azi	V.L	Cor Dist
Bottom Bank 47 ①	480	273°50'	0	✓
Bottom Bank 47 ②	460	279°10'	0	✓
Top Bank 51 ①	420	280°20'	0	✓
Bottom Bank 47 ③	380	285°45'	0	✓
Top Bank on Fence line 55 ①	355	289°10'	0	✓
T Bank Fence L 59 ①	315	298°45'	0	✓
Top Bank Fence 63 ①	295	309°5'	0	✓
Bottom Bank 51 ②	326	298°25'	0	✓

At Bound 5 Sight Texas S Az R

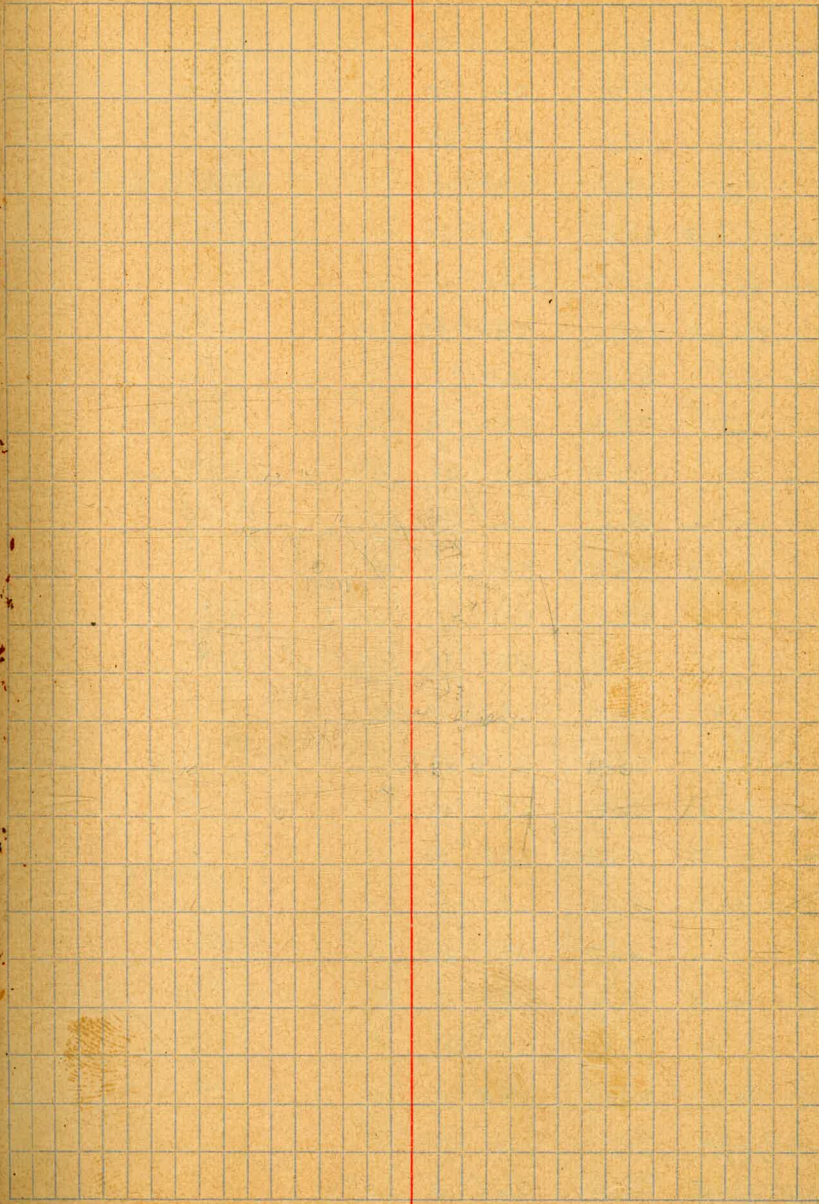
Bound 5 (A)	468	29°53'	-2°45'	467.46	✓
SE Cor Sling Barn	62	56°35'	-6°30'	61.56	✓
NE " " "	116	80°40'	-5°45'	115.42	✓
Road + F Run South Fence Cor	123	86°25'	-5°45'	122.38	✓
S Side Road Fence line	210	155°40'	0	✓	
S Side Road Fence line	330	164°40'	0	✓	
N Side Road Fence line	335	160°45'	0	✓	
F. Line N. S Road Cor Post	240	151°0'	-4°0'	239.28	✓
SE Cor City Lot	165	84°54'	-5°0'	✓	
Bound 5 (B)	302	93°27'	-4°40'	✓	

At Bound 5 (B)

Top Bank 67 ① Fence	143	74°45'	0	✓
Bot Bank 67 ②	147	63°30'	0	✓
Bot Bank 63 ③	140	74°35'	0	✓
Top Bank 59 ④	138	87°0'	0	✓

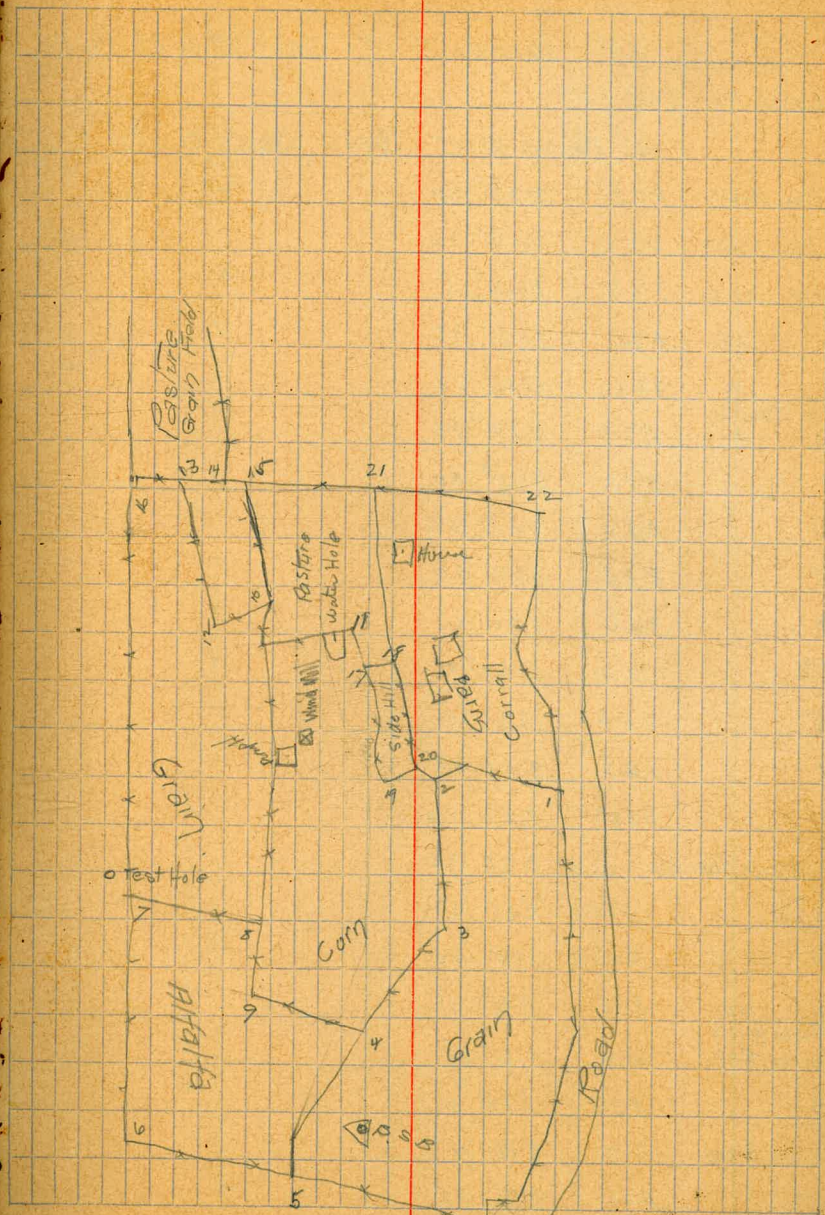
At Bound 3-13

Foot Bank Top Retain Wall 55 ②	138	97° 30'	0	✓
SE Cor Tower H	92	120° 58'	0	✓
NE " " "	118	135° 0'	0	✓
SE " Sump	167	144° 57'	0	✓
NE Cor " "	308	157° 18'	0	✓
Fence 67° ③	410	293° 15'	0	✓
63° ③	410	292° 40'	0	✓
59 ⑥	408	291° 45'	0	✓
55 ⑧	400	290° 10'	0	✓
51 ⑫	395	288° 15'	0	✓
Fence Cov. 1	560	283° 20'	0	✓
<del>55 9</del>				✓
Fence Cov. 2	540	277° 20'	0	✓
Bottom Draw 59 4	40	0° 40'	0	✓
47 Center ⑬				✓
Fence Cov. 3	380	282° 25'	0	✓
" " 4	280	280° 45'	0	✓
Top Bank 59 ③	30	117° 25'	0	✓
Bottom Draw 55 ⑥	10	76° 15'	0	✓
Fence Cov. 4	51	128° 40'	0	✓
Top Bank 55 ⑤	60	139° 0'	0	✓
Bottom Draw 51 ⑩	55	154° 20'	0	✓
Top Bank 55 ⑦	50	173° 30'	0	✓
Top Bank 51 ⑨	120	153° 20'	0	✓
Top Bank 51 ⑪	105	159° 30'	0	✓
Fence Cov. 6	215	160° 35'	0	✓
Bottom Draw 47 ⑪	130	158° 20'	0	✓
47 10	195	160° 45'	0	✓



At Bound S-B

Fence Cor 7	600	223°45'	0	✓
" " 8	500	246°10'	0	✓
Test Hole	620	223°50'	0	✓
ST (13)	375	239°0'	0	Should be 455
Fence Cor 9	345	236°30'	0	✓
Pump Well	620	250°10'	0	✓
SW Cor Pump H	600	249°50'	0	✓
Windmill	610	251°10'	0	✓
Fence Cor <sup>10</sup>	780	252°30'	0	✓
Fence Cor <sup>11</sup>	750	265°50'	0	✓
Fence Cor <sup>12</sup>	815	245°10'	0	✓
" " 13	930	246°40'	0	✓
" " 14	920	252°50'	0	✓
" " 15	905	255°15'	0	✓
" " 16	1010	232°25'	0	✓
No 9				
NW Cor Pump H	825	203°10'	0	✓
Fence Cor 17	700	267°40'	0	✓
" " 18	715	269°30'	0	✓
SE Cor House	470	183°0'	0	✓
SW " "	450	177°45'	0	✓
Fence Cor 19	540	274°35'	0	✓
" " 20	545	276°10'	0	✓
Water Hole	720	262°0'	0	✓
Manhole	240	172°30'	0	✓
Boundary S-C	975	248°4'	1°0'	✓



At Boundy S-C Sight B.S. B Az R

Bound S 345 36

At Bound S-C Sight Bound O Az R

SE Cor Barn 405 325° 30 ✓

NE Cor House 350 308° 30 ✓

Fence Cor 21 330 304° 15 ✓

" " 22 415 302° 35 ✓

51 13 581 345° 35 ✓

Top Bank 67 4 370 329° 40 ✓

71 390 325° 40 ✓

75 405 323° 50 ✓

79 445 323° 50 ✓

63 363 330° 0 ✓

59 360 330° 0 ✓

55 350 331° 0 ✓

51 345 331° 45 ✓

47 315 333° 30 ✓

43 Around Water Hole 310 335° 30 ✓

43 " " 330 341° 50 ✓

43 " " 300 338° 50 ✓

55 10 390 270° 0 ✓

Pump House SW Cor No 8 600 115° 25 ✓

59 400 272° 0 ✓

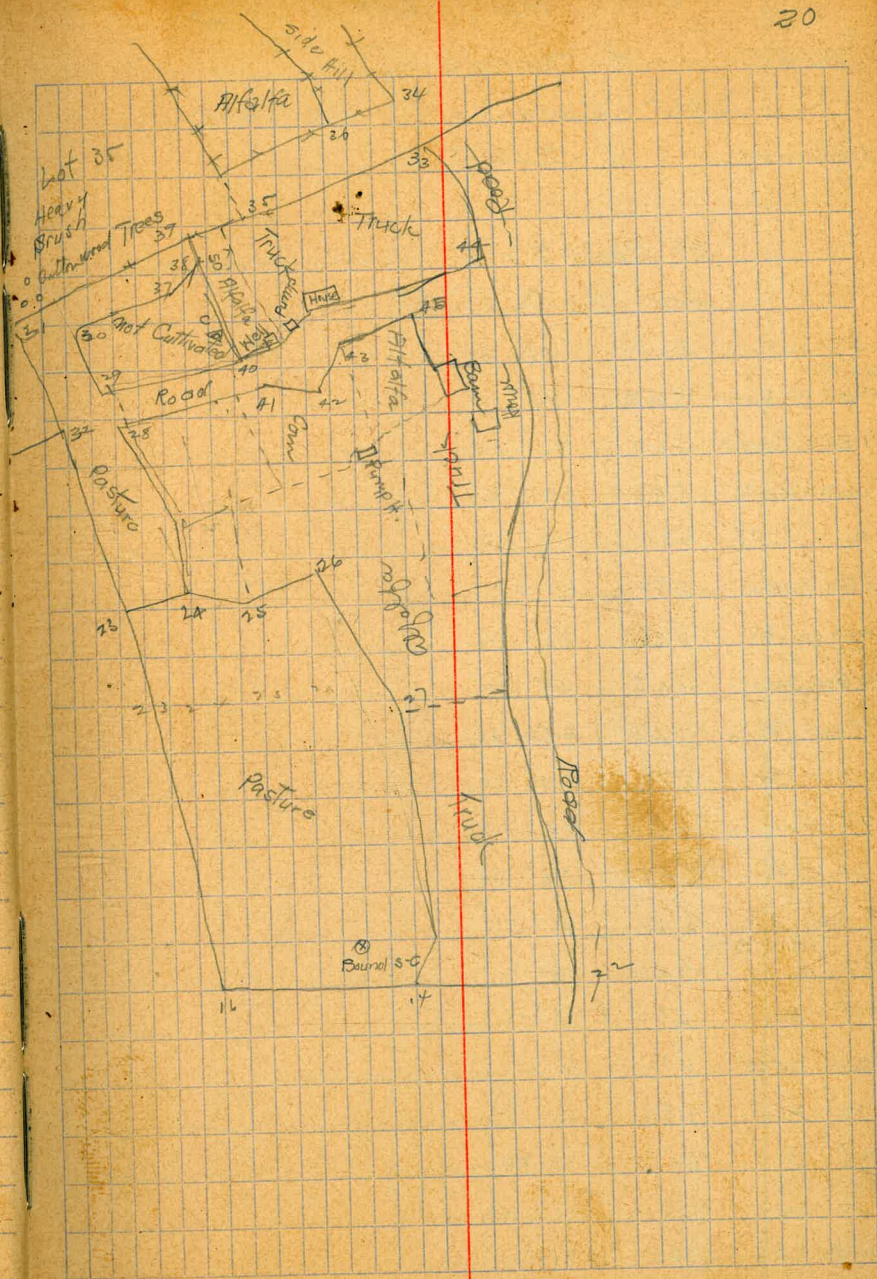
63 on F Line 410 270° 15 ✓

67 420 270° 25 ✓

Grid area on the right page of the notebook.

194 Bound S-①

Top Bank				
71 Edge Road	430	270° 20'	✓	
75	450	270° 20'	✓	
51	355	268° 0'	✓	
47	365	265° 50'	✓	
Check on Highway		214° 53'	✓	check ok
Well No 7			✓	
SW Cor Pump H	862	150° 5'	✓	
59 10	710	239° 40'	✓	
Manhole	705	167° 30'	✓	
63	695	241° 20'	✓	
Fence Cor. <sup>23</sup>	710	168° 50'	✓	
67 Edge Road	720	242° 40'	✓	
Fence Cor. 24	690	177° 50'	✓	
71	740	242° 40'	✓	
75	750	242° 50'	✓	
Fence Cor. <sup>25</sup>	580	192° 30'	✓	
" " <sup>26</sup>	460	206° 40'	✓	
55	685	227° 0'	✓	
51	620	224° 10'	✓	
Top Bank River			✓	
47 20	600	221° 30'	✓	
F. Cor. 27	355	218° 20'	✓	
Test Hole	420	194° 0'	✓	
A3 Water Hole	480	207° 0'	✓	
Bound S ①	1006	196° 40'	✓	



Sta Dist Az V. Angle Cor D

June 23 At Bound 5 - (D)  
 Sight Bound 5 - (C) Az Right  
 Highway 222°13'

At Bound 5 - D Sight Highway for  
 zero Az to Right

47 17	322	102° 20'	✓
44.9' Well No 20	340	95° 25'	✓
NE Cor Pump H.	360	90° 20'	✓
Fence Cor 28	240	207° 0'	✓
" " 29	230	210° 45'	✓
NE Cor House	520	73° 30'	✓
Fence Cor 30 30 x 40	278	261 15'	✓
NE Cor Barn	448	59° 30'	✓
F. Cor 31	445	256° 40'	✓
" " 32	370	214° 20'	✓
75 2	648	24° 40'	✓
71 5	642	24° 25'	✓
F. Cor 33	670	19° 35'	✓
T. Bank 21	750	199° 0'	✓
79 0	675	25° 25'	✓
Fence Cor 34	675	12° 0'	✓
79 2	680	13 15'	✓
75 3	650	13 40'	✓
TB N Bank 47 29	722	222 40'	✓
79 3	740	360° 0'	✓
75 4	725	359 40'	✓

21

HOUSE



## At Bound S-D sight Highway zero ft Rt

71	7	720	359°20'	✓
67	7	710	359°0'	✓
63	11	700	358°30'	✓
59	14	665	355°25'	✓
N Side River				✓
47	28	760	253°5'	✓
55	16	608	348°50'	✓
F. Cor	35	363	357°40'	✓
55	15	425	359°50'	✓
59	13	525	70°30'	✓
63	10	560	11°20'	✓
Fence Cor	<sup>36</sup>	595	13°0'	✓
67	10	600	11°30'	✓
71	6	630	12°0'	✓
South Bank				✓
47	2A	630	260°25'	✓
67	9	595	28°0'	✓
63	9	530	19°20'	✓
City				✓
Weil No	6	585	265°20'	✓
Fence Angle	<sup>37</sup>	175	294°50'	✓
" Cor	38	193	320°40'	✓
" "	39	255	318°30'	✓
N.W. Co Shed		470	26°0'	✓
59	12	445	26°50'	✓
Water Hole		250	298°50'	✓
55	14	320	13°30'	✓
51	18	250	7°30'	✓

## At Bounds - D

47 18	80	229° 20'	✓
NE Cor House	212	37° 20'	✓
Well Sump	180	54° 0'	✓
ON Arrow No. 1000s Well Derrick	152	57° 15'	✓
Water Hole	130	75° 0'	✓
Fence Cor. <sup>40</sup>	55	99° 25'	✓
47 19	618	170° 20'	✓
Fence Cor. 41	65	117° 0'	✓
" " 42	150	97° 45'	✓
" " 43	190	66° 50'	✓
47 20	960	190° 25'	✓
F. Cor. 44	590	46° 30'	✓
" " 45	460	49° 30'	✓
51 19	335	339° 0'	✓
E County R.	1220	117° 50'	✓
" " "	930	110° 50'	✓
" " "	750	96° 25'	✓
" " "	620	71° 15'	✓
Highway	790	00	25' to S of road Check ✓
E County R.	610	41 45'	✓
" " "	690	18 50'	✓

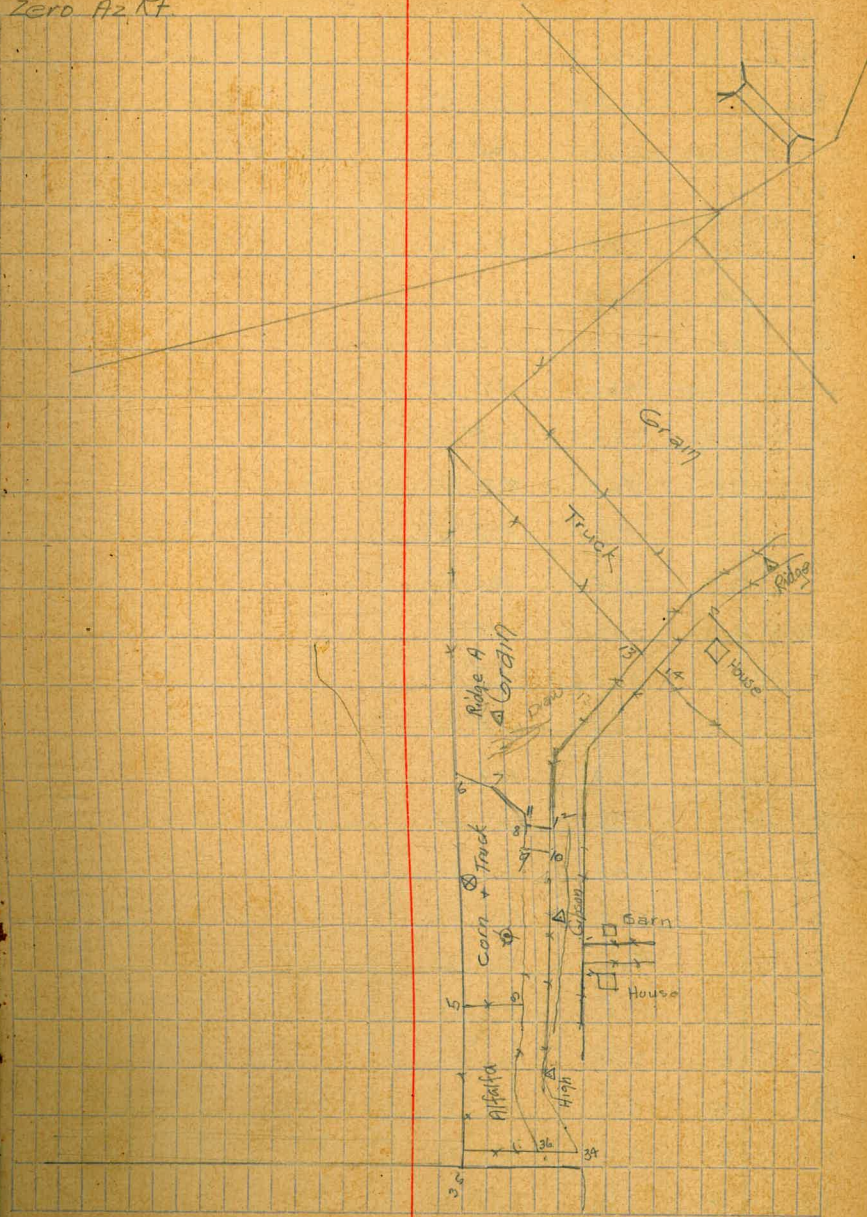
At Gibson - Sight Sandy for

Gibson A	170'	332° 34'	234'	3A	1	✓
Fence Cr 1	72'	192° 25'			2	✓
" " 4	123'	202° 0'			3	✓
40 x 30 N E Cor Barn	230	134° 15'			4	✓
Gibson's S E Cor House	180	185° 15'			5	✓

At Gibson - A Sight Highway for Zero Az Rt.

73	1	330	10° 30'		1	✓
79	4	330	16° 55'		2	✓
75	5	333	19° 0'		3	✓
Windmill	97	111° 40'	-16° 45'		4	✓
71	8	335	20° 30'		5	✓
67	12	335	21° 25'		6	✓
63	12	325	23° 15'		7	✓
59	15	310	25° 10'		8	✓
F. Cor. 3	300	27° 40'	-5° 45'		9	✓
S E Cor Pump H	295	138° 50'	-6° 15'		10	✓
Center of Well Gibson's	287	133° 55'	-6° 15'		11	✓
55	17	330	45° 40'	-4° 45'	12	✓
F. Cor. 5	345	48° 45'	-5° 20'		13	✓
55 - 20 " " 16	610	163° 0'	-4 10		14	✓
51	21	620	43 0 0		15	✓
55	21	693	162 15		16	✓
51	22	708	63 25		17	✓
South Bank River 51	26	724	154 10		18	✓

Zero Az Rt



Of Gibson A

47	26	995	68° 15'	19	1	✓
51	32			20	2	✓
N Bank R		1020	150° 50'			
North of River						
55	No Number	1210	144° 30'	ON Flat	3	✓
51	35	800	128° 50'		4	✓
T. B. N Side River						
51	33	740	131° 15'		5	✓
N Bank River						
51	34	740	116° 50'		6	✓
51	36	820	113° 15'		7	✓
F. Cor	10	242	196° 35'		8	✓
" "	9	255	175° 55'		9	✓
51	37	962	93° 30'		10	✓
F. Cor	8	303	178° 50'		1	✓
City Well						
No 5		1040	90° 57'		2	✓
Bend in Fence	7					
		515	169° 5'		3	✓
55	19	420	172° 40'		4	✓
Fence cor	11	325	179° 30'		5	✓
59	16	305	179° 40'		6	✓
on fence						
59	19	780	167° 45'	near fence S side R	7	✓
63	13	300	182° 50'		8	✓
67	13	292	185° 30'		9	✓
59	17	800	186° 40'	Tax slip	10	✓
71	7	295	187° 40'		1	✓
75	6	290	190° 20'		2	✓
63	14	780	188° 5'		3	✓
79	5	295	193° 40'		4	✓
67	14	790	188° 30'		5	✓
83	7	292	197° 40'		6	✓

—?

Repetition

71	10	795	189° 10'	45	7	✓
75	7	790	190° 0'	46	8	✓
Fence Cor 12		280	195° 55'	47	9	✓
79	6	785	190° 30'	48	10	✓
Fence Line				49	11	✓
83	3	780	192° 50'			
55	18	120	112° 20'	-13° 50'	117° 12'	✓
348 Well	24	120	108° 20'	-13° 45'	110° 13'	✓

		At Ridge - A	Sight Ridge	to Zero AZ RT	
E. Savily R	405	108° 0'	1		✓
87	1	260	99° 25'	2	✓
83	4	220	105° 20'	3	✓
79	7	200	110° 15'	4	✓
75	8	180	118° 45'	5	✓
71	11	175	124° 10'	6	✓
67	15	170	128° 20'	7	✓
63	15	190	138° 10'	8	✓
63	16	160	148° 20'	9	✓
63	17	170	165° 30'	10	✓
67	16	115	109° 20'	11	✓
67	17	95	154° 30'	12	✓
71	13	75	148° 45'	13	✓
75	10	55	147° 40'	14	✓
79	9	35	126° 25'	15	✓
71	17	150	57° 0'	16	✓
83	6	90	00	17	✓

## Pt Ridge - A

15	7	250	28° 10'		✓
79	8	300	24° 5'		✓
83	5	400	18° 20'		✓
87	3	490	352° 20'		✓
N Side Road F Cov	13	570	4° 35'		✓
E Side Road F Cov	14	585	8° 40'		✓
87	2	505	23° 40'		✓
S. Run Bank					
59	20	360	187° 15'		✓
55	23	365	189° 0'		✓
59	21	460	276° 50'		✓
RR No 4 Test Hole		340	249° 15'		✓
55	22	577	161° 40'		✓
83	7	200	316° 35'		✓
79	10	250	307° 50'		✓
59	19	705	147° 20'	Red	✓
75	11	280	305° 10'		✓
71	14	280	301° 30'		✓
67	18	295	299° 0'		✓
63	18	310	297° 0'		✓
SS River					
51	30	475	199° 20'		✓
SS River					
51	31	665	187° 50'		✓
Ridge		822	00		✓
55 No Num		865	216° 40'		✓
55 No Num		560	208° 5'		✓
55 " "		570	238° 25'		✓
51	29	545	239° 15'	In River Bottom	16 ✓
51	28	375	215° 0'	S. Side River	17 ✓

## At Ridge Sight Sandy for Zero Az. Rt

Ridge - A	822	317° 54'	1° 30'	✓
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## At Ridge Sight Sandy for 0 Az. Rt

NE Cor House	142	263° 50'	15' x 30'	✓
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F. Cor. 1	95	302	40	✓
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F. Cor. 2	100	326	50	✓
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91	1	220	76	35	✓
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87	4	260	67	0	✓
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83	8	310	57	20	✓
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79	11	370	52	0	✓
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75	17	460	46	20	✓
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71	15	540	45	0	✓
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67	19	640	42	50	✓
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63	19	702	41	35	✓
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Ridge (B)	700	41	32	3° 6'	✓
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County Road	20	00			✓
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## At Ridge B Sight Ridge for 0 Az. Rt

F. Cor. 1	1300	67° 26'	1	✓
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63 1 Rc	155	138° 20'	2	✓
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63 2 Rc	207	226° 45'	2	✓
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63 3 Rc	582	247° 55'	2	✓
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63 4 Rc	283	194° 20'	2	✓
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F. Cor. 3	750	78° 10'	1	✓
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59 23	295	179° 55'	2	✓
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F. Cor. 4	532	91° 35'	1	✓
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Continued Page 57

June 27

Continued from page 56

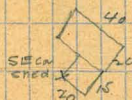
29

At Texas N sight Texas S for OAZ Pt.

B.M. 8702	482	0° 23'	1	nail in post on E. line	
Texas N D	930	199° 13'			✓
43 46	780	175 50	R	3	✓
SEC on Barn	620	174 50	R	4	✓
Water Hole	565	187 20	R	5	✓

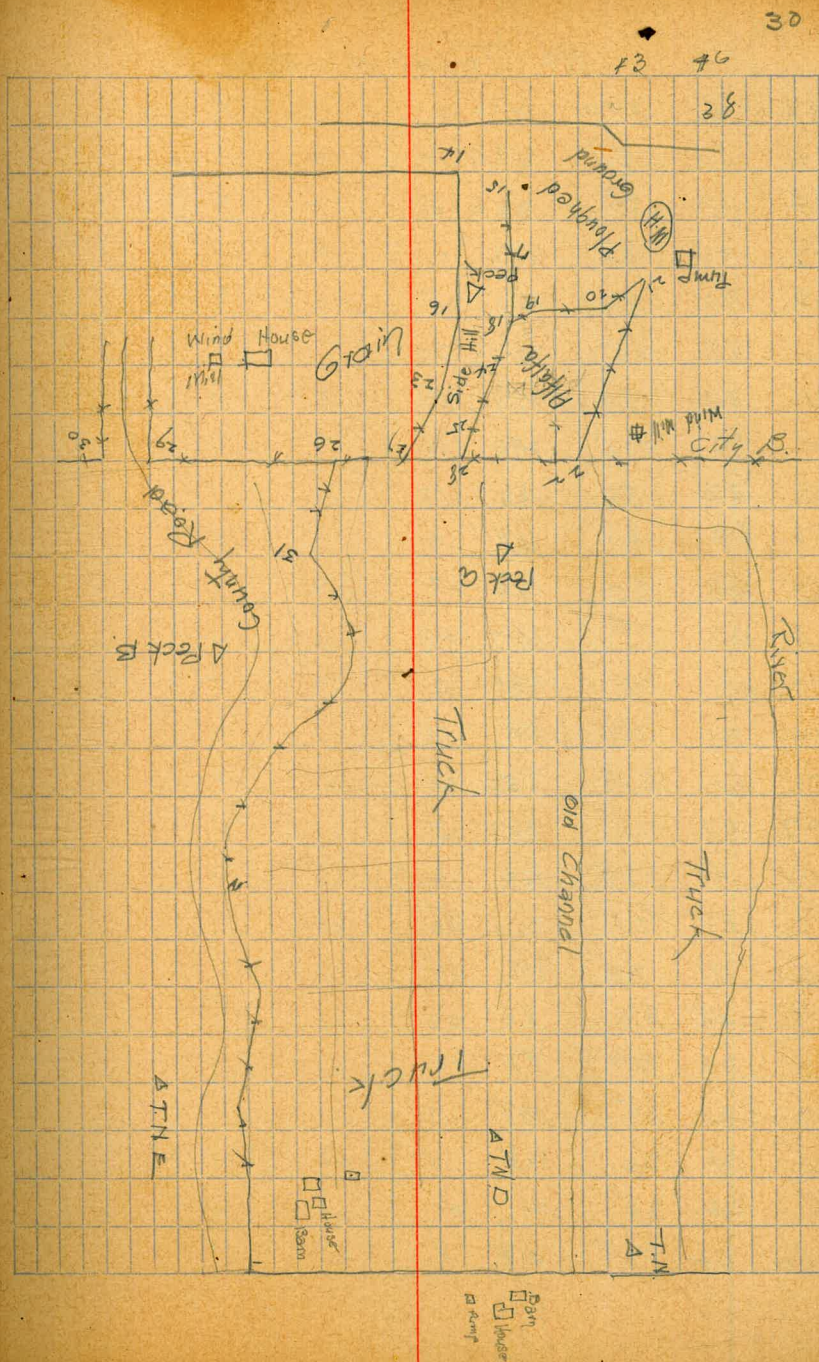
At Texas N-D sight Texas N for OAZ Pt.

Texas N	930	00			✓
43 45	285	0° 30'	S	2	✓
43 44	320	359° 20'	S	3	✓
Pump H NW Cor	300	4° 5'	S	4	✓
Well	210	4° 40'	S	5	✓
SEC on Shed	490	45° 10'	R	6	✓
NE Cor Pump H	400	56° 20'	R	7	✓
Well	430	51° 0'	R	8	✓
Peck		242° 39'	check	9	✓
43 43	550	280 30	R	10	✓
43 42	665	257 10	R	11	✓
	<del>665</del>	<del>257 20</del>	R	<del>11</del>	
43 39	690	255 40	R	12	✓
43 40	720	259 35	R	13	✓
43 41	690	265 20	R	14	✓
Well	720	277 30	R	15	✓
Well + P. House	735	252 50	R	16	✓
Cor. Stand	765	233 30	R	17	✓
Pipe 4x4					



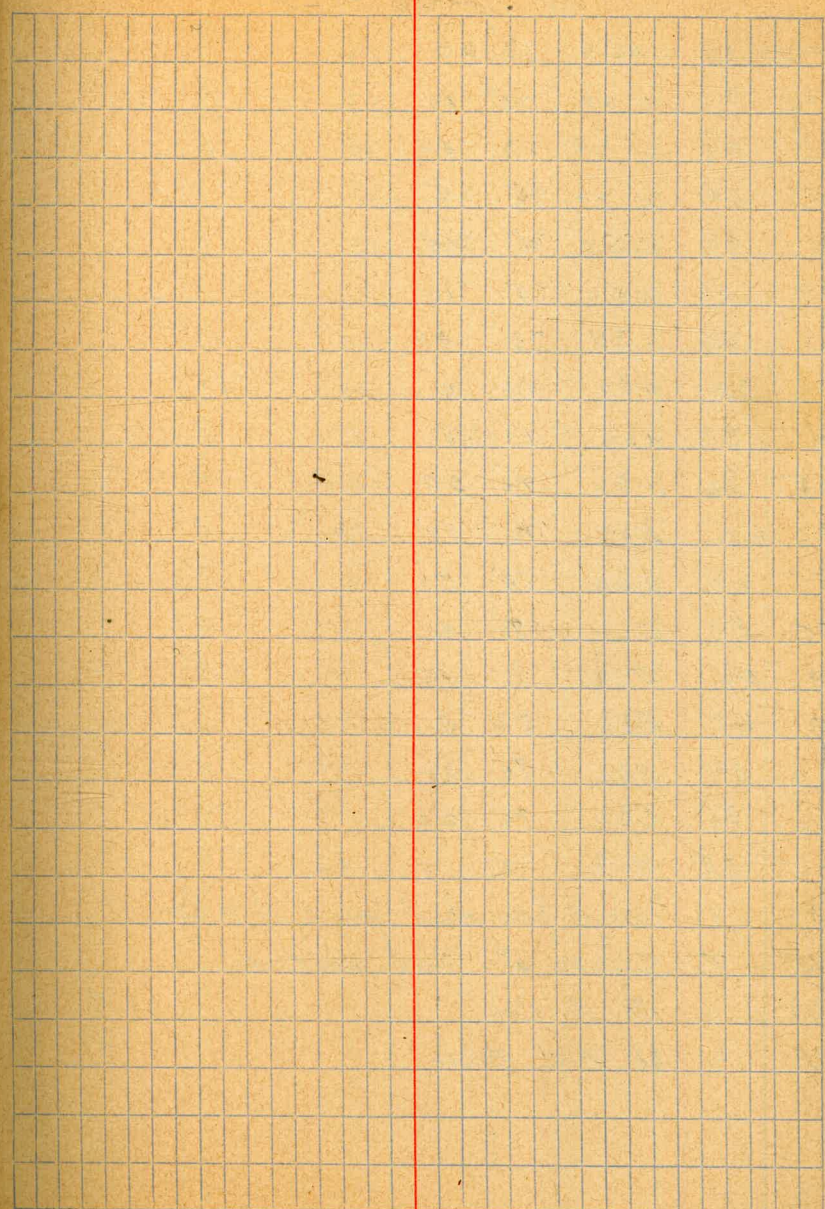


H Texas N D						
Texas N E	1170	188°20'		18		
At Texas N E Sight Texas N						
for O Az to Pt.						
Texas N D	1170	3°41'	check	R	1	✓
<sup>20 x 30</sup> NE Cor Barn	825	67°45'		S	2	✓
SE Cor House	890	64°00'		S	2	✓
Wind Mill	855	63°10'		S	4	✓
<sup>20 x 20</sup> NE Cor Barn	720	65°50'		S	3	✓
F. Cor	930	69°30'		S	6	✓
E.C. Road	941	73°35'		S	7	✓
" " "	590	75°35'		S	8	✓
" " "	290	73°20'		S	4	✓
47 45	1120	73°30'		R	10	✓
E.C. Road	110	342°50'	-9°	S	11	✓
Fence line	120	340°40'	-8°30'	S	11	Connect with F. Cor West
E.C. Road	190	287°45'		S	3	✓
" " "	380	274°35'		S	14	✓
" " "	545	268°50'		S	15	✓
Bend in F. 2	560	269°30'		S	16	✓
Bound N	298	46	check		17	✓
Test Well #10	263	53°7'	5°0'		18	✓
P. Auger Hole	225	48°43'	5°45'		19	✓
43 ✓	325	345°50'			1	✓
Bound N	298	47	check			✓



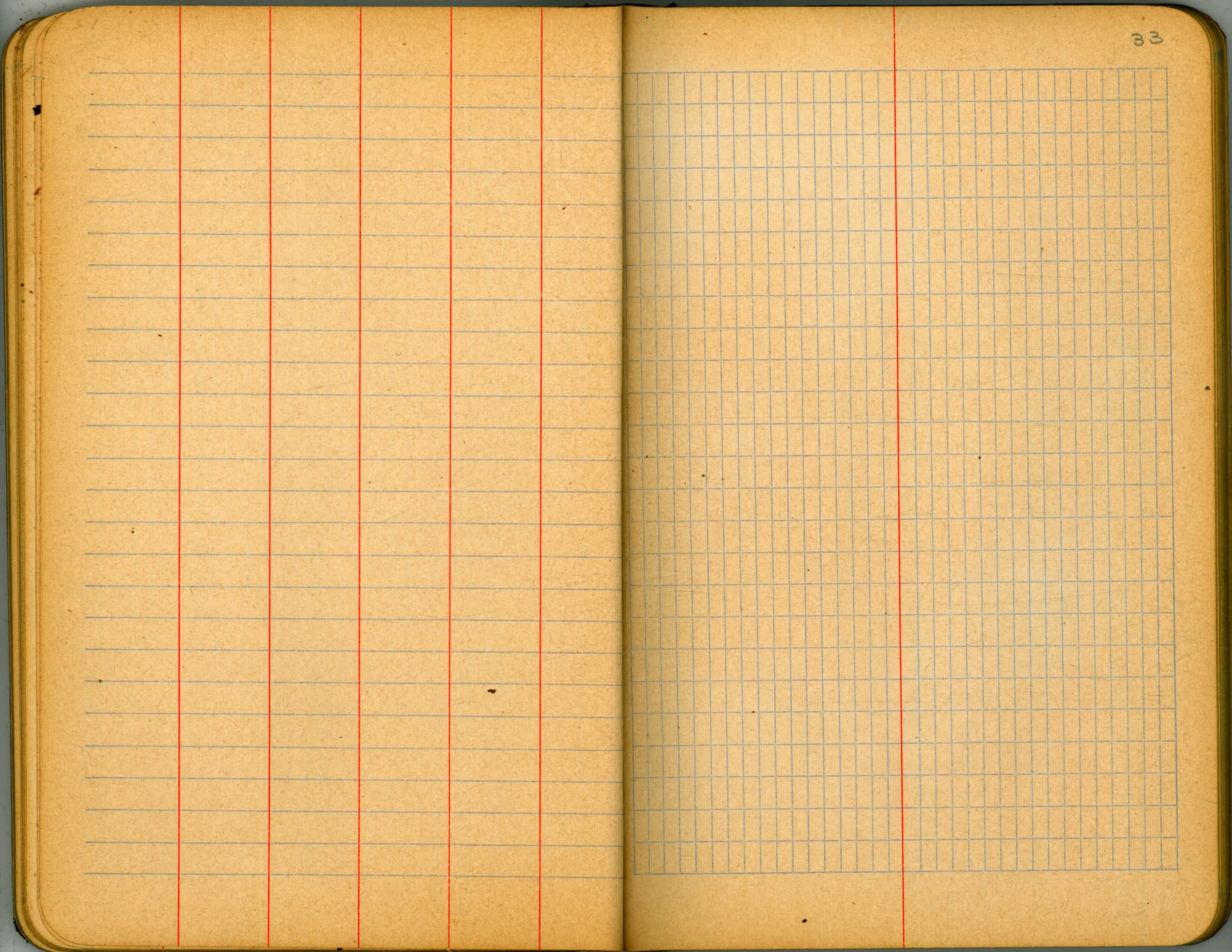
At Texas N-E-

47	26	300	276	0	2	✓
51	60	98	274	10	3	✓
55	79	85	264	55	4	✓
59	43	85	256	0	5	✓
63	36	90	251	35	6	✓
67	29	95	247	20	7	✓
71	32	100	243	55	8	✓
75	32	105	240	15	9	✓
75	33	80	166	10	10	✓
71	33	60	168	0	11	✓
67	30	30	164	20	12	✓
63	37	10	187	20	13	✓
59	44	15	339	0	14	✓
55	80	30	315	15	15	✓
51	61	53	350	30	16	✓
47	47	75	349	5	17	✓
43	6	125	349	0	15	✓
51	62	90	71	30	18	✓
55	81	70	74	55	19	✓
59	45	60	86	50	20	✓
63	38	63	97	10	21	✓
67	31	65	105	0	22	✓
71	34	70	108	15	23	✓
75	34	75	111	0	24	✓
F. Coy	34	325	58	5	25	✓

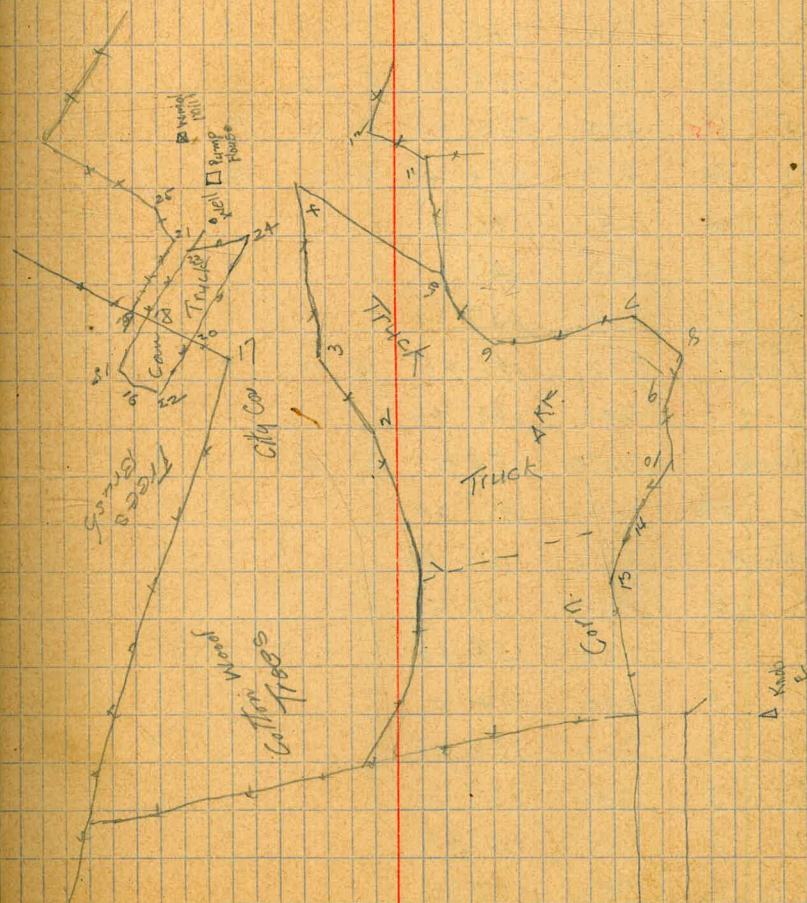


## At Texas N-E

FCor	35	452	63° 30'	26	✓
43	7	1100	71° 45'	27	✓
47	48	1120	73 40	28	✓
51	64	1140	75 5	29	✓
55	83	1150	75 45	30	✓
59	47	1140	76 10	31	✓
63	40	1130	76 40	32	✓
67	32	1130	77 0	33	✓
71	36	1120	77 25	34	✓
75	36	1130	77 50	35	✓
43	62	500	72 10	36	✓
51	63	500	78 50	37	✓
55	82	510	80 40	38	✓
59	46	520	81 55	39	✓
63	39	522	83 5	40	✓
67	32	520	84 30	41	✓
71	35	530	85 50	42	✓
75	35	533	87 10	43	✓
43	1	On F line about 400 S. of F Cor.			✓
39	2	Closes at Test hole #10.			✓
39	1	At F Cor.			✓
39	3	25' N of F Cor.			✓



June 27 At Knob F Sight Knob for 0.92 M						
55	55	410	65° 30'	S	✓	
59	19	403	65° 30'	S	2	✓
F. Cov 1	390	67° 40'	S	3	✓	
F. Cov 2	405	71° 30'	S	4	✓	
F. Cov 3	520	112° 5'	S	5	✓	
55	56	648	126° 30'	S	6	✓
59	20	640	126° 40'	S	7	✓
F. Cov 4	715	130° 5'	S	8	✓	
Knob E	788	336° 34'	R	9	✓	
F. Cov 5	390	150° 3'	S	10	✓	
F. Cov 11	540	149° 20'	+4° S	11	✓	
F. Cov 12	595	142° 40'	S	12	✓	
F. Cov. 13	460	340° 40'	R	13	✓	
F. Cov 10	310	325° 20'	R	14	✓	
F. Cov. 14	240	331° 30'	R	15	✓	
63	11	225	322° 25'	R	16	✓
67	4	175	311° 0'	R	17	✓
Fence Cov. 6	210	167° 5'	S	18	✓	
67	6	185	166° 30'	S	19	✓
71	7	170	174° 30'	S	20	✓
71	5	160	306° 0'	R	21	✓
75	7	160	191° 20'	S	22	✓
75	5	135	291° 30'	R	23	✓
79	7	170	203° 5'	S	24	✓
F. Cov 7	173	208° 35'	S	25	✓	
79	5	122	276° 25'	R	26	✓
83	7	185	214° 0'	Road S	27	✓



at Knob F

83	5	145	256 40	8° 0		1	✓
87	5	150	264 0	9° 0	R	2	✓
87	7	225	227 30		S	3	✓
F. Cr	8	165	225 45	5° 50	S	4	✓
87	6	180	245 0	9° 0	R	5	✓
F. Cr	9	130	282 45	6° 10	S	6	✓
83	6	135	244 15	8° 45	R	7	✓
79	6	95	254 0	9° 30	R	8	✓
75	6	50	255 45	9° 0	R	9	✓
71	6	30	250 40	9° 0	R	10	✓
67	6	5	191 0			1	✓
68	12	35	65 0			2	✓
63	13	215	257 30	?		3	✓
Count/T E Road		230	181 25	5° 30	R	4	✓
55	57	780	130 40			5	✓
E Road		350	159 0	4° 40	R	6	✓
59	22	770	131 40			7	✓
E Road		530	152 40			8	✓
63	14	780	132 55			9	✓
67	7	790	133 40			10	✓
71	8	790	134 0			1	✓
75	8	800	134 40			2	✓
87	8	790	137 0			3	✓
79	8	780	135 20			4	✓
83	8	780	135 30			5	✓

## At Sandy Sight Knob for 0 Az Right

City Well No 1	118	346 40	1	R	✓
55 50	208	272 10	2	in old R Channel ✓	
City Well No 2	422	166 8	3	R	✓
55 52	295	319 30	4	R	✓
City Well No 3	1016	166 15	5	R	✓
55 48	1030	163 45	6	R	✓
51 42	800	213 25	7	R	✓
55 45	650	217 25	8	R	✓
55 51	610	234 50	9	R	✓
55 53	500	10° 30	10	S	on Ponce line
Sandy A	804	228° 38'	11	R	✓

## At Sandy A Sight Gottesburen for 0 Az R

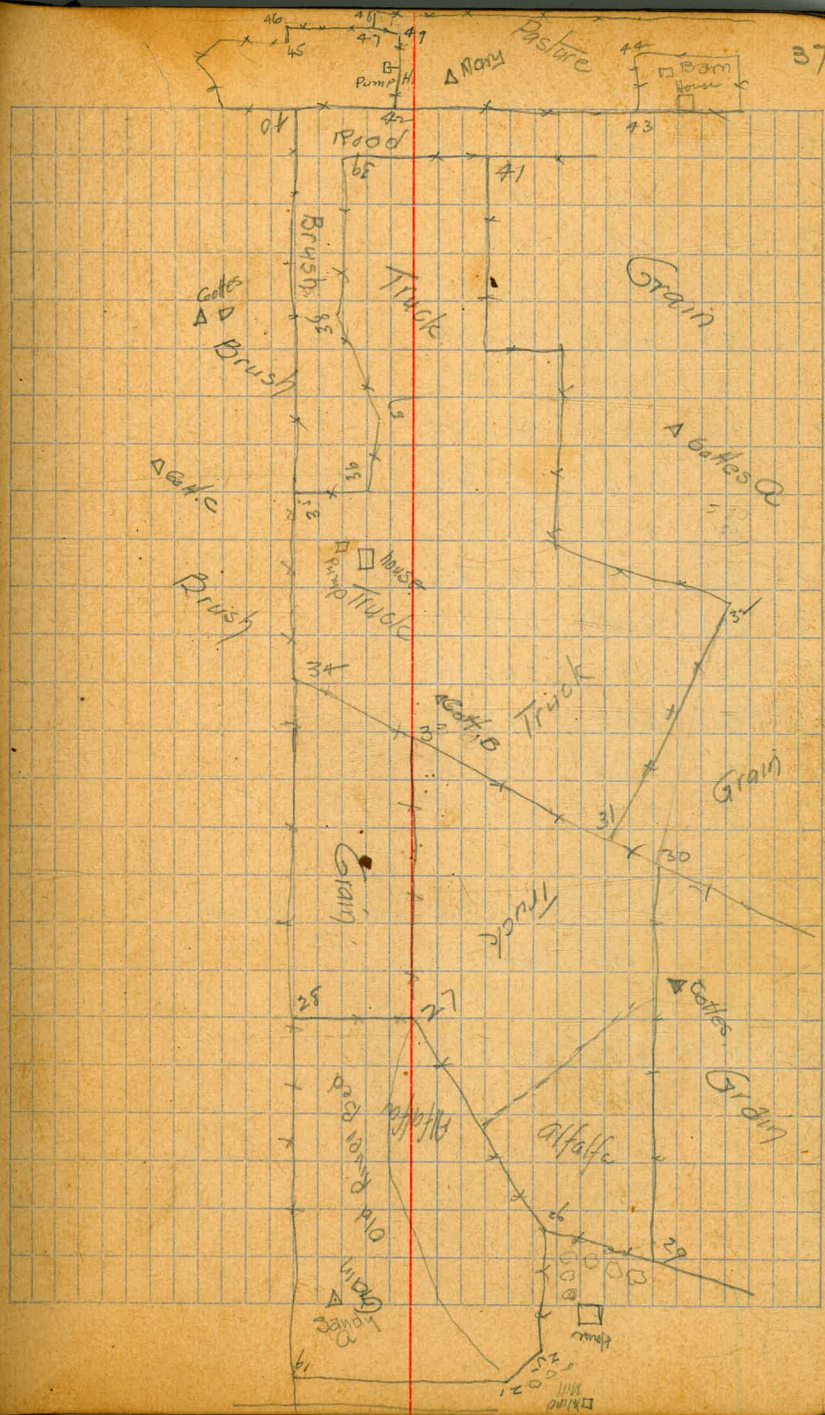
Sandy	804	184° 16'	1	✓
F Cov 15	155	168 0	2	✓
Angle in F 16	200	156 40	3	✓
51 A 3	181	142 05	4	✓
Ponce Cov 17	707	126 37	5	✓
F Cov 18	140	145 40	6	✓
F Cov 19	125	148 50	7	✓
F Cov 20	400	130 10	8	✓
F Cov 21	210	93 15	9	✓
F Cov 22	380	147 25	10	✓
F Cov 23	250	92 20	11	✓
F Cov 24	490	110 50	12	✓
F Cov 25	250	78 20	13	✓

### At Sandy A

Well	445	104° 5'	106° E End Water Hole	
Pump & SW Cov	465	98 50		
June 28	460	87 40	Wind Mill	✓
SE Cov Water	485	82 55	20 x 20	✓
83 9	475	86° 50		✓
79 9	455	88 30		✓
75 9	440	89 20		✓
71 9	430	90 45		✓
67 8	420	92 20		✓
63 15	405	94 5		✓
59 23	400	95 15		✓
55 28	390	97 40		✓
W End W.H.	360	101 50	West End Water Hole	✓
59 21	820	105 30		✓
SE Cov House	315	62 30		✓
63 16	280	50 20		✓
63 17	308	18° 55'		✓
F Cov	268	10 30		✓
59 24	260	9 55		✓
55 60	310	24 40		✓
Sandy B	16✓	5° 59'		✓

### At Sandy B Sight Sandy fr Zero Az. N.

Sandy A	16✓	10 25	
Ridge		28° 49'	check ✓





## At Sandy B

F. Cor 27	420	116 05	1	✓
55 61	425	114 0	2	✓
71 10	300	256 10	3	✓
75 10	320	254 45	4	✓
F. Cor 28	450	90 20	5	✓
79 10	350	255 0	6	✓
83 10	380	254 30	7	✓
	355	87 35	Water Hole	✓
79 11	450	250 0	1	✓
55 59	70	160 40	10	✓
83 11	530	250 40	11	✓
75 11	390	242 30	12	✓
SECm Barn	390	236 30	25 x 25	13 ✓
71 11	320	241 20	14	✓
67 9	250	245 45	15	✓

At Gottesburen Sight Highway  
for zero 172 RT

67 10	432	257 0	1	✓
Fence Cr. 29	440	255 35	2	✓
71 12	425	249 55	3	✓
75 12	400	243 30	4	✓
79 12	380	235 20	5	✓
83 12	375	231 25	6	✓
83 13	190	202 50	7° 15'	7 ✓

## 44 Gotteskuren.

79	13	170	208 30	6° 15'	8	✓
75	13	150	214 25	6° 0'	9	✓
71	13	135	222 0	4 50	10	✓
83	14	400	135 50		11	✓
79	14	365	133 40		12	✓
75	14	320	126 55		13	✓
71	14	250	120 0		14	✓
67	11	155	124 20		15	✓
63	18	100	119 50		16	✓
FGov.	30	80	65 15		17	✓
FGov	31	108	42 50		18	✓
59	25	25	45 25		19	✓
55	64	250	18 10		20	✓
Gotts	a	<sup>14 50</sup> 1730	60° 38'		21	✓
55	63	670	34 5		22	✓
55	65	645	46 25		23	✓
59	26	370	64 45		24	✓
63	19	385	74 50		25	✓
67	12	405	83 20		26	✓
71	15	430	91 30		27	✓
75	15	460	96 5		28	✓
79	15	490	100 40		29	✓
83	15	535	104 15		30	✓
83	16	1000	94 40		31	✓
79	16	990	91 40		32	✓

## At Gottesburen

75 16	980	88 45	1	✓
71 16	970	85 25	2	✓
67 13	1000	82 20	3	✓
63	1020	78 15	4	✓
59 27	1090	71 50	5	✓
F. Cr. 34	1120	66 20	6	✓
Gottes 13	825	90 31	7	

At Gottesburen B Sight Gottesburen  
for Zero Pt. Pt.

Gottes	825	00		
F. Cr. 33	80	47 45	1	✓
51 45	65	164 20	2	✓
Test Well 9	65	72 16	3	✓
51 41	395	113 50	4	✓
Gottes C	1170	166 55	5	✓
55 64	355	231 25	6	✓
55 66	415	232 30	7	✓
51 40	575	165 25	8	✓
Water Hole	453	154 20	9	✓
F. Cr. 38	220	152 40	10	✓
55 65	490	308 45	11	✓
51 50	755	219 0	12	✓
N.E. Crutthouse	800	213 0	13	✓
51 44	612	45 50	14	✓
N.E. Cr. Barn	760	211 55	15	✓

41  
 47 23 800 137 35 1 ✓  
 Gottes D 580 175 4 2 ✓  
 47 27 533 146° 0 Batt. N<sup>3</sup> Bank River

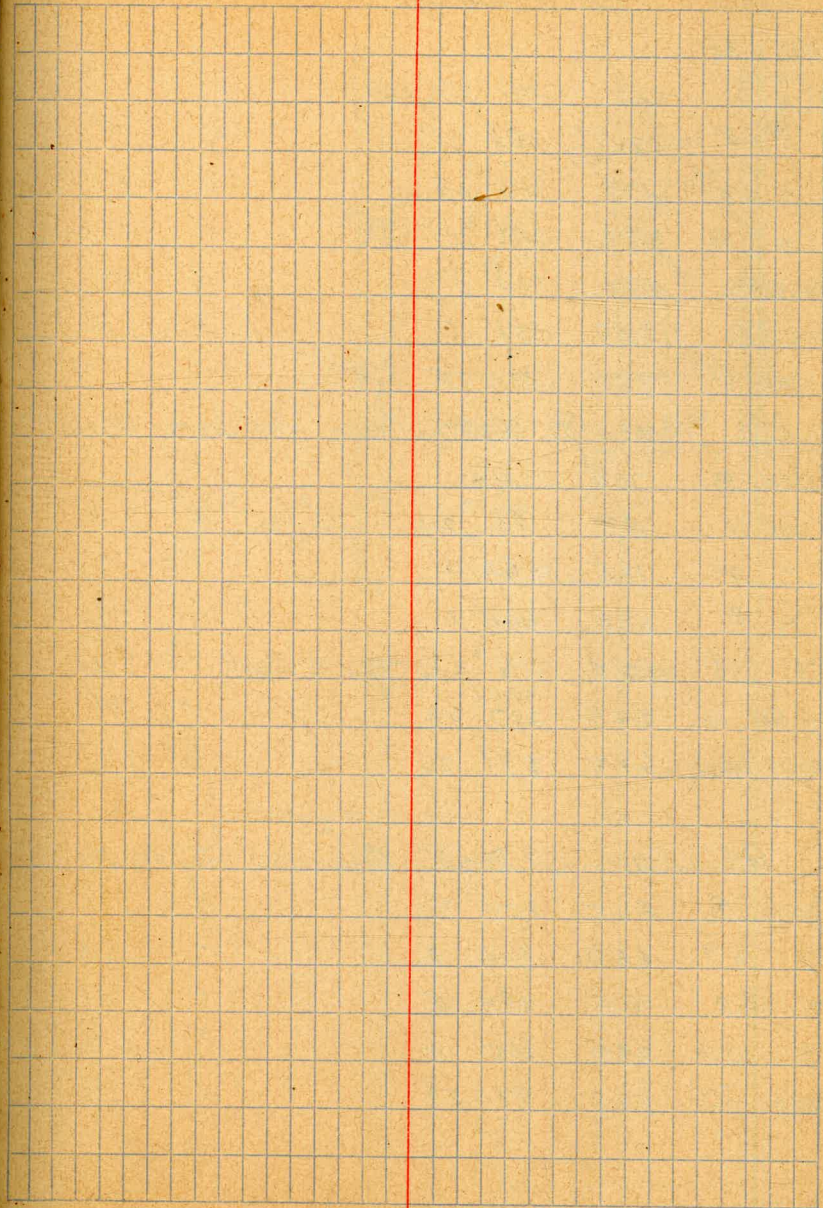
At Gottesburen D Sight Gott C for 0 Az

Gott C 578 00 ✓  
 Well 50 199 5 12" Casing 1 ✓  
 47 DC 2 210 315 30 2 ✓  
 Well 255 311 5 3 ✓  
 51 39 240 340 10 4 ✓  
 47 DC 7 220 301 55 5 ✓  
 47 DC 6 163 207 55 6 ✓  
 47 DC 3 120 191 50 7 ✓  
 47 DC 5 310 162 25 8 ✓  
 47 DC 4 415 139 0 9 ✓  
 Mary A 896 186 58 Check ✓ 10 ok  
 Old Well 420 262 40 # 24 11 ✓  
 Water Hole 350 263 20 12 ✓  
 51 48 500 266 40 S 13 ✓  
 51 49 230 243 0 14 ✓  
 F Cn 35 420 271 30 15 ✓  
 F Cn 36 520 268 40 16 ✓  
 F Cn 37 340 235 0 17 ✓

At Mary Sight Peck for 0 Az to Mt.  
 F. Cn 38 370 196° 0 0

At Mary

F. Cov 39	193	224 15		1	✓
51 51	70	121 30	On fence line		✓
F. Cov 41	125	96 0		3	✓
F. Cov 40	400	236 35		4	✓
55 69	290	78 30		5	✓
59 30	425	73 45		6	✓
63 23	562	71 10		7	✓
67 16	750	69 40		8	✓
F. Cov 42	70	194 20		9	✓
SE. Cov House	680	66 55		10	✓
SE. Barn	520	60 40		11	✓
F. Cov. 43	425	70 40		12	✓
F. Cov 44	450	45 40		13	✓
Well	462	41 20		14	✓
55 70	465	39 0		15	✓
	910	38 0	S	16	✓
Mary a	840	42 3		17	✓
F. Cov. 45	460	276 55	R	18	✓
F. Cov 46	590	292 45	R	19	✓
47 m. 90	487	307 20	R	20	✓
Water Hole	440	322 40	R	21	✓
F. Cov 47	442	321 50	R	22	✓
F. Cov 48	460	322 50	R	23	✓
F. Cov 49	440	331 40	R	24	✓
Pump House	180	325 55		25	
Well	190	325 55		26	



Off Mary

JUNE 30					
Wood Casing Well	248	296 55	1	✓	
47 34	575	304 35	2	✓	
47 32	675	303 25	3	✓	
F. Cor 50	656	298 10	4	✓	R
47 33	580	294 0	5	✓	
Mary B	705	244 15	6	✓	
<del>F. Cor 51</del>	<del>720</del>	<del>327 10</del>	<del>7</del>	<del>✓</del>	

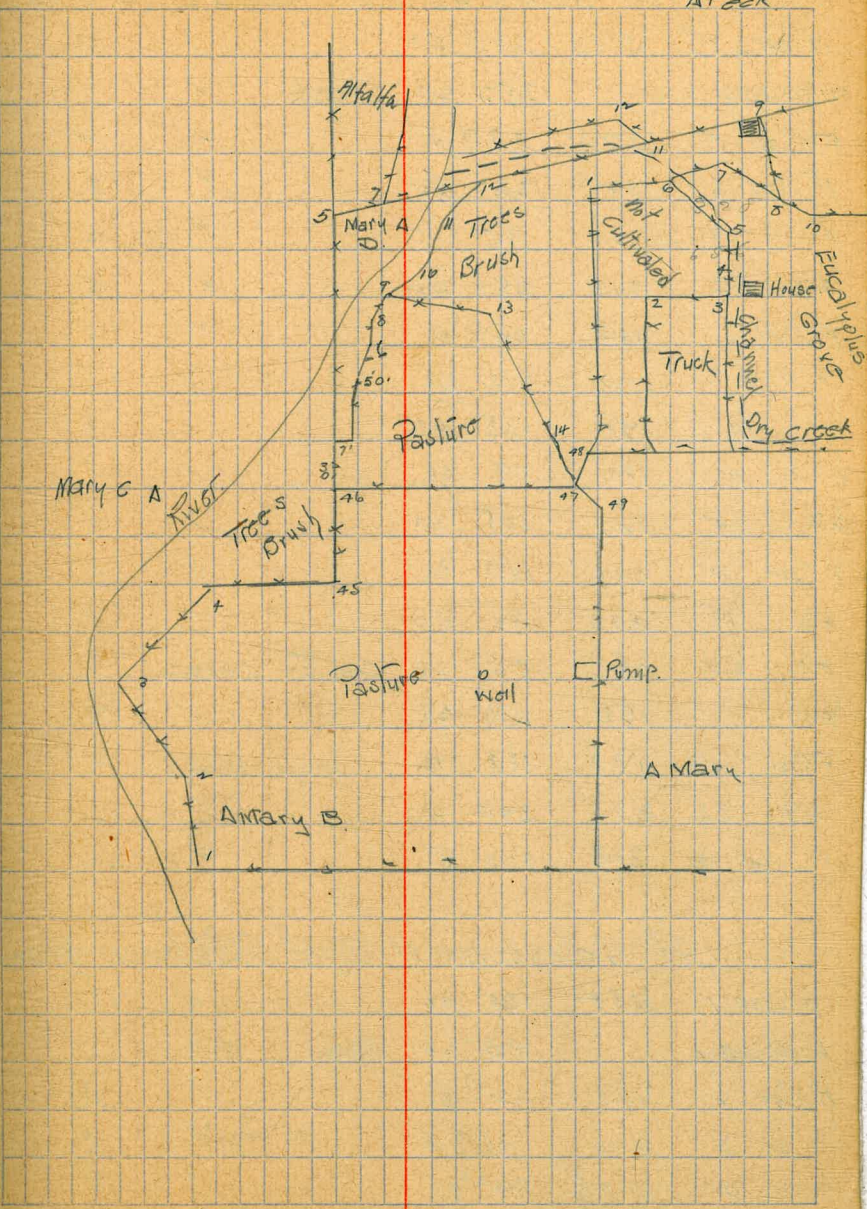
At Mary B sight Mary for zero Az to RL

Mary B	705	96	✓	
F. Cor 1	52	88° 20'	✓	1
" "	2	105	✓	2
" "	3	170	✓	3
47 28	220	115° 20'	✓	4
F. Cor 4	250	277° 20'	✓	5
Mary C	622	271 36	✓	6

At Mary C sight Boundary J for zero

Mary B	625	209° 27'	✓	
47 29	440	214 0	✓	1
47 30	165	192 5	✓	✓
47 31	290	100 2	✓	3
Mary D	568	97 59	✓	4

A Pack



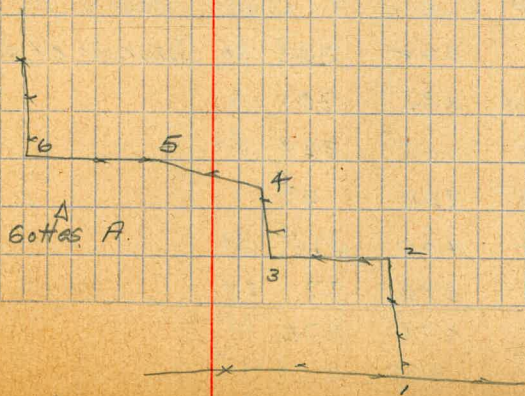
## At Mary D Sight Bound S for O Az

Mary C	570	293 52	✓	1
Highway		282 20 Check	✓	
F. Cor 5	270	339 5	✓	2
F. Cor 6	220	267 20	✓	3
" " 7	120	35 10	✓	4
47 RC	210	280 50	✓	5
F. Cor 8	145	259 10	✓	6
" " 9	60	216 25	✓	7
" " 10	98	138 40	✓	8
" " "	140	108 20	✓	9
43 24	160	108 20	✓	10
F. Cor 11	260	107 30	✓	11
43 25	410	90 50	✓	12
43 23	385	85 20 Center Creek	✓	13
Well	180	164 25	✓	14
F. Cor 13	130	188 10	✓	15
47 36	375	203 50	✓	16
F. Cor 14	315	200 5	✓	17

## At Gottesburen A Sight Gottesburen for zero

F. Cor 1	1084	134° 40'	✓	1
Highway		93° 24' Check	✓	
F. Cor 2	780	112° 0'	✓	3
" " 3	670	116° 15'	✓	4
" " 4	558	94° 35'	✓	6
Gottesburen	1450	00 Check ok	✓	

Δ Gottesburen.



At Grothasburen 17

55	67	385	77	40	✓	6
F. Cor. 5		330	68	20	✓	7
59	28	135	17	25	✓	8
63	21	120	273	20	✓	9
67	14	240	254	5	✓	10
71	17	320	253	10	✓	11
75	17	355	251	35	✓	12
F. Cor. 6		300	336	40	✓	13
79	17	390	250	30	✓	14
83	17	415	249	40	✓	15
79	18	620	209	40	✓	16
67	15	432	166	30	✓	17
75	18	540	200	30	✓	18
63	22	460	145	18	✓	19
71	18	465	186	30	✓	20
59	29	545	128	50	✓	21
55	68	640	119	10	✓	22

At Mary 17 Sight Mary for zero AZRt

Well	322	333	30	Concrete 4x4'	1	✓
F. Cor. 22	235	331	0		2	✓
F. Cor. 1	265	329	30		3	✓
Mary A	840	00				✓
F. Cor. 2	440	325	30		4	✓
" " 3	390	271	20		5	✓
" " 4	275	276	15		6	✓
" " 5	420	270	15		7	✓



## At Mary O

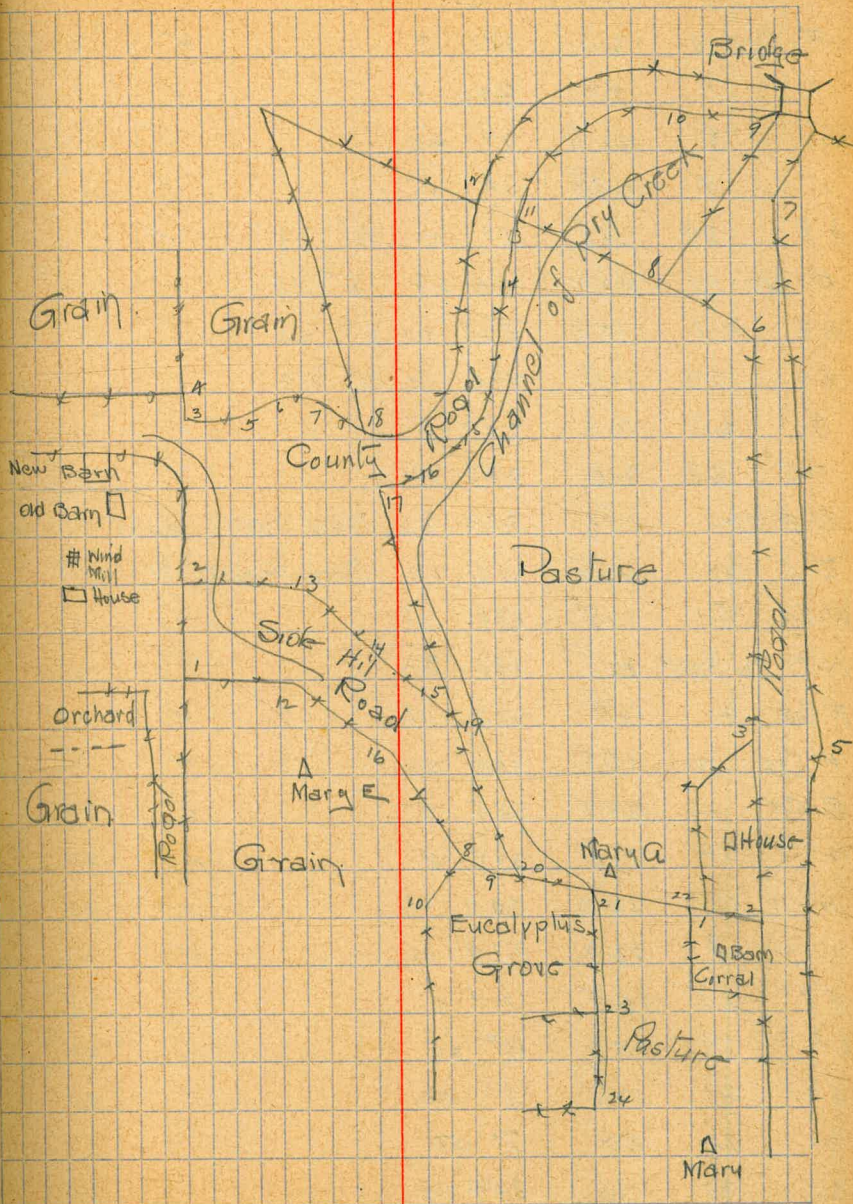
71	19	470	270	10	8	✓	
F Cor	6	700	233	10	9	✓	
75	19	580	258	20	10	✓	
79	19	670	253	10	11	✓	
F Cor	7	900	227	5	12	✓	
79	20	895	243	45	13	✓	
F Cor	8	760	220	50	14	✓	
75	20	705	248	15	15	✓	
71	20	590	254	30	16	✓	
Center Bridge	1066	229	5	County Road	17	✓	
67	17	490	262	5	18	✓	
F Cor.	9	1025	227	0	19	✓	
63	24	310	268	55	20	✓	
79	21	920	227	05	21	✓	
F Cor.	10	960	223	0	22	✓	
63	23	445	321	30	Check	23	✓
F Cor.	11	810	213	30	24	✓	
F Cor.	12	840	211	10	25	✓	
67	16	405	298	35	26	✓	
F Cor.	13	765	211	20	27	✓	
F Cor.	14	655	209	5	28	✓	
59	31	185	225	90	29	✓	
F Cor.	15	342	188	0	30	✓	
"	"	16	335	167	50	31	✓
"	"	17	370	161	5	32	✓
"	"	18	390	163	40	33	✓

At Mary A

59	33	275	142	5	✓	34
F. Cor.	19	262	125	30	✓	35
63	26	298	147	15	✓	36
F. Cor.	20	250	128	50	✓	37
67	19	308	151	10	✓	38
71	22	325	154	15	✓	39
75	22	342	157	10	✓	40
79	22	365	160	5	✓	41
63	25	265	180	8	✓	42
67	18	418	167	10	✓	43
F. Cor.	21	123	117	50	✓	44
71	21	590	219	10	✓	45
F. Cor.	23	520	36	35	✓	46
75	21	730	226	5	✓	47
F. Cor.	24	630	33	35	✓	48
59	32	230	150	0	✓	49
55		315	5	0	✓	50
55		240	48	40	✓	51
Mary E	555	134	57		✓	52

At Mary E Sight Gotteskuren from 0 to Rt.

Mary a	555	14	30		✓	1
F. Cor.	1	215	232	55	✓	2
" "	2	268	238	40	✓	3
" "	3	362	244	40	✓	4
" "	4	390	246	0	✓	5
55	71	230	25	15	✓	6
F. Cor.	5	290	256	45	✓	7



of Mary E

F Cor 6	255	281	0	✓	8
" " 7	250	320	0	✓	9
" " 8	223	17	40	✓	10
" " 9	238	19	25	✓	11
59 34	168	1° 0'	6° 30'	✓	12
F Cor 10	220	30	50 6° 30'	✓	13
63 27	120	325	20 6° 45'	✓	14
67 20	115	296	10 6° 30'	✓	15
71 23	160	253	5	✓	16
75 23	210	229	35	✓	17
SE Cor.	380	222	30 New Barn 90x30	✓	18
SE Cor.	325	210	20 Old Barn 75x30	✓	19
Wind Mill	315	198	15	✓	20
NE Cor House	315	191	30	✓	21
F Cor 11	168	215	15	✓	22
F Cor 12	130	264	20	✓	23
F Cor 13	200	258	0	✓	24
" " 14	165	278	5	✓	25
" " 15	190	343	20	✓	26
" " 16	120	338	10	✓	27
59 35	165	11° 0'		✓	28
63 28	150	10° 20'		✓	29
67 21	120	8° 40'		✓	30
71 24	90	7° 50'		✓	31
75 24	70	359° 20'		✓	32
79 24	40	342° 10'		✓	33

At Mary E

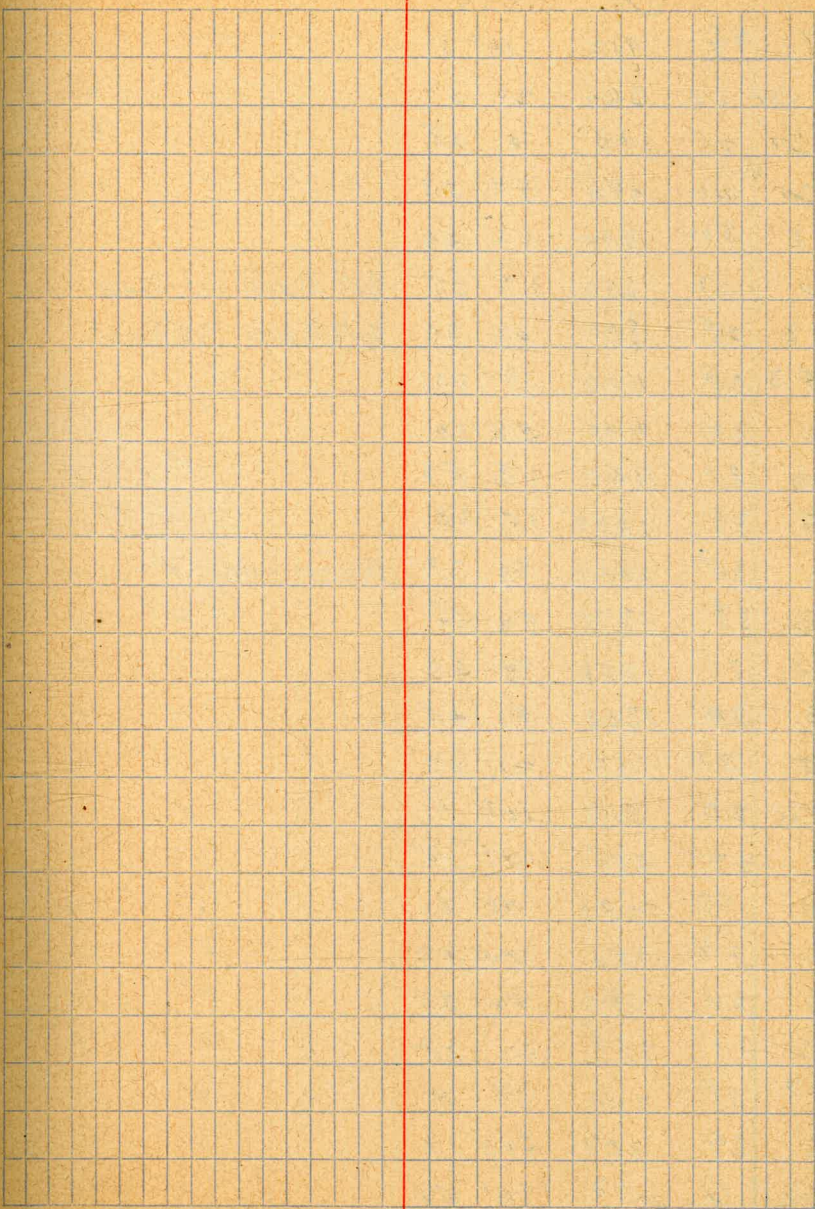
79	23	300	236° 20'	✓	34
79	25	360	98 45	✓	35
75	25	408	96 40	✓	36
71	25	435	95 40	✓	37
67	22	455	94 20	✓	38
63	29	476	92 50	✓	39
59	36	485	91 30	✓	40
55	72	520	90° 55'	✓	41
Knob.		9° 31'	check	✓	42

At Teck Sight Bound S for O Az

47	38	495	305° 0'	✓	1
F Cor	1	522	304° 30'	✓	2
47	37	682	287 55	✓	3
F Cor	2	580	286° 0'	✓	4
51	52	765	267 30	On F line ✓	5
Well		595	263 30	✓	6
F Cor	3	460	265 40	✓	7
SW Cor House		460	261 30	✓	8
F Cor	4	415	267 10	✓	9
" "	5	373	271 0	✓	10
" "	6	310	282 30	✓	"
" "	7	260	264 5	✓	12
" "	8	268	256 10	✓	13
" "	9	200	256 45	NW Cor Shed ✓	14

Of Peck

F Coy. 10	310	244	5	✓	15
51 53	245	265	30	✓	16
Water hole	305	297	50	5' Dia	✓ 17
F Coy 11	320	293	50	✓	18
" " 12	336	297	30	✓	19
End F. 13	485	309	15	✓	20
F Coy 14	182	252	0	✓	21
End Fence 15	182	270	10	✓	22
79 26	50	206	5	✓	23
75 26	35	237	50	✓	24
F Coy 16	62	84	55	✓	25
71 26	28	264	20	✓	26
67 23	42	285	0	✓	27
63 30	52	299	55	✓	28
59 37	70	309	40	5° 0'	✓ 29
55 73	85	316	15	7° 45'	✓ 30
51 54	95	317° 20'	9° 40'	F Coy 17	✓ 31
F Coy 18	90	38° 40'	9° 0'	✓	32
F Coy 19	110	22	0	11° 30'	✓ 33
47 43	150	2° 0'	10° 15'	✓	34
S Side Water H.	270	337	55	4 45	✓ 35
43 20	1060	21° 25'		✓	36
43 21	880	21° 10'		✓	37
Top Bank 5					
47 40	270	350	15	5° 15'	✓ 38
N Side Water Hole	210	336	45	6 15	✓ 39



## Or Peck.

43	26	410	16° 5	✓	1
F Cr	20	260	20 0'	✓	2
F Cr	21	240	4 25	✓	3
47 F Cr	41 22	195	59 55	✓	4
43	32	520	56 40	✓	5
43	27	630	37 35	✓	6
			Both Bank NS River		
43	28	840	42 30	✓	7
			Both Bank NS River		
43	29	1150	39 20	✓	8
43	30	1100	56 30	✓	9
43	31	1140	73 50	✓	10
43	36	1520	75 20	✓	11
43	35	1240	76 20	✓	12
			Water hole		
43	38	1370	50 35	✓	13
43	37	1300	78 50	✓	14
43	34	1300	80 45	✓	15
43	33	762	71 20	✓	16
F Cr	23	310	103 5	✓	17
79	27	285	101 15	✓	18
75	27	290	98 0	✓	19
71	24	290	94 10	✓	20
67	24	290	92 35	✓	21
63	31	398	90 35	✓	22
59	38	300	89 5	✓	23
47	39	300	317 0	✓	24
Peck A		653	74° 54	✓	25

## At Peck A Sight Texas N for zero

Peck	655	190° 0		
59 38	375	178° 40	1	✓
55 74	365	179° 40	2	✓
51 55	360	180 30	3	✓
FCM 24	340	178 30	4	✓
" " 25	390	163 0	5	✓
51 56	293	157 45	6	✓
55 75	300	157 0	7	✓
59 39	310	156 25	8	✓
63 32	318	155 50	9	✓
67 25	328	155 25	10	✓
71 28	340	155 20	11	✓
75 28	350	155 20	12	✓
79 28	368	154 55	13	✓
FCM 26	503	125 20 5° 30	14	✓
" " 27	410	131 10	15	✓
" " 28	308	142 10	16	✓
47 44	272	145 10	17	✓
47 22	120	116° 50	18	✓
Texas S		333 40	19	✓
43 4	270	102 35	20	✓
43 5	325	65 35	21	✓
43 3	285	51 20	22	✓
Peck B	698	102 5	23	✓

at Peck 13 Sight Texas N for Zero Az

Texas S	341	17			✓	
Peck 9	698	198	32		✓	
47 45	270	310	35	6° 10'	✓	1
51 57	210	286	40	6° 40'	✓	2
55 76	190	283	55	6° 15'	✓	3
59 40	150	282	40	6° 40'	✓	4
63 23	140	279	0	5° 15'	✓	5
67 26	135	274	10		✓	6
71 29	130	269	15		✓	7
75 29	130	262	0		✓	8
F Cr 29	215	192	0		✓	9
F Cr 30	250	181	10		✓	10
Q County R	230	187	45		✓	11
75 30	142	197	35		✓	12
Q Road	150	216	35		✓	13
71 30	100	220	15		✓	14
67 27	85	239	20		✓	15
63 34	75	268	40	5° 10'	✓	16
59 41	80	287	15	7° 45'	✓	17
55 77	110	311	15	7° 45'		18
Q Road	100	301	40	7° 45'		19
51 58	150	314	40	7° 10'		20
F Cr 31	148	354	25	8° 15'		21
51 59	95	25	30	12° 30'		22
55 78	85	27° 45'	11	0		23



## At Peck B

59 42	70	31° 0'	9° 30'	✓	24
63 35	60	30 45	7° 30'	✓	25
17 28	50	32 55	4° 45'	✓	26
71 31	35	37 30		✓	27
75 31	20	55 0		✓	28
E Road	135	3 50	9° 15'	✓	29
" "	195	38° 0'	7° 6'	✓	30
F Cor 31	222	38° 0'	6° 15'	✓	31
F Cor 32	380	49 30		✓	32
E Road	445	52 42		✓	33
E Road	580	51 20		✓	34
F. Cor. 33	605	50 35		✓	35

At Boundary N Sight Highway for 0 Az Pt.

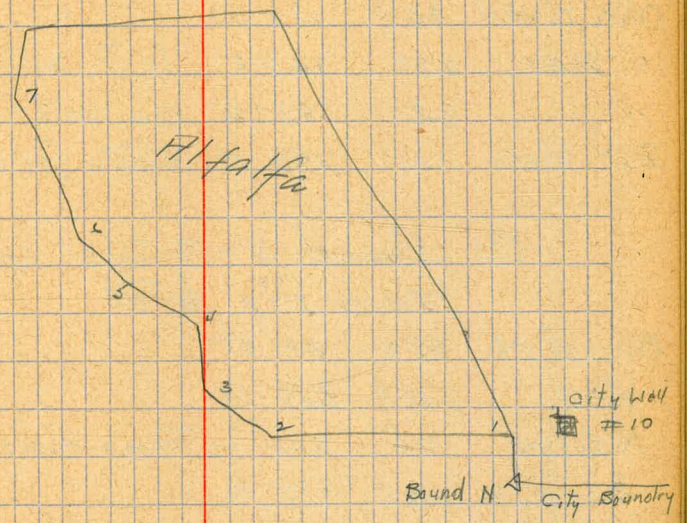
Post Auger Hole	710	25° 20'	1 <sup>st</sup> North of Test Well 1		
" " "	665	22 5		✓	2
" " "	630	19 10		✓	3
" " "	593	15 50		✓	4
" " "	575	14 0		✓	5
" " "	560	12 5		✓	6
" " "	543	10 0		✓	7
" " "	480	10 45		✓	8
" " "	440	10 50		✓	9
" " "	395	17 20		✓	10
43 14	385	22 15		✓	11
Post Auger Hole	355	21 50		✓	12

At Bound N

Test Well #3	450	325	25		✓	13
Bound N A	680	291	57		✓	14
F. Cor #1	16	340	50		-	1
43	17	55	195	30	✓	2
F. Cor #2	95	256	40		✓	3
" "	3	335	278	20	✓	4
F "	4	476	289	35	✓	5
" "	5	700	290	15	✓	6
" "	6	750	298	25	✓	7
" "	7	830	297	25	✓	8
43	15	140	326	0	on F line ✓	9
43	18	170	265	20	Head of Draw ✓	10
43	19	148	196	10	Top Bank ✓	11
43	16	250	107	30	Top Bank ✓	12
A3	13	360	61	40	✓	13
A3	14	450	82	20	✓	14
A3	10	570	81	30	✓	15
A3	"	565	73	15	✓	16
City Well #	10	70	27	0	✓	17
E. END Bridge	107	134	0		✓	15
Bound N B	290	149	13	on Bridge	✓	19

At Boundry N A. Sight Bound N for zero A2

43	22	165	95	20	in River bed	✓	1
A3	26	296	111	10	Both Bank	✓	2



## At Bound N-A-

Wind Mill	525	95	20	NE Cor.	✓ 3
Ohri Pump H	338	150	40	" " "	✓ 4
" Well	200	148	5	In River Bed	✓ 5
" "	75	140	5	On South Bank	✓ 6
Test Well	145	146	10	Stake for Well in Bed	✓ 7

At Bound N-B Sight Peaks for  
Zero Fz to Rt.

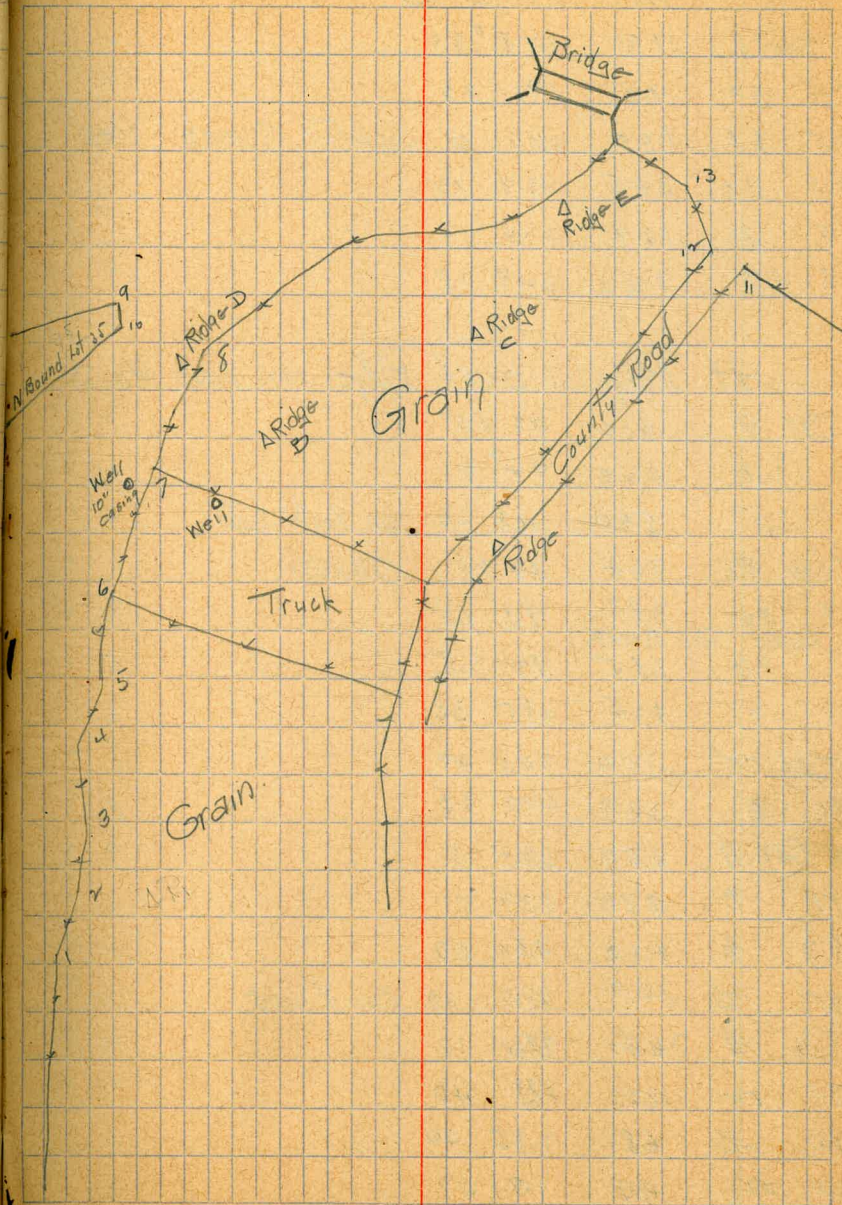
Bound N	290	44	49		✓
Well	140	309	20		1 ✓
NE Cor	118	300	50	Pump House	2 ✓
A3-RC 2	225	278	36		3 ✓
City Well #11	155	228	35		4 ✓
W.FND Bridge	110	233	30		5 ✓
A3 RC 3	150	220	10		6 ✓
A3 RC 1	520	249	5		7 ✓
City Well #12	490	244	45		8 ✓
A3 RC 5	630	227	10		9 ✓
39 12	520	208	0	Head of 39	10 ✓
A3 RC 4	345	218	15		11 ✓
A3 RC 6	570	238	10		12 ✓
Well	880	241	20	12' Casing	13 ✓

Continued page 29

Continued from Page 28  
 at Ridge B Sight Ridge for zero Az R

F Cr 5	460	98° 0	✓
55 25	482	96 30	✓
59 22	425	97 30	✓
F Cr 6	350	106 5	✓
10" casing Well	282	115 40	Flg 62 34
F Cr 7	222	128 30	✓
E. END Water Hole	280	124 10	✓
W. END Water hole	370	107 35	✓
55 26	320	180 0	✓
Private Well	26	175 105 10	✓
59 24	564	244 50	✓
55 27	565	244 45	✓
Bot. Bank N.S.R	54	42 885 107 45	✓
59 IRC	780	108 20	✓
West Side Murry Creek	57	5 RC 562 138 45	Junction Murray Creek San Diego River Top Bank N. ✓
55 41	570	139 30	13 13 N ✓
E. Side Murray Creek	55	37 535 144 5	13 Bank N ✓
E. Side Murray Creek	59	IRC 542 144 40	T. Bank N ✓
55 36	490	185 30	T. Bank ✓
59 3 RC	510	184 0	✓
Ridge C	964	282 49 1° 3'	✓
Ridge D	482	242 18 0 15'	✓
At Ridge D Sight Ridge B for zero Az R			
Ridge:	482	322 36	check ✓
At Ridge D Sight Ridge for zero Az R			
55 33	240	112 40	North Side River

57



		At Ridge D		
F. Cor 8	112	248° 50		✓
55 32	100	191 50		✓
55 28	400	247 0	Center Creek Bed	✓
55 30	385	234 10		✓
55 31	167	225 10		✓
55 29	550	249 15		✓

		At Ridge C sight Ridge for Zero Az. R.		
F. Cor 9	610	93 40		1 ✓
" " 10	620	92 0		2 ✓
59 5	540	105 30	On North Side	3 ✓
Ridge B	964	10 25	check.	✓
59 25	390	93 30		4 ✓
on Fence Top Bank				
63 20	385	92 25		5 ✓
91 2	425	285 30		6 ✓
F. Cor 14	550	240 40		7 ✓
91 4	550	240 20		8 ✓
F. Cor 11	550	235 5		9 ✓
91 3	482	239 0		10 ✓
87 6	430	230 40		11 ✓
87 5	330	284 20	On F line	12 ✓
83 9	265	284 10		13 ✓
79 12	162	283 40		14 ✓
75 13	68	275 50		15 ✓
71 16	40	141 50		16 ✓
67 20	120	121 50		17 ✓

## At Ridge C

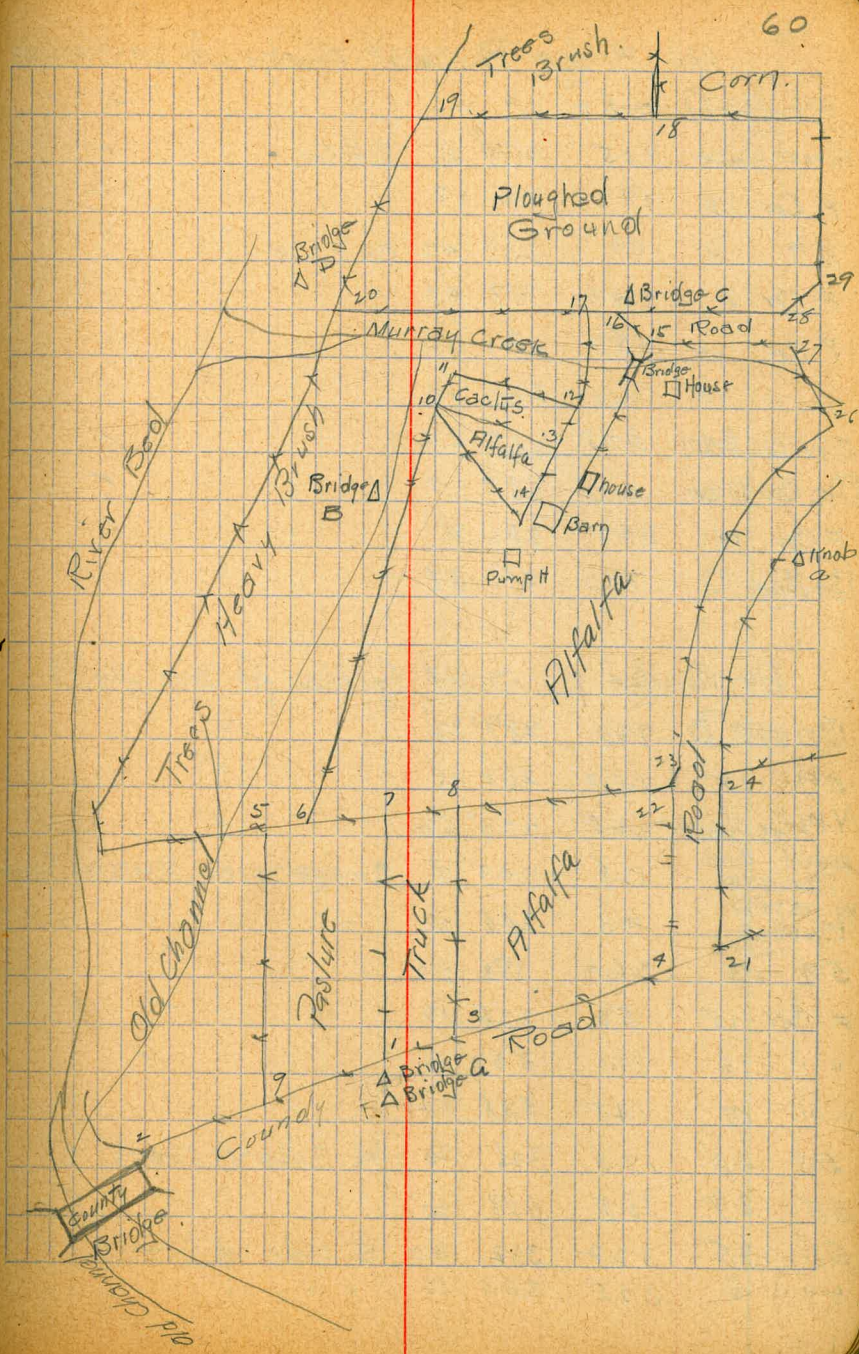
63	21	247	116 10	On E line	✓	18
63	22	320	184 25		✓	19
67	21	320	185 40			20
71	17	310	186 50			21
75	14	300	188 45			22
79	13	310	203 25			23
83	10	355	220 0			24
Ridge E		385	196 53	0° 31'	✓	25

## At Ridge E Sight Ridge for zero Azimuth

Ridge C		385	12 20	check	✓	
Bridge			124 22	check	✓	
87	7	318	256 35		1 ✓	
FCor 13		315	255 30		2 ✓	
83	"	300	244 30		3 ✓	
79	14	295	214 25		4 ✓	
South End Bridge						
E Road		328	211 10		5 ✓	
75		300	217 10		6 ✓	
71		300	215 5		7 ✓	
67		295	213 50		8 ✓	
63		295	211 50		9 ✓	
59		190	208 0		10 ✓	
E Road County						
North END Ridge		478	147 20		11 ✓	
59	1	455	152 20	Starting back on N Bank	12 ✓	
59	1RC	340	173 20	S. Bank Top	13 ✓	
59	2	280	163 10	N Bank	14 ✓	
59	2RC	215	181 50	S. Bank	15 ✓	

At Ridge E				
59	3Rc	320	198 0	S. Side Island 16 ✓
59	3	185	161 40	N. Side River 17 ✓
59	4	360	75 55	" " " 18 ✓
59	5	670	66 0	" " " 19 ✓
F. line	80	65 0	8° 30	20 ✓
59	100	65 0	7° 30	S Bank 21 ✓

At Bridge Sight Knob for Zero Az to R				
Bridge A	9	138° 34		✓
Bridge	9	318 40		✓
F Cr 1	32	315 30		✓
63	1	35	343 30	✓
F Cr 2	590	214 15		✓
" "	3	230	22 10	✓
59	8	475	250 40	✓
59	7	776	284 20	✓
59	9	760	293 20	✓
F. Cr 5	880	298 50		✓
59	10	886	305 30	✓
F Cr 6	890	305 30		✓
F Cr 7	900	316 10		✓
F Cr 8	960	326 30		✓
63	✓	1040	335 20	✓
Angle in F.	60	✓	336 40	✓
SE Cr Pump H	660	342 30		✓
NE " " "	680	245 50		✓
F Cr 9	304	212 45		✓
Bridge B	1250	314 45		✓



At Bridge B. Sight Bridge for zero Az. Pt.

Point in old River Channel

Bridge A	1250	0° 2'		✓
Pump House	305	279° 5'	S.E. Cor.	✓
F. Cor. 10	195	215 20		✓
59 "	65	139 40	ON F line	✓
F. Cor. 11	240	212 40		✓
F. Cor. 12	380	231 30		✓
" "	13	360	135 10	✓
SW Cor Barn	425	245 50		✓
DW Cor Barn	410	259 10		✓
F. Cor. 14	300	261 15		✓
Bridge C	700	217 58		✓

At Bridge C Sight Gibson for Zero Az. Pt.

Bridge B	700	289° 32'		✓
59 12	150	260° 15'		✓
NW Cor. House	225	220° 54'		✓
East End Bridge	128	248 0	Bridge over Murray Creek	✓
W END Bridge	100	245 25	" " " "	✓
59 13	260	180 50		✓
F. Cor. 15	50	226 10		✓
" "	16	50	330 0	✓
" "	17	145	338 30	✓
55 40	125	326 30	W. Side of Creek	✓
55 39	105	258 20		✓
55 38	322	334 30	E Side of Creek	✓
59 6	325	333 10	" " " "	✓



59 15	250	177 35		✓
59 16	25	332 10		✓
59 17	442	112 30		✓
Stand Pipe	490	104 20		✓
Well	485	101 10	see Houston for No.	✓
59 18	690	94 10		✓
55 54	715	91 55		✓
F. Cr. 18	750	93 10		✓
Test Well #6	530	309 10		✓
F. Cr. 19	740	39 50		✓
Test Well #7	680	32 0	On F line	✓
F. Cr. 20	590	343 0		✓
Bridge D	662	346 22		✓

Off Bridge D Sight Gibson for zero Az. Mt.

Bridge C	662	162 55	Check	✓
Knob		170°27'	"	✓
59 2RC	145	299 40	E Side N. Creek	✓
59 3RC	380	270 20	F " " "	✓
59 4RC	65	337 0	W " " "	✓
59 1RC	280	228 10	Check	✓
Test Well #8	650	75 30		✓
59 2RC	580	45 50		✓
59 3RC	700	73 45		✓
Bridge E	300	270 58		✓

At Bridge E Sight Bridge D  
for Zero Az Pt.

Bridge D	308	00		✓
55 34	195	168	30	✓
Water Hole	90	149	30	✓
55 35	70	105	20	✓

At Knob Sight Bridge for Zero Az Pt

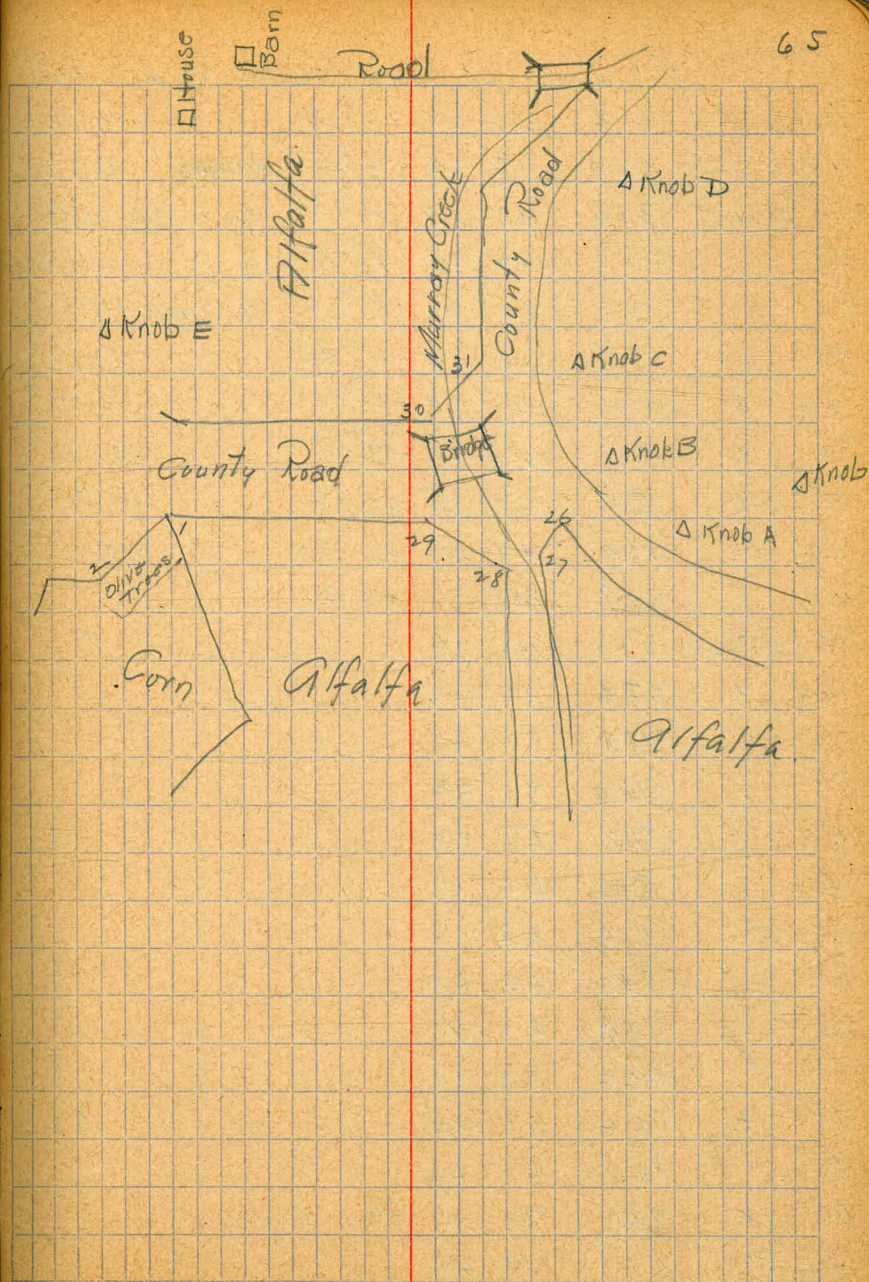
F. Cor 4	1216	332	2		✓
" " 21	1200	330	5		✓
63-9	505	78	50		✓
67-1	1240	332	10	10° 30	496 ✓
71-1	1100	331	10	4° 0	1238 ✓
75-1	1095	330	45	4° 0	1097 ✓
79-1	1084	330	30	4° 2'	1091 ✓
83-1	1080	330	10		✓
87-1	1090	329	30		✓
91-1	1050	328	45		✓
63-3	520	71	25	-10° 0'	512 ✓
67-2	655	337	40	-7° 45'	650 ✓
71-2	660	336	50	-7° 15'	656 ✓
75-2	670	335	40	-6° 45'	665 ✓
79-2	675	334	40	-6° 25'	671 ✓
83-2	680	334	5	-6° 0'	677 ✓
87-2	690	333	20	-5° 35'	688 ✓
91-2	700	332	35	-5° 10'	697 ✓
Knob 2	130	87° 14'	-15° 0'		125.5 ✓

## At Knob A Sight Knob for zero Az.

F. Cor 23	363	69° 40'	-8° 0'	360	✓
" " 22	380	70 0	-8° 40'	375	✓
" " 24	350	64 0	-6° 15'	348	✓
67 3	98	156 0	-28° 15'	86.3	✓
F. Cor 25	125	141 50	-26° 0'	121	✓
ON = line 71 3	95	158 50	-29° 30'	82.5	✓
F. Cor 26	180	204 45	-19° 45'	170.5	✓
63 4	190	204 40	-17° 10'	181.5	✓
75 0	88	159 10	-30° 30'	75.8	✓
79 3	80	160 30	-30° 30'	69.0	✓
83 3	70	161 45	-30° 25'	60.75	✓
87 3	63	163 0	-30° 25'	54.4	✓
91 3	58	163 50	-30° 25'	50.0	✓
63 8	245	204° 50'	-13° 35'	238	✓
F. Cor 27	260	195° 0'	-13° 30'	253	✓
59 14	210	195° 10'	-14° 15'	204	✓
F. Cor 28	280	197° 50'	-10° 45'	275	✓
" " 29	300	213° 45'	-10° 45'	295	✓
County W. END Bridge	250	215° 22'	-12° 15'	244.5	✓
F. Cor 30	300	221 45	-10° 45'	295	✓
Test Hole 5	250	212° 35'	-12° 50'	244.3	✓
E. END Bridge West	210	214° 50'	-15° 10'	203	✓
A Bridge		89° 15'	Check		✓
Knob B	108	248° 29'	-9° 30'	107.5 127.2	✓
Knob	132	00	+15° 30'	6' Root	✓

At Knob B Sight Ridge for Office					
Knob A	110	297° 7'	+9° 35'	108.2	✓
63	7	228	141° 30'	-9° 45'	224 ✓
63	5	210	148 10	-10° 40'	206 ✓
91	4	25	75 40	-11° 0'	246 ✓
87	9	35	71 0	-15° 30'	235 ✓
83	4	50	68 40	-17° 45'	42.7 On Fence line ✓
79	4	55	66 45	-20° 0'	51.5 Top Vert Bank ✓
67	5	205	150 0'	-10° 0'	202 Edge Road ✓
67	4	70	68° 45'	-23 45	64 Bot Bank ✓
71	5	190	156° 0'	-8° 15'	188 Edge Road ✓
75	5	190	158 15	-7° 45'	189.5 ✓
79	5	185	160 15	-8° 0'	183 ✓
83	5	184	163 45	-5° 30'	181 ✓
87	5	180	166 40		✓
191	15	178	169 40		✓
Private Well	170	6° 35'	-12° 45'	165.6 Cement Pipe ✓	
Knob C	187	169 25	-3° 45'	177.6	✓

At Knob C Sight Ridge for Office Rt					
Knob B	178	349 59	+3° 45'	117.6	✓
67	5	282	167 25	-4 45	281 ✓
F. Cor 31	180	27 20	-9 30	177.5	✓
P House Poles	405	169 40	-2 30	71 R SEC on Pump II ✓	
Allen's Well	382	168 40	-3 15	381	✓
Knob D	180	195 39	+4° 0'	179.3	✓



At Knob D Sight Gibson. fr zero Feet

Knob C	178	354	35	-3°-50'	177.5 ✓
W End Bridge	270	157	30	-5°15'	91 lens. 368 ✓
E " Bridge	360	163	50	-4°30'	On F. line 358.5 ✓
63	6	350	162	0 -5° 0'	348.5 ✓
91	6	170	164	15 -4° 0'	On F. line 169.5 ✓
87	6	175	160	4 -4° 45'	174.2 ✓
83	6	182	105	8 10 -5° 15'	181.2 ✓
79	6	180	106	0 -7° 15'	178.5 ✓
75	6	190	154	35 -7-15	188.5 ✓
71	6	200	147	15 -7 30	198.6 ✓
67	6	205	145	40 -9 30	202 ✓
SE Cor Dam	770	113	10		✓
71	1	770	81	40	✓
75	1	780	81	40	✓
79	1	790	81	40	✓
83	1	800	81	50	✓
87	1	810	82	0	✓
67	3	880	55	40	✓
71	4	890	55	50	✓
75	4	910	56	0	✓
79	4	920	56	25	✓
83	4	940	56	55	✓
87	4	960	57	40	✓
67	2	750	73	10	Toe Slope ✓
71	2	775	74	20	✓
75	2	800	75	15	✓

## At Knob D

79	2	815	75	30	✓
83	2	830	75	55	✓
87	2	855	76	10	✓
87	3	820	69	50	✓
83	3	805	69	45	✓
79	3	790	69	40	✓
75	3	780	69	30	✓
71	3	770	69	30	✓
SE Cor Allen's House		900	85° 9'		
Knob E		1063	58	28 00	

## At Knob E sight Knob for Zero Az. Pt.

Knob D		1065	343° 55'		
Ridge			67° 0'	Check	
Gibson			92 43	"	
F Cor 1		118	76 30	-22-15	109.2
63	10	355	76 30	-6° 50'	352.5
Angle in Fence		340	136 5	-6° 15'	335.3
59	19	970	114 25		Edge of Corn
Knob E		785	141 44	-3°-45'	781

Continued Page 34

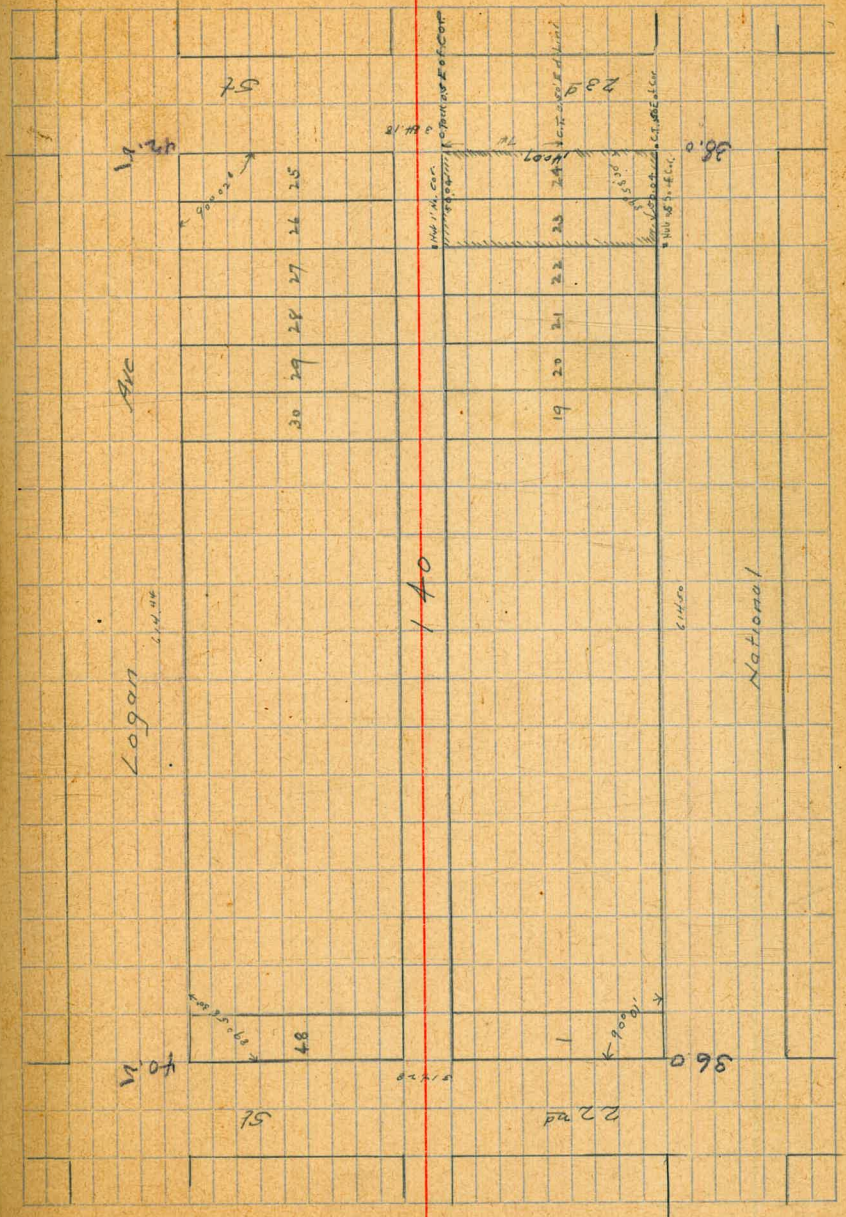
43.44 N.E. Logan & Crosby Plg. d.

Survey of Lots 23 & 24 Block 140

Manassee & Schiller's Add.

Surveyed For Fire Dept.

Davis  
Hancock  
Herrick



1

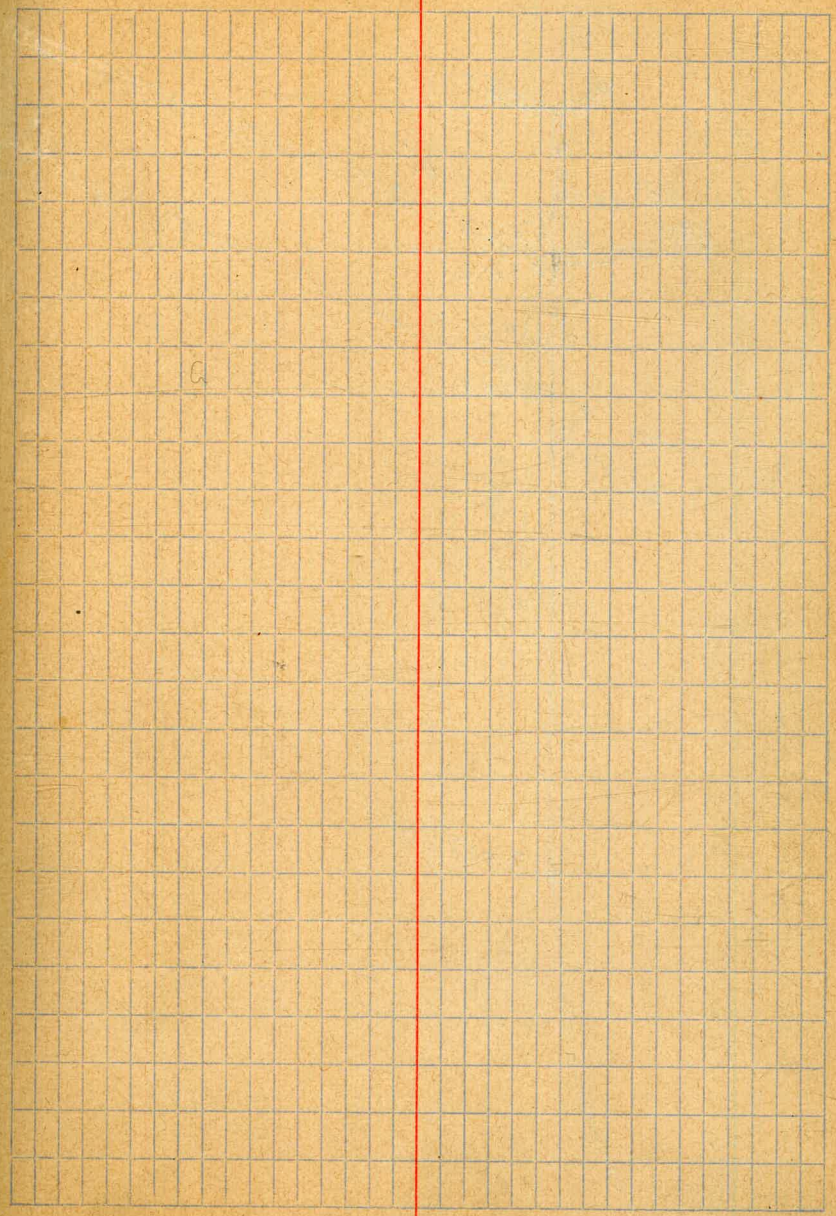
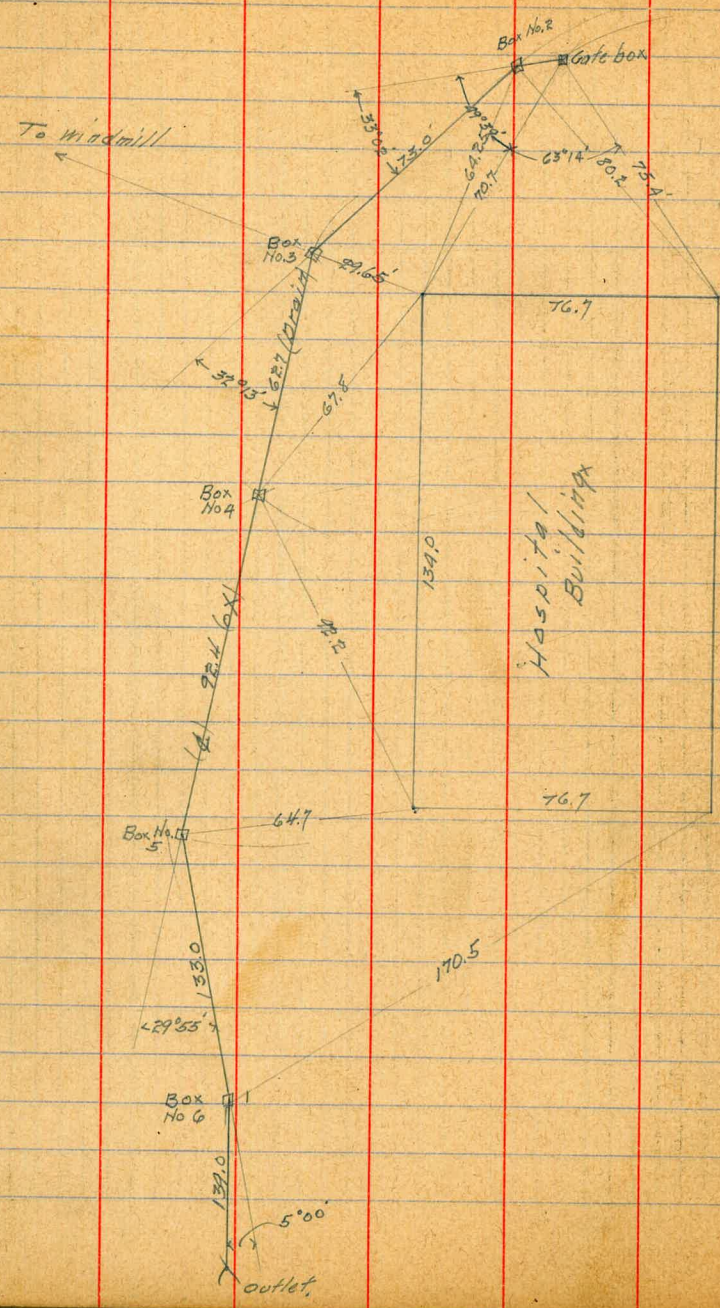
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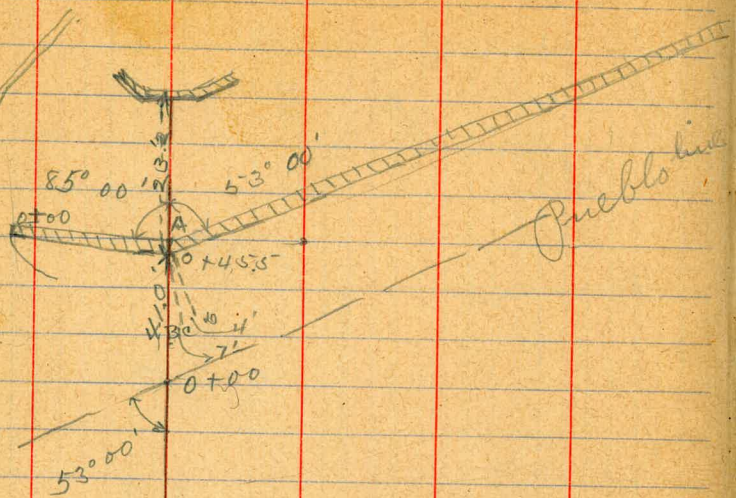
5



3/17/16  
Gregory  
Moore  
Miller

LOCATION OF DRAIN  
AT ISOLATION HOSPITAL





2+58.29'

April 24/16

J Childs  
Erans  
Shaw

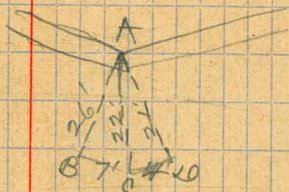
71

4+81.8

481.8  
21.53  
436.3

1  
5  
15  
18

1  
5  
70  
13  
17  
28  
34  
37



	3.48	HI. 54.43 ✓	B.M. 52.95
	M.H. No. 3 near 15 <sup>th</sup> E.		
	Rod	Filwline Rod.	Top M.H.
	20.47	33.96 ✓	4.52 49.91
	M.H. No. 2 17 <sup>th</sup> St. bet. C + E		
	Rod	Filwline Rod	Top M.H.
	3.32	HI. 66.87 ✓	B.M. 63.55
	24.60	42.27	6.63 60.24
J.P.	0.11	HI. 60.89	3.32 57.87
J.P.	7.48	HI. 64.51	0.98 63.57
J.P.	6.33	HI. 69.46	
	M.H. No. 1, 19 <sup>th</sup> bet. C + E		
	Rod	Filwline Rod	Top M.H.
	19.41	HI. 50.49	9.71 60.49
J.P.	12.74	HI. 79.82	3.42 66.44
J.P.	top of head wall		12.69 66.53
	Intake of conduit		
	Rod	Filwline Rod	top of opening
	18.93	HI. 60.29	14.03 65.15
Sta			
0+18	2.47	78.39	15.92
+25.5		78.40	2.62 75.78
H.W. Mark			2.15 76.25
4+75	.95	76.87	15.92
H.W. Mark			.62 76.25

## HIGH WATER DATA ON SWITZER CANYON DAM

Notes Taken by Hayler &amp; Cromwell May 1916

Top of Concrete on Crest of Dam Switzer Canyon

" " " " " " " "

High Water Mark in Eucalyptus Tree

~~79.22~~ H.F. (west spillway)  
79.18

Sect. - 18' (18' west end of dam)

10' South	0.2	79.2
line of wall (South edge)	-0.4	79.6
10' no.	0.5	78.1

Sect. - 15' (15' west end of dam)

10' so.	0.3	78.9
6' "	0.7	78.5
4' "	7.1	72.1
line of wall (South edge)	7.3	71.9
4' no.	6.9	72.3
8' "	2.1	71.1
15' "	2.1	71.1
20' "	4.7	74.5
25' "	2.9	76.3

Sect. - 8' west

15' so.	3.0	76.2
7' so.	6.6	72.6
5' so.	9.0	70.2
line of wall	8.4	70.8
12' no.	7.5	71.7
17' no.	6.7	72.5
20' "	6.4	72.8

73

Sect. - 1' (1' west end of dam)

20' no.	7.6	71.6
5' no.	7.4	71.8
line of wall	7.5	71.7
6' so.	8.2	71.0
8' so.	11.4	67.8
11' so.	11.5	67.7
13' so.	7.5	71.7
15' so.	6.8	72.4
18' so.	3.1	76.1

Sect 0+0 0 (west end of wall)

18' so.	3.0	76.2
15' so.	6.9	72.3
13' so.	7.3	71.9
11' so.	11.6	67.6
9' so.	11.2	68.0
6' so.	8.0	71.2
4' so.	8.0	71.2
2' so.	3.2	74.0
Shoulder wall	4.2	75.0
Top wall	3.16	76.02

## sect 8' east.

top wall	3.21	75.97
20' edgewall	3.3	75.9
3' so.	3.1	76.1
5' so.	2.3	76.9
7' so.	3.1	76.1
10' so.	5.8	73.4
11' so.	12.5	66.7
19' so.	11.6	67.6
22' so.	3.1	76.1

## 16' east

30' so.	3.4	75.8
26' so.	12.0	67.2
17' so.	11.8	67.4
10' so.	3.5	75.7
20' edgewall	3.3	75.9
top wall	3.25	75.93

## 18' east

top wall	3.26	75.92
20' edgewall	3.7	75.5
3' so.	4.0	75.2
4' so.	5.8	73.4
14' so.	10.6	68.6
32' so.	12.0	67.2
38' so.	5.5	73.7

## 23' east.

38' so.	11.3	67.9
23' so.	11.6	67.6
16' so.	11.5	67.7
7' so.	9.0	70.2
3' so.	7.7	71.5
23' so. top cement apron	5.2	74.0
20' edgewall	5.1	74.1
top wall	3.24	75.89

## 26' east

top wall	3.36	75.88
20' edgewall	5.2	74.0
23' so. top apron	5.3	73.9
3' so.	6.9	72.3
5' so.	6.7	72.5
6' so.	4.9	74.3
7' so.	8.8	70.4
16' so.	11.4	67.8
23' so.	11.9	67.3
38' so.	11.7	67.5

31 east

Top wall	3.33	75.85
So edge w	5.3	73.9
23' so. top apron	5.3	73.9
3' so.	8.2	71.0
5' so.	7.9	71.3
6' so.	6.4	72.8
8' so.	7.1	72.1
9' so.	10.1	69.1
18' so.	12.0	67.2
29' so.	12.5	66.7
34' so.	12.8	66.4
	36' east.	
36' so.	12.9	66.3
18' so.	11.9	67.3
	12.4	
	11.3	
5' so.	10.2	69.0
23' so. Top apron	5.4	73.8
So edge wall	5.3	73.9
Top wall	3.34	75.84

38' east

Top wall	3.35	75.83
So edge wall	5.3	73.9
23' so. top apron	5.4	73.8
5' so.	10.4	68.8
13' so.	10.7	68.5
19' so.	6.8	72.4
32' so.	9.4	69.8
33' so.	11.1	68.1
	sect (AB) 45.5 east (angle point)	
26' so.	10.9	68.3
25' so.	10.0	69.1
14' so.	6.9	72.3
13' so.	10.1	69.1
3' so.	9.8	69.4
23' so. top apron (no dirt underneath)	5.3	73.9
So edge wall	5.35	73.83
Top wall	3.40	75.78
	sect. A C	
Top wall	3.40	75.78
So edge wall	5.35	73.83
23' so. top of apron	5.35	73.83
3' so.	9.9	69.3
16' so.	10.9	68.3
17' so.	7.8	71.4
19' so.	10.1	69.1
22' so.	11.2	68.0

## Sect A

21' 20.	10.8	68.4
6' 20.	9.7	69.5
3' 20.	9.9	69.3
2.3' 20. top apron	5.35	73.83
so. edge wall	5.35	73.83
top wall	3.40	75.78

## 50' east

top wall	3.37	75.81
so. edge wall	3.3	75.9
2.3' 20. top apron	3.33	75.85
3' 20.	9.9	69.3
14' 20.	10.4	68.8
18' 20.	9.8	69.4
21' 20.	10.5	68.7

## 53' east

21' 20.	10.3	68.9
20' 20.	8.1	71.1
17' 20.	7.5	71.9
14' 20.	5.2	74.0
12' 20.	7.2	72.0
3' 20.	9.9	69.3
2.3' 20. top apron	5.4	73.8
so. edge wall	5.37	73.81
top wall	3.40	75.78

## 61' east

76

top wall	3.38	75.80
so. edge wall	5.35	73.83
2.3' 20. top apron (width indeterminate)	5.4	73.8
3' 20.	9.1	70.1
9' 20.	8.4	70.8
10' 20.	7.2	72.0
15' 20.	5.8	74.6
20' 20.	8.2	71.0
21' 20.	10.4	68.8

## 65' east

21' 20.	10.8	68.4
20' 20.	7.7	71.5
12' 20.	7.8	71.4
9' 20.	7.6	71.6
8' 20.	8.6	70.6
3' 20.	8.3	70.9
2.3' 20. top apron	5.4	73.8
so. edge wall	5.35	73.83
top wall	3.40	75.78

79.18

68' east

top wall	3.35	75.83
so edge wall	5.0	74.2
3' so.	4.5	74.7
7' so.	4.4	74.8
9' so.	6.6	72.6
15' so.	8.2	71.0
19' so.	8.4	70.8
21' so.	11.2	68.0

81' east

21' so.	11.3	67.9
18' so.	8.8	70.4
15' so.	8.7	70.5
14' so.	10.2	69.0
7' so.	8.0	71.2
6' so.	4.7	74.5
2' so.	4.8	74.4
so edge wall	5.2	74.0
top wall	3.20	75.98

95' east

77

top wall	3.23	75.95
so edge wall	5.2	74.0
2' so.	4.6	74.6
6' so.	4.9	74.3
12' so.	10.3	68.9
21' so.	11.9	67.3

100' east

21' so.	12.0	67.2
15' so.	11.1	68.1
9' so.	9.8	69.4
7' so.	4.7	74.5
so edge wall	4.5	74.7
top wall	3.25	75.93

107' east

top wall	3.24	75.94
so edge wall	4.7	74.5
10' so.	4.5	74.7
12' so.	9.1	70.1
15' so.	9.4	69.8
16' so.	8.3	70.9
21' so.	9.8	69.4
23' so.	11.7	67.5

See book 913 page 72



Date	Time	Mission	Valley	Topog	Survey
17	18	8	8	8	1
18	8	8	8	8	2
19	8	8	8	8	3
20	8	8	8	8	4
21	8	8	8	8	1
22	8	8	8	8	2
23	8	8	8	8	3
24	8	8	8	8	4
25	8	8	8	8	1
26	8	8	8	8	2
27	8	8	8	8	3
28	8	8	8	8	4
29	8	8	8	8	1
30	8	8	8	8	2

17 18

18 8

Schoedsack

Nichols

### Equipment Received 78.

Returned	Transit	Buff + Buff	Condit.
Returned 17	level rod	5362	Fair
"	100 tape		Fair
Returned	2 - 16 oz plumb Bobs		"
"	1 - hand ate		Good
"	1 - Stake bag		Fair
"	1 - Picket rod		Fair
"	2 11' Top Rods		

# KEITH'S RAILROAD CURVE TABLES.

Published by KEUFFEL & ESSER CO., New York.

Entered according to Act of Congress in the year 1883,  
by W. Keuffel & H. Esser, in the office of the Librarian of Congress,  
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## HOW TO USE KEITH'S TABLES.

### EXAMPLE.

Wanted a Curve with an Ext. of about 12 ft. Angle  
of Intersection or I. P.=23° 20' to the R. at Station  
542+72.

Ext. in Tab. IV opposite 23° 20'=120.87  
120.87+12=132.87. Say a 10° Curve.

Tan. in Tab. IV opp. 23° 20'=1183.1  
1183.1+10=1183.1

Tab. V. correction for A. 23° 20' for a 10° Cur.=0.16  
1183.1+0.16=1183.26=corrected Tangent.

(If corrected Ext. is required find in same way)  
Ang. 23° 20'=23.33°+10=2.3333=L. C.

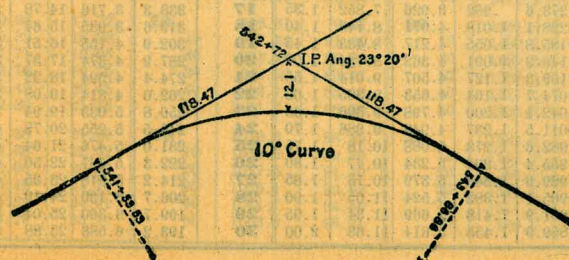
2° 19½' = def. for sta. 542	I. P. = sta. 542+72
4° 49½' = " " " +50	Tan. = 1.18.47
7° 19½' = " " " 543	B. C. = sta. 541+53.53
9° 49½' = " " " +50	L. C. = 2.33.33
11° 40' = " " " 543+	E. C. = sta. 543+86.86
86.86	

100-53.53=46.47×3'(def. for 1 ft. of 10° Cur.)=139.41'  
2° 19½' = def. for sta. 542.

Def. for 50 ft.=2° 30' for a 10° Curve.

Def. for 86.86 ft.=1° 50½' for a 10° Curve

(These tables are published in Field Books of  
KEUFFEL & ESSER Co., New York, N. Y.)



7 1/2" above Sta 4+50  
 9" above Sta 0+457.5

RETURN TO CITY ENGINEER'S OFFICE  
 CITY HALL, SAN DIEGO, CAL.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES 1 1/4 TO 1.

FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.

MADE IN GERMANY.