1965

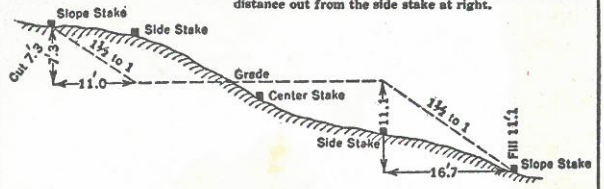
COUNTY

ALACHUA
BRADFORD
CLAY
DUVAL
PUTNAM

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

KEUFFEL & ESSER CO.

Crockett

WELL # + PAGE INDEX IN BACK

The paper in this book is made of 50% high grade rag stock with a WATER RESISTING surface sizing.

Net #562	BS	H.I.	FS.	Ground ELEV
B.M	5.78	78.78		73.00
TP_1	1.76	74.79	5.75	73.03
TP_2	4.56	75.44	3.91	70.88
TP_3	4.25	74.32	5.37	70.07
TP_4	7.59	74.67	7.24	67.08
MP			9.50	65.17

ALACHUA CO. 6/22/65
Disk in concrete block
U.S.G.S BM. 212 CMP 1965

Clear to partly cloudy afternoon

Ryan-Level Brooks-Rod

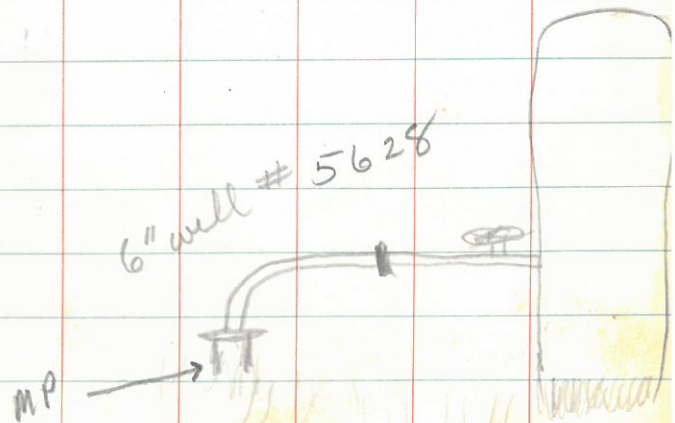
4" well # 5621

Well # 5628	B.S	H.I	F.S	ELEV.
B.M.	2.82	72.82		70.00
TP1	6.38	74.24	4.96	67.86
TP2	5.35	76.22	3.37	70.87
TP3	7.34	75.48	8.08	68.14
TP4	8.00	82.11	1.37	74.11
TP5	1.66	79.99	3.78	78.33
TP6	8.31	82.60	5.70	74.29
TP7	8.86	90.34	1.12	81.48
TP8	8.24	97.70	.88	89.46
TP9	.70	90.98	7.42	90.28
MP			9.48	81.50

ALACHUA Co. 6/22/65
Concrete aviduct
U.S.G.S. B.M. 211 CMP 1965

Clear to partly cloudy Afternoon

Ryan - Level Brooks - Rod



Well #W-5626	BS	HI	FS	ELEV
BM	7.37	74.37		67.00
TP_1	3.49	73.42	4.44	69.93
TP_2	6.97	71.54	8.85	64.57
TP_3	5.04	70.40	6.18	65.36
TP_4	4.06	70.00	4.46	65.94
TP_5	6.62	69.80	6.82	63.18
TP_6	6.65	72.18	4.27	65.53
TP_7	6.90	73.60	5.48	66.70
TP_8	9.48	73.24	3.84	69.76
TP_9	10.40	85.52	4.12	75.12
TP_{10}	6.13	91.45	0.20	85.32
TP_{11}	5.89	89.84	7.50	83.95
TP_{12}	10.67	96.37	4.14	85.70
TP_{13}	4.78	95.45	5.70	90.67
TP_{14}	3.27	91.50	7.22	88.23
TP_{15}	1.50	82.24	10.76	80.74

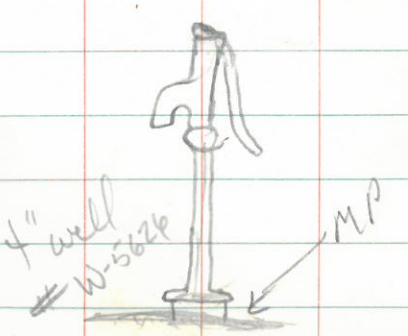
6/23/65

ALACHUA Co. Disk on concrete post 2' above ground

115.05 BM 219 CMP 1965

Clear morning and afternoon

Ryan - Level Brooke - Rod



W-5626	BS	HI	FS		ELEV.
TP16	10.88	82.92	10.20		72.04
TP17	11.74	94.66	0.00		82.92
TP18	10.22	104.88	0.00		94.66
TP19	1.45	95.09	11.24		93.64
MP			10.58		84.51

ALACHUA Co. 6/23/65

Clear afternoon

Ryan - Level Brooks - Rod

Picture on Preceeding Page

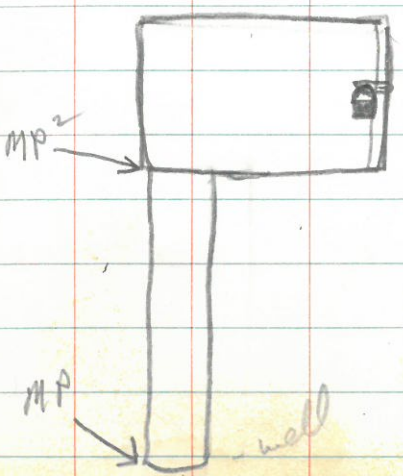
W-4929	BS	HI	FS	Casing	ELEV.
BM	2.07	94.57			92.5
TP1	5.52		8.52		
TP2	2.12		5.68		
TP3	4.99		7.23		
TP4	11.45		12.24		
TP5	.49		12.14		
TP6	3.52		8.11		
TP7	9.07		9.15		
TP8	9.00		.15		
TP9	10.28		7.19		
TP10	7.72		.96		
MP	0.00		5.79		
			8.22	4.22	73.35 - ground.
					77.35 - casing

Alachua Co 7/9/65

USCGS B.M. # A15 Standard Disk in concrete pole

Clear + Sunny Morning

Ryan - Level Bain - Rod



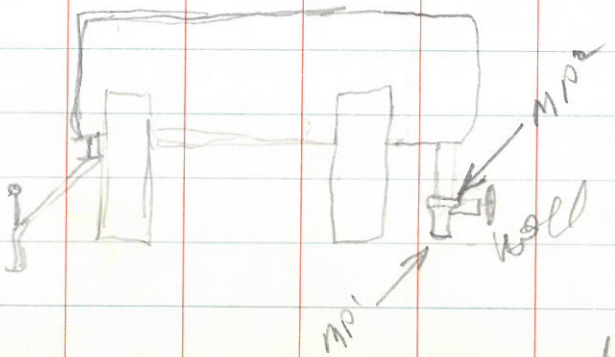
N-5564	BS	HI	FS	Casing	ELEV.
BM.	7.70				169.82
TP1	2.96		8.72		
TP2	1.67		10.52		
MP			1.82	1.22	161.09-Ground
					161.69 - Casing

Alachua Co. 7/12/65

R.R. Spike in middle of rock intersec. est. by S.R.D. from USGS

Clear to partly cloudy

Ryan Level - Bair - Rod



W-4049	BS	H.I	F.S.	Casing	ELEV.
B.M.	4.52				167.992
MP			4.88	4.54	
					167.632 ground
					167.972 casing

Alachua County 7/12/65

Dish in concrete slab of Benton Hall U of F.

U.S.C.G.S. B.M. S3 1932

Overcast

Ryan - Level Bair - Rod

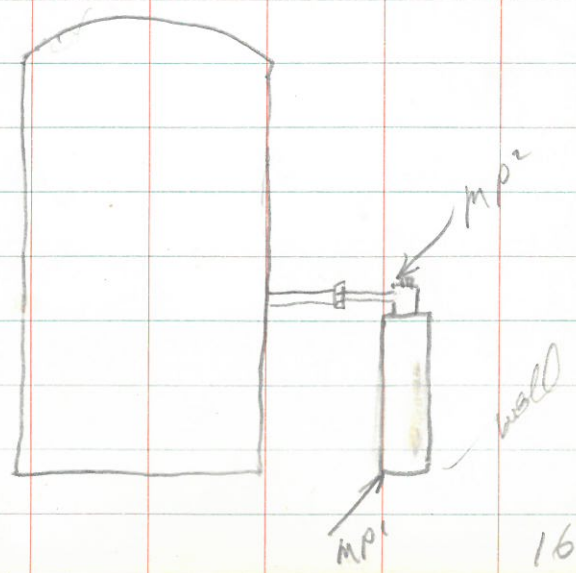
W-5675	B.S.	H.I.	F.S.	Casing	ELEV.
B.M.	5.74				167.992
TP1	3.96		6.13		
TP2	6.66		5.54		
TP3	5.93		2.06		
MP			4.97	3.57	171.582
					172.982

Alachua County 7/12/65

U.S.C.&G.S. B.M. S3 1932 Disk in concrete step, Benton Hall U of F.

Overcast

ground casing Ryan - level Bair - Rod



W-5176	B.S.	H.I.	F.S.	casing	ELEV.
BM	5.69				94.133
MP			5.24	3.53	94.583 - G
					96.293 - C

Clay County August 27, 1965

U.S.C.&G.S. + State BM # BE 24

Sunny Morning

Rye Level Doyle Rod

W-5175	B.S.	H.I.	F.S.	casing	ELEV.
BM	4.98				89.258
MP			4.27	2.77	89.968 -G
					91.468 -C

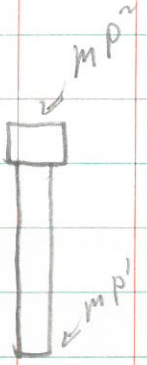
Clay County August 27, 1965

U.S.C.&G.S. + State BM # BE 26

Clear Afternoon

Ryan - Level Doyle - Rod

W-5291	B.S.	H.I	F.S	casing	ELEV.	Clay County	August 25, 1965
B.M.	3.75				142.328	U.S.C.&G.S. Elev. BM = BE 38	
M.P.			5.07	3.52	141.008 - G		
					142.558 - C		



W-2888	B.S.	H.I.	F.S.	ELEV.
B M	5.84	30.84		25
TP1	2.37	26.51	6.70	24.14
TP2	9.02	24.17	11.36	15.15
TP3	3.97	24.22	3.93	20.24
TP4	4.84	22.22	6.84	17.38
MP			9.02	13.20

+.366

13.566 ground elev.

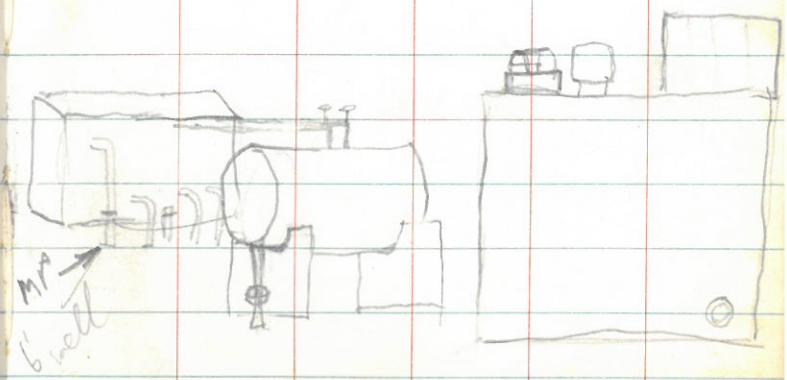
ACTUAL B.M. ELEV. 25.366

Duval Co. 6/26/65

U.S.C.&G.S. B.M. Disk in concrete AB16

Partly Cloudy afternoon

Rear Level Brooks-Rod



W-3492	BS	HI	FS	ELEV
BM	2.29	102.29		100
TP1	7.92	102.36	7.85	94.44
TP2	2.49	93.93	10.92	91.44
MP			4.84	89.09
				76.32
				12.77
			Actual elevation	23.68

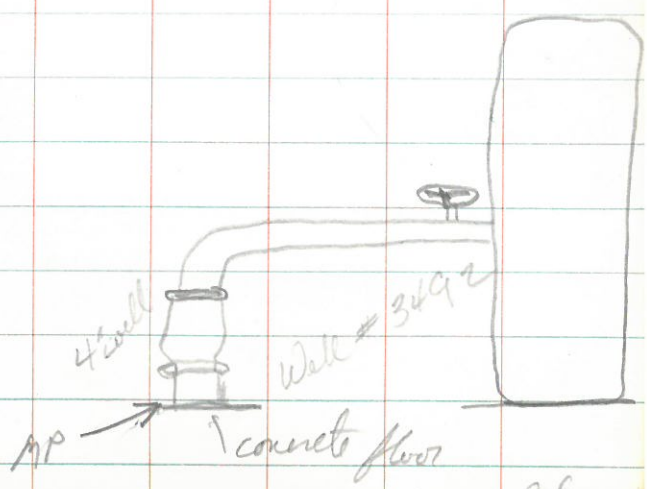
Duval Co. 6/26/65

R.R. spike in Base of 14' Pine Tree not assumed S.R.D.
Determined by line run from U.S.C.&S. B.M.

Partly Cloudy Afternoon

Ryan - level Brooks Rod

pound

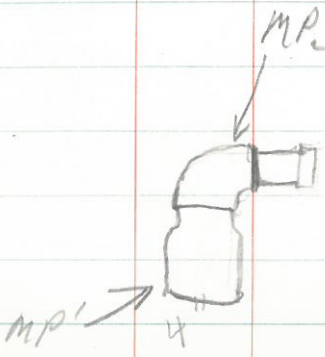


W.3990	B.S.	H.I.	F.S.	CASING	ELEV.
B.M.	4.52	79.72			75.20
T.P.	4.87	75.50	4.22		80.37
MP			4.83	3.62	75.54 ground
					76.75 casing

Duval Co. 6/29/65

Road surface elevation determined by Cecil N.B. Surveyors run from U.S.C.&G.S. B.M. in 1957

Clear Sunny Morning



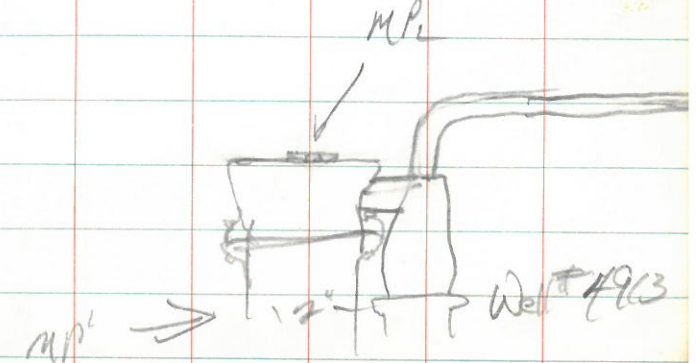
W-4913	B.S.	H.I.	F.S.	Casing	Elev
B.M.	0.00	39.83			39.83
MP			6.83	5.74	33.00-ground 34.09-casing

Duval County 6/29/65

Surveyors B.M. run from U.S.C.&S. B.M. & approved by U.S. Corps of Engineers.

Clear & Sunny Afternoon

Ryan-level Brooks-Rod



W.5749	B.S.	H.I.	F.S.		ELEV.
B.M.	4.18				29.56
TP1	4.78		5.64		
TP2	2.60		4.82		
TP3	6.08		6.04		
TP4	5.20		4.42		
MP			6.98		24.50 – ground

Duval County 6/29/65

U.S.C.S.S. B.M. A.J.7 1937 Disk in concrete post

Clear + Sunny Afternoon

Ryan Level Brooks Rod

ARTESIAN well with water Spurting From under cap.

W. 3692	B.S.	H.I.	F.S.		ELEV.
B.M.	2.42				25.366
TP1	1.17		12.60		
TP2	12.51		9.02		
TP3	5.38		1.07		
TP4	5.34		5.42		
MP			5.05		19.026 ground

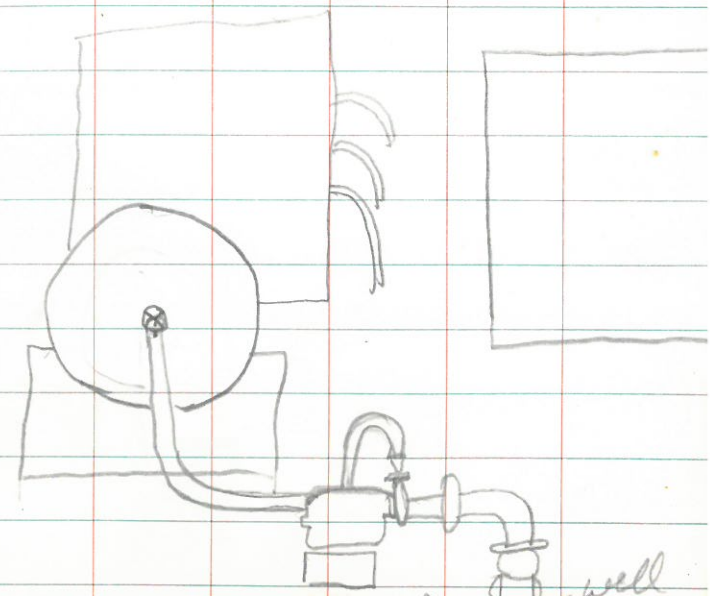
Drwal County 6/28/65

Drill in concrete

U.S.C+GS. B.M. AB 16

Partly Cloudy to Clear Afternoon

Ryan - Level Brooks - Rod



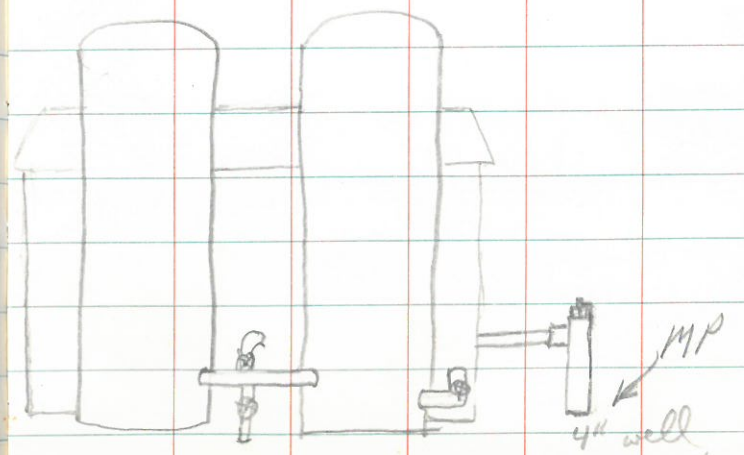
W-6917	B.S.	H.I.	F.S.		ELEV.
P.M.	10.64				19.115
TP1	11.77		.28		
TP2	13.10		0.41		
TP3	7.73		0.31		
TP4	1.81		8.62		
TP5	1.45		12.82		
TP6	2.71		9.32		
TP7	4.98		5.07		
MP			5.52		30.955 ground

Duval County 6/28/65

County B.M. - X in South end of concrete Culvert on Old Middleburg Road 100 ft North of Herlong Road.

Partly Cloudy to Clear Afternoon

Ryan - Level Brooks - Rod



W.5963	B.S.	H.I	On concrete covering casing F.S.	ELEV.
B.M.	5.55			22.047
TP1	4.89		7.50	
TP2	6.54		6.20	
TP3	7.84		2.89	
TP4	6.88		3.42	
TP5	5.45		3.00	
TP6	7.06		6.16	
TP7	5.82		5.60	
MP			4.82	32.487

Putnam Co. 7/13/65

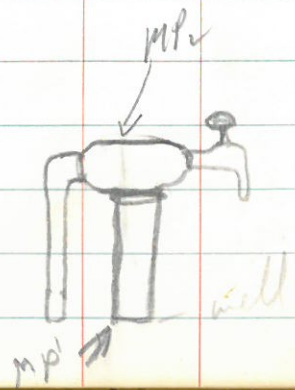
U.S.C.&G.S. F.S. BM Disk in concrete post V39

Partly Cloudy to Clear

Ryan - Leal - Bair Rod.

MP well under concrete

W-5959	B.S.	H.I.	F.S.	Casing	ELEV.		Putnam County 7/14/65
B.M.	5.10				16.411	U.S.C.G.S. B.M. E.31 Oisle in concrete post	
T.P.1	6.24		4.08				
T.P.2	4.50		7.03			Cloudy to Clear	
T.P.3	5.45		5.75				
MP			4.48	3.16	16.361 — G	Ryan - Land	Bain - Rod
					17.681 — C		



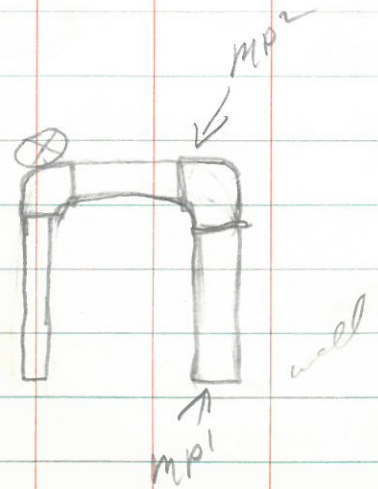
W-6914	B.S.	H.I.	F.S.		ELEV.
B.M.	4.01				16.411
TP,	3.48		3.78		
MP			6.14	4.62	13.981 - G
					15.501 - C

Putnam County 7/14/65

U.S.C.&G.S. B.M. E31 Disk in concrete post

Cloudy with Showers

Ryan - Level Bar - Rod



W5023	B.S	H.I	F.S	Concrete Base		
B.M.	4.56				19.822	
TP1	5.60		4.38			
TP2	4.86		5.88			
TP3	6.18		5.64			
TP4	7.50		7.18			
TP5	10.40		1.98			
TP6	6.68		0.47			
MP			3.33	2.99	35.74 ✓	-G
					36.082	-C

Putnam County July 15, 1965

U.S.C.S. B.M. # 19 Cap riveted to iron pipe 1911

Cloudy with Showers

Ryan - Lead Bain - Rod

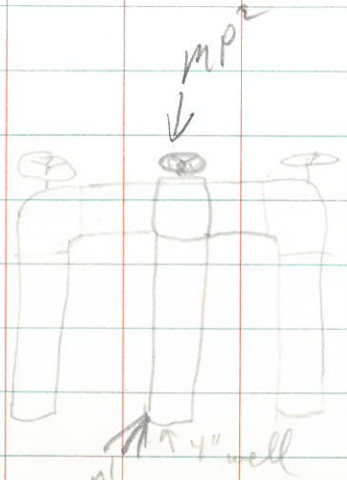
W-5018	From Casing B.S.	H.I.	F.S.	Casing	ELEV.
B.M.	3.22				16.361
TP1	4.15		7.72		
MP			4.82	2.18	11.191 — G
					13.831 — C

Putnam County July 15, 1965

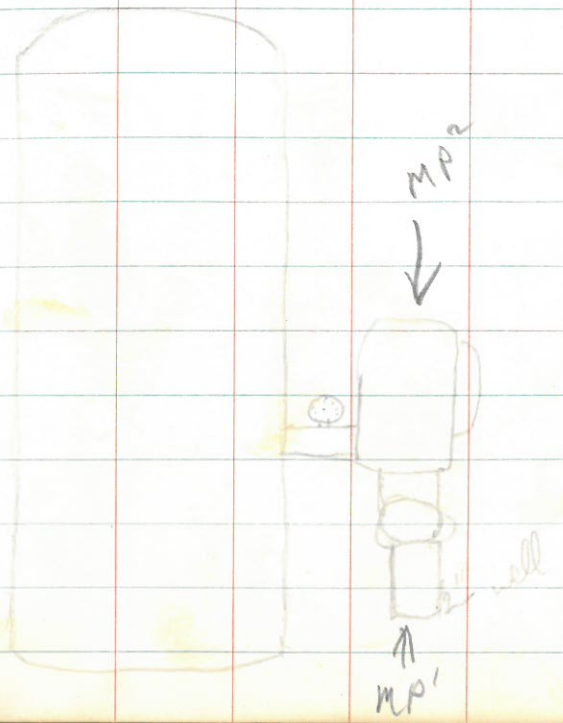
B.M. - well # 5959

Overcast with Showers

Ryan - Level Bair - Rod



W-5021	B.S.	H.I.	F.S.		ELEV.		Putnam County			July 20, 1965	
B.M	5.33				26.437	[illegible] B.M.	P.T.S. 16 Capnuted to [illegible] pipe				
TP1	8.09		6.06				[illegible]				
TP2	4.82		5.03								
MP			4.86	4.36	28.727 –	G	Lyon – Level		Brain – Rod		
					29.227 –	C					



W-4062	B.S.	H.I.	F.S.	Casing	[illegible]
B.M.	6.60	72.9[illegible]			[illegible]
TP1	3.16	65.097	7.84		68.25
TP2	5.81		11.23		
TP3	9.07		4.40		
MP			7.22		60.287

- G

Pertnanda July 20, 1965

U.S.G.S. & State Survey B.M. B.T. 24 Disk in concrete post

Sunny

Ryan Level Bar Rod

W-5030	B.S.	H.I.	F.S.		ELEV.
B.M.	5.04				92.46
TP1	4.23		12.76		
TP2	5.17		5.38		
TP3	4.28		7.04		
TP4			6.26		

Owner returned from Hospital & flatly refused to allow us to level well. Said Stall could wait until he's dead. Hope we're able to level that particular well very soon.

Putnam County July 21, 1965

(309)

S.R.D. B.M. #16 Spike in 12" oak tree

Sunny

Rg on level - Bair - Rod

W-4069	B.S.	H.T.	F.S.		ELEV.
B.M.	2.82	70.84			68.020
TP1	4.99	67.21	8.62		+7.43
TP2	4.02		7.08		
TP3	1.13		8.41		
TP4	8.24		9.90		
TP5	8.96		0.00		
TP6	13.00		0.68		
TP7	6.33		1.55		
NP	49.49		5.82	- G	75.450 - G
			42.06		

Pulman County July 21, 1965

FLA. GEOD. S. B.M. B.T. 33a Dish in concrete post

Overcast with Showers.

Ryan - Lend Bow Rod.

Well is under ground under a concrete slab down about 5"

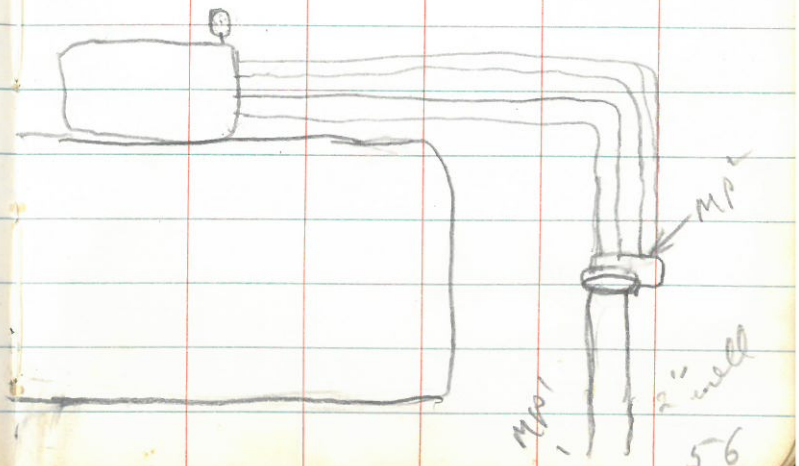
W-4058	B.S.	H.I.	F.S.	Casing	ELEV.
B.M.	5.17				75.27
TP1	0.00		7.66		
TP2	2.88		7.99		
TP3	3.30		13.22		
TP4	5.57		8.04		
TP5	2.61		4.89		
TP6	8.06		6.41		
TP7	6.50		7.83		
MP	34.09		2.80	2.16	50.52 -G
			58.84		51.16 -C

Putnam County. July 22, 1965

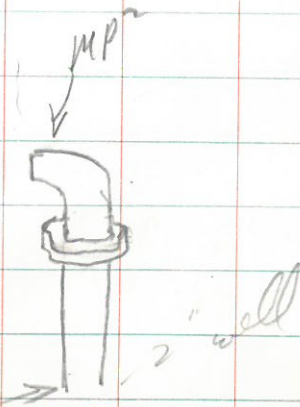
RMBL. TBM. #1 from well 4069. Established By Ryan & Bainfr well 4069

Sunny morning

Ryan-Level Bain-Rod



W-4063	B.S.	H.I	F.S.	Check	ELEV.		Putnam County July 28, 1965
B.M.	7.29				65.654	USC&GS STATE SURVEY BM	B.T. 26
TP1	4.06		5.62			Sunny afternoon	
TP2	6.31		5.53				
MP			7.50	6.50	64.664	-b	Ryan Level Bar-Rod
					65.664	-c	



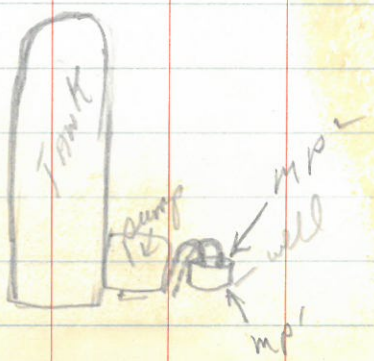
W-5025	B.S.	A.I.	F.S.	Casing	ELEV.
D.M.	11.46				9.33
TP1	10.52		5.93		.93
TP2	6.43		3.84		
TP3	7.65		3.55		
TP4	4.06		7.09		
TP5	2.37		10.04		
TP6	8.84		1.46		.46
TP7	3.10		5.82		
TP8	5.85		3.19		
TP9	7.00		7.30		
TP10	7.48		4.14		
TP11	11.50		2.70		
TP12	13.00		0.00		
TP13	13.00		.29		
TP14	11.30		.03		
MP15			.90	.04	76.61 - G
					77.45 - C

Putnam County July 23, 1965

USL & GC + State Survey P31 disk & concrete post

Survey

Ryan - Sand Bain Rod



W 5026	BS	HI	FS	Casing	Elev	Putnam County July 26/1965
BM	5.82				56.215	USCE&S BM BO 71
TP1	7.72		4.42			Leveling + Clear
TP2	8.87		0.00			Rejon-Level Base Rod
TP3	4.84		4.10			
TP4	7.33		8.47			
TP5	3.50		5.71			
TP6	5.41		6.12			
TP7	8.81		1.93			
TP8	9.24		7.71			
TP9	5.38		5.41			
TP10	1.53		5.40			
TP11	5.04		7.74			
MP			4.08	3.04	68.56	-G.
					69.60	-C.

W-5022	B.S.	H.I.	F.S.		ELEV.
BM	.12				160.309
TP1	4.54		12.26		
TP2	4.74		8.42		
MP			9.80		139.229

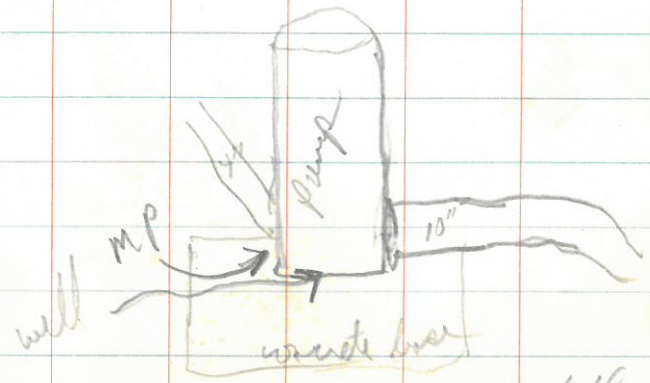
Putnam County July 27, 1965

U.S.C.&G.S. & State Survey B 58

Sunny & Clear

-6

Ryan Steel Bin Rod



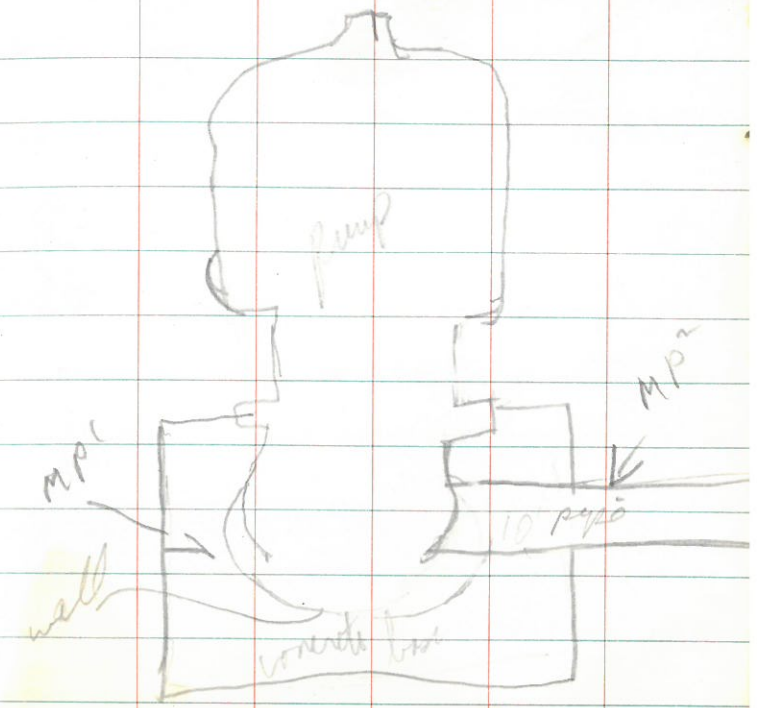
W-4972	B.S.	H.I.	5.52 F.S.	Casing	Elev
BM	7.80				104.449
TP	4.90		3.99		
MP			5.20	4.80	107.959 -6
					108.359

WTECC Putnam County July 28, 1965

W.S.C. #65 BM J.14 disk in concrete port

Clear to partly cloudy

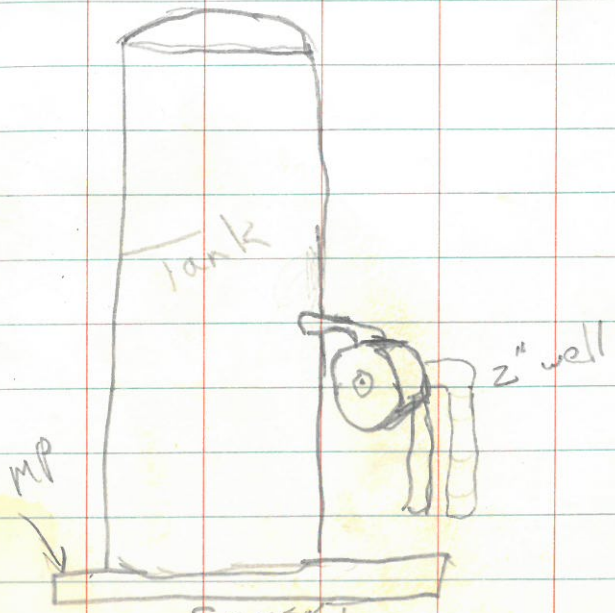
Ryan Sand Bar Rod



W-4064	B.S.	A.T.	F.S.		ELEV
B.M.	1.36				144.188
TP1	4.63		12.48		
TP2	3.54		6.80		
TP3	.10		10.28		
TP4	2.36		13.00		
MP			10.44		103.178 = G

Pittman County July 28, 1904

U.S.C. & G.S. State Survey B.M. B.H. 84



W-5043	B.S.	H.I.	F.S.	H.E.	Putnam County July 28, 1965
B.M.	7.08			111.618	R.M. B.C.T.B.M. from former well from RH 84
TP1	5.41		4.32		
TP2	2.76		9.18		
TP3	8.34		10.45		
TP4	10.63		3.63		
TP5	8.11		10.54		
MP			4.23	111.598 — G.	

W-5746	B.S.	H.I.	P.S.	Casing	ELEV.
B.M.	.30				
TP1	1.64		13.24		
TP2	5.46		4.93		
TP3	5.04		5.38		
MP			4.92	4.12	

Putnam County July 29, 1965

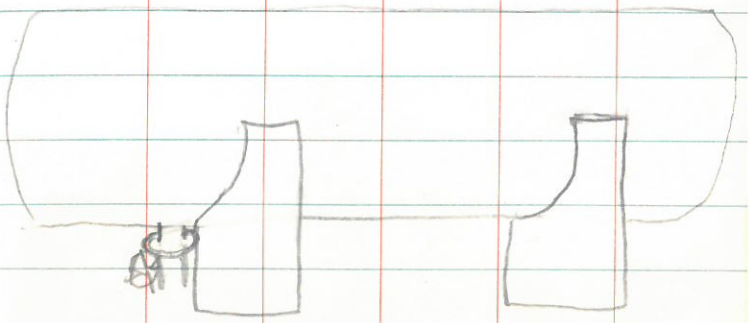
Disk in concrete

S.R.D. BM on OKLAWAHA RIVER BRIDGE (A) Rail

No ELEVATION yet EST. FOR B.M.

Sunny to partly Cloudy

Ryan - level Bain - Rod



W-3627	B.S	HI	F.S.	Casing		Putnam County reset 1959 July 29, 465
B.M.	6.74				118.314	USC&GS B.M. - B 54 Disk in concrete post
TP1	3.81		11.04			
MP			5.60			
				4.44	112.224 - C	
					113.84 - c	

W.4047	B.S.	H.I.	F.S.		ELEV.		Putnam County July 30, 1965
B.M.	1.93		6.5		103.838	U.S.C.&G.S. & State Hwy. B.M.	B.D. 32
TP1	4.84		9.30				
TP2	0.46		10.65				Overcast - rain
TP3	5.69		6.69				
TP4	6.02		5.61				Ryan Level Bar Rod
TP5	6.07		5.65				
TP6	6.87		4.29				
TP7	6.44		4.62				
TP8	4.44		8.25				
TP9	12.38		5.75				
MP	4.59		4.73				
			4.99		93.038 - G.		

This well is underground with no visible casing

W 4061	B.S	H.I.	F.S	Casing	ELEV
BM	4.72				
MP					
			5.60	4.25	

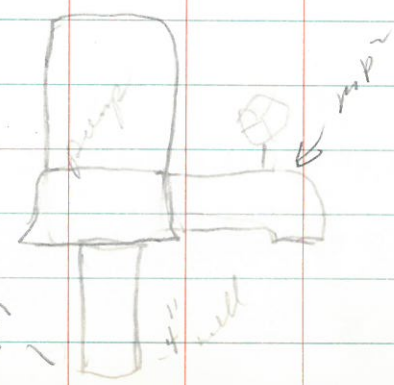
Putnam County July 30, 1965

US 65 B.M. T-222 1964 [illegible] round [illegible]

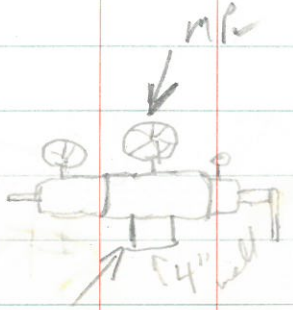
No elevation on cap

Overcast + Raining

Bain - Level Ryan Rod



W. 5000	B.S.	H.I.	F.S.	casing	ELEV.		Putnam County	July 30, 1965
B.M.	4.74	14.74			10.00 ±		Topo map road elevation Riverdale quadrangle	
M.P.			5.77					
				4.86	8.97	b.	Overcast	
					9.88	c.		
							Bryan Level Bar - Rod	



		Casing M.S.L.
W-3857		No casing
W-6549		52.20
W-6643		56.91
W-3903		10.923
W-3856		3.702
W-3901		7.491
W-3902		8.140

Hudson Pulp & Paper 7/12/65

Putnam County

Elevations run by Hudson Survey Crew

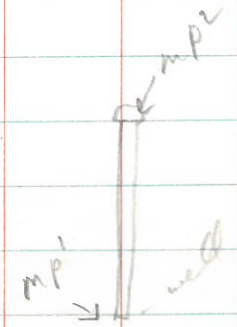
W. 5328	B.S.	H.I	F.S.	Casing	ELEV.
B.M.	5.06				172.9
MP.			5.59	3.94	172.37 - G
					174.02 - C

Bradford Co. August 11, 1965

U.S.G.S. & State Survey B.M. BD58

Sunny Morning

Ryan Level Doyle Rod



W. 5178	B.S.	H.I.	F.S.	[illegible]	ELEV.	
B.M.	1.15				149.4	
TP1	1.24		10.84			
TP2	1.96		2.94			
TP3	3.56		6.55			
TP4	10.06		6.47			
MP			2.60	1.31	137.97	-G
					139.26	-C

Bradford Co. August 11, 1965

U.S.G.+G.S. + State Survey B.M. AD53

Sunny

Ryan - Level Doyle - Rod

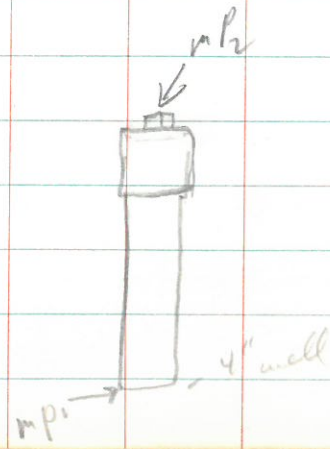
W-5239	B.S.	H.S.	F.S.	Casing	ELEV.
B.M.	4.08				178.08
T.P.	5.23		6.16		
MP			7.00	4.72	174.23 G
					176.51 C

Bradford Co. August 11, 1965

U.S.C.&G.S. & State Survey B.M. BD55

Sunny to partly Cloudy

Ryan - Level Doyle - Rod



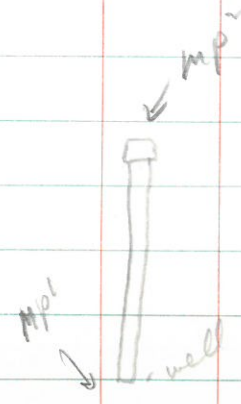
W-5159	B.S.	H.I.	F.S.	Casing	ELEV.
B.M.	4.00				178.08
T.P.	5.06		7.63		
MP			6.74	4.84	172.77 - G
					174.67 - C

Bradford Co. August 11, 1965

U.S.C.&G.S. + Staff Sung B.M. B.D. 55

Overcast

Ryan Level Doyle - Rod



W. 5182	B.S.	H.I.	F.S.		ELEV.
B.A.	2.94				165.301
TP1	.62		12.83		
MP			13.56		142.471 - G

Bradford Co. August 12, 1965

- U.S.C.&G.S. + State Survey B.M. # BD 64

Sunny

Ryan - Level Doyle Rod

W-5160	B.S.	A.I.	F.S.	Casing	ELEV.
B.M.	2.94				165.301
TP1	.62		12.83		
TP2	7.60		13.56		
TP3	4.02		3.68		
TP4	2.94		7.74		
TP5	1.99		12.76		
MP			9.73	6.78	125.111 - G
					128.061 - C

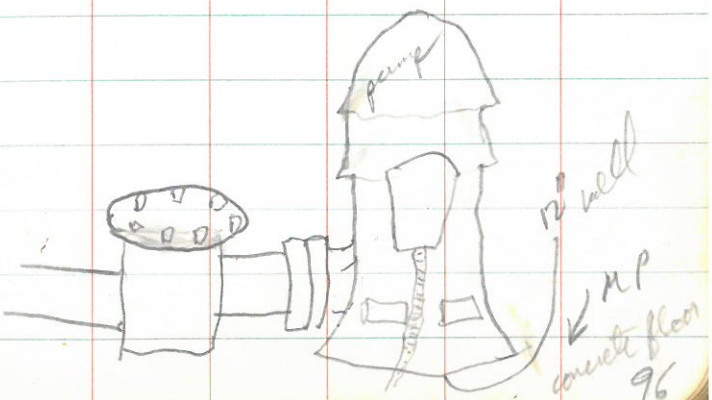
Bradford Co. August 12, 1965

U.S.C.&G.S. & State Survey B.M. = BD 64

Sunny

Ryan - Seed Doyle - Rod

W-6261	B.S.	H.I.	F.S.	[illegible]	ELEV.	Bradford Co. August 12, 1965
B.M.	3.50				166.82	U.S.C. & G.S. & State Survey B.M. BB66 rest 1954
TP1	3.54		6.88			
TP2	2.37		10.76			Sunny
MP			5.03	well house floor		
					153.56 - G	Ryan-Seal Doyle-Rod



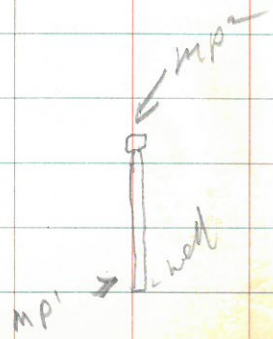
W-5177	B.S.	H.I.	F.S.	Casing	ELEV.
B.M.	3.00				150.361
TP1	8.65		6.28		
TP2	6.60		6.00		
MP			5.48	3.90	150.851 – G
					152.43 – C

Bradford Co. August 12 1965

N.S. G&GS. & State Survey B.M. # AD 28

Sunny

Ryan - Level Doyle - Rod



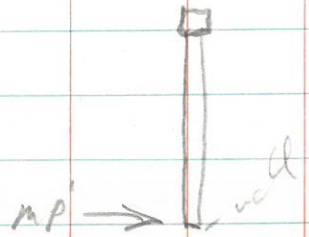
W. 5163	B.S.	H.I.	F.S.		ELEV.
B.M.	5.26				141.471
MP.			6.48		140.251 — G

Bradford Co. August 12, 1965

U.S. C&GS. + State Survey BM II B.R. 19

Overcast

Ryan-Lewis Doyle-Rd



On mill floor - concrete

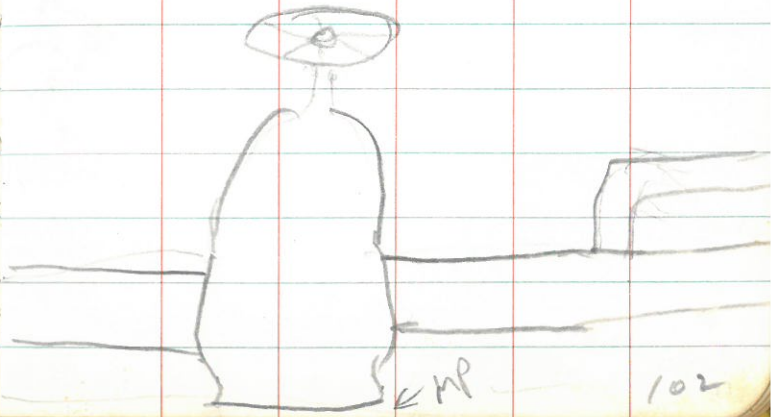
W-5300	B.S.	H.I.	F.S.	ELEV.
B.M.	6.14			166.82
TP1	5.44		4.95	
TP2	5.00		7.36	
TP3	4.79		6.12	
MP			4.36	165.40 = Floor

Bradford Co. August 13, 1965

U.S.C.+G.S. B.M. # BB66 reset 1954

Sunny Morning

Ryan - Level Ogle - Rod



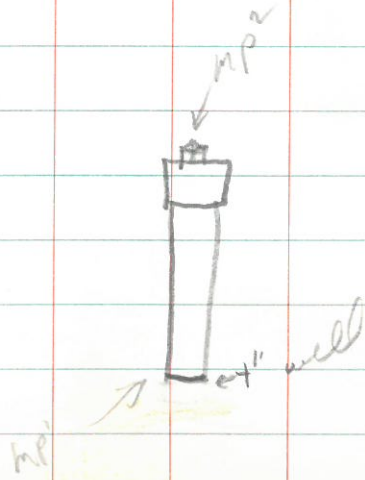
W.5180	B.S.	H.I.	F.S.	Casing	ELEV.
B.M.	5.97				137.6
MP			3.72	1.61	139.85 -G
					141.96 -C

Bradford Co. August 13, 1965

U.S.L.&G.S. & State Survey B.M. #BR 17

Sunny Morning

Ryan - Level Bain - Rod



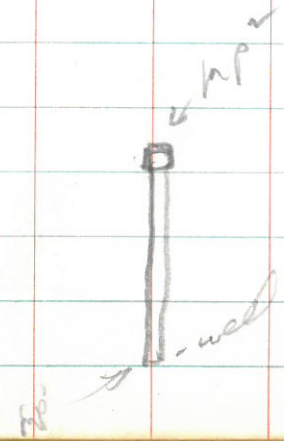
W-5161	B.S.	H.I.	F.S.	Casing	ELEV.
B.M.	5.86				137.00
MP			6.63	4.79	136.23 - G
					138.84 - C

Bradford Co. August 13, 1965

B.M. - Lawtey Topo sheet road elevation,

Clear to partly cloudy

Dyer - level Doyle - Rod



W-5187	B.S.	H.I.	F.S.	Casing	ELEV.
B.M.	5.86				137.00
MP			6.52	4.66	136.34
					138.86

Bradford August 13, 1965

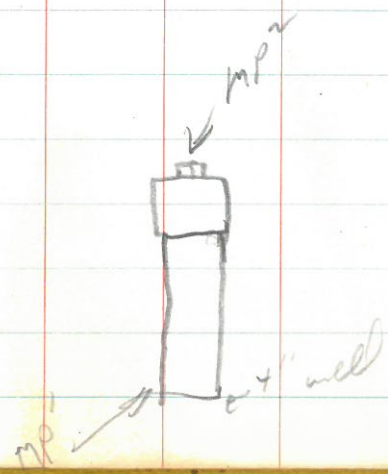
B.M. – Lawtey Topo sheet road elevation

G

C

Clear to partly Cloudy

Ryan Level – Dogle Rod



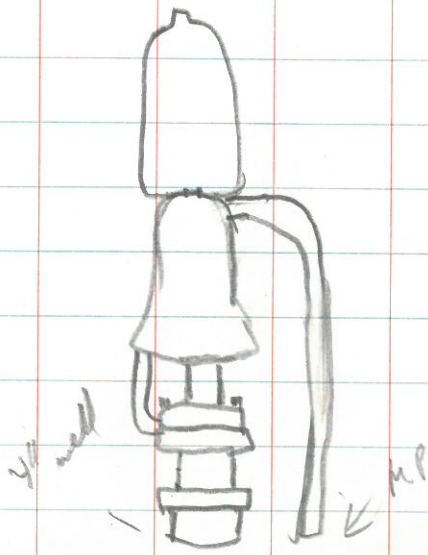
W-2600	B.S.	H.I	F.S.		ELEV.
B.M.	7.18				116.3
TP	3.35		3.55		
MP			4.93	Concrete floor	
					118.40

Bradford Co. August 16, 1965

U.S.C&GS + State Survey B.M. # BC 24

Sunny Money

Ryan Level Doyle-Rod



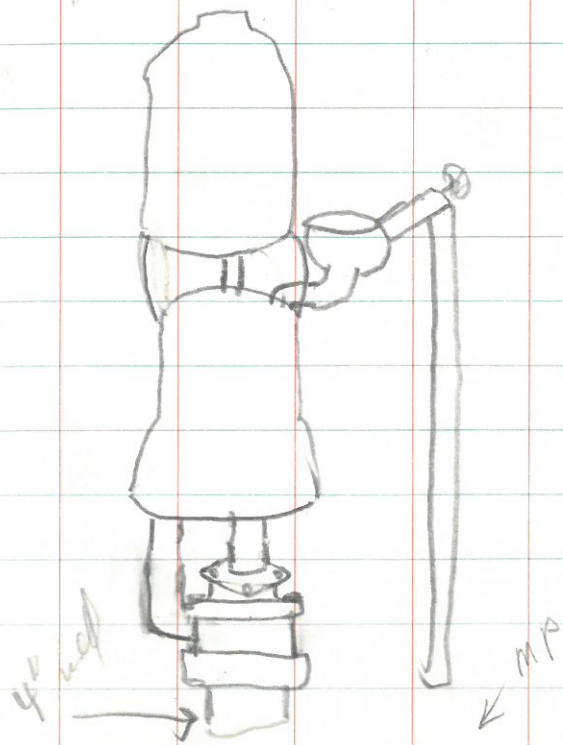
W.3719	B.S.	H.I.	F.S.		ELEV
B.M.	7.18				116.3
TP.	3.35		3.50		
MP			5.06	concrete floor	
					118.27

Bradford County August 16, 1965

A.S.C & G.S.D.M # BC 24

Sunny Morning

Ryan Seed Dogle-Rod



W.5287	B.S.	H.I	F.S.	Casing	ELEV.
B.M.	5.14				149.521
T.P.	5.38		6.42		
MP			6.32	A	147.301
				4.09	149.531
				B	149.031
				4.14	

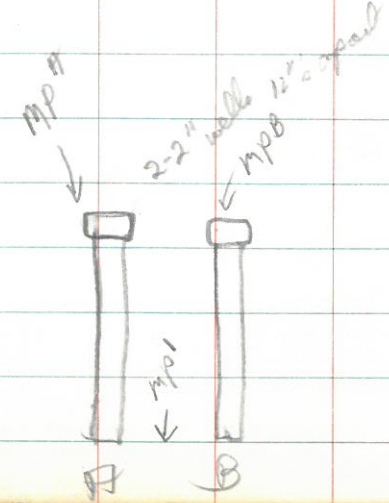
Clay County August 16, 1965

U.S.C.&G.S. B.M. # AD53

G Partly Cloudy

CA

CB Ryan-Laird Doyle-Red



W. 5411	B.S.	H.I.	F.S.	Casing	ELEV.
B.M.	.21				142.328
TP1	3.36		10.30		
MP			10.20	7.51	125.398-G
					128.088-C

Clay County August 16, 1965

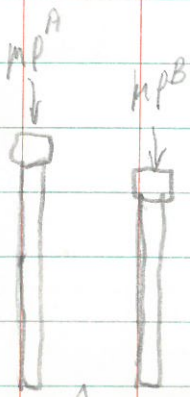
USC+GS + State Survey # BE 38

Partly Cloudy

Ryan - Level Doyle - Rod

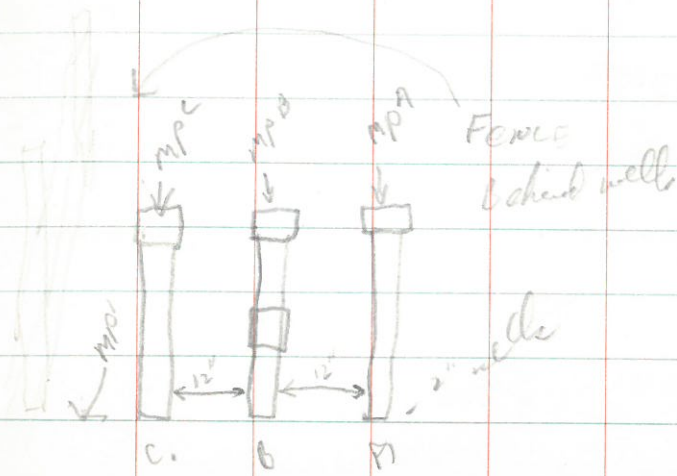
W-5292	B.S.	H.I.	F.S.	Casing	ELEV		Clay County		August 16, 1965		
B.M.	.21				142.328	U.S.C.&G.S. & State Survey B.M. # BE 38					
TP1	3.36		10.30								
MP			10.73	A	124.868	G	Partly Cloudy				
				8.51	127.088	CA					
				B.			Kyan Level		Doyle-Rod		
				8.64	126.958	CB					

W-5286	B.S.	H.I	F.S.	Casing	ELEV.		Clay County	August 16, 1965
B.M	3.23				161.650	U.S.C.&G.S. & State Survey	#BE 37	
T.P.	.73		11.02					
MP			9.48	A	145.11	-G	Sunny & Partly Cloudy	
				6.90	147.69	-CA		
				B			Rye - Level	Doyle Rod
				7.18	147.41	CB		



W-5289
W-5171

B.S.	H.I.	F.S.		ELEV.		Clay County	August 16, 1965
B.M.	0.00			145.769		U.S.C.&S.S. & State Survey B.M. # BE 36	
MP		11.92	A	133.849	- G		
			9.68	136.089	- CA	Cloudy Afternoon	
			B				
			9.72	136.049	- CB	Bryn-Level Doyle Rod	
			C				
			9.82	135.949	- CC		



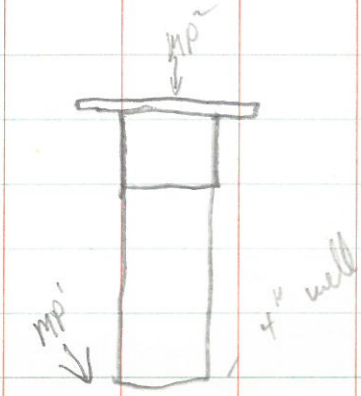
W-5412	B.S.	H.I.	F.S.	Casing	ELEV.
B.M.	0.00				145.769
MP			12.30	10.18	133.469 - C
					135.589 - G

Clay County August 16, 1965

U.S. C & G.S. & State Survey B.M. #BE 36

Cloudy Afternoon

Ryan - Level Doyle - Rod



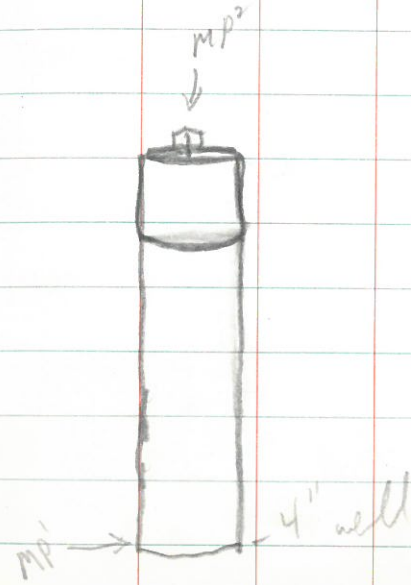
W-5186	B.S.	H.I.	F.S.	Casing	ELEV.
B.M.	0.00				145.769
TP1	11.94		12.30		
TP2	7.86		1.24		
MP			1.78	(2.74' above G.R.)	
					150.249 - G
					152.989 - C

Clay County August 16, 1965

U.S.C.&G.S. + State Survey B.M. # BE 36

Cloudy Afternoon

Ryan - Level Doyle - Rod



W-5162	B.S.	H.I.	F.S.	Casing	ELEV.
B.M.	1.12				174.865
TP1	12.52		12.78		
MP			6.19	4.58	169.535 - G
					171.145 - C

Clay County August 17, 1965

U.S.C.&G.S. & State Survey B.M. # BE 34

Sunny Morning

Ryan - Lead Doyle Rod

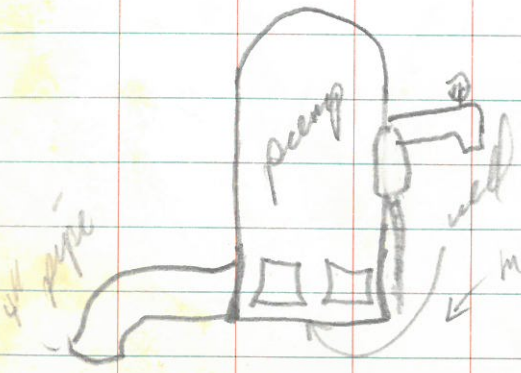
W. 44 85	B.S.	H.I.	F.S.		ELEV.
B.M.	4.38				175.525
TP1	3.12		2.80		
TP2	5.34		4.44		
TP3	7.53		5.46		
TP4	8.02		8.08		
TP5	4.49		10.36		
MP			7.88		169.385 - Concrete floor

Clay County August 17, 1965

U.S.C.&G.S. & State Levy B.M. # BE 33

Levy Morris

Ryan - Lead Doyle Rod



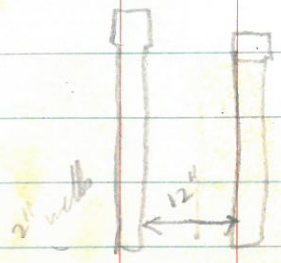
W-5288	B.S.	H.I.	F.S.	casing	ELEV.	
B.M.	1.75				152.989	
TP.	0.00		11.82			
TP$_2$	2.56		10.90			
MP			5.92	4.84	128.65	- G
				B	129.73	- CH
				3.90	100.67	- CB

Clay County August 7, 1965

W-5186 from casing

Sunny afternoon

Level Dayle - Rod



Road

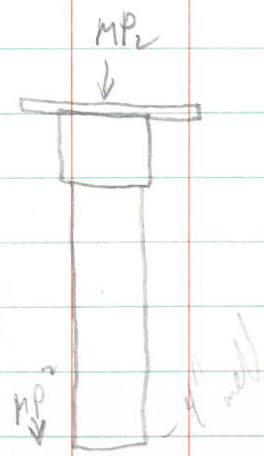
W.5330	B.S.	H.I.	F.S.	Casing	ELEV.	
B.M.	3.59				161.650	U.S.L.+G.S.
TP1	.97		12.97			
TP2	1.08		12.86			
TP3	13.79		12.84			
TP4	4.77		.88			
MP	8.14		11.58			
			5.16	3.02	137.70	— G
					139.84	— C

Clay County August 20, 1965

BM # BF 37

Sunny Morning

Ryan - Lead Pogle - Rod



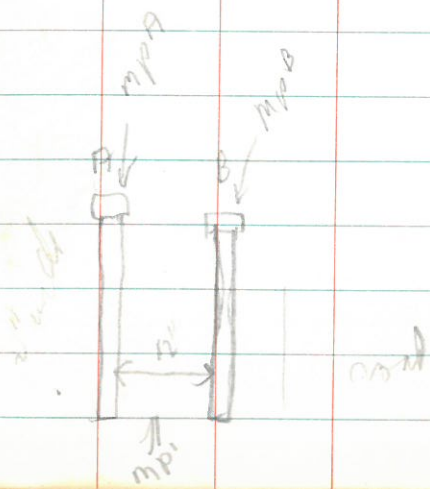
W-5285	B.S.	H.I.	F.S.	Casing	ELEV.	
B.M.	3.59				161.650	
TP	.97		12.97			
TP2	1.08		12.86			
TP3	13.79		12.84			
TP4	4.77		.88			
MP	8.14		11.58	D		
			4.32	2.47	138.54	-G
				B.	140.39	-CA
				2.58	140.30	-CB

Clay County August 20, 1965

U.S.C.&G.S. B.M. II BE. 37

Sunny Morning

Ryan Level Eagle Rod



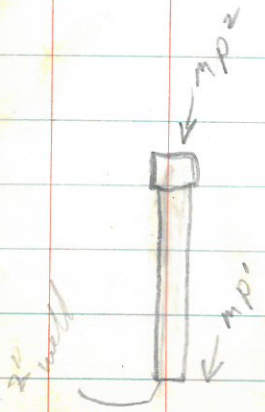
W 5268	B.S.	H.I.	F.S.	casing	ELEV.
B.M.	5.30				152.989
TP1	.56		12.60		
TP2	10.90		9.30		
TP3	8.23		3.15		
TP4	2.59		.69		
TP5	13.33		12.93		
TP6	8.88		5.45		
MP			5.92	4.08	152.739 -G
					154.579 -C

Clay County August 23, 1965

W-5186 from casing

Sunny Morning

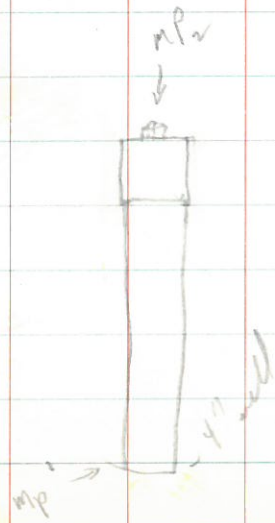
Ryan - Land Doyle - Rod



W 5331+7	B.S.	H.I.	F.S.	Casing	ELEV.
B.M.	5.20				169.889
TP1	5.96		4.83		
TP2	13.27		10.50		
MP			3.00	0.00	175.989 - G
					178.989 - C

Clay County August 23, 1965

U.S. C&GS + State BM = BO 67



V-5169	B.S.	H.I.	F.S.	casing	ELEV.
B.M.	5.20				169.889
TP1	5.96		4.83		
TP2	13.27		10.50		
TP3	5.06		3.00		
MP			6.18	4.97	174.86 -G
					176.079 -C

Clay County August 24, 1965

U.S.C.&G.S. + State LM # BD 67

Sunny Morning

Ryan - Lead Doyle - Rod

W 5174	B.S.	H.I.	F.S.	Casing	[illegible]		Uag County		August 26	1965	
B.M.	.98				226.883	U.S.C.&G.S. & State	BM	BE	30		
T.P.	4.44		8.41								
T.P.			13.24	10.98	210.653	-G	Clear Afternoon				
MP					212.913	-C					
							Ryan - Bend		Doyle Road		

W-5154	B.S.	H.I.	F.S.	casing	ELEV.
B.M.	2.02				225.105
MP			9.04	7.26	218.085 - G
					219.865 C

Clay County August 30, 1965

U.S.C.&G.S. & State B.M. # P 176

Sunny morning

Ryan Seed Doyle-Rod

WELL #	INDEX	Pgs.
5621	Alachua	1 + 2
5628	"	3 + 4
5626	"	5, 6, 7 + 8
4929	"	9 + 10
5564	"	11 + 12
4049	"	13 + 14
5675		15 + 16
5176	Clay	17 + 18
5175	Clay	19 + 20

Well #	INDEX	Pgs.
5291	Clay	21 + 22
2888	Duval	23 + 24
3492	"	25 + 26
3990	"	27 + 28
4913	"	29 + 30
5749	"	31 + 32
3692	"	33 + 34
6917	"	35 + 36
5963	Putnam	37 + 38

Well #	INDEX	Pgs.
5959	Putnam	39+40
6914	"	41+42
5023	"	43+44
5018	"	45+46
5021	"	47+48
4062	"	49+50
5030	"	51+52
4069	"	53 & 54
4058	"	55+56

Well #	INDEX	Pgs.
4063	Putnam	57+58
5025	"	59+60
5026	"	61+62
5022	"	63+64
4972	"	65+66
4064	"	67+68
5043	"	69+70
5746	"	71+72
5627	"	73+74

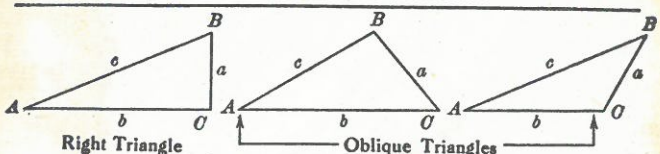
Well #	Index	Pgs.	Well	Index	Pgs.
4047	Putnam	75+76	5159	Bradford	89+90
4061	"	77+78	5182	"	91+92
5020	"	79+80	5160	"	93+94
3857	"				
6549	"	81+82	6261	"	95+96
6643	"				
3903	"	81+82			
3856	"		5177	"	97+98
3901	"	81+82			
3902	"				
			5163	"	99+100
5328	Bradford	83+84			
			5300	"	101+102
5178	"	85+86			
			5180	"	103+104
5239	"	87+88			
			5160		105+106

Well #	Index	Pgs
5187	Bradford	107+108
2600	"	109+110
3729	"	111+112
5287	Clay	113+114
5411	"	115+116
5292	"	117+118
5286	"	119+120
5289	"	121+122
5171	"	126+122

Well #	Index	Pgs.
5412	Clay	123+124
5186	"	125+126
5162	"	127+128
4485	"	129+130
5288	"	131+132
5336	"	133+134
5285	"	135+136
5268	"	137+138
5331 (?)	"	139+140

Well	Index	Pgs.
5169	Clay	141+142
5174	"	143+144
5154	"	145+146

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 $= \frac{b c \sin A}{2}$
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′ = .9959. Horizontal distance = 319.4 × .9959 = 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.

MADE IN U. S. A.