

W168

168

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LEVEL BOOK

380

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---

35  
26.5  
3.5  
650  
550  
615  
35  
650

6766.56

#168

10  
150  
271200  
15  
90  
8  
27120125  
548  
170

MICROFILMED

JAN 8 1965

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Hoopes  
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Sept. 20/23

Levels to Dam Axis East Side

Com. at Hwy. Com. B.M. No. 36 U.S.G.S.

on Tree Wet Road, R.R. Spike Crotch Twin Oaks

Sta	+	-	Elev		Sta	+	-	Elev
			474.733	BM 36				527.680
	2.880	477.613						-0.926 526.754
TP			-5.208	472.405		+11.922		539.676
	3.752	476.157		on Axis in old Rd				-0.937 537.739
			-17.000	459.157		+11.120		548.659
				Bed Str on Axis				-1.811 547.048
TP			-2.171	473.986		+11.954		559.002
	12.093	486.079						-0.977 558.025
TP			-0.520	485.559		+10.950		568.975
	+12.034	497.593						-0.042 568.933
			-0.307	497.286		+12.405		581.338
	+11.682	508.968						-0.583 580.755
TP			-3.348	505.620		+10.266		591.015
	+10.985	516.605						-0.644 590.371
TP			-0.560	516.045		+11.182		601.553
	+11.635	527.680						-0.239 601.314
								+11.080 612.394
								-1.862 610.534

BM on  
Bldg  
on N Axis

Contour  
on Axis  
East

Levels to Dam Axis W Side

Sta	+	-	Elev
			474.733
	3.230		477.963
tp		-0.550	477.413
	+11.132		488.545
tp		-1.325	487.220
	+11.175		498.395
tp		-0.635	497.760
	+10.465		508.163
tp		-0.164	507.999
	+11.768		519.767
TP		-0.199	519.568
	+9.423		528.991
TP		-0.055	528.936
	+10.820		539.756
TP		-0.755	539.001
	+11.370		550.371
tp		-1.085	549.286
	+11.868		561.154

BM 36  
see P 1

Sta	+	-	Elev
			561.154
		-0.138	561.016
	+10.598		571.974
tp		-0.070	571.904
	+8.100		580.004
		-0.192	579.812
tp	+10.535		590.347
		-0.040	590.307
	+10.060		600.367
		-0.465	599.902
tp	+11.987		611.889
		-1.960	609.929 = point as set from E Axis
			600.367 B.M.
	+10.66		611.027 cuts E Axis 0.6 above eq
		300	
	610.727	6.000	605.027 B.M.
	611.000		Top Bldg. MKD.
		727	Sub Axis point
		.273	

Sept 21 Levels to 0 of 150 Trav

sta	+	-	Elev	BMP/
			474.733	No 36
	9.533	484.266		
tp		-3.212	481.054	Part
	+6.761	487.815		
		-2.265	485.550	
	+6.321	491.871		
		-1.605	490.266	
	6.773	497.039		
		4.922	492.117	BM(A)
B.M. (A) is nail in crotch Triple Oak				
S of Part 6 ft opp Eng Camp				
		497.039		
tp		-2.974	494.065	
	1.832	495.897		
		-11.939	483.958	
	2.960	486.918		
		-3.093	483.825	sand flat
	4.535	488.360		

sta	+	-	Elev	B.M.
			488.360	
		-7.325	481.035	480 = BOSTR
	9.636	490.671		
		-1.277	489.394	B.M. (B)
B is nail in root of Sycamore 30' East S.B.M. and 80' S of SW Cor Sec 30				
			490.671	
		-0.805	489.866	
	+10.311	500.177		
		-0.358	499.719	
	11.776	511.495		
		-1.115	510.380	
	10.761	521.141		
		-0.665	520.476	
	11.758	532.234		
		-0.661	531.573	
	+11.570	543.143		
		-0.112	543.031	
	11.435	554.466		

3

150 E COR 30

Sta + - Elev

554.466

0.155 554.311

10.518 564.829

0.757 564.072

11.565 575.637

-0.738 574.899

11.700 586.599

-0.573 586.026

10.099 596.125

-0.693 595.432

11.691 607.123

2.775 604.348

9.410 613.758

Adjusted Elev =  $\frac{1}{2}$  BM  
 Total Clos.  $\frac{610.000}{2}$  -3.758 610.000 Sta 0  
 $\frac{609.933}{2}$

Sta 0 = Elev 610.000 in fence on

S.B.M on W side SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  Sec 30

(Adjust to  $\frac{609.933}{2} + .067 = 610$ )

Check Closure to B.M. A

Sta + - Elev

613.758

-11.376 602.382

2.724 605.106

-11.355 593.751

3.866 597.617

-11.965 585.652

1.831 587.483

-12.240 575.243

2.215 577.458

12.405 565.053

+1.155 566.208

11.540 554.668

0.185 554.853

11.865 542.988

1.820 544.808

12.140 532.668

1.890 534.558

11.215 523.343

0.533 523.816

4

Sta + - Elev

523.876

12.233 511.643

0.492 512.535

12.458 500.077

1.523 501.600

12.340 489.260

BM - B  
See P ③  
P ③  
489.394 BM B

12.340 501.734

11.918 489.816

2.171 491.989

6.600 485.377

top Blor on Rock  
in Creek cut S of Hwy  
foot  
Dummit's tree

2.100 487.487

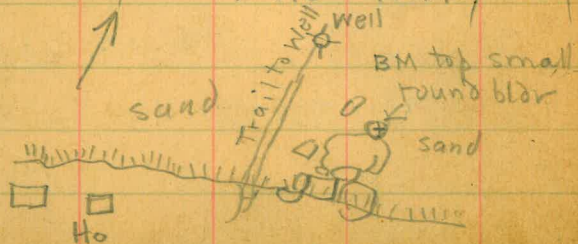
2.775 484.712

3.840 488.552

N  
↑

2.615 485.937

Dummit's  
B M



Sta + - Elev

5

485.937

Dom  
B.M.

11.784 497.724

3.562 494.159

top  
Bank  
above  
BM

11.310 505.469

0.465 505.004

Blor  
E Dummit's

7.135 512.139

-11.455 500.684

1.693 502.377

-4.255 498.122

5.650 503.772

-2.098 501.774

B.M.  
C

-6.650 497.122

on  
Pant

3.181 500.303

-7.125 493.178

4.765 495.943

492.148  
492.117  
.031 = down

3.795 492.148

B.M.  
A

-8.750 487.193

2.840 490.033

-7.455 482.578



Sta + - Elev

482.578

3.335 485.913

5.995 479.918

4.470 484.388

9.597 474.789 BM36

474.733

.056 check

Sept 24/23

Hoopes

6

on 150ft Cont. = 610.00 Sta 0 - E.

Nelson

Sta + - Elev

609.933

Sta 0

3.579 613.502

1

3.502 610.00

2

3.502 610.00

8.412 618.412

3

8.412 610.00

4

8.412 610.00

6.251 616.251

5

6.251 610.00

6

6.251 610.00

tp 7

6.251 610.00

3.975 613.975

8

3.975 610.00

tp

-6.695 607.280

on Bldr  
set (4)

6.649 613.929

9

3.929 610.000

→ 10 Flagged

3.929 610.000

on  
diff

↑

8.298 618.298

Sta	+	-	Elev
		618.298	
11		8.298	610.000
	7.212	617.212	
(12	3.3 wot fence)	7.212	610.000
	8.259	618.259	
13		8.259	610.000
14		8.259	610.000
	4.700	614.700	
15		4.700	610.00
16		4.700	610.00
	6.065	616.065	
17		6.065	610.000
18		6.065	610.000
Mon.	5.789	615.789	
19		5.789	610.000
	4.583	614.583	
Flag 20		4.583	610.000
	4.646	614.646	
21		4.646	610.000

Sta	+	-	Elev
			610.000
	4.965	614.965	
22		4.965	610.000
	4.737	614.737	
23		4.737	610.000
	8.026	618.026	
24		8.026	610.000
25	8.0	8.026	610.000
26		8.026	610.000
	7.755	617.755	
27		7.755	610.000
	8.306	618.306	
28		8.306	610.000
in. w. 29		8.306	610.000
	7.378	617.378	
Flag 30		7.378	610.000
	7.450	617.450	
31		7.450	610.000

Sta	+	⊖	-	Elev
		617.450		
In Row 32			7.450	610.000
33			7.450	610.000
	6.609	616.609		
34			6.609	610.000
	5.581	615.581		
35			5.581	610.000
	4.816	614.816		
36			4.816	610.000
	5.333	615.333		
In Row 37			5.333	610.000
38			5.333	610.000
	3.961	613.961		
39			3.961	610.000
39A			3.961	610.000
Tubs Tag 40	5.371	615.371		
			5.371	610.000
41			5.371	610.000
42			5.371	610.000

Sta	+	⊖	-	Elev
	8.275	618.275		610.000
43			8.275	610.000
44			8.275	610.000
45			8.275	610.000
46			8.275	610.000
	8.127	618.127		
47			8.127	610.000
48			8.127	610.000
49			8.127	610.000
	6.578	616.578		
In Row 50	Flag		6.578	610.000
51			6.578	610.000
	8.127	618.127		
52			8.127	610.000
53			8.127	610.000
54			8.127	610.000
55			8.127	610.000
56			8.127	610.000
57			8.127	610.000

Sta	+	⊖	-	Elev
57				610.000
	4.085	614.085		
By Bldg 58			4.085	610.000
59			4.085	610.000
In Row 60 Flag			4.085	610.000
61			4.085	610.000
62			4.085	610.000
63			4.085	610.000
64			4.085	610.000
	4.571	614.571		
pt Ridge 65 Flag			4.571	610.000

Fin work Tues Sept 25/23

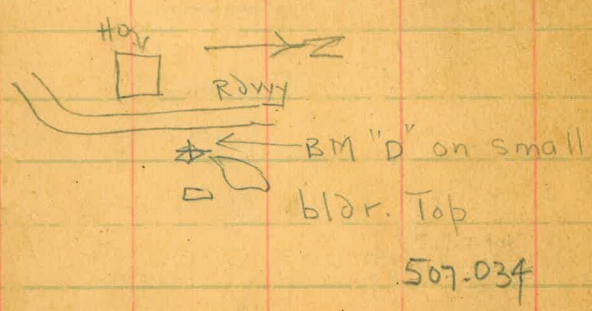
see P 11

Levels B.M.A to B.M. 38 Hwy Com Rain  
cont'd to sta 65-610 contour sept. 24/9  
Sta + ⊖ - Elev sept 26  
P-3  
492.117 B.M.A

	4.937	497.054		
			0.517	496.537 Part
	5.636	502.163		
			2.960	499.203 Part
	5.273	504.476		
			2.801	501.675 B.M. C
			3.357	501.119
	6.611	507.730		
			2.169	505.561
	3.432	508.993		
			3.306	505.687 Part by School
	7.130			
		512.817		
			1.377	511.440 B.M. 38 Hwy Com
				B.M. spike on Oak 300' E of School
				3' Not Part
				Elev noted on B.M. 511.385
				closure .055

BM 38 To Sta 65 via Gregg  
Sept. 26/23

Sta	+	-	Elev
512.817			
		2.790	510.027
8.577			518.604
		3.368	515.236
12.140			527.376
		10.962	516.414
1.272			517.686
		12.372	505.314
6.041			511.355
		7.020	504.335 Bldg
4.870			509.205
		2.171	507.034 BMD



Sta	+	-	Elev.
509.205			
		3.554	505.651
3.012			508.663
		11.740	496.923
0.665			497.588
		--0	493.500 Bed. str 100 S - by Greys
		-0.950	496.638 Bldg in creek by Gregg
3.575			500.213
		1.366	498.847
8.162			507.009
		0.321	506.688
12.450			519.138
		0.480	518.658
3.471			522.129
		1.812	520.317
11.639			531.956
		0.849	531.112
11.487			542.599
		-0.079	542.520

10

sta	+	0	-	Elev
				542.520

11.140	553.660			
		-0.680		552.980

12.277	565.257			
		0.312		564.945

10.970	575.915			
		0.910		575.005

11.117	586.122			
		0.767		585.355

12.160	597.515			
		1.120		596.395

11.870	608.265			
		2.983		605.282

83.27	613.609			
		3.220		610.389
				610.000

closure -389

610 line O.K.

Levels to End Dam Axis  
 Sta + 0 - Elev  
 492.117 BMA

6.911	499.028			
		0.532		498.496

10.481	508.977			
		1.105		507.872

12.105	519.997			
		-0.247		519.750

12.345	532.075			
		0.340		531.735

10.544	542.279			
		-0.305		541.974

10.585	552.559			
		0.270		552.289

11.382	563.671			
		0.355		563.316

10.370	573.686			
		0.595		573.091

10.730	583.821			
		0.010		583.811

sta + - Elev

583.811

12.185 595.996

0.658 595.338

12.025 607.363

0.102 607.261

4.600 611.861

0.260 611.601

B.M. X  
Rock.

1.855 610.006

11.690 621.696

7.375 614.321

24.058 616.379

6.379 610.000

5.750 610.629

old  
stk

See P1

610.534

.095

New stk set O.K.

610.00

Fin. Sept. 26/23

B.M. 45 1/2 W

sta. + - Elev

Sept 27/23

12

B.M.

606.903 45 1/2

4.548 611.457

11.030 600.421

0.652 601.073

10.973 590.100

0.172 590.272

12.400 577.872

1.636 579.508

11.953 567.555

0.935 568.490

12.495 555.995

0.415 556.410

11.760 544.650

0.740 545.390

9.160 536.230

5.031 541.261

old B.M.

5.575 535.686 200 N B 9

3.055 538.206

6.065 544.271

sta + - Elev

544.271

7.150 537.121

8.160 545.281

7.955 537.326 Part by  
bill Store

4.450 541.776

5.005 536.771 old BM  
on oak

4.810 536.966

9.190 546.156

2.500 543.656

5.655 549.311

3.720 545.591

8.598 554.189

1.883 552.306

9.631 561.937

0.700 561.237

9.401 570.638

2.825 567.813

6.165 573.978

0.770 573.208

sta + - Elev

13

573.208

10.600 583.808

0.225 583.583

10.530 594.113

0.390 593.723

10.895 604.618

0.436 604.182

9.620 613.802

Rec'd 609.480

609.417

closure -063

4.385 609.417

H.Pt

Part

8.920 604.882

0.916 605.798

12.155 593.648

0.140 593.783

11.362 582.421

0.640 583.061

11.320 571.741

1.198 572.939

10.790 562.149

1.140 563.289



Sta +  $\ominus$  - Elev

563.289  
 12.430 550.859  
 0.580 551.439  
 12.130 539.309  
 0.630 539.939  
 10.780 529.459  
 1.885 531.049  
 11.355 519.689  
 1.140 520.829  
 9.280 511.549 BM38

noted on BM

511.385  
 closure 0.164

Topography

Sept 28-23 <sup>14</sup>  
 A+8 -  $\ominus$  = 4.00 Elev <sup>710.5</sup>  
~~706.5~~

Point	Rod	Dist	VA	D. Elev	Elev
B.M 36	7.80	700.7	-18° 37	235.8	474.733
Axis E	2.30	171.3	-30° 20	100.2	610.0 ± Ground
Axis W	8.88	875.9	-6° 42	102.9	607.8
Sec 1/2		1411	+7° 54	195.8	906.2
BM X	9.45	932.8	-6° 14	101.6	611.61
sta 6	5.40	539.6	-1° 29	8.9 <del>3.9</del>	701.6
	5.30	525.5	-5° 16	48.4	662
	5.20	509.6	-8-06	72.5	638.0
	5.10	505.5	+5° -10	45.7	756.2
	3.92	390.8	-3-11	21.7	688.8
	3.35	327.9	-8-23	37.2	
	3.55	3.55	-0-14	10 on rd 11.5 +5	699.0
	2.45	244.7	+2-02	8.7 10 on rd 51.2	719.2
	3.00	294.2	-7-58	41.2	659.3
	1.90	187.9	-5-57	19.6	690.9
	1.28		-10.85	10.85	699.6
	2.20	213.1	+10-12	38.4	748.9
	1.40	128.5	+16° 40'	38.5	749

Point	Rod	Dist	VA	D Elev	Elev
			5 m pd		
	1.25	119.3	+12°-20	26.1	736.6
	.70	70	15 on Rd -5°-23	21.5 6.5	689.0
PK 1-S			+19°-10		
PK 2-W		1040	-8°-41'		
cliff 3-W By Flag P. Knob		1320	+3°-26	79.19	789
			Ground +7°-57	26-4	
	1.00	48.7	15 m Rd -6°-37	11.4	684.1

At E Axis  $\theta = 4.5$  Elev 614.5

	1.90	189.7	15 m Rd 7-45	20-8 5.8	593.7
	2.30	223	-9.51	38.7	576
To Sta <sup>A</sup>	5.60 5.55		+00-48	7.7	622.2

At A  $\theta = 4$  Elev  $\theta = 626.00$   
622

B.M. X	1.75		-2-26	14.00	612
	1.75	1.75	15 m rd -2°-30	22.6 7.6	
	2.35		-3-03	12.3	614

477

Point	Rod	Dist	VA	D Elev	Elev
			5 m pd		
Point	1.92	191.7	+2°-07	7.1	489.6
	.82		5 m rd +5-54	9.3 4.3	486.8
	.43	41.4	5 m rd +11-06		490
	2.40	232.7	+10-01	41.1	518.6
	1.60	143.	+18-53	49.1	526.6
	2.20	203.	+16-02	58.4	536
			5 m rd	12.2	
	1.10	109.5	+3-46	7.2	489.7
	2.6				466.7
	1.45		9.80		667.7
	1.65	100			478.
	1.95		-14.00		463.5

Sept 29 23

At G Elev = 696 = ~~0~~

Point	Rod	Dist	VA	DElev	Elev
Sec Cor		1470	+8° 12'	212	906
BM X		488	-9° 58'	85.7	611.6
B		593	+1° 37'	15.3	710.5
BM ⊗			-9-57	85	696
Sec Cor		1470	8°-12	212	908
5		1048	-11° 2'	204.3	491.7
Sto A		523.8	+7° 50'	49.5	745.5
Pt RK		805	-10° 04'	14.3	553
Camp					
Pt RK		1360	-2° 08'	50.6	645.9
ZW					
RK on Bld.			-2° 30'		
Oak Bld.		1240	+1° 06'		
A.C. RK.		1220	+10° 47'	16.7	713.5
<hr/>					
At B.M. A				501.5 = Gr =	497.00
Pt RK		370	+8° 28'	54.5	552
Camp					

At Axis  
Old Road  $\ominus = 475.333$  16

Point	Rod	Dist	VA	DElev	Elev
Crk Sta		475	-0° 23'	69.5	455.8
At Crk Sta $\ominus = 455.8$					
At E Sum. $\ominus = 971.9$					
B.M. X		925	-19° 57'	330.3	611.6
1/2 Sec		1710	-1° 10'	39.8	907.1
3 W		1660	-5° 14'	152	790
Oak Bld		1643	-10° 19'	299	643
At B.M. A $\ominus = 495.0$					
Creek Bed		220	0° 39'	17.0	478
At Creek Sta $\ominus = 481.2$					
Oct 1/23					
At S Sta F $\ominus = 613.5$					
Axis		875	-9° 06'	140	471
Old Road					
1/2 Sec cor		1590	+10° 32'	296	908
N. Axis		1125	-0° 12'	3.5	610
S Sta.	650	619	-14° 31'	157.7	455.2
A.C. RK.		1900	+1° 00'	97.9	712.5
ZW		950	+10° 31'	8.7	622.2 <sup>p</sup>

At S. Sta @ 958.8

45

Point Rod Dist VA D.FEV. Elev

sta

+

0

-

Elev 17

At Oak Bld. @ 645.0

606.903

TP 12  
B.M. 45 1/2

BM X 855 -29°15' 33.1 611.6

4.568 611.471

E Axis 1370 -1°23' 33.1 610.0

-1.471 610.00

Oak Bld 1/2 235 -17°40' 88.2 560.8

8.200 618.200 -1.471

At Oak Bld 1/2 863.

-8.200 610.000

BM X 650 +4°12' 48. 614.6

8.235 618.235

Oct. 2/23

-8.235 610.000

At Poverty Knob @ 958.0

8.420 618.420

BM X 1320 -14°42' 396.3 611.6

8.420 610

610 E 1320 -14°45' 397.5

7.120 617.120

At Saddle Sta @ 783.4

7.120 610

7.120 610

10

6.945 616.945 6.945 610

Fin Topog. Wed Oct 3<sup>d</sup> 23

4.375 614.375 4.375 610

cum Sept 28 - 6 days Field

8.180 618.180 8.180 610

5.540 615.540 5.540 610

6.330 616.330 6.330 610

5.804 615.804 5.804 610

3.636 613.636

Sta	+	⊖	-	Elev
8.315		618.315		610
			8.315	610
3.662		613.662	3.662	610
8.370		618.370	8.370	610
6.350		615.370	6.350	617.530
				1.865
8.200		618.200		615.665
8.330		7.605	8.095	
7.667		8.350	4.037	617.530
				6.560
8.145		6.340	4.485	
4.780		7.035	6.355	
6.510		8.280	6.720	
7.250		8.211	3.722	
5.265		3.810	7.1278	
6.320		7.790	7.530	
4.550		6.978		606.903 BM 452
8.160		615.063	5.063	
7.990		617.990		
8.075				
5.493				

Oct 10/23				18
Sta	+	⊖	-	Elev
				536.771
				old B.M. near Dills on Oak
5.265		542.036		
			0.800	541.236
8.310		549.546		
			0.815	548.731
8.320				
			0.916	556.135
7.280		563.415		
			0.400	563.015
8.035		571.050		
			0.085	570.965
8.530		579.495		
			0.156	579.339
8.485		587.824		
			0.596	587.328
7.812		595.140		
			0.236	594.910
8.275		603.185		
			0.160	603.025

Sta	+	⊖	-	Elev
				663.625

8.320	611.345
-------	---------

---

8.315	8.200
-------	-------

7.745	7.595
-------	-------

7.792	4.292
-------	-------

8.420	7.900
-------	-------

2.980	6.620
-------	-------

7.780
-------

7.310
-------

---

8.390
-------

8.010
-------

5.100
-------

3.640
-------

8.360
-------

5.155
-------

5.105
-------

7.320
-------

# Topog.

Point	Sta	By Res	VA Rod	⊖	Elev	Dist
	285				622	
10m	1.45	-14-20	10m rd	-36	586	131
	2.2	-9-46	10m rd	-47	585	213
	1.7	-8-30	10m rd	-36	596	167
	1.6	-7-00	10m rd	-35	587	158
	5.0	+1-35		-4	618	5006
Rod	VA Rod	⊖	D Elev	Elev	Dist	
10	+0-22	622	+6	616	1000	
8.8	-3-14		10m rd -60	562	880	
6.5	3-00		-28	594	650	
4.00	-5-00		12m rd -47	575		
3.5	-2-30		bound -27	595	350	
To Sta 9.8	-2-00		34	588	980	

$$\begin{array}{r} 97 \\ 22 \\ \hline 119 \\ 134 \\ \hline 253 \end{array}$$

$$\begin{array}{r} 29 \\ 12 \\ 24 \\ 36 \\ \hline 101 \end{array}$$

$$\begin{array}{r} 99 \\ 16 \\ 594 \\ 99 \\ \hline 1584 \end{array}$$

$$\begin{array}{r} 12 \\ 72 \\ 12 \\ 19.0 \\ \hline 103 \end{array}$$

$$\begin{array}{r} 97 \\ 22 \\ \hline 119 \\ 134 \\ \hline 253 \end{array}$$

$$\begin{array}{r} 17 \\ 22 \\ \hline 39 \\ 37 \\ \hline 76 \end{array}$$

$$\begin{array}{r} 98 \\ 17 \\ \hline 115 \\ 105 \\ \hline 220 \end{array}$$

$$\begin{array}{r} 797 \\ 88 \\ \hline 6376 \\ 6376 \\ \hline 70136 \\ 342 \end{array}$$

$$\begin{array}{r} 10 \\ 880 \\ 352.0 \\ 880 \\ \hline 352.0 \end{array}$$

$$\begin{array}{r} 056 \\ 880 \\ 448 \\ 448 \\ \hline 1776 \end{array}$$

$$\begin{array}{r} 451 \\ 62 \\ \hline 270 \\ 28. \\ \hline 87 \\ 4 \\ \hline 34.8 \\ 12 \\ \hline 47 \end{array}$$

$$\begin{array}{r} 441 \\ 32 \\ \hline 22 \\ 132 \\ \hline 154 \\ 12 \\ \hline 27 \end{array}$$

$$\begin{array}{r} 15 \\ 26 \\ 90 \\ \hline 30 \end{array}$$

$$\begin{array}{r} 622 \\ 39 \\ \hline 483 \end{array}$$

$$\begin{array}{r} 622 \\ 4 \\ \hline 580 \end{array}$$

$$\begin{array}{r} 025 \\ 14.00 \\ 4. \\ \hline 622 \end{array}$$

$$\begin{array}{r} 30 \\ 2 \\ \hline 29-60 \\ 26-46 \\ \hline 3-14 \end{array}$$

$$\begin{array}{r} 035 \\ 980 \\ \hline 1035 \end{array}$$

$$\begin{array}{r} 035 \\ 980 \\ 280 \\ 315 \\ \hline 34.3.00 \end{array}$$

Pod	VA Rd	Sta 2	DE	Elev	Dist
		592			
9.	10 on Rd -2-16		46	546	900
7.6	-4-16		56	536	
5.4	-5-30		51	541	
4	-2-32		18	574	400
3.	-4 <sup>00</sup>		14	578	298
8	5 on Rd -3-44		57	535	
5.3	-6 <sup>00</sup> 10 on Rd		55	539	
4.6	-7-00		65	527	
4.2	-7-26 10 on Rd		54	538	
1.5	-10-00 10 on Rd		35	557	195
2.3	-8.00		47	545	
4.5	-8.32		67	525	
5.7	-6-30		65	527	
7.1	-5-16		56	536	
10	-3-20		60	532	
11	-3-30		66	526	

21

$\begin{array}{r} .04 \\ 4 \\ \hline 36 \end{array}$	$\begin{array}{r} .47 \\ 76 \\ \hline 2 \end{array}$	$\begin{array}{r} .095 \\ 54 \\ \hline 380 \\ 475 \\ \hline 51.30 \end{array}$	$\begin{array}{r} 570 \\ 6 \\ \hline 564 \end{array}$
$\begin{array}{r} 1074 \\ 76 \\ \hline 444 \\ 518 \\ \hline 56.24 \end{array}$	$\begin{array}{r} 99.5 \\ 4 \\ \hline 3980 \\ 2985 \end{array}$	$\begin{array}{r} 47 \\ 9 \\ \hline 18.8 \\ 14.1 \end{array}$	$\begin{array}{r} \ominus = 570 \\ 3.40 \\ \hline \ominus = 5.74 \\ Elev = 615 \end{array}$
$\begin{array}{r} 444 \\ 2 \\ \hline 17.76 \end{array}$	$\begin{array}{r} 104 \\ 55 \\ \hline 312 \\ 520 \\ \hline 55.12 \end{array}$	$\begin{array}{r} 4.15 \\ +9.34 \\ 97 \end{array}$	$\begin{array}{r} .164 \\ 42 \\ \hline 328 \\ 156 \\ \hline 68.88 \end{array}$
$\begin{array}{r} 065 \\ 8 \\ \hline 52.0 \end{array}$	$\begin{array}{r} .46 \\ .12 \\ \hline 92 \\ 46 \\ \hline 55.2 \end{array}$	$\begin{array}{r} .171 \\ 12 \\ \hline 8 \\ 17. \\ \hline 25. \end{array}$	$\begin{array}{r} 615 \\ 69 \\ \hline \ominus = 546 - 4 \\ 542 \end{array}$
$\begin{array}{r} 99 \\ .46 \\ .12 \\ \hline 92 \\ 46 \\ \hline 55.2 \end{array}$	$\begin{array}{r} .971 \\ 12 \\ \hline 48 \\ 97 \\ \hline 145 \end{array}$	$\begin{array}{r} 546 \\ 5.5 \\ \hline 570.5 \\ \ominus = 539.6 \end{array}$	$\begin{array}{r} 557.9 = \ominus \\ 16.8 \\ \hline 529.1 \end{array}$
$\begin{array}{r} 256 \\ 512 \\ \hline 5376 \end{array}$	$\begin{array}{r} 151 \\ 42 \\ \hline 7 \\ 60 \end{array}$	$\begin{array}{r} 537+4 \\ 571 \\ 11 \\ \hline 530 \end{array}$	
$\begin{array}{r} 14 \\ 23 \\ \hline 92 \\ 28 \\ \hline 37 \end{array}$	$\begin{array}{r} 113 \\ 59 \\ \hline 791 \\ 565 \\ \hline 644 \end{array}$	$\begin{array}{r} 610 \\ 79 \\ \hline 531 \end{array}$	$\begin{array}{r} 467 \\ 465 = 451 \end{array}$
$\begin{array}{r} 09 \\ 56 \\ \hline 5050 \end{array}$	$\begin{array}{r} 90-50 \\ 97 \\ 46 \\ 48 \\ \hline 582 \\ 388 \\ \hline 4510 \end{array}$	$\begin{array}{r} 6040 \\ +5024 \\ \hline 094 \\ 64 \\ \hline 376 \\ 384 \\ \hline 42.16 \end{array}$	$\begin{array}{r} 34-60 \\ 29-55 \\ \hline 5-25 \\ 610 \\ 44 \\ \hline 566 \\ 570 \end{array}$



12  
1.50  
10.50

22

clear-warm

5-9-38  
K. Osborne  
Rod Isbell  
Hill - Chief of Party

9.76 23

### Levels on Dam Axis (east side)

start on St. Hwy. Com. B.M. in crotch of twin oak.

+	H.I.	-	Elev.
B.M.	9.76	484.49	474.73
		6.46	478.03
T.P.	12.65	490.68	
T.P. = T.B.M. (marked) stake		0.22	490.46
Temp. B.M. on W. side of Stream		1.60	489.08
	11.94	502.40	
T.P.		0.48	501.92
	12.34	514.26	
		0.14	514.12
	12.62	526.74	
B.M. (marked) stake		0.49	526.25
	12.15	538.40	
		0.65	537.75
	12.85	550.60	
		0.27	550.33
	11.71	562.04	

+	T	-	Elev.
			562.04
B.M. (on rock - marked)	0.09	561.95	
	12.24	574.19	
		0.08	574.11
	12.79	586.90	
		0.11	586.79 ✓
	12.24	599.03	
B.M. stake (marked)	0.03	599.00	
	12.62	611.62	
		0.32	611.30
	12.06	623.36	
		0.34	623.02
	12.37	635.39	
B.M. stake (marked)	0.55	634.84 ✓	
	12.60	647.44	
B.M. stake (marked)	0.06	647.38 ✓	
	12.68	660.06	
		0.08	659.98
	12.36	672.34	

5-10-38  
Clear-warm

24

	+	π	-	Elev.
T.P.		672.34	0.07	672.27
	13.04	685.31		
B.M. on Rock (marked)			0.07	685.24 ✓
	12.66	697.90		
			0.07	697.83
	12.62	710.45		
			0.61	709.84
	12.63	722.47		
B.M. Nail in rock (marked)			0.01	722.46
	12.22	734.68		
			0.14	734.54
	11.87	746.41		
			0.13	746.28
	12.79	759.07		
B.M. on rock (marked)			0.19	758.88 ✓
	16.18	769.06		
B.M. on rock on face of cliff N. of Axis			2.73	766.33

Levels along Axis - West of Stream.

start at B.M. on W. side of stream (page 23.)

	+	π	-	Elev.
B.M.	12.38	501.46		489.08
T.P.			0.13	501.33
	12.52	513.85		
			0.07	513.78
	12.93	526.71		
B.M. on rock (marked)			0.09	526.62
	12.84	539.46		
			0.34	539.12
	11.57	550.69		
			0.13	550.56
	12.32	562.88		
B.M. nail in rock (marked)			0.29	562.59
	12.62	575.21		
			0.16	575.05
	12.88	587.93		
			0.21	587.72
	11.99	599.71		
B.M. on Rock (marked)			0.52	599.19

	+	π	-	Elev
B.M.	13.09	612.28		599.19
T.P. on rock			0.36	611.92
start 5-11-38 - clear - Hot				
	12.43	624.35		
			0.07	624.28
	12.82	637.10		
			0.01	637.09
	12.64	649.73		
Permanant B.M. on large rock 5' S. of Axis (marked)			0.01	649.72
	12.77	662.49		
			0.26	662.23
	12.46	674.69		
			0.32	674.37
	12.82	687.19		
B.M. - stake (marked)			0.06	687.13
	12.78	699.91		
			0.22	699.69
	12.27	711.96		

	+	π	-	Elev.
				711.55
	13.04	724.59		
B.M. on large flat rock about 15' S. of Axis.			2.96	721.63
T.P.			0.07	724.52
	12.74	737.26		
			0.18	737.08
	12.86	749.94		
			0.17	749.77
	12.75	762.52		
B.M. on rock (marked) start 5-12-38 clear - warm			0.01	762.51
	12.22	774.73		
			0.17	774.56
	12.75	787.31		
			0.13	787.18
	12.44	799.62		
B.M. on Rock (marked)			0.09	799.53
	12.87	812.40		
			0.12	812.28
	12.79	825.07		

+	∩	-	Elev.
	825.07	0.34	824.73
12.17	836.90		
		0.76	836.14
12.91	849.05		
		0.25	848.80
12.35	861.15		
B.M. on tall rock (marked) about 55' S. of Axis.		11.52	849.63
T.P.		0.42	860.73
12.60	873.33		
		0.37	872.96
13.03	885.99		
B.M. on rock (marked) on Axis		0.47	885.52
12.96	898.48		
		0.07	898.41
12.84	911.25		
Top of plug 1/4 cor. 31+36		1.08	910.17
T.P.		0.31	910.94
11.79	922.73		
(Marked)			
B.M. on large rock 30' N. of 1/4 cor.		9.92	912.81

+	∩	-	Elev.
	922.73	0.38	922.35
12.31	934.66		
		0.55	934.11
12.64	946.75		
		1.19	945.56
5.33	950.89		
Ground on top of hill		3.8	947.1
B.M. on large rock on N. edge of Hill top (marked)		2.96	947.93
T.P.		12.88	938.01
0.17	938.18		
		12.57	925.61
0.15	925.76		
		12.97	912.79
0.72	913.51		
		13.09	900.42
0.33	900.75		
(marked)			
B.M. spike in large rock		11.98	888.77
0.56	889.33		
		12.68	876.65

+	π	-	Elev
0.17	876.82		876.65
		12.98	863.84
0.69	864.53		
B.M. Spike in rock (marked)		12.81	851.72
0.51	852.23		
-		12.88	839.35
0.78	840.13		
		12.72	827.41
0.10	827.51		
		12.88	814.63
0.44	815.07		
B.M. High point on rock (marked)		13.26	801.81
0.37	802.18		
		12.93	789.35
0.10	789.35		
		12.96	776.39
0.67	777.06		
B.M. Nail in rock in low		8.72	768.34
Point of Saddle (marked)			

+	π	-	Elev.
	777.06		
Ground in low point of ridge of saddle.		13.7	763.4

T Osborne  
P Isbell

5-19-38  
Cool-Rain

28

Profile of Dam Axis East side.

Station	Dist	Elev.	Dist	Elev.
			12.14	538.38 ✓
		Elev.	1750	6.5 531.9 ✓
St. Hwy. B.M. 10.23	484.96	474.73 ✓	T.P.	0.10 538.28 ✓
	6.93	478.03 ✓		12.86 551.14 ✓
	13.04	491.07 ✓	T.P.	0.48 550.66 ✓
check on B.M. See page 23	0.61	490.46 ✓		12.81 563.47 ✓
Transferred to Con Hood Wall		El. 476.89		
B.M. on top of Culvert post.	11.96	479.11 ✓	1780	11.6 551.9 ✓
on Culvert B.M. 2.10	481.21		1797	1.2 562.3 ✓
Sta. 0+00 - on Hub.	4.54	476.67 ✓	T.P.	0.02 563.45 ✓
0+01 - edge of paved Hwy.	4.38	476.83 ✓		11.73 575.18 ✓
0+20.3 " " " "	4.81	476.40 ✓	2+00	6.3 568.9 ✓
0+31	4.3	476.9 ✓	T.P.	0.00 575.18 ✓
B.M. 12.30	502.76	490.46 ✓		12.19 587.37 ✓
0+60	13.4	489.4 ✓	T.P.	0.21 587.16 ✓
T.P.	0.12	502.64 ✓		12.88 600.04 ✓
	12.79	515.43 ✓	check B.M.	1.05 598.99 599.00 ✓
1+00	11.7	503.7 ✓	2+33	3.1 596.94 ✓
T.P.	0.53	514.90 ✓	T.P.	0.05 599.99 ✓
	12.09	526.99 ✓		12.86 612.85 ✓
	0.75	526.24 ✓	2+50	10.0 602.9 ✓

sta.	+	$\pi$	-	Elev.
		612.85		
2+80			3.9	609.0 ✓
T.P.			0.56	612.29 ✓
	12.57	624.86		
3+00			8.9	616.0 ✓
T.P.			0.11	624.75 ✓
	12.53	637.28		
			0.24	637.04 ✓
	12.61	649.65		
3+50			11.3	638.4 ✓
3+60			4.9	644.8 ✓
T.P.			0.02	649.63 ✓
	12.53	662.16		
T.P.			0.11	662.05 ✓
	12.52	674.57		
4+00			10.5	664.1 ✓
4+15			3.2	671.4 ✓
T.P.			0.15	674.42 ✓
	12.73	687.15		

Sta	+	$\pi$	-	Elev.
		687.15		
			0.08	687.07 ✓
	12.84	699.91		
4+34			11.7	688.2 ✓
T.P.			0.22	699.69 ✓
	13.13	712.82		
4+40			9.3	703.5 ✓
4+50			4.1	708.7 ✓
T.P.			0.02	712.80 ✓
	12.88	725.68		
T.P.			0.41	725.27 ✓
	12.90	738.17		
5+00			8.6	729.6 ✓
T.P.			0.17	738.00 ✓
	12.48	750.48		
5+40			4.9	745.6 ✓
5+50			3.3	747.2 ✓
T.P.			0.51	749.97 ✓
	11.99	761.96		
check on B.M.			3.11	758.85 = 758.88 ✓



# Profile of Dam Axis - West side

Sta.	+	π	-	Elev.
	Post Transferred to con. Head Wall El. 476.89			
B.M. on Culvert	0.72	479.83		479.11 ?
0+00 - on Hub.		3.16		476.67
0+06		3.2		476.6
0+11		7.4		472.4
0+50		11.9		467.9
0+55		11.9		467.9
T.P.		11.84		467.99 ✓
	2.56		470.55	
0+74		9.1		461.5
1+00 - on rock		7.7		462.9
1+00 - on ground		9.3		461.3
Sta. 1+07.72 = P.O.T. + in concrete		8.49		462.06
1+20 = stream bed		10.6		460.0
Set point on stream gauge		6.55		464.00 ✓
1+50 w. edge of stream bed		9.7		460.9
1+65		8.9		461.7
T.P.		0.43		470.12 ✓
	12.72		482.84	

5-20-38 Cool-cloudy

30

Hill  
Osborne  
Isbell  
Sta.

+	π	-	Elev
			482.84
1+73		10.9	472.0
1+92		7.5	475.3
2+00		1.2	481.6
T.P.		0.12	482.72 ✓
	12.53		495.25
2+08		6.2	489.1
T.P.		0.01	495.24 ✓
	12.45		507.69
T.P.		0.24	507.45 ✓
	12.74		520.19
2+50		8.0	512.2
T.P.		0.05	520.14
	12.80		532.94
2+68		10.2	522.7
T.P.		0.12	532.82
	12.67		545.49
2+78.80 = + on rock		8.5	537.0
" - on ground i' R.		11.2	534.3

Sta.	+	π	-	Elev.
T.P.		545.49	0.04	545.45✓
	12.79	558.24		
3+00			7.5	550.7
3+12			1.1	557.1
T.P.			0.22	558.02✓
	12.56	570.58		
3+40			1.1	569.5
			0.56	570.02✓
	12.85	582.87		
3+50			6.0	576.9
T.P.			0.12	582.75✓
	12.68	595.43		
T.P.			0.05	595.38✓
	12.47	607.85		
3+90			3.6	604.3
4+00			1.9	606.0
4+06 = Existing G10 Cont.pt.			+2.1	610.0
T.P.			0.17	607.68✓
	12.71	620.39		

Sta.	+	π	-	Elev.
		620.39		
4+30			3.6	616.8
T.P.			0.60	619.79✓
	12.89	632.68		
4+50			13.1	619.6
T.P.			0.61	632.07✓
	12.84	644.91		
5+00			9.2	635.7
T.P.			0.37	644.54✓
	12.51	657.05		
5+33			7.7	649.4
5+49 ground			6.8	650.3
5+50 on rock			6.1	651.0
T.P.			0.19	656.86✓
	12.72	669.58		
6+00			11.1	658.5
T.P.			0.22	669.36✓
	12.56	681.92		
T.P.			0.34	681.58✓

Sta.	+	π	-	Elev.
T.P.				681.58 ✓
	12.66	694.24		
6+50			13.7	680.5
T.P.			0.02	694.22 ✓
	12.95	707.17		
T.P.			0.41	706.76 ✓
	12.89	719.65		
7+00			11.3	708.4
T.P.			0.63	719.02 ✓
check B.M.			10.31	721.54 <sup>.09</sup> 721.63
7+50			3.3	716.4
T.P.			0.38	731.47
	12.97	744.44		
7+85			0.1	744.3
			0.04	744.40
Hand level	13.1	757.5		
8+00 = mark on rock			1.1	756.4
8+05 = base of cliff			0.0	757.5
B.M.	17.3	816.8	hand level	799.5
8+23.08 = Top edge of cliff			0.0	816.8 ✓

32

See Page 29

Profile of Dam Axis - East side (cont.)

Sta	+	π	-	Elev.
5+74 = old 750' contour Hub.				750.18
	13.2	763.4		Hand level
6+00			8.1	755.3 ✓
			2.2	761.2 ✓
T.P.	11.0		0.0	763.4 ✓
	11.0	774.4		
6+21			4.4	770.0 ✓
6+30			1.5	772.9 ✓

$$\begin{array}{r}
 3.1416 \\
 \underline{36} \\
 188496 \\
 \underline{94248} \\
 1139976
 \end{array}$$

Profile of Dam Axis - Westside (cont.)

from page 32)

See sketch on Page 45-

33  
Book 169

sta.	+	Hand level T	-	Elev.
B.M.	0.0	849.6		849.6
8+50.			1.8	47.8
T.P.	13.1	862.7	0.0	849.6
T.P.			4.0	658.7
	11.0	669.7		
8+90			5.7	64.0
B.M.	9.5	894.0		885.5
8+93.58			12.9	81.1
9+12			7.4	86.6
B.M.	13.0	923.2		910.2
9+53.45			15.3	07.9
10+00			7.8	15.4
T.P.			0.0	923.2
	13.0	936.2		
10+50			7.3	28.9
11+00.90			6.0	30.2
T.P.			7.1	929.1
	0.0	929.1		
11+50			6.0	23.1

Hill  
Osborne  
Isbell

5-24-38

clear-Hot

Cross on rock

Top of 1/4 cor. plug

1/4 cor. on ground.

Sta.	+	$\pi$	-	Elev.
11+87.7		929.1	10.7	18.4
T.P.			13.1	916.0
	0.0	916.0		
12+00			2.3	13.7
12+13			6.7	09.3
B.M.	2.9	891.7		888.8
12+50			0.0	91.7
B.M.	14.9	866.6		851.7
13+00			0.0	66.6
B.M.	0.0	851.7		851.7
13+50			5.4	46.3
T.P.			13.0	838.7
	0.0	838.7		
14+00			9.0	29.7
T.P.			13.0	825.7
	0.0	825.7		
14+50			17.6	08.1
B.M.	0.0	801.8		801.8
15+00			7.4	795.4

24.0

214

Sta.	+	$\pi$	-	Elev.
T.P.		801.8	12.8	789.0
	0.0	789.0		
15+50			7.7	81.3
T.P.			13.0	776.0
	00	776.0		
16+00			10.8	65.2
T.P.			13.0	763.0
	0.0	763.0		
16+50			12.1	50.9
T.P.			13.0	750.0
	0.0	750.0		
17+00			9.2	40.8
T.P.			8.7	741.3
	0.0	741.3		
17+50			10.4	30.9
17+90.42			17.4	23.9
18+00			15.0	26.3
18+14			14.0	27.3
18+50			1.7	39.6

= B.M. 741.30 - check.

= Angle point - cross on rock. - See sketch Page 45  
on North + South line Book 169.

sta.	+	∞	-	Elev.
B.M.	13.0	766.5		753.5
19+00			18.0	48.5
19+50			11.3	55.2
20+00			6.4	60.1
20+18			4.1	62.4
B.M.	0.0	768.3		768.3
50' N. of Sta. 20+18			5.4	64.9
100' N " " " "			11.3	57.0
B.M.	13.0	781.3		768.3
50' E. of Sta. 20+18			14.8	66.5
100' E.			2.6	78.7
T.P.			0.0	781.3
	8.3	789.6		
150' E.			4.3	85.3
B.M.	10.2	778.5		768.3
50' W. of Sta. 20+18			15.4	63.1
100' W.			7.0	71.5
150' W.			+ 5.2	783.7

Angle point

Same line produced.

line at right angle to N. + S. line

line at right angles to N. + S. line

Along ridge of Saddle

## 788 Contour (cont. from Book 239)

sta.	+	π	-	Elev.
T.P.	8.94	791.25		782.31
# 63			11.25	780.00
T.P.			5.18	786.07
	5.78	791.85		
# 64			11.85	780.00
# 65			11.85	780.00
# 66			11.85	780.00
T.P.			5.08	786.77
	4.16	790.93		
# 67			10.93	780.00
# 68			10.93	780.00
# 69			10.93	780.00
T.P.			11.94	778.99
	7.33	786.32		
# 70			6.32	780.00
# 71			6.32	780.00
# 72			6.32	780.00
T.P.			10.80	775.52
	11.65	787.17		

7-8-38 clear-Very Hot

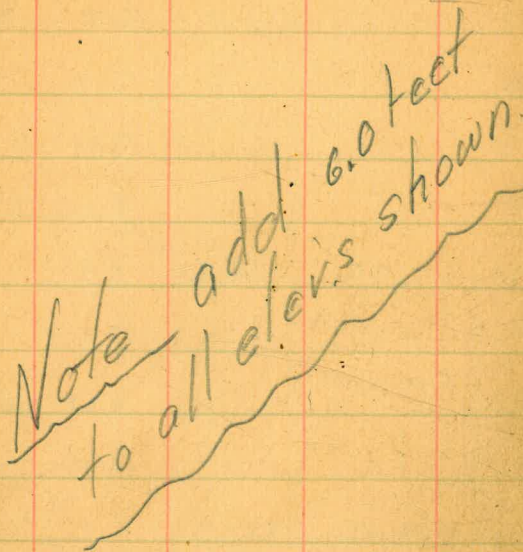
37

Osborne  
Tebell  
Leekey  
Brooks

From Book 239 Last no. 62

in draw

Note add. 6.0 feet  
to all elev's shown.



in draw.

ridge

ridge

ridge

open spot on bushy ridge

End 7-8-38



## 780 Contour (cont.)

sta.	+	π	-	Elev.
		787.17	\	
* 73			7.17	780.00
# 74			7.17	780.00
# 75			7.17	780.00
T.P.			9.66	777.51
B.M.	6.77	784.28	4.97	782.20
# 76			4.28	780.00
T.P.			4.38	779.90 ✓
	6.86	786.76		
# 77			6.76	780.00
T.P.			6.20	780.56
	6.15	786.71		
# 78			6.71	780.00
T.P.			13.22	773.49
	11.86	785.35		
# 79			5.35	780.00
# 80			5.35	780.00
# 81			5.35	780.00

Begin 7-11-38 cloudy - Hot

38

Osborne  
Isbell  
Brooks

Ridge at mouth of draw - E. side

Head of draw

Ridge at mouth of draw - w. side

Near # 75

on rocky face

Above rock cliff

E. side of draw

End 7-11-38

Begin 7-12-38 - cloudy - Hot

on ridge

in draw

edge of brush

Osborne  
Isbell  
Leekey  
Brooks

sta.	+	∞	-	Elev.	
		785.35			
T.P.			7.92	777.43	
	0.06	777.49			
#82			+2.51	780.00	on ridge
			-2.23	775.26	
	10.66	785.92			
T.P.			1.10	784.82	
	4.01	788.83			
#83			8.83	780.00	
#84			8.83	780.00	
T.P.			11.54	777.29	
	5.95	783.24			
T.P.			11.56	771.68	
	1.51	773.19			
		779.19 - Cor. elev.			
			9.29	763.90	769.90 = Correct elev.
#85			+6.81	786.00	Correct. on 770.00 EL. stake

786 Contour intersects Dam axis at sta. 6+66.50

Note On contour intermittent  
ly from 6/28/38 to 7/19/38.  
A total of 15 days. ~~1938~~

Profile Tunnel W. side San Vicente

Nov. 28-1938

40

Hill  
Isbell  
Leckey  
Brooks

			bot	roof
143				
+21		1.7	470.9	478.0
+15		2.5	470.1	477.1
+12		4.4	468.2	
+04		3.9	468.7	
2+02		5.7	466.9	475.1
1+99		5.3	467.3	
TP	5.3	472.6	0.0	467.3
+91		7.4	459.9	477.4
+84		7.4	459.9	
+78				477.9
+76		6.2	461.1	
+67		6.7	460.6	
+54		6.5	460.8	
+48		5.4	461.9	
+42.8		5.6	461.7	
<del>1+44</del>		11.8	460.8	stream bed
1+35				
B.M.	467.3	3.3		464.0

Tunc. quartzite & granite



Strike, Dip + Pitch of quartzite at  
San Vicente dam site

East side

Patch of rock in E. tunnel 1.50m +  
off vert. <sup>to west</sup> strike 0.5' to west in  
tunnel W. of S.

Slight Dip to north perpendicular  
to axis over <sup>nearly</sup> all exposed places  
in trench varying from 0.1 in  
3' to about 1.0 in 3'. Partly could  
average about 0.2 in 3'. Slight dip  
to S between stas 999+50 S. of axis

West side

Granite encountered as shown on  
opp. page. Average pitch to the west  
and same as on east side. The dip  
averaged nearly the same as on east  
side about 0.3 in 5'. In tunnel the strike  
was about 10° W. of a perp. to new axis.

11/28/38

H. H.  
Isbell  
Leakey  
B. roots

E. side

El. 825  
15+90

41

El. 707  
40'

El. 705

granite

275

275'

14+25

375

El. 714

14+90

granite

New axis

strike about 4° to W. of perp.

El. 513  
5+72 70 El. 513  
25' 5+79

5+82 130' El. 493

El. 498  
Pitch 1.8 in  
5' vert. to W.

105' 5+94

Profile of trench in San Vicente  
crk. bottom.

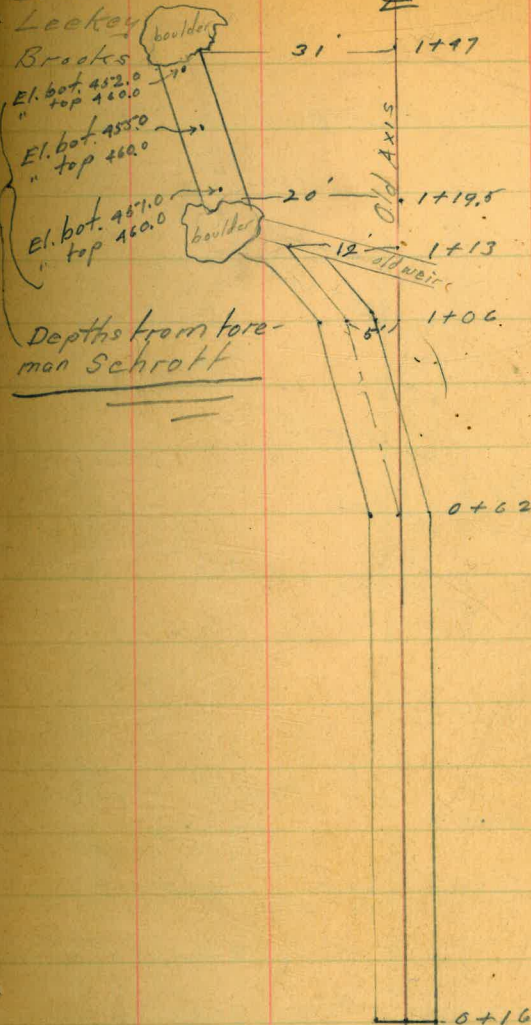
Sta. Elev.

+13	450.4
1+06	449.4
+95	449.3
+93	451.4
+62	450.4
+53	450.0
+47	451.8
+37	452.2
+35	451.4
+27	452.1
+23	460.1
0+19	461.2 (bot. of E. end)
0+16	471.8 (top of E. end)
0+00	Hub i from W. edge part.

Copied from loose leaf  
pad 11/28/38

Hill Isbell 11/18/38

42

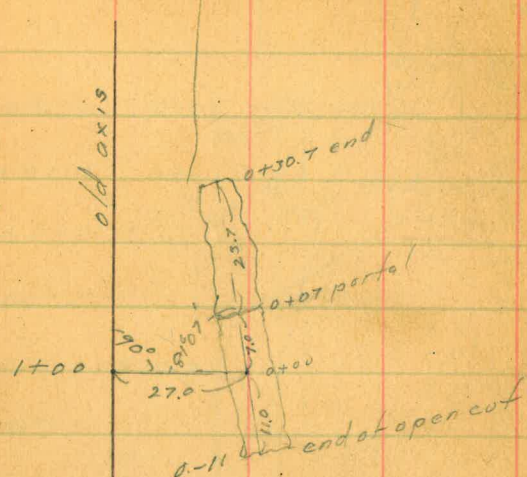


Hill  
Isbell  
Leakey  
Brooks

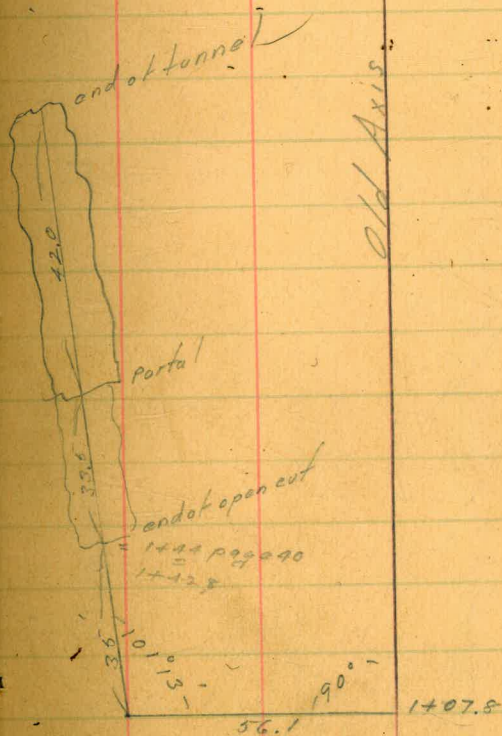
12/6/58

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Tunnel E. abut



Tunnel W. abut



on old axis			bet	road	
50+1400	0.0	503.7	503.7		
	1.9	498.6	10.0	493.7	
0-11			5.6	493.0	
0+00			5.5	493.1	
0+07			5.4	493.2	499.1
0+19			4.7	493.9	501.3
0+20			4.7	493.9	499.3
0+28			4.1	494.5	500.1
0+30.7			4.1	494.5	494.5



Profile of "P" line From sta. 313+10.9

1/6/39  
Isbell/  
Leakey  
Brooks

Sta.	+	x	-	Elev.					
318			15.2	80.1		$\frac{+5^{\circ}45'}{50'}$	$\frac{-3^{\circ}00'}{50'}$		
+67			18.9	76.4	Bot. Draw	$\frac{+6^{\circ}00'}{50'}$ Bot. Draw	$\frac{-5^{\circ}45'}{50'}$ Bot. Draw		
317			9.8	85.5		$\frac{+10^{\circ}45'}{50'}$	$\frac{-12^{\circ}30'}{50'}$		
+70			6.1	89.2		$\frac{+8^{\circ}30'}{50'}$	$\frac{+21^{\circ}15'}{13'}$	$\frac{-16^{\circ}15'}{50'}$	
+30			12.6	82.7	Bot. Draw		$\frac{+14^{\circ}45'}{50'}$	$\frac{-11^{\circ}15'}{50'}$ Bot. Draw	
316			10.6	84.7		$\frac{+16^{\circ}30'}{50'}$	$\frac{+13^{\circ}00'}{20'}$	$\frac{-13^{\circ}45'}{60'}$ Bot. Draw	
+65			9.4	85.9		$\frac{+14^{\circ}45'}{50'}$	$\frac{+12^{\circ}15'}{25'}$	$\frac{-17^{\circ}45'}{30'}$ Bot. Draw	$\frac{-8^{\circ}00'}{50'}$
+22			12.8	82.5	Bot. Draw	$\frac{+21^{\circ}15'}{50'}$	$\frac{+15^{\circ}15'}{25'}$	$\frac{+7^{\circ}15'}{50'}$	
315			8.2	87.1		$\frac{+9^{\circ}00'}{50'}$	$\frac{-6^{\circ}00'}{15'}$ Bot. Draw	$\frac{+4^{\circ}30'}{40'}$	$\frac{+8^{\circ}00'}{50'}$
+60			5.7	89.6			$\frac{+1^{\circ}45'}{50'}$ Bot. Draw	$\frac{+2^{\circ}45'}{50'}$	
314			5.8	89.5			$\frac{+3^{\circ}30'}{50'}$	$\frac{-3^{\circ}45'}{50'}$	
+50			5.6	89.7		$\frac{+5^{\circ}30'}{50'}$	$\frac{-5^{\circ}00'}{50'}$		
TP	4.17	1495.28	13.06	1491.11					
313+10.6			13.1	1491.1	1491.0	$\frac{+5^{\circ}30'}{50'}$	$\frac{-7^{\circ}15'}{50'}$		
TP	0.35	1504.17	13.06	1503.82					
TP	0.41	1516.88	12.69	1516.47					
B.M.	1.42	1529.16		1527.74					
B.M.	62' R. sta. 310+70			1527.74					

1/9/39  
Clear Cold



Sta.	+	X	-	Elev.				
324			6.3	94.6	$\frac{+9^{\circ}15'}{50'}$	$\frac{+6^{\circ}15'}{28'}$	$\frac{-4^{\circ}15'}{50'}$	
+50			5.1	95.8	$\frac{-8^{\circ}00'}{15'}$	X $\frac{+17^{\circ}00'}{40'}$	$\frac{-4^{\circ}15'}{50'}$	
+25			5.0	95.9		$\frac{+6^{\circ}45'}{50'}$	$\frac{-3^{\circ}30'}{50'}$	
323			7.3	93.6		$\frac{+5^{\circ}30'}{50'}$	$\frac{-8^{\circ}30'}{50'}$	
B.M.	7.32	1500.87	6.10	1493.55	15' R. of Sta. 323+57 Ft. on rock			
+50			4.4	95.2		$\frac{+8^{\circ}15'}{50'}$	$\frac{-20^{\circ}15'}{50'}$	
+25			2.2	97.4	$\frac{+2^{\circ}45'}{30'}$	$\frac{-8^{\circ}45'}{19'}$	X $\frac{+25^{\circ}00'}{20'}$	$\frac{-2^{\circ}15'}{50'}$
322			5.7	93.9		$\frac{+17^{\circ}15'}{50'}$	$\frac{-16^{\circ}15'}{50'}$	
+50			6.6	93.0		$\frac{+22^{\circ}00'}{50'}$	$\frac{+23^{\circ}45'}{35'}$	$\frac{-14^{\circ}30'}{50'}$
+35			7.3	92.3		$\frac{+18^{\circ}00'}{50'}$	$\frac{+18^{\circ}15'}{31'}$	$\frac{-19^{\circ}45'}{50'}$
321			13.6	86.0				
+90			13.6	86.0	Bot. Draw			
+47			10.3	89.3		$\frac{+16^{\circ}00'}{50'}$	$\frac{-8^{\circ}00'}{50'}$	
320			2.1	97.5	$\frac{+15^{\circ}45'}{50'}$	$\frac{+10^{\circ}00'}{25'}$	$\frac{-10^{\circ}00'}{26'}$	$\frac{-12^{\circ}00'}{50'}$
+75			1.0	98.6		$\frac{+8^{\circ}30'}{50'}$	$\frac{-12^{\circ}00'}{50'}$	
319			2.9	96.7		$\frac{+17^{\circ}00'}{50'}$	$\frac{-15^{\circ}00'}{50'}$	
TP	5.12	1499.65	0.75	1494.53				
318+46			11.4	83.9		$\frac{+14^{\circ}45'}{50'}$	$\frac{-8^{\circ}00'}{50'}$	
				1495.28				

Sta.	+	x	-	Elev.
TP	2.26	1480.13	12.93	1477.87
332			12.2	78.6
+50			10.4	80.4
331			10.3	80.5
+50			9.6	81.2
330			9.4	81.4
+50			8.0	82.8
329			6.8	84.0
+50			6.5	84.3
TP	2.57	1490.80	12.64	1488.23
328			13.0	87.9
+50			11.7	89.2
327			10.5	90.4
+50			10.4	90.5
326			8.6	92.3
+50			7.5	93.4
325			5.3	95.6
324+50			4.4	1496.5

1500.87

$\frac{+6^{\circ}00'}{30'}$	$\frac{-4^{\circ}30'}{50'}$		
$\frac{+6^{\circ}00'}{50'}$	$\frac{-4^{\circ}30'}{50'}$		
$\frac{+7^{\circ}15'}{50'}$	$\frac{-5^{\circ}30'}{30'}$	$\frac{-3^{\circ}30'}{50'}$	
$\frac{+12^{\circ}15'}{30'}$	$\frac{+6^{\circ}45'}{37'}$	$\frac{-4^{\circ}15'}{43'}$	$\frac{-2^{\circ}00'}{50'}$
$\frac{+11^{\circ}00'}{50'}$	$\frac{+8^{\circ}15'}{37'}$	$\frac{-4^{\circ}00'}{27'}$	$\frac{-1^{\circ}00'}{50'}$
$\frac{+9^{\circ}45'}{50'}$	$\frac{+7^{\circ}15'}{36'}$	$\frac{-4^{\circ}00'}{30'}$	$\frac{-2^{\circ}00'}{50'}$
$\frac{+2^{\circ}30'}{50'}$	$\frac{+6^{\circ}45'}{29'}$	$\frac{-5^{\circ}00'}{29'}$	$\frac{-2^{\circ}00'}{50'}$
$\frac{+10^{\circ}00'}{30'}$	$\frac{+8^{\circ}00'}{37'}$	$\frac{-3^{\circ}15'}{50'}$	
$\frac{+5^{\circ}30'}{50'}$	$\frac{-4^{\circ}15'}{34'}$	$\frac{-3^{\circ}15'}{30'}$	
$\frac{+4^{\circ}00'}{50'}$	$\frac{-3^{\circ}00'}{32'}$	$\frac{-1^{\circ}45'}{50'}$	
$\frac{+5^{\circ}00'}{50'}$	$\frac{-3^{\circ}15'}{25'}$	$\frac{-0^{\circ}15'}{50'}$	
$\frac{+4^{\circ}45'}{30'}$	$\frac{-3^{\circ}00'}{28'}$	$\frac{-0^{\circ}15'}{50'}$	
$\frac{+5^{\circ}15'}{30'}$	$\frac{-2^{\circ}00'}{30'}$		
$\frac{+5^{\circ}00'}{50'}$	$\frac{-1^{\circ}30'}{50'}$		
$\frac{+3^{\circ}00'}{50'}$	$\frac{-1^{\circ}00'}{50'}$		
$\frac{+4^{\circ}45'}{30'}$	$\frac{-3^{\circ}45'}{50'}$		

Sta.	+	X	-	Elev.				
340			10.4	60.5	$\frac{+1^{\circ}00'}{50'}$	$\frac{-1^{\circ}00'}{25'}$	$\frac{+2^{\circ}45'}{50'}$	
3	+50		8.1	62.8	$\frac{+1^{\circ}00'}{50'}$	$\frac{-5^{\circ}15'}{20'}$	$\frac{+11^{\circ}45'}{13'}$	$\frac{+6^{\circ}00'}{50'}$
339			7.0	63.9	$\frac{+1^{\circ}30'}{50'}$	$\frac{-2^{\circ}00'}{25'}$	$\frac{+6^{\circ}15'}{50'}$	
3	+50		5.4	65.5		$\frac{\pm 0^{\circ}00'}{50'}$	$\frac{+4^{\circ}15'}{50'}$	
338			2.7	68.2	$\frac{\text{level}}{50'}$	$\frac{-3^{\circ}00'}{29'}$	$\frac{+3^{\circ}00'}{50'}$	
3	TP	0.58	1470.87	9.84	1470.29			
	+50		11.5	69.6	$\frac{+4^{\circ}00'}{50'}$	$\frac{+1^{\circ}00'}{11'}$	$\frac{+3^{\circ}15'}{50'}$	
337			10.3	69.8		$\frac{+5^{\circ}30'}{50'}$	$\frac{-2^{\circ}15'}{13'}$	$\frac{+1^{\circ}45'}{50'}$
	+50		8.3	71.8		$\frac{+5^{\circ}15'}{50'}$	$\frac{-4^{\circ}30'}{25'}$	$\frac{-0^{\circ}30'}{50'}$
	+32		8.0	72.1	$\frac{+6^{\circ}15'}{50'}$	$\frac{+10^{\circ}45'}{20'}$	$\frac{-2^{\circ}30'}{50'}$	
336			5.4	74.7		$\frac{+4^{\circ}00'}{50'}$	$\frac{-4^{\circ}25'}{25'}$	$\frac{-6^{\circ}00'}{50'}$
	+50		5.9	74.2		$\frac{+6^{\circ}00'}{50'}$	$\frac{-5^{\circ}00'}{50'}$	
335			4.0	76.1		$\frac{+5^{\circ}15'}{50'}$	$\frac{-6^{\circ}00'}{50'}$	
	+50		4.4	75.7		$\frac{+7^{\circ}15'}{50'}$	$\frac{-5^{\circ}30'}{50'}$	
334			4.9	75.2		$\frac{+9^{\circ}00'}{50'}$	$\frac{-5^{\circ}00'}{50'}$	
	+50		4.9	75.2		$\frac{+7^{\circ}00'}{50'}$	$\frac{-3^{\circ}45'}{50'}$	
333			3.5	76.6		$\frac{+6^{\circ}00'}{50'}$	$\frac{-5^{\circ}00'}{50'}$	
332+50			3.2	76.9	$\frac{+9^{\circ}15'}{50'}$	$\frac{+6^{\circ}00'}{32'}$	$\frac{-5^{\circ}15'}{50'}$	

1  
1480.13

Sta.	+	x	-	Elev.			
348			4.8	54.8	$\frac{+4^{\circ}15'}{50'}$	$\frac{-2^{\circ}15'}{50'}$	
+50			4.6	55.0	$\frac{+3^{\circ}00'}{50'}$	$\frac{-1^{\circ}00'}{50'}$	
347			4.5	55.1	$\frac{+2^{\circ}00'}{50'}$	$\frac{-1^{\circ}00'}{50'}$	
+50			4.3	55.3	$\frac{+2^{\circ}00'}{50'}$	$\frac{-2^{\circ}00'}{50'}$	
346			3.2	56.4	$\frac{+3^{\circ}15'}{50'}$	$\frac{-3^{\circ}45'}{50'}$	
+10			4.2	55.4	$\frac{+2^{\circ}00'}{50'}$	Level	1/10/39 Clear Cool
345			3.2	56.4	Level	$\frac{-3^{\circ}00'}{19'}$	$\frac{-1^{\circ}15'}{50'}$
+29			5.0	54.6	Level	$\frac{+1^{\circ}30'}{25'}$	$\frac{-2^{\circ}00'}{50'}$
+21			8.8	50.8	$\frac{+1^{\circ}15'}{50'}$	$\frac{-1^{\circ}30'}{50'}$	
+16			6.2	53.4	$\frac{+1^{\circ}15'}{50'}$	$\frac{+4^{\circ}45'}{25'}$	$\frac{-1^{\circ}15'}{50'}$
344			5.9	53.7	$\frac{+1^{\circ}15'}{50'}$	$\frac{+0^{\circ}15'}{25'}$	$\frac{-1^{\circ}15'}{50'}$
343			5.9	53.7	$\frac{+0^{\circ}30'}{50'}$	$\frac{-2^{\circ}00'}{50'}$	
+50			6.0	53.6	$\frac{+1^{\circ}00'}{50'}$	$\frac{-0^{\circ}30'}{50'}$	
342			4.7	54.9	Level	$\frac{-0^{\circ}30'}{50'}$	
+50			3.3	56.3	$\frac{-0^{\circ}45'}{50'}$	$\frac{+0^{\circ}30'}{50'}$	
341			2.1	57.5	Level	$\frac{+0^{\circ}15'}{50'}$	
340+50			1.4	58.2	$\frac{+2^{\circ}00'}{50'}$	$\frac{+4^{\circ}00'}{50'}$	
TP	0.71	1459.65	11.93	1458.94			

1470.87

Sta.	+	∇	-	Elev.				
356			4.2	61.4		$-\frac{0^{\circ}45'}{50'}$	$-\frac{0^{\circ}15'}{50'}$	
+60			3.0	62.6		$-\frac{1^{\circ}45'}{50'}$	$+\frac{0^{\circ}15'}{50'}$	
355			6.4	59.2		$+\frac{0^{\circ}30'}{50'}$	$+\frac{1^{\circ}30'}{50'}$	
+60			8.2	57.4		$+\frac{3^{\circ}00'}{50'}$	$+\frac{1^{\circ}15'}{50'}$	
354			6.8	58.8		$+\frac{6^{\circ}30'}{50'}$	$+\frac{6^{\circ}30'}{30'}$	$-\frac{5^{\circ}30'}{50'}$
+50			3.9	61.7				
+40			3.8	61.8		$+\frac{2^{\circ}00'}{50'}$	$+\frac{9^{\circ}45'}{20'}$	$-\frac{11^{\circ}45'}{41'}$
353			7.5	58.1		$+\frac{11^{\circ}30'}{50'}$	$+\frac{9^{\circ}15'}{28'}$	$-\frac{9^{\circ}45'}{30'}$
B.M.	10.98'	1465.64	0.46	1459.66	11/9/39			$-\frac{9^{\circ}15'}{50'}$
+40			2.6	52.5		$+\frac{3^{\circ}00'}{50'}$	$-\frac{2^{\circ}45'}{50'}$	
352			4.0	51.1		$+\frac{1^{\circ}15'}{50'}$	$-\frac{1^{\circ}15'}{50'}$	
351			4.7	50.4		$+\frac{2^{\circ}00'}{50'}$	$-\frac{1^{\circ}15'}{50'}$	
350			4.5	50.6		$+\frac{2^{\circ}00'}{50'}$	$-\frac{1^{\circ}00'}{50'}$	
+50			4.3	50.8		$+\frac{2^{\circ}15'}{50'}$	$-\frac{0^{\circ}45'}{50'}$	
349			2.2	52.9		$+\frac{1^{\circ}45'}{50'}$	$-\frac{3^{\circ}00'}{50'}$	
TP	0.23	1455.12	4.76	1459.89				
+70			6.3	53.3		$+\frac{1^{\circ}30'}{50'}$	$-\frac{2^{\circ}45'}{50'}$	
348+50			4.2	1455.4		$+\frac{3^{\circ}15'}{50'}$	$-\frac{3^{\circ}45'}{50'}$	

1459.65

Sta.	+	X	-	Elev.
Check on B.M.			6.82	1411.18 1411.40
TP	1.34	1418.00	11.72	1416.66
+40.6			13.5	14.9
359			10.9	17.5
358 +73			8.0	20.4
TP	0.61	1428.38	13.00	1427.74
+50			13.4	27.3
+35			12.2	28.5
+18			11.6	29.1
+08			6.0	34.7
358			4.9	35.8
TP	0.23	1440.74	12.83	1440.51
+40			8.9	44.4
357			4.0	49.3
TP	0.08	1453.34	12.38	1453.26
		1465.64		

Finish 1/10/39

$\frac{-1^{\circ}00'}{50'}$	$\frac{+4^{\circ}00'}{36'}$	$\frac{+3^{\circ}00'}{50'}$			
$\frac{-3^{\circ}45'}{50'}$	$\frac{+4^{\circ}00'}{20'}$	$\frac{+8^{\circ}00'}{26'}$	$\frac{+4^{\circ}00'}{44'}$	$\frac{+8^{\circ}30'}{50'}$	
$\frac{-9^{\circ}30'}{50'}$	$\frac{-15^{\circ}00'}{27'}$	$\frac{+4^{\circ}30'}{7'}$	$\frac{-3^{\circ}45'}{13'}$	$\frac{+8^{\circ}15'}{16'}$	$\frac{+13^{\circ}30'}{50'}$
$\frac{-13^{\circ}15'}{50'}$	$\frac{-8^{\circ}45'}{27'}$	$\frac{-14^{\circ}45'}{11'}$	$\frac{+17^{\circ}30'}{30'}$		
$\frac{-12^{\circ}00'}{50'}$	$\frac{-15^{\circ}15'}{41'}$	$\frac{+0^{\circ}30'}{13'}$	$\frac{+13^{\circ}45'}{50'}$		
	$\frac{-6^{\circ}00'}{50'}$	$\frac{+0^{\circ}15'}{12'}$	$\frac{+8^{\circ}15'}{50'}$		

## YARDAGE OF ISOLATED BOULDERS

"F1" LINE

1/11/39  
Isbell

Sta.	Dist.	Left.	¢	Right	Dist.
+50	8'	4x4x5	6x6x7		
+30	10'	5x6x10		6x6x3	7'
+25	15'	4x6x8			
	5'	2x3x6	2x3x6	2x2x3	5'
+15				3x3x2	7'
				6x6x5	15'
317				5x5x4	10'
				2x4x5	5'
+90				2x2x2	15'
				2x3x5	5'
+60	10'	3x3x5			
+60	5'	2x3x3	4x4x5	3x3x3	15'
+50	5'	2x2x2		2x2x3	15'
+90	10'	2x2x5			
+30				2x2x3	20'
316	20'	2x2x1	5x5x4		
+75	5'	5x5x6		2x2x2	5'
+50	20'	2x2x2			
+50	5'	2x2x3			
		3x3x3			
315+40	15'	3x3x4		3x3x3	5'
		2x3x5			
+50				2x2x5	25'
314+40				3x3x2	20'

Sta.	Dist.	Left.	φ	Right.	Dist.
321+05				2X2X2	5'
+90				5X6X7	5'
+80				3X5X6	6'
+70				4X4X7	10'
320+40			2X2X1	2X2X2	9'
			2X2X2	2X2X3	9'
				2X2X4	5'
+85		3X3X2			
+80				4X4X3	25'
+75			2X4X8		
+60				3X4X4	20'
319+30	25'	3X3X5			
+65	5'	2X2X2		2X4X7	15'
	25'	4X4X6		2X2X3	5'
+60	15'	2X2X3			
+50	5'	5X5X5	2X2X3		
+30			2X2X6		
+25	5'	2X3X3			
+20'	10'	3X4X6			
	5'	3X4X6			
318	15'	3X6X10'	2X2X2	3X3X4 3X3X2	10' 5'
317X65	20'	6X6X8			



Sta.	Dist.	Left.	±	Right.	Dist.
+10	17'	3X3X4			
332	25'	2X4X4			
	15'	1X2X3			
+90	25'	2X2X3			
	25'	2X2X4			
+85	20'	3X4X5			
	15'	2X2X4			
331+75	10'	2X2X4			
329+80	15'	1X3X4			
326+10				3X4X8	25'
325	10'	2X2X2			
324+95	7'	1X3X3			
	15'	1X2X3			
	10'	1X2X3			
+30	5'	1X3X3			
324+05	15'	1X4X4			
	20'	2X2X2			
+85	10'	1X3X4			
	20'	1X3X4			
323+75	15'	1X2X3			
	5'	3X4X2			
+60				1X4X5	20'
				2X2X8	25'
				2X3X4	5'
+40				2X5X5	10'
				2X2X3	15'
+20				1X2X3	20'
322+10				3X8X8	20'
321+60				1X2X5	20'

Sta.	Dist.	Left.	¢	Right.	Dist.
+40				2x2x2 2x3x4	30' 25'
+20				1x2x3	15'
340				4x5x8	20'
+90				2x2x3 2x2x3	20' 15'
+75				5x5x6	20'
339				2x3x5	25'
+75				2x3x3 1x1x2	25' 15'
+45				2x2x3	25'
338+0.5				1x3x3	5'
337+75	12'	2x2x4			
+80				3x3x4	25'
+75				2x2x3 2x2x2	25' 20'
+45				2x4x5	6'
+40	6'	3x5x13			
+25				2x3x4	8'
+20	5'	1x3x4	2x5x6	4x7x8	35'
+15'				2x3x5	10'
336+0.5				4x4x5	8'

Sta.	Dist.	Left.	Q	Right.	Dist.
+15			2x2x2		
348+10			2x2x4		
+95	25'	2x3x6			
+15			2x2x3	2x2x3	23'
347+05			2x2x3	2x3x4	10'
+95	20' 15'	2x2x3 2x2x2			
+85	15'	1x2x3			
+55	15'	2x2x3			
+45				2x2x2	15'
+40				1x2x3 3x4x4	20' 15'
346+15				2x3x5 2x2x4	25' 20'
+80	5'	2x2x2		1x2x2	5'
+55	20' 10'	2x2x3 1x4x5	2x2x2	2x2x3 2x2x3	15' 5'
+30				2x2x3 2x2x2 2x3x5	25' 20' 15'
345+10	15'	1x2x3		2x3x3	25'
+90	5'	1x2x2			
+50			3x4x8		
344+25	15' 10' 7'	1x2x2 2x2x3 2x2x2			

Sta.	Dist.	Left	¢	Right	Dist.
+60			1x2x2		
+45	2'	1x2x3			
+30	3'	2x2x3			
+20	4'	2x2x2			
374+10	7'	2x2x2			
+95	12'	2x2x2			
+80	15'	2x2x3			
373+80	15'	1x3x3			
+40				2x2x2	15'
351+05				2x3x5	10'
350+35	20'	2x2x2		3x3x3	25'
				2x2x3	7'
+95	5'	1x2x2		1x2x2	15'
+70	10'	2x2x2		2x2x3	15'
349+05	20'	2x2x3			
	15'	2x3x4		1x3x3	10'
+85	15'	2x2x2			
+70	15'	3x3x3		2x2x2	10'
				2x2x2	5'
+65				3x3x3	15'
348+50	20'	3x3x3		3x3x3	20'

Sta.	Dist. ft.	left.	Right.	Dist. ft.
395+35			3x6x15	15'
+75	20'	2x5x10		
394+69			6x8x15	
+75	15'	4x4x15, 4x8x12		
388+25	15'	3x3x3		
+65			3x3x3	10'
378+50	5'	2x3x3		
+95	7'	2x2x3		
+90	25'	3x4x8		
+70			2x2x2	5'
+40	20'	3x3x5		
	15'	3x3x6		
+30	25'	4x4x7		
+20	20'	7x6x15		
375	20'	5x5x7		
374+80	20'	3x4x8		

9/15/40

H. N.  
Soper  
Brooks

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## Levels from B.M. at San Vicente Dam site to Foster

2.56 479.45 476.89

Concrete head wall (page 28)

0.25 471.82 7.88 471.57

0.50 463.86 8.46 463.36

4.29 463.13 5.02 458.84

Concr. culv. head wall N. side Pt. Foster

7.28 455.85

Nail in power pole, opposite Foster's place.

## Levels over Baseline "B" Pt. Foster

0+00 17.2 505.9 488.7

+20 15.2 490.7

+50 11.3 494.6

1 7.6 501.3

T.P. 13.2 519.1 0.0 505.9

+50 11.6 507.5

2+00 0.1 518.7

On rock

4.3 514.8

Ground

Baseline A for topog. at Pt. Foster - San Vicente  
Sta. DeHea. Mag. B.

10+00

N. 70° 30' E

8+10 23° 13' R

N. 47° 30' E

7+00 18° 03' R

5+60 92° 50' R N. 28° 30' E

N. 64° 30' W

2+80.9 Δ 61° 50' L

N. 3° W

0+00

Hill  
Soper  
Brooks 4/15/40

60

See page 74  
for sketch showing  
baselines A & B



## Levels over baseline "A"

BM.	3.25	459.10		455.85
TP	4.32	458.57	4.85	454.25
0-100			4.9	453.7
0-200			7.0	451.6
0-300			7.2	451.4
0+00			1.8	453.8
+50			5.2	453.4
1			4.7	453.9
+50			3.7	454.9
2			3.8	454.8
+50			4.1	453.5
2+86.9			3.9	454.7
3			3.6	455.0
+50			4.2	454.9
4			4.3	454.3
+50			5.4	453.2
5			4.7	453.9
+00			3.1	455.5
TP.	7.89	463.50	2.46	456.11

Nail in post, pole opp. Fosters hotel



(cont.)

463.50

62

6	7.9	455.6
+50	6.8	456.7
7	5.7	457.8
+50	5.4	458.1
8	5.0	458.5
+10	4.8	458.7
+50	5.1	458.9
9	5.6	457.9
+50	5.9	457.6
10	6.5	457.0
B.M.	4.64	458.86

Concr. hd. wall N. side Pt. Foster

stadia topog shots from base line

4/15/40 Hill  
Soper  
Brooks

Sta	Dist	Hor. A	Vert. A	H.I. Rod	Elev
0+00					453.8
1+1	62.9 (63)	90° R off the 9' tang.	+2°00'	4.8	456.0
2	128.1 (129)	"	+4°47'	"	464.7
3	214.7 (216)	"	+4°34'	"	470.9
0+75					453.6
1+1	50.9 (51)	90°	+2°28'	4.8	455.8
2	104.8 (107)	"	+8°12'	"	468.8
3	203.4 (207)	"	+7°45'	"	481.3
4	330.3 (338)	"	+8°40'	4.8 H.I. 2.8 rod	501.6
1+50					454.9
1+1	46.8 (47)	90°	+4°02'	5.0	458.3
2	61.6 (63)	"	+8°36'	"	464.2
3	190.1 (194)	"	+8°17'	"	482.4
4	312.2 (319)	"	+9°03'	"	504.9
5	340.8 (351)	"	+9°24'	"	514.4
1+75					454.8
1+1	50.8 (51)	90°	+3°40'	4.9	458.1
2	162.7 (165)	"	+6°50'	"	474.3
3	184.3 (188)	"	+8°09'	"	481.2

is higher 20' further



(cont.)

Sta	Dist	Horz. Δ	Vert. Δ	H.I. Rod	Elev
1+75-PL4	293.7 (301)	90°	+9°03'	4.9	501.5
" 5	343.1 (352)	"	+9°18'	"	510.7
2+00					4548
PL 1	53.9 (54)	90°	+2°42'	5.0	457.3
" 2	89.2 (91)	"	+8°15'	"	467.7
" 3	192.6 (197)	"	+8°40'	"	484.1
" 4	278.8 (285)	"	+8°32'	H.I. 5.0 Rod 12.0	489.6
" 5	290.3 (297)	"	+8°48'	5.0	499.8
" 6	325.2 (331)	"	+9°24'	"	508.6
2+50					453.5
PL 1	53.0 (53)	90°	+1°17'	5.1	455.4
" 2	107.8 (111)	"	+9°53'	"	472.2
" 3	219.0 (226)	"	+10°15'	"	493.0
" 4	280.3 (289)	"	+10°09'	"	503.5
" 5	376.8 (391)	"	+11°03'	"	527.3
2+75					454.2
PL 1	79.8 (80)	90°	+2°30'	5.0	457.7
" 2	212.2 (216)	"	+7°48'	"	483.3
" 3	287.5 (294)	"	+9°15'	"	501.0

(cont.)

Sta.	Dist	Hor. A	Vert. A	H.I. Rod	Elev.
2+75 Pt. 1	390.2 (405)	90°	+12°09'	5.0	530.6
2+86.9					454.7
Pt. 1	55.1 (56)	66°20' R deflect. from back tang.	+7°16'	5.0	461.7
3+00					455.0
Pt. 1	22.9 (23)	90°	+3°53'	5.0	456.6
" 2	54.7 (56)	"	+8°43'	"	463.4
" 3	99.6 (104)	"	+11°59'	"	476.0
" 4	190.3 (196)	"	+10°01'	"	488.7
3+50					454.4
Pt. 1	18.7 (19)	90°	+6°48'	4.9	456.6
" 2	93.7 (94)	"	+13°22'	"	476.6
" 3	138.1 (146)	"	+13°35'	"	487.7
4+00					454.8
Pt. 1	12.8 (13)	90°	+6°15'	5.0	455.8
" 2	66.7	"	+15°06'	"	472.2
" 3	97.6 (115)	"	+22°50'	"	495.7
4+50					463.2
Pt. 1	6.0	90°	0°	5.1	453.2
" 2	77.1 (83)	"	+15°30'	"	474.6

To 0+00 of baseline "B"

(cont.)

Sta.	Dist	Hor. A	Vert. A	H.I. Rod	Elev.
2+75 Pt. 1	390.2 (105)	90°	+12°09'	5.0	530.6
2+86.9					454.7
Pt. 1	55.1 (156)	66°20'R deflect. from back-sang.	+7°16'	5.0	461.7
3+00					455.0
Pt. 1	22.9 (23)	90°	+3°53'	5.0	456.6
" 2	54.7 (56)	"	+8°43'	"	463.4
" 3	99.6 (104)	"	+11°59'	"	476.0
" 4	190.3 (196)	"	+10°01'	"	488.7
3+50					454.4
Pt. 1	18.7 (19)	90°	+6°48'	4.9	456.6
" 2	93.7 (99)	"	+13°22'	"	476.6
" 3	138.1 (146)	"	+13°35'	"	487.7
4+00					454.3
Pt. 1	13.8 (14)	90°	+6°15'	5.0	455.8
" 2	66.7 (71)	"	+15°06'	"	472.2
" 3	97.6 (115)	"	+22°50'	"	495.7
4+50					453.2
Pt. 1	6.0	90°	0°	5.1	453.2
" 2	77.1 (83)	"	+15°30'	"	474.6

To 0+00 of baseline "B"

(cont)

1/10/10

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Sta.	Dist	Hor. Δ	Vert Δ	H.I. Rod	Elev
1+50-43	82.5 (98)	90°	+23°22'	5.1	488.9
" 4	117.6	"	+29°00'	"	505.8
5+50					455.5
Pt. 1	23.0 (23)	Bisec. Δ	-1°00'	5.0	455.1
" 2	79.0 (79)	"	+0°05'	"	455.6
" 5	125.0 (125)	"	+8°47'	"	474.9
" 6	133.3 (143)	"	+15°14'	"	491.7
7+00					457.8
Pt. 1	12.0 (12)	Bisec. Δ	-2°00'	5.2	457.4
" 2	29.7 (30)	"	-5°41'	"	454.8
" 3	43.2 (47)	"	+16°26'	"	470.5
" 4	56.8 (61)	"	+15°13'	"	473.3
" 5	75.3 (67)	"	+21°34'	"	487.5
" 6	99.2 (128)	"	+29°20'	"	511.3
8+10					458.7
Pt. 1	16.0 (16)	Bisec. Δ	-1°20'	5.0	458.3
" 2	37.9 (38)	"	-2°40'	"	456.9
" 3	47.5 (54)	"	+20°12'	"	476.2
" 4	59.7 (68)	"	+21°33'	"	482.3

± part.

± part.

± part.

(cont.)

Sta	Dist.	Hor. Δ	Vert. Δ	H.I. Rod	Elev.	
8+10-Pt 5	67.6 (122)	Bisec. Δ	+27°33'	5.1	494.0	
Pt 6	89.0 (120)	"	+30°27'	"	511.2	
8+50					458.4	
Pt. 1	12.0 (12)	90°	-0°35'	5.3	458.3	± part
" 2	34.0 (54)	"	-2°03'	"	457.2	
" 3	41.7 (77)	"	+19°36'	"	473.1	
" 4	58.9 (74)	"	+26°58'	"	488.2	
" 5	111.8 (134)	"	+24°01'	"	508.2	
9+00					457.9	
Pt. 1	15.0 (15)	90°	+0°45'	5.2	458.1	± part
" 2	32.0 (32)	"	0°	"	457.9	
" 3	47.8 (56)	"	+19°28'	"	475.5	
" 4	68.4 (80)	"	+22°20'	H.I. 5.2 Rod +2	487.0	
9+50					457.6	
Pt. 1	24.0 (24)	90°	+1°22'	5.1	458.2	± part
" 2	76.9 (77)	"	+2°38'	"	461.1	
" 3	192.4 (192)	"	+7°09'	"	470.3	
" 4	162.9 (162)	"	+11°14'	"	489.4	

(cont)

68

Sta	Dist	Hor. Δ	Vert. Δ	H.I. Rod	Elev	
10+00					457.0	
Pt. 1	19.9 (20)	90° off back tang.	+3°35'	5.2	458.5	± part
" 2	36.0 (36)	"	+2°11'	"	458.4	
" 3	54.1 (50)	"	+18°20'	"	474.9	
" 4	136.7 (146)	"	+14°36'	5.2 H.I. 10.2 Rod	487.6	
10+00						
Pt. 1	20.9 (21)	52°45' R del'cc. Δ off back tang	+4°08'	5.2	458.5	± part
" 2	34.9 (38)	"	+3°29'	"	459.1	
" 3	60.1 (71)	"	+23°08'	"	482.7	
" 4	120.5 (143)	"	+23°21'	"	509.2	
10+00						
Pt. 1	39.9 (46)	33°36' R del'cc. off back tang	+3°08'	5.2	459.2	
" 2	46.7 (56)	"	+14°55'	"	469.4	
" 3	143.1 (166)	"	+21°53'	"	514.4	
" 4	192.6 (222)	"	+21°24'	5.2 H.I. 10.2 Rod	527.4	
10+00 Pt.	49.9 (50)	18°20' R del'cc. off back tang	+2°07'	5.2	459.3	
" 2	68.1 (76)	"	+17°40'	"	478.6	
" 3	142.4 (156)	"	+17°11'	"	501.1	
" 4	193.6 (232)	"	+24°02'	"	543.3	



(cont.)

9

69

Sta.	Dist.	Hor. A	Vert. A	H.I. Rod	Elev.
10+00-Pt 5	278.1 (315)	18° 20'	+20° 00'	5.2	558.2
10+00					
Pt. 1	69.9 (70)	0° back tang. produced	+1° 45'	5.2	459.1
" 2	89.8 (92)	"	+9° 02'	"	471.2
" 3	211.0 (225)	"	+14° 36'	"	511.9
" 4	315.7 (344)	"	+17° 35'	"	556.9

From baseline B

0+00					488.7
Pt. 1	72.7 (75)	73° 43' L deflec. off back tang.	+3° 23'	5.0	493.4
" 2	92.0 (95)	"	+10° 18'	"	505.4
0+00					488.7
Pt. 1	45 (45)	106° 40' L deflec. off back tang.	0°	5.0	488.7
" 2	116.9 (122)	"	+11° 50'	"	513.2
0+00					488.7
Pt. 1	42.9 (45)	310° 40' L deflec. off back tang.	-2° 30'	5.0	486.8

0+00 59° 10' R for baseline B

0+00 = 190.3 feet from sta. 3+00, baseline B.  
(perp. to sta. 3+00)  
see sketch page 74

(cont)

70

Sta	Dist.	Hor. Δ	Vert. Δ	H.I. Rod	Elev
0+20					490.7
Pt. 1	40.0 (40')	90° R	-1° 25'	5.2	489.7
" 2	94.0 (95')	"	-5° 58'	"	480.9
" 3	170.4 (171')	"	-4° 10'	"	482.0
0+20-Pt. 1	35.0 (35')	90° L	-1° 55'	"	489.5
0+50					494.6
Pt. 1	31.0 (31')	90° L	-2° 15'	5.0	493.4
" 2	74.0 (76')	"	-9° 20'	"	482.4
0+50-Pt. 1	38.9 (39')	90° R	-2° 32'	"	492.9
" 2	81.2 (82')	"	-5° 34'	"	486.7
" 3	137.3 (138')	"	-4° 05'	"	484.8
1+00					501.3
Pt. 1	28.9 (29')	90° R	-3° 10'	5.1	499.7
" 2	81.3 (82')	"	-5° 15'	"	493.8
" 3	144.4 (145')	"	-3° 54'	"	491.5
1+00-Pt. 1	23.0 (23')	90° L	-2° 32'	"	500.3
" 2	41.9 (43')	"	-9° 28'	H.I. 5.1 Rod 9.1	490.3
" 3	62.8 (63')	"	-3° 10'	5.1	497.8
" 4	107.0 (107')	"	4° 20'	"	501.9

Note all angles turned from 0+20 to 2+00 =  
deflection angles from back tang.

(cont.)

71

Sta	Dist	Hor. A	Vert. A	H.I. Rod	Elev.
1+50			1		507.5
Pt 1	54.0 (34)	90° L	-1° 10'	5.2	506.4
" 2	80.0 (80)	"	-1° 18'	"	505.8
" 3	117.5 (118)	"	+3° 55'	"	515.6
" 4	142.7 (143)	"	+2° 40'	"	514.2
1+50-Pt 1	20.9 (21)	90° R	-3° 15'	"	506.3
" 2	49.3 (50)	"	-7° 00'	"	501.5
" 3	157.4 (158)	"	-3° 30'	"	497.9
" 4	185.2 (186)	"	-3° 55'	52 H.I. 10.2 Rod	489.8
" 5	191.4 (192)	"	-3° 16'	"	496.6
2+00				514.89 net. 5-18.7	<u>on rock-ground 3.9 lower</u>
Pt 1	54.9 (56)	90° R	-8° 10'	7.7	510.8
" 2	112.9 (113)	"	-7° 55'	"	503.0
" 3	146.5 (147)	"	-3° 22'	"	510.1
2+00-Pt 1	36.9 (37)	90° L	-3° 30'	"	516.4
" 2	72.9 (73)	"	+2° 00'	"	521.3
" 3	106.6 (106)	"	+0° 30'	"	519.6
" 4	129.7 (130)	"	+2° 55'	"	525.3
" 5	178.5 (179)		+3° 14'	H.I. 47 Rod 9.7	524.8

(cont on page 72)

cont. from page 71

73

2+00 514.8-grd.  
518.7

Pt 1 50.9 (111) 43°30' L +2°00' 1.7 520.5

" 2 161.6 (105) +10°20' " 537.2

178.5 (187) +10°05' 4.7 H.I.  
11.7 Rod 543.4

2+00 514.89-grd.  
518.7

Pt 1 44.1 (45) 0° back +5°20' 1.7 522.8  
long. produced

" 2 83.3 (87) " +11°58' " 536.3

" 3 153.9 (166) " +11°13' " 549.2

2+00 514.89-grd.  
518.7

Pt 1 51.6 (32) 18°30' R +5°12' 1.7 523.4

" 2 133.8 (138) " +10°18' " 543.0

2+00 514.89-grd.  
518.7

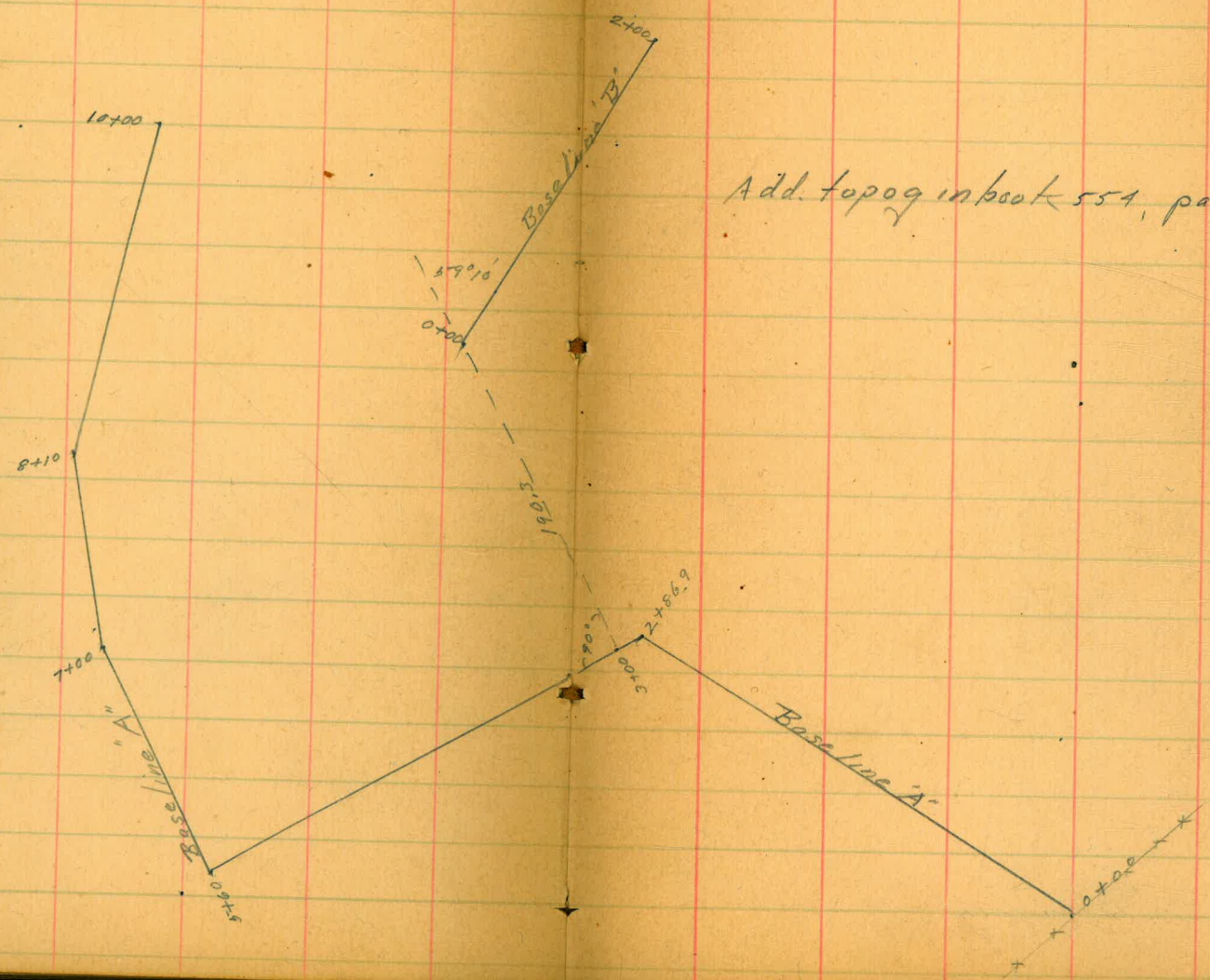
Pt 1 49.0 (101) 61°00' R -1°45' 1.7 516.7

" 2 81.8 (86) " -3°00' " 514.1

" 3 122.7 (123) " +2°55' " 525.0

H. J. Saper  
Brooks  
4/10/10

Baselines for stadia topog., Pt. Easter - San Vicente



Add topog in book 551, page 27





B.M. S

Page

State Hwy Com B.M. (36) R.R.

spike in crotch Twin Oak. Not Dam

1-2-3-6

Axis and N of Part. Elev 474.733

B.M. (A) Nail in crotch Twin Oak

opp Camp. 6' S of Part Elev 492.117

3-5-11-

B.M. (B) Nail in root of Sycamore

30' E of S.B.M and 80' S of Sw Cor 30

Elev = 489.394

3-5

state Hwy Com B.M. (38) spike in

Oak 300' E of School. 3' Not Part

Elev Noted = 511.385. (511.440)

From (A)

9-

state Hwy Com B.M. (45<sup>1</sup>/<sub>2</sub>) top of Bldr

partly buried in fill above creek

going East 1000' beyond bridge

Elev. 606.903. Wh. Paint on bldr

12

High point in Part  $\frac{1}{2}$  Mile W of

Mussey Grove Elev: 609.480

13-



State Hw  
spike in c  
Axis and

B.M. (A)

opp Camp.

B.M. (B)

30' E of S

Elev =

state Hwy

Oak 300

Elev No

state Hwy

partly bur

going East

Elev. 606

High poi

Mussey

0+00 120°30' 0" 45' #1

" 111°50' 122' #2

85°42' +10°19' 95' 2

" +3°43' 73' 1

8700.6

212.60 from P1.

5742.6

A+8

11.8  
236

Stadia to E Axis

Sta  
2.36

14  
-30°-20

Stadia to W Axis

849  
405  
444

4.05 from top rod  
888

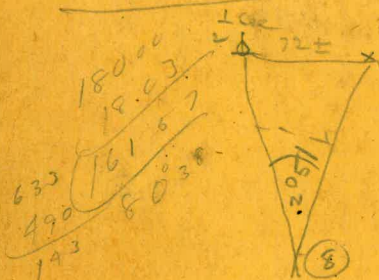
-6°-42  
0

2-8-sec 66° 58'

Stadia to P. Axis

325 ± 1/2  
-6.50

W of Road  
-26°-37



18000  
2313  
15647  
7823

464  
467.0  
6.2  
460.8

609.480

606.903

Sta. 653+37

12' R+ of Sta

5760  
174  
57426

580  
2.80  
650  
610  
1.50  
460

610-158  
650 190  
735 275  
770 310

310 0  
460 .11  
770 .11

121  
7) 287  
.64

18000  
92378

8702  
4330

770 - Flag  
2  
3

9000

4636  
4330

737 - Flag

3.5

2.1

652 - Flag

11.5

3.7  
17.2

58000  
10000  
48000  
10000  
58000