

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING  
SLOPE 1 TO 1. ROADWAY OF ANY WIDTH

	0	1	2	3	4	5	6	7	8	9	
0	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0
1	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	1
2	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	2
3	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	3
4	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	4
5	5.00	5.10	5.20	5.30	5.40	5.50	5.60	5.70	5.80	5.90	5
6	6.00	6.10	6.20	6.30	6.40	6.50	6.60	6.70	6.80	6.90	6
7	7.00	7.10	7.20	7.30	7.40	7.50	7.60	7.70	7.80	7.90	7
8	8.00	8.10	8.20	8.30	8.40	8.50	8.60	8.70	8.80	8.90	8
9	9.00	9.10	9.20	9.30	9.40	9.50	9.60	9.70	9.80	9.90	9
10	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	10
11	11.00	11.10	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	11
12	12.00	12.10	12.20	12.30	12.40	12.50	12.60	12.70	12.80	12.90	12
13	13.00	13.10	13.20	13.30	13.40	13.50	13.60	13.70	13.80	13.90	13
14	14.00	14.10	14.20	14.30	14.40	14.50	14.60	14.70	14.80	14.90	14
15	15.00	15.10	15.20	15.30	15.40	15.50	15.60	15.70	15.80	15.90	15
16	16.00	16.10	16.20	16.30	16.40	16.50	16.60	16.70	16.80	16.90	16
17	17.00	17.10	17.20	17.30	17.40	17.50	17.60	17.70	17.80	17.90	17
18	18.00	18.10	18.20	18.30	18.40	18.50	18.60	18.70	18.80	18.90	18
19	19.00	19.10	19.20	19.30	19.40	19.50	19.60	19.70	19.80	19.90	19
20	20.00	20.10	20.20	20.30	20.40	20.50	20.60	20.70	20.80	20.90	20
21	21.00	21.10	21.20	21.30	21.40	21.50	21.60	21.70	21.80	21.90	21
22	22.00	22.10	22.20	22.30	22.40	22.50	22.60	22.70	22.80	22.90	22
23	23.00	23.10	23.20	23.30	23.40	23.50	23.60	23.70	23.80	23.90	23
24	24.00	24.10	24.20	24.30	24.40	24.50	24.60	24.70	24.80	24.90	24
25	25.00	25.10	25.20	25.30	25.40	25.50	25.60	25.70	25.80	25.90	25
26	26.00	26.10	26.20	26.30	26.40	26.50	26.60	26.70	26.80	26.90	26
27	27.00	27.10	27.20	27.30	27.40	27.50	27.60	27.70	27.80	27.90	27
28	28.00	28.10	28.20	28.30	28.40	28.50	28.60	28.70	28.80	28.90	28
29	29.00	29.10	29.20	29.30	29.40	29.50	29.60	29.70	29.80	29.90	29
30	30.00	30.10	30.20	30.30	30.40	30.50	30.60	30.70	30.80	30.90	30
31	31.00	31.10	31.20	31.30	31.40	31.50	31.60	31.70	31.80	31.90	31
32	32.00	32.10	32.20	32.30	32.40	32.50	32.60	32.70	32.80	32.90	32
33	33.00	33.10	33.20	33.30	33.40	33.50	33.60	33.70	33.80	33.90	33
34	34.00	34.10	34.20	34.30	34.40	34.50	34.60	34.70	34.80	34.90	34
35	35.00	35.10	35.20	35.30	35.40	35.50	35.60	35.70	35.80	35.90	35
36	36.00	36.10	36.20	36.30	36.40	36.50	36.60	36.70	36.80	36.90	36
37	37.00	37.10	37.20	37.30	37.40	37.50	37.60	37.70	37.80	37.90	37
38	38.00	38.10	38.20	38.30	38.40	38.50	38.60	38.70	38.80	38.90	38
39	39.00	39.10	39.20	39.30	39.40	39.50	39.60	39.70	39.80	39.90	39
40	40.00	40.10	40.20	40.30	40.40	40.50	40.60	40.70	40.80	40.90	40
41	41.00	41.10	41.20	41.30	41.40	41.50	41.60	41.70	41.80	41.90	41
42	42.00	42.10	42.20	42.30	42.40	42.50	42.60	42.70	42.80	42.90	42
43	43.00	43.10	43.20	43.30	43.40	43.50	43.60	43.70	43.80	43.90	43
44	44.00	44.10	44.20	44.30	44.40	44.50	44.60	44.70	44.80	44.90	44
45	45.00	45.10	45.20	45.30	45.40	45.50	45.60	45.70	45.80	45.90	45
46	46.00	46.10	46.20	46.30	46.40	46.50	46.60	46.70	46.80	46.90	46
47	47.00	47.10	47.20	47.30	47.40	47.50	47.60	47.70	47.80	47.90	47
48	48.00	48.10	48.20	48.30	48.40	48.50	48.60	48.70	48.80	48.90	48
49	49.00	49.10	49.20	49.30	49.40	49.50	49.60	49.70	49.80	49.90	49
50	50.00	50.10	50.20	50.30	50.40	50.50	50.60	50.70	50.80	50.90	50

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body of table in same row and column gives distance from side stake to slope stake. If ground is not level estimate the difference in elevation between the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.

Please Return to  
City of San Diego Water Dept.  
Room 903 Civic Center  
Telephone 575-11 Ext. 313  
MICROFILMED

JAN 16 1965



TABLE XIII—CORRECTIONS FOR TANGENTS AND EXTERNALS

These corrections are to be added to the approximate values, found by dividing the tangent, or external, for a 1° curve (Table VIII) by the degree of curve, in order to obtain the true tangents, or externals. Intermediate values may be obtained by interpolation.

FOR TANGENTS ADD

Central Angle	DEGREE OF CURVE													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.03	.06	.09	.13	.16	.19	.22	.25	.28	.31	.34	.38	.42	.46
15°	.04	.10	.14	.19	.24	.29	.34	.39	.45	.51	.53	.58	.63	.68
20°	.06	.13	.19	.26	.32	.39	.45	.51	.58	.65	.72	.79	.84	.90
25°	.08	.16	.24	.33	.40	.49	.58	.67	.75	.83	.90	.99	1.06	1.14
30°	.10	.19	.29	.39	.49	.59	.69	.79	.89	.99	1.09	1.20	1.29	1.39
35°	.11	.22	.34	.47	.58	.69	.79	.81	.92	1.04	1.29	1.42	1.54	1.66
40°	.13	.26	.40	.53	.67	.80	.93	1.06	1.20	1.34	1.49	1.64	1.79	1.94
45°	.15	.30	.44	.60	.76	.91	1.06	1.21	1.37	1.52	1.70	1.87	2.04	2.21
50°	.17	.34	.51	.68	.85	1.02	1.19	1.36	1.54	1.72	1.91	2.10	2.29	2.48
55°	.19	.38	.57	.76	.95	1.14	1.32	1.52	1.72	1.92	2.14	2.35	2.56	2.77
60°	.21	.42	.63	.84	1.05	1.27	1.49	1.71	1.94	2.17	2.38	2.60	2.83	3.07
65°	.23	.46	.69	.93	1.16	1.40	1.64	1.88	2.13	2.38	2.63	2.88	3.13	3.39
70°	.25	.51	.76	1.02	1.28	1.54	1.80	2.06	2.33	2.60	2.88	3.16	3.44	3.72
75°	.27	.56	.83	1.12	1.40	1.69	1.98	2.27	2.57	2.87	3.16	3.47	3.78	4.09
80°	.30	.61	.91	1.22	1.53	1.84	2.15	2.46	2.78	3.10	3.44	3.78	4.12	4.46
85°	.33	.66	1.00	1.33	1.68	2.02	2.36	2.70	3.05	3.40	3.77	4.14	4.55	4.89
90°	.36	.72	1.09	1.45	1.83	2.20	2.57	2.94	3.32	3.70	4.10	4.50	4.91	5.32
95°	.39	.79	1.19	1.55	2.00	2.40	2.80	3.20	3.61	4.02	4.40	4.98	5.38	5.83
100°	.43	.86	1.30	1.74	2.18	2.62	3.06	3.50	3.95	4.40	4.88	5.37	5.85	6.34
110°	.51	1.03	1.56	2.08	2.61	3.14	3.67	4.21	4.76	5.31	5.86	6.43	7.01	7.60
120°	.62	1.25	1.93	2.52	3.16	3.81	4.45	5.11	5.77	6.44	7.12	7.80	8.50	9.22

FOR EXTERNALS ADD

Central Angle	DEGREE OF CURVE													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.001	.003	.004	.006	.007	.008	.009	.011	.012	.014	.015	.017	.018	.020
15°	.003	.007	.010	.014	.018	.023	.027	.029	.032	.035	.039	.043	.047	.051
20°	.006	.011	.017	.022	.028	.034	.038	.045	.051	.057	.063	.070	.076	.083
25°	.009	.018	.027	.036	.046	.056	.065	.074	.083	.093	.106	.120	.127	.135
30°	.013	.025	.038	.051	.065	.078	.090	.103	.116	.129	.149	.170	.179	.188
35°	.018	.035	.054	.072	.086	.109	.131	.153	.175	.197	.213	.230	.247	.264
40°	.023	.046	.070	.093	.117	.141	.172	.203	.234	.265	.277	.290	.315	.341
45°	.030	.060	.093	.119	.153	.184	.216	.254	.289	.325	.351	.378	.411	.445
50°	.037	.075	.116	.151	.189	.227	.266	.305	.345	.384	.425	.467	.508	.550
55°	.046	.093	.142	.188	.236	.283	.332	.381	.420	.479	.530	.582	.641	.700
60°	.056	.112	.168	.225	.283	.340	.398	.457	.516	.575	.636	.697	.774	.851
65°	.067	.135	.204	.273	.343	.412	.483	.554	.625	.697	.771	.845	.922	1.01
70°	.080	.159	.240	.321	.403	.485	.568	.652	.735	.819	.906	.994	1.08	1.17
75°	.095	.182	.286	.383	.480	.578	.678	.777	.877	.977	1.07	1.18	1.29	1.39
80°	.110	.220	.332	.445	.558	.671	.787	.903	1.02	1.13	1.25	1.38	1.50	1.62
85°	.128	.259	.391	.524	.657	.790	.926	1.06	1.20	1.34	1.47	1.62	1.76	1.91
90°	.149	.299	.450	.603	.756	.910	1.07	1.22	1.38	1.54	1.70	1.87	2.03	2.20
95°	.174	.350	.522	.706	.885	1.06	1.25	1.43	1.62	1.80	1.99	2.18	2.38	2.58
100°	.200	.401	.604	.809	1.01	1.22	1.43	1.64	1.85	2.06	2.28	2.50	2.73	2.96
110°	.268	.536	.806	1.08	1.35	1.63	1.91	2.20	2.48	2.76	3.05	3.35	3.66	3.96
120°	.360	.721	1.08	1.45	1.82	2.19	2.57	2.95	3.33	3.72	4.11	4.50	4.91	5.32



Sutherland - S.V. P.L. Lines	Page
Stadia Line Survey line #43	1-9 ✓
" " " " JB 1882	10-12 ✓
" " Shortcut 214+47-270+65	14 ✓
" " Around Tunnel #1-	15-18 ✓
" " Profile over Tunnel #2	19 ✓ <i>alice</i>
Check Levels - Suth. P.L. 245-344-20-21 ✓	<i>alice</i>
Suth. P.L. X-Sections Profile — 63+86-144+20 2-5 ✓	<i>alice</i>
New Profile Sutherland Pl.	
71+00 to 68+50	<i>alice</i> 54 ✓
at end of Sutherland Pl.	<i>alice</i> ✓
Cross sections of S.V. Creek	55-56



Sutherland - San Vicente 36' E.  
levels to A 22 + 81.18

7-8-51

T.B.M. 2.49 1961.37 1958.88

ON Rock West Portal Tunnel # 1

T.P. 0.06 1949.37 12.06 1949.31

T.P. 0.38 1936.87 12.88 1936.49

T.P. 0.55 1924.35 13.07 1923.80

T.P. 0.98 1912.47 12.86 1911.49

T.P. 4.08 1899.49 13.06 1899.41

T.B.M. 5.85 1893.64

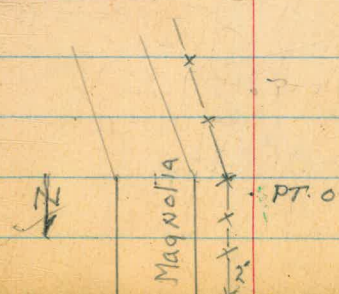
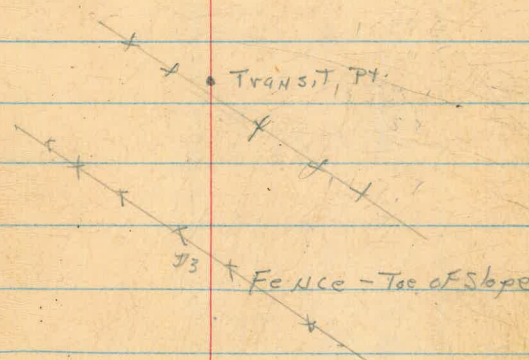
ON X-Angle Pt. 22481.18



Stadia Line - #3  
 Sutherland - S.V. P.L.  
 From Sta 323+37.2

9-4-51 - Hot - Windy  
 King  
 West  
 Williams  
 Elev.

Sta.	Dist	Hor A	Ver. D	Mag	Bearing	Red	Elev.	Notes
* 5-6	355 (354.1)	P.O.T.	-2° 55'			4.8 4.8	1565.5	TRANSIT PT.
* 4-5	477 (472.1)	P.O.T.	+1° 33'			4.8 4.8	1584.5	TRANSIT PT.
* 1-4	1148 (1145.1)	P.O.T.	+2° 44'		S 42° 30' W	H.I. 5.2 5.2	1571.6	TRANSIT PT.
1-3	(563')	P.O.T.				H.I. 5.2 Level Shd - 12.0	1509.6	Fence - Top of Slope
1-2	250'	11° 34' RT			S 42° 30' W			Oil Rd
* 7+0-1 ✓	855 (855)	0°	-0° 44'		S 31° 30' W	5.2	1516.6	
* 7+0 ✓							1527.7	Magnolia PT. 0



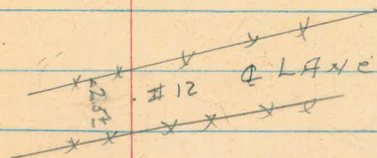


Stadia Line - A-3

9-4-51  
King  
West  
Williams

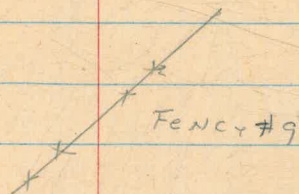
2

PT. #	Dist.	Hor. A	V. A	Mag. Bear.	Ref.
11-12	456	P.O.T.			
* 11-10	Back 1160 (1159.5)	P.O.T.	-0°30'		
8-9	172'	P.O.T.			
8-11	1492 (1491.2)	P.O.T.	-0°48'	5.2 5.2	1456.4
* 6-8	1600 (1595.1)	P.O.T.	-3°10'	4.8 #8	1477.2
6-7	615' (611.2)	P.O.T.	-4°36'	5.1 5.1	1517.4



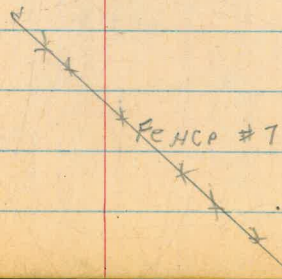
1446.3

#10 Low spot



• T PT.

• T PT.





Stadia Line A-3

9-5-51

Hot

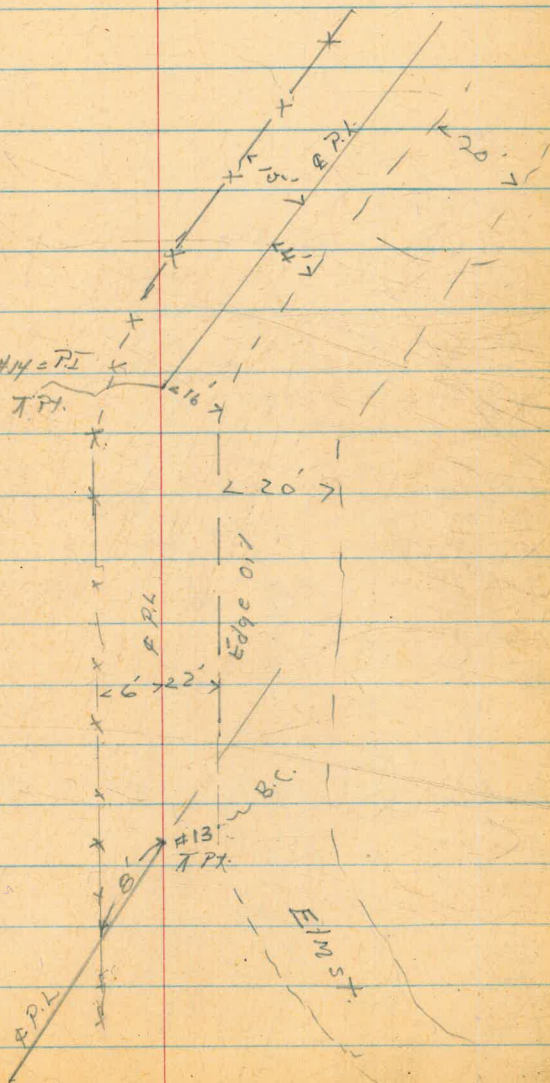
King  
West  
Williams

Elev.

Dist	Hor. A	Ver. A	Mag	Rod
#13-14	1840 (1839.5)	23° 48' Lt.	-0° 45'	S 19° W
				5.1 5.1

Corrected to  
1434.0  
1431.7 - Neg.  
Co. B.M.

#11-13	(1480)	P.O.T.	0°	Lower 10.5	1455.8
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Stadia Line F.3

King  
West.  
Williams

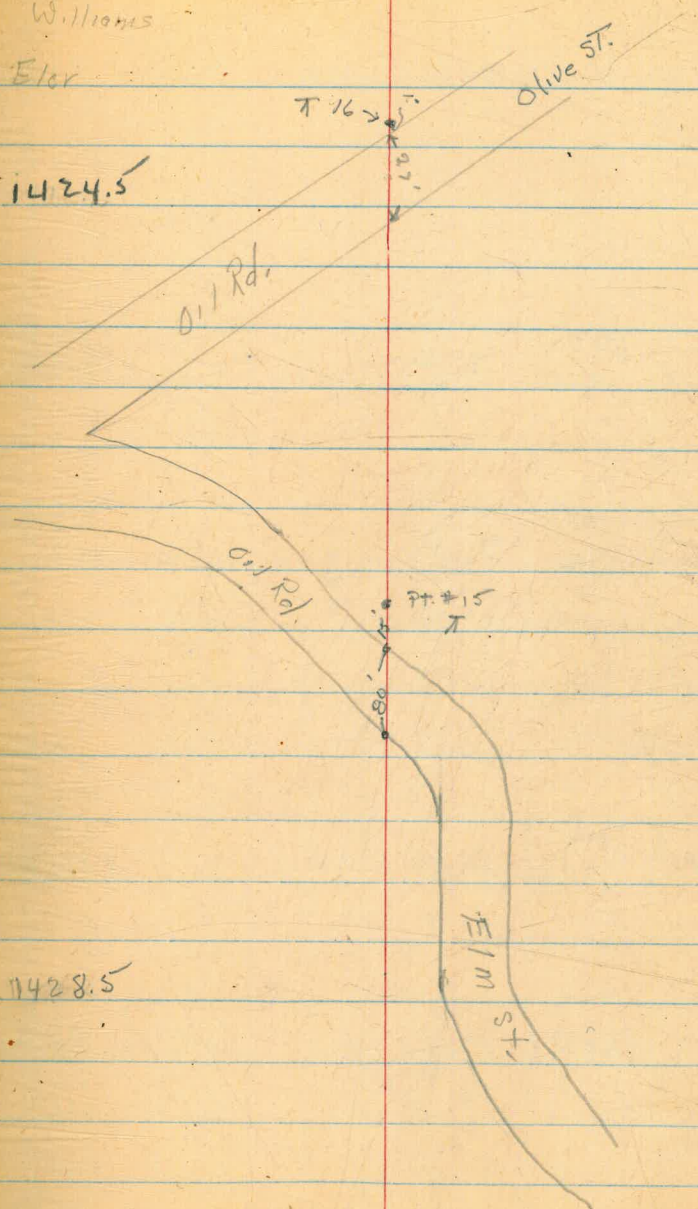
9-5-51

x

DIS	H. A	V. A	Mag.
Pt 15-16	676	P.O.T. 0°	5:1 1/2 -9.0 P.M.

Elev

1424.5



Pt 14-15	(1340) 1340	28° 34' R	-0° 14' S 47° 36' W
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1428.5



Stadia - H.3  
No. Edge Ramonilla

9-5-51

Hot

King  
West  
Williams

Elev

DIST.	H.A	V.A	Mag	Elev		
19-20	(920) 920	P.O.T. -0°22'		5.2 5.2	1408.9	• X 19

18-19	(798) 798	2°52'30" R. -0°14'	55°30' W			
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1412.1

← To Ramonilla 10 ST.  
CONC. PAV.

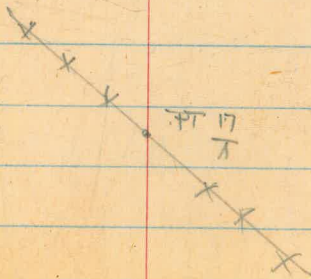
PT 18 X

→ To Escandido

17-18	(1040) 1040	P.O.T. -0°25'		5.2 5.2	1415.4	
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16-17	(425) 425	2°01' R -0°12'	55°0' W	5.2 5.2	1423.0	
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PT 17 X





Stadia A3 Line  
Sutherland - S.V. P. Line

St. #	Dist	Horz $\alpha$	Ver $\beta$	Mag Bear	Rod
23-25	(1095) 1095	P.O.T.	+0°29'		5.1 5.1
23-24	885'	72°25' L	0°	S 2°30' W	5.1 5.1
22-23	663	24°28'30" L	-0°14'	S 34° W	5.3 5.3
21-22	(696)	P.O.T.	-0°34'		5.2 5.2
20-21	(485)	6°38'36" R	+1°04'	S 62° W	5.2 5.3

9-5-5-1  
King  
West  
Williams

Hot

Elev

1417.7

1408.5

1411.2

1418.1

Pamoria

15' 5"  $\phi$  #25

Julian Rd - To S.D.  $\rightarrow$

#24

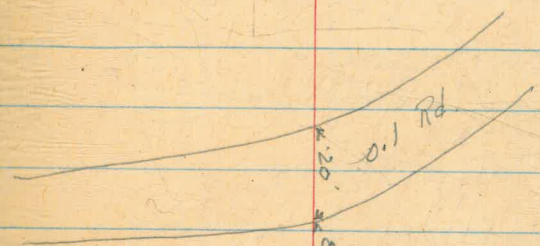
#20

#22

$\phi$  6'

$\phi$  6' #21

+ + +  $\phi$  6' #20 + + +





Stadia-A3 Line  
Sutherland-S.V.P.L.

9-6-51  
King  
West  
Williams  
Elev

Very Hot

Dist.	H.A	V.A	Mag	S.I		
30-31	(518) 517	20°53'36"R	+2°43'	523°W S.I	1505.1	T21
29-30	(1180) 1179	P.O.T	+1°22'		1480.6	T20
28-29	(1090) 1089	P.O.T	+1°22'		1453.1	T29
27-28	1424	P.O.T	+0°24'		1427.2	T28
26-27	1267	P.O.T	+0°15'	5.0 5.0	1417.2	T27
25-26	1245	P.O.T	-0°17'	5.0 5.0	1411.6	T26



Stadia - #3 Line

King 9-2-51

West

William

8

El

Dist. H.A. V.A. Mag.

34

33-34

1900'

P.O.T

+0°30'

1433.0

Set by L.H. 11

#34 End #3 Line

32-33

878'

P.O.T

-0°30'

1412.0

T 33

0.1 Rd

31-32

(2580)

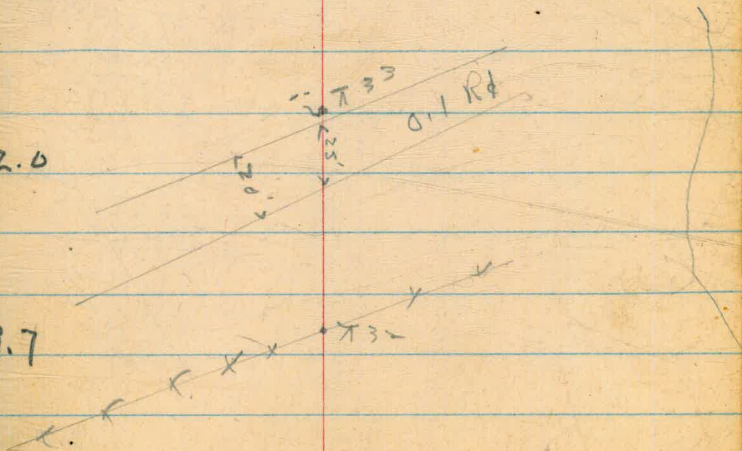
2577

P.O.T

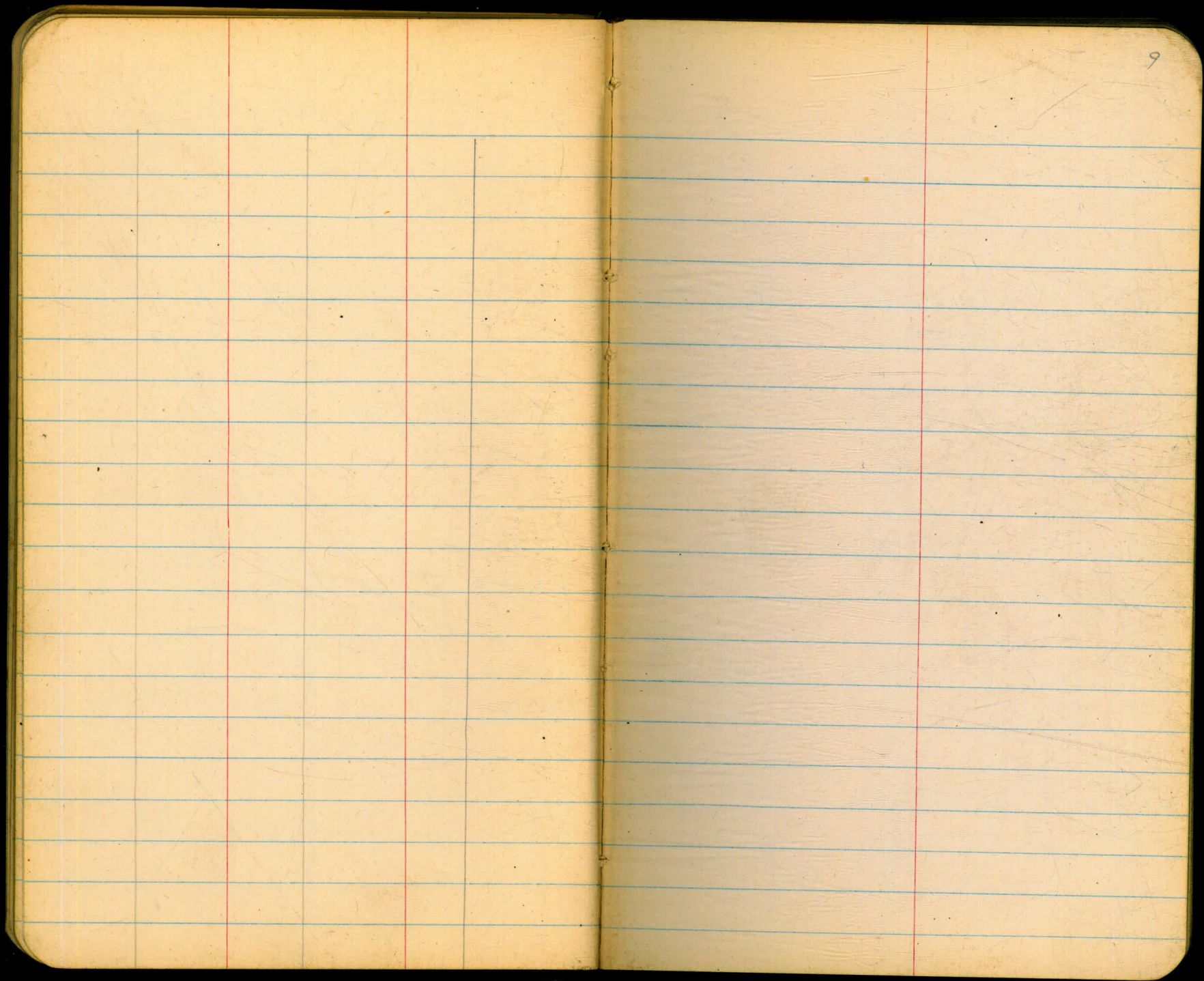
-1°54'

1419.7

T 32









B-J Stadeline  
Sutherland-S.V. P.W

	Dist.	H.A	V.A	Mag
5-6	1260	33°06'R	-10°38'	S32W
4-5	1627	0°48'R	+0°50'	S10E
3-4	997	19°38'L	0°25'	S19°W
2-3	1993	20°33'R	-0°20'	S10E
1-2	1065	26°43'L	+0°21'	S26°30W
0-1	1460	27°05'R	+0°20'	S27°W

#6

9-11-51  
King  
West  
Williams  
E1  
1490.1

1526± #5

old Julian Rd.

← Julian St

Magnolia St

1320

PT 1 & CONC. Rd.



B-1 - stadia line

9-11-51  
King  
West  
Williams

11

	Dist	H.A	V.A	Mag
11-12	700	P.O.T	-0° 26'	
10-11	1000	1044' 30" R	+0° 36'	S 58 W
9-10	1246	10° 05' R	-0° 40'	S 45 W
8-9	385	4° 48' 30" R	-0° 10'	S 41 30 W
7-8	2454	P.O.T	-0° 51'	S 26 W
6-7	725	P.O.T	+0° 11'	

E1  
1445.8  
1451.1  
1440.6  
1455.0  
1456.1  
1492.4

San Vicente  
#12

#10  
11th Ave E

#9  
Ashley Rd

#8  
Hansen Rd



B-1 Stadia line

	Dist	H. Δ	V. Δ	Mag
= Pt 34 -	A-3 line			
17-18	312'	17° 41'	+1° 19'	S 30 W
16-17	775'	P.O.T.	+0° 15'	
15-16	1910	3° 12' 30"	+0° 10'	S 48 W
14-15	1846	P.O.T.	-0° 16'	
13-14	1610	P.O.T.	-0° 22'	
12-13	1766	P.O.T.	-0° 20'	

King  
West  
Williams

9-11-51

12

B-1 - 3141' long

1436.0 = 1433.0 on A3

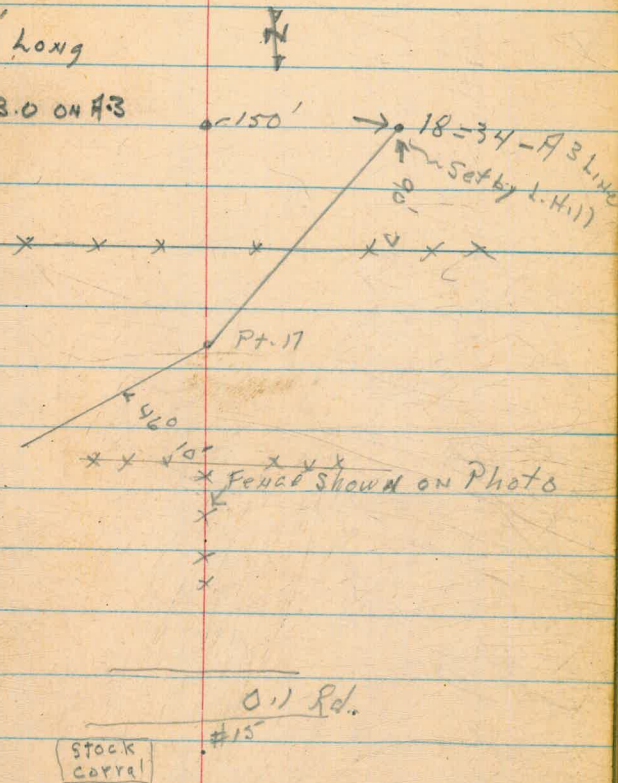
1428.8

1425.4

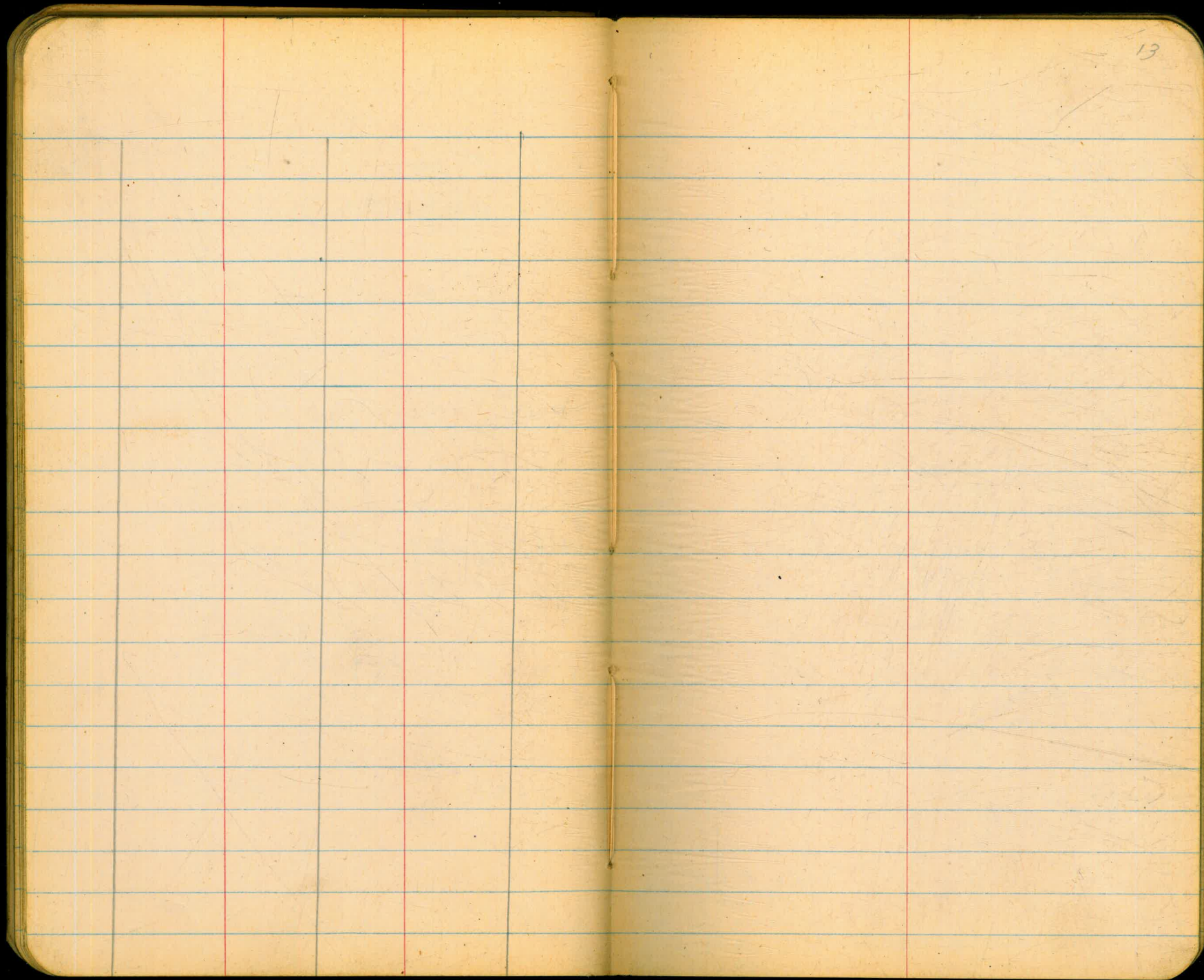
1419.9

1425.3

1435.5







Stadia Line  
 Sutherland - S.V.P.L.  
 Short cut - Sta. 214 - 270+65

Dis.	H.A	V.A
323'		
4-5 = 270+65	5°45' Lt	-1°48'

3-4	1155'	-1°17'
-----	-------	--------

2-3	1410	-2°09'
-----	------	--------

1-2	527'	P.O.T +0°57'
-----	------	--------------

0-1	1700'	14°08'R -1°45'
-----	-------	----------------

Backsite 6N214407

214447.87=0

214+0707

King 9-13-51  
 West  
 Williams

14

E1

270+65.3 - Sta on Plains

5°45' Lt.

Pt. 4

2°05'

2°05'

1823.3

14°08'R

214+47.87 Δ = 0

Sta 214+07.87 #H  
 = 214+0841.8R

2°05'

209+2567

Sta 21400 to 270+65  
 Dist by road 5665'  
 Dist along power line  
 by stadia 5115' (checked by scale)  
 Dist = 550'



Sutherland - S.V. P.L.  
 stadia line around Tunnel #1  
 E. 1933

	Dist.	Hor. A	
5-6	540'	250°24'L	N 42°18'W N 40°30'W
4-5	192'	7.05	
3-4	228'	13°05'	N 16°54' W VC N 14°W
2-3	57	40°52'L	N 5°49' W VC N 10'W
1-2	315	15°21'R	N 37°03' W VC N 41' E
0-1	383	35°42'R	N 21°42' E VC N 22° E

0 - Tunnel Portal 2415.3

525 Back

Tunnel Portal

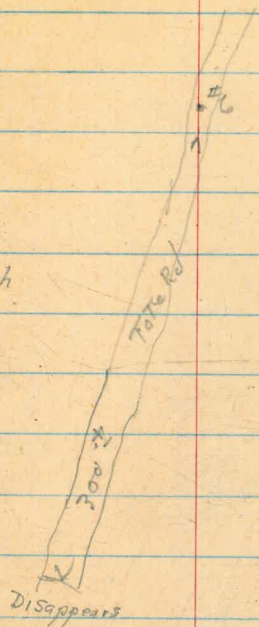
9-17-51

110°

15

King  
 Williams  
 West

Pt. # 5 on Switch  
 back Rd.



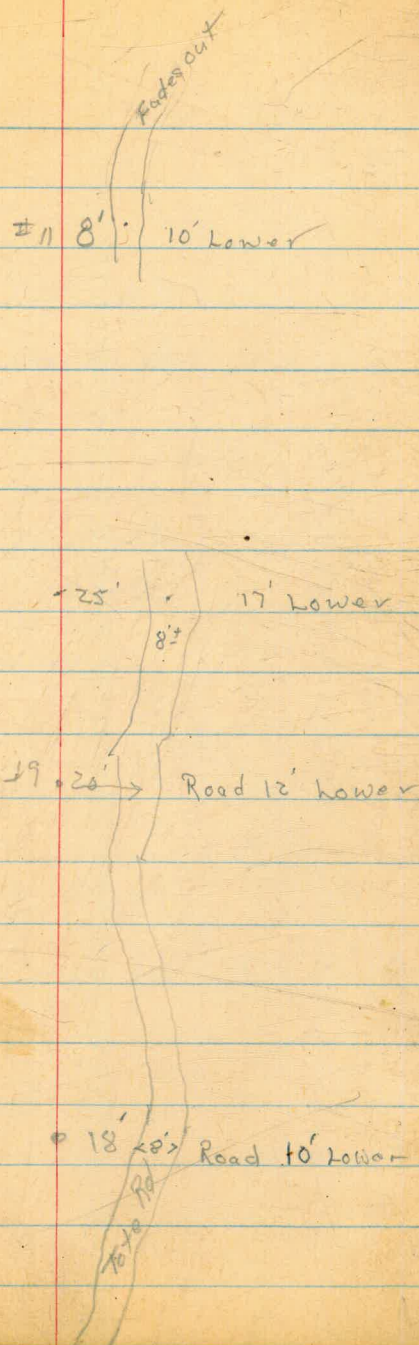
Stabia around Tunnel #1

	DIST	Hor. &	
	11-12	168	4°26' L
			S 45° 11' W S 47° W
	10-11	231'	5°53' R?
			S 49° 37' W S 52° W
	9-10	49'	8°06' L R?
			S 55° 30' W S 52° W
	8-9	48'	38°16' L?
			S 63° 36' W S 66° E W?
	7-8	86'	70°30' L
			N 78° 08' W N 75° W
	6-7	309'	25°20' L
			N 70° 55' W W/C N 70° W

9-17-51 110°

King  
West  
Williams

16





Sutherland - S.V. P.L.  
Stadia Line around Mt.  
in place of Tunnel #1

Dist. H. A

Note: Better to use old Tate

Rd. most of the way -

See Page 18

Total 3070'

#15 = 1440284

48°43' A

14-15

240'

16°26' L

S12°E

13-14

154'

20°34' L

S50°E

12-13

70'

21°42' L

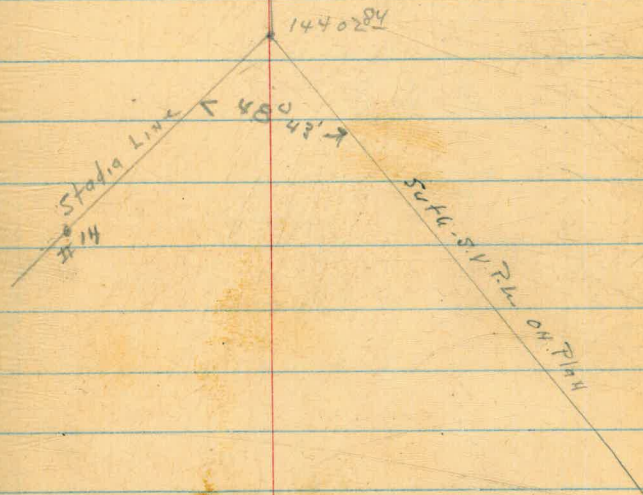
S33°29' W  
S25°W

KING  
West  
Williams

9-18-51 Very Hot

17

Tunnel 13470



Note! Pt 12 or 13 good spot to cut  
to right



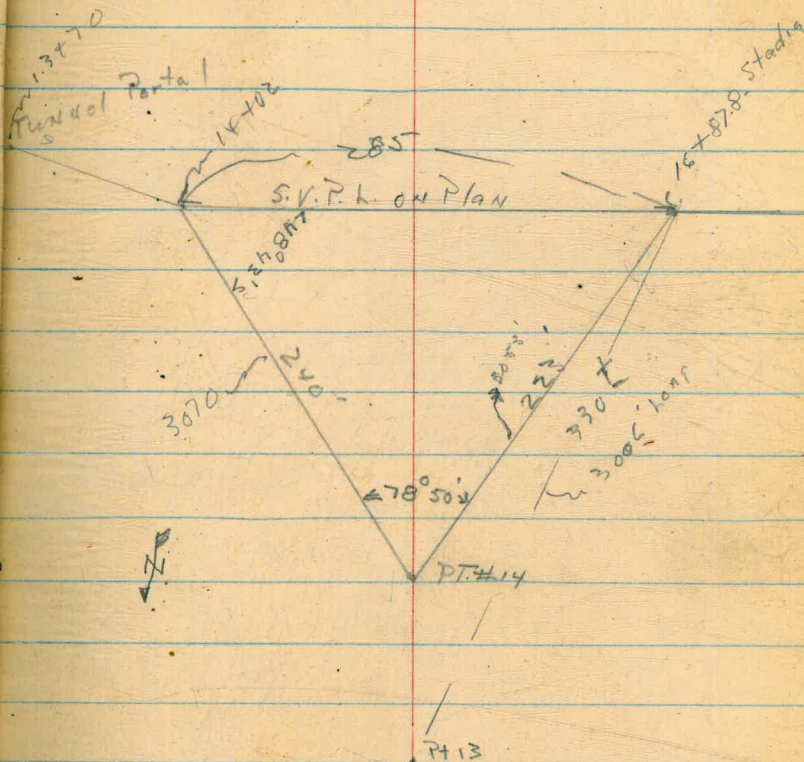
Stadia Lines  
Around Tunnel #1

King  
West  
Williams

9-19-51

Hot-100°

18





Stadia Profile  
Tunnel # 2 - Suthevlund - S.V.P.W.

Original Tunnel/Porta/ #8-171+87	Ver. Δ			
7-8 96 (913)	13°09'	1937.2	on hub	
6-7 233 (2182)	-14°29'	1958.5	#7 So. Edge Rd	
5-6 267 (2582)	-18°23'	2014.9		
2-5 1380 (1367.5)	-5°37'	1062.2		
2-4 590'	-7°50'	2114.6	Break	
2-3 425	-13°46'	2098.6	"	
1-2 88' (82.5)	+14°36'	2196.6	Top of Hill	
0-1 832 (739)	+19°38'	2175.1		
0314419		El. 1912.0		

9-28-51  
King  
West  
Williams

#0+100°

1947

El. 194-1 - see plan - #150 BK 236 P. 2

Note: Profile over Tunnel in BK. 236

171+87

170+96

168+77

166+09

166+18

158+31

156+66

152+41

151+58

144+19

see plan

Plotted 9.28.51



Check Levels  
 Suth-S.P.H.  
 245700 - 3044707

12-21-51  
 King  
 West  
 Williams

20

B.M.	12.04	1776.14		1764.10
TP	2.83	1769.55	9.42	1766.72
T.P	0.61	1756.92	13.24	1756.31
T.P	1.85	1746.05	12.72	1744.50
TP	1.06	1734.69	12.42	1733.63
TP	0.00	1721.78	12.91	1721.78
TP	0.33	1710.31	11.80	1709.98
TP	1.85	1699.17	12.99	1697.32
TP	0.14	1686.83	12.50	1686.67
T.P.	0.53	1674.60	12.76	1674.07
T.B.M.			13.75	1660.85 1660.90
T.P	1.77	1663.44	12.91	1661.69
TP	0.00	1650.62	12.84	1650.62
T.P.	1.01	1638.63	13.00	1637.62
TP	0.52	1626.09	13.06	1625.57
T.P.	0.50	1613.34	13.25	1612.84
T.B.M.			4.95	1608.39 1608.44
T.P	0.38	1600.81	12.91	1600.43
T.P	0.54	1588.76	12.59	1588.22

2x2 hub - sta 228498.55 - old line

Spike P.P. 14099 - sta 273471

Top 2x2 hub 301 + 609



Check Levels

~~1588.76~~

T.P	1.17	1577.88	12.10	1576.66	1576.71
T.P	0.42	1565.90	12.40	1565.48	
T.P	1.25	1554.17	12.98	1552.92	
	1.70	1543.44	12.43	1541.74	
ck. TBM	40.21	1535.54	8.09	1535.33	1535.31
	1.44	1526.81	10.17	1525.37	
			9.19	1517.62	1517.64

12-21-51  
KING

cold/clear

21

N.W. cor Well - 307444

Nail in P.P. #14083 - 357455

B.M. #7 B.K. 236 P.45 - Spire in N.E. cor. P.P. #14079  
Magnahast & Co.  
Rd.



Relocation P.L.  
Across Tunnel #3  
4 So. to sta. 245+00

1406' Pt

6° 32' 55" Pt

18° 17'

King  
Jacob's  
Market

6-11-52

22

sta 245+00 - new sta. 240+81.5

Schanke Prof

New sta 237+95.97

799.70

= 21470.07  
old sta 214+00.07  
H/T old line

14° 06' Pt.

392

H/T

Note: use old line from  
this pt. back

470.84

6° 32' 55" Pt

old H/T old sta. 209+25.17

Perhaps 657.75  
VLC

see FB 825  
page 18

18°

H/T old sta 202+68.57

= 202+68.57 K flow

sta 172+00

Tunnel Portal



PROFILE S.V.P.L.  
X-SECT.

WILLIAMS T 8-29-52  
JACOBS †  
KEMP †  
Mc HORNEY

23

Hot

	+	H.I.	-	EL.	E.EL.
B.M. #6	7.13	1725.95		1718.82	
T.P.	11.72	1736.78	0.89	1725.06	
63+86			5.4	31.4	
T.P.	12.67	1748.85	0.60	1736.18	
64+84.51			1.22	47.6	
T.P.	12.12	1760.88	0.89	1747.96	
T.P.	11.52	1771.60	00.00	1760.08 V.L.C. <del>1747.46</del>	
64+77			11.80	59.8	
P.O.T. 65+36.26			0.8	70.8	
T.P.	9.75	1781.03	0.32	1771.28	

Bridge - 60+?

R.K. 20' LFT. 63+65 YELLOW REEL

+13.4	+8.0	+6.3	-0.4	-5.8	-4.8	-4.7	-6.8
50'	25'	15'	4'	16'	28'	30'	35'

R.K. 64+02 YELLOW REEL

+20.4	+15.0	+9.6	+3.4	-5.4	-13.0	-18.8	-19.0
47'	35'	23'	9'	17'	28'	32'	40'

R.K. 2' AT 64+39 YELLOW REEL.

+15.4	+13.4	+8.0	+5.0	-6.3	-14.4	-14.6
40'	31'	21'	12'	15'	30'	39'

+20.0	+14.6	+9.2	+4.0	-5.4	-13.0	-15.1
48'	36'	24'	11'	16'	35'	40'

R.K. 65+42 YELLOW REEL



PROFILE S.V.P.L

X-SECT

H' 1781.03 - 11.2

WILLIAMS T 8.29-52  
JACOBS †  
KEMP †  
McHORNEY - LT.

HOT

24

65+75 ✓		8.2 ✓	✓ 75.8	+21.0 43'	+15.1 34'	+9.7 25'	+5.0 13'	-5.4 14'	-11.0 28'	-12.9 35'	-14.9 40'
66+37 ✓		3.7 ✓	✓ 77.3	26.8 Rock 40'	+17.7 31'	+15.6 22'	+8.6 17'	-5.4 10'	-16.0 34'	-19.8 42'	
T.P.	1047 ✓	1778.55 ✓	1265 ✓	1762.38 ✓	66+42 - 21x30x38 - 10' Lt. ♀ - Large bldr						
66+80 ✓		15.8 ✓	✓ 63.1	+24.0 40'	24.0 40'	+24.5 14'	+4.2 9'	-5.4 10'	-12.6 26'	-16.3 35'	-22.3 40'
66+99 ✓		18.6 ✓	✓ 60.3	+31.4 40'	+16.0 28'	+11.3 20'	+5.6 5'	-5.4 18'	-11.7 30'	-12.2 40'	
67+14 ✓		9.5 ✓	✓ 69.4	+16.8 38'	+11.4 27'	+6.0 16'	+0.6 8'	-4.8 12'	-14.6 31'	-17.6 40'	
67+50 ✓		4.7 ✓	✓ 74.2	+16.8 40'	+11.4 27'	+9.5 17'		-10.1 21'	-13.6 29'	-17.1 37'	-18.0 40'
68+00 ✓		0.90 ✓	✓ 78.0	+16.0 40'	+8.5 23'	+5.1 12'		-5.7 12'	-10.9 24'	-14.3 32'	-17.9 40'
T.P.	1252 ✓	1789.81 ✓	156 ✓	1777.29 ✓							
P.O.T. 68+67 ✓		4.5 ✓	✓ 85.2	+15.0 42'	+9.3 26'	+1.5 8'		-5.7 13'	-9.1 21'	-13.6 30'	-18.6 40'



PROFILE S.V.P.L.

X-SECT

H.I. ✓  
1789.81

FL

WILLIAMS X 8-29-52  
JACOBS †  
KEMP †  
McHONEY

HOT

25.

69+00 ✓

7.6 ✓

✓ 82.2

LT. RT.  
+18.0 / 40' +11.8 / 24' +4.6 / 9' -5.7 / 12' -8.6 / 21' -12.6 / 27' -21.3 / 40'

69+50 ✓

11.5 ✓

✓ 78.3

+17.8 / 40' +16.8 / 35' +11.1 / 21' +5.9 / 14' -5.7 / 12' -11.3 / 29' -14.9 / 40'

69+65 ✓

8.5 ✓

✓ 81.3

<sup>103.3</sup> +22.5 / 44' +16.8 / 34' +11.1 / 24' +6.0 / 12' -5.7 / 15' -11.3 / 25' -22.5 / 45' <sup>58.8</sup>

T.P. ✓

1265 ✓ 1801.14 ✓ 132 ✓ 1788.49 ✓

69+86 ✓

-15 ✓

✓ 799.6

<sup>115.3</sup> +15.7 / 40' +10.0 / 26' +7.6 / 15' -6.0 / 11' -9.0 / 19' -14.0 / 28' -24.0 / 46' <sup>75.6</sup>

70+55 ✓

12.4 ✓

✓ 88.7

<sup>112.3</sup> +23.8 / 41' +18.1 / 31' +12.4 / 21' +7.0 / 13' -5.5 / 16' -5.3 / 36' -5.3 / 40'

T.P. ✓

1248 ✓ 1813.43 ✓ 0.20 ✓ 1800.94 ✓

R.K. 70+90

71+00 ✓

5.4 ✓

✓ 08.0

+3.8 / 40' -3.0 / 23' -1.5 / 13' -1.0 / 19' -5.2 / 36' -6.3 / 41'

T.P. ✓

1267 ✓ 1825.75 ✓ 0.34 ✓ 1813.08 ✓

T.P. ✓

1270 ✓ 1837.73 ✓ 0.72 ✓ 1824.98 ✓

1825.03 ✓ QW.



PROFILE S.V.P.2.  
X-SECT.

	+	HI 1837.73	-	EL.
T.P.	12.94	1850.53	0.14	1837.59
71+50			12.9	37.6
T.P.	13.02	1863.17	0.38	1850.15
T.P.	12.92	1875.61	0.48	1862.69
72+00			7.7	67.9
T.P.	11.55	1882.13	0.03	1875.58
T.P.	13.25	1900.05	0.33	1886.80
72+50			9.6	90.5
T.P.	12.43	1912.37	0.11	1899.91
72+88			11.1	01.3

WILLIAMS T. 8-29-52  
JACOBS †  
KEMP †  
Mc HORNEY  
LT.

HOT

26.

RT.

$\frac{+0.9}{40'}$   $\frac{+3.2}{22'}$   $\frac{+0.3}{10'}$   $\frac{-1.2}{15'}$   $\frac{-4.9}{27'}$   $\frac{-8.6}{40'}$

$\frac{+2.7}{41'}$   $\frac{+2.8}{37'}$   $\frac{-0.4}{17'}$   $\frac{-4.7}{19'}$   $\frac{-3.0}{36'}$  RK 40'

$\frac{+0.0}{4.0'}$   $\frac{+0.1}{32'}$   $\frac{+0.1}{13'}$   $\frac{-2.8}{16'}$   $\frac{-5.4}{38'}$

$\frac{+4.9+3.9}{38' 15'}$   $\frac{+0.0}{14'}$   $\frac{-1.4}{19'}$   $\frac{-6.8}{30'}$   $\frac{-8.4}{40'}$



PROFILE S.V.P.L.  
X-SECT.

H.I. ✓

+ 1912.37 - EI.

73+00 ✓ 5.0 ✓ 07.4 ✓

73+50 ✓ 3.3 ✓ 09.1 ✓

73+70 ✓ 2.7 ✓ 09.7 ✓

73+93 ✓ 7.1 ✓ 05.3 ✓

T. P. 11.99 1922.93 1.43 1910.94

74+50 ✓ 10.7 ✓ 12.2 ✓

75+00 ✓ 7.0 ✓ 15.9 ✓

Old 2x2 466  
75+22.07 ✓ 5.30 ✓ 17.6 ✓

75+48 ✓ 4.4 ✓ 18.5 ✓

75+65 ✓ 2.0 ✓ 20.9 ✓

WILLIAMS T 8-29-52  
JACOBS †  
KEMP †  
Mc HORNEY

Hot

27

Lt. Rt.  
 $\frac{+0.4}{40'}$   $\frac{+0.2}{34'}$   $\frac{+0.8}{25'}$   $\frac{-3.1}{10'}$   $\frac{-10.9}{40'}$

$\frac{+7.7}{41'}$   $\frac{+7.7}{32'}$   $\frac{+3.7}{15'}$   $\frac{-3.8}{15'}$   $\frac{-7.2}{30'}$   $\frac{-9.4}{40'}$

$\frac{+7.2}{45'}$   $\frac{+5.2}{37'}$   $\frac{+2.0}{17'}$   $\frac{-5.8}{14'}$   $\frac{-10.7}{32'}$   $\frac{-13.3}{43'}$

<sup>16.5</sup>  $\frac{+11.2}{40'}$   $\frac{+8.2}{32'}$   $\frac{+6.0}{23'}$   $\frac{+2.7}{11'}$   $\frac{-1.8}{10'}$   $\frac{-7.6}{27'}$   $\frac{-12.0}{40'}$  <sup>93.3</sup>

$\frac{+13.5}{40'}$   $\frac{+12.2}{36'}$   $\frac{+7.0}{23'}$   $\frac{+4.4}{15'}$   $\frac{-5.8}{14'}$   $\frac{-11.1}{31'}$   $\frac{-14.3}{40'}$

$\frac{+13.5}{42'}$   $\frac{+8.2}{28'}$   $\frac{+2.2}{10'}$   $\frac{-5.8}{15'}$   $\frac{-10.6}{32'}$   $\frac{-15.6}{40'}$

$\frac{+12.2}{40'}$   $\frac{+7.0}{25'}$   $\frac{+2.0}{9'}$   $\frac{-0.6}{6'}$   $\frac{-3.1}{7'}$   $\frac{-8.3}{20'}$   $\frac{-14.0}{40'}$

$\frac{+12.2}{41'}$   $\frac{+4.0}{13'}$   $\frac{+0.2}{5'}$   $\frac{-0.5}{10'}$   $\frac{-8.8}{32'}$   $\frac{-10.0}{40'}$

$\frac{+9.2}{40'}$   $\frac{+7.0}{35'}$   $\frac{+3.2}{17'}$   $\frac{-2.0}{4'}$   $\frac{-2.5}{15'}$   $\frac{-7.2}{30'}$   $\frac{-10.6}{40'}$

✓  
sketch  
16x



PROFILE S.V.P.L.  
X-SECT.

H.I

+ 1922.93 - E.I.

7 T.P. 2.82 1922.03 3.72 1919.21

75 Old 2x2 Hub  $\Delta$  75+95.66  $\downarrow$  3.30  $\checkmark$  18.7  $\checkmark$

75 Old 2x2 Hub  $\Delta$  76+52.89  $\downarrow$  4.8  $\checkmark$  17.2  $\checkmark$

7 T.P. 0.34 1910.21 12.16 1909.87

77+00  $\downarrow$  9.6  $\checkmark$  00.6  $\checkmark$

75 T.P. 0.62 1897.86 12.97 1897.24

75 77+35  $\downarrow$  11.2  $\checkmark$  86.7  $\checkmark$

75 Old T.P. 0.44 1885.48 12.82 1885.04

75 77+50  $\downarrow$  7.3  $\checkmark$  78.2  $\checkmark$

75 T.P. 0.59 1873.90 12.17 1873.31

WILLIAMS T 8-29-52  
JACOBS 9  
KEMPT  
Mc HONEY Lt.

Ho T.

28

Rt.

$\frac{+11.2}{41'}$   $\frac{+7.2}{20'}$   $\frac{+0.5}{3'}$   $\frac{+0.0}{3'}$   $\frac{-4.7}{20'}$   $\frac{-10.0}{40'}$

$\frac{+9.2}{45'}$   $\frac{+7.2}{32'}$   $\frac{+0.8}{8'}$   $\frac{-1.3}{4'}$   $\frac{-12.0}{31'}$   $\frac{-15.7}{40'}$

$\frac{+8.2}{40'}$   $\frac{+4.2}{33'}$   $\frac{+5.0}{21'}$   $\frac{+2.2}{10'}$   $\frac{-1.8}{7'}$   $\frac{-8.4}{20'}$   $\frac{-13.7}{40'}$

$\frac{+11.5}{40'}$   $\frac{+11.4}{34'}$   $\frac{+7.6}{30'}$   $\frac{+1.0}{13'}$   $\frac{-1.8}{11'}$   $\frac{-5.0}{30'}$   $\frac{-7.5}{40'}$

$\frac{+18.5}{40'}$   $\frac{+15.5}{30'}$   $\frac{+9.6}{20'}$   $\frac{-0.8}{8'}$   $\frac{-3.0}{36'}$   $\frac{-4.5}{40'}$



PROFILE S.V.P.L.

X - Sect.

H.I. ✓

+ 1873.90 - E.I.

77+82 ✓

7.3 ✓

✓66.6

77+96 ✓

16.7 ✓

✓57.2

78+22 ✓

14.6 ✓

✓59.3

T.P.

0.84 ✓ 1867.06 ✓

7.68 ✓ 1866.22 ✓

78+50 ✓

11.5 ✓

✓55.6

T.P.

1.15 ✓ 1855.47 ✓

12.74 ✓ 1854.32 ✓

79+00 ✓

12.5 ✓

✓43.0

T.P.

0.73 ✓ 1842.91 ✓

13.29 ✓ 1842.18 ✓

T.P.

0.21 ✓ 1830.46 ✓

12.66 ✓ 1830.25 ✓

79+50 ✓

4.5 ✓

✓26.0

WILLIAMS T 8-29-52

JACOBS †

KEMP †

McHORNSEY

Lt.

Rt.

HOT

29

+17.6 / 38' +11.2 / 26' +8.0 / 20' +4.0 / 7' -1.8 / 9' -3.7 / 16' -3.0 / 29' -4.7 / 40'

+24.3 / 41' +15.9 / 29' +10.5 / 17' +5.9 / 10' -2.6 / 7' -1.7 / 30' -0.5 / 44'

+21.5 / 44' +13.0 / 28' +7.6 / 17' -5.3 / 13' -17.3 / 40'

+20.4 / 41' +18.4 / 37' +13 / 27' +7.6 / 17' -4.3 / 11' -6.0 / 18' -9.6 / 30' -15.0 / 40'

Blue ○ on Rock 78+58

+18.6 / 40' +16.6 / 30.5' +10.7 / 25' +5.8 / 18' -5.4 / 11' -7.6 / 20' 14.0 / 40'

Blue ○ on Rock 79+02

Blue ○ on Rock 79+36

Large Large Blinds Start +4.6 / 15' -5.4 / 13' -11.3 / 29' -19.3 / 37' RD. / 40'



PROFILE S.V.P.2

X SECT.

H.I.

+ 1830.46 - EI.

79+68 ✓

9.8 ✓

✓ 20.7

T.P.

1.14 ✓

1819.35 ✓

12.25 ✓

1818.21 ✓

79+93 ✓

6.2 ✓

✓ 13.2

80+02 ✓

10.8 ✓

✓ 08.6

Old 2x2 Hub ✓

80+27.5

9.63 ✓

✓ 09.7

T.P.

7.60 ✓

1816.19 ✓

10.76 ✓

1808.59 ✓

Check to  
B.M. #8

2.01 ✓

1814.18 ✓

1814.21 ✓

B.M. #8

095 ✓

1815.16 ✓

1814.21 ✓

80+34 ✓

11.0 ✓

✓ 04.2

T.P.

1.61 ✓

1804.21 ✓

12.56 ✓

1802.60 ✓

WILLIAMS ↑

8-29-52

JACOBS ↓

KEMP ↓

McHONEY

HOT

30.

L+

RK

RK

3'

RK

- 5.4 - 7.1 - 13.6 - 13.7  
14' 20' 26' 43'

From 79+80 - 80+2  
Large Ridge 5' Average  
Tack. R. Contractor need Max  
Move for R.H. Average of 20'  
From 71.

RK

+ 6.9

- 1.0

- 4.5

- 4.8

- 11.5

- 14.5

13

6

28'

30

40'

RK

+ 1.0

- 0.4

- 1.5

- 8.7

- 14.7

5'

20

23

25'

40'

RK

+ 6.0

+ 0.6

- 0.3

- 4.0

- 8.1

- 18.0

- 20.5

40'

33'

25'

6'

7'

11'

32'

40'

SPIKE OAK TREE WEST SIDE RD. 50' So. STA. 80+50

+ 9.0

+ 7.5

+ 7.0

- 5.0

- 15.0

- 16.7

50'

14'

4'

13

33'

40

RED @ ON ROCK



PROFILE S.V.P.2

X - SECT.

HI. ✓ - EL. ✓

WILLIAMS X 9-2-52  
McHORNEY ♀  
JACOBS &  
KEMP

31

HOT

L.T.

R.T.

T.P. 0.43 ✓ 1791.56 ✓ 13.08 ✓ 1791.13 ✓

RED O ON ROCK

80+92 ✓ 10.2 ✓ 1781.4 ✓

$\frac{+5.4}{40'} \frac{0.0}{21'} \frac{+2.0}{14'} \frac{-5.4}{16'} \frac{-13.3}{35'} \frac{-15.4}{40'}$

T.P. 0.79 ✓ 1779.95 ✓ 12.50 ✓ 1779.06 ✓

RED O ON ROCK

T.P. 2.13 ✓ 1769.38 ✓ 12.60 ✓ 1767.25 ✓

T.P. 0.36 ✓ 1758.07 ✓ 11.67 ✓ 1757.71 ✓

RED O ON ROCK

81+37 ✓ 7.5 ✓ 1750.6 ✓

$\frac{+18.8}{40'} \frac{+15.9}{34'} \frac{+10.5+3.5}{22' 11'} \frac{+2.0}{5'} \frac{+4.6}{27'} \frac{+1.4+6}{35'} \frac{+2.6}{40'}$

81+50 ✓ 10.7 ✓ 1747.4 ✓

$\frac{+29.2}{45'} \frac{+13.0+7.6}{21' 13'} \frac{-4.0}{13'} \frac{-3.4}{23'} \frac{-1.4}{35'} \frac{-2.2}{40'}$

81+78 ✓ 6.8 ✓ 1751.3 ✓

$\frac{+23.8+18.4}{45' 36'} \frac{+13.0+7.6}{27' 18'} \frac{-3.9}{9'} \frac{-16.5}{25'} \frac{-14.0}{45'}$

82+00 ✓ 8.1 ✓ 1750.0 ✓

$\frac{+12.4}{40'} \frac{+11.6}{35'} \frac{+10.6+4.6}{28' 10'} \frac{-5.4}{10'} \frac{-9.8}{18'} \frac{-21.0}{37'} \frac{-21.3}{40'}$

82+14 ✓ 11.8 ✓ 1746.3 ✓

$\frac{+13.1}{40'} \frac{+13.0}{35'} \frac{+7.6}{18'} \frac{-5.4}{12'} \frac{-9.5}{25'} \frac{-15.0}{40'}$



PROFILE S.V.P.L.

X-SECT

HI. - EL.

1758.07 ✓

EL.

WILLIAMS &  
MCHORNEY & 9-2-52  
JACOBS &  
KEMP

32.

HDT

L.T.

RT.

T.P. 6.45 ✓ 1751.65 ✓ 12.87 ✓ 1745.20 ✓

82+44 ✓ 18.6 ✓ 33.1 ✓

$\frac{+10.0}{37'} + \frac{4.6}{24'} + \frac{3.5}{15'} + \frac{1.8}{15'}$   $\frac{0.0}{3'}$   $\frac{-1.5}{4'}$   $\frac{-4.4}{20'}$   $\frac{-10.0}{40'}$

83+00 ✓ 6.5 ✓ 45.2 ✓

$\frac{+9.2}{41'}$   $\frac{+7.5}{31'}$   $\frac{+3.7}{14'}$   $\frac{-6.5}{10'}$   $\frac{-14.7}{27'}$   $\frac{-20.3}{39'}$

T.P. 0.47 ✓ 1738.89 ✓ 13.23 ✓ 1738.42 ✓

RED @ ON ROCK

83+50 ✓ 8.2 ✓ 30.7 ✓

$\frac{+13.5}{40'}$   $\frac{+10.0}{30'}$   $\frac{+4.7}{15'}$   $\frac{-4.5}{12'}$   $\frac{-8.4}{22'}$   $\frac{-15.8}{40'}$

T.P. 0.82 ✓ 1726.93 ✓ 12.78 ✓ 1726.11 ✓

RED @ ON ROCK

84+00 ✓ 11.8 ✓ 15.1 ✓

$\frac{+16.7}{40'}$   $\frac{+10.0}{27'}$   $\frac{+3.6}{10'}$   $\frac{-5.8}{11'}$   $\frac{-8.7}{24'}$   $\frac{-12.8}{40'}$

T.P. 0.56 ✓ 1715.16 ✓ 12.33 ✓ 1714.40 ✓

RED @ ON ROCK

84+50 ✓ 12.5 ✓ 02.7 ✓

$\frac{+16.2}{42'}$   $\frac{+10.0}{25'}$   $\frac{+4.0}{8'}$   $\frac{-5.8}{15'}$   $\frac{-9.9}{26'}$   $\frac{-15.8}{40'}$

T.P. 0.50 ✓ 1702.65 ✓ 13.01 ✓ 1702.15 ✓

RED @ ON ROCK



PROFILE S.V.P.L.

X-SECT.

+ HI. EL. 1702.65

WILLIAMS X  
McHORNEY + 9-2-52  
JACOBS φ  
KEMP L.T.

HOT

33

R.T.

85+00

11.0

1691.7

$\frac{+14.5}{40'}$   $\frac{+11.0}{30'}$   $\frac{+4.2}{12'}$

$\frac{-4.1}{12'}$   $\frac{-6.5}{20'}$   $\frac{-14.5}{40'}$

T.P.

1.30

1691.23

12.72

1689.93

RED @ ON ROCK

85+22

3.7

87.5

$\frac{+12.2}{40'}$   $\frac{+9.4}{27'}$   $\frac{+5.2}{15'}$

$\frac{-5.8}{11'}$   $\frac{-9.0}{22'}$   $\frac{-17.3}{40'}$

85+36

10.0

81.2

$\frac{+19.8}{47'}$   $\frac{+14.0}{28'}$   $\frac{+7.4}{13'}$   $\frac{+4.6}{4'}$   $\frac{+0.8}{2'}$

$\frac{-6.6}{14'}$   $\frac{-12.0}{25'}$   $\frac{-16.0}{40'}$

85+50

9.5

81.7

$\frac{+11.7}{40'}$   $\frac{+7.5}{27'}$   $\frac{+4.2}{10'}$

$\frac{-5.8}{13'}$   $\frac{-13.4}{27'}$   $\frac{-18.9}{37'}$   $\frac{-21.6}{42'}$

T.P.

1.55

1680.17

12.61

1678.62

RED @ ON ROCK

85+86

5.6

74.6

$\frac{+12.0}{40'}$   $\frac{+8.0}{29'}$   $\frac{+6.0}{17'}$

$\frac{-5.4}{13'}$   $\frac{-10.5}{35'}$   $\frac{-12.5}{43'}$

86+04

15.4

64.8

$\frac{+20.1}{40'}$   $\frac{+17.6}{31'}$   $\frac{+5.0}{8'}$

$\frac{-9.2}{12'}$   $\frac{-7.3}{15'}$   $\frac{-10.1}{28'}$   $\frac{-14.9}{43'}$

86+20

11.1

69.1

$\frac{+15.2}{41'}$   $\frac{+13.0}{36'}$   $\frac{+8.7}{22'}$

$\frac{-5.4}{10'}$   $\frac{-9.4}{17'}$   $\frac{-16.3}{37'}$   $\frac{-17.7}{41'}$

86+50

9.2

71.0

$\frac{+11.1}{40'}$   $\frac{+8.6}{35'}$   $\frac{+4.0}{18'}$

$\frac{-5.4}{16'}$   $\frac{-10.4}{35'}$   $\frac{-12.9}{42'}$

and  
also



PROFILE S.V.P.L.  
X-SECT

WILLIAMS X  
Mc HORNBY & 9-2-52  
JACOBS &  
KEMP

34.

	+	HI. 1680.17	-	EL.	LT.	HOT	RT.							
T.P.	0.61 ✓	1667.82 ✓	12.96 ✓	1667.21 ✓										
87+00 ✓			4.7 ✓	63.12 ✓	$\frac{+12.1}{42'}$	$\frac{+8.4}{30'}$	$\frac{+4.0}{16'}$	$\frac{-5.4}{22'}$	$\frac{-7.2}{29'}$	$\frac{-11.0}{41'}$				
87+23 ✓			8.3 ✓	59.5 ✓	$\frac{+9.2}{40'}$	$\frac{+4.6}{20'}$	$\frac{-5.4}{21'}$	$\frac{-7.8}{33'}$	$\frac{-10.6}{44'}$					
T.P.	2.78 ✓	1657.55 ✓	13.05 ✓	1654.77 ✓										
87+37 ✓			2.9 ✓	54.7 ✓	$\frac{+10.3}{40'}$	$\frac{+6.0}{21'}$	$\frac{-5.4}{23'}$	$\frac{-4.1}{31'}$	$\frac{-7.7}{40'}$					
87+77 ✓			31.5 ✓	26.1 ✓	$\frac{+27.7}{40'}$	$\frac{+25.0}{35'}$	$\frac{+15.6}{23'}$	$\frac{+8.6}{15'}$	$\frac{-5.4}{13'}$	$\frac{-7.0}{27'}$	$\frac{-8.6}{38'}$	$\frac{-11.0}{40'}$		
88+30 ✓			6.0 ✓	51.6 ✓	$\frac{+11.6}{42'}$	$\frac{+9.4}{35'}$	$\frac{+5.0}{18'}$	$\frac{-5.4}{28'}$	$\frac{-8.8}{40'}$					
RET. RED HEAD 88+47 ✓			4.7 ✓	52.9 ✓	$\frac{+8.6}{40'}$	$\frac{+6.6}{30'}$	$\frac{+4.0}{19'}$	$\frac{-5.4}{20'}$	$\frac{-8.6}{33'}$	$\frac{-11.5}{42'}$				
88+65 ✓			9.0 ✓	48.6 ✓	$\frac{+10.6}{42'}$	$\frac{+4.0}{27'}$	$\frac{+3.0}{20'}$	$\frac{-5.4}{15'}$	$\frac{-8.6}{27'}$	$\frac{-12.2}{39'}$				
89+02 ✓			34.3 ✓	23.3 ✓	$\frac{+16.4}{39'}$	$\frac{+14.4}{34'}$	$\frac{+9.0}{27'}$	$\frac{+7.9}{24'}$	$\frac{+4.6}{11'}$	$\frac{-1.7}{13'}$	$\frac{-2.3}{22'}$	$\frac{-4.2}{29'}$	$\frac{-4.3}{32'}$	$\frac{-4.6}{41'}$



PROFILE S.V.P.2.

X- Sect.

+ HI. 55, - EL.

89+06 | 26.4 ✓ | 31.2 ✓

89+39 | 7.1 ✓ | 50.5 ✓

T.P. | 13.17 ✓ | 1679.32 ✓ | 0.40 ✓ | 1657.15 ✓

90+00 | 3.5 ✓ | 66.7 ✓

T.P. | 12.84 ✓ | 1682.61 ✓ | 0.60 ✓ | 1669.72 ✓

90+50 | 6.9 ✓ | 75.7 ✓

T.P. | 13.12 ✓ | 1695.01 ✓ | 0.70 ✓ | 1681.91 ✓

91+00 | 10.6 ✓ | 84.4 ✓

91+50 | 2.5 ✓ | 92.5 ✓

T.P. | 13.07 ✓ | 1707.16 ✓ | 0.92 ✓ | 1694.04 ✓

WILLIAMS X

MO. HORNEY ↑

JACOBS ↑

KEMP

9-2-52

HOT

35.

LT.

RT.

+12.0 +13.0 +11.6 -5.9 -4.0 -2.5 -4.2  
40' 32' 15' 9' 30' 31' 40'

+ 13. / 42' + 7.7 / 25' + 4.5 / 15' -3.6 / 18' -6.5 / 30' -7.0 / 37' -6.9 / 40'

+ 10.7 / 46' + 5.0 / 26' -4.7 / 18' -8.2 / 31' -10.9 / 41'

YELLOW REEL @ RR

+ 10.0 / 40' + 4.0 / 16' -3.2 / 16' -9.3 / 40'

End  
Sh 20

+ 12.1 / 41' + 10.5 / 31' + 5.2 / 20' -4.8 / 14' -6.8 / 28' -9.9 / 38' -11.4 / 43'

+ 13.5 / 43' + 11.3 / 32' + 4.7 / 14' -3.7 / 12' -7.7 / 29' -11.7 / 46'

RR YELLOW @ 91+55



PROFILE S.V.P.L

X- SECT.

+ HI. ✓ - EL.

1707.16 ✓

WILLIAMS T  
Mc HORNEY †  
JACOBS †  
KEMP

9-2-52

HOT

36

LT.

RT.

+  $\frac{15.6}{45'}$  +  $\frac{9.3}{30'}$  +  $\frac{3.6}{15'}$  -  $\frac{4.1}{15'}$  -  $\frac{8.2}{30'}$  -  $\frac{12.3}{45'}$

92+00 ✓

4.8 ✓

✓ 02.4

T.P.

10.99 ✓

1717.58 ✓

0.57 ✓

1706.59 ✓

92+50 ✓

5.8 ✓

✓ 11.8

+  $\frac{13.2}{40'}$  +  $\frac{6.6}{20'}$  -  $\frac{2.8}{10'}$  -  $\frac{6.4}{20'}$  -  $\frac{12.8}{40'}$

92+80 ✓

3.1 ✓

✓ 14.5

+  $\frac{14.4}{41'}$  +  $\frac{8.7}{28'}$  +  $\frac{6.3}{23'}$  -  $\frac{4.6}{18'}$  -  $\frac{5.2}{20'}$  -  $\frac{10.4}{40'}$

T.P.

12.12 ✓

1729.45 ✓

0.25 ✓

1719.33 ✓

93+00 ✓

9.2 ✓

✓ 20.3

+  $\frac{14.9}{40'}$  +  $\frac{9.2}{30'}$  +  $\frac{5.1}{18'}$  -  $\frac{0.4}{7'}$  -  $\frac{6.8}{21'}$  -  $\frac{8.0}{28'}$  -  $\frac{10.4}{42'}$

T.P.

11.94 ✓

1740.70 ✓

0.69 ✓

1728.76 ✓

93+50 ✓

11.3 ✓

✓ 29.4

+  $\frac{5.4}{40'}$  +  $\frac{9.4}{24'}$  +  $\frac{6.7}{16'}$  +  $\frac{2.3}{9'}$  -  $\frac{3.7}{10'}$  -  $\frac{9.0}{23'}$  -  $\frac{12.6}{44'}$

93+80 ✓

3.2 ✓

✓ 37.5

+  $\frac{14.2}{40'}$  +  $\frac{7.1}{20'}$  -  $\frac{3.7}{11'}$  -  $\frac{6.8}{20'}$  -  $\frac{10.0}{28'}$  -  $\frac{12.6}{36'}$  -  $\frac{15.2}{44'}$

T.P.

11.40 ✓

1751.50 ✓

0.60 ✓

1740.10 ✓

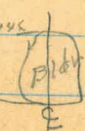


PROFILE S.V.P.L.  
X-SECT.

WILLIAMS T 9-2-52  
McHONEY +  
JACOBS 9  
KEMP

HOT

37.

	H1.	EL.	LT.	RT.
94+20.74	175150	9.8	41.7	$\frac{+18.5}{40'} + \frac{12.8}{32'} + \frac{7.0}{17'}$ $-\frac{3.4}{8'} - \frac{6.6}{20'} - \frac{13.2}{40'}$
94+46		10.3	41.2	$\frac{+16.8}{40'} + \frac{13.8}{35'} + \frac{8.1}{22'}$ $\frac{+2.3}{9'} - \frac{0.6}{7'}$ $-\frac{0.4}{9'} - \frac{1.0}{20'} - \frac{1.6}{30'} - \frac{2.2}{40'}$
T.P.	1231 176370	0.11	175139	
95+00		0.2	63.5	$\frac{+16.6}{40'} + \frac{10.9}{32'} + \frac{10.2}{26'}$ $\frac{+6.7}{15'}$ $-\frac{6.5}{15'} - \frac{9.7}{21'} - \frac{12.3}{27'} - \frac{17.5}{39'}$
T.P.	1125 177472	0.23	176347	Note: Sta. 95+46  23.5 x 8.5 x 7.
95+27		5.1	69.6	$\frac{+16.2}{38'} + \frac{10.5}{21'}$ $\frac{+5.5}{11'}$ $-\frac{4.5}{8'} - \frac{10.9}{17'} - \frac{8.6}{26'} - \frac{11.3}{38'} - \frac{12.6}{44'}$
95+33		6.7	68.0	$\frac{+18.0}{36'} + \frac{17.0}{32'}$ $\frac{+11.3}{19'}$ $\frac{+7.8}{12'}$ $-\frac{5.6}{15'} - \frac{4.4}{19'} - \frac{6.4}{34'} - \frac{9.4}{40'}$
T.P.	13.12 1787.49 13.2 1790 1787.41	0.43	177429	end Sta 21.
95+68		1.0	86.40 87.4	$\frac{+12.5}{40'} + \frac{2.0}{25'}$ $\frac{+1.0}{17'}$ $\frac{+0.8}{11'}$ $-\frac{2.0}{15'}$ $-\frac{9.5}{36'}$ $-\frac{11.0}{40'}$
T.P.	12.86 1800.27	00.00	1787.41	



PROFILE S.V.P.L.

X-SECT.

HI.  
1800.27 ✓

EL.

WILLIAMS T  
McHORNEY † 9-2-52  
JACOBS †  
KEMP

Hot

38.

	+		-		
96+00 ✓			5.0 ✓		95.3 ✓
96+10	12.6 ✓	181274 ✓	0.18 ✓		180009 ✓
T.P.	12.75 ✓	182536 ✓	0.14 ✓		181260 ✓
96+50 ✓			12.6 ✓		12.8 ✓
96+72.33 ✓			4.8 ✓		20.6 ✓
97+00 ✓			2.1 ✓		23.3 ✓
T.P.	12.40 ✓	183723 ✓	0.73 ✓		182463 ✓
97+10 ✓			7.0 ✓		30.0 ✓
T.P.	12.82 ✓	184980 ✓	.05 ✓		183699 ✓
97+50 ✓			2.7 ✓		47.1 ✓

LT. RT.  
 $\frac{+16.5}{40'} + \frac{+12.5}{35'} + \frac{+6.7}{21'}$      $\frac{-2.0}{14'} - \frac{-8.2}{38'} - \frac{-14.4}{46'}$

$\frac{+15.0}{40'} + \frac{+9.2}{30'} + \frac{+5.2}{19'} + \frac{+4.2}{12'}$      $\frac{-3.8}{14'} - \frac{-7.8}{23'} - \frac{-9.8}{27'} - \frac{-17.6}{40'}$

$\frac{+16.5}{40'} + \frac{+8.8}{24'} + \frac{+4.7}{14'}$      $\frac{-6.1}{15'} - \frac{-13.6}{27'} - \frac{-13.5}{33'} - \frac{-13.3}{40'}$

$\frac{+20.1}{41'} + \frac{+16.2}{33'} + \frac{+10.2}{18'}$      $\frac{+2.2}{9'} - \frac{-2.0}{24'} - \frac{-4.0}{34'} - \frac{-6.4}{40'}$

RR. YELLOW @

$\frac{+14.3}{39'} + \frac{+8.9}{25'} + \frac{+7.9}{12'}$      $\frac{-3.6}{16'} - \frac{-4.0}{26'} - \frac{-6.3}{40'}$

$\frac{+12.9}{40'} + \frac{+7.5}{35'} + \frac{+6.0}{23'}$      $\frac{-5.4}{20'} - \frac{-6.6}{26'} - \frac{-8.9}{30'} - \frac{-9.0}{38'}$

57101 = 0526



PROFILE S.V.P.2.

X - SECT.

H.I. 1849.80 - EL.

T.P. 1257 1861.90 0.47 1849.33

97+88 2.5 59.4

T.P. 12.03  
122.46  
1873.93 0.24 1861.66

98+23 4.4 69.5

T.P. 12.24 1885.74 0.43 1873.50

98+50 6.7 79.0

T.P. 1258 1898.11 0.21 1885.53

99+00 5.8 92.3

T.P. 12.05 1910.11 0.05 1898.06

99+50 7.2 02.9

WILLIAMS T  
Mc HORNEY &  
JACOBS &  
KEMP

9-2-52

HOT

39

L.T.

R.T.

RR YELLOW @ 97+50

+14.8 +13.8 +5.3 -3.0 -4.4 -5.4 -6.4  
40 35' 15' 10' 23' 35' 40'

RR VEL @ 97+40

+15.0 +7.6 +4.0 -1.7 -0.5 -0.3  
40' 24' 12' 10' 29' 40'

+11.2 +7.0 +3.4 -1.5 -1.2 -1.2 -2.7  
40' 30' 16' 14' 23' 35' 40'

+9.4 +7.0 +4.0 -3.6 0.0  
40' 32' 21' 25' 40'

+7.6 +5.0 +2.0 -0.8 -0.3 +0.1  
42' 30' 17' 20' 37' 42'



PROFILE S.V.P.L.

X-SECT.

+ HI 1910.11 ✓ - FL.

WILLIAMS T  
MC HORNEY †  
JACOBS †  
KEMP LT.

9-2-52

HOT

40

RT.

T.P.	12.95 ✓	1922.60 ✓	0.46 ✓	1909.65 ✓
Old 2x2 Hub 99+86.06 ✓			11.82 ✓	1910.75 ✓
T.P.	5.73 ✓	1926.83 ✓	1.50 ✓	1921.10 ✓
CHECKED BM No 10			2.95 ✓	1923.88 ✓
B.M. # 10	3.57 ✓	1927.17 ✓		1923.90 ✓
100+41 ✓			12.0 ✓	1915.4 ✓
End Sect 22				
T.P.	0.52 ✓	1915.46 ✓	12.53 ✓	1914.94 ✓
Old 2x2 Hub 100+59.76 ✓			2.96 ✓	12.5 ✓
100+80 ✓			7.6 ✓	07.9 ✓
T.P.	0.44 ✓	1903.49 ✓	12.41 ✓	1903.05 ✓

+4.3 +3.8 +2.6 +2.8 -1.0 -2.1  
42' 38' 36' 25' 25' 40'

-1.5 -0.2 -3.0 +0.1 -1.7 -5.3  
40' 17' 10' 4' 22' 44'

-3.9 -1.8 +0.1 -1.9 +0.5 -1.0 -3.4  
44' 31' 12' 5' 5' 27' 40'

-2.2 -0.6 +1.0 +1.0 +0.2 -0.2 -1.5 -3.3 -2.0  
42' 28' 24' 5' 19' 32' 35' 38' 42'

PAINT ON ROCK 110' EAST STA 100+84 - ON EAST EDGE RD.

End Sta 22

Blue O on Rock 100+97



PROFILE S.V.P.L.

X-SECT

H.I.

1903.49

- E.I.

Williams T 9-3-52

Jacobs P

McHorney P

Kemp

Hot

41

101 +00

1.2

02.3

LT. RT.  
 $\frac{-3.5}{42'}$   $\frac{-2.0}{34'}$   $\frac{-1.3}{29'}$   $\frac{+0.2}{22'}$   $\frac{+0.2}{15'}$   $\frac{-0.8}{19'}$   $\frac{-1.6}{34'}$   $\frac{-2.3}{40'}$

T.P.

0.64

1890.89

13.24

1890.25

101 +50

4.0

86.9

$\frac{-5.4}{42'}$   $\frac{-2.4}{32'}$   $\frac{-0.6}{18'}$   $\frac{-0.2}{19'}$   $\frac{-1.8}{34'}$   $\frac{-2.5}{42'}$

T.P.

0.31

1878.11

13.09

1877.80

102 +00

14.3

63.8

$\frac{+5.7}{40'}$   $\frac{+1.3}{38'}$   $\frac{+7.2}{20'}$   $\frac{+3.3}{12'}$   $\frac{+1.2}{7'}$   $\frac{+3.0}{5'}$   $\frac{+2.2}{15'}$   $\frac{+1.2}{31'}$   $\frac{+1.5}{42'}$

102 +40

7.9

70.2

$\frac{+12.7}{43'}$   $\frac{+8.2}{26'}$   $\frac{+1.7}{3'}$   $\frac{+0.4}{2'}$   $\frac{0.0}{4'}$   $\frac{-5.8}{16'}$   $\frac{-8.8}{24'}$   $\frac{-16.1}{36'}$   $\frac{-15.6}{40'}$

102 +79.52

11.7

66.4

$\frac{+11.7}{41'}$   $\frac{+9.3}{31'}$   $\frac{+4.2}{12'}$   $\frac{+2.0}{4'}$   $\frac{+6.1}{6'}$   $\frac{-5.7}{26'}$   $\frac{-10.8}{43'}$

T.P.

0.89

1866.13

12.87

1865.24

103 +26

11.3

54.8

$\frac{+5.3}{40'}$   $\frac{+2.6}{15'}$   $\frac{+0.1}{4'}$   $\frac{0.0}{5'}$   $\frac{-4.4}{20'}$   $\frac{-6.7}{42'}$

T.P.

1.06

1854.09

13.10

1853.03



PROFILE S.V.P.L.

X-SECT

H.I.

1854.09

E.I.

Williams T 9-3-52

42.

Jacobs 8

McTorney 9

Kemp

Hot

L.T.

R.T.

103+50 ✓

9.6 ✓

44.5 ✓

+5.7/40' +4.6/26' +1.5/6' -1.2/20' -1.1/32' -3.8/40'

T.P.

0.42 1841.59 12.92 1841.17 ✓

Blue O on Rock

103+60

T.P.

0.67 1829.68 12.58 1829.01 ✓

104+00 ✓

3.1 ✓

26.6 ✓

+4.9/40' +3.4/26' +0.1/5' -2.0/12' -0.4/32' +0.2/41'

T.P.

1.10 1819.56 11.22 1818.46 ✓

Blue O on Rock

104+62 ✓

12.0 ✓

07.6 ✓

-5.0/42' +0.4/28' 0.0/18' +2.4/12' +4.9/31' +8.0/46'

T.P.

1.37 1807.63 13.30 1806.26 ✓

Blue O on Rock

104+67. Left 3'

T.P.

0.72 1795.31 13.04 1794.59 ✓

105+00 ✓

12.3 ✓

83.0 ✓

-2.8/40' -0.8/33' -0.4/21' +1.6/2' +2.0/10' +1.3/13' +6.9/18' +13.9/29' +13.9/40'

T.P.

0.45 1782.53 13.23 1782.08 ✓



PROFILE S.V.P.L.

X-SECT.

H.I.

1782.53 - El.

Williams X

9-3-52

43

Jacobs ♀

Hot

McHorney ♀

Kemp

L.T.

R.T.

105+38 ✓

13.0 ✓

69.5 ✓

+  $\frac{12.6}{40'}$  +  $\frac{11.6}{33'}$  +  $\frac{6.2}{16'}$  +  $\frac{0.4}{6'}$  -  $\frac{0.3}{6'}$  -  $\frac{4.2}{7'}$  -  $\frac{2.5}{19'}$  -  $\frac{0.7}{36'}$  -  $\frac{0.0}{40'}$

105+64.62 ✓

8.3 ✓

74.2 ✓

+  $\frac{15.0}{44'}$  +  $\frac{12.0}{34'}$  +  $\frac{6.0}{14'}$  +  $\frac{3.2}{8'}$  -  $\frac{1.0}{4'}$  -  $\frac{4.4}{15'}$  -  $\frac{7.3}{23'}$  -  $\frac{14.6}{30'}$  -  $\frac{10.6}{40'}$

End  
sl. 23

106+00 ✓

3.2 ✓

79.3 ✓

+  $\frac{15.7}{41'}$  +  $\frac{13.0}{34'}$  +  $\frac{7.6}{20'}$  +  $\frac{3.0}{5'}$  -  $\frac{0.4}{4'}$  -  $\frac{5.4}{18'}$  -  $\frac{7.0}{25'}$  -  $\frac{10.2}{39'}$

T. P.

12.51 ✓

1794.87 ✓

0.17 ✓

1782.36 ✓

Blue O on Rock

106+15

106+50 ✓

9.1 ✓

85.8 ✓

+  $\frac{16.8}{41'}$  +  $\frac{11.4}{30'}$  +  $\frac{6.6}{16'}$  +  $\frac{1.7}{3'}$  -  $\frac{0.5}{8'}$  -  $\frac{6.3}{21'}$  -  $\frac{9.8}{31'}$  -  $\frac{13.3}{41'}$

107+00 ✓

4.6 ✓

90.3 ✓

+  $\frac{18.2}{39'}$  +  $\frac{15.5}{33'}$  +  $\frac{10.1}{20'}$  +  $\frac{3.9}{5'}$  -  $\frac{0.7}{6'}$  -  $\frac{5.4}{16'}$  -  $\frac{11.0}{30'}$  -  $\frac{13.4}{40'}$

T. P.

10.49 ✓

1805.12 ✓

0.24 ✓

1794.63 ✓

Blue O on Rock

107+46

107+50 ✓

10.2 ✓

94.9 ✓

+  $\frac{21.3}{40'}$  +  $\frac{18.9}{29'}$  +  $\frac{7.2}{15'}$  +  $\frac{2.8}{4'}$  -  $\frac{0.4}{4'}$  -  $\frac{10.2}{27'}$  -  $\frac{16.3}{41'}$

108+00 ✓

7.5 ✓

97.6 ✓

+  $\frac{19.3}{40'}$  +  $\frac{13.9}{30'}$  +  $\frac{8.5}{18'}$  +  $\frac{2.0}{4'}$  -  $\frac{0.6}{3'}$  -  $\frac{3.4}{11'}$  -  $\frac{16.0}{40'}$

108+50 ✓

5.4 ✓

99.7 ✓

+  $\frac{20.2}{40'}$  +  $\frac{18.4}{37'}$  +  $\frac{13.0}{25'}$  +  $\frac{7.6}{14'}$  +  $\frac{3.0}{3'}$  -  $\frac{0.5}{5'}$  -  $\frac{4.4}{15'}$  -  $\frac{12.8}{29'}$  -  $\frac{15.4}{40'}$



PROFILE S.V.P.L.  
X-SECT.  
H.I.

+ 1805.12 - E1.

109+00 ✓ 0.8 ✓ 04.3 ✓

T.P. 12.66 1817.20 ✓ 0.58 ✓ 1804.54 ✓

T.P. 12.85 1829.88 ✓ 0.17 ✓ 1817.03 ✓

T.P. 12.58 1842.34 ✓ 0.12 ✓ 1829.76 ✓

109+67 ✓ 10.1 ✓ 32.2 ✓

T.P. 13.10 1854.68 ✓ 0.76 ✓ 1841.58 ✓

110+20 ✓ 5.8 ✓ 48.9 ✓

T.P. 12.78 1866.14 ✓ 1.32 ✓ 1853.36 ✓

110+50 ✓ 5.1 ✓ 61.0 ✓

T.P. 12.99 1879.12 ✓ 0.01 ✓ 1866.13 ✓

Williams π 9-3-52  
Jacobs φ  
McHorney φ  
Kemp

44

Hot

L.T.			R.T.			
+14.4	+6.2	+1.5	-1.8	-3.9	-5.2	-10.8
40'	25'	11'	3'	14'	27'	45'

Blue On Rock 108+96 Left 5'

+11.2	+7.5	+4.0	+2.3	+0.3	-6.8	-12.8
41'	23'	11'	4'	4'	22'	40'

+13.2	+8.2	+3.4	-0.9	-3.8	-7.9	-12.9
40'	25'	10'	5'	12'	26'	40'

Blue On Rock 110+35

+10.8	+7.5	+3.2	-0.3	-5.7	-9.0
40'	31'	11'	5'	22'	40'

Note: Alignment Revised from Sta 110+00.00 to Sta 113+90.22. No new profile notes taken. See Pg 48, F.B. 825 vlc Jan 30, '53



PROFILE S.V.P.L.  
X-SECT.

H.I. ✓ - E.I.  
+ 1879.12 ✓

T.P. 13.21 ✓ 1892.16 ✓ 0.17 ✓ 1878.95 ✓

111+00 ✓

8.0 ✓ 84.2 ✓

$\frac{+10.0}{40'}$   $\frac{+4.6}{16'}$   $\frac{+2.0}{4'}$   $\frac{+0.2}{4'}$   $\frac{-1.8}{12'}$   $\frac{-7.0}{40'}$

T.P. 12.89 ✓ 1904.51 ✓ 0.53 ✓ 1891.63 ✓

Note: Alignment Revised from Sta 110+00.00  
to Sta 113+90.22. No new profile notes  
taken. See Pg 48, F.B. 825

T.P. 10.77 ✓ 1915.20 ✓ 0.08 ✓ 1904.43 ✓

111+41 ✓

7.7 ✓ 07.5 ✓

$\frac{+12.2}{43'}$   $\frac{+5.2}{23'}$   $\frac{+3.2}{7'}$   $\frac{+1.0}{7'}$   $\frac{-12.0}{40'}$

111+57 ✓

5.2 ✓ 10.0 ✓

$\frac{+12.5}{40'}$   $\frac{+9.3}{28'}$   $\frac{+5.2}{14'}$   $\frac{+3.2}{3'}$   $\frac{+0.9}{7'}$   $\frac{-10.5}{37'}$   $\frac{-12.0}{40'}$  end #24

Old 2x2 Hub Δ ✓  
112+04.32

4.81 ✓ 10.4 ✓

$\frac{+15.0}{40'}$   $\frac{+14.3}{38'}$   $\frac{+8.5}{16'}$   $\frac{+2.3}{5'}$   $\frac{-0.3}{4'}$   $\frac{-5.8}{14'}$   $\frac{-11.2}{28'}$   $\frac{-15.2}{40'}$

T.P. 1.37 ✓ 1911.21 ✓ 5.36 ✓ 1902.84 ✓

Blue O on Rock 112+12 Right 3'

112+50 ✓

2.7 ✓ 08.5 ✓

$\frac{+21.6}{40'}$   $\frac{+13.0}{18'}$   $\frac{+4.3}{4'}$   $\frac{-0.5}{6'}$   $\frac{-5.8}{16'}$   $\frac{-18.7}{40'}$

113+13 ✓

9.8 ✓ 01.4 ✓

$\frac{+21.6}{44'}$   $\frac{+15.8}{35'}$   $\frac{+10.0}{25'}$   $\frac{+7.0}{18'}$   $\frac{-1.1}{3'}$   $\frac{-5.8}{10'}$   $\frac{-9.2}{18'}$   $\frac{-16.8}{33'}$   $\frac{-22.8}{41'}$



See Note  
Pg 45

PROFILE S.V.P.L.  
X-SECT.

+ H1 - EL.  
1911.21

WILLIAMS X  
JACOBS &  
McHONEY &  
KEMP

9-3-52

46.

HOT

					LT	RT							
113+50 ✓		6.8 ✓		04.4 ✓	+18.4 44'	+14.4 29'	+8.2 10'	+4.3 4'	0.0 6'	-4.8 12'	-13.4 24'	-21.0 40'	
OLD 2x2 HUB A 113+90.22 ✓		5.16 ✓		06.1 ✓	+18.0 45'	+12.2 29'	+6.4 17'	+3.0 7'	-0.5 5'	-5.8 14'	-21.4 38'	-23.0 40'	
T.P.	1.20 ✓	1902.95 ✓	9.46 ✓	1901.75 ✓	RED O ON ROCK								
114+34.14 ✓		2.0 ✓		01.0 ✓	+22.4 42'	+14.5 28'	+7.7 16'	+3.1 5'	+0.5 3'	0.0 5'	-5.8 19'	-12.2 26'	-25.2 52'
114+67 ✓		9.2 ✓		93.8 ✓	+18.6 40'	+11.4 24'	+4.7 10'	0.0 6'	-8.6 14'	-13.6 22'	-18.6 30'	-28.6 40'	
T.P.	0.22 ✓	1891.70 ✓	11.47 ✓	1891.48 ✓	RED O ON ROCK								
T.P.	6.48 ✓	1885.93 ✓	12.25 ✓	1879.45 ✓	RED O ON ROCK								
115+17 ✓		7.7 ✓		78.2 ✓	+23.8 43'	+18.4 34'	+13.0 25'	+7.6 17'	+1.2 7'	0.0 2'	-4.4 8'	-11.3 27'	-18.0 40'
115+50 ✓		8.3 ✓		77.6 ✓	+18.4 40'	+13.0 28'	+7.6 18'	+0.4 3'	-0.0 3'	-5.4 12'	-12.4 32'	-17.0 40'	
116+00 ✓		6.4 ✓		79.5 ✓	+18.4 42'	+13.0 31'	+7.6 20'	+0.3 3'	-0.4 3'	-5.4 14'	-15.3 40'		



PROFILE S.V.P.2

X-SECT.

H1  
1885.93 - EL.

WILLIAMS X  
JACOBS φ  
MCHORNEY φ  
KEMP

9-3-52

47.

					L.T.	R.T.
116+50	✓		4.7 ✓	✓ 81.2	$+\frac{13.0}{42'} + \frac{7.6}{25'} + \frac{0.4}{3'}$	$-\frac{0.0}{3'} - \frac{5.4}{19'} - \frac{12.0}{44'}$
116+70	✓		7.0 ✓	✓ 78.9	$+\frac{13.0}{47'} + \frac{7.6}{31'}$	$-\frac{5.4}{23'} - \frac{11.0}{40'}$
T.P.	1.88 ✓	1876.33 ✓	11.48 ✓	1874.45 ✓	RED @ ON ROCK	
117+13	✓		17.1 ✓	✓ 59.2	$+\frac{7.0}{42'} + \frac{4.6}{30'}$	$-\frac{3.4}{23'} - \frac{13.3}{43'}$
OLD 2x2 HUB Δ	✓					
117+42.69	✓		5.96 ✓	✓ 70.4-	$+\frac{14.5}{44'} + \frac{9.1}{31'} + \frac{6.6}{22'} + \frac{3.5}{12'}$	$-\frac{1.6}{9'} - \frac{5.4}{19'} - \frac{11.0}{41'}$
T.P.	6.19 ✓	1874.76 ✓	7.76 ✓	1868.57 ✓	RED KEEL @ ON ROCK	
118+00	✓		6.4 ✓	68.4	$+\frac{19.3}{40'} + \frac{8.4}{36'} + \frac{13.0}{26'} + \frac{7.6}{15'} + \frac{2.3}{5'} + \frac{0.2}{3'}$	$\frac{0.0}{3'} - \frac{4.4}{12'} - \frac{13.2}{33'} - \frac{15.0}{43'}$
OLD 2x2 HUB Δ	✓					
118+38.02	✓		6.28 ✓	68.5	$+\frac{23.8}{40'} + \frac{18.4}{33'} + \frac{13.0}{23'} + \frac{7.6}{12'} + \frac{4.2}{5'}$	$-\frac{6.0}{7'} - \frac{4.4}{13'} - \frac{12.7}{29'} - \frac{18.1}{38'} - \frac{19.9}{41'}$
119+00	✓		8.6 ✓	66.2	$+\frac{20.2}{41'} + \frac{18.4}{38'} + \frac{13.0}{29'} + \frac{7.6}{19'} + \frac{1.0}{7'}$	$-\frac{4.4}{7'} - \frac{13.0}{20'} - \frac{18.4}{27'} - \frac{23.8}{37'} - \frac{25.8}{40'}$
119+61	✓		4.4 ✓	70.4	$+\frac{19.4}{31'} + \frac{18.4}{31'} + \frac{13.0}{26'} + \frac{7.6}{14'} + \frac{4.4}{6'} + \frac{0.7}{3'}$	$\frac{0.0}{6'} - \frac{4.4}{12'} - \frac{11.5}{26'} - \frac{20.3}{40'}$

~~Errors~~



PROFILE S.V.P.2.

X-SECT.

HI - EL.  
1874.76

WILLIAMS X  
JACOBS P  
MCCHOENEY Q  
KEMP.

9-3-52

48.

LT.

HOT

RT.

11	120+00	✓		6.3 ✓	✓	68.5	$\frac{23.8}{40'} + \frac{18.4}{31'} + \frac{13.0}{22'} + \frac{7.6}{12'} + \frac{3.8}{5'} + \frac{1.2}{4'}$	$-\frac{0.7}{5'} - \frac{5.4}{11'} - \frac{16.2}{32'} - \frac{21.6}{42'}$
11	120+56	✓		6.3 ✓	✓	68.5	$\frac{23.8}{37'} + \frac{18.4}{29'} + \frac{13.0}{20.5'} + \frac{7.6}{14'} + \frac{3.8}{4'} + \frac{0.7}{3'}$	$-\frac{0.5}{3'} - \frac{5.4}{9'} - \frac{17.0}{28'} - \frac{27.0}{41'}$
T	120+81	✓		4.6 ✓	✓	70.2	$\frac{26.2}{42'} + \frac{20.4}{33'} + \frac{13.6}{22'} + \frac{7.2}{11'} + \frac{0.4}{2'}$	$\frac{0.0}{5'} - \frac{5.8}{11'} - \frac{15.3}{26'} - \frac{24.8}{41'}$
11	121+33	✓		5.8 ✓	✓	69.0	$\frac{24.1}{41'} + \frac{18.3}{31'} + \frac{12.5}{21'} + \frac{5.2}{12'} + \frac{2.4}{5'} + \frac{0.8}{5'}$	$-\frac{0.4}{2'} - \frac{5.8}{10'} - \frac{12.9}{19'} - \frac{15.8}{25'} - \frac{24.5}{43'}$
11	T.P.	✓	12.49	1884.11	✓	3.14	1871.62	
T	T.P	✓	13.23	1897.23	✓	0.11	1884.00	
11	122+00	✓		12.5 ✓	✓	84.7	$\frac{23.3}{40'} + \frac{14.8}{25'} + \frac{9.0}{15'} + \frac{3.6}{4'} + \frac{0.3}{2'}$	$-\frac{0.2}{4'} - \frac{4.8}{11'} - \frac{14.0}{28'} - \frac{20.4}{38'} - \frac{21.5}{46'}$
11	122+36			8.0				
11	122+58.94	✓	OLD 2x2 HV8 D	6.09 ✓	✓	91.1	$\frac{23.7}{40'} + \frac{23.1}{39'} + \frac{17.3}{29'} + \frac{11.5}{20'} + \frac{7.2}{12'} + \frac{3.8}{7'} + \frac{1.0}{5'}$	$\frac{0.0}{1'} - \frac{5.8}{7'} - \frac{15.0}{27'} - \frac{23.0}{38'} - \frac{26.1}{43'}$
11	123+00	✓		4.4 ✓	✓	92.8	$\frac{27.6}{40'} + \frac{18.4}{28'} + \frac{13.0}{20'} + \frac{7.2}{10'} + \frac{3.0}{4'} + \frac{0.2}{1'}$	$-\frac{1.5}{6'} - \frac{5.8}{10'} - \frac{15.4}{28'} - \frac{13.3}{45'}$



PROFILE S.V.P.L.  
X-SECT.

HI - EL.

1897.23

123 F 50

4.3

OLD 2x2 HUB  
Δ  
123+68.70

4.68 ✓

92.6

T.P.

9.71 ✓

1902.29

4.65 ✓

1892.58

RED KEEL @ ON ROCK-123+56

124+00 ✓

8.1 ✓

94.2

124+50 ✓

7.1 ✓

95.2

124+66 ✓

14.6 ✓

87.7

124+86 ✓

7.5 ✓

94.8

T.P.

10.85 ✓

1908.95

4.19 ✓

1898.10

RED KEEL @ ON ROCK

125+50 ✓

5.2 ✓

03.8

R.O.T. REDHEAD  
125+94.60 ✓

0.5 ✓

08.5

+21.1 +18.4 +13.0 +7.6  
42.5' 38' 29' 17'

-5.4 -17.5 -23.1  
9' 31' 41'

+28.9 +23.1 +17.3 +10.5 +7.2  
43 34' 23' 15' 9'

-1.5 -5.8 -14.3 -18.3 -25.3  
5' 11' 24' 32' 42'

+27.6 +21.8 +16.0 +9.0  
40 32 23 14

-3.5 -4.5 -15.3 -26.1  
4 9 26 43

+23.8 +12.5 +8.7  
40' 21' 9'

-5.8 -9.7 -11.7 -11.6 -18.6 -25.6  
7' 10' 13' 17' 28' 39'

+16.8 +16.0 +4.4  
26' 16' 9'

-5.8 -7.3 -9.1 -12.4 -18.2 -18.2  
10' 13' 20' 24' 33' 42'

+24.9 +19.1 +13.3 +7.5  
39' 30' 21' 12'

-5.8 -10.3 -13.8 -14.8 -20.0 -21.7  
10' 18' 23' 28' 37' 40'

+21.2 +15.4 +9.6 +3.1  
40' 30' 20' 5'

-5.8 -12.6 -16.4 -19.1 20.4  
10' 23' 33 36' 42'

END 27

WILLIAMS X  
JACOBS φ  
MCHORNEY φ  
KEMP LT.

9-3-52

49.

HOT

RT.



See Note  
Pg 49 vlc Jan 57

PROFILE S.V.P.L.  
X-SECT.

+ HI - EL.

1908.95

T.P. 1.14 ✓ 1909.15 ✓ 0.94 ✓ 1908.01 ✓

PST.  
REDHEAD  
126+64.47 ✓

12.5 ✓ 96.7 ✓

T.P. 0.65 ✓ 1897.16 ✓ 12.64 ✓ 1896.51 ✓

127+00 ✓ 12.2 ✓ 85.0 ✓

T.P. 0.92 ✓ 1884.78 ✓ 13.30 ✓ 1883.86 ✓

127+18 ✓ 9.2 ✓ 75.6 ✓

T.P. 1.39 ✓ 1873.11 ✓ 13.06 ✓ 1871.72 ✓

127+38 ✓ 12.4 ✓ 60.7 ✓

Red head Δ  
127+66.81 ✓

6.0 ✓ 67.1 ✓

127+89 ✓ 9.1 ✓ 64.0 ✓

Williams T.  
Jacobs P  
Kemp  
McHorney LT

1-5-52

HOT  
RT

50.

RED KEEL @ ON ROCK

$\frac{+18.4}{48'}$   $\frac{+13.0}{31'}$   $\frac{+7.6}{21'}$   $\frac{+1.5}{6'}$   $\frac{-5.4}{13'}$   $\frac{-12.7}{25'}$   $\frac{-16.4}{34'}$   $\frac{-18.2}{39'}$

RED KEEL @ ON ROCK-126+68

$\frac{-1.5}{40'}$   $\frac{-0.2}{34'}$   $\frac{+1.0}{14'}$   $\frac{-4.4}{15'}$   $\frac{-11.3}{36'}$   $\frac{-14.0}{42'}$

$\frac{-2.4}{45'}$   $\frac{-2.4}{39'}$   $\frac{-1.0}{18'}$   $\frac{-2.4}{16'}$   $\frac{-5.9}{35'}$   $\frac{-8.0}{42'}$

$\frac{+24.3}{36'}$   $\frac{+27.0}{40'}$

$\frac{+20.8}{32.5'}$   $\frac{+18.1}{29'}$   $\frac{+12.7}{22'}$   $\frac{+8.4}{18'}$   $\frac{+2.3}{10'}$   $\frac{-4.6}{7'}$   $\frac{-3.4}{14'}$   $\frac{-1.8}{28'}$   $\frac{-4.4}{40'}$

$\frac{+21.1}{41'}$   $\frac{+18.4}{36'}$   $\frac{+13.0}{25'}$   $\frac{+7.6}{14'}$   $\frac{-5.4}{9'}$   $\frac{-12.1}{16'}$   $\frac{-17.5}{23'}$   $\frac{-28.3}{37'}$   $\frac{-25.3}{40'}$

$\frac{+23.8}{48'}$   $\frac{+18.4}{33'}$   $\frac{+13.0}{23'}$   $\frac{+7.6}{13'}$   $\frac{+5.9}{10'}$   $\frac{-5.4}{7'}$   $\frac{-13.0}{18'}$   $\frac{-18.4}{24'}$   $\frac{-23.8}{30'}$   $\frac{-34.6}{42'}$



PROFILE S.V.P.2

X-SECT.

+ HI. EL.

1873.11

T.P. 8.41 1870.42 11.10 1862.01

128+35 ✓

24.9 ✓ 45.5 ✓

T.P. 12.61 1881.81 1.22 1869.20

128+75.27 ✓

9.9 ✓ 71.9 ✓

129+00 ✓

4.8 ✓ 77.0 ✓

T.P. 12.87 1893.36 1.32 1880.49

129+50 ✓

10.6 ✓ 82.8 ✓

130+00 ✓

3.9 ✓ 89.5 ✓

T.P. 7.72 1900.29 0.79 1892.57

6 in.  
130+19.35 ✓

6.12 ✓ 94.2 ✓

Williams T  
Jacobs P  
Kemp  
McBorney

9-5-52

51.

L.T.

HOT RT

Yellow O on Rock 127+93

$\frac{+30.1}{40'} + \frac{+29.1}{38'} + \frac{+23.7}{29'} + \frac{+18.3}{25'} + \frac{+12.9}{15'} + \frac{+3.0}{10'} + \frac{+6.6}{28'} + \frac{+7.2}{42'}$

$\frac{-1.5}{40'} - \frac{0.7}{37'} - \frac{1.4}{28'} - \frac{1.4}{15'} - \frac{1.4}{19'} - \frac{3.4}{28'} - \frac{5.7}{40'}$

$\frac{+5.4}{40'} + \frac{+4.6}{30'} + \frac{+2.6}{18'} - \frac{3.9}{7'} - \frac{4.4}{21'} - \frac{6.0}{28'} - \frac{11.8}{47'}$

$\frac{+13.0}{43'} + \frac{+7.6}{29'} + \frac{2.4}{11'} - \frac{8.0}{16'} - \frac{13.2}{34'} - \frac{21.5}{41'}$

$\frac{+19.6}{40'} + \frac{+18.4}{38'} + \frac{+13.0}{30'} + \frac{7.6}{18'} - \frac{7.3}{15'} - \frac{9.0}{21'} - \frac{16.6}{35'} - \frac{17.2}{40'}$

End 28

Yellow O on Rock 130+17 3' Right

$\frac{+20.4}{40'} + \frac{+15.0}{30'} + \frac{+9.6}{20'} - \frac{9.1}{16'} - \frac{17.8}{29'} - \frac{9.2}{40'}$



PROFILE S.V.P.L.

HI X-SECT.

1900.29 - El.

Williams T

Jacobs P

Kemp

McHorney L.T.

4-5-52

Hot

52.

RT.

2x2 Hub  
130+25.53 BK.  
=143+00

+

4.88

143+24 ✓

3.9 ✓

✓96.4

+  $\frac{21.1}{41'}$  +  $\frac{18.4}{36'}$  +  $\frac{13.0}{26'}$  +  $\frac{7.6}{16'}$  -  $\frac{14.1}{13'}$  -  $\frac{6.0}{23'}$   $\frac{20}{40'}$

143+42 ✓

11.6 ✓

✓88.7

+  $\frac{26.9}{40'}$  +  $\frac{18.1}{24'}$  +  $\frac{9.1}{8'}$  +  $\frac{12.4}{22'}$  +  $\frac{16.6}{40'}$

143+52

6.5

143+66 ✓

4.5 ✓

✓95.8

Redhead Δ

143+69.19 ✓

1.2 ✓

✓99.1

+  $\frac{17.3}{40'}$  +  $\frac{13.0}{33'}$  +  $\frac{8.2}{24'}$  -  $\frac{3.7}{4'}$  +  $\frac{8.0}{14'}$  +  $\frac{13.0}{24'}$  +  $\frac{20.6}{40'}$

T.P.

12.30 ✓

1911.93 ✓

0.66 ✓

1899.63 ✓

Yellow O on Rock

143+72

T.P.

12.31 ✓

1924.23 ✓

0.01 ✓

1911.92 ✓

2x2 Hub  
No Portals  
144+20.1

8.05 ✓

1916.18 ✓

T.P.

12.42 ✓

1936.49 ✓

0.16 ✓

1924.07 ✓



PROFILE S.V.P.L.

WILLIAMS T

9-5-52

HOT

53

JACOBS †

KEMP

Mc HORNEY

H I

+ 1936.49 - El.

check to D.M.  
143+50 35' left  
Nail in Oak Tree

0.64 1935.85 1935.90

1 Pg's 23-33 ch'kd 1/16/53 by WH





New Profile Sutherland Pt.

71+00 to 68+00

	<del>5.24</del>	<del>1806.19</del>	<del>10.59</del>	<del>1795.59</del>
	<del>7.65</del>	<del>1799.24</del>	<del>8.14</del>	<del>1790.10</del>
	<del>0.45</del>	<del>1790.53</del>		
	8.72	1793.92		1785.20
69+00	11.6			1782.3
	8.68	1791.06	11.54	1787.38
+50	9.2			1781.9
+65	9.7			1781.4
+84	5.1			1786.0
70+55	2.4			1788.7
	12.56	1803.54	0.08	1790.98
+75	7.8			1795.7
+87	2.0			1801.5
	12.47	1815.85	0.16	1803.38
Top	11.55			1804.30
71+00	6.8			1809.14
	10.44	1825.46	0.83	1815.02

West  
Williams  
Yaronfakis  
Kemp

Hot  
7-9-53 54

Turn on rock 70+00

1790.5  
.87  
81.9

68+67 found original of nail

5246  
1813.42  
1204

?  
= 1800.94

checked jw 7/14/53



Sutherland Pt. SV. Creek  
at end of P.L.

West  
Williams  
Varonfokis  
Kemp

55

639+50

639+00

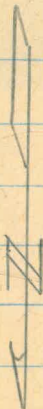
15° Lt

637+96.76

32° Rt

Sta 637+96.76  
end of P.L.

A Proposed Pt.





Cross Sections  
 Sutherland Pt. end of Pt. and SV Creek  
 637+96.76 to 639+50

West  
 Williams  
 Varenfokis  
 Kump

5872  
 Hot  
 7-9-53 56

JBR Top large Flat rock  
 100 ft of Sta 629+69

1.06	1468.57		1467.92
+1.43	1457.80	-12.20	1467.87
0.06	1444.84	13.02	1444.78
0.26	1433.10	12.00	1432.84
0.29	1421.39	11.93	1421.17
1.06	1410.39	12.05	1409.33
1.46	1402.12	9.73	1400.66
5.19	1394.89	12.92	1389.20
638+26		11.9	1383.0
+50		14.3	1380.6
+75		15.9	1379.0
6.07	1388.27	12.69	1382.20
639+00		10.8	1377.5
+25		11.6	1376.7
+50		14.5	1373.8
6.07	1394.12	0.22	1388.05
		8.56	1385.56

88.3

$\frac{1.7}{30.11}$	$\frac{4.5}{18.21}$	$\frac{11.6}{10.11}$	$\frac{4.8}{18.11}$	$\frac{0.3}{42.11}$
$\frac{4.3}{29.11}$	$\frac{6.6}{16.11}$	$\frac{13.5}{6.11}$	$\frac{6.0}{21.11}$	$\frac{3.6}{32.11}$
$\frac{7.9}{27}$	$\frac{12.8}{22}$	$\frac{15.3}{6.11}$	$\frac{7.7}{17.11}$	$\frac{6.6}{30}$
$\frac{1.7}{31}$	$\frac{7.3}{13}$	$\frac{9.7}{4}$	$\frac{11.3}{2}$	$\frac{9.3}{3}$
$\frac{10}{30}$	$\frac{2.3}{25}$	$\frac{10.2}{8}$	$\frac{12.4}{4}$	$\frac{8.5}{6}$
$\frac{4.6}{25}$	$\frac{11.6}{20}$	$\frac{15.9}{4}$	$\frac{11.7}{6}$	$\frac{8.6}{13}$
				$\frac{3.3}{29}$
				$\frac{6.0}{11}$
				$\frac{2.7}{20}$
				$\frac{3.4}{24}$

637+96.76 1383.4

+0.05

1385.9

Checked & Reduced by Wilbur  
 6 AUG 53.



Cal -

Alignment & Cross  
Sections at PL End

---



13 - +

13+00 to 15+37

alignment

2/25/53

2/12 - 5846 W.



£1. 37 + 85.67



231 1728

623  
2  
1246

1400  
111  
1290  
2500

1400  
477  
923  
1845  
1410

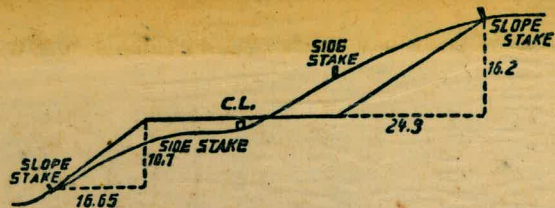
1400  
450  
950  
1900

1400  
517  
883  
1754

1156  
187  
1992

19108  
48  
15154

1054  
48



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1 1/2 TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	0
1	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	1
2	3.00	3.15	3.30	3.45	3.60	3.75	3.90	4.05	4.20	4.35	2
3	4.50	4.65	4.80	4.95	5.10	5.25	5.40	5.55	5.70	5.85	3
4	6.00	6.15	6.30	6.45	6.60	6.75	6.90	7.05	7.20	7.35	4
5	7.50	7.65	7.80	7.95	8.10	8.25	8.40	8.55	8.70	8.85	5
6	9.00	9.15	9.30	9.45	9.60	9.75	9.90	10.05	10.20	10.35	6
7	10.50	10.65	10.80	10.95	11.10	11.25	11.40	11.55	11.70	11.85	7
8	12.00	12.15	12.30	12.45	12.60	12.75	12.90	13.05	13.20	13.35	8
9	13.50	13.65	13.80	13.95	14.10	14.25	14.40	14.55	14.70	14.85	9
10	15.00	15.15	15.30	15.45	15.60	15.75	15.90	16.05	16.20	16.35	10
11	16.50	16.65	16.80	16.95	17.10	17.25	17.40	17.55	17.70	17.85	11
12	18.00	18.15	18.30	18.45	18.60	18.75	18.90	19.05	19.20	19.35	12
13	19.50	19.65	19.80	19.95	20.10	20.25	20.40	20.55	20.70	20.85	13
14	21.00	21.15	21.30	21.45	21.60	21.75	21.90	22.05	22.20	22.35	14
15	22.50	22.65	22.80	22.95	23.10	23.25	23.40	23.55	23.70	23.85	15
16	24.00	24.15	24.30	24.45	24.60	24.75	24.90	25.05	25.20	25.35	16
17	25.50	25.65	25.80	25.95	26.10	26.25	26.40	26.55	26.70	26.85	17
18	27.00	27.15	27.30	27.45	27.60	27.75	27.90	28.05	28.20	28.35	18
19	28.50	28.65	28.80	28.95	29.10	29.25	29.40	29.55	29.70	29.85	19
20	30.00	30.15	30.30	30.45	30.60	30.75	30.90	31.05	31.20	31.35	20
21	31.50	31.65	31.80	31.95	32.10	32.25	32.40	32.55	32.70	32.85	21
22	33.00	33.15	33.30	33.45	33.60	33.75	33.90	34.05	34.20	34.35	22
23	34.50	34.65	34.80	34.95	35.10	35.25	35.40	35.55	35.70	35.85	23
24	36.00	36.15	36.30	36.45	36.60	36.75	36.90	37.05	37.20	37.35	24
25	37.50	37.65	37.80	37.95	38.10	38.25	38.40	38.55	38.70	38.85	25
26	39.00	39.15	39.30	39.45	39.60	39.75	39.90	40.05	40.20	40.35	26
27	40.50	40.65	40.80	40.95	41.10	41.25	41.40	41.55	41.70	41.85	27
28	42.00	42.15	42.30	42.45	42.60	42.75	42.90	43.05	43.20	43.35	28
29	43.50	43.65	43.80	43.95	44.10	44.25	44.40	44.55	44.70	44.85	29
30	45.00	45.15	45.30	45.45	45.60	45.75	45.90	46.05	46.20	46.35	30
31	46.50	46.65	46.80	46.95	47.10	47.25	47.40	47.55	47.70	47.85	31
32	48.00	48.15	48.30	48.45	48.60	48.75	48.90	49.05	49.20	49.35	32
33	49.50	49.65	49.80	49.95	50.10	50.25	50.40	50.55	50.70	50.85	33
34	51.00	51.15	51.30	51.45	51.60	51.75	51.90	52.05	52.20	52.35	34
35	52.50	52.65	52.80	52.95	53.10	53.25	53.40	53.55	53.70	53.85	35
36	54.00	54.15	54.30	54.45	54.60	54.75	54.90	55.05	55.20	55.35	36
37	55.50	55.65	55.80	55.95	56.10	56.25	56.40	56.55	56.70	56.85	37
38	57.00	57.15	57.30	57.45	57.60	57.75	57.90	58.05	58.20	58.35	38
39	58.50	58.65	58.80	58.95	59.10	59.25	59.40	59.55	59.70	59.85	39
40	60.00	60.15	60.30	60.45	60.60	60.75	60.90	61.05	61.20	61.35	40
41	61.50	61.65	61.80	61.95	62.10	62.25	62.40	62.55	62.70	62.85	41
42	63.00	63.15	63.30	63.45	63.60	63.75	63.90	64.05	64.20	64.35	42
43	64.50	64.65	64.80	64.95	65.10	65.25	65.40	65.55	65.70	65.85	43
44	66.00	66.15	66.30	66.45	66.60	66.75	66.90	67.05	67.20	67.35	44
45	67.50	67.65	67.80	67.95	68.10	68.25	68.40	68.55	68.70	68.85	45
46	69.00	69.15	69.30	69.45	69.60	69.75	69.90	70.05	70.20	70.35	46
47	70.50	70.65	70.80	70.95	71.10	71.20	71.40	71.55	71.70	71.85	47
48	72.00	72.15	72.30	72.45	72.60	72.75	72.90	73.05	73.20	73.35	48
49	73.50	73.65	73.80	73.95	74.10	74.25	74.40	74.55	74.70	74.85	49
50	75.00	75.15	75.30	75.45	75.60	75.75	75.90	76.05	76.20	76.35	50

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