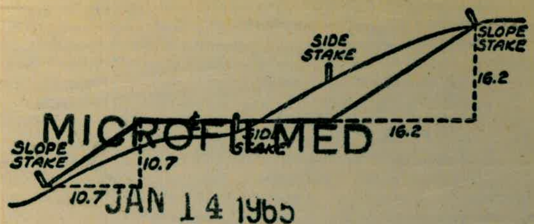


Distances from Side Stakes for Cross-Sectioning

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.

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	.70	.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	.711	.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	.985	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

ALVARADO FILTRATION PLANT.

INDEX

INDEXED COM 1-30-51

MARCH 29, 1949
LEONARD
PAYNE
CARVER

FILTER PLANT, FINAL X-SECTIONS.

B.M.	+6.74	541.14		534.40	Rim M.H. Sill W805
E 46	20N		-4.4	536.7	
"	40N		-3.8	36.3	
"	60N		-4.1	37.0	
"	80N		-4.0	37.1	
"	100N		-3.6	37.5	
"	104N		-3.3	37.8	
"	107N		-1.0	40.1	
"	115N		0.4	40.7	
E 40	20N		-3.7	37.4	
"	40N		-3.6	37.5	
"	60N		-3.8	37.3	
"	80N		-3.8	37.3	
"	100N		-3.7	37.4	
"	104N		-3.5	37.6	
"	106N		-1.2	39.9	
"	115N		-0.9	40.2	

		541.14		
E 20	20N		-3.5	537.6
	40N		-3.6	37.5
	60N		-3.8	37.3
	80N		-3.7	37.4
	100N		-4.0	37.1
	105N		-4.2	36.9
	107N		-1.2	39.9
	116N		-1.4	39.7
E 0+0	20N		-3.7	37.4
	40N		-3.8	37.3
	60N		-3.9	37.2
	80N		-3.7	37.4
	100N		-4.1	37.0
	104N		-4.0	37.1
	106N		-1.3	39.8
	115N		-1.5	39.6

		541.14		
W20	20N		-3.8	537.3
	40N		-3.9	37.2
	60N		-3.7	37.4
	80N		-3.7	37.4
	100N		-4.1	37.0
	104N		-4.1	37.0
	106N		-1.3	39.8
	115N		-1.4	39.7
W40	20N		-3.6	37.5
	40N		-4.1	37.0
	60N		-4.0	37.1
	80N		-4.0	37.1
	100N		-3.9	37.2
	104N		-3.8	37.3
	106N		-1.0	40.1
	115N		-1.0	40.1

		541.14		
W46	20N		-3.3	537.8
	40N		-3.4	37.7
	60N		-3.0	38.1
	80N		-3.9	37.2
	100N		-3.2	37.9
	106N		-0.9	40.2
	115N		-0.9	40.2
W50	115N		-0.9	40.2
	100N		-0.8	40.3
	89N		-1.1	40.0
	87N		-2.9	38.2
	80N		-2.7	38.4
	60N		-2.5	38.6
	40N		-2.5	38.6
	20N		-2.7	38.4
	0.0		-2.8	38.3
	20S		-3.1	38.0
	40S		-3.7	37.4
	60S		-4.5	36.6

		541.14		
W50	80S		-5.9	535.2
	100S		-7.4	533.7
	120S		-8.6	32.5
	140S		-9.2	31.9
	160S		-9.6	31.5
	180S		-10.6	30.5
	200S		-11.6	29.5
	220S		-12.4	28.7
	240S		-13.4	27.7
	260S		-14.5	26.6
	280S		-15.6	25.5
	300S		-16.5	24.6
W60	115N		-0.7	40.4
	100N		-0.7	40.4
	89N		-0.8	40.3
	87N		-2.8	38.3
	80N		-2.6	38.5
	60N		-2.6	38.5
	40N		-2.6	38.5

		541.14		
W60	20N		-2.6	538.5
	0.0		-2.7	38.4
	20s		-2.8	38.3
	40s		-2.6	38.5
	60s		-2.7	38.4
	77s		-2.9	38.2
	100s		-6.4	34.7
	120s		-7.8	33.3
	140s		-8.9	32.2
	160s		-9.5	31.6
	180s		-10.5	30.6
	200s		-11.4	29.7
	220s		-12.4	28.7
	240s		-12.9	28.2
	260s		-13.5	27.6
	280s		-15.0	26.1
	300s		-16.0	25.1
	320s		-17.4	23.7

		541.14		
W80	115N		-0.5	540.6
	100N		-0.8	540.3
	89N		-0.8	40.3
	87N		-2.7	38.4
	80N		-2.7	38.4
	60N		-2.7	38.4
	40N		-2.6	38.5
	20N		-2.6	38.5
	0.0		-2.6	38.5
	20s		-2.6	38.5
	40s		-2.6	38.5
	60s		-2.5	38.6
	77s		-2.7	38.4
	100s		-5.1	36.0
	120s		-7.3	33.8
	135s		-8.2	32.9
	140s		-8.1	33.0
	160s		-6.5	34.6
	180s		-5.2	35.9

		541.14		
W80	190 S		-4.8	536.3
	200 S		-5.8	35.3
	220 S		-7.5	33.6
	240 S		-8.8	32.3
	260 S		-9.7	31.4
	280 S		-10.7	30.4
	295 S		-11.2	29.9 x
	300 S		-12.6	28.5
	317 S		-16.8	24.3
	330 S		-17.4	23.7
W100	115 N		-0.3	40.8
	100 N		-0.6	40.5
	89 N		-0.8	40.3
	87 N		-2.7	38.4
	80 N		-2.6	38.5
	60 N		-2.6	38.5
	40 N		-2.7	38.4
	20 N		-2.7	38.4
	0+0		-2.6	38.5

		541.14		
W100	20 S		-2.6	538.5
	40 S		-2.6	38.5
	60 S		-2.6	38.5
	80 S		-2.6	38.5
	90 S		-2.9	38.2
	96 S		-3.8	37.3
	100 S		-3.9	37.2
	120 S		-3.4	37.7
	140 S		-3.3	37.8
	160 S		-3.1	38.0
	174 S		-3.2	37.9
	180 S		-3.6	37.5
	200 S		-6.1	35.0
	220 S		-7.6	33.5 x
	240 S		-9.0	32.1
	260 S		-10.2	30.9
	280 S		-11.0	30.1
	300 S		-11.8	29.3
	319 S		-12.8	28.3
	340 S		-18.0	23.1

		541.14		
W120	114N.		-0.4	40.7
	100 N		-0.5	40.6
	89N		-0.6	40.5
	88N		-2.6	38.5
	80N		-2.5	38.6
	60N		-2.6	38.5
	40N		-2.6	38.5
	20N		-2.6	38.5
	0.0		-2.6	38.5
	20S		-2.6	38.5
	40S		-2.5	38.6
	60S		-2.5	38.6
	80S		-2.5	38.6
	91S		-2.5	38.6
	95S		-3.9	37.2
	100S		-3.7	37.4
	120S		-3.6	37.5
	140S		-3.4	37.7
	160S		-3.6	37.5

		541.14		
W120	174S		-3.9	537.2
	180S		-4.2	36.9
	200S		-6.1	35.0
	220S		-7.7	33.4
	240S		-9.2	31.9
	260S		-10.5	30.6
	280S		-11.6	29.5
	300S		-12.5	28.6
	320S		-13.4	27.7
	340S		-14.2	26.9
	344S		-14.3	26.8
	363S		-19.2	21.9
W140	112N		-0.6	40.5
	100N		-0.5	40.6
	89N		-0.8	40.3
	88N		-2.4	38.7
	80N		-2.5	38.6
	60N		-2.6	38.5
	40N		-2.5	38.6

		541.14		
W140	20N		-2.8	538.3
	0.0		-2.6	38.5
	20S		-2.5	38.6
	40S		-2.5	38.6
	60S		-2.5	38.6
	80S		-2.6	38.5
	90S		-2.7	38.4
	95S		-4.0	37.1
	100S		-4.0	37.1
	120S		-4.0	37.1
	140S		-3.7	37.4
	160S		-3.8	37.3
	165S		-3.9	37.2
	180S		-4.7	36.4
	200S		-6.3	34.8
	220S		-7.7	33.4
	240S		-9.2	31.9
	260S		-10.7	30.4
	280S		-12.0	29.1

		541.14		
W140	300S		-13.2	527.9
	313S		-13.9	27.2
	320S		-14.2	26.9
	340S		-14.8	26.3
	362S		-15.7	25.4
	379S		-18.0	23.1
W160	111N		-0.5	40.6
	100N		-0.6	40.5
	89N		-0.7	40.4
	87N		-2.5	38.6
	80N		-2.6	38.5
	60N		-2.7	38.4
	40N		-2.6	38.5
	20N		-2.5	38.6
	0.0		-2.4	38.7
	20S		-2.5	38.6
	40S		-2.6	38.5
	60S		-2.6	38.5
	80S		-2.7	38.4

		541.14		
W160	90s		-2.7	538.4
	95s		-4.3	36.8
	100s		-4.4	36.7
	120s		-4.4	36.7
	140s		-4.0	37.1
	160s		-4.1	37.0
	165s		-4.3	36.8
	180s		-4.9	36.2
	200s		-6.3	34.8
	220s		-7.8	33.3
	240s		-8.9	32.2
	260s		-10.7	30.4
	280s		-12.0	29.1
	300s		-13.2	27.9
	320s		-14.7	26.4
	332s		-15.5	25.6
	340s		-15.6	25.5
	360s		-16.1	25.0
	379s		-17.0	24.1
	393s		-18.7	22.4

See page 25

		541.14		
W180	N110		-0.9	540.2
	N100		-1.3	39.8
	N87		-2.4	38.7
	80N		-2.4	38.7
	60N		-2.7	38.4
	40N		-2.6	38.5
	20N		-2.7	38.4
	0.0		-3.2	37.9
	20s		-4.0	37.1
	40s		-4.2	36.9
	60s		-4.4	36.7
	80s		-4.7	36.4
	100s		-4.8	36.3
	120s		-4.8	36.3
	140s		-4.4	36.7
	160s		-4.4	36.7
	165s		-4.6	36.5
	180s		-5.2	35.9
	200s		-6.4	34.7

		541.14			
W180	220s		-7.7	533.4 ·	
	240s		-9.0	32.1 ·	
	260s		-10.6	30.5 ·	
	280s		-11.9	29.2 ·	
	300s		-13.4	27.7 ·	
	320s		-14.7	26.4 ·	
	340s		-16.1	25.0 ·	
	360s		-17.0	24.1	+
	380s		-17.7	23.4 ·	
	393s.		-18.4	22.7 ·	
	406s		-21.4	19.7 ·	
W200	111N		-1.0	40.1 ·	
	100N		-1.4	39.7 ·	
	80N		-2.0	39.1 ·	
	60N		-2.7	38.4 ·	
	40N		-3.2	37.9 ·	
	20N		-3.5	37.6 ·	
	0.0		-4.0	37.1 ·	
	20s		-4.2	36.9 ·	

		541.14			
W200	40s		-4.6	536.5 ·	
	60s		-5.0	36.1 ·	
	80s		-5.3	35.8 ·	
	100s		-5.2	35.9 ·	
	120s		-5.0	36.1 ·	+
	140s		-4.8	36.3 ·	
	160s		-4.7	36.4 ·	
	165s		-4.8	36.3 ·	
	180s		-5.4	35.7 ·	
	200s		-6.5	34.6 ·	
	220s		-8.0	33.1 ·	
	240s		-9.2	31.9 ·	
	260s		-10.6	30.5 ·	
	280s		-12.0	29.1 ·	
	300s		-13.3	27.8 ·	
	320		-15.2	25.9 ·	
	340		-16.4	24.7 ·	
	360		-17.8	23.3	+
	380		-18.2	22.9 ·	
	409		-19.0	22.1 ·	

		541.14		
W220	114N		-1.5	539.6 .
	100N		-1.6	39.5 .
	80N		-2.1	39.0 .
	60N		-2.9	38.2 .
	40N		-3.4	37.7 .
	20N		-3.8	37.3 .
	0.0		-4.2	36.9 .
	20S		-4.5	36.6 .
	40S		-4.9	36.2 .
	60S		-5.2	35.9 .
	80S		-5.4	35.7 .
	100S		-5.5	35.6 .
	120S		-5.2	35.9 .
	140S		-5.1	36.0 .
	160S		-4.9	36.2 .
	165S		-5.0	36.1 +
	180S		-5.6	35.5 .
	200S		-6.7	34.4 .
	220S		-8.2	32.9 .

		541.14		
W220	240S		-8.6	532.5 .
	260S		-10.8	30.3 .
	280S		-12.1	29.0 .
	300S		-13.5	27.6 .
	320S		-15.1	26.0 .
	340S		-16.6	24.5 .
	360S		-17.2	23.9 .
	380S		-19.3	21.8 .
W240	112N		-2.3	38.8 .
	100N		-2.3	38.8 .
	80N		-2.6	38.5 .
	60N		-3.2	37.9 .
	40N		-3.6	37.5 .
	20N		-4.0	37.1 .
	0.0		-4.3	36.8 .
	20S		-4.6	36.5 .
	40S		-5.0	36.1 .
	60S		-5.3	35.8 .
	80S		-5.7	35.4 .

		541.14		
W240	100s		-5.7	535.4
	120s		-5.6	35.5
	140s		-5.3	35.8
	160s		-5.1	36.0
	165s		-5.3	35.8
	180s		-5.7	35.4
	200s		-7.0	34.1
	220s		-8.4	32.7
	240s		-9.8	31.3
	260s		-11.1	30.0
	280s		-12.3	28.8
	300s		-13.7	27.4
	320s		-15.2	25.9
	340s		-16.6	24.5
	360s		-18.3	22.8
	375s		-19.4	21.7
W260	110N		-2.7	38.4
	100N		-3.1	38.0
	80N		-3.0	38.1

		541.14		
W260	60N		-3.3	537.8
	39N		-3.5	37.6
	12N		-3.5	37.6
	0+0		-3.9	37.2
	20s		-4.7	36.4
	40s		-5.2	35.9
	60s		-5.8	35.3
	80s		-6.1	35.0
	100s		-6.2	34.9
	120s		-5.9	35.2
	140s		-5.7	35.4
	160s		-5.6	35.5
	165s		-5.7	35.4
	180s		-6.0	35.1
	200s		-7.3	33.8
	220s		-8.7	32.4
	240s		-10.0	31.1
	260s		-11.7	29.4
	280s		-12.9	28.2

		541.14		
W260	300s		14.1	527.0
	320s		15.6	25.5
	340s		16.7	24.4
W280	110N		-3.1	38.0
	100N		-3.3	37.8
	80N		-3.7	37.4
	60N		-4.1	37.0
	40N		-4.9	36.2
	20N		-4.0	37.1
	0+0		-4.4	36.7
	20s		-4.8	36.3
	40s		-5.4	35.7
	60s		-6.1	35.0
	80s		-6.5	34.6
	100s		-6.5	34.6
	120s		-6.3	34.8
	140s		-6.0	35.1
	160s		-6.0	35.1
	165s		-6.1	35.0

		541.14		
W280	180s		-6.6	534.5
	200s		-7.9	33.2
	220s		-10.0	31.1
	240s		-12.0	29.1
	244s	0.6.	-12.9	28.2
W300	100N		-4.7	36.4
	80N		-3.9	37.2
	60N		-4.0	37.1
	40N		-4.1	37.0
	20N		-4.5	36.6
	0+0		-4.6	36.5
	20s		-5.0	36.1
	40s		-5.7	35.4
	60s		-6.2	34.9
	80s		-7.0	34.1
	100s		-7.0	34.1
	120s		-6.7	344
	140s		-7.4	33.7
	179s	0.6.	-10.5	30.6
CHECK B.M.			-6.74	534.40

CHECKED EWE 4-1-49

Notes Reduced 3-30-49

MARCH 31, 1949.

LEONARD
PAYNE
CARVER

X-SECTIONS - CONT'D.

B.M.	+ 2.78	549.44		546.66 SALT TANK.
W200	114 N		-8.6	540.8
	120 N		-8.5	40.9
	140 N		-8.5	40.9
	153 N		-8.4	41.0
	158 N		-10.0	39.4
	180 N		-10.6	38.8
	200N		-10.8	38.6
	220 N		-11.2	38.2
	240N		-12.1	37.3
	260N	O.G.	-13.2	36.2
W180	115 N		-7.7	41.7
	120N		-7.6	41.8
	140N		-7.6	41.8
	154N		-7.9	41.5
	160N		-8.9	40.5
	180N		-9.3	40.1
	200N		-9.8	39.6
	220N		-10.0	39.4

	549.44		
W180 240N		-10.7	538.7
260N		-11.5	37.9
W170 116N		-7.4	42.0
120N		-7.3	42.1
140N		-7.1	42.3
154N		-7.5	41.9
160N		-8.2	41.2
180N		-8.4	41.0
200N		-8.5	40.9
210N		-8.5	40.9
225N		-8.3	41.1
230N		-7.9	41.5
240N		-8.3	41.1
250N		-8.9	40.5
260N		-10.5	38.9
W160 117N		-7.1	42.3
120N		-7.0	42.4
140N		-6.8	42.6
160N		-7.3	42.1

		549.4		
W160	180N		-7.3	542.1 ·
	200N		-7.2	42.2
	210N		-6.9	42.5
	222N		-7.3	42.1 ·
	230N		-5.4	44.0
	240N		-4.8	44.6
	250N		-6.0	43.4
	260N		-8.5	40.9
W150	210N		-6.1	43.3
	221N		-7.1	42.3
	230N		-3.0	46.4
	240N		-2.4	47.0
	250N		-3.5	45.9
	260N		-7.2	42.2 ·
W140	120N		-6.3	43.1
	140N		-5.9	43.5
	160N		-6.1	43.3
	180N		-5.9	43.5
	200N		-6.0	43.4

		549.4		
W140	210N		-5.7	543.7 ·
	221N		-6.8	42.6 ·
	229N		-2.5	46.9 ·
	250N		-2.5	46.9 ·
Cont - Bk 738 Pg 14				
	260N		-7.0	42.4 ·
W120	121N		-5.4	44.0 ·
	140N		-5.1	44.3 ·
	160N		-5.3	44.1 ·
	180N		-5.3	44.1 ·
	200N		-5.1	44.3 :
	210N		-5.2	44.2 ·
	221N		-6.3	43.1 ·
	229N		-2.7	46.7 ·
	250N		-2.5	46.9 ·
Cont. Bk 738 Pg 14				
	260N		-6.6	42.8 ·
W100	122N		-4.8	44.6 ·
	140N		-4.5	44.9 ·
	160N		-4.6	44.8 ·
	180N		-4.5	44.9 ·

		549.4		
W100	200N		-4.6	544.8
	210N		-4.8	44.6
	221N		-5.9	43.5
	229N		-2.5	46.9
	250N		-2.3	47.1
Cont. Bk 738 Pg 14	260N		-6.5	42.9
W80	124N		-4.3	45.1
	140N		-4.2	45.2
	160N		-4.2	45.2
	180N		-4.1	45.3
	200N		-4.3	45.1
	210N		-4.4	45.0
	222N		-5.4	44.0
	229N		-2.5	46.9
	250N		-2.2	47.2
Cont. Bk 738-Pg 14	260N		-6.5	42.9
W60	124N		-4.1	45.3
	140N		-4.0	45.4
	160N		-4.1	45.3

		549.4		
W60	180N		-3.9	545.5
	200N		-4.2	45.2
	210N		-4.1	45.3
	222.5N		-5.1	44.3
	230N		-2.3	47.1
	250N		-2.2	47.2
	260N		-6.7	42.7
W40	125N		-4.0	45.4
	140N		-4.0	45.4
	160N		-4.1	45.3
	180N		-4.0	45.4
	200N		-4.0	45.4
	210N		-4.0	45.4
	222N		-5.3	44.1
	230N		-2.4	47.0
	250N		-2.4	47.0
	260N		-6.6	42.8
W20	125N		-4.0	45.4
	140N		-4.0	45.4

		549.4		
W20	160N		-4.1	545.3
	180N		-4.1	45.3
	200N		-4.1	45.3
	210N		-4.2	45.2
	222N		-5.1	44.3
	230N		-2.4	47.0
	250N		-2.5	46.9
	260N		-6.4	43.0
0-0	125N		-4.0	45.4
	140N		-4.0	45.4
	160N		-4.0	45.4
	180N		-4.0	45.4
	200N		-4.1	45.3
	210N		-4.3	45.1
	222N		-5.1	44.3
	230N		-2.4	47.0
	250N		-2.4	47.0
	260N		-6.4	43.0

		549.4		
E20	125N		-4.0	545.4
	140N		-4.0	45.4
	160N		-4.0	45.4
	180N		-3.9	45.5
	200N		-4.1	45.3
	210N		-4.2	45.2
	221.5N		-5.1	44.3
	230N		-2.4	47.0
	250N		-2.4	47.0
	260N		-6.9	42.5
E40	125N		-4.0	45.4
	140N		-3.9	45.5
	160N		-4.0	45.4
	180N		-4.0	45.4
	200N		-4.1	45.3
	210N		-4.3	45.1
	221.5N		-5.1	44.3
	230N		-2.4	47.0
	250N		-2.5	46.9
	260N		-7.0	42.4

		549.4		
E60	115N		-3.9	545.5 ·
	120N		-4.0	545.4 ·
	140N		-3.9	45.5 ·
	160N		-4.0	45.4 ·
	180N		-4.0	45.4 ·
	200N		-4.0	45.4 ·
	210N		-4.2	45.2
	221.5N		-5.1	44.3
	230N		-2.4	47.0 ·
	250N		-2.4	47.0
	260N		-7.0	42.4 ·
E80	105N	SAND	-3.4	46.0
	120N		-4.0	45.4 ·
	140N		-4.0	45.4 ·
	160N		-4.0	45.4 ·
	180N		-3.9	45.5 ·
	200N		-4.0	45.4 ·
	210N		-4.1	45.3 ·
	221N		-4.9	44.5 ·
	229N		-2.6	46.8 ·

		549.4		
E80	N250		-2.5	546.9 ·
	N260		-7.0	42.4 ·
E100	103N		-3.8	45.6 ·
	120N		-4.0	45.4 ·
	140N		-4.0	45.4 ·
	152N		-4.1	45.3 ·
	195N		-4.0	45.4 ·
	200N		-4.1	45.3 ·
	210N		-4.1	45.3 ·
	221N		-4.8	44.6 ·
	229N		-2.5	46.9 ·
	250N		-2.5	46.9 ·
	260N		-6.8	42.6 ·
E120	101N		-3.6	45.8 ·
	120N		-3.9	45.5 ·
	140N		-4.0	45.4 ·
	152N		-4.1	45.3 ·
	195N		-4.0	45.4 ·
	200N		-4.1	45.3 ·

		549.4		
E120	210N		-4.1	545.3 ·
	221N		-4.8	44.6 ·
	229N		-2.4	47.0 ·
	250N		-2.4	47.0 ·
	260N		-6.9	42.5 ·
E140	101N		-3.5	45.9 ·
	120N		-4.0	45.4 ·
	140N		-4.0	45.4 ·
	146N		-4.0	45.4 ·
	195N		-4.0	45.4 ·
	200N		-4.2	45.2
	210N		-4.1	45.3 ·
	221N		-4.8	44.6 ·
	229N		-2.5	46.9 ·
	250N		-2.4	47.0 ·
	260N		-6.9	42.5 ·
E160	101N		-3.6	45.8 ·
	120N		-4.0	45.4 ·
	140N		-4.0	45.4

		549.4		
E160	147N		-3.9	545.5 ·
	195N		-4.1	45.3 ·
	200N		-4.2	45.2 ·
	210N		-4.2	45.2 ·
	221N		-4.7	44.7 ·
	229N		-2.4	47.0 ·
	250N		-2.3	47.1 ·
	260N		-6.9	42.5 ·
E180	91N		-3.7	45.7 ·
	100N		-3.9	45.5 ·
	120N		-4.0	45.4 ·
	140N		-4.0	45.4 ·
	160N		-4.0	45.4 ·
	180N		-4.0	45.4 ·
	200N		-4.1	45.3 ·
	210N		-4.1	45.3 ·
	221N		-4.7	44.7 ·
	229N		-2.4	47.0 ·
	250N		-2.3	47.1 ·
	260N		-6.7	42.7 ·

		549.4		
E200	81N		-3.5	545.9
	100N		-4.0	45.4
	120N		-4.1	45.3
	140N		-4.0	45.4
	160N		-4.1	45.3
	180N		-4.2	45.2
	200N		-4.1	45.3
	210N		-4.2	45.2
	222N		-4.7	44.7
	229N		-2.5	46.9
	250N		-2.5	46.9
	260N		-6.1	43.3
E220	~~94N~~ Rd 94N		-3.7	45.7
	100N		-3.9	45.5
	120N		-3.9	45.5
	140N		-4.0	45.4
	160N		-4.0	45.4
	180N		-4.1	45.3
	200N		-4.1	45.3

		549.4		
E220	210N		-4.2	545.2
	222N		-4.6	44.8
	229N		-2.4	47.0
	250N		-2.4	47.0
Cont. Bk 738 Pg 15				
	260N		-6.0	43.4
E240	81N		-4.3	45.1
	100N		-3.9	45.5
	120N		-4.0	45.4
	140N		-4.0	45.4
	160N		-4.1	45.3
	180N		-4.1	45.3
	200N		-4.1	45.3
	210N		-4.3	45.1
	222N		-4.7	44.7
	229N		-2.5	46.9
	250N		-2.1	47.3
	260N		-5.6	43.8
	270N		-8.6	40.8
Cont. Bk 738 - Pg 15				
	280N		-11.8	37.6

		549.4		
E260	N 80		-4.1	545.3 ·
	100 N		-3.8	45.6 ·
	120 N		-3.9	45.5.
	140N		-4.0	45.4 ·
	160N		-4.2	45.2 ·
	180N		-4.1	45.3 ·
	200N		-4.1	45.3 ·
	210N		-4.2	45.2 ·
	222N		-4.8	44.6 ·
	230N		-2.5	46.9
	250N		-2.2	47.2 ·
	260N		-5.1	44.3 ·
	270N		-7.8	41.6 ·
Cont-Bk 738-Pg 15				
	280N		-11.2	38.2
E280	80N		-4.0	45.4 ·
	100N		-3.8	45.6 ·
	120N		-4.0	45.4 ·
	140N		-3.9	45.5 ·
	160N		-4.1	45.3 ·

		549.4		
E280	180N		-4.2	545.2 ·
	200N		-4.1	45.3 ·
	210N		-4.2	45.2 ·
	223N		-4.5	44.9 ·
	229N		-2.3	47.1 ·
	250N		-2.2	47.2 ·
	260N		-4.7	44.7 ·
	270N		-7.7	41.7 ·
Cont. Bk 738 Pg 15				
	280N		-10.4	39.0 ·
E300	80N		-4.0	45.4 ·
	100N		-3.7	45.7 ·
	120N		-3.9	45.5 ·
	140N		-4.0	45.4 ·
	160N		-4.1	45.3 ·
	180N		-4.1	45.3 ·
	200N		-4.1	45.3 ·
	210N		-4.2	45.2 ·
	222N		-4.6	44.8 ·
	230N		-2.3	47.1 ·

		549.4		
E300	250N		-2.2	547.2
	260N		-4.1	45.3
	270N		-7.3	42.1
Cont	280N		-9.5	39.9
Cont.- Bk 738 - Pg 15	290 N		-10.8	38.6
E320.	80 N		-4.1	45.3
	100 N		-3.9	45.5
	120 N		-3.8	45.6
	140 N		3.9	45.5
	160H		4.1	45.3
	180H		-4.0	45.4
	200H		-4.1	45.3
	210H		-4.2	45.2
	222H		-4.6	44.8
	230N		-2.3	47.1
	250N		-2.3	47.1
	260N		-4.3	45.1
	270N		-6.6	42.8
	280N		-9.0	40.4
Cont. Bk 738 Pg 16	293N	0.6	10.7	38.7

T23-S29 51

		549.4		
E348.	106H		-3.7	545.7
	120H		-3.9	45.5
	140H		-3.9	45.5
	160H		-4.1	45.3
	180H		-4.2	45.2
	200H		-4.6	44.8
	210H		-4.7	44.7
	222H		-4.7	44.7
	250H		-5.1	44.3
	260H		-6.3	43.1
	270H		-7.1	42.3
	280H		-7.6	41.8
	290H		-8.1	41.3
	300H	0.6.	-8.9	40.5
E338	224H		-4.5	44.9
E337	235H		-2.4	47.0
E336	243H		-2.3	47.1
E350	228H		-6.0	43.4
E350	250H		-6.6	42.8

		549.44		
E360	106 H		-4.0	545.4
	120 H		-4.0	45.4
	140N		-4.0	45.4
	159H		-4.1	45.3
	168H		-5.1	44.3
	180H		-5.2	44.2
	200H		-5.4	44.0
	210H	0.6.	-5.8	43.6
E380	106H		-4.1	45.3
	120N		-4.0	45.4
	140H		-4.0	45.4
	152N		-4.1	45.3
	157H		-5.0	44.4
	170H		-4.9	44.5
	180H		-4.9	44.5
	186H	0.6.	-4.8	44.6
T.P.	COR. TRUCK SCALE.		-2.86	546.58
	+1.90	548.48		
B.M. CONC. MON 583E.			-10.01	538.47

		548.5		
E380	73N		-6.9	541.6
	80N		-4.0	44.5
	85N		-3.1	45.4
	96H		-2.9	45.6
E400	68N		-8.8	39.7
	84N		-2.9	45.6
	96H		-2.5	46.0
	122H		-2.9	45.6
	140H		-3.0	45.5
	152N		-3.1	45.4
	156N		-3.9	44.6
	170N		-3.8	44.7
	176N	0.6.	-4.0	44.5
E420	71N		-7.9	40.6
	84N		-3.2.	45.3
	104N		-3.6	44.9
	120N		-2.9	45.6
	140N		-3.0	45.5
	152N		-3.2	45.3
	155N		-4.0	44.5
	166N	0.6	-4.0	44.5

		548.5		
E 440	60N		-8.7	539.8
	72N		-7.0	41.5
	83.5N		-3.3	45.2
	100N		-2.7	45.8
	120N		-3.1	45.4
	140N		-3.1	45.4
	150N		-3.3	45.2
	154N		-4.3	44.2
E 460	72N		-6.3	42.2
	83.5N		-3.3	45.2
	98N		-2.7	45.8
	120N		-3.1	45.4
	140N		-3.2	45.3
	151.5N		-3.2	45.3
	154N		-4.1	44.4
	160N		-4.3	44.2
E 480	71N		-7.3	41.2
	83.5N		-3.2	45.3
	98N		-2.6	45.9

		548.5		
E 480	120N		-3.2	545.3
	140N		-3.2	45.3
	151.N		-3.3	45.2
	155N		-4.5	44.0
	160N		-4.4	44.1
E 500	71.5N		-7.5	41.0
	83.5N		-3.1	45.4
	98N		-2.6	45.9
	111N		-2.8	45.7
	123N		-3.2	45.3
	140N		-3.2	45.3
	152N		-3.3	45.2
	156N		-4.6	43.9
	160N		-4.6	43.9
E 520	77N		-7.6	40.9
	83.5N		-2.9	45.6
	98N		-2.5	46.0
	123N		-3.3	45.2
	140N		-3.1	45.4
	151.5N		-3.2	45.3
	158N		-4.9	43.6

		548.5		
E 540	72N		-7.7	540.8
	83.5N		-3.0	45.5
	100N		-2.9	45.6
	111 N		-3.2	45.3
	123N		-3.3	45.2
	140N		-3.0	45.5
	151.5N		-3.2	45.3
	157N		-4.7	43.8
E 560	72N		-7.1	41.4
	83.5N		-3.1	45.4
	100 N		-2.9	45.6
	120 N		-3.0	45.5
	140N		-2.9	45.6
	150.5N		-3.1	45.4
	156N		-4.3	44.2
E 571	72N		-6.8	41.7
	83N		-4.2	44.3
	92N		-3.3	45.2
	100N		-3.4	45.1

		548.48		
E571	120N		-3.4	545.1
	140N		-3.1	45.4
	153N		-4.4	44.1
E580	80N		-6.3	42.2
	100N		-5.6	42.9
	117N		-4.9	43.6
	122N		-4.0	44.5
	130N		-3.6	44.9
	140N		-3.7	44.8
	149N		-4.7	43.8
E600	40N		-7.9	40.6
	60N		-6.8	41.7
	80N		-6.2	42.3
	100N		-5.8	42.7
	120N		-4.9	43.6
	136N		-5.0	43.5
	140N		-4.2	44.3
CHECK B.M.			-10.	538.47

plotted

April 4, 1949

Leonard
Payne
Carver

Additional Sections Along W. Bank Future Filter Area.

B.M.	+ 8.86	543.26		534.40
W168	N40		-4.7	538.6
	N20		-4.6	38.7
	0+0		-4.6	38.7
	S20		-4.7	38.6
	S40		-4.7	38.6
	S60		-4.8	38.5
	S80		-4.8	38.5
	S90		-5.2	38.1
	S95		-6.8	36.5
W170	N40		-4.6	38.7
	N20		-4.5	38.8
	0+0		-4.6	38.7
	S20		-4.7	38.6
	S40		-4.8	38.5
	S60		-4.9	38.4
	S80		-5.1	38.2
	S90		-5.6	37.7
	S95		-7.0	36.3

		543.26		
W172	N40		-4.6	538.7
	N20		-4.5	38.8
	0+0		-4.6	38.7
	S20		-4.7	38.6
	S40		-4.8	38.5
	S60		-5.4	37.9
	S80		-5.7	37.6
	S90		-6.6	36.7
	S95		-7.0	36.3
W174	N40		-4.6	38.7
	N20		-4.6	38.7
	0+0		-4.7	38.6
	S20		-4.8	38.5
	S40		-5.5	37.8
	S60		-6.0	37.3
	S80		-6.5	36.8
	S95		-7.0	36.3

		543.26		
W176	N40		-4.6	538.7
	N20		-4.6	38.7
	0+0		-4.7	38.6
	S20		-5.1	38.2
	S40		-6.0	37.3
	S60		-6.5	36.8
	S80		-6.6	36.7
	S95		-6.9	36.4
W178	N40		-4.6	38.7
	N20		-4.6	38.7
	0+0		-4.8	38.5
	S20		-5.5	37.8
	S40		-6.2	37.1
	S60		-6.5	36.8
	S80		-6.7	36.6
	S95		-7.0	36.3

		543.26		
W182	N40		-4.7	538.6
	N20		-5.1	38.2
	0+0		-5.9	37.4
	S20		-6.2	37.1
	S40		-6.3	37.0
	S60		-6.7	36.6
	S80		-7.0	36.3
	S95		-7.1	36.2
W184	N40		-5.0	38.3
	N20		-5.3	38.0
	0+0		-5.8	37.5
	S20		-6.3	37.0
	S40		-6.4	36.9
	S60		-6.7	36.6
	S80		-7.1	36.2
	S95		-7.2	36.1
Check B.M.			-8.86	534.40

CHECKED REDUCING FWE 4-4-49

K&E LEVEL 106546 APRIL 12, 1950 LEONARD, K, NOTES, CHAIN
CARVER, ROD & CHAIN

RE-X-SECTION ROADWAY AREA SOUTH OF ZEOLITE AND SETTLING BASINS BEFORE BACKFILLING & GRADING.

B.M.	+4.85	535.17		RIM M.H. S177 E60 530.32
W40	S130		-3.6	531.6
"	S150		-3.6	531.6
"	S170		-3.8	531.4
"	S190		-4.8	530.4
"	S210		-6.2	529.0
"	S230		-7.4	527.8
"	S250		-8.3	526.9
W20	S130		-4.3	530.9
"	S150		-3.1	532.1
"	S170		-3.7	531.5
"	S190		-5.0	530.2
"	S210		-6.9	528.3
"	S230		-8.1	527.1
"	S250		-8.8	526.4
AXIS	S130		-5.0	530.2
"	S150		-2.1	533.1

X-SECTIONS OF ROADWAY AREA, CONT'D.

		535.17		
AXIS	S170		-3.8	531.4
"	S190		-5.3	529.9
"	S210		-7.2	528.0
"	S230		-8.0	527.2
"	S250		-9.2	526.0
E20	S130		-2.9	532.3
"	S150		-2.4	532.8
"	S170		-3.3	531.9
"	S190		-5.4	529.8
"	S210		-7.2	528.0
"	S230		-7.6	527.6
"	S243 ~~S250~~		-7.9	527.3
E40	S130		-2.9	532.3
"	S150		-3.1	532.1
"	S170		-3.9	531.3
"	S190		-5.5	529.7
"	S210		-7.1	528.1
"	S230		-7.8	527.4
"	S243		-8.3	526.9

APRIL 12, 1950

LEONARD, NOTES & CHAIN
CARVER, ROD & CHAIN
ART THOMAS - π

X-SECTIONS OF ROADWAY AREA SOUTH OF SETTLING BASINS BEFORE GRADING FOR ROAD.

B.M.	+4.98	535.30	S177.8 RIM M.H. E60	530.32
E60	S160		-4.1	531.2
"	S170		-4.3	531.0
"	S190		-5.5	529.8
"	S210		-7.1	528.2
"	S230		-8.2	527.1
"	S250		-8.7	526.6
E80	S160		-3.9	531.4
"	S170		-4.3	531.0
"	S190		-5.3	530.0
"	S210		-7.0	528.3
"	S230		-8.3	527.0
"	S250		-9.4	525.9
E100	S160		-4.2	531.1
"	S170		-4.4	530.9
"	S190		-5.4	529.9
"	S210		-7.0	528.3
"	S230		-8.6	526.7

X-SECTIONS OF ROADWAY AREA, CONT'D

H.I.		535.30		
E100	S250		-9.4	525.9
E120	S160		-4.6	530.7
"	S170		-4.6	530.7
"	S190		-5.7	529.6
"	S210		-7.2	528.1
"	S230		-8.8	526.5
"	S250		-9.6	525.7
E140	S160		-4.8	530.5
"	S170		-4.8	530.5
"	S190		-6.0	529.3
"	S210		-7.3	528.0
"	S230		-9.0	526.3
"	S250		-9.6	525.7
E160	S160		-4.8	530.5
"	S170		-5.1	530.2
"	S190		-6.0	529.3
"	S210		-7.0	528.3
"	S230		-8.9	526.4

H.I.		535.30		
E160	S250		-9.7	525.6
E180	S160		-4.7	530.6
"	S170		-5.4	529.9
"	S190		-5.8	529.5
"	S210		-6.8	528.5
"	S230		-9.3	526.0
"	S250		-9.8	525.5
E200	S160		-4.3	531.0
"	S170		-5.5	529.8
"	S190		-5.7	529.6
"	S210		-6.7	528.6
"	S230		-9.0	526.3
"	S250		-10.0	525.3
E220	S170		-5.4	529.9
"	S190		-6.0	529.3
"	S210		-6.9	528.4
"	S230		-9.0	526.3
"	S250		-10.2	525.1
CHECK B.M.			-4.98	530.32

ck'd - com 4-12-50

CHISELED □ IN S.W. COR GAS PUMP BLOCK. WEST OF ELEC. TRANSFORMER STATION.

NOTE: TROUGHS ARE NUMBERED FROM SOUTH END OF TANK, EAST OR WEST A, B, C, ETC. TO NORTH END.

1ST READING IN EACH CASE IS ON S. LIP OF TROUGH.

ALL SHOTS IN CENTER OF TROUGH.

K.&E. LEVEL #106346
K.&E. ROD #6210-CR-13
CLEAR, WARM.

AUGUST 7, 1950
9:30 A.M.

LEONARD-𝛑
BAKER-ROD

FILTER BED #3. TROUGHS EMPTY.

B.M.	+11.11	547.50		536.39 ON DAM
SET B.M. ON S.W. COR. GAS PUMP.			-1.133	546.367
	+4.760	551.127		
SET T.B.M.□ IN WALK, CENTER FILTER BED #3.			-1.150	549.977
H.I.	+1.093	551.070		
EAST SIDE:				
TROUGH A: S. LIP				SIGHT OBSCURED.
N. LIP			-6.128	544.942
" B: S. LIP			-6.126	544.944
N. "			-6.126	544.944
" C: S. "				BENEATH WALK
N. "				" "
" D: S. "			-6.114	544.956
N. "			-6.120	544.950
" E: S. "			-6.124	544.946
N. "			-6.131	544.939
" F: S. "			-6.093	544.977
N. "			-6.094	544.976

Aug. 7, 1950.

FILTER BED #3, TROUGH ELEV'S. CONT'D.

EAST SIDE:	551.070		
TROUGH G. S. LIP		-6.100	544.970
" " N. "		-6.111	544.959
" H: S. "			BENEATH WALK
" " N. "			" "
" I S. "		-6.098	544.972
" " N. "		-6.108	544.962
" J. S. "		-6.100	544.970
" " N. "		-6.094	544.976
WEST SIDE:			
TROUGH A: S. LIP		-6.120	544.950
" " N. "		-6.120	544.950
" B: S. "		-6.130	544.940
" " N. "		-6.127	544.943
" C: S. "			BENEATH WALK.
" " N. "			" "
" D: S. "		-6.127	544.943
" N. "		-6.122	544.948

Aug. 7, 1950

FILTER BED #3 TROUGH ELEV'S CONT'D.

WEST SIDE: CONT'D.	551.070		
TROUGH E: S. LIP		-6.116	544.954
" " N. "		-6.120	544.950
" F: S. "		-6.123	544.947
" " N. "		-6.115	544.955
" G: S. "		-6.116	544.954
" " N. "		-6.114	544.956
" H: S. "			BENEATH WALK
" " N. "			" "
" I: S. "		-6.119	544.951
" " N. "		-6.106	544.964
" J: S. "		-6.118	544.952
" " N. "		-6.124	544.946
CHECK T.B.M.		-1.093	549.977

K.+E. LEVEL #106346
K.+E. ROD 6210-CR-13.

AUG. 7, 1950
12:30 P.M.

LEONARD
BAKER.

FILTER BED #3 - TROUGHS FILLED WITH WATER:

T.B.M. + 1.093	551.070		549.977 TOP OF WALKWAY
EAST SIDE:			
TROUGH A: N. LIP		-6.127	544.943
" B: S. LIP		-6.126	544.944
" " N. "		-6.124	544.946
" D. S. "		-6.113	544.956
" " N. "		-6.118	544.952
" E: S. "		-6.123	544.947
" " N. "		-6.130	544.940
" F: S. "		-6.090	544.980
" " N. "		-6.093	544.977
" G: S. "		-6.097	544.973
" " N. "		-6.110	544.960
" I: S. "		-6.097	544.973
" " N. "		-6.105	544.965
" J: S. "		-6.095	544.975
" " N. "		-6.094	544.976

Aug 7, 1950

FILTER BED #3. TROUGHS FILLED - CONT'D.

	551.070		
WEST SIDE:			
TROUGH A: S. LIP		-6.119	544.951
" " N "		-6.117	544.953
" B: S. "		-6.128	544.942
" " N. "		-6.125	544.945
" D. S. "		-6.125	544.946
" " N. "		-6.120	544.950
" E. S. "		-6.115	544.955
" " N. "		-6.117	544.953
" F. S. "		-6.122	544.948
" " N. "		-6.116	544.954
" G. S. "		-6.114	544.956
" " N. "		-6.114	544.956
" I. S. "		-6.113	544.957
" " N. "		-6.101	544.969
" J: S. "		-6.117	544.953
" " N. "		-6.120	544.950
CHECK T.B.M.		-1.093	549.977

AUG. 8, 1950
1 P.M.

FILTER BED #1, TROUGHS FILLED WITH WATER.

T.B.M.	+1.226	551.203		549.977
EAST SIDE. TROUGH A: N. LIP			-6.258	544.945
" B: S. "			-6.250	544.953
" " N. "			-6.254	544.949
" D: S. "			-6.258	544.945
" " N. "			-6.259	544.944
" E: S. "			-6.252	544.951
" " N. "			-6.258	544.945
" F: S. "			-6.254	544.949
" " N. "			-6.258	544.945
" G: S. "			-6.243	544.960
" " N. "			-6.248	544.955
" I: S. "			-6.262	544.941
" " N. "			-6.254	544.949
" J: S. "			-6.247	544.956
" " N. "			-6.250	544.953

NOTE: TROUGHS LETTERED A, B, C, ETC. FROM SOUTH END OF EACH BED. TROUGHS "C" AND "H" LIE BENEATH WALKWAYS. SHOTS TAKEN MIDWAY BETWEEN WALL AND GULLETT.

K.&E. LEVEL #106346
K.&E. ROD 6210-CR-13.

AUG. 8, 1950
9 A.M.

LEONARD - K
BAKER - ROD

FILTER BED #1. TROUGHS EMPTY.

T.B.M. +1.145		551.122		CENTER OF WALK OVER 549.977 BED #3.
EAST SIDE: TROUGH A: N. LIP			-6.176	544.946
" B: S. "			-6.170	544.952
" " N. "			-6.174	544.948
" D: S. "			-6.177	544.945
" " N. "			-6.177	544.945
" E: S. "			-6.170	544.952
" " N. "			-6.175	544.947
" F: S. "			-6.175	544.947
" " N. "			-6.178	544.944
" G: S. "			-6.163	544.959
" " N. "			-6.168	544.954
" I: S. "			-6.181	544.941
" " N. "			-6.174	544.948
" J: S. "			-6.169	544.953
" " N. "			-6.169	544.953

CONT'D.

1 P.M.

FILTER BED #1, TROUGHS FILLED WITH WATER, CONT'D.

H. I.	551.203		-
WEST SIDE: TROUGH A: S. LIP		-6.257	544.946
" " N. "		-6.242	544.961
" B: S. "		-6.264	544.939
" " N. "		-6.249	544.954
" D: S. "		-6.258	544.945
" " N. "		-6.258	544.945
" E: S. "		-6.259	544.944
" " N. "		-6.252	544.951
" F: S. "		-6.248	544.955
" " N. "		-6.238	544.965
" G: S. "		-6.253	544.950
" " N. "		-6.243	544.960
" I: S. "		-6.259	544.944
" " N. "		-6.248	544.955
" J: S. "		-6.256	544.957
" " N. "		-6.250	544.953
CHECK T.B.M.		-1.226	

9 A.M.

FILTER BED #1 - TROUGHS EMPTY - CONT'D.

H. I.	551.122		
WEST SIDE: TROUGH A: S. LIP		-6.176	544.946
" " N. "		-6.162	544.960
" B: S. "		-6.183	544.939
" " N. "		-6.167	544.955
" D: S. "		-6.178	544.944
" " N. "		-6.176	544.946
" E: S. "		-6.178	544.944
" " N. "		-6.171	544.951
" F: S. "		-6.165	544.957
" " N. "		-6.158	544.964
" G: S. "		-6.171	544.951
" " N. "		-6.164	544.958
" I: S. "		-6.179	544.943
" " N. "		-6.170	544.952
" J: S. "		-6.172	544.950
" " N. "		-6.169	544.953
CHECK T.B.M.		-1.146	549.976 (.001 LOW)

K.&E. LEVEL #106346
K.&E. ROD 6210-CR-13

AUG. 7, 1950

LEONARD
BAKER

ELEV'S. UNDER STORAGE BINS IN HEADHOUSE.

B.M. +4.680	551.047	-	546.367 GAS PUMP.
T.B.M.		-13.067	537.980 STEEL SILL OF ELEV. SHAFT
+5.05	543.030		
N. SIDE COL. #1		-5.037	537.993
W. " " #3		-5.054	537.976
W. WALL OPP COL. #3		-5.046	537.984
W. SIDE COL. #5.		-5.040	537.990
WALL AT A-5		-5.039	537.991
" " SUMP-T.P.		-5.048	537.982
H.I. +5.137	543.119		
N. SIDE COL. #7.		-5.136	537.983
N. " COL. #6-B	CANT GET 7' ROD UNDER VENT PIPE.		
N. " DOORWAY S. OF 5-B'	T.P.	-5.134	537.985
H.I. +5.245	543.230		
S. SIDE. COL #8.		-5.244	537.986
W. SIDE. COL. #C-5.		-5.241	537.989
W. SIDE. COL. #C-4		-5.248	537.982
S.W. COR. COL. #C-3	T.P.	-5.243	537.987

K.&E. LEVEL #106346
K&E ROD 6210-CR-13
5' TUNNEL ROD AS NOTED.

AUG. 8, 1950

LEONARD - ⊼
BAKER - ROD

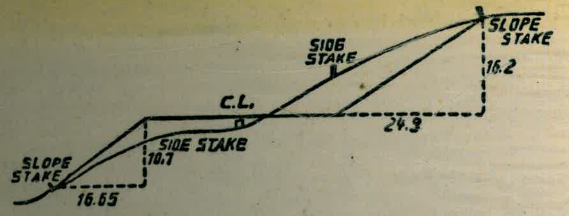
ELEV.'S UNDER STORAGE BINS IN HEADHOUSE - CONT'D.

COL. #C-3 +5.169	543.156		537.987
N. SIDE COL. B-6	USED 5' ROD UNDER VENT PIPES ONLY.	-5.150	
N.W. COR. COL. C.-6		-5.170	
S.W. COR. COL. C-3		-5.169	537.987
+5.170	543.157		
N. SIDE COL. #6.		-5.163	
N. END WALL AT B-5		-5.169	
S. " " " B-4		-5.175	
N. " " " B-4		-5.184	
S. " " " B-3	T.P.	-5.167	537.990
+5.214	543.204		
E. SIDE COL. #2		-5.221	
W. WALL AT CURB, A-3		-5.209	
CHECK COL. C-3		-5.218	537.986 =
+5.165	543.152		537.987
S. EDGE COL. #C-2		-5.163	537.989
+5.180	543.169		
CHECK T.P. IN ELEVATOR SILL.		-5.187	537.982 = ✓
			537.980 (.002 HIGH)

7-11-50 - HOT 1 P.m. LEONARD ROD KING -K 41,

Levels Filter Basins
Top Wall - chiseled X's

8.721	555.088		546.367
S85.0 W48'		5.116	
W 64'		5.125	
W 80^{5}'		5.122	
W 98'		5.122	
W 114'		5.094	
W 115'		5.099	
W 132.5'		5.120	
W. 148'		5.179	
W 164'		5.120	
S85' W 181^{5}		5.127	
W181^{5} S 66		5.106	
S49		5.091	
S48		5.093	
S30		5.098	
		8.723	546.369



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1½ 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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