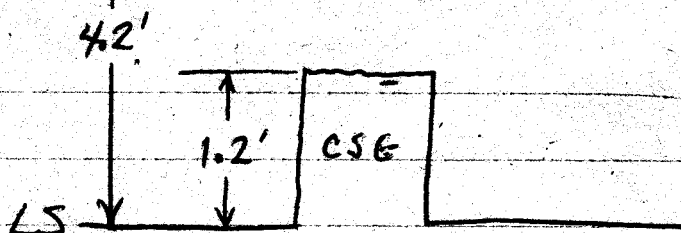




DRAWING TABLE

9/21 to 9/29



LSD used

19E43

$m_p = 4.2'$ above LSD

Entire well 195 - 1014

static w/l 86.42' below LSD.

pumping w/l 91.72 (low) after 12 hrs. Q at 325 gpm.

specific capacity = 61.3 gpm / ft H.

pumped total 44 hrs.

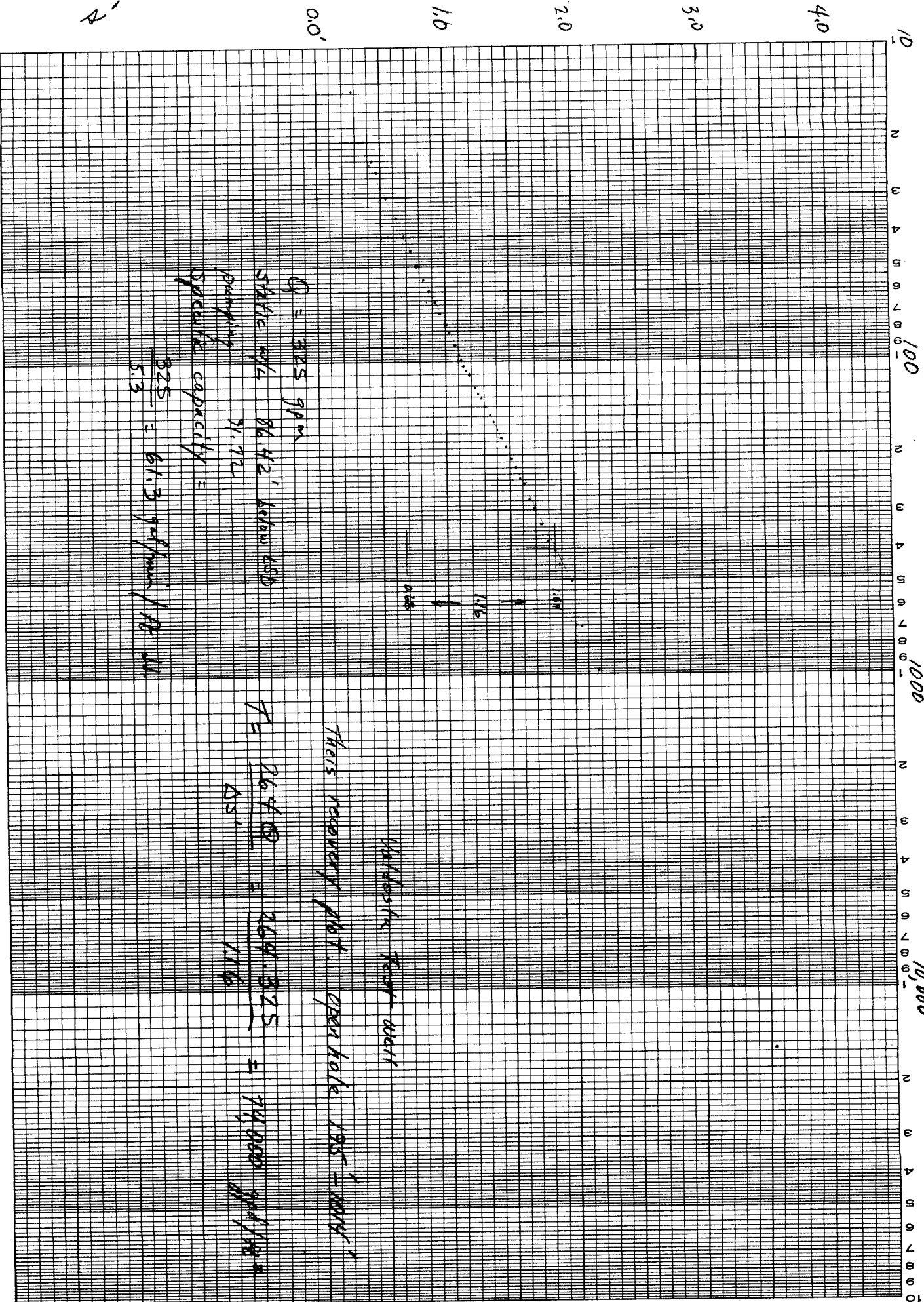
recovered (test) 3 hrs. 25 min.

Then recovery plot (s' vs t/t')

$$T = \frac{264 Q}{\Delta s'} = \frac{264 \cdot 325}{1.16} = 74,000 \text{ gal/day/ft}$$

$$6.86 \text{ ft}^2/\text{min} \quad 9884 \text{ ft}^2/Q$$

19E43



Q = 325 gpm

STAKE NO. 8142' 6000 ASD

SPACING 21.72'

SPECIALTY CAPACITY =

$$\frac{325}{5.3} = 61.3 \text{ gpm/ft}^2$$

WATER TEST DATA

THIS RECOVERY DATA OPEN RATE 195' WPM

$$r = \frac{264 \text{ Q}}{251.325} = \frac{264 \times 325}{114} = 74,000 \text{ gpm/ft}^2$$

2/1'

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This recovery plot 195'-1014' Vallarta test well.

①

Time since pump stopped min	pump t' sec	Time since pump started t sec	t/t'	Original 90.62' W/L	W/L below MP Δ'	X	Time since pump stopped min	pump t' sec	Time since pump started t sec	t/t'	Original 90.62' W/L	W/L below MP Δ'
:15	15	158415	10561	94.15	3.53		28:03	1683	160083	95.1	91.73	1.11
1:10	70	158470	2264	93.07	2.45		29:00	1740	160140	92	91.71	1.09
2:05	125	158525	1268	93.21	2.59		30:00	1800	160200	89	91.69	1.07
2:45	165	158565	961	92.80	2.18		31:00	1860	160260	86.2	91.67	1.05
3:45	225	158625	705	92.67	2.05		32:00	1920	160320	83.5	91.66	1.04
5:15	315	158715	504	92.59	1.97		33:00	1980	160380	81	91.65	1.03
5:45	345	158745	460	92.51	1.89		34:00	2040	160440	78.6	91.63	1.01
6:30	390	158790	407	92.46	1.84		35:00	2100	160500	76.4	91.61	.99
7:00	420	158820	378	92.41	1.79		36:00	2160	160560	74.3	91.60	.98
7:55	475	158875	334	92.36	1.74		37:00	2220	160620	72.4	91.59	.97
8:55	535	158935	297	92.31	1.69		38:00	2280	160680	70.5	91.57	.95
9:30	570	158970	279	92.26	1.64		39:00	2340	160740	68.7	91.56	.94
10:15	615	159015	259	92.29	1.67		40:00	2400	160800	67	91.55	.93
10:40	640	159040	248 ^h	92.23	1.61		41:00	2460	160860	65.4	91.54	.92
11:05	665	9065	239	92.20	1.58		42:00	2520	160920	63.8	91.53	.91
12:03	723	159123	220	92.16	1.54		43:00	2580	160980	62.4	91.51	.89
13:00	780	159180	204	92.13	1.51		44:00	2640	161040	61	91.50	.88
14:04	844	159244	189	92.10	1.48		45:00	2700	161100	60	91.49	.87
15:00	900	159300	177	92.06	1.44		46:00	2760	161160	58.4	91.48	.86
16:00	960	159360	166	92.03	1.41		47:00	2820	161220	57.2	91.47	.85
17:00	1020	159420	156	92.00	1.38		48:00	2880	161280	56	91.46	.84
18:00	1080	159480	148	91.97	1.35		49:00	2940	161340	54.9	91.45	.83
19:00	1140	159540	140	91.93	1.31		50:00	3000	161400	53.8	91.45	.83
20:15	1215	159615	131	91.90	1.28		51:00	3060	161460	52.8	91.43	.81
21:00	1260	159660	127	91.87	1.25		52:00	3120	161520	51.8	91.42	.80
22:00	1320	159720	121	91.85	1.23		53:00	3180	161580	50.8	91.41	.79
23:05	1385	159785	115	91.82	1.20		54:07	3247	161647	49.8	91.40	.78
24:00	1440	159840	111	91.81	1.19		55:00	3300	161700	49.0	91.39	.77
25:00	1500	159900	107	91.78 ^s	1.16 ^t		56:00	3360	161760	48.1	91.38	.76
26:03	1563	159963	102	91.76	1.14		57:00	3420	161820	47.3	91.38	.76
27:00	1620	160020	98.8	91.74 ^s	1.12 ^t		58:15	3495	161895	46.3	91.37	.75

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19E43

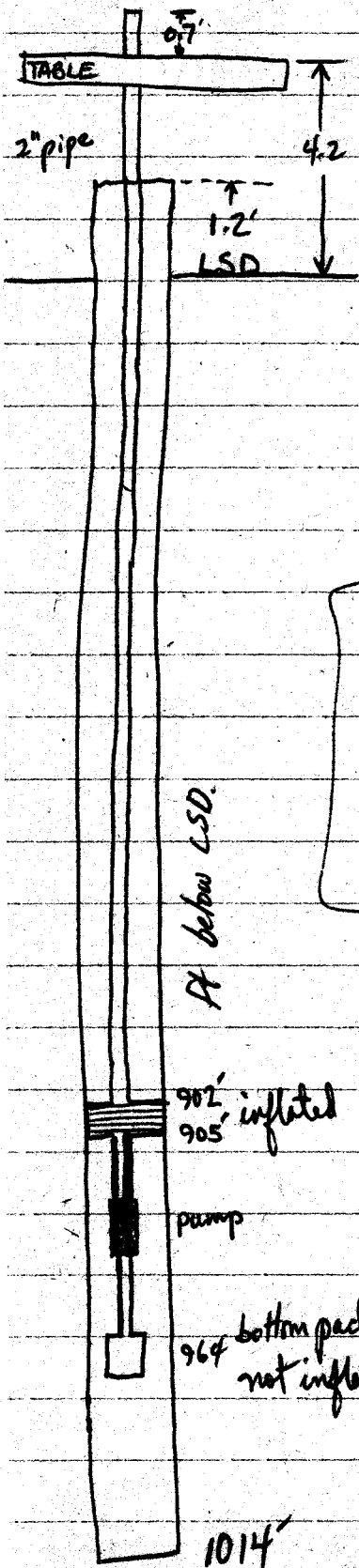
Theis recovery plot 195'-1014' Valdosta test well.

(2)

time since pump stopped min	pump t' sec	time since pump started t sec	t/t'	original w/L 90.62' below MP W/L	A'	time since pump stopped min	pump t' sec	time since pump started t sec	t/t'	original w/L 90.62' below MP W/L	A'
59	3540	161940	45.7	91.36	.74						
60	3600	162000	45.	91.35	.73	135:00	8100	166500	20.6	91.00	.38
62:30	3750	162150	43.2	91.34	.72	137:30	8250	166650	20.2	90.99	.37
65	3900	162300	41.6	91.32	.70	140	8400	166800	19.9	90.99	.37
67:30	4050	162450	40.1	91.30	.68	142:30	8550	166950	19.5	90.99	.37
70	4200	162600	38.7	91.29	.67	145	8700	167100	19.2	90.98	.36
72:30	4350	162750	37.4	91.27	.65	147:30	8850	167250	18.9	90.97	.35
75:00	4500	162900	36.2	91.25	.63						
77:30	4650	163050	35.1	91.24	.62						
80:00	4800	163200	34	91.22	.60						
82:30	4950	163350	33	91.21	.59						
85:00	5100	163500	32	91.19	.57						
87:30	5250	163650	31.2	91.18	0.56						
90:00	5400	163800	30.3	91.17	0.55						
92:30	5550	163950	29.5	91.16	.54						
95:00	5700	164100	28.8	91.14	.52						
97:30	5850	164250	28.1	91.13	.51						
100:00	6000	164400	27.4	91.12	.50						
102:30	6150	164550	26.8	91.11	.49						
105:00	6300	164700	26.1	91.11	.49						
107:30	6450	164850	25.6	91.10	.48						
110:00	6600	165000	25.0	91.09	.47						
112:30	6750	165150	24.5	91.09	.47						
115	6900	165300	24.0	91.08	.46						
117:30	7050	165450	23.5	91.07	.45						
120	7200	165600	23.0	91.07	.45						
122:30	7350	165750	22.6	91.05	.43						
125	7500	165900	22.1	91.05	.43						
127:30	7650	166050	21.7	91.04	.42						
130	7800	166200	21.3	91.02	.40						
132:30	7950	166350	20.9	91.01	.39						

9/23 to 9/24

1943



MP = 4.9' above LSD.

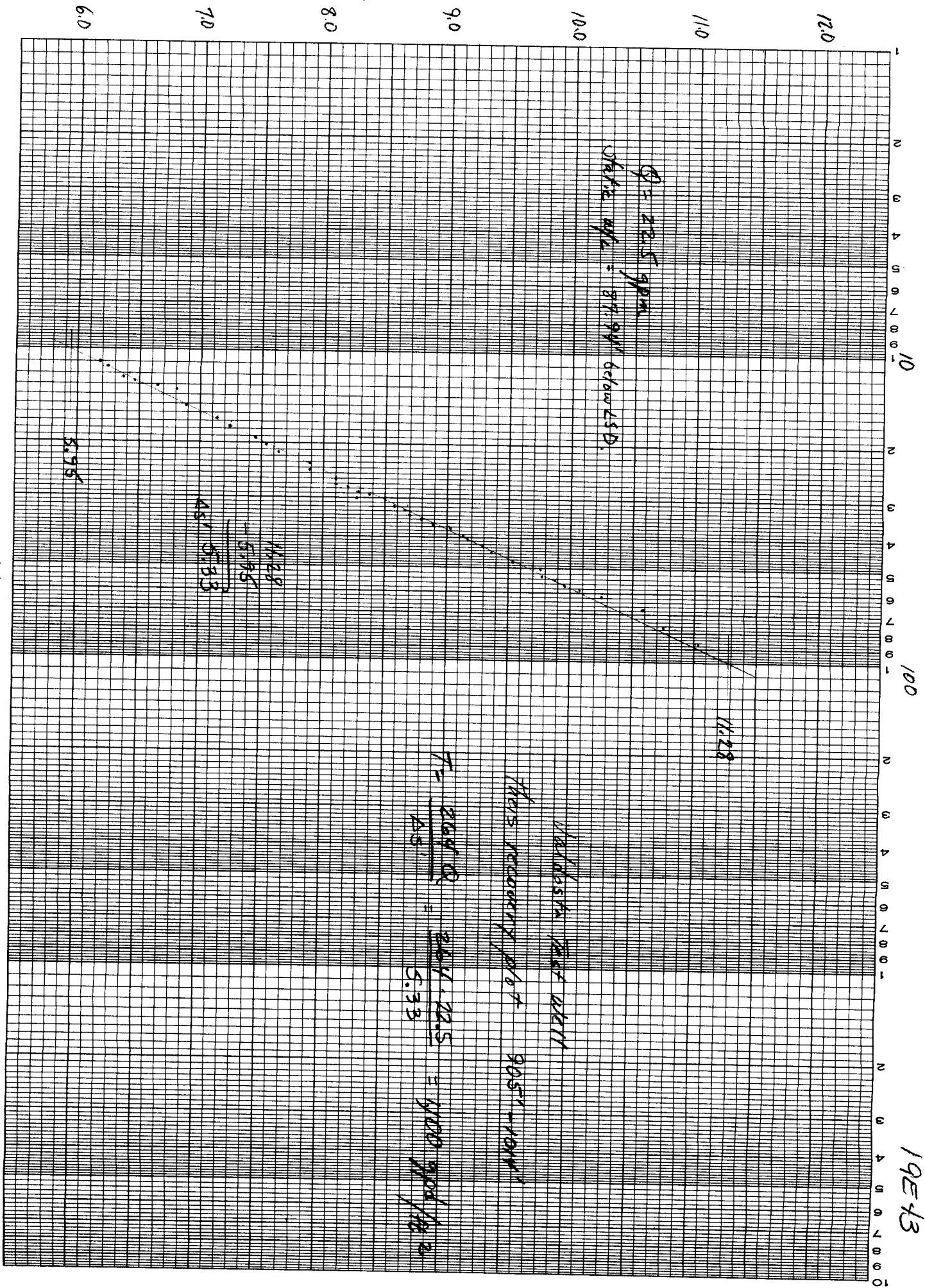
Packed interval 905-1014
 static w/L 86.81' below LSD
 in ~~packed interval~~ annular
 static w/L 87.94' below LSD
 in packed interval.

MPD annular	LSD annular	$Q = 22.5 \text{ gpm}$
91.59 - 91.71	86.69 - 86.81	86.81 - 86.58
inside	inside	
91.38 - 92.84	86.48 - <u>87.94</u>	no w/L while pumping

Pump on at 1930 off at 0800 12 hr. 30 min.

$$T = \frac{264 Q}{\Delta S'} = \frac{264 \cdot 22.5}{5.33} = 1,100 \text{ gpd}/ft^2$$

19E-43



$Q = 22.5 \text{ gpm}$
Static wpl = 87.94 below L5D.

11.28
- 5.195

AS 5.33

8.195

11.28

WATER RECOVERY
THIS RECOVERY ABOUT 90% - 100%

$$T = \frac{264 Q}{AS} = \frac{264 \cdot 22.5}{5.33} = 1100 \text{ gpd} / 18.2$$

T/F'

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This recovery plot 905-1014
45,600+

time pump min	pipe stopped feet	time since pump started feet	t/t'	w/L	Original w/L = 92.89 below M.P. S'	time pump min	pipe stopped feet	time since pump started feet	t/t'	w/L	S'
8:45	525	45525	86.7	103.88	11.04	45:00	2700	47700	17.7	100.07	7.23
9:50	590	45590	77.3	103.59	10.75	48:	2880	47880	16.6	99.98	7.14
11:15	675	45675	67.7	103.43	10.59	53	3180	48180	15.2	.72	6.88
12:20	740	45740	61.8	103.10	10.26	60	3600	48600	13.5	.65	6.81
13	780	45780	58.7	102.91	10.07	62	3720	48720	13.1	.40	6.56
13:30	810	45810	56.6	102.80	9.96	64	3840	48840	12.7	99.30	6.46
14:00	840	45840	54.6	102.72	9.88	66	3960	48960	12.4	.21	6.37
14:20	860	45860	53.3	102.61	9.77	68	4080	49080	12.0	.25	6.41
15:15	915	45915	50.2	102.60	9.76	73	4380	49380	11.3	.08	6.24
16:	960	45960	47.9	102.36	9.52	75	4500	49500	11.0	99.63	6.19
17:10	1030	46030	44.7	102.19	9.35						
18	1080	46080	42.7	102.13	9.29						
18:50	1130	46130	40.8	102.01	9.17						
19:20	1160	160	39.8	101.97	9.13						
20:30	1230	230	37.6	101.86	9.02						
21	1260	46260	36.7	101.73	8.89						
22	1320	320	35.1	.63	8.79						
22:45	1365	365	34.0	.54	8.70						
23:30	1410	46410	32.9	.51	8.67						
24:10	1450	450	32.0	.42	8.58						
25:20	1520	46520	30.6	101.42	8.58						
25:45	1545	545	30.1	.11	8.27						
26:30	1590	46590	29.3	.20	8.36						
27	1620	620	28.8	.12	8.28						
28	1680	46680	27.8	101.04	8.20						
28:30	1710	710	27.3	100.94	8.10						
30	1800	46800	26.0	.94	8.10						
32	1920	46920	24.4	.72	7.88						
34	2040	47040	23.1	.72	7.88						
37	2220	47220	21.3	.48	7.64						
39	2340	340	20.2	.38	7.54						
41	2460	47460	19.3	.29	7.45						

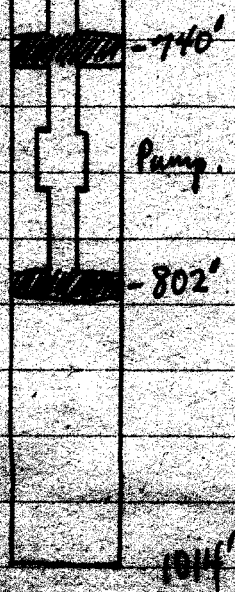


MP = 4.7' above LSD

19E43

Packed interval ~ 745 - 800.5
 w/L in packed interval = 93.36' below MP
88.66' below LSD
 w/L in interval 742 - 1014 = 93.83' b MP
 89.13' below LSD

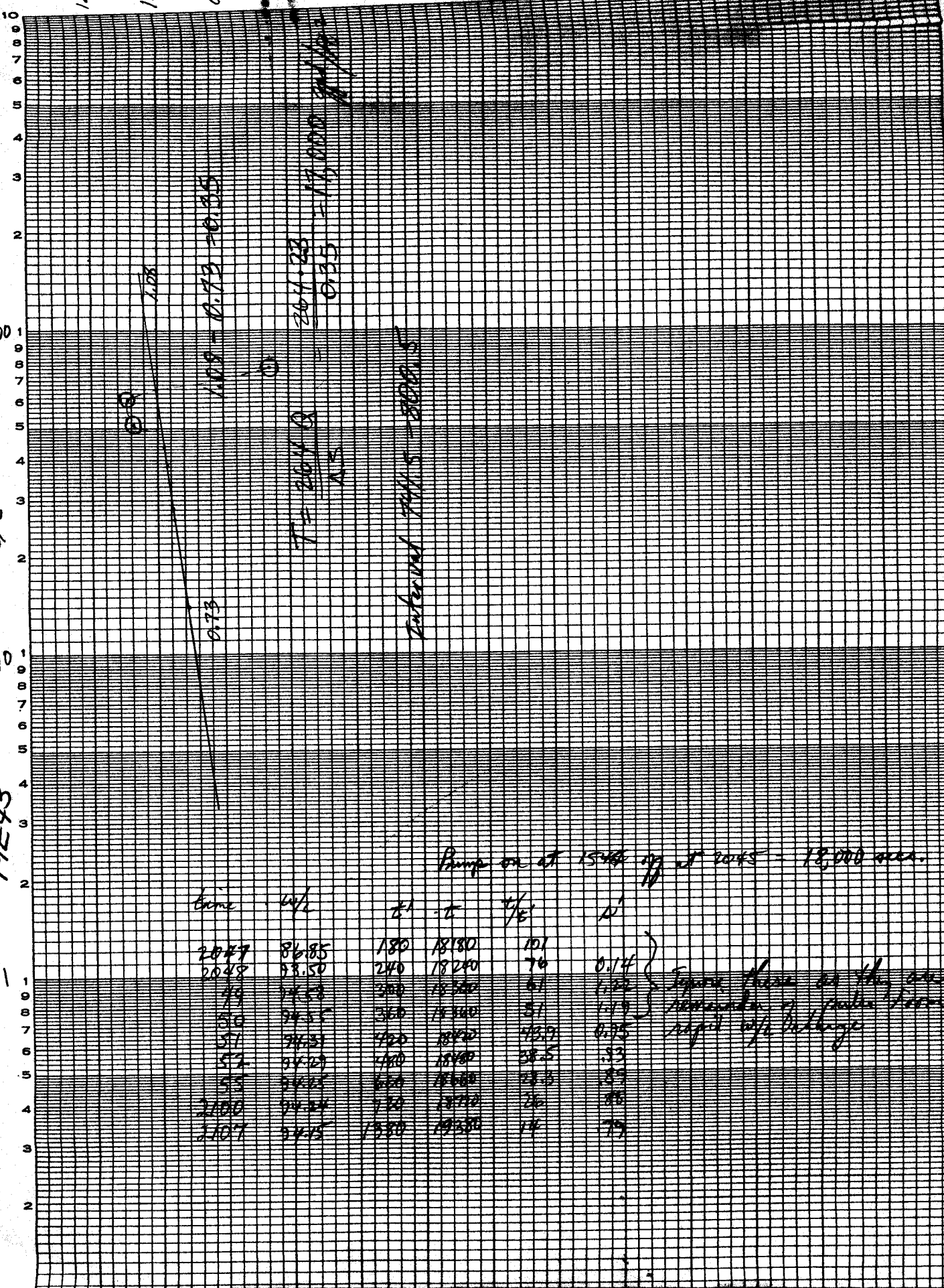
$$T = \frac{264 Q}{0.5'} = \frac{264 \cdot 23}{0.35} = 17,000 \text{ gal/ft}^2$$



1.50
1.00
0.50

2 1/2'

19E43



Interpolated $T_{1/2} = 204.8$

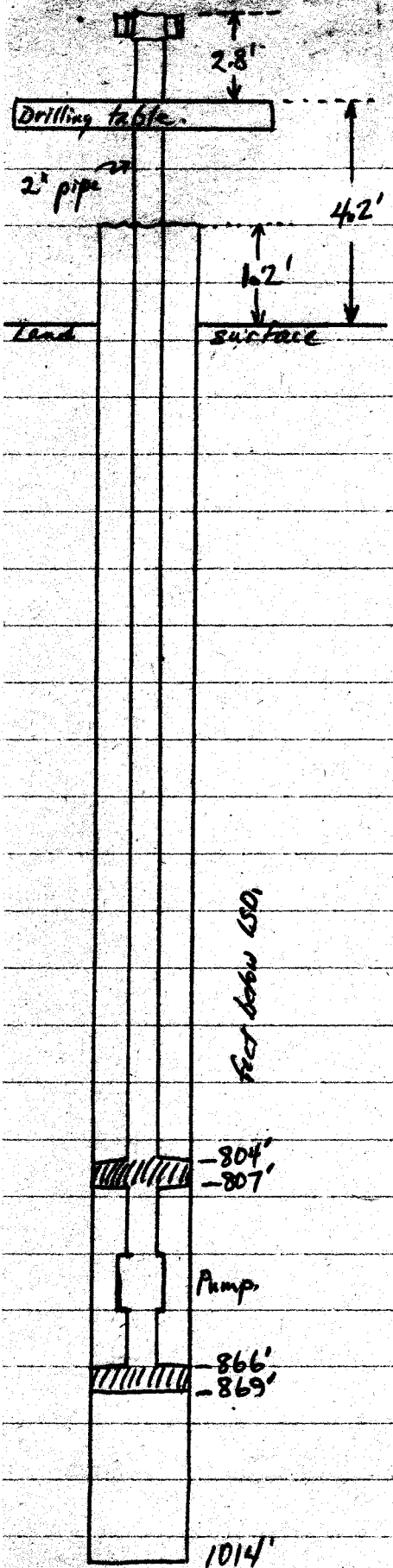
Pump on at 15.48 μ at 2045 - 18,000 sec.

Time	w/z	z_1	z_2	T/E	T'
2047	86.85	180	18180	101	
2048	88.50	240	18240	76	0.14
49	94.58	300	18300	61	1.00
50	94.55	360	18360	51	1.14
51	96.31	420	18420	43.9	0.75
52	94.29	480	18480	38.5	.53
53	94.23	540	18540	33.3	.39
2100	94.24	600	18600	26	.26
2107	94.15	1580	19580	14	.14

Ignore these as they are remainder of pump from rapid w/o discharge

9/24-25

19E43



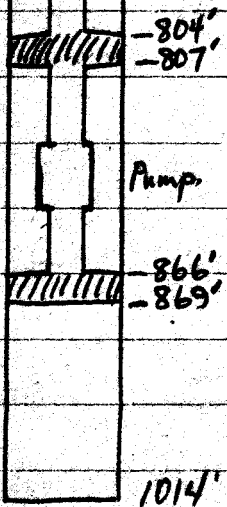
MP = 7.0' above LSD.

Top packer packed at 1007 hr.
 w/L in pipe 807-1014' interval =
 99.76' below MP = 92.76' below LSD
 bottom packer inflated at 1034 hr.
 w/L in pipe 807-866' interval =
 98.97' below MP = 91.97' below LSD.

pump on at 0845 hr. off at 1208 3 hr. 23 min

$$T = \frac{264 Q}{\Delta S'} = \frac{264 \cdot 23}{8.55} = 710 \text{ gpd/ft}^2$$

fact below LSD



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This recovery plot 807-866

Time since pumping stopped	t'	Time since pumping started	t/t'	original w/L = 98.97' below MP	s'		t'	t	t/t'	w/L	s'
min	sec	min		w/L		min	sec	sec			
5:	300	12480	41.6	108.22	9.25						
6	360	12540	34.8	107.73	8.76	52	3120	15300	4.9	100.30	1.33
7	420	12600	30	106.95	7.98	53	3180	15360	4.8	100.26	1.29
8	480	12660	26.4	106.38	7.41	56	3360	15540	4.6	100.13	1.16
9	540	12720	23.6	106.18	7.21	58	3480	15660	4.5	100.00	1.03
12	720	12900	17.9	105.20	6.23	60	3600	15780	4.4	99.96	.99
13	780	12960	16.6	104.89	5.72	61	3660	15840	4.32	99.91	.94
14	840	13020	15.5	104.59	5.62	64	3720	15900	4.27	99.85	.88
15:30	930	13110	14.1	104.29	5.32	71	4260	16440	3.86	99.68	.71
17	1020	13200	12.9	103.99	5.02	72	4320	16500	3.82	99.58	.61
18:30	1110	13270	12.	103.60	4.63	73:	4380	16560	3.78	99.54	.57
19:30	1170	13350	11.4	103.40	4.43	77	4620	16800	3.64	99.45	.48
21	1260	13440	10.7	103.18	4.21	81	4860	17040	3.51	99.37	.40
23:30	1410	13590	9.6	102.78	3.81	85	5100	17280	3.39	99.32	.35
25	1500	13680	9.1	102.49	3.52	91.	5460	17640	3.23	99.17	.20
27	1620	13900	8.5	102.28	3.31	92	5520	17700	3.21	99.02	.05
29	1740	13920	8.	102.06	3.09	94	5640	17820	3.16	99.03	.06
31	1860	14040	7.5	101.85	2.89	95	5700	17880	3.14	99.08	.11
32	1920	14100	7.3	101.69	2.72	96	5760	17940	3.11	99.01	.04
36	2160	14340	6.6	101.40	2.43	97	5820	18000	3.09	98.99	.02
38	2280	14460	6.3	101.21	2.24	99	5940	18120	3.05	99.00	.03
39	2340	14520	6.2	101.10	2.13						
42	2520	14700	5.8	100.50	1.53						
43	2580	14760	5.7	100.82	1.85						
44	2640	14820	5.6	100.78	1.81						
45	2700	14880	5.5	100.66	1.67						
46	2760	14940	5.4	100.58	1.61						
48	2880	15060	5.2	100.52	1.55						
49	2940	15120	5.1	100.49	1.52						
50	3000	15180	5.1	100.40	1.43						
51	3060	15240	5.	100.34	1.37						

t/t'

10

19E43

100

9.50 at 4.40

Valdosta test well
Theis recovery plot
807-866 packer interval

$$T = \frac{264.23}{8.55}$$

$$= 710 \text{ gpd/ft}^2$$

$$\begin{array}{r} 9.50 \\ - 0.95 \\ \hline \Delta s' 8.55 \end{array}$$

0.95 at 4.40

