GROUP 2

DRAWDOWN TEST USING ELECTRIC MEASURING DEVICE FOR WELL # 228922

REQUIRED CAPACITY _____ DATE Apr. 24 1959

DIAMETER OF DISCHARGE _____

DIAMETER OF ORIFICE _____ PUMP FURNISHED BY U.S.R.R.

DEPTH TO WATER SURFACE _____ HOURS ON DIESEL ENGINES AT START _____

PUMP SUBMERGENCE _____ TOTAL HOURS THIS WELL TEST _____

INSPECTOR C.M. HOURS ON ENGINES AT END OF TEST _____

TIME	STATIC	DRAW DOWN	TUBE	FLOW CFS	REMARKS
8:50	255.0				Start
8:55	267.3	12.3	2.6	1.2	
9:30	268.0	13.0	3.1	1.3	
10:00	267.9	12.9	3.2	1.3	sand deminishing
10:35	272.0	17.0	4.6	1.6	
11:00	264.5	9.5	2.2	1.1	
11:30	267.4	12.4	3.2	1.3	
12:00	267.1	12.1	3.1	1.3	
12:20	277.1	22.1	6.1	1.9	
12:50	269.3	14.3	3.6	1.45	
1:15	269.3	14.3	3.6	1.45	
1:45	269.2	14.2	3.6	1.45	
2:00	281.6	26.6	8.1	2.15	
2:25	280.0	25.0	8.3	2.2	Shut down
		May 5, 1959			
9:25	255.0				Start 6½" x 8
9:27	279	24.0	1.4	1.95	
9:30	284.8	29.8	2.1	2.25	
10:25	284.7	29.7	2.3	2.35	
10:30	282.2	27.2	2.3	2.35	
10:50					Shutdown to check motors. 11:20 Start
11:30	267.8	12.8	1.0	1.55	
12:00	282.0	27.0	2.3	2.35	
12:25	271.3	16.3	1.3	1.95	
12:55	275.2	20.2	1.8	2.1	
1:25	274.3	19.3	1.8	2.1	
2:00	268.1	13.1	1.1	1.65	some sand
2:15	287.4	32.4	2.2	2.3	Heavy increase in sand
2:30	273.3	18.3	1.8	2.1	
3:00	267.9	12.9	1.1	1.65	
3:25	274.3	19.3	1.9	2.15	
3:50	272.3	17.3	1.7	2.0	Shut down

W.S. before start 250.2

-.4

wJA. - R.P.

NORTH [illegible] PUMPING DIVISION

DATE Mar. 11, 1959

DRAWDOWN TEST [illegible] 22A922-5

HOURS ON DIESEL ENGINE

DEPTH

START OF TEST

TOP BOTTOM DIFFERENCE

TIME OF TEST

8" oil lub. pump

FINISH OF TEST

Bureau engine

Time	R.P.M.	MANOMETER TOP	MANOMETER BOTTOM	MANOMETER DIFF	DRAW DOWN	TUBE	FLOW CFS	REMARKS
3:55								
4:10					26.5	1.9	1.05	5" orifice
5:10								stopped
	Pumped clean water for 20 min. and then began to pump mud and sand. Pumped heavy sand with no decrease. Had to stop until we got a ditch dug. wJA							
		Mar. 12, 1959			Dug ditch			
11:00								start - clear
11:15					23.0	1.8	1.0	sand started
11:45					22.3	1.8	1.0	
12:00						2.1	1.1	
12:05						3.6	1.45	
12:40						3.1		Clearing
1:00					24	2.8	1.3	Sand
1:10					33.3	4.3	1.6	sand
1:30					36.6	5.4	1.8	sand
1:40					6.0		.6	
2:05								stopped
		scope initial 255						
		Apr. 22, 1959		resumed pumping				
9:55				255.0				start
10:20				280.5	25.5	3.1	1.3	sand 170° both Engines
10:55				288.5	33.5	6.0	1.85	sand decreasing 2P 20 30
11:30				280.5	25.5	5.2	1.7	
11:35				279.4	24.4	5.2	1.7	
12:15				277.0	22.0	5.1	1.7	
12:45				276.2	21.2	5.1	1.7	
1:00				288.3	33.3	5.8	1.8	
1:30				288.3	33.3	5.8	1.8	Stop

257.0
-5.8
251.2

Depth to static H_2O from gd. 257.0
-6.8
250.2

Gpm per ft per 10 ft

T = 8/5 = gpm/ft per ft

MINIDOKA NORTH SIDE PUMPING DIVISION

Specific Capacity of Wells

		Well No.	1 Date	2 D.D.	3 Q	4 Q x 448.83	5 S.C. 4/2	6 Dia.	7 Depth	8 Swl
		T. 7, R. 23								
10.77	52.0	deeper 34A723	1/28/55	5.3	6.6	2910	x 560	24	281.3	225.3
4.87	98.4	34B723	1/28/55	3.1	3.3	1485	x 479	24	324.8	226.4
		T. 7, R. 24								
28.29	60.1	15A724	10/16/56	1.32	5.0	2245	1700	16	281.5	221
18.37	54.5	22A724	10/16/56	1.9	4.0	1796	946	16	257.5	206
9.51	69.1	22B724	8/2/55	4.1	6.0	2693	657	20	280.5	211
80.97	110.9	22C724	7/9/55	0.79	3.8	1706	8980	20	307.7	196
21.38	52.0	23A724	7/17/56	2.25	6.0	2693	1197	20	262.6	206
20.85	75.1	26A724	6/8/55	2.15	7.5	3368	1566	20	242.8	187
392.32	46.9	26B724	10/13/56	0.1	4.1	1840	18400	16	234.6	187
		26AD724								
17.28	89.5	28A724	7/15/55	1.8	6.2	2783	1547	20	303.0	213
17.97	141.1	28B724	7/15/55	0.62	3.5	1571	2535	20	355.5	212
4.18	147.2	30A724	7/22/55	5.8	7.9	3545	615	24	393.3	246
5.96	146.9	30B724	7/22/55	2.0	3.9	1750	876	20	394.0	241
4.62	128.8	31A724	5/26/54	4.0	5.3	2380	595	24	383.7	233
3.84	184.8	32A724	6/29/54	7.0	6.3	2835	x 709	24	395.5	216
12.88	39.3	32B724	6/29/54	4.0	4.5	2025	x 506	20	250	210
8.16	74.8	deeper 33A724	5/5/54	4.5	6.1	2745	x 610	20	282	207
16.23	75.6	33B724	4/27/56	2.2	6.0	2700	x 1227	20	283.6	208
25.00	69.0	34A724	7/28/54	1.8	6.9	3105	x 1225	24	256	187
199.69	39.3	deepened 35A724	7/27/54	0.43	7.5	3375	x 7848	24	229	188
67.00	40.3	deepened 35B724	8/3/54	1.0	6.0	2700	x 2700	20	230	189

interference when pumped together
see folder

MINIDOKA NORTH SIDE PUMPING DIVISION

		Well No.	Date	DD	Q	Q x 448.83	SC 5 4/2	Dia	Depth	SWL
		T. 7, R. 25								
7.10	138.1	27A725	10/12/56	2.25	5.0	2243	980	16	346.4	208
140.82	26.7	29A725	5/25/57	0.5	4.15	1880	3760	16	268.5	241.8
9.93	68.7	30A725	4/20/57	4.8	7.3	3275	682	24	295.9	227.
298.61	36.0	31A725	11/23/56	<0.2	4.8	2153	10750	18	222	186
20.63	45.8	32A725	11/20/56	2.0	4.2	1890	x 945	20	230	684
		32AD725								
		deepened [illegible]								
80.74	41.8	33A725	11/26/56	0.6	4.5	2025	x 3375	20	246	20
4.16	63.0	34A725	8/26/56	12.2	7.1	3195	x 262	20	279	216
		T. 8, R. 21								
30.34	43.5	22A821	11/28/56	1.7	5.0	2243	1320	20	351.0	307.
2.37	89.0	24A821	10/24/56	3.4	1.6	718	211	16	400	311
1.34	202.1	26A821	11/20/56	7.3	4.4	1975	271	24	527.0	324.
1.12	261.0	26B821	6/29/56	4.3	2.8	1256	292	20	587.8	326
		34A821								
11.95	77.0	35A821	11/25/56	2.3	4.7	2115	x 920	20	381	394
15.37	40.4	35B821	10/30/56	4.2	5.8	2610	x 621	20	360	319
12.60	45.0	35C821	10/30/56	4.6	5.8	2610	x 567	20	365	32
14.50	50.0	35D821	9/19/56	3.6	5.8	2610	x 725	20	362	312
		T. 8, R. 22								
		24A822								
2.25	117.0		10/26/61	9.2	5.4	2422	263	18	355	238
1.36	146.0	25A822	11/11/61	9.9	4.4	1975	199		384	238
1.41	236.0	30A822	6/14/56	5.0	3.7	1660	332	20	516.1	280
47.13	42.5	35A822	2/16/56	2.0	8.9	4005	x 2003	24	246	20
4.24	41.5	35B822	2/16/56	12.8	5.0	2250	x 176	20	245	20
3.50	48.0	35C822	9/4/56	8.0	3.0	1350	x 168	19	285	23

MINIDOKA NORTH SIDE PUMPING DIVISION

			Date	PD	Q (cfs)	Q X 448.83 (GPM)	SC 4/2 (5)	Dia	Depth	SWL
		Well No.								
		T. 8, R. 23								
25.95	134.3	1A823	5/26/55	0.9	7.0	3140	3485	24	369.4	235.1
		1B823								
		~~2A823~~								
8.50	94.8	1C823	9/10/54	3.9	7.0	3140	806	20	298.9	204.1
7.36	112.4	2A823	6/2/55	2.9	5.3	2378	820	20	326.5	214.
18.41	135	4A823	8/17/55	1.3	7.2	3230	2485	24	368	232.
42.66	79.0	4B823	8/17/55	0.6	4.5	2020	3370	24	311	232.
		4AD823								
5.13	100.1	5B823	9/3/55	5.5	6.3	2826	514	24	338.8	238.
9.25	150.2	5C823	9/3/55	1.0	3.1	1390	1390	24	388.0	237.2
		5AD823								
65.91	118.5	8A823	7/12/50	0.35	6.1	2735	7810	24	351.0	232
		8AD823								
		9AD823								
		9BD823								
4.21	51.3	10A823	8/26/54	9.9	4.7	2108	216	20	255.7	2[illegible]
8.33	46.2	10B823	8/24/54	7.1	6.1	2735	385	20	260.5	214
		10AD823								
		10BD823								
		10CD823								
		10DD823								
		11AD823								
21.75	106.0	12A823	9/8/54	1.5	7.5	3365	2242	20	316.6	210.6
		12B823								

MINIDOKA NORTH SIDE PUMPING DIVISION

	Col. 9	Well No.	Date	DD	Q	Q x 448.83	SC 4/12	dia	Depth	SWL
		T. 8, R. 23								
11.35	103.1	12B823	9/8/54	2.3	6.0	2692	1170	20	315.4	212.3
12.51	69.8	12C823	9/3/54	4.2	8.2	3678	873	24	267.5	197.1
3.51	102.1	12D823	9/3/54	7.8	6.1	2735	358	20	298.6	196.5
		12E823								
		14A823								
83.81	80.3	14B823	8/13/54	0.4	6.0	2692	6730	20	278.6	198.3
		14AD823								
		14BD823								
25.75	56.8	15A823	8/20/54	2.3	7.5	3365	1463	24	266.2	209.4
3.56	92.9	15B823	8/20/54	7.2	5.3	2375	331	20	302.2	209.3
3.63	64.0	15D823	9/16/55	5.8	3.0	1345	232	20	257	193.
4.50	71.3	17A823	9/10/55	8.1	5.8	2600	321	20	270	198.
4.28	79.6	17B823	9/10/55	5.0	3.8	1705	341	16	278	198.
12.30	48.7	17C823	11/29/54	1.65	2.2	986	598	12	270	221.
14.63	36.1	19A823	10/15/55	5.6	6.6	2960	528	20	282.4	215.
188.42	42.3	19B823	10/15/55	0.18	3.2	1435	7970	20	259	216
		20A823								
15.34	99.2	21A823	6/19/55	2.3	7.8	3500	1522	24	286	186.
		21AD823								
		21CD823								
8.77	50.6	22A823	6/11/55	8.2	5.9	2646	444	20	242.8	19.
		22AD823								
		22BD823								

MINIDOKA NORTH SIDE PUMPING DIVISION

Col. 10	Col. 9		1 date	2 DD	3 Q	4 Q×448.83	5 SC 4/2	6 dia	7 Depth	8 SWL
		Well No.								
		T. 8, R. 23								
		22CD823								
		22DD823								
		22ED823								
		22FD823								
8.44	75.6	23A823	11/7/55	5.0	7.1	3183	638	20	270.8	195.
8.44	101.7	23B823	11/7/55	2.3	4.4	1973	858	16	300.4	198.
2.52	165.8	24A823	8/31/54	8.9	7.2	3730	418	24	315.0	149.
14.64	111.0	24B823	8/31/54	1.6	5.8	2600	1625	20	257.2	146
1.03	77.3	24C823	11/4/58	36.2	6.4	2870	796	20	223.3	146
19.05	41.2	25A823	9/20/54	5.2	9.1	4082	785	20	191.9	150
		25B823								
		25AD823								
		25BD823								
		25CD823								
22.00	34.0	26A823	10/1/55	2.7	4.5	2018	748	20	196.6	162
		26AD823								
		26BD823								
		26CD823								
		26DD823								
6.20	56.9	27A823	6/3/50	8.5	6.7	3005	353	20	243.0	186
13.76	61.9	27B823	7/6/55	3.1	5.9	2645	852	20	229.4	167
2.76	84.0	27C823 ?	12/29/53	9.1	4.7	2108	232	20	262	17
		27AD823								

MINIDOKA NORTH SIDE PUMPING DIVISION

	Col. 9		1 date	2 DD	3 Q	4 ax 448.83	5 SC 4/2	6 d/a	7 depth	8 SW
		Well No.								
		T. 8, R. 23								
		27BD823								
27.14	77.5	28A823	7/1/55	1.5	7.2	3230	2150	24	260.5	183.0
162.15	36.2	28B823 (acquired [illegible])	7/1/55	0.42	5.5	2467	5870 ~~8220~~	24	219.2	183.0
52.40	75.6	28C823	10/4/55	0.6	5.3	2377	~~5625~~ 3962	20	251.9	176.5
		28AD823								
		28BD823								
14.88	60.4	29A823	3/18/56	3.6	7.2	3230	849	20	249.8	189.4
7.10	61.4	29B823	3/18/56	3.7	3.6	1614	436	20	250	188.6
		29AD823								
8.59	56.0	31A823	11/30/55	5.5	5.9	2645	481	20	235.5	179.
2.15	209.4	34A823	11/23/55	4.2	4.2	1890	x 450	20	354	14
		34AD823								
		34BD823								
		34CD823								
		34DD823								
2.17	121.9	35A823	10/28/55	11.6	16.8	3060	x 264	18	266.4	144
18.15	124.0	35B823	9/20/55	0.4	2.0	900	x 2250	16	267	143
0.74	154.2	35C823	9/14/56 9/26/55	15.0 7.1	3.8 3.8	1710 1710	x 114 x 241	20	298.5	140
1.86	220									
1.70	58.3	35D823 (deepened)	10/21/55	6.8	1.5	675	x 99	16	198	13
		35AD823								
		35BD823								
		T. 8, R. 24								
		1A824								
		1AD824								

MINIDOKA NORTH SIDE PUMPING DIVISION

Col. 10	Col. 9		1 date	2 PD	3 Q	4 Q x 448.83	5 SC 4/2	6 dia	7 depth	8 Slot
		Well No.								
		T. 8, R. 24								
		2A824								
		3A824								
		3B824								
4.17	135.3	4A824	2/23/54	7.0	8.8	3950	564	24	320.6	185-
5.53	110.0	4B824	9/1/52	6.2	8.4	3770	608	24	302	192
2.17	110.0	4C824	4/7/60	9.2	4.9	2200	239	20	305	195
		5A824								
6.52	135.0	6A824	3/8/50	5.1	10.0	4483	880	20	364	22
3.98	76.7	6B824	5/10/54	10.0	6.8	3050	305	20	297	220
4.48	40.0	diagonal calc 6C824	3/13/57	4.5	1.8	807	179	20	237	197
	74.0	7B824						20	242	168
		8A824						~~24~~	~~211.8~~	
		8AD824								
		9A824								
		9AD824								
43.95	86.0	10A824	4/3/59	1.2	10.13	4540	3780	24	258	172
30.47	84.0	10B824	3/18/53	1.4	8.0	3590	2560	20	238	154
2.30	76.0	10C824	12/23/59	17.7	6.9	3100	175	20	240	164
279.67		11A824	1/20/54	0.8?	8.3	3725	4660	20	225	
	33.9	11B824	1/20/54	0.8	8.6	3860	4820	20	198.7	164
274.80	39.3	11C824	3/11/54	0.4	9.6	4310	10800	20	195.1	155
10.21	43.5	12A824	6/27/55	9.6	9.6	4310	444	20	191	147
140.47	71.9	13A824	6/30/59	0.4	9.0	4040	10100	24	226.7	154
		13B								

MINIDOKA NORTH SIDE PUMPING DIVISION

Col. 10	Col. 9		date	DD	Q	Q x 448.83	5 Qe 4/2	dia	depth	SWL
		Well No.								
		T. 8, R. 24								
200.47	54.6	13B824	6/30/54	0.2	4.9	2200	11,000 ~~4490~~	20	209.4	154.8
		13AD824	12/29/52	1.2	8.0	3590	2990			
28.75	104.0	14A824						24	235	131.0
		14B824								
39.04	83.5	15A824	2/10/53	1.1	8.0	3590	3260	20	232	148.
8.58	83.1	18A824	5/10/50	5.1	8.1	3632	713		265	181
0.26	222.6	20A824	2/15/54	25.0	3.3	1436	575	20	365	142.
4.46	110.6	21A824		7.5	8.2	3680	491	20	250	140
2.24	203.0	21B824	12/9/53	7.9	8.0	3590	454	20	349	146
		21C824								
3.61	108.7	22A824	12/24/53	5.4	4.7	2108	~~448~~ 350	20	246	132.
7.93	113.3	23A824	1/5/54	4.8	9.6	4310	899	24	250	136.
		23AD824								
		24B824								
		24AD824								
		24BD824								
		25AD824								
		25BD824								
		25CD824								
68.56	54.4	26A824	1/14/54	1.0	8.3	3725	3730	24	172.1	117.
		26AD824								
		27A824								
		27AD824								

MINIDOKA NORTH SIDE PUMPING DIVISION

Col. 10	Col. 9	Well No.	date	dd	Q	Q × 448.83	sc 5/12	dia	depth	SWL
		T. 8, R. 24								
		28AD824								
18.82	115.3	29A824	9/28/52	1.9	9.2	4130	2170	20	234.2	118.9
3.06	112.9	30A824	9/4/58	6.1	4.7	2108	346	20	258.4	1.45
12.49	82.5	30B824	9/24/54	3.9	8.9	3995	1024 ~~990~~	20	206	123.5
6.22	54.3	deepened twice 31A824	9/17/54	9.3	7.0	3140	338	24	212.8	158.
5.69	51.5	deepened 31B824	9/16/54	8.8	5.7	2558	293	20	210.2	158.
		32AD824								
6.00	94.0	33A824	11/30/61	3.1	3.9	1750	564		235	141
		33AD824								
		T. 8, R. 25								
3.41	150.5	3A825		7.0	8.0	3590	~~506~~ 512	20	359	20
4.19	131.1	3B825	12/10/56	4.1	5.0	2243	549	20	340.4	209
2.49	164.7	3C825	7/23/56	6.5	5.8	2602	410	20	367	20
5.18	55.0	3D825	7/23/56	5.5	3.5	1570	285	16	258	20
24.76	92.9	3E825	4/24/57	1.6	8.2	3680	2300	20	313.7	21
		3AD825								
75.31	39.7	5A825	8/19/57	1.2	8.0	3590	2990	28	238.2	19
73.55	39.7	5B825	8/19/57	0.9	5.85	2625	2920	18	239.5	1.9
41.97	38.0	6A825	7/31/57	1.6	5.7	2557	1595	20	205	16
61.12	40.0	6B825	7/31/57	0.7	3.8	1710	2445	16	205.5	165
21.96	58.3	deepened twice 11A825	11/12/56	1.4	4.0	1795	1280	20	230	171
75.58	43.0	12A825	12/3/56	1.2	8.7	3900	3250	24	230	187
15.66	41.5	12B825	12/3/56	3.0	4.2	1887	650	20	228.5	18
4.94	38.0	13A825	2/7/57	6.2	2.6	1167	188	16	195	15

definite limit at 2.6-2.7

MINIDOKA NORTH SIDE PUMPING DIVISION

C.L. 10	C.L. 9	Well No.	date	dd	Q	a x 448.85	5 sc 4/2	dia	depth	SWL
		T. 8, R. 25								
27.60	136.6	14C825	10/9/56	0.5	4.2	1887	3770		299.3	162
13.39	56.0	15A825	1/5/56	5.2	8.7	3900	750	24	208	152
2.44	47.6	15B825 (deepened later)	2/5/57	17.0	4.4	1975	116	20	200.3	152
15.71	38.7	17A825	8/28/56	7.4	10.0	4486	608	20	170	131
		17AD825								
9.62	97.4	19A825	7/11/54	4.8	10.0	4486	937	24	217.5	120
7.86	95.0	19B825	7/11/54	3.2	5.3	2380	747	24	217.5	12
17.56	97.9	19C825	10/14/54	2.4	9.2	4130	1720	20	224.7	126
6.42	95.5	19D825		5.2	7.1	3187	613	20	222.0	120
		19AD825	~~4/6~~	~~8.0~~	~~9.9~~					
		20R825								
9.50	58.2	21A825 (deepened later)	4/6/54	8.0	9.9	4445	553	20	185.5	127
3.63	116.5	23A825	4/5/56	6.9	6.5	2915	423	24	276	159
19.28	56.0	23B825	4/5/56	2.5	6.0	2692	1080	20	215.5	159
21.18	40.6	24A825	4/2/56	2.4	4.6	2063	860	20	195.1	15
		29AD825								
		29BD825								
		T.9, R. 21								
13.60	83.8	1A921	7/6/56	1.3	3.3	~~1430~~ 1481	~~1100~~ x 1140	20	406	3
16.11	40.6	3A921	10/22/56	2.4	3.5	1570	x 654	16	342	3
67.80	41.3	3B921	9/22/56	0.8	5.0	2240	x 2800	20	341	2
380.30	33.6	3C921 (deepened)	2/2/57	0.2	5.6	2510	x 12550	24	336	3
29.69	77.7	8A921	8/8/61	0.7	3.6	1615	x 2307	24	382.5	30
26.17	70.2	8B921	10/25/61	1.0	4.1	1837	x 1837	18	376	305

MINIDOKA NORTH SIDE PUMPING DIVISION

		Well No.	date	DD	Q	QX 448.82	SC 4/2	dia	depth	SWL
		T. 9, R. 21								
		9AH921								
		11A921								
		11B921								
		11C921								
		12A921								
		22A921								
		34A921								
		35A921								
		T. 9, R. 22								
22.89	50.5 deepened	3A922	9/1/56	2.2	5.7	2551	1160	20	272.5	222
109.72	42.2	3B922	9/1/56	0.3	3.1	1390	4630	16	263.7	221.
6.28	deepened 136.3	7A922	6/7/57	3.2	6.1	2735	856	24	412	275.
23.36	50.5	7B922	6/3/57	2.2	5.8	2600	1180	20	327	276.
15.45	deepened 39.6	9A922	9/5/57	3.0	4.1	1835	612	24	289.3	24
1.39	deepened 85.0	9B922	9/5/56	14.5	3.8	1705	118		344.5	25 25
1.06? 0.44	99? 256.0	10A922	9/21/55	25.2	6.3	2825	105 112	20	466 NG	21
1.21	deepened 120.0	11A922	12/9/55	14.8 20.0	4.8 5.0	2150	145	20	322 257	20
0.83	deepened 115.5	11B922	4/13/56	14.0	3.0	1345	96	24	306.5	19
32 129.6	118 297.0	11C922	3/24/61	0.5	4.3	1925	385.0	12	315. 494	19
		11AD922								
		12AB922								
0.27	deepened 151.3	15A922	1/5/59	30.0	2.8	1255	416	24	388	236.
0.81	deepened 189.0	15B922	10/13/59	10.0	3.4	1525	153	16	399	240.5
4.24	42.0	[illegible]	6/8/57	9.3	3.7	1660	178	20	239	197

MINIDOKA NORTH SIDE PUMPING DIVISION

Col. 10	Col. 9	Well No.	Date	DD	Q	Q x 448.82	SC 4/12	Dia	depth	Sub
		T. 9, R. 22								
		15AD922						20	298.5	247
		17AD922								
37.66	51.5	18A922	4/10/57	1.5	6.5	2915	194°	20	298.5	247
26.56	62.5	18B922	4/10/57	1.0	3.7	1660	166°	20	310	247
13.73	62.6	19A922	6/8/56	1.3	2.5	1120	86°	20	356	293
5.01	125.0	20A922	9/15/56	4.5	6.3	2820	626	20	376	251
0.07	147.0		9/12/6	41.5	4.8	2150	52		1000	253
0.14	336.0	22A922	5/6/59	20.0	2.4	1075	54		651	255
.073	34		11/8/59	38.0	1.8	804	21	20	576	245
0.06	330.3	22B922	7/55				25			
0.09	224.0	22C922	11/6	52.5	2.5	1120	21	20	455	231
0.02	533.0	23A922	12/14/6	36.0	10.85	381	10.6	20	720	187
		26AD922								
0.60	72.4	28A922	3/9/56	35.0	3.4	1525	43.5	20	302	229
1.56	123.0	30A922	7/10/56	4.7	2.0	896	191	20	360	238
0.48	237.7	33B922	1/10/57	23.5	6.0	2700	x 115	24	4767	23
0.57	153.0	33C922	1/11/57	17.0	3.3	1485	x 87	16	386	233
		33D922								
		33AD922								
		T. 9, R. 23								
		2A923								
		2AD923								
0.71	172.5	3A923	12/17/55	16.0	4.4	1970	123	12	340	167.9
	151.0	3B923	12/17/55	[illegible]	4			16	285	134
		4AD923								
		4BD923								

MINIDOKA NORTH SIDE PUMPING DIVISION

Col. 10	Col. 9		dcl	PD	a	ax 448	SC	dig	depth	SW
		Well No.								
57.40	50.7	**T. 9, R. 23**								
	deep	6A923	7/7/50	1.2	7.8	3500	2910	20	225	179
7.77	48.0	6B923	10/8/55	6.0	5.0	2240	373	20	206	15
		T. 9, R. 24								
		6AD924								
		6BD924								
0.41	204	**T. 10, R. 21**	2/3/60	20.0	3.7	1660	83		540	
0.30	310	2A1021	2/17/60	20.0	4.1	1835	92	24	646	336
		13AD1021								
		24A1021								
		25A1021								
		T. 10, R. 22								
		2A1022								
4.76	174.4	3A1022	9/10/58 ~~5/20/56~~	2.0 ~~32.0~~	3.7 ~~1.4~~	1660	830	20	429.4	255
		3AD1022	2/2/57	4.2	4.0	1795	425			
		7A1022						24	600	344
		9T1022								
		10AD1022								

* Estimated
D.H.-Direct Hookup

Page 2

A&B IRRIGATION DISTRICT - Rupert, Idaho
1982
Annual Pump Report
Hydrologic Data of Individual Wells

September 20, 1982

Well Number and Group Number		Low Pumping Depth 19 81	Low Pumping Depth 19 82	Distance from Bowls ±	19 82 Low Static Depth	INCHES 19 82 Peak Period Q	INCHES 1982 High	INCHES 19 82 Low	INCHES 19 81 Peak Period Q	Remarks
1A - 823	3	271.4	271.00	- 1.0	265.10	478	499	478	479*	
1B - 823	3	259.3	258.60	+ 11.4	255.40	321	334	321	320*	no well ??
1C - 823	3	235.0	233.90	+ 6.1	227.80	375	382	375	375	
1A - 824	3	194.0*	187.90	+ 12.1	185.00	365	365	365	365	
1A - 921	6	345.5	345.90	+ 14.1	340.90*	366	366	340	357	Private pump holding water back D.H.
2A - 823	3	237.4	238.60	+ 11.4	237.40	265	265	261	265	
2A - 824	5	181.2	181.10	+ 8.9	179.30	101	101	100	102	D.H.
2A - 923	4	159.8	160.30	+ 19.7	159.35	118	126	117	125	
2A - 1021	6	395.0*	397.00	+ 13.0*	204.00*	236	236	229	236	Airline out of water irrigation season
3A - 824	2	207.4	207.90	+ 12.1	204.50	456	464	440	461*	
3B - 824	2	204.9	207.10	+ 12.9	205.00	220*	220*	215	233*	
3A - 825	7	227.5	233.80	+ 6.2	228.30	350*	350*	350*	345*	
3B - 825	7	229.5	229.40	+ 20.6	222.90	365*	365	361	371*	
3C - 825	7	229.6	229.60	+ 10.4	222.60	283*	283	280*	280	
3D - 825	7	222.1	222.50	+ 27.5	220.20	190*	197	190*	180	
3E - 825	7	224.8	224.90	+ 15.1	224.40	234	234	229	228	
3A - 921	6	321.6*	320.60	+ 9.4	318.60	120	123	98	128*	D.H.
3B - 921	6	328.0*	330.00*	0*	328.60	349	351	345	351	Airline plugged
3C - 921	5	328.6	328.50	+ 1.5	325.00	366	371	361	377	
3A - 922	5	246.0*	246.40	+ 3.6	243.40*	428	430	424	431*	
3B - 922	5	246.0*	246.00*	+ 14.0*	245.00*	289	296	278	292*	
3A - 923	4	186.0*	178.00*	+ 22.0*	172.00*	244	248	241	252	Airline plugged
3B - 923	4	161.7	161.90	- 1.9	157.20	125	136	125	132	D.H.
3A - 1022	6	300.5	303.40	+ 6.6	299.50	193	194	189	193	
4A - 823	4	255.4	255.30*	+ 14.7*	253.00*	487	487	479	484	

*ESTIMATED

Well Number and Group Number		Low Pumping Depth 1981	Low Pumping Depth 1982	Distance from Bowls ±	1982 Low Static Depth	INCHES 1982 Peak Period Q	INCHES 1982 High	INCHES 1982 Low	INCHES 1981 Peak Period Q	Remarks
4B - 823	4	254.8	253.60	+ 16.4	250.00*	235	238	229	230*	
4A - 824	2	214.7	214.2	+ 5.8	197.40	450	463	441	457	
4B - 824	1	215.2	217.10	+ 12.9	206.50*	447?	464	441	450*	
4C - 824	5	221.4	224.00	+ 16.0	212.00*	210	224	210	201	no well ??
5B - 823	4	265.5*	263.30	+ 16.7	255.00*	337*	365	328	339	
5C - 823	4	260.5	257.10	+ 22.9	254.00*	212*	212	211	217*	
5A - 825	7	226.0*	214.30*?	+ 15.7*	211.00*	546	546	538	532	?
5B - 825	7	225.0*	214.00*	+ 16.0*	211.00*	260	260	258	260*	Cannot install airli
6A - 824	1	247.0*	247.40	+ 3.6	244.60	545	565	543	534	
6B - 824	2	255.2	251.60	+ 8.4	244.70*	307	307	302	303	
6C - 824	5	220.0*	218.30	+ 11.7	215.00*	95	95	95	95	
6A - 825	7	182.2	182.60	+ 17.4	182.00*	324	325	317	305*	
6B - 825	7	181.7	182.80	+ 17.2	182.10*	184	184	184	145*	
6A - 923	1	212.4	212.20	- 12.2	211.00*	445	449	443	449	
6B - 923	4	173.3	171.60	+ 8.4	167.00*	281	286	281	284	
7B - 824	1	193.7	195.10	+ 9.9	192.00*	437	460?	427	420*	
7A - 922	5	331.0	340.00	+ 20.0	328.00*	456	465	282	424*	Dropped after peak
7B - 922	5	306.4	308.30	+ 1.7	303.00*	403	407	382	403	out of water after 7 mo. of irrig. season
8A - 823	1	252.1	254.00*	+ 1.0*	253.00*	461	461	458?	456	water surface below air line
8A - 824	1	197.1	198.60	+ 3.4	193.00*	370	383	370	373	
9A - 922	5	276.5	275.70	+ 14.3	273.00*	443	443	427	350	
9B - 922	5	280.0*	279.00*	+ 51.0*	259.00*	227	227	224	220	Plugged
10A - 823	3	224.9	225.20	+ 14.8	233.00*	186	196	184	192	
10B - 823	3	234.7	235.50	+ 4.5	232.00*	117	121	116	115	D.H.
10A - 824	1	192.0*	188.00	+ 2.0	187.00	444	467	440	471	

*ESTIMATED

* Estimated
D.H.-Direct Hookup

Well Number and Group Number		Low Pumping Depth 1981	Low Pumping Depth 1982	Distance from Bowls ±	1982 Low Static Depth	INCHES 1982 Peak Period Q	INCHES 1982 High	INCHES 1982 Low	INCHES 1981 Peak Period Q	Remarks
10B - 824	1	174.8	174.60	+ 5.4	170.00*	330	334	327	341	
10C - 824	5	179.0*	179.60	+ 20.4	177.00*	288	288	282	294	
10A - 922	5	246.3	240.00?	+ 10.0?	230.00?*	185	195	185	197?	D.H.
11A - 824	1	189.6	189.00*	+ 6.0*	188.00*	530	530	527	531	?
* 11B - 824	2	185.8	185.10	+ 14.9	184.90	198	200	194	200*	no well ??
11C - 824	2	178.8	187.50	+ 12.5	178.20	276	279	202	276	
11A - 825	7	188.8	188.40	+ 11.6	184.00*	330*	330*	330*	330*	D.H.
11B - 922	4	240.0*	252.80	+ 7.2	232.00	224	228	173	207	
11C - 922	4	220.0*	214.60	+ 35.4	213.00*	226	243?	226	238	
12A - 823	3	241.0*	245.00*	+ 5.0*	242.00*	354*	354	341	365*	Air line broken off
12B - 823	3	242.0*	245.00*	+ 5.0*	243.00*	152*	152	143	155	
12C - 823	3	222.0*	223.40	+ 16.6	220.40	465*	470	459	450*	
12D - 823	3	230.0*	231.00*	- 1.0*	226.00*	178	200*	178	176*	
12A - 824	3	169.0	165.80	+ 24.2	164.50	310	310*	310*	310	
12A - 825	7	204.6	206.00	+ 14.0	205.20	485	491	485	490*	
12B - 825	7	216.0*	210.30	- .3	205.00*	377	386	377	380*	Air line leaks
13A - 824	2	174.7	175.60	+ 24.4	175.00	533*	590	533*	565	System Fluctuates
13B - 824	2	176.4	174.60	+ 5.4	174.60	255	255	255*	274	in water through summer
13A - 825	5	173.4	173.85	+ 16.15	167.45	135	135	128	145*	D.H.
14A - 823	3	218.0	221.80	+ 18.2	220.00*	345	348	334	341	
14B - 823	3	217.0*	227.40	- 7.4	223.00*	144	145	137	147	
14A - 824	1	152.9	152.70	+ 7.3	151.00*	420	424	419	420	
14C - 825	7	178.4	178.60	+ 21.4	177.00*	134	137	134	137	
15A - 823	3	227.8	228.80	+ 21.2	227.00*	518	518	491	510	
15B - 823	3	233.9	233.00	+ 27.0	227.00*	236	236	231	235*	

*ESTIMATED

* Estimated
D.H.-Direct Hookup

Well Number and Group Number		Low Pumping Depth 1981	Low Pumping Depth 1982	Distance from Bowls ±	1982 Low Static Depth	INCHES 1982 Peak Period Q	INCHES 1982 High	INCHES 1982 Low	INCHES 1981 Peak Period Q	Remarks
15D - 823	4	210.6	213.70	+ 16.3	210.00*	115	115	112	117	
15A - 824	1	168.8	169.00	+ 1.0	168.50	306	308	294	308	
15A - 825	5	173.0*	172.70	+ 17.3	170.00*	519	529	519	518	
15B - 825	5	170.0	170.70	+ 9.3	169.00*	186*	186*	179?	195	
15A - 922	5	302.0*	286.30	+ 13.7	275.00*	95	108	85	92	D.H. ?
15B - 922	5	268.0*	260.00*	+ 70.0*	245.00*	109	110	106	105	D.H.
17A - 823	4	215.0*	216.40	+ 23.6	214.40	334	334	334	336	
17B - 823	4	219.0*	221.29	+ 18.7	218.99	144	147	144	144	
17C - 823	1	246.3	242.00	+ 18.0	239.00*	112	112	106	110	
17A - 825	5	147.7	150.00	+ 10.0	147.00*	442	457	442	446	
18A - 824	1	206.5	207.68	+ 4.3	200.00*	496	530	487	480	
18A - 922	5	270.3	271.00	+ 9.0	270.00*	311	315	308	308*	
18B - 922	5	269.1	269.70	+ 10.3	269.10	142	142	137	142	
19A - 823	4	234.7	235.20	+ 14.8	231.00*	366	366	361	368	
19B - 823	4	232.1	232.80	+ 17.2	232.00*	195	195	190	195	
19A - 825	2	141.6	142.00	+ 18.0	136.50	509	512	504	513	
19B - 825	2	144.1	144.10	+ 15.9	140.50	304	305	304	309	
19C - 825	3	147.3	147.70	+ 12.3	145.00*	358	358	350	357	
19D - 825	3	151.1	150.74	+ 9.3	145.00*	320	320	320*	335	D.H.
19A - 922	6	321.4	322.93	- 2.9	318.00*	223	226	218	222	
20A - 922	5	284.7	289.70	+ 20.3	275.00*	310	391	290	315	Dropped after peak
21A - 823	4	211.0	207.70	+ 12.3	206.00*	380	388	379	384	
21A - 824	1	158.2	159.50	+ 22.5	158.00*	557	564	555	560	
21B - 824	2	168.4	169.30	+ 10.7	162.40	358	359	350	361	
21A - 825	5	146.4	146.60	+ 13.4	143.00*	432	434	432	424	

*ESTIMATED

Well Number and Group Number		Low Pumping Depth 1981	Low Pumping Depth 1982	Distance from Bowls ±	1982 Low Static Depth	INCHES 1928 Peak Period Q	INCHES 1982 High	INCHES 1982 Low	INCHES 1981 Peak Period Q	Remarks
22A - 724	7	225.0*	219.70	+ .3	219.00	122	123	121	122	
22B - 724	7	239.0	239.70	+ 10.3	228.00	321	328	319	329	
22C - 724	7	214.7	214.95	+ 15.0	214.50	326?	336	317	335	
22A - 821	6	332.4	323.30	+ 16.7	320.00*	327	327	325	333	
22A - 823	4	214.0*	211.80	+ 18.6	209.00*	357	357	357*	354	
22A - 824	2	157.9	159.00*	+21.0*	150.00*	335	339	332	335	
* 22A - 922	5	290.0*	287.60	+ 12.4	260.00*	108	112	105	105	is A or C well used??
23A - 724	7	230.0*	224.40	+ 15.6	223.40	342	355	338	324*	D.H.
23A - 823	4	220.4	219.80	+ 10.2	210.00*	343	343	323?	338	
23B - 823	4	218.6	218.60	+ 11.4	213.00*	135	135	134	135*	
23A - 824	2	164.0*	165.00*	+ 15.0	159.00*	525*	525*	525*	525*	cann't handle water to get open valve
23A - 825	5	183.4	184.70	+ 15.3	174.00*	368*	378	357	370*	
23B - 825	5	179.1	180.00	+ 20.0	175.00*	370*	370	369	374	
24A - 821	6	329.2	330.10	+ 19.9	324.00*	95	97	88	91	
24A - 823	3	188.0*	189.00	+ 11.0	177.00*	473	482	471	480	From July pump on air line out of water
24B - 823	3	168.4	165.40	+ 14.6	163.20	336	341	336	330*	
* 24C - 823	1	182.0*	167.60	+ 12.4	166.00*	361*	361	354	371	mwell
24A - 825	5	174.2	174.60	+ 15.4	169.20	267	267	263	260	
25A - 823	3	160.1	160.10	+ 19.9	155.00*	176	180	172	180	
26A - 724	7	214.7	214.30	+ 15.7	211.00*	317	322	317	324	
26B - 724	7	207.1	207.70	+ 2.3	206.00*	133	133	126	133	
26A - 821	6	350.0*	351.10	+ 18.9	338.00*	268	271	252	258	
26B - 821	6	356.0*	357.00*	+ 13.0*	342.00*	330	339	330	340*	Air line Plugged
26A - 823	4	182.4	182.70	+ 7.3	175.00*	223	224	218	224	
26A - 824	2	140.0*	140.00*	+ 20.0	137.00*	506	519*	506*	507*	

* ESTIMATED

*Estimated
D.H.-Direct Hookup

Part 2

1982
Annual Pump Report
Hydrologic Data of Individual Wells

September 20, 1982

Well Number and Group Number		Low Pumping Depth 1981	Low Pumping Depth 1982	Distance from Bowls ±	1982 Low Static Depth	INCHES 1982 Peak Period Q	INCHES 1982 High	INCHES 1982 Low	INCHES 1981 Peak Period Q	Remarks
27A - 725	7	224.6	225.30	+ 14.7	224.00*	145	145*	145*	155*	Trouble with meter D.H.
27A - 823	1	211.0*	212.60	+ 17.4	207.00*	272	272	267	270	
27B - 823	4	190.0*	187.90	+ 12.1	186.70	199	200	192	238	
27C - 823	1	204.8	203.40	+ 12.6	188.00*	238	238	232	197	
28A - 724	7	237.0*	233.00	+ 17.0	231.60	328	328	313	314*	
28B - 724	7	231.2	231.90	+ 18.1	231.90	169*	173	163	178*	
28A - 823	4	206.5	202.00*	+ 18.0*	205.00*	531	535	529	530	
28B - 823	4	201.0*	200.20	+ 19.8	200.00*	310	321	310	313*	
28C - 823	4	197.5	196.70	+ 13.3	195.60	247	270	220	278	D.H.
28A - 922	6	290.0*	280.80	+ 19.2	268.80	128	130	126	130	
29A - 725	7	257.0	257.90	+ 12.1	256.00*	222	230	218	220	
29A - 823	4	210.6	210.30	+ 9.7	208.50	500	500	496	495	
29B - 823	4	212.0*	211.00*	+ 9.0	209.00*	170	190	169	190*	
29A - 824	3	140.4	140.10	- .1	139.40	257	259	250	260	
30A - 724	3	271.1	270.20	+ 9.8	266.70	365	365	357	376	
30B - 724	3	271.8	271.20	+ 8.8	268.50	262	279	262	260*	
30A - 725	7	246.4	247.70	+ 12.3	243.00*	354	356	351	353*	
30A - 822	6	306.6	299.50	+ 20.5	293.51*	184	191	181	171	
30A - 824	3	166.3	163.40	+ 16.6	159.00*	259	265	259	305*	D.H.
30B - 824	3	142.6	141.62	+ 18.4	140.82	170*	171*	170*	170	D.H.
30A - 922	6	326.0*	328.00*	+ 62.0*	308.00*	419*	419	407	411	Air line plugged?? Is well B used??
31A - 724	2	260.4	260.50	+ 19.5	255.00*	199	204	192	204	
31A - 725	7	201.7	201.00	+ 19.0	201.00	230	234	228	230	
31A - 823	4	193.3	205.40	+ 4.6	201.00*	328	334	321	333	
31A - 824	3	179.3	179.80	+ 20.2	178.00*	458	468	458	453	

* ESTIMATED

Well Number and Group Number		Low Pumping Depth 19 81	Low Pumping Depth 19 82	Distance from Bowls ±	1982 Low Static Depth	INCHES 19 82 Peak Period Q	INCHES 1982 High	INCHES 1982 Low	INCHES 1981 Peak Period Q	Remarks
31B - 824	3	185.0*	179.70	+ 20.3	179.70	208	212	208	208*	
32A - 724	2	233.0	232.70	+ 7.3	223.00*	435	438	431	430*	
32B - 724	2	226.8	228.10	+ 11.9	224.00*	281	281	275*	281*	
32A - 725	7	204.1	203.10	+ 16.9	201.30	215	216	212	218	
33A - 724	2	223.0*	223.90	+ 16.1	222.00	307*	310	300	306*	
* 33B - 724	7	229.0*	229.10	+ 10.9	227.60	244*	244*	244*	244*	no well ???
33A - 725	7	223.0*	225.00*	+ 5.0*	224.00*	335	336	333	340	No air line
* 33B - 922	6	288.0*	287.00*	+ 3.0*	283.00*	280	285	280	270*	Air line leaks no well ??
* 33C - 922	6	288.8	288.00*	+ 22.0*	284.00*	170	170	168	168*	? no well ??
34A - 723	3	254.0	254.00*	+ 16.0*	248.00*	350	352	347	351*	
34B - 723	3	251.3	252.00*	- 2.0*	242.00*	149	150	147	150*	
34A - 724	2	205.7	205.30	+ 14.7	204.20	377	378	351	375	
34A - 725	7	237.4	239.70	+ .3	237.00*	344	357	344	350	
34A - 823	4	163.3	163.40	+ 16.6	159.60	213	217	204	210	
35A - 724	2	221.0*	222.10	- 2.1	211.80	425	428	406?	420	
35B - 724	2	211.0*	210.90	+ 9.1	210.10	185*	190	180	187	
35A - 821	6	324.6	325.00	+ 15.0	320.00	277	279	274	279	
35B - 821	6	331.0	332.00*	+ 8.0*	323.00*	255	255	252	260*	Water below air line
35C - 821	6	340.3	341.30	+ 18.7	339.00*	319	322	313	317	
35D - 821	6	331.0	329.10	+ 20.9	227.00*	338	341	334	334	
35A - 822	4	219.0*	219.90	+ .1	216.90	472	476	471	463	
35B - 822	4	216.0*	219.90	+ 20.1	212.00*	250	263	245	245*	
35C - 822	5	258.0*	262.90	- 2.9	248.90	161*	164*	145*	161	D.H.
35A - 823	4	176.0*	174.90	+ 5.1	160.90?	408	416	396	411	
35B - 823	4	160.1	160.80	+ 19.2	160.50	101	102	96	102	D.H.

* ESTIMATED

Well Number and Group Number		Low Pumping Depth 1981	Low Pumping Depth 19 82	Distance from Bowls ±	19 82 Low Static Depth	INCHES 1982 Peak Period Q	INCHES 1982 High	INCHES 1982 Low	INCHES 1981 Peak Period Q	Remarks
35C - 823	4	163.6	164.90	+ 15.1	160.60	178	187	170	184	
35D - 823	4	158.0*	158.10	+ 31.9	157.30	97	100	94	95	D.H.

L - Lowered

D - Drilled

R - Rectified

*ESTIMATED

A & B IRRIGATION DISTRICT, RUPERT, IDAHO

October 1, 1980

Part 2

Annual Pump Report
Hydrologic Data of Individual Wells

*, estimated "guesswork"

Well Number and Group Number	Low Pumping Depth 1979	Low Pumping Depth 1980	Distance From Bowls ±	1980 Low Static Depth	C.F.S. 1980 Peak Period Q	C.F.S. 1980 High	C.F.S. 1980 Low	C.F.S. 1979 Peak Period Q	Remarks
1A - 823 3	257.4	267.9	+ 2.1	265.5	9.6*	9.8*	9.5	9.6	
1B - 823 3	251.7	255.4	+14.6	261.7	6.4*	6.7	6.4	6.4	
1C - 823 3	227.8	233.3	+ 6.7	234.5	7.5	7.6	7.4	7.3	
1A - 824 3	190.0*	192.0*	+ 8.0*	188.0*	7.4	7.5	7.4	7.4	Air line broken
1A - 921 6	343.2	343.6	+16.4	340.3	6.5	6.5	6.2	6.6	Private pump holding water back
2A - 823 3	234.0*	235.0*	+15.0*	233.0*	5.1	5.1*	5.1	5.2	
2A - 824 5	176.0	178.8	+11.2	176.8	2.0	2.0*	2.0*	2.1	
2A - 923 4	156.7	158.4	+21.6	157.7	2.6	2.7	2.5	2.6	
2A - 1021 6	385.0*	392.0*	+18.0*	362.0*	4.6	4.6	4.2	4.7	
3A - 824 2	204.9	203.3	+16.7	200.3	9.2*	9.3	8.9	9.1	
3B - 824 2	202.4	200.7	+19.3	198.8	4.3*	4.6	4.3*	4.3	
3A - 825 7	224.6	226.7	+13.3	222.6	7.1	7.1*	7.1*	7.1	Pulled Oct. 2, 1979
3B - 825 7	225.0	227.9	+22.1	221.9	7.4*	7.4*	7.3*	7.3	
3C - 825 7	225.8	226.4	+13.6	224.6	5.8*	5.8*	5.6	5.8	
3D - 825 7	219.2	219.9	+30.1	217.7	4.0*	4.0*	3.9*	3.9	
3E - 825 7	221.8	223.8	+16.2	223.0	4.7	4.7	4.7	4.8	
3A - 921 6	316.5	319.1	+10.9	317.6	2.4	2.4	2.3	2.4	
3B - 921 6	322.0*	325.0*	+ 5.0*	323.0*	7.0	7.1	6.8	7.0	Air line plugged
3C - 921 5	324.9	326.3	+ 3.7	323.4	7.6	7.7	7.5	7.7	
3A - 922 5	241.0	243.0*	+ 7.0*	241.0*	8.6*	8.7	8.6	8.6	
3B - 922 5	241.1	243.0*	+17.0*	239.9*	5.8	6.0	5.7	5.7	
3A - 923 4	180.0*	182.0*	+18.0*	168.0*	4.9	5.0	4.8*	5.0	Air line plugged
3B - 923 4	157.6	159.0*	+ 1.0*	154.4*	2.6	2.6	2.6	2.5	
3A - 1022 6	295.9	297.3	+12.7	288.3	3.8	3.8	3.8	3.9	
4A - 823 4	251.9	248.5	+21.5	248.1	9.7	9.9	9.6	9.7	

Annual Pump Report
Hydrologic Data of Individual Wells

Part 2

Well Number and Group Number	Low Pumping Depth 1979	Low Pumping Depth 1980	Distance From Bowls ±	1980 Low Static Depth	C.F.S. 1980 Peak Period Q	C.F.S. 1980 High	C.F.S. 1980 Low	C.F.S. 1979 Peak Period Q	Remarks
4B - 823 4	253.9	248.7	+21.3	247.3	4.7*	4.8	4.6	5.0	
4A - 824 2	208.8	210.6	+ 9.4	198.9	9.1	9.3	8.9	9.1	
4B - 824 1	212.8	215.0	+15.0	207.0	9.1	9.2*	9.0*	9.0	Pulled & R. 1979
4C - 824 5	218.7	220.8	+19.2	208.8	4.0*	4.0*	4.0*	4.1*	
5B - 823 4	262.0*	264.0*	+16.0*	256.0*	7.0*	7.0*	6.8	7.0*	Air line plugged
5C - 823 4	257.4	259.0*	+21.0*	255.6*	4.4*	4.4*	4.4*	4.4	
5A - 825 7	219.0*	221.0*	+ 9.0*	218.0*	10.9*	11.0	10.9*	10.8	Air line plugged
5B - 825 7	221.0*	220.7	+ 9.3	217.7	5.0*	5.2	5.0*	5.2	
6A - 824 1	245.6	241.3	+ 9.7	238.3	10.6	10.9	10.5	10.6	
6B - 824 2	251.6	249.4	+10.6	239.4	6.2	6.3	6.0	10.2	
6C - 824 5	218.0*	217.0*	+13.0*	214.0*	1.9	2.0	1.9	1.9	Air line leaks
6A - 825 7	178.1	178.1	+21.9	177.8	6.2	6.3*	6.1*	6.2	
6B - 825 7	180.8	178.3	+21.7	176.4	3.0	3.0	3.0	3.0	Pulled 10-10-79
6A - 923 1	194.0*	210.2	-10.2	209.2	9.0	9.1	8.9	9.2	Question on this one
6B - 923 4	171.9	170.4	+ 9.6	166.0	5.6	5.6	5.5	5.6	
7B - 824 1	191.5	188.5	+16.5	185.5	8.9	8.8	8.8	8.9	
7A - 922 5	307.0*	312.0*	+28.0*	300.0*	9.0*	9.2	8.2	9.0	Air line leaks
7B - 922 5	297.0	302.0	+ 8.0	297.0	8.0	8.3	8.0	8.1	
8A - 823 1	248.6	250.4	+ 4.6	249.4	9.1	9.1	9.0	9.3	
8A - 824 1	189.9	191.0*	+11.0*	185.5*	7.8	8.0*	7.7*	7.7	
9A - 922 5	268.6	267.7	+22.3	265.5	7.0	7.1	7.0	7.0	
9B - 922 5	278.0	278.0*	+52.0*	258.0*	4.5	4.6	4.5	4.5	
10A - 823 3	220.0*	220.0*	+20.0*	221.0*	3.8	3.9	3.7	3.8	Air line leaks
10B - 823 3	233.0	232.1	+ 7.9	230.1	2.3	2.4	2.3	2.3	
10A - 824 1	187.0*	190.0*	- 0.0*	191.0*	9.3	9.4	9.2	9.3	Air line plugged

A & B IRRIGATION DISTRICT, RUPERT, IDAHO

Annual Pump Report
Hydrologic Data of Individual Wells

Part 2

Well Number and Group Number	Low Pumping Depth 1979	Low Pumping Depth 1980	Distance From Bowls ±	1980 Low Static Depth	C.F.S. 1980 Peak Period Q	C.F.S. 1980 High	C.F.S. 1980 Low	C.F.S. 1979 Peak Period Q	Remarks
10B - 824 1	175.0*	178.0*	+ 2.0*	179.0*	6.8	6.8	6.6	6.8	Air line plugged
10C - 824 5	174.0	177.1	+22.9	175.1	5.8	5.9	5.8	5.9	
10A - 922 5	240.0	233.3	+16.7	219.3	4.3	4.4*	4.3*	4.3	
11A - 824 1	183.8	185.5	+ 9.5	182.7	10.7	10.7	10.4	10.8	
11B - 824 2	181.8	183.4	+16.6	180.6	4.0	4.0	4.0	4.1	
11C - 824 2	174.6	176.7	+ 3.3	175.1	5.5	5.5	5.5	5.7	
11A - 825 7	183.8	185.0*	+15.0*	182.9*	6.2*	6.2*	6.2*	6.2	
11B - 922 4	235.0*	237.0*	+ 3.0*	224.0*	4.1	4.2	4.1	4.2	
11C - 922 4	215.0*	217.0*	+33.0*	207.0*	4.8	4.8	4.8	4.8	Air line leaks
12A - 823 3	237.0*	238.0*	+12.0*	234.0*	7.7	7.8	7.6	7.6*	Air line out of water
12B - 823 3	238.0*	239.0*	+11.0*	235.0*	2.9*	3.0*	2.8	3.2	Air line plugged
12C - 823 3	219.0	219.1	+20.9	216.1	9.1	9.4	9.1	9.1	
12D - 823 3	226.0*	227.0*	+ 3.0*	225.0*	3.8*	3.9	3.8*	3.9	
12A - 824 3	165.9	166.6	+23.4	163.7	5.9	5.9	5.9	5.9	
12A - 825 7	203.0	204.9	+15.1	202.9	9.8*	10.0*	9.1*	9.8	
12B - 825 7	214.0*	216.0*	- 6.0*	209.0*	7.7	7.8*	7.6*	7.7	Air line leaks
13A - 824 2	171.5	171.7	+28.3	170.2	11.8	11.9	11.8	11.8	
13B - 824 2	171.2	171.4	+ 8.6	169.2	5.3	5.5	5.2	5.2	
13A - 825 5	169.0	171.4	+18.6	170.4	2.9	2.9	2.8	2.9	
14A - 823 3	217.2	213.8	+26.2	211.6	7.3	7.3	7.1	7.3	
14B - 823 3	219.9	214.8	+ 5.2	210.2	2.9	2.9	2.8*	2.9	
14A - 824 1	148.8	149.4	+10.6	146.6	8.4	8.5	8.4	8.5	
14C - 825 7	176.0	176.2	+23.8	174.2	2.7	2.8	2.7	2.7	
15A - 823 3	226.5	224.8	+25.2	219.3	10.2	10.3	10.0	10.2	
15B - 823 3	230.0	230.4	+29.6	226.4	4.7*	4.7*	4.5	4.7	

A & B IRRIGATION DISTRICT, RUPERT, IDAHO

October 1, 1980

Annual Pump Report
Hydrologic Data of Individual Wells

Part 2

Well Number and Group Number	Low Pumping Depth 19 79	Low Pumping Depth 19 80	Distance From Bowls ±	19 80 Low Static Depth	C.F.S. 19 80 Peak Period Q	C.F.S. 19 80 High	C.F.S. 19 80 Low	C.F.S. 1979 Peak Period Q	Remarks
15D - 823 4	211.2	210.6	+19.4	207.4	2.3	2.3	2.2	2.3	
15A - 824 1	170.0*	173.0*	- 3.0*	170.0*	6.1	6.2	6.0	6.1	Air line leaks
15A - 825 5	173.0*	172.0*	+18.0*	169.0*	10.4	10.5	10.4	10.7*	Air line leaks
15B - 825 5	170.0	168.1	+11.9	165.1	4.0*	4.0*	3.8	4.0*	Can't read
15A - 922 5	294.0*	293.0*	+ 7.0*	271.0*	1.9	1.9	1.8	2.0	Air line leaks
15B - 922 5	260.0*	259.0*	+71.0*	249.0*	2.2	2.2	2.2	2.2	Air line leaks
17A - 823 4	214.0	212.0	+28.0	210.0	6.7	6.7*	6.6	6.7	
17B - 823 4	218.0	216.6	+23.4	211.6	2.9	2.9	2.8*	2.8	
17C - 823 1	245.5	242.8	+17.2	240.3	2.2	2.2	2.2	2.2	
17A - 825 5	147.0	146.7	+13.3	144.7	8.9	9.2	8.9	9.0	
18A - 824 1	204.0	201.5	+10.5	194.5	9.6	9.6	9.5	9.7	
18A - 922 5	268.0	267.2	+12.8	265.2	6.4	6.4	6.4	6.3	
18B - 922 5	267.0	266.7	+13.3	265.7	2.8	2.8	2.8	2.7	
19A - 823 4	233.6	229.3	+20.7	224.7	7.4	7.4	7.3	7.4	
19B - 823 4	231.4	226.9	+23.1	225.0	3.9	3.9	3.7	3.9	
19A - 825 2	139.0	139.7	+20.3	135.7	10.3*	10.3	10.1*	10.4*	
19B - 825 2	141.9	142.0	+18.0	136.1	6.1	6.3*	6.1	6.1	
19C - 825 3	144.0	146.0	+14.0	144.0	7.2	7.2	7.2	7.3	
19D - 825 3	148.4	149.4	+10.6	144.0	6.7	7.0	6.7	6.3	
19A - 922 bowls ±20 6	318.3	318.8	+ 1.2	314.5	4.5	4.6	4.4	4.6	Pump fell off in wate lat
20A - 922 5	280.0*	283.4	+46.6	271.4	6.6	7.1	5.9	6.7	Air line leaks
21A - 823 4	208.0	207.9	+12.1	204.9	7.5	7.6	7.5	7.7	
21A - 824 1	155.4	156.7	+25.3	154.3	11.5	11.8	11.3	10.9	
21B - 824 2	165.4	166.2	+13.8	156.8	7.3	7.3	7.2	7.3	
21A - 825 5	143.2	144.6	+15.4	140.4	8.8	9.0	8.6	8.8	

Well Number and Group Number	Low Pumping Depth 1979	Low Pumping Depth 1980	Distance From Bowls ±	1980 Low Static Depth	C.F.S. 1980 Peak Period Q	C.F.S. 1980 High	C.F.S. 1980 Low	C.F.S. 1979 Peak Period Q	Remarks
22A - 724 ✓ 7	220.0*	221.0*	- 1.0*	221.0*	2.7	2.7*	2.7*	2.7	Air line leaks
22B - 724 ✓ 7	232.0	234.0	+16.0	226.0	6.6	6.7	6.5	6.6	
22C - 724 ✓ 7	211.0	212.0	+18.0	210.0	6.6	6.6	6.3	6.5	
22A - 821 6	321.0	322.0	+18.0	320.0	6.8	6.9	6.6	6.8	
22A - 823 4	211.6*	212.6	+17.4	210.0	7.1	7.1	7.1	7.1	
22A - 824 2	156.0	156.7	+23.3	145.7	6.9	7.0	6.9	6.8	
22A - 922 5	292.0*	286.2	+13.8	274.2	2.1	2.1	2.1	2.1	Air line out of water
23A - 724 ✓ 7	229.0*	228.0*	+12.0*	226.0*	5.4*	5.4*	5.4*	5.4*	Air line leaks
23A - 823 4	216.3	212.9	+17.1	211.6	6.7	6.7	6.7	6.8	
23B - 823 4	215.5	212.5	+17.5	210.0	2.7	2.7	2.6*	2.7	
23A - 824 2	161.0*	162.0*	+18.0*	157.0*	10.5*	10.5*	10.5*	10.5*	Can't Handle all water
23A - 825 5	180.7	181.5	+18.5	171.8	7.4	7.4*	7.4*	7.5	
23B - 825 5	176.4	177.2	+22.8	172.4	7.7*	7.7*	7.5*	7.7	
24A - 821 6	325.0	327.1	+22.9	329.1	1.9	2.0	1.8	1.8	
24A - 823 3	187.0*	187.0*	+13.0*	172.0*	9.6	9.6	9.5	9.6	Air line out of water
24B - 823 3	167.0	166.9	+13.1	164.9	6.7*	6.8	6.6	6.7	
24C - 823 1	180.0*	180.0*	- 0.0*	177.0*	7.5	7.7	7.5	7.4*	No air line
24A - 825 5	170.0	172.4	+17.6	169.4	5.4	5.5	5.4	5.4	
25A - 823 3	162.0*	163.0*	+17.0*	157.0*	3.5	3.6	3.5	3.5	Air line leaks
26A - 724 ✓ 7	211.0	210.7	+19.3	207.7	6.4	6.5	6.3	6.4	
26B - 724 7	203.3	203.8	+ 6.2	202.5	2.7	2.7	2.6	2.7	
26A - 821 6	347.2	348.8	+21.2	336.1	5.2	5.3	5.2	5.0	
26B - 821 6	352.0*	354.0*	+16.0*	336.0*	6.7	6.9	6.5	6.7	Air line plugged
26A - 823 4	179.1	180.7	+ 9.3	170.6	4.4	4.5	4.4	4.4	
26A - 824 2	137.4	138.9	+21.1	137.5	9.8	9.9*	9.8*	9.9	

Well Number and Group Number	Low Pumping Depth 19 79	Low Pumping Depth 19 80	Distance From Bowls ±	19 80 Low Static Depth	C.F.S. 19 80 Peak Period Q	C.F.S. 19 80 High	C.F.S. 19 80 Low	C.F.S. 19 79 Peak Period Q	Remarks
27A - 725 7	221.0	222.9	+17.1	221.9	3.1	3.2*	3.0*	3.1	Inline booster pump
27A - 823 1	208.5	209.0*	+21.0*	203.5*	5.5	5.5	5.4	5.4	
27B - 823 4	188.0*	189.0*	+11.0*	188.0*	4.0	4.0	3.9	4.9	Air line out of water
27C - 823 1	203.7	204.2	+11.8	188.2	4.7	4.8	4.7	4.0	
28A - 724 7	234.7*	235.0*	+15.0*	229.0*	6.5*	6.6	6.4*	6.5	Air line plugged
28B - 724 7	227.9	228.5	+21.5	225.6	3.5*	3.6	3.5*	3.4	
28A - 823 4	200.0	201.2	- 1.2	198.2	10.6	10.7	10.4	10.5	
28B - 823 4	193.8*	195.0*	+25.0*	193.2*	6.2	6.3	6.1	6.2	Air line plugged
28C - 823 4	195.3	195.4	+14.6	193.1	5.4	5.7	5.4	5.4	
28A - 922 6	281.0*	284.0*	- 4.0*	271.0*	2.6	2.6	2.6	2.6	Air line leaks
29A - 725 7	254.9	255.4	+14.6	253.5	4.4	4.6	4.2	4.5	Pulled pump 10-29-79
29A - 823 4	208.0	209.2	+10.8	207.2	9.8	10.0	9.8	9.9	
29B - 823 4	210.0*	211.0*	+ 9.0*	207.0*	3.9	4.0	3.7	3.9	Air line leaks
29A - 824 3	135.6	137.1	+ 2.9	135.5	5.3	5.4	5.2	5.3	
30A - 724 3	265.5	268.9	+11.1	263.6	7.5	7.5	7.2	7.3*	
30B - 724 3	265.4	269.4	+10.6	265.0	5.3*	5.3*	5.3	5.3	
30A - 725 7	243.4	243.7	+16.3	239.3	7.2	7.3*	7.1*	7.2	
30A - 822 6	297.0*	303.1	+16.9	298.1	3.5	3.5	3.5	3.5	
30A - 824 3	162.8	164.8	+15.2	157.0	6.1	6.1	6.1	5.9	
30B - 824 3	139.3	139.5	+20.5	138.2	3.4	3.4	3.4	3.4	
30A - 922 6	315.0*	322.9*	+67.1*	305.9	8.6	8.6	7.0	7.1	Put in new pump 8-7-8
31A - 724 2	252.0	255.0	+25.0	253.0	4.1	4.1	4.1	4.1	
31A - 725 7	196.3	198.9	+21.1	196.6	4.6	4.7	4.6	4.6	
31A - 823 4	190.3	187.5	+22.5	183.2	6.7	6.8	6.6	6.8	
31A - 824 3	176.1	175.8	+24.2	173.7	9.2	9.3	9.1	9.2	

Well Number and Group Number	Low Pumping Depth 19 79	Low Pumping Depth 1980	Distance From Bowls ±	19 80 Low Static Depth	C.F.S. 19 80 Peak Period Q	C.F.S. 19 80 High	C.F.S. 1980 Low	C.F.S. 19 79 Peak Period Q	Remarks
31B - 824 3	182.0*	182.0*	+18.0*	181.0*	4.2	4.3	4.2	4.2	Air line leaks
32A - 724 2	230.5	230.6	+ 9.4	218.1	8.8*	8.9	8.5	8.8	
32B - 724 2	224.4	225.2	+14.8	218.8	5.5*	5.7	5.5*	5.5	
32A - 725 7	197.5	200.8	+19.2	197.3	4.4	4.5*	4.4*	4.5	
33A - 724 2	218.4	219.4	+20.6	222.0	6.1	6.1	6.0	6.1	
33B - 724 7	224.8	225.2	+14.8	222.4	4.8	4.8	4.7	4.7	
33A - 725 7	223.0*	222.0*	+ 8.0*	219.0*	6.8	6.8	6.6	6.7	Air line leaks
33B - 922 6	281.0*	284.0*	+ 6.0*	280.0*	5.7*	5.8	5.7*	5.7*	Air line leaks
33C - 922 6	281.2	284.3	+ 5.7	279.3	3.4	3.4	3.2	3.3	
34A - 723 3	249.6	252.2	+17.8	247.6	7.2	7.2	7.2	7.1	
34B - 723 3	248.5	249.0	+ 1.0	244.5	3.0*	3.0*	3.0	3.0	
34A - 724 2	202.5	202.3	+17.7	199.3	7.6	7.7	7.4	7.7	
34A - 725 7	233.6	235.6	+ 4.4	222.0	7.1	7.1*	7.0*	7.1	
34A - 823 4	161.5	159.2	+20.8	150.2	4.2	4.3	4.2	4.2	
35A - 724 2	217.5	219.3	+ .7	212.3	8.3*	8.4*	8.2*	8.3	
35B - 724 2	208.0	209.7	+10.3	206.7	3.7	3.7*	3.7*	3.7	
35A - 821 6	320.2	323.0	+17.0	316.8	5.5	5.5	5.5	5.7	
35B - 821 6	327.5	329.0*	+11.0*	320.5*	5.5	5.5	5.5	5.3	
35C - 821 6	337.1	338.6	+21.4	336.5	6.3*	6.3*	6.3*	6.3	
35D - 821 6	327.4	329.0	+21.0	325.6	6.8	6.8	6.8*	6.7	
35A - 822 4	215.6	217.6	+ 2.4	208.5	9.3	9.4	9.3	9.4	
35B - 822 4	212.0*	214.0*	+26.0*	209.0*	5.0	5.0	4.9	5.0	Air line plugged
35C - 822 5	255.7	258.0	+ 2.0	253.3	3.0	3.0	3.0	2.9	
35A - 823 4	172.7	173.0*	+ 7.0*	156.3	8.2	8.2	8.1	8.2	
35B - 823 4	158.8	159.1	+20.9	157.3	2.1	2.2	2.1	2.1	

A & B IRRIGATION DISTRICT, RUPERT, IDAHO

October 1, 1980

Annual Pump Report
Hydrologic Data of Individual Wells

Part 2

Well Number and Group Number	Low Pumping Depth 1979	Low Pumping Depth 1980	Distance From Bowls ±	1980 Low Static Depth	C.F.S. 1980 Peak Period Q	C.F.S. 1980 High	C.F.S. 1980 Low	C.F.S. 1979 Peak Period Q	Remarks
35C - 823 4	161.5	162.7	+17.3	150.2	3.7	3.8	3.6	3.7	
35D - 823 4	154.2	156.4	+33.6	153.2	1.9	2.0	1.9	1.9	

A & B IRRIGATION DISTRICT, RUPERT, IDAHO

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Part 2

Hydrologic Data of Individual Wells

Well Number and Group Number	Low Pumping Depth 1978	Low Pumping Depth 1979	Distance from Bowls ±	1979 Low Static Depth	C.F.S. 1979 Peak Period Q	C.F.S. 1979 High	C.F.S. 1979 Low	C.F.S. 1978 Peak Period Q	Remarks
1A - 823 3	250.5	257.4	+12.6	255.0	9.6	9.8*	9.5*	9.6	
1B - 823 3	251.7	256.3	+13.7	258.0	6.4	6.6*	6.4*	6.3	
1C - 823 3	227.8	231.2	+ 8.8	229.0	7.3	7.3	7.2	7.4	
1A - 824 3	187.0*	190.0*	+10.0*	186.0*	7.4	7.4	7.4	7.5	Airline broken
1A - 921 6	341.7	343.2	+16.8	339.9	6.6	6.9*	6.4	6.9	Private pump holding
2A - 823 3	232.3	234.0*	+16.0*	232.0*	5.2	5.2	5.1	5.2	water back
2A - 824 5	174.2	176.0	+14.0	174.0	2.1	2.2	2.0	2.1	
2A - 923 4	154.8	156.7	+23.3	156.0	2.6	2.6	2.5	2.5	
2A -1021 6	377.0*	385.0*	+25.0	355.0*	4.7	4.7	4.5*	5.0*	
3A - 824 2	201.2	204.9	+15.1	201.9	9.1	9.1	9.0	9.1*	
3B - 824 2	198.9	202.4	+17.5	200.5	4.3	4.3	4.2	4.6*	
3A - 825 7	224.2	224.6	+15.4	220.5	7.1	7.1	7.0	7.2	3A pulled Oct 2-1979
3B - 825 7	225.0	225.0	+25.0	219.0	7.3	7.4	7.1	7.3	
3C - 825 7	224.6	225.8	+14.2	224.0	5.8	5.8	5.6	5.8	
3D - 825 7	217.8	219.2	+30.8	217.0	3.9	3.9	3.8	4.0*	
3E - 825 7	217.6	221.8	+18.2	221.0	4.8	4.8	4.7	4.9	
3A - 921 6	316.9	316.5	+13.5	315.0	2.4	2.4	2.3	2.4	
3B - 921 6	320.0*	322.0*	+ 8.0*	320.0*	7.0	7.0	6.9	7.2	Air line plugged
3C - 921 5	321.5	324.9	+ 5.0	322.0	7.7	7.7	7.4	7.7	
3A - 922 5	238.0	241.0	+ 9.0	239.0	8.6	8.8	8.6	8.8	
3B - 922 5	238.4	241.1	+18.9	238.0	5.7	6.0	5.6	5.8	
3A - 923 4	179.0*	180.0*	+20.0*	166.0*	5.0	5.0	4.6	5.0	
3B - 923 4	156.7	157.6	+ 2.4	153.0	2.5	2.6	2.5	2.5	
3A -1022 6	292.1	295.9	+14.1	286.9	3.9	3.9	3.6	3.9	
4A - 823 4	249.3	251.9	+18.1	251.5	9.7	10.0	9.7	9.9	
4B - 823 4	248.2	253.9	+16.1	252.5	5.0	5.3	4.8	4.2*	
4A - 824 2	201.7*	208.8	+11.2	197.1	9.1	9.1	8.9	9.1	
4B - 824 1	211.9	212.8	+17.2	204.8	9.0	9.2	9.0	9.2	"B" pulled & R 1979
4C - 824 5	217.1	218.7	+21.3	206.7	4.1*	4.1*	4.1*	4.1	
5B - 823 4	259.0*	262.0*	+18.0*	254.0	7.0*	7.2	6.8	7.0*	
5C - 823 4	254.7	257.4	+22.6	254.0	4.4	4.5	4.4	4.4	
5A - 825 7	207.6	219.0*	11.0*	216.0*	10.8	10.9	10.6	10.9	
5B - 825 7	220.0	221.0*	+20.0*	218.0*	5.2	5.2	5.1	5.2	

A & B IRRIGATION DISTRICT, RUPERT, IDAHO

1979
Annual Pump Report

Part 2

Hydrologic Data of Individual Wells

Well Number and Group Number	Low Pumping Depth		Distance from Bowls ±	1979 Low Static Depth	C.F.S.				Remarks
	1978	1979			1979 Peak Period Q	1979 High	1979 Low	1978 Peak Period Q	
6A - 824 1	240.9	245.6	+ 5.4	242.6	10.6	10.8	10.3	10.7	
6B - 824 2	247.2	251.6	+ 8.4	241.6	6.2	6.3	6.0	6.2	
6C - 824 5	214.0*	218.0*	+12.0*	215.0*	1.9	2.0	1.9	1.9	Air line leaks
6A - 825 7	177.4	178.1	+21.9	177.8	6.2	6.3	6.1	6.2	
6B - 825 7	177.9	180.8	+19.2	178.9	3.0	3.0	2.8	3.0	Will ne pulled fall 1979
6A - 923 1	189.0*	194.0*	+ 6.0	193.0	9.2	9.2	9.0	9.2	
6B - 923 4	165.7	171.9	+ 8.1	167.5	5.6	5.8	5.6	5.6	
7B - 824 1	188.6	191.5	+13.5	188.5	8.9	9.0	8.6	9.1	
7A - 922 5	304.0*	307.0*	+33.0*	295.0*	9.0	9.2	8.1	9.2	Air line leaks
7B - 922 5	296.1	297.0	+13.0	292.0	8.1	8.2	7.9	8.3	
8A - 823 1	245.9	248.6	+ 6.4	247.6	9.3	9.4	9.0	9.3	
8A - 824 1	189.3	189.9	+12.1	184.4	7.7	8.0	7.7	8.0	
9A - 922 5	271.5	268.6	+21.4	266.4	7.0	7.0	7.0	7.3	
9B - 922 5	275.8	278.0	+52.0	258.0	4.5	4.7	4.5	4.7	
10A - 823 3	217.0*	222.0*	+18.0*	221.0*	3.8	3.9	3.7	3.8	
10B - 823 3	228.5	233.0	+ 7.0	231.0	2.3	2.4	2.2	2.3*	
10A - 824 1	185.0*	187.0*	+ 3.0*	188.0*	9.3	9.5	9.2	9.3	Airline plugged
10B - 824 1	173.0*	175.0*	+ 5.0*	176.0*	6.8	6.8	6.6	6.7	Airline plugged
10C - 824 5	173.3	174.0	+26.0	172.0	5.9	6.0	5.9	6.0	
10A - 922 5	239.7	240.0	+10.0	226.0	4.3	4.3	4.1	3.9*	
11A - 824 1	180.7	183.8	+11.2	181.0	10.8	10.9	10.7	10.8	
11B - 824 2	178.7	181.8	+18.2	179.0	4.1	4.1	4.0	4.0	
11C - 824 2	174.1	174.6	+ 5.4	173.0	5.7	5.7	5.4	5.6	
11A - 825 7	183.3	183.8	+16.2	181.7	6.2	6.2	6.2	6.2*	
11B - 922 4	232.9	235.0*	+ 5.0*	222.0*	4.2	4.3	4.1	4.3	
11C - 922 4	211.0*	215.0*	+35.0	205.0*	4.8	4.9	4.7	4.9	
12A - 823 3	233.0*	237.0*	+13.0*	233.0*	7.6*	7.6*	7.3	7.7	
12B - 823 3	234.0*	238.0*	+12.0*	234.0*	3.2	3.2	3.2	3.1	Only one reading
12C - 823 3	216.2	219.0	+21.0	216.0	9.1	9.1	9.1	9.2	Only one reading
12D - 823 3	223.0*	226.0*	+ 4.0*	224.0*	3.9	3.9*	3.6	3.8	
12A - 824 3	163.8	165.9	+24.1	163.0	5.9	5.9	5.9	6.0	
12A - 825 7	201.0	203.0	+17.0	201.0	9.8	10.2	9.1	10.1	
12B - 825 7	212.0*	214.0*	- 4.0*	207.0*	7.7	7.7	7.5	7.7	

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Part 2

Hydrologic Data of Individual Wells

Well Number and Group Number	Low Pumping Depth 19 78	Low Pumping Depth 19 79	Distance from Bowls ±	19 79 Low Static Depth	C.F.S. 19 79 Peak Period Q	C.F.S. 19 79 High	C.F.S. 19 79 Low	C.F.S. 19 78 Peak Period Q	Remarks
13A - 824 2	167.7	171.5	+28.5	170.0	11.8	12.1	11.8	12.1	
13B - 824 2	167.5	171.2	+ 8.8	169.0	5.2	5.5	5.1	5.3*	
13A - 825 5	165.5	169.0	+21.0	168.0	2.9	3.0	2.8	3.0	
14A - 823 3	218.5	217.2	+22.8	215.0	7.3	7.3	7.1	7.1	
14B - 823 3	217.4	219.9	+ 0.1	215.3	2.9	2.9	2.8	3.0	
14A - 824 1	145.2	148.8	+11.2	146.0	8.5	8.5	8.3	8.5	
14C - 825 7	174.0	176.0	+24.0	174.0	2.7	2.8	2.7	2.7	
15A - 823 3	223.6	226.5	+23.5	221.0	10.2	10.4	9.9	10.1	
15B - 823 3	226.7	230.0	+30.0	226.0	4.7	4.8	4.5	4.7	
15D - 823 4	208.3	211.2	+18.8	208.0	2.3	2.4	2.2	2.3	
15A - 824 1	166.0*	170.0*	- 0.0*	167.0*	6.1	6.1	6.0	6.2	Airline leaks
15A - 825 5	170.0*	173.0*	+17.0*	170.0*	10.7*	10.7*	10.6	10.7	Airline leaks
15B - 825 5	165.7	170.0	+10.0	167.0	4.0*	4.0*	4.0*	4.0	No readings
15A - 922 5	292.0*	294.0*	+ 6.0*	272.0*	2.0	2.0	19.	2.0	Airline leaks
15B - 922 5	256.0*	260.0*	+70.0*	250.0*	2.2	2.2	2.1	2.3	Airline leaks
17A - 823 4	210.5	214.0	+26.0	212.0	6.7	6.8	6.6	6.8	
17B - 823 4	215.5	218.0	+22.0	213.0	2.8	2.8	2.8	2.9	
17C - 823 1	239.5	245.5	+14.5	243.0	2.2	2.3	2.2	2.2	
17A - 825 5	143.0	147.0	+13.0	145.0	9.0	9.3	8.7	9.1	
18A - 824 1	200.6	204.0	+ 8.0	197.0	9.7	9.9	9.5	9.7	
18A - 922 5	262.2	268.0	+12.0	266.0	6.3	6.3	6.2	6.4	
18B - 922 5	261.5	267.0	+13.0	266.0	2.7	2.7	2.7	2.8	
19A - 823 4	228.3	233.6	+16.4	229.0	7.4	7.4	7.2	7.4	
19B - 823 4	225.7	231.4	+18.6	229.5	3.9	3.9	3.9	3.9	
19A - 825 2	135.8	139.0	+21.0	135.0	10.4*	10.4	10.1	10.3	
19B - 825 2	135.8	141.9	+18.1	136.0	6.1	6.3	6.1	6.2*	
19C - 825 3	140.0	144.0	+16.0	142.0	7.3	7.4	7.2	7.5	
19D - 825 3	143.4	148.4	+11.6	143.0	6.3	6.5	6.3*	6.7*	
19A - 922 6	313.8	318.3	+ 1.7	314.0	4.6	4.6	4.5	4.7	
20A - 922 5	280.0*	282.0	+28.0	268.0	6.7	7.1	6.7	6.8	Airline leaks
21A - 823 4	206.0	208.0	+12.0	205.0	7.7	7.7	7.6	7.8	
21A - 824 1	152.8	155.4	+26.6	153.0	10.9	11.4	10.9	10.9	
21B - 824 2	163.4	165.4	+14.6	156.0	7.3	7.4	7.2	7.3	

Well Number and Group Number	Low Pumping Depth 19 78	Low Pumping Depth 19 79	Distance from Bowls ±	19 79 Low Static Depth	C.F.S. 19 79 Peak Period Q	C.F.S. 19 79 High	C.F.S. 19 79 Low	C.F.S. 19 78 Peak Period Q	Remarks
21A - 825 5	140.1	143.2	+16.8	139.0	8.8	8.9	8.7	8.8	
22A - 724 ✓ 7	219.0*	220.0*	0.0*	220.0*	2.7	2.7	2.7	2.4*	Airline leaks
22B - 724 ✓ 7	223.6	232.0	+18.0	224.0	6.6	6.8	6.5	6.6	
22C - 724 ✓ 7	208.6	211.0	+19.0	209.0	6.5	6.8	6.4	6.5	
22A - 821 6	319.8	321.0	+19.0	319.0	6.8	6.8	6.6	6.9	
22A - 823 4	208.6	211.6*	+18.4*	209.0*	7.1	7.2	7.1	7.1	
22A - 824 2	153.8	156.0	+24.0	145.0	6.8	6.9	6.8	6.7	
22A - 922 5	290.0*	292.0*	+ 8.0*	280.0*	2.1	2.1	2.0	2.1	
23A - 724 ✓ 7	225.0*	229.0*	+11.0*	227.0*	5.4*	5.4*	5.4*	5.4*	
23A - 823 4	214.4	216.3	+13.7	215.0	6.8	6.9	6.8	6.8	
23B - 823 4	213.8	215.5	+14.5	213.0	2.7	2.8	2.7	2.8	
23A - 824 2	159.0*	161.0*	+19.0*	156.0*	10.5*	10.5*	10.5*	10.5	
23A - 825 5	177.4	180.7	+19.3	171.0	7.5	7.5	7.3	7.5	
23B - 825 5	173.2	176.4	+23.6	171.6	7.7	7.7	7.5	7.9	
24A - 821 6	329.9	331.0	+19.0	327.0	1.8	2.0	1.8	1.7	
24A - 823 3	182.0*	187.0*	+13.0*	172.0*	9.6	9.6	9.5	9.6	Airline out of water
24B - 823 3	163.2	167.0	+13.0	165.0	6.7	6.8	6.7	6.7*	
24C - 823 1	179.0*	180.0*	0.0*	177.0	7.4*	7.5	7.2	7.5	No airline
24A - 825 5	166.6	170.0	+20.0	167.0	5.4	5.4	5.2	5.4*	
25A - 823 3	159.0*	162.0*	+18.0*	156.0*	3.5	3.7	3.5	3.5	
26A - 724 ✓ 7	205.7	211.0	+19.0	208.0	6.4	6.5	6.4	6.5*	
26B - 724 ✓ 7	201.0	203.3	+ 6.7	202.0	2.7	2.8	2.7	2.7	
26A - 821 6	343.7	347.2	+22.8	334.5	5.0	5.0	4.9	5.4	To be pulled in fall 1979
26B - 821 6	348.0*	352.0*	+18.0*	334.0*	6.7	6.7	6.6	6.8	Airline plugged
26A - 823 4	175.2	179.1	+10.9	169.0	4.4	4.4	4.4	4.4	
26A - 824 2	133.4*	137.4	+22.6	136.0	9.9	9.9	9.8	10.0*	
27A - 725 7	218.0	221.0	+19.0	220.0	3.1	3.1	3.0	2.9	Inline rooster pump
27A - 823 1	206.0*	208.5	+21.5	203.0	5.4	5.6	5.4	5.4	
27B - 823 4	184.0*	188.0*	+12.0*	187.0*	4.9	5.1	4.6	4.0	
27C - 823 1	200.6	203.7	+12.3	187.7	4.0	4.2	4.0	4.9	
28A - 724 7	232.0*	234.7*	+15.3*	228.7*	6.5	6.5	6.3	6.6	
28B - 724 7	225.4	227.9	+22.1	225.0	3.4	3.5	3.4	3.4	

Well Number and Group Number	Low Pumping Depth 1978	Low Pumping Depth 1979	Distance from Bowls ±	1979 Low Static Depth	C.F.S. 1979 Peak Period Q	C.F.S. 1979 High	C.F.S. 1979 Low	C.F.S. 1978 Peak Period Q	Remarks
28A - 823 4	197.5	200.0	+20.0	197.0	10.5	10.8	10.2	10.5	
28B - 823 4	199.0*	193.8*	+26.2*	192.0*	6.2	6.3	6.1	6.2	Airline plugged
28C - 823 4	190.8	195.3	+14.7	193.0	5.4	5.5	5.4	5.5	
28A - 922 6	281.0*	281.0*	- 1.0	268.0*	2.6	2.6	2.6	2.6	Airline leaks
29A - 725 7	252.7	254.9	+15.1	253.0	4.5	4.6	4.5	4.6	
29A - 823 4	205.6	208.0	+12.0	206.0	9.9	9.9	9.8	9.9	
29B - 823 4	207.0*	210.0*	+10.0*	206.0*	3.9	3.9	3.7	3.8	
29A - 824 3	135.5	135.6	+ 4.4	134.0	5.3	5.4	5.2	5.3	
30A - 724 3	265.3	265.5	+14.5	260.2	7.3*	7.5	7.2	7.7	
30B - 724 3	264.5	265.4	+14.6	261.0	5.3	5.3	5.3	5.3	
30A - 725 7	241.3	243.4	+16.6	239.0	7.2	7.3	7.1	7.1	
30A - 822 6	299.5	297.0*	+23.0*	292.0*	3.5	3.6	3.4	3.6	
30A - 824 3	160.6	162.8	+17.2	155.0	5.9	6.0	5.9	5.8	
30B - 824 3	137.3	139.3	+20.7	138.0	3.4	3.4	3.4	3.4	
30A - 922 6	310.0*	315.0*	+35.0*	298.0	7.1	7.2	7.1	7.3	
31A - 724 2	251.0	252.0	+28.0	250.0	4.1	4.1	4.1	4.2	
31A - 725 7	195.4	196.3	+23.7	194.0	4.6	4.7	4.3	4.7	
31A - 823 4	189.2	190.3	+19.7	186.0	6.8	6.8	6.7	6.8	
31A - 824 3	173.6	176.1	+23.9	174.0	9.2	9.3	9.1	9.2	
31B - 824 3	179.0	182.0*	+18.0*	181.0	4.2	4.4	4.2	4.1	Airline leaks
32A - 724 2	227.5	228.0	+12.0	218.0	8.8	9.0	8.7	8.9	
32B - 724 2	222.9	222.9	+17.1	218.0	5.5	5.5	5.3	5.5	
32A - 725 7	194.3	197.5	+22.5	194.0	4.5	4.5	4.4	4.6	
33A - 724 2	215.3	218.4	+21.6	221.0	6.1	6.2	6.0	6.1	
33B - 724 7	221.3	224.8	+15.2	222.0	4.7	4.9	4.6	4.8*	
33A - 725 7	220.0*	223.0*	+ 7.0*	220.0*	6.7	7.0	6.6	6.7	Airline leaks
33B - 922 6	278.0*	281.0*	+ 9.0*	277.0*	5.7*	5.7*	5.7	5.7	Airline leaks
33C - 922 6	278.4	281.2	+ 8.8	276.2	3.3	3.3	3.3	3.4*	
34A - 723 3	247.3	249.6	+20.4	245.0	7.1	7.4	7.0	7.3	
34B - 723 3	247.0	248.5	+11.5	244.0	3.0	3.2	3.0	3.0	
34A - 724 2	199.3	202.5	+17.5	199.5	7.7	7.7	7.3	7.9	
34A - 725 7	230.2	233.6	+ 6.4	220.0	7.1	7.1	7.0	7.1	
34A - 823 4	158.0	161.5	+18.5	152.5	4.2	4.2	4.1	4.2	
35A - 724 2	206.2	217.5	+ 2.5	210.5	8.3	8.4	8.2	8.4	
35B - 724 2	202.6	208.0	+12.0	205.0	3.7	3.8	3.7	3.8*	

A & B IRRIGATION DISTRICT, RUPERT, IDAHO
1979
Annual Pump Report

October 1, 1979

Part 2

Hydrologic Data of Individual Wells

Well Number and Group Number	Low Pumping Depth		Distance from Bowls ±	1979 Low Static Depth	C.F.S.				Remarks
	1978	1979			1979 Peak Period Q	1979 High	1979 Low	1978 Peak Period Q	
35A - 821 6	318.8	320.2	+19.8	314.0	5.7	5.7	5.5	5.7	
35B - 821 6	327.2	327.5	+12.5	319.0	5.3	5.3*	5.2	5.5*	
35C - 821 6	335.3	337.1	+22.9	335.0	6.3	6.3	6.3	6.4	
35D - 821 6	324.9	327.4	+22.6	324.0	6.7	6.8	6.7	6.8	
35A - 822 4	214.1	215.6	+ 4.4	206.5	9.4	9.5	9.3	9.4	
35B - 822 4	211.3	212.0*	+28.0*	207.0*	5.0	5.1	4.9	5.0	
35C - 822 5	254.7	255.7	+ 4.3	251.0	2.9	3.0	2.9	2.9	
35A - 823 4	170.5	172.7	+ 7.3	156.0	8.2	8.2	8.1	8.2	
35B - 823 4	153.9	158.8	+21.2	157.0	2.1	2.2	2.1	2.0	
35C - 823 4	161.1	161.5	+18.5	149.0	3.7	3.9	3.6	3.8	
35D - 823 4	151.8	154.2	+35.8	151.0	1.9	2.0	1.9	1.8	

Part E

Hydrologic Data of Individual Wells

Well Number and Group Number		To. Cutting Depth 1970	To. Cutting Depth 1971	Depth of Water to Nearest ±	1971 Ice Cracks Depth	c.f.s. 1971 Period 0	c.f.s. 1971 High	c.f.s. 1971 Low	c.f.s. 1970 Peak Period 0	Remarks
1A-823	3	249.4	249.7	+ 20.3	247.5	9.8	10.2	9.8	9.8	
1B-823	3	250.3	249.8	+ 20.2	247.0	6.4	6.4	6.3	6.6	
1C-823	3	228.2	228.5	+ 11.5	222.2	7.4	7.6	7.4	7.4	
1A-824	3	180.0*	180.0 *	+ 20.0 *	177.0 *	7.7	7.8	7.6	7.7	AIR LINE BROKEN
1A-921	6	341.0	339.8	+ 20.2	333.2	7.1	7.3	6.9	7.1	
2A-823	3	227.8	228.8	+ 21.2	226.8	5.3	5.4	5.3	5.3	
2A-824	5	171.9	171.6	+ 18.4	171.0	2.1	2.2	2.1	2.1	
2A-923	4	152.9	152.6	+ 27.4	150.6	2.6	2.6	2.6	2.6	
2A-1021	6	376.1	376.8	+ 33.2	348.3	5.2	5.6	5.2	4.9	
3A-824	2	197.7	199.3	+ 20.7	195.3	9.5	9.6	9.2	9.1	
3B-824	2	194.9	196.7	+ 23.3	196.7	4.5	4.9	4.5	4.5	
3A-825	7	222.6	222.1	+ 17.9	217.9	7.3	7.4	7.2	7.3	
3B-825	7	221.4	221.1	+ 28.9	213.7	7.7	7.8	7.7	7.7	
3C-825	7	221.0	221.0	+ 19.0	214.4	6.0	6.1	6.0	6.0	
3D-825	7	214.6	213.9	+ 36.1	211.3	4.0	4.1	4.1	4.0	
3E-825	7	217.6	216.7	+ 23.3	215.9	4.9	5.0	4.8	4.9	
3A-921	6	310.7	314.0	+ 16.0	313.0	2.3	2.4	2.3	2.3	
3B-921	6	309.0	313.0 *	+ 17.0 *	311.0 *	7.0	7.2	6.9	7.0	AIRLINE PLUGGED
3C-921	5	322.0 *	322.0 *	+ 8.0*	320.0 *	7.5	7.6	7.3	7.5	AIR LINE LEAKS
3A-922	5	238.0	237.5	+ 12.5	235.2	8.8	8.9	8.8	8.8	
3B-922	5	240.9	240.2	+ 19.8	239.5	6.1	6.1	6.0	6.1	
3A-923	4	173.0 *	173.0 *	+ 27.0 *	163.0 *	5.0	5.1	5.0	5.0	AIR LINE PLUGGED
3B-923	4	153.2	154.3	+ 5.7	147.3	2.2	2.4	2.2	2.2	
3A-1022	6	293.3	290.3	+ 19.7	286.3	3.8	3.9	3.8	3.8	
4A-823	4	247.4	246.9	+ 23.1	245.5	10.0	10.2	9.9	10.1	
4B-823	4	246.3	245.2	+ 24.8	244.4	4.4	4.5	4.2	4.2	
4A824	2	201.9	201.2	+ 18.8	188.6	9.3	9.5	9.2	9.2	
4B-824	1	207.5	207.3	+ 22.7	203.0	9.1	9.3	9.1	9.1	
4C-824	5	212.2	212.3	+ 27.7	201.9	4.5	4.5	4.3	4.3	
5B-823	4	258.0 *	258.0 *	+ 22.0 *	250.0 *	6.9	7.0	6.8	6.9	AIR LINE PLUGGED
5C-823	4	252.5	252.7	+ 27.3	249.1	4.5	4.5	4.4	4.5	
5A-825	7	207.9	209.0 *	+ 21.0 *	206.0 *	11.0	11.1	11.0	11.1	AIR LINE PLUGGED
5B-825	7	209.4	209.0 *	+ 21.0 *	206.0 *	5.1	5.1	4.9	5.1	AIR LINE BROKEN

A & B IRRIGATION DISTRICT, RUPERT, IDAHO

Part 2

Hydrologic Data of Individual Wells

Well Number Group	Number	Low Pumping Depth 1970	Low Pumping Depth 1971	Distance from Bowls ±	1971 Low Static Depth	c.f.s. 1971 Peak Period Q	c.f.s. 1971 High	c.f.s. 1971 Low	c.f.s. 1970 Peak Period Q	Remarks
6A-824	1	240.5	241.4	+ 9.6	239.0	10.9	11.1	10.9	10.7	
6B-824	2	243.6	245.4	+ 14.6	234.2	6.4	6.6	6.4	6.3	
6C-824	5	209.0 *	209.0 *	+ 21.0 *	207.0 *	1.9	2.1	1.9	1.9	AIR LINE LEAKS
6A-825	7	172.7	173.5	+ 26.5	173.1	6.3	6.4	6.3	6.4	
6B-825	7	173.4	174.1	+ 25.9	173.8	3.0	3.1	2.9	3.0	
6A-923	1	186.2	186.0	+ 14.0	184.4	9.3	9.4	9.3	9.2	
6B-923	4	167.4	167.7	+ 12.3	164.7	5.5	5.6	5.5	5.5	
7B-824	1	184.1	181.7	+ 23.3	179.9	9.2	9.5	9.1	9.2	
7A-922	5	319.0 *	319.0 *	+ 1.0 *	296.0 *	9.0	9.0	8.9	9.1	AIR LINE PLUGGED
7B-922	5	296.4	300.7	+ 9.3	299.7	8.2	8.3	8.2	8.1	
8A-823	1	244.7	244.0	+ 11.0	243.6	9.6	9.6	9.5	9.4	
8A-824	1	186.8	186.7	+ 15.3	181.5	7.8	8.1	7.8	7.7	
9A-922	5	269.6	268.7	+ 21.3	266.1	7.7	7.8	7.7	7.7	
9B-922	5	273.2	278.66	+ 51.34	274.26	5.0	5.0	4.9	5.0	
10A-823	3	214.8	216.0	+ 24.0	215.0	3.9	3.9	3.8	3.8	
10B-823	3	226.0	226.4	+ 13.6	223.6	2.2	2.3	2.2	2.2	
10A-824	1	179.0 *	179.0 *	+ 11.0 *	176.0 *	9.3	9.6	9.2	9.3	AIR LINE PLUGGED
10B-824	1	166.0 *	166.0 *	+ 14.0 *	165.0 *	6.7	6.9	6.7	6.7	AIR LINE PLUGGED
10C-824	5	171.5	171.0	+ 29.0	169.8	6.2	6.3	6.2	5.5	
10A-922	5	232.1	233.0	+ 17.0	220.4	4.0	4.1	4.0	3.9	
11A-824	1	181.0	178.2	+ 16.8	178.0	10.9	10.9	10.7	10.8	
11B-824	2	177.5	178.5	+ 21.5	174.9	4.1	4.2	3.9	4.1	
11C-824	2	171.1	170.0	+ 10.0	169.4	5.9	6.0	5.9	5.8	
11A-825	7	181.0	181.2	+ 18.8	177.8	6.2	6.2	6.0	6.2	
11B-922	4	230.5	223.8	+ 16.2	210.2	4.3	4.4	4.3	4.3	
11C-922	4	209.0 *	209.0 *	+ 21.0 *	208.0 *	5.0	5.1	5.0	5.0	AIR LINE LEAKS
12A-823	3	225.4	225.9	+ 24.1	223.9	8.0	8.0	7.9	8.1	
12B-823	3	227.0 *	227.0 *	+ 23.0 *	225.0 *	3.0	3.1	3.0	3.0	AIR LINE PLUGGED
12C-823	3	213.4	214.8	+ 25.2	212.3	9.5	9.6	9.5	9.5	
12D-823	3	213.5	217.0 *	+ 13.0 *	212.0 *	3.7	4.0	3.7	3.7	AIR LINE BROKEN
12A-824	3	159.2	159.2	+ 30.8	156.2	6.0	6.0	6.0	6.1	
12A-825	7	197.3	197.9	+ 22.1	196.5	10.3	10.5	10.4	10.2	
12B-825	7	203.0	203.0	+ 7.0	194.7	7.9	8.1	7.7	7.9	

Part 3 Hydrologic Data of Individual Wells

Well Number and Group Number		Pump Hanging Depth 1970	Pump Hanging Depth 1971	Distance From Pools ±	1971 Low Static Depth	c.f.s. 1971 Peak Period Q	c.f.s. 1971 High	c.f.s. 1971 Low	c.f.s. 1970 Peak Period Q	Remarks
13A-824	2	164.7	165.9	+ 34.1	165.7	11.8	11.9	11.7	11.9	
13B-824	2	164.2	165.6	+ 14.4	165.4	5.0	5.3	5.0	5.0	
13A-825	5	164.5	164.15	+ 25.85	161.15	2.9	3.0	2.9	2.9	
14A-823	3	211.9 *	211.1	+ 28.9	210.7	7.2	7.4	7.2	7.2	
14B-823	3	214.9 *	212.8	+ 7.2	208.6	2.8	3.0	2.8	2.8	
14A-824	1	144.8	144.3	+ 15.7	143.3	8.6	8.7	8.5	8.5	
14C-825	7	170.6	169.9	+ 30.1	169.6	2.8	3.0	2.8	2.8	
15A-823	3	222.0 *	222.0 *	+ 28.0 *	221.0 *	10.1	10.2	10.0	10.1	NO AIR LINE
15B-823	3	226.7	226.0	+ 34.0	220.2	4.6	4.8	4.5	4.6	
15D-823	4	206.0*	204.9	+ 25.1	202.3	2.3	2.4	2.3	2.3	
15A-824	1	158.5	158.8	+ 11.2	157.8	6.1	6.3	6.0	6.1	
15A-825	5	163.3	164.0 *	+ 26.0 *	162.0 *	10.9	11.0	10.9	10.9	AIR LINE LEAKS
15B-825	5	163.0 *	161.8	+ 18.2	160.0	4.1	4.2	4.0	4.1	
15A-922	5	281.0 *	281.0 *	+ 19.0 *	260.0 *	2.0	2.1	2.0	2.0	AIR LINE LEAKS
15B-922	5	245.0 *	245.0 *	+ 85.0 *	239.0 *	2.4	2.5	2.4	2.3	AIR LINE LEAKS
17A-823	4	210.6	208.8	+ 31.2	207.6	6.7	6.8	6.7	6.6	
17B-823	4	213.5	214.59	+ 25.41	209.99	2.9	3.0	2.9	3.0	
17C-823	1	237.0 *	236.0	+ 24.0	233.4	2.2	2.3	2.2	2.2	
17A-825	5	141.4	140.7	+ 19.3	138.9	9.2	9.4	9.0	9.2	
18A-824	1	198.8	196.88	+ 15.12	192.08	9.6	9.7	9.5	9.6	
18A-922	5	264.0	262.9	+ 17.1	261.7	6.3	6.6	6.3	6.4	
18B-922	5	264.1	262.6	+ 17.4	261.1	2.7	2.9	2.7	2.8	
19A-823	4	225.7	228.7	+ 21.3	225.1	7.3	7.4	7.2	7.4	
19B-823	4	227.9 *	225.9	+ 24.1	225.1	3.9	3.9	3.6	3.8	
19A-825	2	134.0	133.3	+ 26.7	128.9	10.3	10.4	10.1	10.2	
19B-825	2	134.6	135.6	+ 24.4	131.0	6.3	6.4	6.1	5.0	
19C-825	3	139.5	139.0	+ 21.0	137.0	7.6	7.8	7.5	7.5	
19D-825	3	143.3	142.04	+ 17.96	138.04	6.7	6.7	6.7	6.6	
19A-922	6	315.9	314.03	+ 5.97	310.03	4.6	4.7	4.6	4.5	
20A-922	5	275.0 *	275.0 *	+ 35.0 *	266.0 *	6.8	6.9	6.7	6.8	AIRLINE LEAKS
21A-823	4	202.1	203.8	+ 16.2	201.2	7.9	8.0	7.8	7.8	
21A-824	1	149.7	150.7	+ 31.3	148.8	11.0	11.3	11.0	11.1	
21B-824	2	[illegible]	161.0	+ 19.0	152.8	7.3	7.5	7.3	7.3	

		70	71		1971	1971	1971	1971	70	
21A-825	5	138.5	137.3	+ 22.7	134.3	9.2	9.3	9.2	9.1	
22A-724	7	215.0 *	215.0 *	+ 5.0 *	213.0 *	2.4	2.4	2.4	2.4	AIR LINE PLUGGED
22B-724	7	223.1	223.6	+ 26.4	218.2	6.6	6.7	6.6	6.6	
22C-724	7	206.6	205.8	+ 24.2	204.6	6.6	6.8	6.6	6.6	
22A-821	6	318.0 *	316.9	+ 23.1	315.3	6.9	7.0	6.8	6.5	
22A-823	4	206.7	207.6	+ 22.4	205.4	7.2	7.3	7.1	7.2	
22A-824	2	153.6	153.0	+ 27.0	142.3	6.8	7.2	6.8	6.8	
22A-922	5	284.8	282.8	+ 17.2	276.2	2.2	2.2	2.1	2.1	
23A-724	7	217.5	218.0 *	+ 22.0 *	217.0 *	5.5	5.6	5.4	5.4	AIR LINE LEAKS
23A-823	4	212.0 *	211.6	+ 18.4	210.1	6.9	6.9	6.9	6.6	
23B-823	4	214.0 *	211.3	+ 18.7	208.1	2.9	3.0	2.9	2.8	
23A-824	2	153.7	154.2	+ 25.8	149.0	10.5	10.9	10.4	10.4	
23A-825	5	175.8	175.2	+ 24.8	168.4	7.8	7.8	7.5	7.8	
23B-825	5	171.7	170.6	+ 29.4	165.6	7.8	7.9	7.8	7.8	
24A-821	6	326.8	325.5	+ 24.5	319.7	1.8	1.8	1.8	1.8	
24A-823	3	178.2	179.27	+ 20.73	170.17	9.8	9.8	9.8	9.7	
24B-823	3	161.0	161.0	+ 19.0	159.5	6.9	6.9	6.9	6.8	
24C-823	1	174.0 *	174.0 *	+ 26.0 *	161.0 *	7.5	7.6	7.4	7.5	NO AIR LINE
24A825	5	163.9	164.4	+ 25.6	159.6	5.6	5.7	5.4	5.6	
25A-823	3	155.6	155.6	+ 24.4	150.9	3.4	3.5	3.4	3.5	
26A-724	7	204.4	205.9	+ 24.1	202.5	6.5	6.7	6.5	6.6	
26B-724	7	197.6	197.4	+ 12.6	197.0	2.7	2.9	2.7	2.7	
26A-821	6	343.4	345.0	+ 25.0	332.4	5.5	5.7	5.5	5.3	
26B-821	6	344.0 *	345.0 *	+ 25.0 *	335.0 *	6.7	6.8	6.7	6.7	AIR LINE PLUGGED
26A-823	4	171.9	171.6	+ 18.4	166.5	4.5	4.5	4.5	3.9	
26A-824	2	132.5	131.2	+ 28.8	130.6	10.0	10.3	10.0	10.0	
27A-725	7	217.1	216.5	+ 23.5	215.7	2.5	2.6	2.4	2.5	
27A-823	1	200.8	202.9	+ 27.1	197.5	5.5	5.7	5.5	5.5	
27B-823	4	179.6	180.7	+ 19.3	179.4	4.0	4.1	3.9	4.0	
27C-823	1	198.3	200.3	+ 15.7	183.4	5.1	5.4	5.0	5.0	
28A-724	7	226.0 *	226.0 *	+ 24.0 *	224.0 *	6.6	6.7	6.6	6.6	AIR LINE PLUGGED
28B-724	7	225.5	223.4	+ 26.6	222.4	3.5	3.6	3.5	3.5	
28A-823	4	196.7	195.9	+ 24.1	193.5	10.9	11.0	10.7	10.7	

Part 2 Hydrologic Data of Individual Wells

Well Number and Group Number		Low Pumping Depth 1970	Low Pumping Depth 1971	Distance from Tools ±	1971 Low Static Depth	c.f.s. 1971 Peak Period Q	c.f.s. 1971 High	c.f.s. 1971 Low	c.f.s. 1970 Peak Period Q	Remarks
28B-823	4	197.0 *	196.0 *	+ 24.0 *	195.0 *	6.4	6.6	6.4	6.4	AIR LINE PLUGGED
28C-823	4	194.0 *	191.5	+ 18.5	190.3	5.5	5.7	5.5	5.4	
28A-922	6	274.0 *	273.0 *	+ 7.0 *	260.0 *	2.7	2.7	2.6	2.7	AIR LINE LEAKS
29A-725	7	250.0	249.7	+ 20.3	249.3	4.5	4.6	4.5	4.5	
29A-823	4	203.5	204.2	+ 15.8	202.0	10.0	10.2	10.0	9.8	
29B-823	4	205.3	205.0 *	+ 15.0 *	203.0 *	4.1	4.1	4.1	4.1	AIR LINE LEAKS
29A-824	3	131.6	132.0	+ 8.0	131.3	5.4	5.5	5.4	5.3	
30A-724	3	262.9	263.7	+ 16.3	259.7	7.7	7.7	7.6	7.7	
30B-724	3	262.2	263.4	+ 16.6	259.4	5.6	5.7	5.6	5.5	
30A-725	7	238.2	238.1	+ 21.9	234.9	7.3	7.4	7.3	7.2	
30A-822	6	299.5	298.1	+ 21.9	292.5	3.6	3.7	3.5	3.6	
30A-824	3	157.3	158.7	+ 21.3	146.5	5.9	6.0	5.9	5.9	
30B-824	3	133.7	134.22	+ 25.78	133.42	3.4	3.5	3.4	3.4	
30A-922	6	295.2	296.3	+ 53.70	283.80	6.3	6.5	6.2	6.5	
31A-724	2	252.0 *	252.0	+ 28.0	247.8	4.2	4.4	4.2	4.2	
31A-725	7	193.0 *	193.5	+ 26.5	193.5	4.7	4.8	4.7	4.7	
31A-823	4	188.0 *	187.8	+ 22.2	184.2	6.8	6.8	6.8	6.7	
31A-824	3	170.7	171.4	+ 28.6	170.8	9.4	9.4	9.3	9.5	
31B-824	3	175.0 *	174.0 *	+ 26.0 *	173.0 *	4.3	4.3	4.3	4.2	AIR LINE LEAKS
32A-724	2	224.7 *	224.5	+ 15.5	216.7	8.7	8.7	8.7	8.6	
32B-724	2	220.6	219.9	+ 20.1	215.5	5.6	5.6	5.6	5.6	
32A-725	7	194.9	194.5	+ 25.5	192.7	4.6	4.7	4.6	4.5	
33A-724	2	215.6	215.4	+ 24.6	213.8	6.3	6.4	6.3	6.1	
33B-724	7	221.6	221.8	+ 18.2	219.6	4.7	4.8	4.6	4.7	
33A-725	7	217.0 *	216.4	+ 13.6	213.8	7.0	7.0	6.9	7.0	
33B-922	6	274.1	274.0 *	+ 16.0 *	271.0 *	5.7	5.8	5.7	5.7	AIR LINE LEAKS
33C-922	6	273.0 *	268.7	+ 21.3	264.3	3.4	3.4	3.4	3.4	
34A-723	3	243.8	243.8	+ 26.2	239.4	7.4	7.4	7.3	7.4	
34B-723	3	244.0	243.3	+ 16.7	239.7	3.0	3.2	3.0	3.0	
34A-724	2	197.3	197.9	+ 22.1	195.7	8.1	8.3	8.0	8.2	
34A-725	7	228.2	230.2	+ 9.8	213.9	7.4	7.4	7.3	6.2	
34A-823	4	156.2	156.9	+ 23.1	149.9	4.2	4.4	4.2	4.2	
35A-724	2	211.0 *	204.7	+ 15.3	202.9	8.7	8.8	8.7	8.5	

Part 2

Geologic Data of Individual Wells

Well Number and Group Number		Low Running Depth 1970	Low Running Depth 1971	Distance from Wells ±	1971 Low Static Depth	c.f.s. 1971 Peak Period 0	c.f.s. 1971 High	c.f.s. 1971 Low	c.f.s. 1970 Peak Period 0	Remarks
35B-724	2	203.2 *	202.0	+ 18.0	201.2	3.8	3.9	3.8	3.8	
35A-821	6	317.8	317.2	+ 22.8	313.6	5.4	5.6	5.3	5.3	
35B-821	6	327.0 *	327.6	+ 12.4	318.8	5.6	5.8	5.6	5.7	
35C-821	6	334.4	334.1	+ 25.9	332.1	6.5	6.6	6.3	6.5	
35D-821	6	324.0	324.7	+ 25.3	321.7	6.9	7.0	6.8	5.9	
35A-822	4	213.5	214.4	+ 5.6	212.0	9.3	9.5	9.3	9.6	
35B-822	4	211.6	212.6	+ 27.4	208.2	5.0	5.1	5.0	5.2	
35C-822	5	251.0 *	254.1	+ 5.9	240.9	3.0	3.0	3.0	3.0	
35A-823	4	168.8	166.8	+ 13.2	151.4	8.4	8.4	8.4	8.3	
35B-823	4	152.5	152.9	+ 27.1	152.9	1.9	2.0	1.9	1.9	
35C-823	4	159.1	158.9	+ 21.1	147.3	3.8	4.0	3.8	3.8	
35D-823	4	149.8	150.4	+ 39.6	149.6	1.7	1.8	1.7	1.7	

* Estimated figures

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Part II — Hydrologic Data of Individual Wells

Well No. and Group No.	Low Pumping Depth 1964	Low Pumping Depth 1965	1965 Distance from Bowl±	1965 Low Static Depth	c.f.s. 1965 Peak Period Q	c.f.s. 1965 High	c.f.s. 1965 Low	c.f.s. 1964 Peak Period Q c.f.s.	Wire to Water Efficiency 1965	Wire to Water Efficiency 1964	Remarks
1A823 3	252.3	252.9	+ 17.1	249.0	9.5	10.6	9.5	9.6	75.68	76.87	
1B823 3	252.1	253.6	+ 16.4	249.9	6.1	6.7	6.1	4.2	68.92	77.05	
1C823 3	229.2	229.5	+ 10.5	222.8	7.2	7.5	7.2	7.4	72.03	72.59	
1A824 3	184.7	183.0	+ 17.0	179.8	7.3	7.9	7.3	7.8	70.68	73.59	
1A921 6	340.6	341.9	+ 18.1	337.3	7.1	7.4	7.0	7.1	74.00	73.82	
2A823 3	230.4	232.5	+ 17.5	230.8	5.2	5.3	5.2	5.2	74.96	76.62	
2A824 3	174.8	175.6	+ 14.4	175.4	1.8	1.9	1.8	1.9	68.00	69.46	
2A923 4	154.8	154.3	+ 25.7	153.2	2.5	2.5	2.5	2.5	76.28	71.66	
2A1021	*378.0	376.1	+ 33.9	347.1	5.4	5.6	5.4	4.8	71.55	*64.72	
3A824 2	202.7	202.1	+ 17.9	198.2	9.1	9.1	8.6	9.2	78.80	79.35	
3B824 2	199.7	199.1	+ 20.9	199.0	4.3	4.6	4.3	4.3	69.14	68.89	
3A825 7	226.1	225.5	+ 14.5	220.8	6.9	7.4	6.9	7.0	72.14	74.50	
3B825 7	225.2	224.4	+ 25.6	216.8	7.8	8.1	7.8	7.9	68.12	68.92	
3C825 7	223.6	224.2	+ 15.8	217.4	5.9	6.2	5.9	6.0	73.90	72.51	
3D825 7	215.2	216.8	+ 33.2	215.0	3.9	4.0	3.9	3.9	68.30	65.90	
3E825 7	216.4	220.2	+ 19.8	219.8	4.0	4.1	4.0	4.0	73.21	72.16	
3A921 6	316.0	316.7	+ 13.3	314.9	2.4	2.5	2.4	2.4	63.85	69.53	
3B921 6	313.0	313.0	+ 17.0	311.3	7.2	7.5	7.2	7.3	69.13	71.91	
3C921 5	*319.0	321.0*	+ 9.0 *	318.2	7.7	8.0	7.7	8.0			Airline plugged
3A922 5	239.8	241.2	+ 8.8	238.3	8.5	8.8	8.5	8.8	73.46	74.98	
3B922 5	238.5	239.9	+ 20.1	239.2	6.0	6.2	6.0	6.0	70.61	70.84	
3A923 4	177.9	176.3	+ 23.7	157.9	4.9	5.0	4.9	4.9	73.53	72.74	
3B923 4	156.3	155.4	+ 4.6	151.4	2.2	2.2	2.2	2.2	74.93	76.11	
3A1022 4	289.3	289.7	+ 20.3	285.9	3.8	3.9	3.8	3.9	71.31	72.19	
4A823 4	247.7	250.3	+ 19.7	247.8	9.8	10.1	9.8	9.8	75.46	73.62	
4B823 4	246.6	248.8	+ 21.2	247.5	4.3	4.5	4.3	4.4	72.00	73.99	
4A824 2	208.4	208.7	+ 11.3	194.1	9.0	9.5	9.0	9.2	73.39	72.46	
4B824 1	211.8	211.4	+ 18.6	205.0	9.5	9.6	9.3	9.2	76.32	78.27	
4C824 5	218.9	217.7	+ 22.3	205.5	4.4	4.4	4.3	4.5	76.75	76.58	
5B823 4	258.2	260.4	+ 19.6	252.6	6.8	6.9	6.7	6.6	71.84	73.06	
5C823 4	253.7	256.2	+ 3.8	254.2	3.0	3.1	3.0	3.2	70.41	72.27	
5A825 7	207.6	208.3	+ 21.7	207.0	10.9	11.4	10.9	11.0	75.99	74.34	
5B825 7	210.2	210.8	+ 19.2	207.3	4.9	5.3	4.9	4.8	68.96	67.37	

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Part II — Hydrologic Data of Individual Wells

Well No. and Group No.		Low Pumping Depth 1964	Low Pumping Depth 1965	1965 Distance from Bowlst	1965 Low Static Depth	c.f.s. 1965 Peak Period Q	c.f.s. 1965 High	c.f.s. 1965 Low	c.f.s. 1964 Peak Period Q c.f.s.	Wire to Water Efficiency 1965	Wire to Water Efficiency 1964	Remarks
6A824	1	241.8	242.0	+ 9.0	239.8	10.4	10.9	10.2	10.5	68.52	68.95	
6B824	4	241.1	244.3	+ 15.7	237.2	5.5	5.8	5.5	5.7	72.18	71.30	
6C824	5	207.6	207.6	+ 22.4	204.6	1.9	2.0	1.9	2.0	67.86	68.87	
6A825	7	176.1	176.7	+ 23.3	176.1	6.5	6.7	6.5	6.4	67.01	65.66	
6B825	7	176.3	176.9	+ 23.1	176.6	2.8	3.1	2.8	2.8	66.52	67.27	
6A923	1	188.0	187.4	+ 12.6	186.2	9.1	9.5	9.1	9.0	70.93	69.15	
6B923	4	169.3	168.8	+ 11.2	167.0	4.2	4.3	4.2	4.2	76.59	76.13	
7B824	1	186.2	186.1	+ 18.9	184.3	9.2	9.7	8.8	9.2	63.40	64.50	
7A922	5	314.8	315.0*	+ 5.0 *	293.0 *	9.3	9.3	9.2	9.0		69.14	Airline plugged
7B922	5	295.8	296.8	+ 13.2	296.1	8.0	8.3	7.9	8.1	71.82	70.93	
8A823	1	247.6	247.3	+ 7.7	246.7	9.3	9.5	9.3	9.4	73.99	77.16	
8A824	1	189.9	189.6	+ 12.4	184.0	7.4	7.7	7.3	7.6	61.45	64.16	
9A922	5	273.8	271.9	+ 18.1	267.1	7.9	8.2	7.9	8.0	72.91	73.92	
9B922	5	295.0*	298.0*	+ 12.0 *	278.0 *	4.4	5.0	4.3	4.4			No airline
10A823	3	217.1	219.4	+ 20.6	218.7	3.7	3.8	3.7	3.8	68.68		
10B823	3	228.6	231.2	+ 8.8	229.6	1.7	1.8	1.7	1.7	68.86	71.83	
10A824	1	182.8	183.0*	+ 7.0 *	182.0 *	9.4	9.6	9.4	9.4		75.00	Airline plugged
10B824	1	169.0	168.0	+ 12.0	167.6	5.9	6.0	5.4	6.1	72.83	73.51	
10C824	5	173.8	172.7	+ 27.3	172.1	5.8	5.9	5.8	5.2	78.68	71.79	
10A922	5	235.4	237.0	+ 13.0	227.0	3.9	4.2	3.9	4.0	72.74	72.73	
11A824	1	181.4	180.5	+ 14.5	180.3	10.2	10.8	10.2	10.7	70.12	67.83	
11B824	2	180.1	179.4	+ 20.6	179.2	3.8	3.9	3.8	4.0	80.48	74.49	
11C824	2	173.2	172.8	+ 7.2	172.0	5.6	5.8	5.6	5.7	68.15	72.57	
11A825	7	187.9	184.5	+ 15.5	181.2	6.4	6.5	6.2	6.0	72.79	72.03	
11B922	4	233.2	230.2	+ 9.8	220.7	4.3	4.6	4.3	4.5	68.22	70.41	
11C922	4	210.8	210.3	+ 19.7	209.8	4.6	4.9	4.6	4.8	69.99	68.95	
12A823	3	230.0	229.2	+ 20.8	226.5	8.7	9.1	8.6	8.7	70.93	70.14	
12B823	3	229.2	228.3	+ 21.7	225.7	2.8	3.0	2.8	3.0	69.75	79.56	
12C823	3	216.4	218.8	+ 21.2	215.7	9.6	9.8	9.6	9.5	70.80	70.41	
12D823	3	217.7	220.8	+ 9.2	215.1	3.7	3.9	3.7	3.8	72.99	73.64	
12A824	3	163.5	162.7	+ 27.3	159.3	6.0	6.3	6.0	6.2	69.88	71.62	
12A825	7	200.4	200.7	+ 19.3	199.7	10.0	10.4	10.0	10.0	71.06	72.89	
12B825	7	201.9	202.0	+ 8.0	197.6	4.3	4.6	4.3	4.7	72.23	69.49	

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Part II — Hydrologic Data of Individual Wells

Well No. and Group No.	Low Pumping Depth 1964	Low Pumping Depth 1965	Distance from Bowlst	1965 Low Static Depth	c.f.s. 1965 Peak Period Q	c.f.s. 1965 High	c.f.s. 1965 Low	c.f.s. 1964 Peak Period Q c.f.s.	Wire to Water Efficiency 1965	Wire to Water Efficiency 1964	Remarks
13A824 2	168.3	168.7	+ 31.3	168.4	11.9	12.1	11.9	12.4	70.20	72.71	
13B824 2	168.0	168.6	+ 11.4	168.0	4.9	5.6	4.9	4.8	77.27	71.47	
13A825 5	168.0	167.15	+ 22.85	164.55	2.9	2.9	2.8	2.9	60.10	62.43	
14A823 3	212.3	214.6	+ 25.4	214.4	7.2	7.4	7.1	7.2	75.21	73.16	
14B823 3	213.8	215.9	+ 4.1	213.6	2.7	2.8	2.7	2.9	73.67	74.21	
14A824 1	147.6	146.6	+ 13.4	145.6	8.4	8.7	8.4	8.6	69.82	69.43	
14C825 7	174.5	172.7	+ 27.3	172.6	2.8	2.9	2.8	2.8	65.57	79.19	
15A823 3	225.3	224.9	+ 25.1	224.0	9.3	9.4	9.3	9.2	78.52	77.39	
15B823 3	230.0*	229.0	+ 31.0	224.8	4.0	4.3	4.0	4.3	68.38	72.93*	
15D823 4	206.3	208.5	+ 21.5	206.1	2.2	2.3	2.2	2.3	73.48	72.62	
15A824 1	163.2	162.4	+ 7.6	161.5	6.0	6.2	6.0	6.0	72.91	73.38	
15A825 5	168.0*	166.5	+ 23.5	164.4	10.9	11.2	10.7	10.9	72.70	71.44*	
15B825 5	164.5	164.6	+ 15.4	163.3	4.1	4.2	4.0	4.0	68.90	68.99	
15A922 5	287.6	279.6	+ 20.4	260.2	2.0	2.1	2.0	2.0	67.88	65.56	
15B922 5	242.7	242.0	+ 88.0	236.0	2.3	2.7	2.4	2.2	59.12	57.01	
17A823 4	211.4	213.1	+ 26.9	212.0	6.6	6.8	6.6	6.6	74.40	73.36	
17B823 4	217.0	208.8	+ 31.2	205.0	2.8	3.0	2.8	2.9	70.79	70.03	
17C823 1	236.9	239.0	+ 21.0	237.2	2.1	2.2	2.1	2.1	67.56	66.81	
17A825 5	145.3	143.8	+ 16.2	142.0	8.8	9.6	8.8	6.6	69.73	74.37	
18A824 1	200.8	200.38	+ 11.62	194.48	9.5	9.6	9.4	9.6	67.83	68.38	
18A922 5	264.3	265.8	+ 14.2	264.3	6.5	6.5	6.2	6.4	71.60	69.24	
18B922 5	263.5	265.5	+ 14.5	264.9	2.8	3.0	2.8	1.9	62.76	61.75	
19A823 4	231.5	231.7	+ 18.3	227.6	7.8	8.0	7.9	7.5	73.68	73.24	
19B823 4	227.8	228.4	+ 21.6	227.5	3.5	4.0	3.5	3.7	76.70	66.69	
19A825 2	136.4	136.3	+ 23.7	131.6	10.4	10.5	10.3	9.8	71.09	70.01	
19B825 2	136.3	137.0	+ 23.0	133.9	5.1	5.5	5.1	5.4	68.36	74.80	
19C825 3	142.1	141.4	+ 18.6	139.4	7.5	7.8	7.5	7.5	71.92	71.88	
19D825 3	142.5	135.0*	+ 25.0 *	140.0 *	7.0	7.0	6.7	3.1		68.85	Not calibrated correctly
19A922 6	313.5	314.5	+ 5.5	312.9	4.0	4.3	4.0	4.2	70.08	71.77	
20A922 5	269.9	276.3	+ 33.7	267.5	6.8	6.9	6.5	6.8	67.73	67.49	
21A823 4	205.7	206.0	+ 14.0	203.9	7.5	7.9	7.5	7.6	76.74	76.78	
21A824 1	153.9	152.2	+ 29.8	151.0	11.0	11.4	11.0	11.7	66.32	66.97	
21B824 2	165.9	165.6	+ 14.4	158.9	7.3	7.5	7.2	7.1	73.40	71.60	

Minidoka North Side Pumping Division

Part II — Hydrologic Data of Individual Wells — Annual Pump Report - August, 1965

Well No. and Group No.	Low Pumping Depth 1964	Low Pumping Depth 1965	1965 Distance from Bowl*	1965 Low Static Depth	c.f.s. 1965 Peak Period Q	c.f.s. 1965 High	c.f.s. 1965 Low	c.f.s. 1964 Peak Period Q c.f.s.	Wire to Water Efficiency 1965	Wire to Water Efficiency 1964	Remarks
21A825 5	140.3	140.6	+ 19.4	137.4	9.3	9.5	9.2	9.2	66.63	65.93	
22A724 7	215.7	216.0*	+ 4.0 *	215.0*	2.5	2.7	2.5	2.5		74.15	Airline plugged
22B724 7	229.0	230.4	+ 19.6	221.8	6.7	6.8	6.6	6.5	75.49	71.08	
22C724 7	208.4	209.4	+ 20.6	208.9	6.5	6.6	6.5	6.6	67.93	69.13	
22A821 6	317.9	318.8	+ 21.2	317.4	6.4	6.7	6.4	6.7	72.33	76.04	
22A823 4	209.0*	209.0*	+ 21.0 *	208.0*	5.6	5.9	5.6	5.6			No airline
22A824 2	156.7	155.9	+ 24.1	146.7	6.9	7.0	6.7	7.0	79.26	73.00	
22A922 5	260.0	261.0	+ 39.0	249.6	2.1	2.2	2.1	2.2	63.27	68.70	
23A724 7	216.9	217.8	+ 22.2	216.6	4.7	4.8	4.7	4.7	71.90	72.22	
23A823 4	213.9	214.3	+ 15.7	212.7	6.5	6.6	6.4	6.9	73.23	74.44	
23B823 4	213.1	213.8	+ 16.2	212.1	2.9	2.9	2.8	2.6	71.34	68.83	
23A824 2	157.1	156.6	+ 23.4	153.0	10.5	10.8	10.3	10.4	74.96	73.66	
23A825 5	177.6	179.2	+ 20.8	171.5	7.7	7.8	7.7	6.8	72.35	74.41	
23B825 5	174.5	173.9	+ 26.1	169.8	8.0	8.1	7.9	6.5	71.08	73.45	
24A821 6	326.0*	328.4	+ 21.6	323.9	1.9	2.0	1.9	1.9	69.46		
24A823 3	174.8	175.0*	+ 25.0 *	166.0*	9.4	9.7	9.4	9.5		76.21	Airline leaks
24B823 3	163.7	163.3	+ 16.7	161.1	6.7	6.9	6.7	6.6	72.92	65.61	
24C823 1	156.0*	156.0*	+ 24.0 *	153.0*	7.5	7.5	7.5	7.6			No airline
24A825 5	168.4	167.6	+ 22.4	163.2	5.4	5.6	5.4	5.5	70.21	69.59	
25A823 3	157.9	157.8	+ 22.2	153.8	3.4	3.6	3.4	3.4	70.67	68.18	
26A724 7	204.9	207.6	+ 22.4	205.3	6.6	6.8	6.5	5.7	73.06	72.23	
26B724 7	201.0	200.2	+ 9.8	200.0	2.7	2.8	2.7	2.8	74.81	77.06	
26A821 6	346.0	347.2	+ 22.8	339.8	4.9	5.0	4.9	5.2	68.76	71.44	
26B821 6	354.0*	354.0*	+ 16.0 *	344.0*	7.0	7.1	6.7	7.0			Airline plugged
26A823 4	166.0*	168.0*	+ 22.0 *	164.0*	3.9	4.0	3.9	3.9			Airline leaks
26A824 2	135.2	134.2	+ 25.8	133.5	9.9	10.0	9.9	10.0	68.03	69.30	
27A725 7	219.1	219.7	+ 20.3	219.4	1.9	2.0	1.9	1.9	70.91	70.37	
27A823 1	204.7	204.9	+ 25.1	199.7	5.3	5.7	5.3	5.4	70.21	70.53	
27B823 4	182.6	182.9	+ 17.1	181.8	3.8	4.2	3.8	4.4	71.77	72.21	
27C823 1	204.2	204.7	+ 11.3	195.8	4.6	4.8	4.6	4.0	72.55	71.54	
28A724 7	228.0*	228.0*	+ 22.0*	226.0*	6.8	6.9	6.7	6.8			Airline plugged
28B724 7	225.3	226.2	+ 23.8	225.2	3.2	3.6	3.1	3.2	69.54	78.04	
28A823 4	198.9	202.0	+ 18.0	196.6	10.4	11.1	10.4	10.6	77.30	74.24	

Minidoka North Side Pumping Division

Annual Pump Report - August, 1965

Part II — Hydrologic Data of Individual Wells

Well No. and Group No.		Low Pumping Depth 1964	Low Pumping Depth 1965	1965 Distance from Bowlist	1965 Low Static Depth	c.f.s. 1965 Peak Period Q	c.f.s. 1965 High	c.f.s. 1965 Low	c.f.s. 1964 Peak Period Q c.f.s.	Wire to Water Efficiency 1965	Wire to Water Efficiency 1964	Remarks
28B823	4	197.0*	198.2	+ 21.8	197.1	6.1	6.5	6.1	6.5	63.66		
28C823	4	193.2	193.8	+ 16.2	192.4	5.5	5.6	5.5	5.5	72.05	72.62	
28A922	6	267.5	268.5	+ 11.5	258.3	2.7	2.9	2.7	2.7	71.81	72.41	
29A725	7	253.0	252.4	+ 17.6	252.1	4.4	4.6	4.4	4.6	72.44	73.66	
29A823	4	205.6	205.4	+ 14.6	203.6	10.0	10.1	9.8	10.0	68.70	69.96	
29B823	4	206.5	206.7	+ 13.3	203.3	4.0	4.3	3.9	3.6	71.36	64.93	
29A824	3	134.9	134.1	+ 5.9	133.2	5.2	5.4	5.2	5.2	77.04	77.81	
30A724	3	265.0	267.1	+ 12.9	262.7	7.8	8.2	7.8	7.8	74.78	73.66	
30B724	3	261.8	266.4	+ 13.6	262.1	5.4	5.5	5.0	3.9	69.92	70.31	
30A725	7	241.6	241.1	+ 18.9	238.3	7.4	7.5	7.3	7.3			
30A822	6	300.5	301.4	+ 18.6	295.6	3.6	4.0	3.6	3.8	72.07	76.23	
30A824	3	159.6	159.0	+ 21.0	151.7	5.9	6.1	5.9	5.9		72.73	No watt hour meter
30B824	3	137.9	137.1	+ 22.9	136.1	3.3	3.4	3.3	3.4	71.92		
30A922	6	300.3	301.5	+ 28.5	287.2	6.9	7.1	6.9	7.0	68.41	67.20	
31A724	2	258.0*	258.0*	+ 22.0*	254.0*	4.1	4.3	4.1	4.1			Airline not calibrated
31A725	7	195.4	194.6	+ 25.4	194.4	4.5	4.7	4.5	4.7	67.81	71.36	
31A823	4	189.0	189.7	+ 20.3	187.7	6.9	7.1	6.9	6.7	72.47	72.18	
31A824	3	174.3	173.1	+ 26.9	172.7	9.3	9.4	9.3	9.4	73.11	71.35	
31B824	3	173.5	174.3	+ 25.7	174.1	4.2	4.3	4.1	4.0	69.27	70.39	
32A724	2	227.7	227.1	+ 12.9	218.7	8.6	8.8	8.6	8.9	75.28	76.50	
32B724	2	222.6	221.8	+ 18.2	217.9	5.2	5.8	5.2	4.9	71.23	71.44	
32A725	7	199.0*	199.0*	+ 21.0*	196.0*	4.5	4.7	4.5	4.5			Airline leaks
33A724	2	217.0	218.0	+ 22.0	216.6	6.3	6.6	6.3	6.3	74.73	71.89	
33B724	7	220.8	222.45	+ 17.55	221.15	3.7	4.2	3.7	3.8	69.68	68.13	
33A725	7	216.6	217.1	+ 12.9	216.0	6.5	6.7	6.3	6.5	70.07	72.69	
33B922	6	278.0*	281.0*	+ 9.0*	268.6	6.1	6.1	6.0	6.0		76.71	Airline out of water w/pump on
33C922	6	266.5	269.6	+ 20.4	267.8	3.2	3.4	3.2	3.3	65.50	66.58	
34A723	3	245.7	248.7	+ 21.3	242.4	7.4	7.5	7.4	7.5	66.33	66.53	
34B723	3	244.9	247.1	+ 12.9	244.3	3.0	3.0	2.9	3.0	71.16	68.59	
34A724	2	202.3	200.1	+ 19.9	198.5	8.2	8.5	7.9	6.7	74.04	70.81	
34A725	7	230.4	230.9	+ 9.1	221.4	6.3	6.4	6.3	6.3	73.57	71.86	
34A823	4	158.6	157.1	+ 22.9	152.6	4.1	4.3	4.1	4.1	77.33	74.81	
35A724	2	212.9	214.3	+ 5.7	205.9	8.7	8.8	8.4	8.6	74.57	70.14	

Minidoka North Side Pumping Division

Annual Pump Report - August, 1965

Part II — Hydrologic Data of Individual Wells

Well No. and Group No.	Low Pumping Depth 1964	Low Pumping Depth 1965	1965 Distance from Bowlst	1965 Low Static Depth	c.f.s. 1965 Peak Period Q	c.f.s. 1965 High	c.f.s. 1965 Low	c.f.s. 1964 Peak Period Q c.f.s.	Wire to Water Efficiency 1965	Wire to Water Efficiency 1964	Remarks
35B724 2	204.6	204.8	+ 15.2	203.8	3.4	3.8	3.4	3.5	69.74	78.52	
35A821 6	318.7	318.9	+ 21.1	315.0	5.4	5.7	5.4	5.6	72.62	70.94	
35B821 6	329.0*	328.0*	+ 12.0*	318.8	5.4	5.8	5.3	5.6			Airline out of water w/pump on
35C821 6	335.6	336.0	+ 24.0	334.5	6.5	6.6	6.5	6.6	74.64	74.71	
35D821 6	326.5	324.8	+ 25.2	322.6	5.8	6.2	5.8	5.5	73.13	74.47	
35A822 4	215.6	216.0	+ 4.0	214.4	9.4	9.6	9.4	9.4	77.44	78.30	
35B822 4	216.5	215.2	+ 24.8	210.6	4.9	5.3	4.8	4.2	71.74	73.87	
35C822 5	252.4	253.2	+ 6.8	246.3	2.4	2.4	2.4	2.4	72.16	73.53	
35A823 4	171.8	170.6	+ 9.4	155.6	8.3	8.4	8.3	8.4	70.66	72.42	
35B823 4	155.1	154.6	+ 25.4	154.3	1.9	1.9	1.9	1.9	68.26	69.92	
35C823 4	161.3	160.3	+ 19.7	153.9	3.7	3.9	3.7	3.8	72.86	77.23	
35D823 4	152.8	152.4	+ 37.6	151.6	1.7	1.7	1.7	1.7	69.31	69.50	

* Estimated figures

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Minidoka North Side Pumping Division

Annual Pump Report

Part II — Hydrologic Data of Individual Wells — Page 1 of 6

Well No. and Group No.	Low Pumping Depth 1963	Low Pumping Depth 1964	1964 Distance from Bowls+	1964 Low Static Depth	c.f.s. 1964 Peak Period Q	c.f.s. 1964 High	c.f.s. 1964 Low	c.f.s. 1963 Peak Period Q c.f.s.	Wire to Water Efficiency 1964	Wire to Water Efficiency 1963	Remarks
1A823	3:251.5	252.3	+ 17.7	249.6	9.6	10.4	9.5	9.60	76.87	76.60	
1B823	3:251.5	252.1	+ 17.9	250.3	4.2	4.4	4.0	4.04	77.05	71.45	
1C823	3:227.5	229.2	+ 10.8	222.5	7.4	7.6	7.4	7.36	72.59	74.87	
1A824	3:184.4	184.7	+ 15.3	180.5	7.8	7.8	7.6	7.74	73.59	72.87	
1A921	6:338.0	340.6	+ 19.4	336.0	7.1	7.4	7.1	7.36	73.82	78.96	
2A823	3:231.9	230.4	+ 19.6	228.4	5.2	5.2	5.2	5.20	76.62	76.90	
2A824	3:174.3	174.8	+ 15.2	174.1	1.9	2.0	1.9	1.90	69.46	69.07	
2A923	4:155.5	154.8	+ 25.2	153.8	2.5	2.6	2.5	1.80	71.66	72.14	
2A1021	:380.1	378.0*	+ 32.0 *	347.7	4.8	5.5	4.8	4.83	*64.72	65.25	Airline out of water w/pump on
3A824	2:201.7	202.7	+ 17.3	199.1	9.2	9.2	9.0	9.12	79.35	80.10	
3B824	2:198.7	199.7	+ 20.3	199.4	4.3	4.5	4.3	3.94	68.89	73.80	
3A825	7:226.1	226.1	+ 13.9	221.7	7.0	7.4	7.0	6.82	74.50	74.44	
3B825	7:224.9	225.2	+ 24.8	217.1	7.9	8.1	7.9	7.94	68.92	66.93	
3C825	7:224.2	223.6	+ 16.4	215.8	6.0	6.1	6.0	6.11	72.51	74.72	
3D825	7:224.5	215.2	+ 34.8	213.6	3.9	3.9	3.9	2.91	65.90	71.03	
3E825	7:216.6	216.4	+ 3.6	215.7	4.0	4.1	4.0	4.06	72.16	72.50	
3A921	6:314.6	316.0	+ 14.0	314.5	2.4	2.5	2.4	2.45	69.53	68.07	
3B921	6:311.8	313.0	+ 17.0	311.2	7.3	7.5	7.3	7.43	71.91	71.37	
3C921	5:318.0*	319.0*	+ 11.0	318.0*	8.0	8.0	7.8	7.90			Airline plugged
3A922	5:237.4	239.8	+ 10.2	237.1	8.8	8.8	8.8	8.80	74.98	73.47	
3B922	5:234.3	238.5	+ 21.5	237.8	6.0	6.3	6.0	3.62	70.84	56.30	
3A923	4:178.8	177.9	+ 22.1	158.8	4.9	5.2	4.4	5.00	72.74	75.84	
3B923	4:156.2	156.3	+ 3.7	151.9	2.2	2.2	2.2	2.20	76.11	77.47	
3A1022	4:283.0	289.3	+ 0.7	285.3	3.9	4.0	3.9	3.86	72.19	69.51	
4A823	4:249.0	247.7	+ 22.3	245.5	9.8	9.9	9.8	9.95	73.62	73.84	
4B823	4:247.9	246.6	+ 23.4	245.6	4.4	4.4	4.4	4.22	73.99	72.47	
4A824	2:206.0	208.4	+ 11.6	194.2	9.2	9.5	9.1	9.24	72.46	71.71	
4B824	1:212.0	211.8	+ 18.2	204.9	9.2	9.4	9.2	9.24	78.27	75.26	
4C824	5:219.4	218.9	+ 21.1	206.8	4.5	4.6	4.4	4.42	76.58	74.97	
5B823	4:258.8	258.2	+ 21.8	250.4	6.6	7.0	6.6	6.78	73.06	70.98	
5C823	4:255.0	253.7	+ 6.3	251.6	3.2	3.2	3.0	2.92	72.27	69.23	
5A825	7:208.7	207.6	+ 22.4	207.6	11.0	11.1	11.0	11.13	74.34	74.85	
5B825	7:210.7	210.2	+ 19.8	207.4	4.8	5.2	4.8	4.66	67.37	66.41	

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Minidoka North Side Pumping Division

Annual Pump Report

Part II — Hydrologic Data of Individual Wells

Well No. and Group No.	Low Pumping Depth 1963	Low Pumping Depth 1964	1964 Distance from Powlst	1964 Low Static Depth	c.f.s. 1964 Peak Period Q	c.f.s. 1964 High	c.f.s. 1964 Low	c.f.s. 1963 Peak Period Q c.f.s.	Wire to Water Efficiency 1964	Wire to Water Efficiency 1963	Remarks
6A824	1:240.6	241.8	+ 9.2	239.6	10.5	10.7	9.9	10.40	68.95	71.08	
6B824	4:241.0	241.1	+ 18.9	234.7	5.7	5.8	5.7	5.75	71.30	74.17	
6C824	5:208.8	207.6	+ 22.4	204.6	2.0	2.0	1.7	2.00	68.87	74.83	
6A825	7:175.2	176.1	+ 23.9	175.7	6.4	7.0	6.4	6.50	65.66	65.82	
6B825	7:175.6	176.3	+ 23.7	176.0	2.8	2.9	2.7	2.52	67.27	70.34	
6A923	1:186.5	188.0	+ 12.0	186.8	9.0	9.2	9.1	9.40	69.15	72.42	
6B923	4:166.2	169.3	+ 10.7	167.7	4.2	4.2	4.2	4.22	76.13	75.14	
7B824	1:185.4	186.2	+ 18.8	184.0	9.2	9.6	9.2	7.38	64.50	61.28	
7A922	5:293.6	314.8	+ 5.2	291.7	9.0	9.5	9.0	8.27	69.14	68.98	
7B922	5:294.2	295.8	+ 14.2	295.1	8.1	8.2	8.1	8.08	70.93	71.66	
8A823	1:246.2	247.6	+ 7.4	247.0	9.4	9.7	9.4	9.38	77.16	74.59	
8A824	1:188.2	189.9	+ 12.1	184.3	7.6	7.9	7.6	7.65	64.16	64.20	
9A922	5:281.2	273.8	+ 16.2	268.1	8.0	8.2	7.9	7.36	73.92	70.04	
9B922	5:290.0*	295.0*	+ 15.0 *	275.0*	4.4	4.7	4.4	4.76			No airline
10A823	3:218.6	217.1	+ 22.9	216.4	3.8	3.9	3.8	3.72		69.02	
10B823	3:230.1	228.6	+ 11.4	227.2	1.7	1.8	1.7	1.68	71.83	71.28	
10A824	1:182.0	182.8	+ 7.2	181.8	9.4	9.7	9.3	9.45	75.00	75.10	
10B824	1:168.3	169.0	+ 11.0	168.4	6.0	6.1	5.9	5.90	73.51	74.16	
10C824	5:172.9	173.8	+ 26.2	173.0	5.2	5.7	5.2	5.61	71.79	69.74	
10A922	5:235.5	235.4	+ 14.6	224.9	4.0	4.2	4.0	4.06	72.73	73.04	
11A824	1:179.8	181.4	+ 13.6	181.0	10.7	11.3	10.4	6.98	67.83	65.49	
11B824	2:178.8	180.1	+ 19.9	179.8	4.0	4.1	3.9	3.73	74.49	70.90	
11C824	2:172.0	173.2	+ 6.8	172.3	5.7	5.9	5.3	5.80	72.57	70.10	
11A825	7:185.0	187.9	+ 2.1	183.0	6.0	6.3	6.0	6.10	72.03	69.76	
11B922	4:226.6	233.2	+ 6.8	221.2	4.5	4.6	4.5	4.30	70.41	69.17	
11C922	4:207.1	210.8	+ 19.2	208.5	4.8	4.8	4.8	5.02	68.95	68.10	
12A823	3:227.7	230.0	+ 20.0	227.5	8.7	9.4	8.7	9.08	70.14	73.04	
12B823	3:226.6	229.2	+ 20.8	227.2	3.0	3.3	3.0	3.06	79.56	75.42	
12C823	3:218.8	216.4	+ 23.6	213.6	9.5	9.8	9.4	9.68	70.41	71.43	
12D823	3:221.2	217.7	+ 12.3	213.1	3.8	3.8	3.8	3.58	73.64	79.28	
12A824	3:163.1	163.5	+ 26.5	159.7	6.2	6.2	5.9	6.10	71.62	71.14	
12A825	7:200.7	200.4	+ 19.6	199.5	10.0	10.4	10.0	10.15	72.89	69.86	
12B825	7:202.8	201.9	+ 8.1	197.0	4.7	4.7	4.2	4.10	69.49	75.73	

7036 33 wells

Minidoka North Side Pumping Division

Annual Pump Report

Part II — Hydrologic Data of Individual Wells

Well No. and Group No.	Low Pumping Depth 1963	Low Pumping Depth 1964	1964 Distance from Bowls±	1964 Low Static Depth	c.f.s. 1964 Peak Period	c.f.s. 1964 High	c.f.s. 1964 Low	c.f.s. 1963 Peak Period	Wire to Water Efficiency 1964	Wire to Water Efficiency 1963	Remarks
13A824 2	169.0	168.3	+ 31.7	167.7	12.4	12.4	11.9	12.32	72.71	72.42	
13B824 2	168.9	168.0	+ 12.0	167.6	4.8	5.2	4.7	4.96	71.47	70.39	
13A825 5	167.3	168.0	+ 22.0	165.4	2.9	3.0	2.9	2.90	62.43	60.52	
14A823 3	213.5	212.3	+ 27.7	211.9	7.2	7.3	6.8	6.94	73.16	67.88	
14B823 3	215.0	213.8	+ 6.2	211.4	2.9	2.9	2.7	2.88	74.21	71.03	
14A824 1	147.2	147.6	+ 12.4	146.5	8.6	8.9	8.6	8.30	69.43	67.33	
14C825 7	175.2	174.5	+ 25.5	174.3	2.8	2.9	2.8	1.90	79.19	67.26	
15A823 3	224.0	225.3	+ 24.7	224.4	9.2	9.5	9.1	9.22	77.39	75.32	
15B823 3	228.3	230.0*	+ 30.0 *	224.3	4.3	4.3	4.3	4.38	72.93*	74.32	Airline out of water w/pump on
15D823 4	207.8	206.3	+ 23.7	203.6	2.3	2.3	2.3	2.30	72.62	73.81	
15A824 1	163.1	163.2	+ 6.8	162.2	6.0	6.2	6.0	5.96	73.38	72.91	
15A825 5	167.0	168.0*	+ 22.0 *	165.0	10.9	11.1	10.7	10.96	71.44*	70.78	Airline leaks
15B825 5	164.8	164.5	+ 15.5	163.5	4.0	4.2	4.0	3.96	68.99	68.16	
15A922 5	286.9	287.6	+ 12.4	262.6	2.0	2.0	2.0	2.08	65.56	70.72	
15B922 5	242.0	242.7	+ 87.3	231.8	2.2	2.3	2.2	2.16	57.01	56.87	
17A823 4	221.0	211.4	+ 28.6	210.0	6.6	6.7	6.5	5.44	73.36	73.64	
17B823 4	208.7	217.0	+ 23.0	202.2	2.9	2.9	2.9	2.92	70.03	76.48	
17C823 1	236.9	236.9	+ 23.1	234.9	2.1	2.1	2.1	2.17	66.81	68.78	
17A825 5	146.2	145.3	+ 14.7	144.5	6.6	7.0	6.6	6.80	74.37	74.53	
18A824 1	199.4	200.8	+ 11.2	194.8	9.6	9.8	9.6	9.54	68.38	68.32	
18A922 5	262.1	264.3	+ 15.7	263.2	6.4	6.4	6.4	6.46	69.24	69.24	
18B922 5	261.4	263.5	+ 16.5	262.0	1.9	2.0	1.9	2.13	61.75	63.17	
19A823 4	231.2	231.5	+ 18.5	227.2	7.5	7.8	7.5	7.60	73.24	71.47	
19B823 4	227.6	227.8	+ 22.2	227.1	3.7	3.7	3.7	3.60	66.69	73.24	
19A825 2	136.4	136.4	+ 23.6	131.5	9.8	9.8	9.3	10.24	70.01	73.18	
19B825 2	136.9	136.3	+ 23.7	133.4	5.4	5.5	5.2	5.12	74.80	72.10	
19C825 3	141.2	142.1	+ 17.9	140.5	7.5	7.8	7.5	7.50	71.88	70.41	
19D825 3	141.8	142.5	+ 17.5	140.4	3.1	3.3	3.1	3.12	68.85	70.14	
19A922 6	311.3	313.5	+ 6.5	312.1	4.2	4.3	4.2	4.27	71.77	72.10	
20A922 5	267.9	269.9	+ 20.1	262.6	6.8	6.9	6.8	6.90	67.49	70.88	
21A823 4	205.2	205.7	+ 14.3	203.3	7.6	8.0	7.0	7.60	76.78	75.90	
21A824 1	169.8	153.9	+ 28.1	151.9	11.7	11.8	11.4	7.96	66.97	59.70	
21B824 2	166.2	165.9	+ 14.1	159.6	7.1	7.3	7.1	7.22	71.60	72.07	

1.667 33 wells

Minidoka North Side Pumping Division

Annual Pump Report August 1, 1964

Part II Hydrologic Data of Individual Wells

Well No. and Group No.		Low Pumping Depth 1963	Low Pumping Depth 1964	1964 Distance from Bowls±	1964 Low Static Depth	c.f.s. 1964 Peak Period Q	c.f.s. 1964 High	c.f.s. 1964 Low	c.f.s. 1963 Peak Period Q c.f.s.	Wire to Water Efficiency 1964	Wire to Water Efficiency 1963	Remarks
21A825	5	141.2	140.3	+ 19.7	137.1	9.2	9.6	9.2	9.35	65.93	68.10*	
22A724 ✓	7	215.4	215.7	+ 4.3	215.0	2.5	2.7	2.5	2.67	74.15	74.16	
22B724 ✓	7	228.4	229.0	+ 21.0	223.0	6.5	6.5	6.5	6.61	71.08	74.30	
22C724 ✓	7	209.6	208.4	+ 21.6	207.7	6.6	6.6	6.4	6.40	69.13	67.89	
22A821	6	316.9	317.9	+ 22.1	316.5	6.7	6.8	6.6	6.70	76.04	75.70	
22A823	4	208.0*	209.0*	+ 21.0 *	209.0 *	5.6	5.9	5.3	5.60			No airline
22A824	2	155.8	156.7	+ 23.3	147.4	7.0	7.1	7.0	7.03	73.00	71.39	
22A922	5	260.2	260.0	+ 40.0	249.3	2.2	2.3	2.2	2.20	68.70	65.12	
23A724 ✓	7	218.2	216.9	+ 23.1	215.8	4.7	5.1	4.7	4.83	72.22	74.46	
23A823	4	231.3	213.9	+ 16.1	211.9	6.9	6.9	6.1	6.70	74.44	72.70	
23B823	4	212.8	213.1	+ 16.9	211.9	2.6	2.9	2.6	2.70	68.83	72.99	
23A824	2	156.4	157.1	+ 22.9	153.1	10.4	10.6	10.4	10.50	73.66	75.08	
23A825	5	178.4	177.6	+ 22.4	171.7	6.8	6.9	6.7	6.75	74.41	76.32	
23B825	5	174.6	174.5	+ 5.5	171.2	6.5	6.9	6.5	6.70	73.45	73.58	
24A821	6	326.0*	326.0*	+ 4.0*	321.6	1.9	2.0	1.9	1.83			Airline out of water w/pump on
24A823	3	176.5	174.8	+ 25.2	165.9	9.5	9.7	9.5	9.44	76.21	74.93	
24B823	3	164.5	163.7	+ 16.3	161.8	6.6	6.7	6.6	6.55	65.61	69.14	
24C823	1	149.0*	156.0*	+ 24.0*	153.0 *	7.6	7.7	7.6	7.50			No airline
24A825	5	167.8	168.4	+ 21.6	163.8	5.5	5.6	5.5	5.56	69.59	70.78	
25A823	3	156.6	157.9	+ 22.1	153.9	3.4	3.5	3.3	3.36	68.18	69.09	
26A724 ✓	7	204.3	204.9	+ 25.1	202.3	5.7	5.9	5.7	5.83	72.23	71.79	
26B724 ✓	7	200.4	201.0	+ 9.0	200.6	2.8	2.9	2.8	2.62	77.06	72.31	
26A821	6	345.8	346.0	+ 24.0	339.5	5.2	5.3	5.2	5.28	71.44	72.56	
26B821	6	353.0*	354.0*	+ 16.0	344.0	7.0	7.1	6.8	7.12			Airline plugged
26A823	4	166.0*	166.0*	+ 24.0*	170.0 *	3.9	3.9	3.8	3.84			Airline leaks
26A824	2	134.0	135.2	+ 24.8	134.4	10.0	10.0	10.0	10.02	69.30	68.46	
27A725	7	219.6	219.1	+ 20.9	218.9	1.9	1.9	1.9	1.96	70.37	72.32	
27A823	1	204.1	204.7	+ 25.3	199.3	5.4	5.6	5.3	5.20	70.53	67.83	
27B823	4	182.1	182.6	+ 17.4	181.4	4.4	4.7	4.4	4.00	72.21	72.89	
27C823	1	202.2	204.2	+ 11.8	195.3	4.0	4.4	4.0	4.40	71.54	70.43	
28A724	7	227.4	228.0*	+ 22.0*	226.0 *	6.8	7.1	6.8	6.90		75.47	Airline plugged
28B724	7	225.4	225.3	+ 4.7	234.5	3.2	3.6	3.1	3.38	78.04	70.28	
28A823	4	198.6	198.9	+ 21.1	196.4	10.6	10.9	10.6	10.87	74.24	73.55	

1908 33 wells

Minidoka North Side Pumping Division

Annual Pump Report August 1, 1964

Part II — Hydrologic Data of Individual Wells — Page 5 of 6

Well No. and Group No.		Low Pumping Depth 1963	Low Pumping Depth 1964	1964 Distance from Powlst	1964 Low Static Depth	c.f.s. 1964 Peak Period Q	c.f.s. 1964 High	c.f.s. 1964 Low	c.f.s. 1963 Peak Period Q c.f.s.	Wire to Water Efficiency 1964	Wire to Water Efficiency 1963	Remarks
28B823	4	196.3	197.0*	+ 23.0*	196.0*	6.5	6.6	6.4	6.47		65.30	Airline plugged
28C823	4	189.5*	193.2	+ 16.8	192.8	5.5	5.7	5.5	5.50	72.62		
28A922	6	263.5	267.5	+ 12.5	257.5	2.7	2.8	2.7	2.70	72.41	69.11	
29A725	7	252.7	253.0	+ 17.0	252.5	4.6	4.6	4.6	4.54	73.66	73.44	
29A823	4	204.5	205.6	+ 14.4	203.6	10.0	10.0	9.6	9.92	69.96	69.34	
29B823	4	206.0	206.5	+ 13.5	202.7	3.6	4.2	3.6	3.88	64.93	69.58	
29A824	3	133.5	134.9	+ 5.1	134.3	5.2	5.4	5.2	5.30	77.81	77.10	
30A724	3	264.6	265.0	+ 15.0	260.1	7.8	7.9	7.8	7.87	73.66	72.63	
30B724	3	261.9	261.8	+ 18.2	259.5	3.9	4.2	3.9	4.02	70.31	74.16	
30A725	7	241.5	241.6	+ 18.4	239.0	7.3	7.4	7.3	7.40		73.25	
30A822	6	299.5	300.5	+ 19.5	294.8	3.8	3.9	3.8	3.66	76.23	72.60	
30A824	3	159.9	159.6	+ 20.4	152.4	5.9	6.0	5.9	5.80	72.73	73.13	
30B824	3	137.9	137.9	+ 22.1	137.0	3.4	3.5	3.4	3.31		74.46	
30A922	6	296.6	300.3	+ 29.7	284.8	7.0	7.0	6.9	6.96	67.20	68.32	
31A724	2	255.4	258.0*	+ 22.0 *	254.0*	4.1	4.7	4.1	4.24		72.18	Airline not calibrat
31A725	7	194.9	195.4	+ 24.6	195.2	4.7	4.8	4.5	4.80	71.36	70.55	
31A823	4	188.5	189.0	+ 21.0	187.0	6.7	7.0	6.7	6.82	72.18	71.73	
31A824	3	172.6	174.3	+ 25.7	173.9	9.4	9.5	9.3	9.43	71.35	73.30	
31B824	3	174.0	173.5	+ 26.5	175.0	4.0	4.2	4.0	4.24	70.39	75.34	
32A724	2	225.7	227.7	+ 12.3	219.6	8.9	8.9	8.6	7.87	76.50	76.86	
32B724	2	221.1	222.6	+ 17.4	218.8	4.9	5.5	4.9	5.17	71.44	70.91	
32A725	7	198.0*	199.0*	+ 21.0 *	196.0*	4.5	4.7	4.5	4.58			Airline leaks
33A724	2	218.0	217.0	+ 23.0	215.6	6.3	6.3	6.2	5.91	71.89	75.00	
33B724	7	222.5	220.8	+ 19.2	219.1	3.8	3.9	3.8	3.89	68.13	70.05	
33A725	7	217.8	216.6	+ 13.4	215.5	6.5	7.0	6.4	6.55	72.69	67.99	
33B922	6	276.4	278.0*	+ 12.0 *	265.7	6.0	6.1	6.0	6.05	76.71	74.99	Airline out of water w/pump on
33C922	6	265.1	266.5	+ 23.5	265.1	3.3	3.6	3.3	2.94	66.58	63.76	
34A723	3	248.8	245.7	+ 24.3	240.0	7.5	7.7	7.2	7.55	66.53	67.51	
34B723	3	246.9	244.9	+ 15.1	241.9	3.0	3.0	2.9	2.94	68.59	74.47	
34A724	2	203.3	202.3	+ 17.7	201.1	6.7	6.9	6.7	6.77	70.81	70.62	
34A725	7	230.0	230.4	+ 9.6	221.1	6.3	6.5	6.3	6.34	71.86	71.19	
34A823	4	158.6	158.6	+ 21.4	153.6	4.1	4.4	4.1	4.20	74.81	72.40	
35A724	2	211.6	212.9	+ 7.1	204.8	8.6	8.8	8.4	8.65	70.14	72.52	

23 wells

Minidoka North Side Pumping Division

Annual Pump Report August 1, 1964

Part II Hydrologic Data of Individual Wells

Well No. and Group No.	Low Pumping Depth 1963	Low Pumping Depth 1964	1964 Distance from Powlst	1964 Low Static Depth	c.f.s. 1964 Peak Period Q	c.f.s. 1964 High	c.f.s. 1964 Low	c.f.s. 1963 Peak Period Q: c.f.s.	Wire to Water Efficiency 1964	Wire to Water Efficiency 1963	Remarks
35B724 2	204.5	204.6	+ 15.4	203.7	3.5	3.7	3.5	3.42	78.52	74.60	
35A821 6	323.0*	318.7	+ 21.3	314.2	5.6	5.7	5.4	4.60	70.94		
35B821 6	328.0*	329.0	+ 11.0*	319.6	5.6	5.6	5.4	5.50			Airline out of water w/pump on
35C821 6	334.7	335.6	+ 24.5	333.7	6.6	6.6	6.5	6.57	74.71	75.10	
35D821 6	325.1	326.5	+ 3.5	323.1	5.5	5.7	5.5	5.60	74.47	71.60	
35A822 4	214.4	215.6	+ 4.5	211.8	9.4	9.6	9.4	9.18	78.30	74.49	
35B822 4	215.7	216.5	+ 3.5	211.3	4.2	4.3	4.2	4.10	73.87	73.71	
35C822 5	251.2	252.4	+ 7.6	245.8	2.4	2.4	2.4	2.38	73.53	71.42	
35A823 4	155.0*	171.8	+ 7.2	156.7	8.4	8.7	8.4	6.94	72.42		
35B823 4	153.9	155.1	+ 24.9	154.8	1.9	2.0	1.9	1.88	69.92	70.26	
35C823 4	161.5	161.3	+ 18.7	154.9	3.8	3.9	3.8	3.73	77.23	72.89	
35D823 4	153.5	152.8	+ 37.2	151.9	1.7	1.7	1.7	1.68	69.50	69.88	

2842 12 wells

* Estimated figures

Ave 177 wells for 38 705'

= 218.7' pump lift

Jensen

Minidoka North Side Pumping Division

Annual Pump Report August 1, 1963

Part II — Hydrologic Data of Individual Wells

Well No. and Group No.		Low Pumping Depth 1962	Low Pumping Depth 1963	1963 Distance from Bowlst	1963 Low Static Depth	c.f.s. 1963 Peak Period Q	c.f.s. 1963 High	c.f.s. 1963 Low	c.f.s. 1962 Peak Period Q c.f.s.	Wire to Water Efficiency 1963	Wire to Water Efficiency 1962	Remarks
1A823	3	254.2	251.5	+ 18.5	248.3	9.60	9.74	9.60	9.72	76.60	77.5	
1B823	3	253.3	251.5	+ 18.5	250.0	4.04	4.30	4.04	3.97	71.45	70.7	
1C823	3	229.9	227.5	+ 12.5	221.1	7.36	7.70	7.36	7.43	74.87	76.9	
1A824	3	184.2	184.4	+ 15.6	180.2	7.74	7.90	7.64	7.54	72.87	72.9	
1A921	6	339.9	338.0	+ 22.0	333.4	7.36	7.60	7.36	7.07	78.96	76.9	
2A823	3	232.4	231.9	+ 18.1	230.1	5.20	5.40	5.20	5.20	76.90	79.2	
2A824	3	174.3	174.3	+ 15.7	173.7	1.90	1.96	1.90	1.90	69.07	69.0	
2A923	4	154.7	155.5	+ 24.8	154.7	1.80	2.00	1.80	1.85	72.14	69.7	
2A1021		373.7	380.1	+ 29.9	343.2	4.83	4.84	4.83	4.7	65.25	65.3	
3A824	2	201.3	201.7	+ 18.3	197.9	9.12	9.56	9.12	8.80	80.10	80.9	
3B824	2	198.3	198.7	+ 21.3	198.7	3.94	4.75	3.94	4.30	73.80	70.8	
3A825	7	224.9	226.1	+ 13.9	220.9	6.82	7.59	6.82	7.42	74.44	78.5	
3B825	7	223.4	224.9	+ 25.1	216.9	7.94	8.06	7.94	5.40	66.93	71.4	
3C825	7	222.6	224.2	+ 15.8	217.4	6.11	6.18	5.84	6.25	74.72	75.5	
3D825	7	223.3	224.5	+ 5.5	213.9	2.91	3.02	2.91	2.80	71.03	67.6	
3E825	7	215.2	216.6	+ 3.4	216.0	4.06	4.15	4.06	4.11	72.50	72.6	
3A921	6	314.0	314.6	+ 15.4	313.1	2.45	2.52	2.38	2.38	68.07	70.5	
3B921	6	317.4	311.8	+ 18.2	310.2	7.43	7.78	7.42	7.48	71.37	73.76	
3C921	5		318.0*	+ 12.0*	317.0*	7.90	7.97	7.78	7.90			Airline plugged
3A922	5	238.0	237.4	+ 12.6	234.9	8.80	8.80	8.70	8.95	73.47	75.0	
3B922	5	234.8	234.3	+ 5.7	234.2	3.62	4.46	3.62	4.60	56.3	73.0	
3A923	4	172.9	178.8	+ 21.2	158.4	5.00	5.42	5.00	4.00	75.84	74.5	
3B923	4	155.7	156.2	+ 3.8	151.8	2.20	2.24	2.20	2.20	77.47	76.9	
3A1022	4	284.7	283.0	+ 7.0	279.5	3.86	4.01	3.86	3.86	69.51	70.4	
4A823	4	250.9	249.0	+ 21.0	247.0	9.95	9.96	9.90	10.30	73.84	77.3	
4B823	4	248.9	247.9	+ 22.1	247.3	4.22	4.44	4.22	4.09	72.47	69.1	
4A824	2	205.8	206.0	+ 14.0	193.2	9.24	9.48	9.24	9.20	71.71	72.1	
4B824	1	210.3	212.0	+ 18.0	204.8	9.24	9.47	9.24	9.10	75.26	69.9	
4C824	5	216.8	219.4	+ 20.6	206.4	4.42	4.71	4.30	3.90	74.97	66.7	
5B823	4	260.9	258.8	+ 21.2	251.9	6.78	6.90	6.78	6.94	70.98	74.3	
5C823	4	255.6	255.0	+ 5.0	253.3	2.92	3.00	2.92	3.11	69.23	72.7	
5A825	7		208.7	+ 21.3	207.6	11.13	11.14	10.98	11.00	74.85		
5B825	7	207.6	210.7	+ 19.3	207.8	4.66	5.22	4.66	5.10	66.41	67.5	

Minidoka North Side Pumping Division

Annual Pump Report August 1, 1963

Part II Hydrologic Data of Individual Wells

Well No. and Group No.		Low Pumping Depth 1962	Low Pumping Depth 1963	1963 Distance from Bowlat	1963 Low Static Depth	c.f.s. 1963 Peak Period Q	c.f.s. 1963 High	c.f.s. 1963 Low	c.f.s. 1962 Peak Period Q c.f.s.	Wire to Water Efficiency 1963	Wire to Water Efficiency 1962	Remarks
6A824	1	242.8	240.6	+ 10.4	238.2	10.40	10.93	10.20	10.39	71.08	68.3	
6B824	4	243.4	241.0	+ 19.0	234.6	5.75	5.87	5.66	5.57	74.17	72.2	
6C824	5	208.9	208.8	+ 21.2	206.0	2.00	2.10	1.96	1.96	74.83	74.3	
6A825	7	176.4	175.2	+ 24.8	175.0	6.50	6.67	6.18	6.20	65.82	64.5	
6B825	7	177.6	175.6	+ 24.4	175.3	2.52	3.05	2.52	3.04	70.34	72.0	
6A923	1	186.6	186.5	+ 13.5	185.1	9.40	9.55	9.40	9.34	72.42	70.2	
6B923	4	166.9	166.2	+ 13.8	164.3	4.22	4.24	4.14	4.30	75.14	76.3	
7B824	1	188.2	185.4	+ 19.6	183.2	7.38	7.64	7.38	7.38	61.28	63.08	
7A922	5	291.7	293.6	+ 6.4	281.6	8.27	8.25	8.27	8.06	68.90	66.7	
7B922	5	293.9	294.2	+ 15.8	293.8	8.08	8.23	8.08	8.37	71.66	73.6	
8A823	1	247.1	246.2	+ 8.8	245.8	9.38	9.48	9.38	9.32	74.59	75.9	
8A824	1	188.4	188.2	+ 13.8	183.2	7.65	7.78	7.49	7.40	64.20	60.0	
9A922	5	272.3	281.2	- 1.2	257.8	7.36	8.02	7.36	5.38	70.04	70.0	
9B922	5		290.0*	+ 20.0 *	268.0*	4.76	5.00	4.74	4.28			No airline
10A823	3	219.1	218.6	+ 21.4	217.8	3.72	3.90	3.72	3.7	69.02	69.7	
10B823	3	231.0	230.1	+ 9.9	228.5	1.68	1.77	1.68	1.68	71.28	70.2	
10A824	1	181.9	182.0	+ 8.0	180.8	9.45	9.64	9.45	9.3	75.10	71.2	
10B824	1	168.0	168.3	+ 11.7	167.4	5.90	5.99	5.71	5.78	74.16	71.3	
10C824	5	172.1	172.9	+ 27.1	172.3	5.61	5.90	5.61	4.30	69.74	62.5	
10A922	5	232.1	235.5	+ 14.5	225.2	4.06	4.13	4.06	3.35	73.04	68.4	
11A824	1	179.6	179.8	+ 15.2	179.8	6.98	6.98	6.73	7.11	65.49	66.0	
11B824	2	178.6	178.8	+ 21.2	178.8	3.73	3.96	3.73	3.74	70.90	72.0	
11C824	2	171.7	172.0	+ 8.0	171.4	5.80	5.92	5.79	5.9	70.10	71.8	
11A825	7	185.4	185.0	+ 5.0	181.4	6.10	6.23	6.10	6.44	69.76	71.7	
11B922	4	226.7	226.6	+ 13.4	214.0	4.30	4.64	3.82	4.48	69.17	67.5	
11C922	4	209.7	207.1	+ 22.9	206.5	5.02	5.02	4.79	4.68	68.10	65.7	
12A823	3		227.7	+ 22.3	255.0	9.08	9.82	9.08	9.20	73.04		
12B823	3	228.6	226.6	+ 23.4	224.7	3.06	3.13	3.06	3.04	75.42	79.3	
12C823	3	218.7	218.8	+ 21.2	215.8	9.68	9.70	9.30	9.66	71.43	72.4	
12D823	3	220.8	221.2	+ 8.8	215.2	3.58	3.79	3.58	3.92	79.28	73.2	
12A824	3	162.4	163.1	+ 26.9	159.7	6.10	6.21	5.89	6.00	71.14	59.1	
12A825	7	199.9	200.7	+ 19.3	199.9	10.15	10.50	10.15	10.20	69.86	81.4	
12B825	7	201.2	202.8	+ 7.2	197.8	4.10	4.65	4.10	4.18	75.73	75.2	

Minidoka North Side Pumping Division

Part II — Hydrologic Data of Individual Wells — Annual Pump Report August 1, 1963

Well No. and Group No.		Low Pumping Depth 1962	Low Pumping Depth 1963	1963 Distance from Bowl*	1963 Low Static Depth	c.f.s. 1963 Peak Period Q	c.f.s. 1963 High	c.f.s. 1963 Low	c.f.s. 1962 Peak Period Q c.f.s.	Wire to Water Efficiency 1963	Wire to Water Efficiency 1962	Remarks
13A824	2	169.0	169.0	+ 31.0	168.8	12.32	12.36	12.12	9.22	72.42	71.5	
13B824	2	168.0	168.9	+ 11.1	168.9	4.96	5.05	4.80	5.0	70.39	72.3	
13A825	5	166.0	167.3	+ 22.7	164.3	2.90	2.97	2.90	2.9	60.52	61.1	
14A823	3	214.6	213.5	+ 26.5	213.1	6.94	6.86	6.86	7.10	67.88	72.7	
14B823	3	215.9	215.0	+ 5.0	212.6	2.88	2.88	2.72	2.67	71.03	67.1	
14A824	1	146.2	147.2	+ 12.8	247.2	8.30	8.60	8.30	8.30	67.33	68.8	
14C825	7	173.9	175.2	+ 4.8	175.0	1.90	2.10	1.90	2.00	67.26	68.6	
15A823	3	222.6	224.0	+ 26.0	223.1	9.22	9.54	9.22	9.10	75.32	74.3	
15B823	3	227.1	228.3	+ 31.7	223.3	4.38	4.38	4.30	4.28	74.32	70.2	
15D823	4	209.0	207.8	+ 22.2	205.2	2.30	2.31	2.30	2.23	73.81	75.0	
15A824	1	162.8	163.1	+ 6.9	162.2	5.96	6.25	5.96	6.10	72.91	73.7	
15A825	5	168.3	167.0	+ 23.0	164.3	10.96	10.96	10.70	10.00	70.78	79.8	
15B825	5	164.3	164.8	+ 15.2	163.6	3.96	4.10	3.96	4.10	68.16	68.4	
15A922	5	282.1	286.9	+ 13.1	257.7	2.08	2.16	2.06	2.24	70.72	73.1	
15B922	5	242.7	242.0	+ 88.0	227.0	2.16	2.72	2.16	1.19	56.87	69.3	
17A823	4	222.1	221.0	+ 19.0	212.8	5.44	5.53	5.40	5.52	73.64	75.9	
17B823	4	217.8	208.7	+ 31.3	205.0	2.92	2.92	2.88	2.90	76.48	73.5	
17C823	1	240.0	236.9	+ 23.1	236.4	2.17	2.22	2.17	2.22	68.78	71.2	
17A825	5	146.5	146.2	+ 13.8	145.3	6.80	6.91	6.80	6.70	74.53	75.3	
18A824	1	201.4	199.4	+ 12.6	193.8	9.54	9.81	9.54	9.68	68.32	69.5	
18A922	5	262.0	262.1	+ 17.9	261.1	6.46	6.72	6.46	6.58	69.24	70.5	
18B922	5	261.2	261.4	+ 18.6	260.3	2.13	2.27	2.13	1.95	63.17	56.3	
19A823	4	232.7	231.2	+ 18.8	227.4	7.60	7.65	7.40	6.50	71.47	74.2	
19B823	4	229.6	227.6	+ 22.4	226.9	3.60	4.06	3.60	3.09	73.24	68.8	
19A825	2	136.3	136.4	+ 23.6	131.7	10.24	10.41	10.24	9.86	73.18	70.4	
19B825	2	136.7	136.9	+ 23.1	133.9	5.12	5.40	5.12	5.20	72.10	76.0	
19C825	3	141.0	141.2	+ 18.8	139.6	7.50	7.62	7.40	7.34	70.41	72.6	
19D825	3	141.8	141.8	+ 18.2	140.5	3.12	3.17	2.91	3.30	70.14	72.1	
19A922	6	310.8	311.3	+ 8.7	309.7	4.27	4.33	4.27	4.20	72.10	70.5	
20A922	5	269.0	267.9	+ 22.1	261.3	6.90	7.14	6.90	5.88	70.88	71.5	
21A823	4	206.5	205.2	+ 14.8	203.2	7.60	8.03	7.50	7.30	75.90	75.0	
21A824	1	169.4	169.8	+ 12.2	153.8	7.96	8.00	7.92	8.26	59.70	58.5	
21B824	2	165.8	166.2	+ 13.8	159.8	7.22	7.45	7.20	7.09	72.07	69.5	

Minidoka North Side Pumping Division

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Part II — Hydrologic Data of Individual Wells

Well No. and Group No.		Low Pumping Depth 1962	Low Pumping Depth 1963	1963 Distance from Bowlst	1963 Low Static Depth	c.f.s. 1963 Peak Period Q	c.f.s. 1963 High	c.f.s. 1963 Low	c.f.s. 1962 Peak Period Q: c.f.s.	Wire to Water Efficiency 1963	Wire to Water Efficiency 1962	Remarks
21A825	5	140.4	141.2	+ 18.8	137.8	9.35	9.65	9.35	9.34	68.10*	69.7	WH meter in error
22A724	7	215.3	215.4	+ 4.6	215.0	2.67	2.67	2.67	2.52	74.16	77.2	
22B724	7	230.9	228.4	+ 21.6	221.0	6.61	6.76	6.61	6.64	74.30	73.0	
22C724	7	208.0	209.6	+ 20.4	209.0	6.40	6.56	6.40	4.78	67.89	75.5	
22A821	6	317.2	316.9	+ 23.1	315.8	6.70	6.80	6.69	6.70	75.70	73.6	
22A823	4	205.0	208.0*	+ 22.0 *	206.0 *	5.60	5.82	5.60	5.60		72.5	Airline broken off
22A824	2	152.4	155.8	+ 24.2	246.6	7.03	7.03	6.50	4.50	71.39	78.1	
22A922	5	278.7	260.2	+ 39.8	247.2	2.20	2.31	2.20	2.20	65.12	71.1	
23A724	7	217.2	218.2	+ 21.8	217.0	4.83	4.93	4.83	4.83	74.46	74.3	
23A823	4	214.1	231.3	- 1.3	214.0	6.70	6.90	6.70	5.70	72.70	73.3	Possible cave in 7/24/
23B823	4	212.3	212.8	+ 17.2	211.6	2.70	2.80	2.60	3.00	72.99	66.7	
23A824	2	156.3	156.4	+ 23.6	152.8	10.50	10.70	10.20	10.50	75.08	74.1	
23A825	5	177.2	178.4	+ 21.6	171.9	6.75	6.82	6.75	6.72	76.32	77.9	
23B825	5	173.6	174.6	+ 5.4	171.6	6.70	6.96	6.70	6.63	73.58	70.6	
24A821	6		326.0*	+ 4.0 *	321.4	1.83	1.96	1.83	1.90			Airline out of water
24A823	3	178.6	176.5	+ 23.5	166.9	9.44	9.86	9.44	9.63	74.93	75.9	
24B823	3	160.5	164.5	+ 15.5	162.5	6.55	6.74	6.55	4.89	69.14	71.3	
24C823	1		149.0*	+ 29.0 *	151.0 *	7.50	7.50	7.36	7.20			No Airline
24A825	5	168.4	167.8	+ 22.2	163.2	5.56	5.64	5.54	4.20	70.78	70.9	
25A823	3	157.6	156.6	+ 23.4	153.3	3.36	3.52	3.36	3.40	69.09	70.0	
26A724	7	207.1	204.3	+ 25.7	201.7	5.83	6.36	5.83	5.96	71.79	75.7	
26B724	7	198.1	200.4	+ 9.6	200.1	2.62	2.90	2.62	2.67	72.31	72.4	
26A821	6	347.1	345.8	+ 24.2	338.8	5.28	5.36	4.93	5.17	72.56	73.0	
26B821	6	357.3	353.0*	+ 17.0 *	343.0 *	7.12	7.12	6.69	6.70		76.0	Airline plugged
26A823	4		166.0*	+ 24.0 *	170.0 *	3.84	4.04	3.84	3.99			Airline leaks
26A824	2	133.3	134.0	+ 26.0	133.2	10.02	10.16	10.02	7.70	68.46	70.0	
27A725	7	212.8	219.6	+ 20.4	219.4	1.96	2.03	1.96	1.91	72.32	64.1	
27A823	1	204.0	204.1	+ 25.9	199.0	5.20	5.60	5.20	5.00	67.83	70.3	
27B823	4	183.0	182.1	+ 17.9	181.3	4.00	4.64	4.00	4.40	72.89	70.6	
27C823	1		202.2	+ 13.8	192.6	4.40	4.70	4.40	3.30	70.43		
28A724	7	226.9	227.4	+ 2.6	225.4	6.90	7.12	6.90	6.70	75.47	72.7	
28B724	7	225.7	225.4	+ 4.6	225.4	3.38	3.68	3.38	3.25	70.28	75.1	
28A823	4	199.7	198.6	+ 21.4	295.9	10.87	10.90	10.70	10.80	73.55	74.0	

Minidoka North Side Pumping Division

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Part II

Hydrologic Data of Individual Wells

Well No.	Group No.	Low Pumping Depth 1962	Low Pumping Depth 1963	1963 Distance from Bowlat	1963 Low Static Depth	c.f.s. 1963 Peak Period Q	c.f.s. 1963 High	c.f.s. 1963 Low	c.f.s. 1962 Peak Period Q c.f.s.	Wire to Water Efficiency 1963	Wire to Water Efficiency 1962	Remarks
28B823	4	198.2	196.3	+ 23.7	195.4	6.47	6.60	6.47	6.64	65.30	67.0	
28C823	4	189.7	189.5*	+ 20.5 *	188.0*	5.50	5.70	5.10	5.20		72.7	Airline not calibrated
28A922	6		263.5	+ 16.5	255.3	2.70	2.90	2.70	1.74	69.11	65.6	
29A725	7	251.0	252.7	+ 17.3	252.4	4.54	4.62	4.54	4.59	73.44	72.6	
29A823	4	208.4	204.5	+ 15.5	203.0	9.92	10.10	9.92	8.12	69.34	76.9	
29B823	4	207.3	206.0	+ 14.0	201.9	3.88	4.20	3.88	3.73	69.58	66.2	
29A824	3	135.4	133.5	+ 6.5	132.8	5.30	5.36	5.30	5.30	77.1	77.1	
30A724	3	266.3	264.6	+ 15.4	260.4	7.87	8.12	7.62	7.71	72.63	72.5	
30B724	3	262.9	261.9	+ 18.1	259.5	4.02	4.34	4.02	3.99	74.16	69.7	
30A725	7	239.9	241.5	+ 18.5	248.9	7.40	7.46	7.40	7.04	73.25	67.1	
30A822	6	297.9	299.5	+ 20.5	293.9	3.66	3.92	3.60	3.73	72.60	74.0	
30A824	3	159.2	159.9	+ 20.1	152.5	5.80	6.11	5.80	5.99	73.13	70.9	
30B824	3	137.0	137.9	+ 22.1	137.1	3.31	3.42	3.06	3.40	74.46	73.8	
30A922	6	301.4	296.6	+ 33.4	277.6	6.96	7.16	6.35	7.00	68.32	71.0	
31A724	2	254.5	255.4	+ 4.6	253.0	4.24	4.30	4.24	4.19	72.18	71.1	
31A725	7	194.4	194.9	+ 25.1	194.5	4.80	5.06	4.75	4.80	70.55	71.5	
31A823	4	189.5	188.5	+ 21.5	186.5	6.82	7.12	6.82	6.69	71.73	70.4	
31A824	3	173.6	172.6	+ 27.4	172.3	9.43	9.54	9.43	9.40	73.30	74.1	
31B824	3	174.6	174.0	+ 26.0	173.7	4.24	4.34	4.24	4.07	75.34	68.4	
32A724	2	226.3	225.7	+ 14.3	217.9	7.87	8.89	7.87	8.70	76.86	75.5	
32B724	2	233.8	221.1	+ 28.9	217.7	5.17	5.70	5.17	3.48	70.91	66.5	
32A725	7	196.1	198.0*	+ 22.0 *	195.0*	4.58	4.68	4.56	4.66		73.7	Airline leaks
33A724	2	217.3	218.0	+ 22.0	216.8	5.91	6.53	5.91	6.30	75.00	74.1	
33B724	7	222.0	222.5	+ 17.5	221.1	3.89	4.59	3.84	3.54	70.05	71.9	
33A725	7	216.6	217.8	+ 12.2	216.4	6.55	6.69	6.46	6.66	67.99	69.7	
33B922	6	275.5	276.4	+ 13.6	264.1	6.05	6.50	6.05	5.91	74.99	73.6	
33C922	6	264.7	265.1	+ 24.9	261.7	2.94	3.54	2.94	3.44	63.76	68.9	
34A723	3	248.4	248.8	+ 21.2	242.8	7.55	7.58	7.55	7.58	67.51	68.0	
34B723	3	246.7	246.9	+ 13.1	243.9	2.94	3.12	2.94	3.14	74.47	63.4	
34A724	2	202.7	203.3	+ 16.7	202.1	6.77	7.01	6.77	6.96	70.62	71.8	
34A725	7	229.9	230.0	+ 10.0	220.7	6.34	6.58	6.25	6.09	71.19	68.3	
34A823	4	158.1	158.6	+ 21.4	153.9	4.20	4.41	4.20	4.20	72.40	75.1	
35A724	2	210.7	211.6	+ 8.4	204.8	8.65	8.94	8.65	7.07	72.52	73.8	

Minidoka North Side Pumping Division

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Part II — Hydrologic Data of Individual Wells

Well No. and Group No.		Low Pumping Depth 1962	Low Pumping Depth 1963	1963 Distance from Bowlst	1963 Low Static Depth	c.f.s. 1963 Peak Period Q	c.f.s. 1963 High	c.f.s. 1963 Low	c.f.s. 1962 Peak Period Q c.f.s.	Wire to Water Efficiency 1963	Wire to Water Efficiency 1962	Remarks
35B724	2	204.5	204.5	+ 15.5	203.7	3.42	3.79	3.42	3.46	74.6	74.3	
35A821	6		323.0*	+ 17.0 *	317.0*	4.60	4.60	4.46	4.57			Airline plugged
35B821	6		312.0*	+ 28.0 *	318.8	5.50	5.64	5.50	5.78			Airline out of water
35C821	6	335.3	334.7	+ 25.3	332.8	6.57	6.57	6.57	5.13	75.1	68.6	
35D821	6	324.6	325.1	+ 4.9	321.8	5.60	5.66	5.58	5.59	71.6	65.8	
35A822	4	216.1	214.4	+ 5.6	212.0	9.18	9.50	9.18	9.09	74.49	74.9	
35B822	4	217.2	215.7	+ 4.3	210.9	4.10	4.28	4.10	4.18	73.71	74.5	
35C822	5	253.4	251.2	+ 8.8	245.4	2.38	2.50	2.38	2.31	71.42	70.9	
35A823	4		155.0*	+ 25.0 *	157.0*	6.94	7.24	6.94	7.30			No airline
35B823	4	155.1	153.9	+ 26.1	153.7	1.88	1.96	1.88	1.90	70.26	66.7	
35C823	4	160.8	161.5	+ 18.5	155.1	3.73	3.92	3.73	3.86	72.89	69.0	
35D823	4	152.8	153.5	+ 36.5	152.8	1.68	1.77	1.68	1.68	69.88	69.9	

* Estimated figures

1	2	3	4	5	6	7	8		9	10	11
Well No.	Acres	Q Present Time	Q Ordered	Head Ordered Depth and Drawdown	Change in Q Due to Error in Acres	Change in Q Due to Fall Off	Change in Q Due to Change in Plan	% Lateral Loss	Change in Q Due to Lateral Loss Being Above or Below	Change in Q Due to Small Number of Units Under Pump	Total Q to be Built in to New Pump
34A723	645.5	5.95	6.6	234	--	+0.65	--	6.2%	+0.12	--	6.77
34B723		3.25	3.3	234	--	+0.05	--				--
23A823	577.4	5.55	6.0	201	-0.1	+0.45		7.7%	+0.24	--	6.09
23B823		3.05	3.0	201	--	-0.05					--
32A724	813.2	7.40	8.6	215	-0.3	+1.20					8.30
32B724		4.10	4.2	215	--	+0.10		6.5%	+0.19	--	--
31A823	409.8	5.80	6.5	184	-0.2	+0.70		8.0%	+0.20	--	6.5
25A823	207.5	2.60	3.0	150	+0.2	+0.40		1%	--	+0.30	3.5
21A824	673.5 (726.2)	9.50	10.5	152	-0.1	+1.00	+0.81	7%	+0.20	--	11.41
6A824	645.0	9.25	10.1	234	-0.2	+0.85		6%	+0.10	--	10.0
18A824	607.1	8.00	9.1	188	+0.2	+1.10		5%	--	--	9.3
1C-823	486.6	7.0	7.3	207	+0.2	+0.3		6%	+0.07	--	7.57
14A824	486	7.48	7.5	133	--	+0.02		5%	--		
3A923	291.3	4.30	4.5	161	--	+0.20		2.3%	--		
28C823	299.5	4.44	4.6	181	--	+0.16		2.4%	--		
29A823	818.3	8.60	8.5	193	--	-0.10		7%			--
29B823		3.90	4.2	193	--	+0.30			+0.25	--	4.35

Nov 1957

12	13	14	15	
% Increase	Present Head Depth & Drawdown	Allowance for Future Drawdown	Head for New Design	Remarks
2.6%	239	6	245'	Rebuild 34A723 only.
	240			
1.5%	206	6'	212'	Rebuild 23A823 only.
	205			
00%	217	6'	223'	Rebuild 32A724 only
	225			
00%	184	6'	190'	
17%	157	6'	163'	
--	153	6'	159'	Eliminates pickup ditch
00%	238	6'	244'	
2%	190	6'	196'	
4%	212	6'	218'	
	138			
	166			
	184			
	196			Rebuild 29B823 only.
--	196	6'	202'	

Sheet 1 of 2

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
MINIDOKA PROJECT-IDAHO
NORTH SIDE PUMPING DIVISION
RUPERT, IDAHO

9S/22E-15ac2

Specifications
Group 5

Log of Well No. 15B922
Location SW¼ of NE¼ Sec. 15 T 9 S, R22 E BM
Contractor Perry Date Started March 1, 1957
Date Completed April 6, 1957 Dia. 20"
Depth from ground surface 239.0
Length Casing 21.0' 4208.33 Dia. Casing 21" Thickness 3/16"
Eleve. Ground Surface 4258.10 Eleve. Bottom 4019.10
Ground Surface to Water 197.5 Date April 6, 1957
Name of Pump Capacity s.f. Horsepower
Drawdown at s.f. ft. on June 12, 1957
Elev. B.M. , or concrete base

LOG

Depth From	Depth To	Remarks	
0	1	Topsoil	
1	3	Hardpan	
3	16	Yellow clay	
16	53	Gray lava	
53	62	Red volcanic ash	
62	72	Gray lava	
72	82	Broken brown lava, cemented	
82	93	Black lava	
93	110	Brown lava	
110	121	Yellow clay	
121	181	Gray lava	
181	192	Broken red lava	
192	201	Broken red lava about like gravel	
201	214	Brown lava very broken, mountainous round lava gravel, lost most of cuttings	9
214	223	Black lava, loose	9
223	231	Black lava, broken & yellow clay	4
231	239	Yellow clay	8
		Drilled deeper, Ralph C. Denton, 9-17-59 to 10-10-59:	
239	298	Gray lava	
298	307	Gray lava with brown sand	
307	350	Gray lava	
350	371	Broken gray lava and sandy clay	16
371	382	Black lava - broken	11
382	391	Blue clay and sand	9
		work	

Note: For additional remarks see sheet 2.

DEC 12 1962

210

To: ACTING Project Superintendent, Burley, Idaho

From: Regional Engineer, Boise, Idaho

Subject: Suggested remedial measures on Well No. 15S-92E -- Minidoka Project, Idaho (Telephone call to Construction Engineer Pittard, Rupert, Idaho and your telephone call to us on December 10, 1962)

If you are in favor of further efforts to increase the discharge of the subject well to 2.3 c.f.s. for use during the next irrigation season the following suggestions are offered for your consideration.

1. It is our understanding that there is 27 feet of liner in the hole and that the top seven feet of the liner is above the bottom of the aquifer. As this probably eliminates seven feet of the aquifer for the purpose of supplying water to the well it is suggested that the liner be removed. If you are concerned about caving, an alternate suggestion would be to either cut off and remove or perforate the top seven feet of the liner. If the top seven feet is removed the 20 feet of casing remaining would of course prevent caving only in the clay layer through which it extends.

2. If all or part of the lining in 1. above is left in place then it may be possible to enlarge the well by dynamiting below the liner. Such enlargement should be at least 10 feet and preferably more in length below the aquifer. It would be hoped that such enlargement would decrease the downward velocity so that air bubbles would not be carried down to the pump intake. If the air is not being drawn down from the water surface in the well but is coming from some other source then the reaming or well enlargement may not solve the air problem. This suggestion is somewhat experimental in that respect, as you recognized.

3. Whether or not the liner is removed or the well diameter enlarged it is suggested that a larger pump and motor could provide an increase in the discharge next summer. Since the telephone discussions we have re-examined the motor and pump requirements for this well and find that our records indicate that a 75 hp motor was used at this well last summer. A 100 hp motor and two more stages on the pump would provide a capacity of about 3 c.f.s. The costs of the electrical changes required are estimated to be $150 and the cost of the pumping

unit change is estimated to be $200 for a total cost of $450. Although there is no guarantee that this change would produce the required 2.4 c.f.s. next summer, since the 3 c.f.s. capacity pump might be pumping part air, it appears to us that there is a good chance that it would.

If you feel that a man from this office should visit the site, Mr. M. L. Nelson will be available for a few days during the week of December 17. We do not have anyone we can spare for an extended stay at this time. If you would like Mr. Nelson to visit the project during the week of December 17 please advise.

(Signed) R. H. Harris

Copy to: Construction Engineer, Rupert, Idaho

cc: R.O. 409, 707, 210

RHRidinger:akr 12/12/62

Regional Office, Region 1
Box 937, Boise, Idaho

210

AIRMAIL--SPEEDLETTER

To: Assistant Commissioner & Chief Engineer, Denver, Colorado
Attention: 208

From: Regional Director, Boise, Idaho

Subject: Rectification of wells, pumps, motors, etc., North Side Pumping Division, Minidoka Project, Idaho

The Construction Engineer telephoned this date and reported the pump at well 15B922 had been disconnected at the discharge elbow and tested. The water discharged contained air bubbles. The pump was raised 20 feet and tested again. The results were practically the same.

This proves that the problem is with the well and not the pump. The well was sounded and the bottom was within 2 feet of the total depth at completion. The Construction Engineer proposed that the 16-inch casing in the well be cut off and the part above the [illegible] foot depth be pulled. This would leave the bottom portion of liner.

In the interest of time the Construction Engineer was instructed to proceed on that basis in preparing the draft of specifications for drilling. If you have any suggestions that would change this procedure, please reply by air mail.

For the Regional Director

Regional Engineer

Copy to: Project Superintendent
Burley, Idaho

[illegible]

Mihelson:c 8/28/[illegible]

705

FILES

Minidoka Project Office
Burley, Idaho

100 August 16, 1962

To: Regional Director, Boise, Idaho
Attention: 200

From: Project Superintendent, Burley, Idaho

Subject: Pump and Well Supplemental Construction Program -- 1962-63 Non-irrigation Season -- North Side Pumping Division, Minidoka Project

In my letter of August 6, 1962, to you on the above subject, I stated that a separate narrative report regarding Well 158922 would be prepared by Construction Engineer Pittard in time to be available for discussion at the meeting to review the supplemental construction program. Enclosed is a copy of Pittard's report which you may have time to consider prior to our meeting on August 21. I will bring a copy for Bill Tapp's use.

Project Superintendent

Enclosure

Copy to: Reg. Dir., Boise, Attn: 409, 705 (w/encl)

Minidoka Project Office
Construction Field Division
Rupert, Idaho

August 9, 1962

To: Project Superintendent, Burley, Idaho

From: Construction Engineer, Rupert, Idaho

Subject: Well 15B 922 - North Side Pumping Division, Minidoka Project, Idaho

Reference is made to our letter of February 12, 1960, wherein the history of wells 15A 922 and 15B 922 were reviewed. In addition, reference is made to numerous memorandums and letters regarding the "922" problem area.

Since February 1960 the well was logged with a U.S.G.S. logging machine but no further drilling has been done. In the fall of 1961 a permanent pump was installed in the well and the well commenced delivering irrigation water the spring of 1962. Prior to the irrigation season this spring a test was made on the well which showed the following results:

Q - 2.18 c.f.s.
Drawdown - 2.2 feet

This compared favorably with the drawdown capacity obtained when the well was test pumped in October, 1959.

This summer the ditchrider reported the 15AB 922 system as low on capacity. Investigation has shown that well 15B 922 has fallen off in capacity to 1.11 c.f.s. on July 27th with about 31 feet drawdown. Well 15A 922 (located about 600 feet southeast of well 15B922) is producing its design quantity of water. A test was made by leaving 15A 922 running wide open and observing the static level in 15B 922. The results showed that one well did not effect the other in regards to lowering the static water level. However, due to the need for the water this test was not run for a very long period (about 30 minutes). The full load amperage for the motor is 90. An electrical check of amperage showed that after shutting the pump off for about 30 minutes and then restarting, the motor would require 82 amps for about 5 minutes 15 seconds, and then the amperage would drop off from 82 to 62, which shows that load is being removed from the motor. We suspected that the pump could be surging, however, it is difficult to tell visibly as the well is connected to the 15A 922 stilling pool by means of an underground pipe and is equipped with a surge tank which tends to level out the surging effect. However,

the amperage stays fairly steady on 62 after dropping to this point and if surging was being encountered then it would seem that amperage should rise and fall as the pump picked up load and then released it. The visible checks on the discharge also does not show that the pump is surging, as near as we can determine. There does not appear to be any air bubbles in the water, however, because of the pipeline and surge tank the air, if any, may disappear before it gets to the stilling pool. The water pumped has some sand in it although not very much. In other words it is not as clear as other wells on the project - (described as slightly murky). We have made a number of tests on the well to try to determine whether it is the pump or the well causing the trouble but our investigations do not show conclusively just what the trouble is. We suspect it is the well.

The purpose of this letter is to bring this problem to your attention so that special consideration may be given it at the rectification meeting in Boise. The problem became so acute this summer that a temporary relift of waste water was started on August 1st and has continued until the present time.

/s/ Robert T. Pittard

In triplicate

Copy to: Irrigation Manager, Rupert, Idaho

UNITED STATES
DEPARTMENT OF THE INTERIOR

MINIDOKA PROJECT

BUREAU OF RECLAMATION
Minidoka Project Office
Construction Field Division
Rupert, Idaho

Official File
Rec'd NOV 20 1962

IN REPLY
REFER TO:

Gray 11/21

November 19, 1962

To: Project Superintendent, Burley, Idaho

From: Construction Engineer, Rupert, Idaho

Subject: Well 15B 922 - North Side Pumping Division, Minidoka Project, Idaho

Reference is made to my letter of August 9, 1962, subject as above, wherein we called your attention to the conditions at this well so that special consideration could be given to this problem at the August rectification meeting in Boise.

The decision reached at the August meeting was to disconnect the pump from the discharge line and pump it "open" discharge so that it could be observed more readily and then determine the best course of action. This was done and the pump was run for a considerable period of time. This test showed that a considerable amount of air was being pumped and that the quantity of water dropped off almost simultaneously with the air showing up. In addition, the amperage dropped off the same as reported in my August 9th letter and the drawdown did not change appreciably.

In determining the course of action to take to rectify this trouble, it was decided that one possible explanation was that the water was not getting to the pump fast enough through perforations in the 16-inch casing which was in the well from ground level to the 252 foot depth. Specifications 100C-575, therefore, required that the 16-inch casing be cut off at a depth of 230 feet and the 230 feet of casing was to be removed from the well. This would allow open hole through the water bearing area. The remaining casing would case off a non-water bearing clay layer. The contractor completed this work on October 29th. However, instead of cutting the pipe in place, they removed the complete 252 feet and reinstalled 27 feet of liner with a shoe on each end.

Inasmuch as the liner was for the purpose of casing off a clay layer we thought it advisable not have it perforated. The top of the liner stands at a depth of 219 feet, as when it was reinstalled it would not go back to the original depth of 252 feet. This, of course, means that the drawdown water surface is about 2 feet below the top of the liner. The pump was reinstalled with an additional 40 feet of column, making the setting on the pump at 290 feet or the bowls were under water approximately 80 feet, as the static water level stands at 208 feet below the sole plate. Another open discharge test was run with the results about the same as the previous one before the pipe was removed. The results of the test are tabulated below:

Date	Time	Drawdown	Q(cfs)	Remarks
Nov. 5	9:00 AM			Elev. soleplate 4255.43 static W.S.--208.0
" "	9:05	3.4		
" "	9:30	3.6	2.24	F.L. amp rating of motor - 90 amps. 93-93-93
" "	9:45	4.0	2.24	
" "	9:50	4.2	2.24	
" "	10:00 60	4.4	2.24	
" "	10:25 85	4.9	2.24	
" "	10:45 105	5.1	2.24	
" "	11:00 120	5.3	2.24	
" "	11:25 145	5.7	2.24	
" "	12:05 PM 185			Turned on 15A922 - 2.2cfs
" "	12:10 190	6.3	2.24	
" "	12:30 210	6.7	2.24	
" "	12:45 225	6.7	2.24	

Date	Time	Drawdown	Q(cfs)	Remarks
Nov. 5	1:00PM 240	6.9	2.24	
" "	1:15 255	6.9	2.24	
" "	2:00 300	7.3	2.24	
" "	4:00 360	8.7	2.24	F.L. amps 86-87-86
" "	4:10			15A922 shut off 15B922 left running overnight
Nov. 6	9:00 A.M.	13.3	1.90	Started pumping air during night F.L. amps 81-81-81
" "	10:00	13.3	1.90	
" "	10:05			15A922 static W.S. 252.6
" "	10:07			Turned on 15A922 - 2.2 cfs
" "	10:15			Reading on 15A 922 2.2 cfs 22.8 DD
" "	4:10 PM	13.3	1.90	F.L. amps 82-82-82
" "	4:20			15A922 2.2 cfs - 25.4 DD
" "	4:25			15A922 shut off 15B922 running overnight
Nov. 7	9:35 AM	13.3	1.90	F.L. amps 81-82-81 Left running overnight
Nov. 8	9:45 AM	13.2	1.90	F.L. amps 84-82-82 Pumping air
" "	10:00			Pump off
" "	10:02	4.0		Pump off
" "	10:10	3.3		Pump off
" "	10:15	3.3		Pump off
" "	10:20	3.3		Pump off
" "	10:25	3.1		Pump Off

Date	Time	Drawdown	Q (cfs)	Remarks
Nov. 8	10:29	3.1		Pump Off
" "	10:30			Pump on - no air
" "	10:31	6.7		
" "	10:33			F.L. 84-84-86
" "	10:35	8.7		
" "	10:37		2.17	
" "	10:40			Air starts
" "	10:42	13.5		
" "	10:43			F.L. 82-81-82
" "	10:45	13.5		More air
" "	10:50	13.3		
" "	10:55	13.3		
" "	10:56			F.L. Fluctuating from 84 to 68
" "	11:00	13.3		
" "	11:01		1.90	
" "	11:05	13.3		
" "	11:06		1.90	
" "	11:08			F.L. Fluctuating from 84 to 68
" "	11:10			Pump off
" "	11:15	3.7		Pump off
" "	11:20	3.1		Pump off
" "	11:25	3.1		Pump off
" "	11:29	3.1		Pump off
" "	11:30			Pump on
" "	11:31	6.9		No air
" "	11:33			F.L. 86-86-86

Date	Time	Drawdown	Q(cfs)	Remarks
Nov. 8	11:35	9.3		
" "	11:36		2.17	No air
" "	11:40	12.9		
" "	11:41		2.17	
" "	11:41:30			Air in water
" "	11:42	13.3		
" "	11:44			F.L. 82-82-82
" "	11:45	13.3		
" "	11:48			F.L. Fluctuating from 84 to 68
" "	11:50	13.3	1.90	
" "	12:00 noon	13.3	1.90	
" "	12:20 PM	13.3	1.90	
" "	12:23			Pump off

Further checks made on November 7th showed that the amperes would vary from around 80 to 65 which indicated the well was surging badly. Visual observation of the discharge pipe also confirmed that the well was surging. Mr. Frink of the Regional office was at this office during the test and on November 8th tests were run at his suggestion. The test on November 8th showed that after stopping the pump for 30 minutes and restarting, the air would start about 11 minutes after starting and would coincide when a drawdown of about 13.3 feet was reached, at which time the amperes would start varying, as mentioned above. The discharge would also hold up to over 2.0 c.f.s. for the 11 minutes and then drop to 1.90 after the air started. The conditions for measurement of discharge were not ideal as a temporary 2-foot cipoletti weir was used and the weir pool was not according to specifications for an accurate measurement, however, we believe it to be fairly accurate.

Conclusions

1. We believe the pump is working satisfactorily, that is, there is nothing mechanically wrong with the pump, therefore,

2. We believe the trouble is in the well.

3. As a result of the tests made, we have not corrected the problem in the well.

4. The 16-inch liner may be cutting off some of the water, however, the tests made on Nov. 8th do not indicate this, as the drawdown curve did not drop suddenly when the water surface receded to the top of the liner.

5. Observations by this office and Mr. Frink indicate that the well is not capable of producing the required amount of water, especially during the peak periods. Conditions would improve a great deal, we believe, if some method of solving the aeration problem was discovered.

This office is at a loss on what to recommend in this regard. We have called and discussed this matter with several pump companies in the area and they have experienced the same problem. They generally lower the bowls somewhat the same as we have, but they state that in most cases this does not completely solve the problem. They stated they have tried "ping-pong" balls and baffles on the pump but with little success.

Recommendations

In view of the information obtained to date we recommend the following:

The well problem be presented to Regional Office and Denver Office personnel to see if they can come up with a practical plan for correcting the well conditions. This should be done as soon as possible so that if the work is to be done this winter we can get started on it. This office would be agreeable to pull the pump and do additional work on the well if all concerned would be agreeable that there was a chance of improving the situation. If additional work is required on the well it can probably be handled under Specifications 100C-575.

In order to insure an adequate amount of water to the farms under 15A 922 and 15B 922 next year we recommend that an additional 2.0 c.f.s. be incorporated in well 9A 922 which is being rectified this year, any-

way. This will require a 300 HP motor at 9A 922 instead of the 250 HP being purchased under Specifications 100S-585. As discussed with you previously, the Regional Office has been notified of this change and a supplemental notice is being prepared to change this to a 300 HP motor. As you know, during the irrigation season of 1962, a temporary relift was installed in a "sump hole" immediately north of well 15B922 and waste water and live water that could be spared from other well systems was used to supplement the water supply of the 15AB 922 system. The additional water in 9A 922 can be used to dump into this "sump hole" and the temporary relift can again be used next year to supplement the water. If it is determined after next season, that a permanent relift is necessary then it can be constructed following the irrigation season next year.

Robert T. Pittard

In duplicate

Copy to: Irrigation Manager, Rupert, Idaho

Office of Assistant Commissioner and Chief Engineer
Building 53, Denver Federal Center
Denver 25, Colorado

D-20:

Speedletter:

SEP - 6 1962

Attention:

To: Regional Director, Boise, Idaho
Attention: [illegible]-20

From: Assistant Commissioner and Chief Engineer

Subject: Reconstruction of [illegible] pumps, [illegible]
Pumping Division-Minidoka Project, [illegible]
Your August 20, 1962 speedletter

[illegible]

[illegible]

Copy to: Construction Engineer, Ruper[illegible], Idaho
Project Superintendent, Burley, Idaho

Return to 409

Construction Field Division
Rupert, Idaho

February 12, 1960

To: Regional Director, Boise, Idaho
Attention: 200 - 409

From: Construction Engineer, Rupert, Idaho

Subject: Developing Wells 15A922 and 15B922 -- North Side Pumping Division, Minidoka Project, Idaho

For your information, the following data are enclosed concerning subject wells:

Plotted log of each well
Driller's log of each well
Drawdown curve of Well 15A922 made in June 1957 and September 1959
Drawdown curve of Well 15B922 made in June 1957 and October 1959

These wells were originally located to be drilled within 50 feet of each other; however, during the drilling of 15A922 it was determined that 15B922 should be moved as far away as practical from 15A922. 15B922 was subsequently moved approximately 600 feet northeast of 15A922. The wells were to serve an area of 876 irrigable acres or were required to yield at least 13.5 c.f.s. We hoped to attain 9.0 c.f.s. from 15A922 and 4.5 c.f.s. from 15B922. The area served by these wells is high class land constituting some of the best land on the project and should therefore be irrigated if at all possible.

A brief resume of construction, testing, etc., that has been done on each well is as follows:

15A922
This well was started by Bert Perry, contractor, on October 8, 1956, and drilled to a depth of 391 feet by February 15, 1957. At that time, drilling problems were encountered which would have required a lot of casing. It was determined through experience on other wells in the area that the thing to do would be to stop drilling at the depth of 391 feet and have the well test-pumped. The well was subsequently test-pumped on June 12, 1957, with the results as shown on the enclosed drawdown curve. The test was made with a contractor-furnished test pump and was run with

Q's varying from 1.8 to 2.8 c.f.s. for 12 hours. A large amount of very fine sand was pumped from the well which gradually diminished over the 12-hour pump period until during the last hour or two the well was pumping only very little sand. The data obtained on the test is very erratic, with no semblance of a curve as sand interfered with measurements of Q and drawdown, which made reliable readings difficult to obtain. This sand was apparently coming from the 382 to 391-foot area. At the end of the 12-hour pump period it was determined that further pumping would not be of any more benefit as the well was clearing up. We thought after this test that another test of the well would be appropriate, only this time the pump should be able to produce more Q and also be set deeper in the hole in order to try to develop the well more fully. As stated above, experience on other wells in the immediate area showed that approximately 140 to 150 feet of sand and clay would have to be drilled through below the 391-foot depth, and as funds were limited at the time, it was decided that further testing would be more desirable than drilling deeper, as the drilling would be very expensive. Because of the fund limitations and other reasons, the testing was delayed until August and September, 1959, with results as shown on the enclosed drawdown curve. This test was run for 36 hours with Q's ranging from 1.7 to 3.8 c.f.s. This test was much the same as the previous one -- lots of sand at first and then slowly diminishing as the well was pumped. The well was tested until very little sand was being pumped at a Q of 3.8. During the test of this well, depth to water measurements were taken on Well 158922 with 154922 pumping 2.6 and 3.7 c.f.s. The measurements of 158922 showed no effect from the pumping in 154922 as the water levels with the pump off and running were the same. The test data show that a pump with a discharge of about 3.0 c.f.s. could be installed in this well and still stay within practical drawdown limits. The total depth of the well before pumping (measured January 5, 1959) was 383.0 feet, and after pumping was 385.0 feet (measured September 14, 1959).

<u>158922</u>

This well was started by Bert Perry, contractor, on March 1, 1957, and drilled to a depth of 239 feet by April 6, 1957. Drilling was stopped at this point and it was decided to test-pump the well. The well was tested on June 8, 1957, with the results as shown on the enclosed drawdown curve. The test was made with our test pump and was run for 15 hours with Q's varying from 2.5 to 3.8 c.f.s. Very little sand was pumped from the well. From this data a pump with capacity of from 3.0 to 3.5 c.f.s. could satisfactorily be used and still maintain a practical drawdown. It was decided that this well should be drilled to at least the depth of 154922 at some future date and tested again. This work was delayed because of lack of funds until the fall of 1959. In September and October, 1959, Ralph Denton, contractor, drilled this well from 239-foot depth to 391-foot depth as shown on the enclosed logs of this well. The well was subsequently test-pumped again on October 13, with the results as shown on the enclosed drawdown curve. The results of

this test showed that no improvement was made in the well from the former test. The test was made with a contractor-furnished test pump and was run for 5½ hours with Q's varying from 2.0 to 3.6 c.f.s. Measurements were taken on 15A922 with 15B922 pumping 3.5 c.f.s. at 1 hour and 2 hours after pumping started which showed no effect.

On the other wells of the project, drawdown data was relatively simple to attain because when the Q would change the drawdown would level out almost simultaneously with the Q; however, on both Wells 15A922 and 15B922 when the Q would change the drawdown would change only very gradually and it would take sometimes an hour or more at one setting of the Q for the drawdown to level out and even then it wasn't positive that it had leveled out. In other words, we are not sure with further extended pumping that the drawdown on these wells would be as shown on the enclosed drawdown curves.

Measurements taken on the static water levels of these wells show that the water table in 15B922 is about 40 feet higher than in Well 15A922 wherein the wells are only about 600 feet apart and are drilled to about the same elevation. This oddity has occurred on a few other paired wells of the project but not to the extent it has on this pair.

As you know, we are attempting to secure the information we need so that a definite plan of development can be prepared to complete the project to its authorized acreage. We need to know definitely how much water can be attained from subject wells so that plans for securing additional water can be finalized.

Your comments and suggestions to the following conclusions and recommendations will be appreciated.

Conclusions

1. We do not believe that further drilling on these wells is justified as the experience gained on the other wells in the area which have been drilled deeper is not good.

2. We do not believe that screening of the sand would be satisfactory as the sand is too fine and would soon plug the screen. Gravel packing is impractical.

3. We believe that the sand problem can be eliminated by pumping.

4. We believe that it would be more desirable to develop these wells for the water which can be attained from them at their present depths.

5. We believe that it would be more desirable to secure additional water that would be needed to serve this 876 acres elsewhere. Good water-bearing formations were encountered about 1½ miles north in other wells.

Recommendations

1. We propose to pump Wells 15A922 and 15B922 simultaneously over a period of time and observe the water table over this period to make doubly sure that the water supply is adequate, that there is no significant interference between wells, and to determine by the pumping exactly how much water we can attain from the wells so that the above mentioned plan of development can be finalized. The period of time for the pumping would be until we were sure of the supply and that one well would not affect the other.

G. L. Kime
Construction Engineer

In triplicate

Enclosures (6)

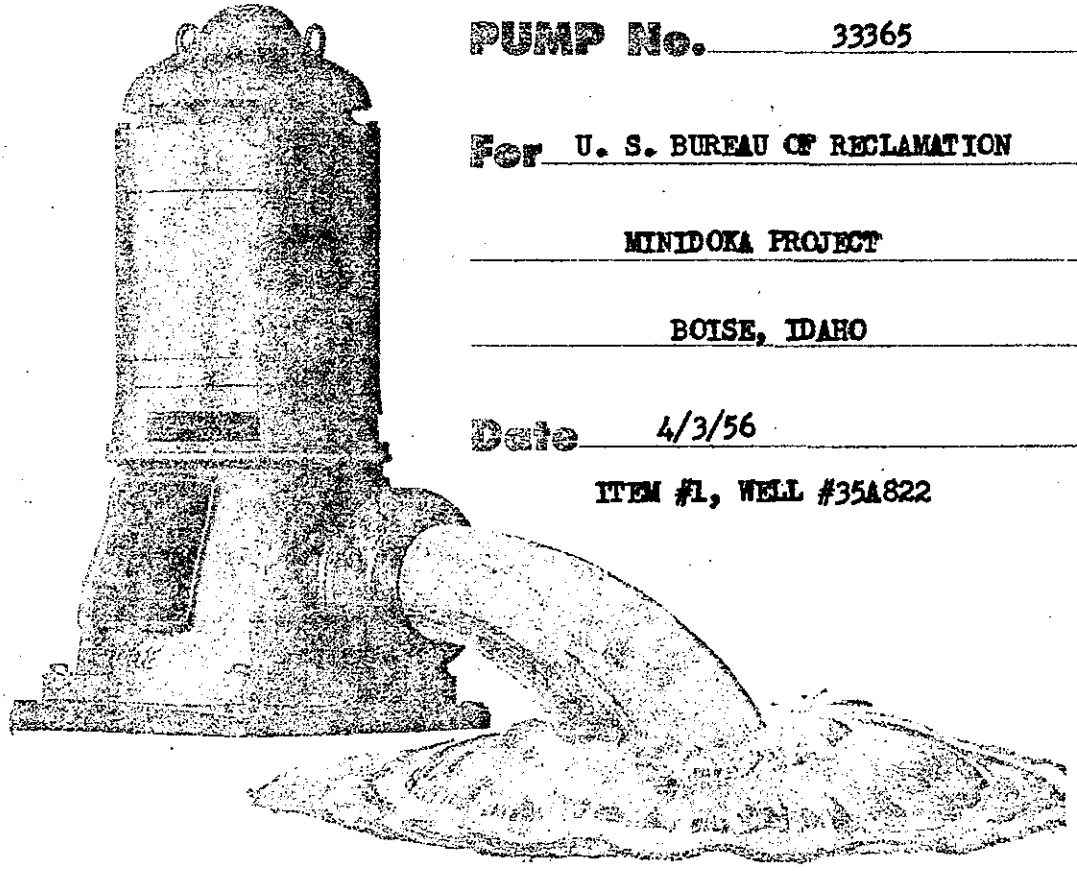
Copy to: Project Superintendent, Burley, Idaho (w/encls)

35A822

Layne

PUMP RECORD

85/22E-35dc1



PUMP No. 33365

For U. S. BUREAU OF RECLAMATION

MINIDOKA PROJECT

BOISE, IDAHO

Date 4/3/56

ITEM #1, WELL #35A822

LAYNE & BOWLER, INC.

MEMPHIS,

TENNESSEE

Files June 27, 1957

W. J. Attridge

Wells 35A822 and 35B822

These wells were put into operation for the first time for the summer irrigation season. Periodically they pumped muddy water, indicating that mud from some source was getting into the wells. This increased and got so bad in the "A" well that an attempt was made at 5:30 p.m. on Tuesday, the 11th, to back flush the well and to clean off the screen. The well was so clogged that the pump would not restart. The pump was immediately removed from the well by the O&M forces, and it was found that mud and water were getting into the well from a considerable height. (It was later established that the mud was coming from back of the casing which extended from the top to 140 feet down.) Although no apparent leaks could be found in the pool, it was thought advisable to line the pool without forming to stop any water which might be leaking into the wells or into the clay layer between well depths 115 and 131.

How to stop the leakage of mud from the clay layer above the casing and the possible difficulties which might be encountered were studied and were weighed against the urgency of getting the well into operation again. It was decided to get a short form contract for cleaning the well and placing additional casing. Bids were called for by phone and personal contact, and the award was made to Jack Alexander on June 13, 1957. The contract called for at least two shifts and that he pursue the job with diligence consistent with the urgency. The plan was to install 21-inch casing inside the 22 inch to the bottom of the well with the lower 40 feet perforated. There was much reluctance on the part of the driller to put the 21-inch casing into the 22 because of the tight fit. There was no way to drive it, and if it went part way, there would be little chance of withdrawing. It was later proven that the 21-inch casing would not go into the 22 because of the eccentricity of the 22-inch. Since the 140 feet of 22-inch casing was installed after the well was drilled and was fastened to the 25-inch surface casing, it was decided that the most feasible way to make repairs was to cut the 22-inch casing loose and to weld 21-inch onto the 22 and then lower and weld casing until the bottom of the 22-inch was at the water line and the 21-inch extended to the surface. The lower 40 feet were then to be filled with dirt up inside the casing a few feet and then to grout the area between the casing and the rock. The work proceeded in this manner and the raising rods or handle were fastened and the casing cut loose during the 18 and 19th of June. When this 22-inch casing was all cut loose, it was found that instead of being loose that caving dirt and rock had locked this casing in place so firmly that it was impossible to loosen it with the usual methods.

There was only one thing left to do: that was to fill the well from the bottom up inside the 22-inch casing and then to grout the area outside the casing and to clean out the dirt. Dirt was poured into the well until it reached the point 125 feet from the surface. A 4-inch drain pipe 8-feet long was then welded into half a barrel for a pouring funnel, and a 3/4-inch mesh screen was placed in

the barrel 6 inches off the bottom to take out the stray rocks. This pouring funnel pipe was then placed so that the grout would go into the space between the 25-inch and the 22-inch casing. A grout mixture consisting of 2,700 pounds of concrete sand and 10 sacks of cement per cubic yard was then poured into the void. The first load of this grout was placed in the evening of June 19. Five cubic yards were placed with two per cent of calcium chloride to hasten the setting. The following day the placing of grout continued. No one knew how large the volume was that had to be filled, and it was imperative the grout did not rise to provide more than 30 feet of plastic concrete at one time because of the danger of collapsing the casing. (This casing has a collapsing pressure of 31 p.s.i. or 71 feet of head of water. The grout had a density of about 2-1/2 times that of water.) A total of 39.5 cubic yards of grout was placed, and the top layers of about 30 feet each were placed with calcium chloride to hasten the setting.

Cleaning commenced on Friday and when the hole was open to a depth of 175 feet, a cave-in filled it to 163 feet. Caving continued, and there was some question that we had the caving area at the base of the 22-inch casing closed. It was then decided to fill the well with regular concrete from 163 to 129, or 11 feet into the casing. This was done with 3-1/2 per cent chloride, and the drill tools immediately worked or agitated this plastic concrete to be sure that the 11 feet of pressure forced the concrete into the voids around and in back of the casing. The following morning, June 23, drilling started to drill out the concrete. This required rest of the day. When the concrete was removed, some teeth were welded onto the 16-inch bit to be sure that the concrete was all removed to a depth of 163 feet. Cleaning then began with the scow and continued to the 246 foot depth. Although some mud continued to fall from the sides of the well, acceptance was given on June 25 at 6:30 a.m. The pump installation immediately began, and it is expected that it will be ready to start June 26.

Pump started 12:30 p.m., June 26.

UNITED ...
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
MINIDOKA PROJECT-IDAHO
NORTH SIDE PUMPING DIVISION
RUPERT, IDAHO

Sheet 1 of 2

95/22E-15ac2

Specifications
Group 5

Log of Well No. 15B922
Location SW¼ of NE¼ Sec. 15 T 9 S, R22 E BM.
Contractor Perry Date Started March 1, 1957
Date Completed April 6, 1957 Dia. 20"
Depth from ground surface 239.0
Length Casing 21.0' 4208.33 Dia. Casing 21" Thickness 3/16"
Eleve. Ground Surface ~~4258.10~~ Eleve. Bottom 4019.10
Ground Surface to Water 197.5 Date April 6, 1957
Name of Pump Capacity s.f. Horsepower
Drawdown at s.f. = ft. on June 12, 1957
Elev. B.M. , or concrete base

LOG

Depth From	Depth To	Remarks
0	1	Topsoil
1	3	Hardpan
3	16	Yellow clay
16	53	Gray lava
53	62	Red volcanic ash
62	72	Gray lava
72	82	Broken brown lava, cemented
82	93	Black lava
93	110	Brown lava
110	121	Yellow clay
121	181	Gray lava
181	192	Broken red lava
192	201	Broken red lava about like gravel
201	214	Brown lava very broken, abundance round lava gravel, lost most of cuttings
214	223	Black lava, loose
223	231	Black lava, broken & yellow clay
231	239	Yellow clay
		Drilled deeper, Ralph C. Denton, 9-17-59 to 10-10-59:
239	298	Gray lava
298	307	Gray lava with brown seams
307	350	Gray lava
350	371	Broken gray lava and sandy clay
371	382	Black lava - broken
382	391	Blue clay and sand

Note: For additional work see sheet 2.

GPO 98808

DEC 12 1962

210

To: ACTING Project Superintendent, Burley, Idaho

From: Regional Engineer, Boise, Idaho

Subject: Suggested remedial measures on Well No. 15S-922 -- Minidoka Project, Idaho (Telephone call to Construction Engineer Pittard, Rupert, Idaho and your telephone call to us on December 10, 1962)

If you are in favor of further efforts to increase the discharge of the subject well to 2.3 c.f.s. for use during the next irrigation season the following suggestions are offered for your consideration.

1. It is our understanding that there is 27 feet of liner in the hole and that the top seven feet of the liner is above the bottom of the aquifer. As this probably eliminates seven feet of the aquifer for the purpose of supplying water to the well it is suggested that the liner be removed. If you are concerned about caving, an alternate suggestion would be to either cut off and remove or perforate the top seven feet of the liner. If the top seven feet is removed the 20 feet of casing remaining would of course prevent caving only in the clay layer through which it extends.

2. If all or part of the lining in 1. above is left in place then it may be possible to enlarge the well by dynamiting below the liner. Such enlargement should be at least 10 feet and preferably more in length below the aquifer. It would be hoped that such enlargement would decrease the downward velocity so that air bubbles would not be carried down to the pump intake. If the air is not being drawn down from the water surface in the well but is coming from some other source then the reaming or well enlargement may not solve the air problem. This suggestion is somewhat experimental in that respect, as you recognized.

3. Whether or not the liner is removed or the well diameter enlarged it is suggested that a larger pump and motor could provide an increase in the discharge next summer. Since the telephone discussions we have re-examined the motor and pump requirements for this well and find that our records indicate that a 75 hp motor was used at this well last summer. A 100 hp motor and two more stages on the pump would provide a capacity of about 3 c.f.s. The costs of the electrical changes required are estimated to be $150 and the cost of the pumping

unit change is estimated to be $200 for a total cost of $450. Although there is no guarantee that this change would produce the required 2.4 c.f.s. next summer, since the 3 c.f.s. capacity pump might be pumping part air, it appears to us that there is a good chance that it would.

If you feel that a man from this office should visit the site, Mr. M. L. Nelson will be available for a few days during the week of December 17. We do not have anyone we can spare for an extended stay at this time. If you would like Mr. Nelson to visit the project during the week of December 17 please advise.

(Signed) R. H. Harris

Copy to: Construction Engineer, Rupert, Idaho

cc: R.O. 409, 705, 210

RHRidinger:akr 12/12/62

Regional Office, Region 1
Box 937, Boise, Idaho

210

AIRMAIL--SPECIALLETTER

To: Assistant Commissioner & Chief Engineer, Denver, Colorado
Attention: 208

From: Regional Director, Boise, Idaho

Subject: Rectification of wells, pumps, motors, etc., North Side Pumping Division, Minidoka Project, Idaho

The Construction Engineer telephoned this date and reported that pump at well 15B22 had been disconnected at the discharge elbow and tested. The water discharged contained air bubbles. The pump was raised 20 feet and tested again. The results were practically the same.

This proves that the problem is with the well and not the pump. The well was rounded and the bottom was within 2 feet of the total depth at completion. The Construction Engineer proposes that the 16-inch casing in the well be cut off and the part above fifty feet in depth be pulled. This would leave the bottom portion of the liner.

In the interest of time the Construction Engineer was instructed to proceed on that basis in preparing the draft of specifications for drilling. If you have any suggestions that would change this procedure, please reply by air mail.

For the Regional Director:

Regional Engineer

Copy to: Project Superintendent
Burley, Idaho

Dictated: 8/26/1

705

FILES

Minidoka Project Office
Burley, Idaho

100 August 16, 1962

To: Regional Director, Boise, Idaho
Attention: 200

From: Project Superintendent, Burley, Idaho

Subject: Pump and Well Supplemental Construction Program -- 1962-63 Non-irrigation Season -- North Side Pumping Division, Minidoka Project

In my letter of August 6, 1962, to you on the above subject, I stated that a separate narrative report regarding Well 15B922 would be prepared by Construction Engineer Pittard in time to be available for discussion at the meeting to review the supplemental construction program. Enclosed is a copy of Pittard's report which you may have time to consider prior to our meeting on August 21. I will bring a copy for Bill Tapp's use.

Project Superintendent

Enclosure

Copy to: Reg. Dir., Boise, Attn: 409, 705 (w/encl)

Minidoka Project Office
Construction Field Division
Rupert, Idaho

August 9, 1962

To: Project Superintendent, Burley, Idaho

From: Construction Engineer, Rupert, Idaho

Subject: Well 15B 922 - North Side Pumping Division, Minidoka Project, Idaho

Reference is made to our letter of February 12, 1960, wherein the history of wells 15A 922 and 15B 922 were reviewed. In addition, reference is made to numerous memorandums and letters regarding the "922" problem area.

Since February 1960 the well was logged with a U.S.G.S. logging machine but no further drilling has been done. In the fall of 1961 a permanent pump was installed in the well and the well commenced delivering irrigation water the spring of 1962. Prior to the irrigation season this spring a test was made on the well which showed the following results:

Q - 2.18 c.f.s.
Drawdown - 2.2 feet

This compared favorably with the drawdown capacity obtained when the well was test pumped in October, 1959.

This summer the ditchrider reported the 15AB 922 system as low on capacity. Investigation has shown that well 15B 922 has fallen off in capacity to 1.11 c.f.s. on July 27th with about 31 feet drawdown. Well 15A 922 (located about 600 feet southeast of well 15B922) is producing its design quantity of water. A test was made by leaving 15A 922 running wide open and observing the static level in 15B 922. The results showed that one well did not effect the other in regards to lowering the static water level. However, due to the need for the water this test was not run for a very long period (about 30 minutes). The full load amperage for the motor is 90. An electrical check of amperage showed that after shutting the pump off for about 30 minutes and then restarting, the motor would require 82 amps for about 5 minutes 15 seconds, and then the amperage would drop off from 82 to 62, which shows that load is being removed from the motor. We suspected that the pump could be surging, however, it is difficult to tell visibly as the well is connected to the 15A 922 stilling pool by means of an underground pipe and is equipped with a surge tank which tends to level out the surging effect. However,

the amperage stays fairly steady on 62 after dropping to this point and if surging was being encountered then it would seem that amperage should rise and fall as the pump picked up load and then released it. The visible checks on the discharge also does not show that the pump is surging, as near as we can determine. There does not appear to be any air bubbles in the water, however, because of the pipeline and surge tank the air, if any, may disappear before it gets to the stilling pool. The water pumped has some sand in it although not very much. In other words it is not as clear as other wells on the project - (described as slightly murky). We have made a number of tests on the well to try to determine whether it is the pump or the well causing the trouble but our investigations do not show conclusively just what the trouble is. We suspect it is the well.

The purpose of this letter is to bring this problem to your attention so that special consideration may be given it at the rectification meeting in Boise. The problem became so acute this summer that a temporary relift of waste water was started on August 1st and has continued until the present time.

/s/ Robert T. Pittard

In triplicate

Copy to: Irrigation Manager, Rupert, Idaho

UNITED STATES
DEPARTMENT OF THE INTERIOR

MINIDOKA PROJECT

BUREAU OF RECLAMATION
Minidoka Project Office
Construction Field Division
Rupert, Idaho

Official File
Rec'd NOV 20 1962

IN REPLY
REFER TO:

November 19, 1962

To: Project Superintendent, Burley, Idaho

From: Construction Engineer, Rupert, Idaho

Subject: Well 15B 922 - North Side Pumping Division, Minidoka Project, Idaho

Reference is made to my letter of August 9, 1962, subject as above, wherein we called your attention to the conditions at this well so that special consideration could be given to this problem at the August rectification meeting in Boise.

The decision reached at the August meeting was to disconnect the pump from the discharge line and pump it "open" discharge so that it could be observed more readily and then determine the best course of action. This was done and the pump was run for a considerable period of time. This test showed that a considerable amount of air was being pumped and that the quantity of water dropped off almost simultaneously with the air showing up. In addition, the amperage dropped off the same as reported in my August 9th letter and the drawdown did not change appreciably.

In determining the course of action to take to rectify this trouble, it was decided that one possible explanation was that the water was not getting to the pump fast enough through perforations in the 16-inch casing which was in the well from ground level to the 252 foot depth. Specifications 100C-575, therefore, required that the 16-inch casing be cut off at a depth of 230 feet and the 230 feet of casing was to be removed from the well. This would allow open hole through the water bearing area. The remaining casing would case off a non-water bearing clay layer. The contractor completed this work on October 29th. However, instead of cutting the pipe in place, they removed the complete 252 feet and reinstalled 27 feet of liner with a shoe on each end.

Inasmuch as the liner was for the purpose of casing off a clay layer we thought it advisable not have it perforated. The top of the liner stands at a depth of 219 feet, as when it was reinstalled it would not go back to the original depth of 252 feet. This, of course, means that the drawdown water surface is about 2 feet below the top of the liner. The pump was reinstalled with an additional 40 feet of column, making the setting on the pump at 290 feet or the bowls were under water approximately 80 feet, as the static water level stands at 208 feet below the sole plate. Another open discharge test was run with the results about the same as the previous one before the pipe was removed. The results of the test are tabulated below:

Date	Time	Drawdown	Q(cfs)	Remarks
Nov. 5	9:00 AM			Elev. soleplate 4255.43 static W.S.--208.0
" "	9:05	3.4		
" "	9:30	3.6	2.24	F.L. amp rating of motor - 90 amps. 93-93-93
" "	9:45	4.0	2.24	
" "	9:50	4.2	2.24	
" "	10:00 60	4.4	2.24	
" "	10:25 85	4.9	2.24	
" "	10:45 105	5.1	2.24	
" "	11:00 120	5.3	2.24	
" "	11:25 145	5.7	2.24	
" "	12:05 PM 185			Turned on 15A922 - 2.2cfs
" "	12:10 190	6.3	2.24	
" "	12:30 210	6.7	2.24	
" "	12:45 225	6.7	2.24	

Date	Time	Drawdown	Q(cfs)	Remarks
Nov. 5	1:00PM 240	6.9	2.24	
" "	1:15 255	6.9	2.24	
" "	2:00 300	7.3	2.24	
" "	4:00 360	8.7	2.24	F.L. amps 86-87-86
" "	4:10			15A922 shut off 15B922 left running overnight
Nov. 6	9:00 A.M.	13.3	1.90	Started pumping air during night F.L. amps 81-81-81
" "	10:00	13.3	1.90	
" "	10:05			15A922 static W.S. 252.6
" "	10:07			Turned on 15A922 - 2.2 cfs
" "	10:15			Reading on 15A 922 2.2 cfs 22.8 DD
" "	4:10 PM	13.3	1.90	F.L. amps 82-82-82
" "	4:20			15A922 2.2 cfs - 25.4 DD
" "	4:25			15A922 shut off 15B922 running overnight
Nov. 7	9:35 AM	13.3	1.90	F.L. amps 81-82-81 Left running overnight
Nov. 8	9:45 AM	13.2	1.90	F.L. amps 84-82-82 Pumping air
" "	10:00			Pump off
" "	10:02	4.0		Pump off
" "	10:10	3.3		Pump off
" "	10:15	3.3		Pump off
" "	10:20	3.3		Pump off
" "	10:25	3.1		Pump Off

Date	Time	Drawdown	Q (cfs)	Remarks
Nov. 8	10:29	3.1		Pump Off
" "	10:30			Pump on - no air
" "	10:31	6.7		
" "	10:33			F.L. 84-84-86
" "	10:35	8.7		
" "	10:37		2.17	
" "	10:40			Air starts
" "	10:42	13.5		
" "	10:43			F.L. 82-81-82
" "	10:45	13.5		More air
" "	10:50	13.3		
" "	10:55	13.3		
" "	10:56			F.L. Fluctuating from 84 to 68
" "	11:00	13.3		
" "	11:01		1.90	
" "	11:05	13.3		
" "	11:06		1.90	
" "	11:08			F.L. Fluctuating from 84 to 68
" "	11:10			Pump off
" "	11:15	3.7		Pump off
" "	11:20	3.1		Pump off
" "	11:25	3.1		Pump off
" "	11:29	3.1		Pump off
" "	11:30			Pump on
" "	11:31	6.9		No air
" "	11:33			F.L. 86-86-86

Date	Time	Drawdown	Q(cfs)	Remarks
Nov. 8	11:35	9.3		
" "	11:36		2.17	No air
" "	11:40	12.9		
" "	11:41		2.17	
" "	11:41:30			Air in water
" "	11:42	13.3		
" "	11:44			F.L. 82-82-82
" "	11:45	13.3		
" "	11:48			F.L. Fluctuating from 84 to 68
" "	11:50	13.3	1.90	
" "	12:00 noon	13.3	1.90	
" "	12:20 PM	13.3	1.90	
" "	12:23			Pump off

Further checks made on November 7th showed that the amperes would vary from around 80 to 65 which indicated the well was surging badly. Visual observation of the discharge pipe also confirmed that the well was surging. Mr. Frink of the Regional office was at this office during the test and on November 8th tests were run at his suggestion. The test on November 8th showed that after stopping the pump for 30 minutes and restarting, the air would start about 11 minutes after starting and would coincide when a drawdown of about 13.3 feet was reached, at which time the amperes would start varying, as mentioned above. The discharge would also hold up to over 2.0 c.f.s. for the 11 minutes and then drop to 1.90 after the air started. The conditions for measurement of discharge were not ideal as a temporary 2-foot cipoletti weir was used and the weir pool was not according to specifications for an accurate measurement, however, we believe it to be fairly accurate.

Conclusions

1. We believe the pump is working satisfactorily, that is, there is nothing mechanically wrong with the pump, therefore,

2. We believe the trouble is in the well.

3. As a result of the tests made, we have not corrected the problem in the well.

4. The 16-inch liner may be cutting off some of the water, however, the tests made on Nov. 8th do not indicate this, as the drawdown curve did not drop suddenly when the water surface receded to the top of the liner.

5. Observations by this office and Mr. Frink indicate that the well is not capable of producing the required amount of water, especially during the peak periods. Conditions would improve a great deal, we believe, if some method of solving the aeration problem was discovered.

This office is at a loss on what to recommend in this regard. We have called and discussed this matter with several pump companies in the area and they have experienced the same problem. They generally lower the bowls somewhat the same as we have, but they state that in most cases this does not completely solve the problem. They stated they have tried "ping-pong" balls and baffles on the pump but with little success.

Recommendations

In view of the information obtained to date we recommend the following:

The well problem be presented to Regional Office and Denver Office personnel to see if they can come up with a practical plan for correcting the well conditions. This should be done as soon as possible so that if the work is to be done this winter we can get started on it. This office would be agreeable to pull the pump and do additional work on the well if all concerned would be agreeable that there was a chance of improving the situation. If additional work is required on the well it can probably be handled under Specifications 100C-575.

In order to insure an adequate amount of water to the farms under 15A 922 and 15B 922 next year we recommend that an additional 2.0 c.f.s. be incorporated in well 9A 922 which is being rectified this year, any-

way. This will require a 300 HP motor at 9A 922 instead of the 250 HP being purchased under Specifications 100S-585. As discussed with you previously, the Regional Office has been notified of this change and a supplemental notice is being prepared to change this to a 300 HP motor. As you know, during the irrigation season of 1962, a temporary relift was installed in a "sump hole" immediately north of well 15B922 and waste water and live water that could be spared from other well systems was used to supplement the water supply of the 15AB 922 system. The additional water in 9A 922 can be used to dump into this "sump hole" and the temporary relift can again be used next year to supplement the water. If it is determined after next season, that a permanent relift is necessary then it can be constructed following the irrigation season next year.

Robert T. Pittard

In duplicate

Copy to: Irrigation Manager, Rupert, Idaho

Office of Assistant Commissioner and Chief Engineer
Building 53, Denver Federal Center
Denver 25, Colorado

D-20:

Speedletter SEP - 6 1962

Airmail

To: Regional Director, Boise, Idaho
Attention: [illegible]

From: Assistant Commissioner and Chief Engineer

Subject: Rectification of wells, pumps, motors, etc.--Nonta [illegible]
Pumping Division--Minidoka Project, Idaho
(Your August 20, 1962 speedletter)

[illegible] the basis of information furnished you by the construction [illegible] [illegible] being entrained in Well 15-92[illegible] [illegible] [illegible] above the pumping level. We discussed this problem [illegible]

[illegible]

Copy to: Construction Engineer, Rupert, Idaho
Project Superintendent, Burley, Idaho

Return to 409

Construction Field Division
Rupert, Idaho

February 12, 1960

To: Regional Director, Boise, Idaho
Attention: 200 - 409

From: Construction Engineer, Rupert, Idaho

Subject: Developing Wells 15A922 and 15B922 — North Side Pumping Division, Minidoka Project, Idaho

For your information, the following data are enclosed concerning subject wells:

Plotted log of each well
Driller's log of each well
Drawdown curve of Well 15A922 made in June 1957 and September 1959
Drawdown curve of Well 15B922 made in June 1957 and October 1959

These wells were originally located to be drilled within 50 feet of each other; however, during the drilling of 15A922 it was determined that 15B922 should be moved as far away as practical from 15A922. 15B922 was subsequently moved approximately 600 feet northeast of 15A922. The wells were to serve an area of 876 irrigable acres or were required to yield at least 13.5 c.f.s. We hoped to attain 9.0 c.f.s. from 15A922 and 4.5 c.f.s. from 15B922. The area served by these wells is high class land constituting some of the best land on the project and should therefore be irrigated if at all possible.

A brief resume of construction, testing, etc., that has been done on each well is as follows:

15A922

This well was started by Bert Perry, contractor, on October 8, 1956, and drilled to a depth of 391 feet by February 15, 1957. At that time, drilling problems were encountered which would have required a lot of casing. It was determined through experience on other wells in the area that the thing to do would be to stop drilling at the depth of 391 feet and have the well test-pumped. The well was subsequently test-pumped on June 12, 1957, with the results as shown on the enclosed drawdown curve. The test was made with a contractor-furnished test pump and was run with

Q's varying from 1.8 to 2.8 c.f.s. for 12 hours. A large amount of very fine sand was pumped from the well which gradually diminished over the 12-hour pump period until during the last hour or two the well was pumping only very little sand. The data obtained on the test is very erratic, with no semblance of a curve as sand interfered with measurements of Q and drawdown, which made reliable readings difficult to obtain. This sand was apparently coming from the 382 to 391-foot area. At the end of the 12-hour pump period it was determined that further pumping would not be of any more benefit as the well was clearing up. We thought after this test that another test of the well would be appropriate, only this time the pump should be able to produce more Q and also be set deeper in the hole in order to try to develop the well more fully. As stated above, experience on other wells in the immediate area showed that approximately 140 to 150 feet of sand and clay would have to be drilled through below the 391-foot depth, and as funds were limited at the time, it was decided that further testing would be more desirable than drilling deeper, as the drilling would be very expensive. Because of the fund limitations and other reasons, the testing was delayed until August and September, 1959, with results as shown on the enclosed drawdown curve. This test was run for 36 hours with Q's ranging from 1.7 to 3.8 c.f.s. This test was much the same as the previous one -- lots of sand at first and then slowly diminishing as the well was pumped. The well was tested until very little sand was being pumped at a Q of 3.8. During the test of this well, depth to water measurements were taken on Well 158922 with 154922 pumping 2.6 and 3.7 c.f.s. The measurements of 158922 showed no effect from the pumping in 154922 as the water levels with the pump off and running were the same. The test data show that a pump with a discharge of about 3.0 c.f.s. could be installed in this well and still stay within practical drawdown limits. The total depth of the well before pumping (measured January 5, 1959) was 383.0 feet, and after pumping was 385.0 feet (measured September 14, 1959).

158922

This well was started by Bert Perry, contractor, on March 1, 1957, and drilled to a depth of 239 feet by April 6, 1957. Drilling was stopped at this point and it was decided to test-pump the well. The well was tested on June 8, 1957, with the results as shown on the enclosed drawdown curve. The test was made with our test pump and was run for 15 hours with Q's varying from 2.5 to 3.8 c.f.s. Very little sand was pumped from the well. From this data a pump with capacity of from 3.0 to 3.5 c.f.s. could satisfactorily be used and still maintain a practical drawdown. It was decided that this well should be drilled to at least the depth of 154922 at some future date and tested again. This work was delayed because of lack of funds until the fall of 1959. In September and October, 1959, Ralph Denton, contractor, drilled this well from 239-foot depth to 391-foot depth as shown on the enclosed logs of this well. The well was subsequently test-pumped again on October 13, with the results as shown on the enclosed drawdown curve. The results of

this test showed that no improvement was made in the well from the former test. The test was made with a contractor-furnished test pump and was run for 5½ hours with Q's varying from 2.0 to 3.6 c.f.s. Measurements were taken on 15A922 with 15B922 pumping 3.5 c.f.s. at 1 hour and 2 hours after pumping started which showed no effect.

On the other wells of the project, drawdown data was relatively simple to attain because when the Q would change the drawdown would level out almost simultaneously with the Q; however, on both Wells 15A922 and 15B922 when the Q would change the drawdown would change only very gradually and it would take sometimes an hour or more at one setting of the Q for the drawdown to level out and even then it wasn't positive that it had leveled out. In other words, we are not sure with further extended pumping that the drawdown on these wells would be as shown on the enclosed drawdown curves.

Measurements taken on the static water levels of these wells show that the water table in 15B922 is about 40 feet higher than in Well 15A922 wherein the wells are only about 600 feet apart and are drilled to about the same elevation. This oddity has occurred on a few other paired wells of the project but not to the extent it has on this pair.

As you know, we are attempting to secure the information we need so that a definite plan of development can be prepared to complete the project to its authorized acreage. We need to know definitely how much water can be obtained from subject wells so that plans for securing additional water can be finalized.

Your comments and suggestions to the following conclusions and recommendations will be appreciated.

Conclusions

1. We do not believe that further drilling on these wells is justified as the experience gained on the other wells in the area which have been drilled deeper is not good.

2. We do not believe that screening of the sand would be satisfactory as the sand is too fine and would soon plug the screen. Gravel packing is impractical.

3. We believe that the sand problem can be eliminated by pumping.

4. We believe that it would be more desirable to develop these wells for the water which can be attained from them at their present depths.

5. We believe that it would be more desirable to secure additional water that would be needed to serve this 876 acres elsewhere. Good water-bearing formations were encountered about 1½ miles north in other wells.

Recommendations

1. We propose to pump Wells 15A922 and 15B922 simultaneously over a period of time and observe the water table over this period to make doubly sure that the water supply is adequate, that there is no significant interference between wells, and to determine by the pumping exactly how much water we can attain from the wells so that the above mentioned plan of development can be finalized. The period of time for the pumping would be until we were sure of the supply and that one well would not affect the other.

O. L. Kime
Construction Engineer

In triplicate

Enclosures (6)

Copy to: Project Superintendent, Burley, Idaho (w/encls)

c.t.s.

(5)

Sept. 1, 1955

23 A922 70 feet of hole and caving so bad that no progress is being made with the drilling. Attridge and Kime instructed Eatons to install 22 inch casing to case off clay.

Friday Sept. 23, 1955

Hole caving so badly that drilling had to stop. Moved rig to 24A825. Depth at stopping place ~~227~~ 230 plus or minus. W.J.A.

Sept. 26 - 23A922 - 22"x.281 - 92' - 2 ft. built up shoe.

Pump 20A922

On March 28, 1962 the Wintroath Pump Co. Removed the pump head etc to lower this pump. As they lifted it 180 feet of casing gave way and fell into the bottom of the well. So they pulled the pump. They removed this casing and was left out of the well.

It was decided to rectify this bowl assembly. This was done by Rupert Iron Works.

On April 4, 1962 the O&M pump crew proceeded to set this pump. An additional twenty (20) foot of 14 inch column pipe, " (20) " of 3½ inch oil tubing and " (20) " " 2 7/16 inch shafting with shaft coupling and bearing were added. Bowl setting now 290 feet.

On April 7, 1962 the O&M pump crew completed setting this pump. They also calibrated the airline

N.S. Pumping Division
Deep Wells

C.L.K. Nov. 6 1952

Well 10A824

Note: Water was first struck at 171.02 feet, which checked the anticipated groundwater elevation as taken from the ground water map. After the well was extended from 215 ft. to 258 feet the water raised about 3 feet. Probably artesian head.; the new depth reading was 167.79 taken on Nov. 5, 1952.

Taken Oct. 21, 1952

Apr. 2, 1956

330922

This well is drilled but after much difficulty. The doodle curve looks good but considering the cost of a pmp test as compared to the possibility of having two bad wells together we have decided to pump this well before starting drilling the 33B922. We have switched our thinking on thas several times but today decided (Attridge and Kime) to pump the little well before drilling the big one.

Attridge

Sept. Estimate and Final

NORTH SIDE PUMPING DIVISION

DEEP WELLS

WELL DATA

WELL NO 30A922-5

JOB NO 1000-371 Sch 2

FILE NO

BY WJA RP. DATE Sept. 8 1959

SIZE OF WELL - - - - Various - - - - - - - - - -

INSIDE DIAMETER OF CASING - - - 18" - - - - - - -

LENGTH OF CASING - - - - - - - - - - - - - - - - -

TOP OF CASING TO NATURAL GROUND - - - 1.3 - - -

SHELL THICKNESS - - - - - - - - - - - - - - - - -

DEPTH OF WELL FROM TOP OF CASING - - 503.4 - -

DEPTH OF WELL FROM NATURAL GROUND - - - - - - -

ELEVATION (TOP OF CASING) - - - - - - 4238.3 - -

DEPTH TO WATER (DATE: _____ DEPTH - - - - -

ELEVATION OF WATER TABLE - - - - - - - - - - - -

Sept. 9, 1959

Ralph Denton drilled to the depth shown this morning and we measured the depth. There is some question as to whether or not we should install 14 inch casing in this well or pump it first. After much discussion we decided to pump the well first and find out the probable discharge and whether or not it is stable. Our test pump will be protected by the present casing. Denton is going to leave his rig ~~that~~ on the well until after the pump test and by that time we should know whether or not to case the well and what the production is.

Attridge and Pittard

After pumping: Top casing to W.S. = didn't meas.
Top casing to bottom = 497.5

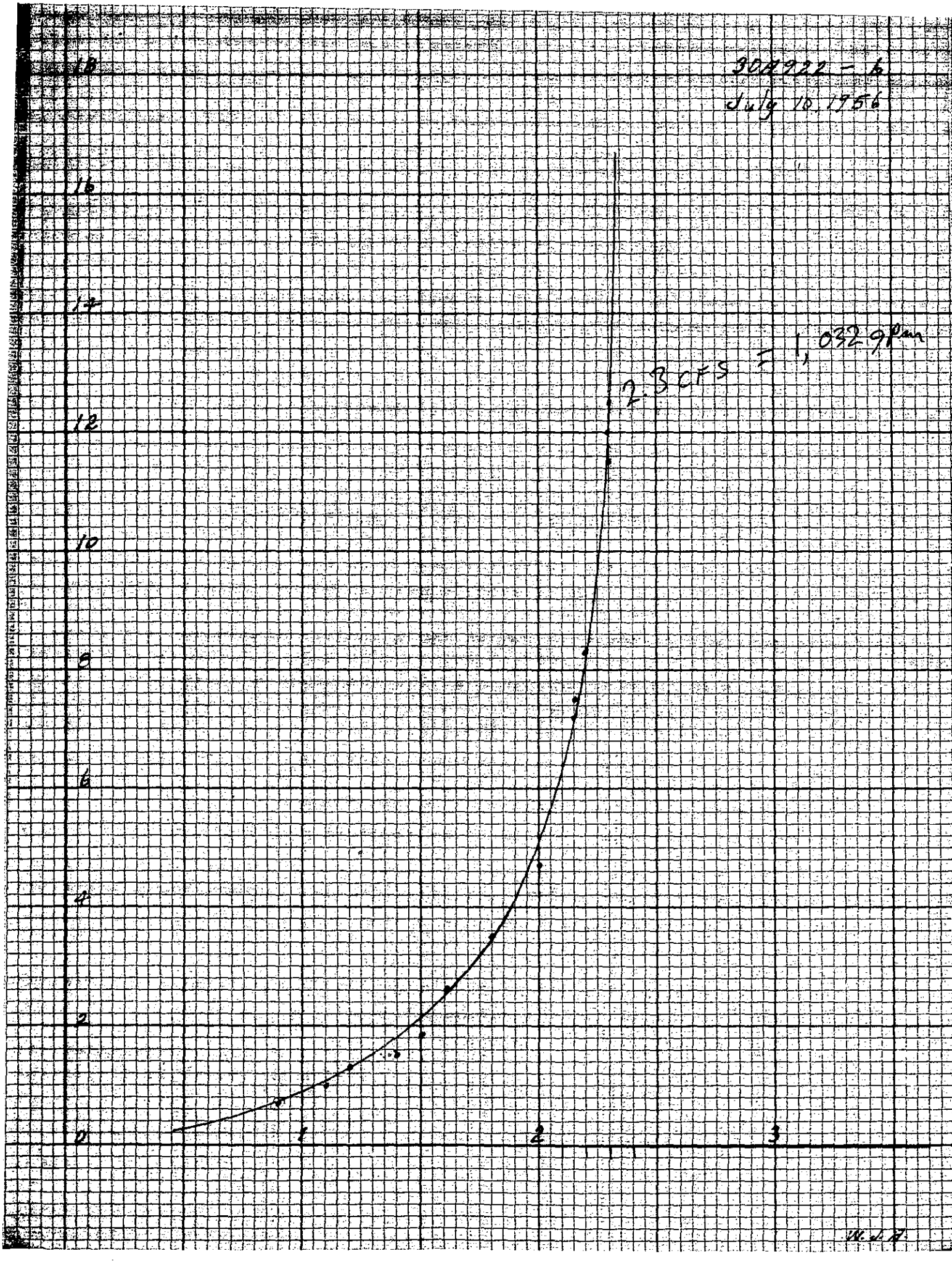
Date: Sept. 17, 1959

After cleaning: Top casing to W.S. = 266.0 - meas. by float - RTP
Top casing to bottom = 505.5

Date: Sept. 18, 1959

(over)

This well drilled from 335' to 505.5' with 17½" bit. Water started cascading into well at depth of 500', water level dropped from approx. 240' to 255' at this time. Drilled on to approx 510 but well started caving and we decided to pump. After pumping it was cleaned out from 497.5 to 505.5


304922 - b
July 10, 1956
18
16
14
12
10
8
6
4
2
0
1
2
3
2.3 CFS = 1,032 gpm

Bureau of Reclamation
RECEIVED
MAR 6 1959
RUPERT, IDAHO

W.J.A.

Febr. 25, 1959

Orville:

Bob and I have been trying to decide what to recommend that we do with 30A922. You have it plotted on your large sheet somewhere in your "diggings." This is the well that we decided in 1956 to leave as it is and get two second feet from it and drill another for the additional 4.3. Since then we have found that the water in July drops because of pumping to a lower depth than anyone anticipated. If you look at the log you will see that it is only 30 feet from the W.S. to the top of the clay. This water surface could very likepy drop 15 feet which would only leave 15 feet of area all of which would have to enter through the perforations. This casing was installed and perforated in place after we made our pump test. The well now is full about to the bottom of the casing which means that the clay is leaking by the casing.

In view of all this we do not consider this a very good well for any amount of water as it is. We have dicided that the best thing to do will be to clean it out to about 4 feet below the casing. Place sufficient grout in to bring it about 10 feet into the casing and work it vigorisly with the tools and try to seal the opening where the clay is coming in. It might be a waste of time but seems worth a try. Then the well should be drilled deeper, possibly to 400. If we have no more trouble is is possible that we may get the requirement of 6.3 c.f.s. without a new well. If not we may still have to drill a new one. But we can't see that this is much of a well as it is.

I would appreciate your views on this proposition or any other plan which you might have.

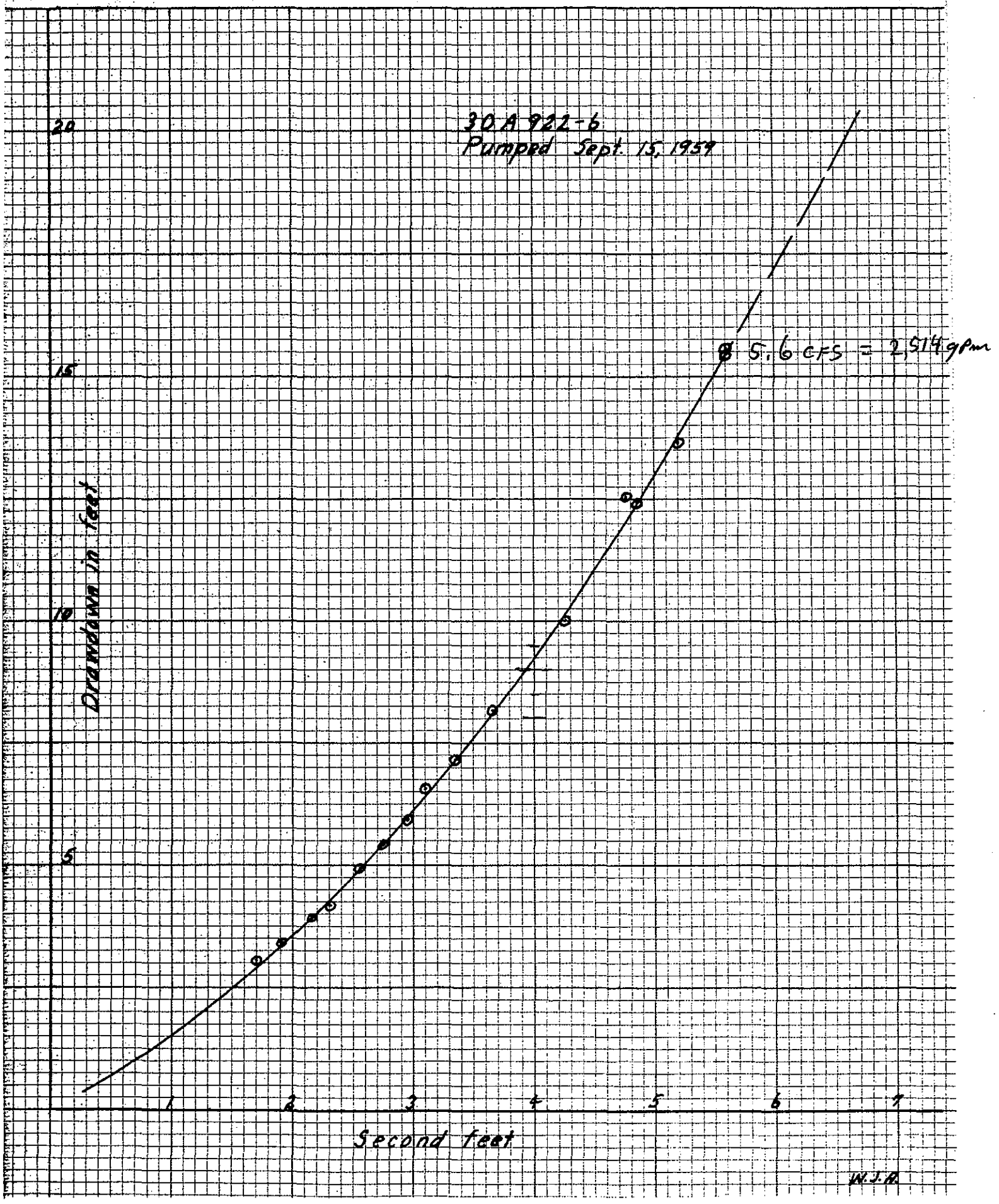
Our program for the coming year depends on the development of these seven wells and now we don't have the money to do it so I suppose that the whole program will have to change.

Bill

Another plan which might be more logical might be to drill deeper without the concrete and if we are successful in deepening the hole we might install a smaller casing heavily perforated all the way with the top at or near the bottom of the present casing. We would then have sufficient room in the old casing to get the pump into.

Bill: I have looked the log over and I believe your first plan above is the best. I think you would be successful in getting a seal. It is possible that the clay is coming from your last foot of perforations (269 to 270) and it isnt coming out below the bottom of the casing, however I believe the concrete is a good precaution. Without the concrete I wouldnt want to put in a smaller casing as the perforations might become clogged with clay in it.

O.L.R.


30A 922-6
Pumped Sept. 15, 1959
5.6 cfs = 2,514 gpm
20
15
10
5
Drawdown in feet
1
2
3
4
5
6
7
Second feet
W.J.A.

PUMP TEST DATA

WINTROATH PUMPS DIVISION OF WORTHINGTON CORPORATION

SIZE	TYPE	NO. STAGES
15HH	340	2

	RPM	GPM	TOTAL HEAD	BOWL EFF.	OVERALL EFF.	NPSH	SP. GR.
FIELD SPEED	1170	3280	315				
TEST SPEED							

TESTED BY A. Thomas [illegible]

WITNESSED BY P.W. Steel [illegible]

CUSTOMER Minidoka Project

NOTES Ser 9773 Item #3

	MATERIAL	DIAMETER	UNDERFILE
IMPELLER	BRZ	9 1/8"	STD.
BOWL	CAST IRON		

VEL. HD. .13 @ 1000 GPM 12 I. D. COLUMN

HP MOTOR POLE DYNAMOMETER

IMPELLER SETTING 1/16" WATER TEMP. °F

	RPM	HEAD: GAUGE USED 160# LBS. READ	HEAD: GAUGE USED 160# LBS. CORRECT	HEAD: FEET OF WATER	HEAD: ELEV. HD.	HEAD: VEL. HD.	HEAD: TOTAL HEAD IN FEET	CAPACITY MEASURED WITH 12" ORIFACE READ	CAPACITY MEASURED WITH 12" ORIFACE GPM	POWER: LBS. READ	POWER: LBS. CORRECT	POWER: BRAKE H.P.	COMPUTED TO CONSTANT SPEED OF 1770 RPM: GPM	TOTAL HEAD IN FEET	BOWL BRAKE HP. SP. GR.	BOWL EFF.	OVERALL EFF.
1	1787	40.1	40.0	92.4	8.25	2.2	102.9		4100	76.1	75.1	137.2	4060	101.0	133.8	77.6	
2	1787	46.0	45.9	106.2	8.25	2.0	116.5		3900	78.1	77.1	140.9	3865	114.3	137.0	81.5	
3	1787	53.2	53.1	122.8	8.25	1.7	132.8		3600	79.5	78.1	142.7	3568	130.5	138.8	84.8	
4	1787	60.0	59.9	138.4	8.25	1.4	148.1		3300	79.7	78.7	144.0	3270	145.3	140.1	85.7	
5	1787	69.5	64.4	148.8	8.25	1.2	158.3		3000	79.4	78.4	143.2	2973	155.5	138.8	84.0	
6	1787	72.0	71.9	166.2	8.25	.8	175.3		2500	77.1	76.1	139.1	2478	172.3	135.7	79.6	
7	1787	78.8	78.9	182.3	8.25	.5	191.1		2000	77.1	76.1	139.1	1982	187.3	135.4	69.4	
8	1787	81.7	81.6	188.5	8.25	.3	197.1		1500	77.4	76.4	139.8	1488	193.5	136.2	53.4	
9	1786	98.0	98.0	226.6	8.25	.1	235.0		1000	82.5	81.5	148.8	991	231.0	145.0	39.9	
10	1786	103.2	103.2	238.5	8.25	—	246.8		600	82.8	81.8	149.5	594	242.0	145.2	25.0	
11	1786	106.5	106.5	246.0	8.25	—	254.3		0	79.8	78.8	144.0	0	280.0	140.5	0	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	

DATE OF TEST 11-4-60 SHEET 1 OF 2 [illegible] WT. [illegible]

PUMP TEST DATA

WINTROATH PUMPS DIVISION OF WORTHINGTON CORPORATION

SIZE	TYPE	NO. STAGES
15 MH	340	3

	RPM	GPM	TOTAL HEAD	BOWL EFF.	OVERALL EFF.	NPSH	SP. GR.
FIELD SPEED	1170	3280	315				
TEST SPEED							

TESTED BY A. Thomas Wise

WITNESSED BY Paul W. Steelsmith/OCR

CUSTOMER Mirridda Project

NOTES Dr 9773 Item #3

	MATERIAL	DIAMETER	UNDERFILE
IMPELLER	BRZ	9½	STD
BOWL	CAST IRON		

VEL. HD. .13 @ 1000 GPM 12" I. D. COLUMN

HP MOTOR POLE DYNAMOMETER

IMPELLER SETTING 1/16" WATER TEMP. °F

	RPM	HEAD: GAUGE USED 16.0 LBS. READ	LBS. CORRECT	FEET OF WATER	ELEV. HD.	VEL. HD.	TOTAL HEAD IN FEET	CAPACITY MEASURED WITH 12" ORIFACE READ	GPM	POWER: LBS. READ	LBS. CORRECT	BRAKE H.P.	COMPUTED TO CONSTANT SPEED OF 1770 RPM: GPM	TOTAL HEAD IN FEET	BOWL BRAKE HP. SP. GR.	BOWL EFF.	OVERALL EFF.
1	1783	46	45.9	106.2	8.3	2.2	116.7		4100	92.3	91.3	166.7	4070	114.8	163.2	72.4	
2	1782	54.8	54.7	126.6	8.3	2.0	136.9		3900	96.4	95.4	174.0	3870	134.8	170.2	77.6	
3	1782	66.9	66.9	154.8	8.3	1.7	164.8		3600	100.7	99.7	182.0	3572	162.7	177.9	82.5	
4	1781	77.5	77.4	179.0	8.3	1.4	188.7		3300	102.5	101.5	185.0	3275	186.0	181.9	85.0	
5	1780	85.4	85.3	197.2	8.3	1.2	206.7		3000	102.7	101.7	185.2	2985	204.0	182.0	84.5	
6	1781	96.2	96.2	222.7	8.3	.8	231.8		2500	101.0	100.0	182.1	2487	229.0	178.9	80.4	
7	1781	107	107.0	247.3	8.3	.5	256.1		2000	102.1	101.1	183.9	1988	253.0	180.8	70.4	
8	1781	120.	120.0	277.3	8.3	.3	285.9		1500	103.5	102.5	186.8	1492	282.5	183.8	58.0	
9	1778	135	134.9	311.8	8.3	.1	320.2		1000	112.6	111.6	203.2	995	317.0	200.0	39.8	
10	1778	144.2	144.1	333.0	8.3	–	341.3		600	116.5	115.5	210.3	597	339.0	207.5	24.6	
11	1777	150	150.0	356.8	8.3	–	355.1		0	115.5	114.5	208.5	0	351.0	206.5	0	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	

FORM 4-8

DATE OF TEST 11-9-60

SHEET 2 OF 2

1304922-6

WT 342

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
MINIDOKA PROJECT-IDAHO
NORTH SIDE PUMPING DIVISION
RUPERT, IDAHO

95/22E-30aa1

Specifications:
Group 6

Log of Well No. 30A922
Location NE¼ of NE¼ Sec. 30 T 9 S; R22 E BM.
Contractor Commons Date Started Feb. 7, 1956
Date Completed March 22, 1956 Dia. 20"
Depth from ground surface 336.0'
Length Casing 17' * 4187.12 Dia. Casing 21" * Thickness 3/16 *
Eleve. Ground Surface ~~4236.89~~ Eleve. Bottom ~~3900.89~~
Ground Surface to Water 238.0' Date March 23, 1956
Name of Pump Capacity s.f. Horsepower
Drawdown at s.f. = ft. on July 10, 1956
Elev. B.M. , or concrete base

LOG

* 17' of surface casing. In addition 339' of 18" ID X 1/4". Total casing depth 339.0'

Depth From	Depth To	Remarks	
0	14	Topsoil and clay	
14	20	Black lava	
20	39	Light gray lava - very hard	
39	41	Coarse lava	
41	77	Gray lava hard	
77	85	Brownish red lava ash	
85	110	Sticky yellow clay	
110	127	Gray lava	
127	155	Very hard lava, drills badly	
155	184	Black lava loose, doesn't hold water	
184	217	Gray lava hard	
217	224	Coarse reddish and gray lava	
224	230	Dark gray lava - hard	
230	236	Black lava and cinders	
236	242	Black lava - hard 238' to water	
242	247	Coarse black lava	
247	267	Black lava	
267	302	Sandy yellow clay	
302	338	Yellow clay-stickey	32
338	351	Black lava hard	
351	355	Light gray sand	4
355	360	Gray lava	
		Drilled deeper by Ralph Denton, Spec. 1000-371, 9/8/59:	
335	360	Cave in	
360	367	Grey lava	
367	374	Brown lava	
374	498	Grey and brown lava (coarse)	5
498	503	Grey and red cinders - water drop about 15'	
503	510	Broken red and grey lava	7

GPO 988081

7-1654 (7-73)
Water and Power

COMPUTATION SHEET

BY	DATE	PROJECT	SHEET ___ OF ___
Ok	5/83	Minidoka	
CHKD BY	DATE	FEATURE	
		Northside, pumping Division	
DETAILS			
well - 8S/23E-34cd1 — 34A823			

4/21/55 - Began drilling - Strosser Contractor

5/4/55 - Completed drilling to 234 ft.

7/9/55 - pump tested. inadequate yield - will drill deeper
- Completed drilling to 354 ft - Water level 144.6 ft

11/23/55 - pump tested at 4.2 CFS and 4.2 ft drawdown

4/10/59 - Airline calibrated - bottom 186.3 - W.L. 148.0 ft

7-1654 (7-73)
Water and Power

COMPUTATION SHEET

BY	DATE	PROJECT	SHEET ___ OF ___
CHKD BY	DATE	FEATURE	
DETAILS			

BY: Ok
DATE: 6/83
PROJECT: Minidoka
FEATURE: Northside Pumping Division
DETAILS: Well-8S/23E-35cd1 — 35C823

6/1/55 - Began drilling - Strasser Contractor

7/12/55 - Pump tested at 220 ft depth - insufficient yield - will drill deeper

9/ /55 - Completed drilling to 298.5 ft

9/26/55 - Water level 144.3 ft
pump tested at 3.8 cfs and 7.1 ft drawdown

4/9/59 - Airline Calibrated - bottom 167.5 - W.L. 146.85

4/5/62 - Lowered pump 20 ft - new setting 180 ft

31A823

Layne

PUMP RECORD

8S/23E-31da1

PUMP No. 33387

For U. S. BUREAU OF RECLAMATION

MINIDOKA PROJECT

BOISE, IDAHO

Date 4/4/56

ITEM #23, WELL #31A823

TV log run 1982
A-B Office have tape

LAYNE & BOWLER, INC.

MEMPHIS,

TENNESSEE

31A823

107C-39

On Febr. 6, 1958 a short form contract was issued to R.J. Strasser Co. for cleaning and additional drilling on this well. The well was cleaned but before the additional drilling was completed his drill tools broke approximately where the stem and drill head meet. He worked for a week trying to get this bit out (worth about $1,000) but was unable to remove it. Decided to drill 8 inch hole along side tools to see if more water could be obtained, however this area of the well is mostly cinders and to drill furthur would req uire perforated casing and the probability is that no more water would be encountered. Additional trying to recover the drill proved useless and Strasser thought that there was a cavatty in the cinders large enough to allow the tool to fall over and lay sideways.

31A823 Required dia. 20" drilled dia. = 20" Q = 6.5 c.f.s.

Depth to W.S. 179.5' minimum 225'

Depth at present 235.5'

This well is deep enough for the required capacity but the section between 91 and 130 feet is shown in the log as clay and is caving badly. Will have to be cased with 18 inch casing. Recommend 1770 r.p.m. pump with 16 7/8" bowls. No additional drilling required. Recommend that no penalty be charged contractor for not meeting efficiency requirement and that change order be initiated.

FORM 2552
2-45—200M

UNION PACIFIC RAILROAD COMPANY

Pocatello, Idaho
January 14, 1947

RECEIVED
BUREAU OF RECLAMATION
CENTRAL SNAKE RIVER DISTRICT
JAN 16 1947
BOISE, IDAHO

Mr. Geo. N. Carter, District Engineer
Central Snake River District
214 Broadway
Boise, Idaho

Dear Sir:

In connection with your letter of December 23, 1946, attached hereto is one blueprint each of logs of wells at Minidoka, Owinza, Wapi, Besslen, Rupert, Eden (2), Jerome (2), also one copy each of chemical analyses of water from each of the following stations- Owinza, Wapi, Rupert, Eden and Jerome.

Please note last Owinza analysis was made in 1909 and there is no record of the source of the water. We have no analysis of water supply at Besslen.

Yours very truly,

W. B. Groome
W. B. Groome
Superintendent

COPY

CHEMICAL LABORATORY

Station Owinga, Idaho

Samples of Untreated Water

Taken

Received 5-6-09

Reported May 13, 1909

Report No. W. 9276

Remarks

Analyst

	GRAINS PER GAL.	LBS. PER 1000 GALS.
SiO_2	1.28	.18
Fe & Al	.15	.02
$CaCO_3$	3.45	.49
$MgCO_3$	2.57	.37
$CaSO_4$		
$MgSO_4$		
$CaCl_2$		
$MgCl_2$		
T. Solids	7.45	1.06
Na_2CO_3	.34	.05
NaOH		
Na_2SO_4	2.49	.35
NaCl	1.50	.22
$NaNO_3$	.09	.01
Org. & U. det.		
NI Solids	4.42	.63
T. Solids	11.87	1.69

COPY

CHEMICAL LABORATORY

Station Wapi, Idaho

Samples of Untreated Water

Taken 7-8-1934

Received 7-10-1934

Reported 7-30-1934

Report No. W. 62226

Remarks Reg. Co. supply Well

Analyst

	GRAINS PER GAL.	LBS. PER 1000 GALS.
SiO_2	1.64	0.234
Fe & Al	0.12	0.017
$CaCO_3$	7.30	1.043
$MgCO_3$	1.24	0.177
$CaSO_4$	-	-
$MgSO_4$	3.27	0.467
$CaCl_2$		
$MgCl_2$		
T. Solids	13.57	1.938
Na_2CO_3		
NaOH		
Na_2SO_4	1.11	0.158
NaCl	2.99	0.428
$NaNO_3$	Trace	Trace
Org. & U. det.	1.95	0.278
NI Solids	6.05	0.864
T. Solids	19.62	2.802

COPY

CHEMICAL LABORATORY

Station Rupert, Idaho

Samples of Untreated Water

Taken 9-13-34

Received 9-15-34

Reported 12-12-34

Report No. W. 62880

Remarks Reg. Co. supply from 2 wells. Sample is mixture. Deep well in Lava rock 8" x 106'. Shallow well in gravel 11' x 34'.

Analyst

	GRAINS PER GAL.	LBS. PER 1000 GALS.
SiO_2	2.80	0.400
Fe & Al	0.12	0.017
$CaCO_3$	9.58	1.369
$MgCO_3$	2.24	0.320
$CaSO_4$		
$MgSO_4$	2.23	0.319
$CaCl_2$		
$MgCl_2$		
T. Solids	16.97	2.425
Na_2CO_3		
NaOH		
Na_2SO_4	2.00	0.286
NaCl	3.18	0.454
$NaNO_3$	Trace	
Org. & Undet.	0.52	0.074
NI Solids	5.70	0.814
T. Solids	22.67	3.239

COPY

CHEMICAL LABORATORY

Station Jerome, Idaho

Sample of Untreated Water

Taken 9-14-34

Received 9-17-34

Reported 12-17-34

Report No. W 62898

Remarks Co. Well 14" x 330'

Analyst

	GRAINS PER GAL.	LBS. PER 1000 GALS.
SiO_2	1.52	0.217
Fe & Al	Trace	
$CaCO_3$	6.55	0.936
$MgCO_3$	2.20	0.314
$CaSO_4$		
$MgSO_4$	2.03	0.290
$CaCl_2$		
$MgCl_2$		
T. Solids	12.30	1.757
Na_2CO_3		
Na OH		
Na_2SO_4	1.73	0.247
NaCl	3.28	0.469
$NaNO_3$	Trace	
Org. & U de.	1.15	0.164
Nl Solids	6.16	0.880
T. Solids	18.46	2.637

COPY

CHEMICAL LABORATORY

Station Eden, Idaho

Sample of Untreated Water

Taken 9-15-34 at

Received 9-17-34

Reported 12-20-34

Report No. W 62908

Remarks Co. Well

Analyst

	GRAINS PER GAL.	LBS. PER 1000 GALS.
SiO_2	1.64	0.234
Fe & Al	Trace	
$CaCO_3$	8.70	1.243
$MgCO_3$	2.69	0.384
$CaSO_4$		
$MgSO_4$	2.23	0.319
$CaCl_2$		
$MgCl_2$		
T. Solids	15.26	2.180
Na_2CO_3		
Na OH		
Na_2SO_4	3.14	0.448
NaCl	5.78	0.826
$NaNO_3$	0.35	0.050
Org. & U de.	2.58	0.369
Nl Solids	11.85	1.693
T. Solids	27.11	3.873

MIMEOGRAPHED FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : Well Files 33A725 and 9A922. DATE: June 9, 1958

FROM : O. L. Kiss, Construction Engineer

SUBJECT: Report of Installation.

The first installation of pump 33A725 was made about April 21, 1958. Upon testing discharge it was found that the pump was short by 1 second foot. It was thought possibly that something was wrong with the pump, so an extra work order was negotiated with Electric Pump and Equipment Company to remove pump 33A725 on April 24. It was removed on April 25 and the bowls were taken to Twin Falls to Electric Pump and Equipment Company's shop and dismantled. On Monday, April 28, I visited the shop at Twin Falls and inspected the dismantled pump. There was nothing wrong with the pump so it was decided that the well mustbe at fault. Upon observing the log of the well it was found that water was coming from a cinder formation elevated above the suction screen of the pump. The diameter of the well being only 4 inches greater than the diameter of the suction screen indicated that there were poor suction conditions. Cinders were dropping down from above and lodging against the suction screen closing off some of the flow. It was therefore decided to remove 9 feet of suction pipe and place the screen within 1 foot of the bowls. The pump was installed on April 30 and when started was found to pump the required amount. The pump was turned on on May 21, 1958, for irrigation and operated until May 27. The vibration had increased until the pump was knocking excessively. At 10:30 A.M., May 28, the Government pump crew started to remove the pump. It was observed that the bearings were destroyed by vibration in the second, third and fourth 20-foot sections of the pump. Bearings in the fifth section were in good condition. Nine 20-foot sections were removed and sections number 5, 6, 7, 8, and 9 were cleaned and replaced. Three new 20-foot shafts were reinstalled and twelve new bearings were also installed. Two of the shafts with bearings and tubing were on hand and the third new shaft was purchased from Layne and Bowler Company of Pocatello, along with the twelve new bearings. A truck was sent to Pocatello on the afternoon of May 29 to deliver the new parts. The pump was complete and running at 1:00 P.M. on May 30. It showed a slight amount of vibration.

On June 2 it was reported that the 33A725 pump was discharging water out through the oil drip and tank. Arranged to have the pump again dismantled on June 3. Upon removal of the motor it was determined that the leak was coming through the threads of the stretch nut on top of the oil tubing. This was easily fixed by reinstalling it with red lead to seal the opening. Upon replacement of the motor it was noted that the head shaft did not come up in the center of the hollow shaft and it was decided to take the head shaft and first 20-foot length of column shaft into the shop to have them straightened. We straightened the head shaft in our own shop and the Rupert Iron Works straightened the 20-foot length. Completion of the installation of the two shafts was accomplished on June 4.

The pump ran until June 7, at which time vibration was noticed to be excessive again. It was closed down and within 1½ hours Mr. Gulley had his pump crew on the way out to remove the pump. It was out of the well by one or two o'clock on June 8 and the crew loaded up the new pump for well 9A922 and hauled it out to the site. Ten 20-foot joints and one 10-foot joint of the 9A922 pump were used and it was not necessary to cut off the suction pipe. It appears that the new pump will be installed by this evening, Monday, June 9. A measurement to water was made and found to be 207.5 feet. However, there appeared to be one or two feet of oil on the water.

The 334785 pump will be brought to the Rupert Yard for repair and we will make every effort to determine the cause of the trouble and should it be a factory default we will take the necessary means to achieve compensation from the Layne-Memphis Company.

C. L. Kime
Construction Engineer

Construction Field Division
Rupert, Idaho

April 3, 1957

C. B. Eaton & Sons
P. O. Box 265
Wendell, Idaho

Re: Specifications 1000-216
Contract 14-06-100-710
Dated January 21, 1955

Gentlemen:

In connection with the drilling and casing of Well 9A922 under your above contract with the Government, the provision for completion is mutually agreed between yourself and this office as follows:

After having completed the work outlined in our letter of March 22, 1957, and after having excessive difficulty with caving and an attempt being made to stop the caving by the use of concrete, it appears impossible to drill the well further without reduction to a 16 inch diameter driven casing. If reduction is made to a 16 inch diameter casing, the well will then be incapable of producing the required discharge of 8 second feet. This being the case, it will require that invitations be let for the drilling of a new well.

We, therefore, shall consider Well 9A922 to be complete at this date, and you will be paid for work thus far completed in accordance with the pay items for which you are entitled pay under Specifications 1000-216, Contract 14-06-100-710, and to other items of pay as agreed to in our letters of December 18, 1956, February 19, 1957, February 23, 1957, and March 22, 1957. Payment for these items of work agreed to above will be made only in the actual amount for portions of the items completed.

Yours very truly,

O. L. Kime
Construction Engineer

In duplicate

I agree:

/s/ James Eaton
C. B. EATON & SONS

Blind copy to: Regional Director, Boise, Idaho, Attn: 220
Project Superintendent, Burley, Idaho
W. H. Clark
W. J. Attridge

Febr. 13, 1959

This well when completed in Sept. 1957 had a 19" casing to the 176 foot depth from the top of the well. The testing with the diesel pump showed an abundance of water although the total depth was only 292 feet when drilling stopped. A stable clay layer(could have been soft rock) between 256 to 271 appeared stable and caused no trouble during the testing. However, since the new pump to be installed is 289 feet and the well is only 292 feet it was thought best do drill this well deeper for clearance, and to avoid future trouble.

The additional drilling of this well was included with three others under spec. . By the time the drill rig was set up the well had caved 18 feet from the bottom. As drilling continued the caving continued and it was necessary to clean out several feet of caved material each morning. This caused some concern and it was decided to ream this well from 176 with a 19" bit and install 16" casing which we had in our yard. The well was reamed with the 19" bit and a dummy casing 16" I.D. by 45 feet long was run from the top to 304 feet. This was taken out and the permenant casing rigged up with 265 holes 1"x8" five per circle staggered with a short space between rings for a total of 30 feet. This casing went from 156 to 304 feet or a total of 148 feet.

After this casing was in it was tested with a 16" bit and went to the bottom but was not allowed to go out of the casing because there was a possibility of a burr which would prevent the taking out of the bit. Drilling continued with a little smaller bit to 324 feet. The maximum diameter of the pump bowls is 14" and the column couplings is 13 3/42. As an additional test, two discs 14 5/8 inches diameter were mounted on the ends of a 3 foot long rod and this was lowered through the casing to 15 feet below the setting of 285 feet.

Febr. 16, 1959

There was still some concern about this casing being straight enough for this pump. We decided make a test and ran the above mentioned discs down the well after taping with schtch lite and using a spot lite. these discs were lowered through the casing but disappeared before reaching the water. We decided that the best policy(Attridge, Kime and Fredrickson) would be to take out the casing and either install the pump without the lower casing or try to straighten up the well by blasting and install a casing from the top to the bottom.

On January 25, 1960, the O & M pump crew added a ten (10) foot section of 12" column pipe, ten (10) foot section of 3 1/2" oil tubing, & ten (10) foot section of 2 3/16" shafting. This well shaft is crooked so the pump crew was instructed to lower this pump about one foot or less and see if it binds. The pump went down with out binding but when construction personnel measured the depth of the well, it was discovered that the well had caved in & would require drilling deeper. The O & M pump crew pulled this pump & completed pulling it on January 28, 1960.

The well was drilled deeper by a drilling contractor. It was drilled from 289.3 feet to 320 feet.

On March 21, 1960, the Parma Water Lifter Co. proceeded to set this pump. When they had approximately 250 feet of column, etc. in the hole, the stiff leg collapsed on their pump rig & they dropped the pump approximately 45 feet. It was necessary to pull this pump & twenty foot of line shaft and a new set of bowls were ordered by Parma Water Lifter Co. They hired a drilling contractor to fish for the suction nozzle & the suction strainer but they were unable to retrieve it.

On April 21, 1960, the Parma Water Lifter Co. proceeded to set this pump. New bowls were set and the remainder of the pump was set as described above. Thirteen (13) feet was added to the existing airline.

Upon testing running the pump & setting it up for water delivery, it was discovered that water was entering the oil tubing. The Construction Engineer decided that it could be quicker for O & M forces to remedy this trouble. The motor was disconnected & lifted and the gate valve removed and the stretch not removed & the oil tubing tightened. After everything was assembled again & the pump was started, there was no more water leak.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
MINIDOKA PROJECT-IDAHO
NORTH SIDE PUMPING DIVISION
RUPERT, IDAHO

9S/22E-11bd1

Specifications:
Group 4

Log of Well No. 11A922
Location SE¼ NW¼ Sec. 11 T. 9 S; R. 22 E. BM.
Contractor R. J. Strasser Drilling Co. Date Started Aug. 20, 1955
Date Completed Jan. 10, 1956 Dia. 20"
Depth from ground surface 322 ft.
Length Casing 226 4214.38 Dia. Casing 20" Thickness 3/16
Eleve. Ground Surface ~~4264.15~~ Eleve. Bottom
Ground Surface to Water 202.0 Date
Name of Pump Capacity s.f. Horsepower
Drawdown at 4.8 s.f. = 14.8 ft. on Dec. 9, 1955
Elev. B.M. , or concrete base

LOG

Depth From	Depth To	Remarks
0	11	Yellow clay
11	26	Grey lava boulders, loose
26	35	Hard grey lava
35	46	Rough red lava
46	75	Hard grey lava
75	107	Yellow clay, very sticky
107	152	Brown lava, loose
152	156	Red cinders, caved badly
156	178	Red clay
178	183	Coarse black lava
183	201	Hard grey lava
201	210	Loose grey lava, drills like boulders. Water at 202
210	215	No sample, water-bearing lava. Very loose.
215	226	Loose red lava
226	257	Grey lava, medium hard. No loss of cuttings.
257	268	Hard grey lava
268	274	Med. hd. red lava
274	284	Grey lava, med. hard.
284	294	Sandy yellow clay
294	305	Sticky yellow clay
305	322	Blue clay
		This hole was drilled 24" in diameter from 0-226 ft.,
		and cased with 20" pipe. Turbine pump test when 257 ft.
		deep produced 5 CSF with 20 ft. drawdown. No indications
		of water between 257 and 322

11A922 Sept. 27, 1955 Strasser

This well has several clay layers that are causing considerable trouble. The well is also crooked. It meets specifications but goes from one side to the other which will limit the size of casing that it will take. Today Kime and Attridge agreeded with Strasser to install 20 inch casing for 223 feet plus or minus with a drive show on the bottom. The bottom 30 feet of hasing (plus of minus) to be perforated and the casing backfilled with 1½ inch gravel which will be furnished by the bureau.

Oct. 25, 1955

This is not the correct proceedure for this well as the 19 5/8 inch bowles will not work in this 20 inch ca sing. It was decided a few days ago to try to get 22 inch casing into this well but it would not go beyond the 70 foot mark. At present the rig is still there until a dicision is made.

w.j.a.

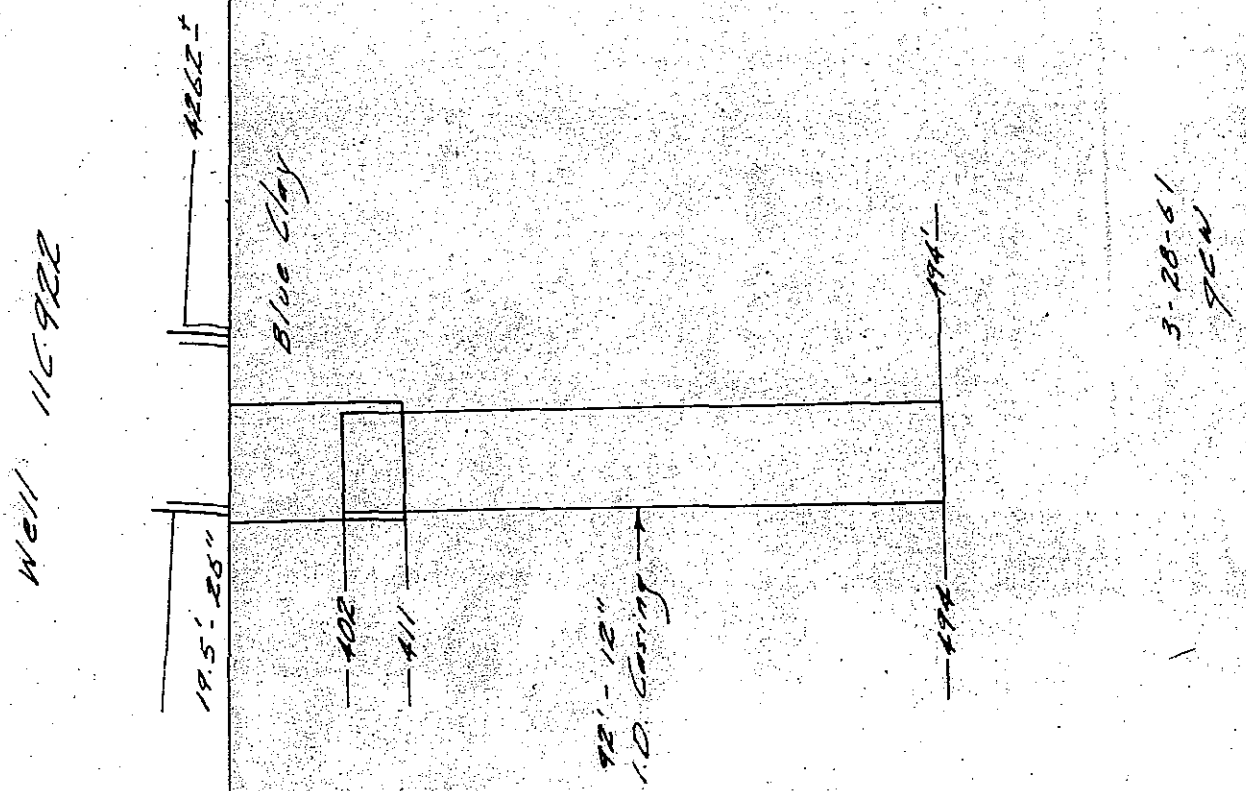
7.8

Oct. 28, 1955
Told Strasser today to install 20 inch I.D. Casing in this well.

w.j.a.

11C 9/22

95/22E-11



Pump 11c922

Due to an insufficient water supply from the combined wells of 11A922 and 11B922, Construction decided to drill an additional well at 11C922. The details of this well may be found in the Well folder in the construction office.

Idaho Power Co. constructed a 2300 volt line from the 11AB922 substation and an electrical and concrete contractor were awarded a contract to pour the pad and install the electrical equipment with the exception of moving and setting the switch gear.

On April 28, 1961 the O&M Pump Crew consisting of Archie Bell Howard Brent, Roy Brown and Don Hess proceeded to set the 11A922 pump in the 11C922 well shaft. This pump was set to a bowl setting of 230 feet and they completed setting this pump on May 1, 1961.

The O&M electrical crew set the switch gear and connected the motor and controls.

Apr. 26, 1961

11C922-4

This is a new well. For details of the well see well folder. The pump from 11A922 will be installed in this well. The pump was re-built in Rupert Iron works by building up the impeller skirts and machining the skirts and rings to proper clearance. The pump will be installed using 230 feet of column. The total length of pump from sole plate to bottom of screen is 251.5 ft.

Attridge

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
REGIONAL OFFICE, REGION 1
BOX 937, BOISE, IDAHO

IN REPLY REFER TO: 210

960

R.P. W/9

To: Construction Engineer, Rupert, Idaho

From: Regional Engineer, Boise, Idaho

Subject: Supplemental Notice for Specifications 100C-429, Drilling well 11C922, North Side Pumping Division, Minidoka Project, Idaho (Your letter of November 17, 1960)

A supplemental notice has been issued to eliminate the 22-inch drilling which would be expensive if the drillers do not have that size bit, and to provide for 20-inch hole where it is expected to install 18 inch liner. This change covers the two most important points in your subject letter.

The logs of wells 11A922 and 11B922 have been carefully studied and it appears that 280 feet of 21 inch casing will be the best estimate. Any solid basalt above the blue clay stratum should be left open hole if possible. This was done in Well 11B922 between depths of 231 and 297. This was not done in Well 11A922 between depths 257 and 284. Perhaps it should have been.

Since almost every operation of the contractor in this specification is labeled "as directed," you have a considerable amount of leeway in the schedule item amounts. It is believed that you can obtain the best bids possible and direct the drilling of a good well with the schedule as it now stands. We appreciate your suggestions and if you have further comments please advise.

R. H. Harris

Copy to: Project Superintendent,
Burley, Idaho

11C922-4

Jan. 18, 1961

Today Mr. Commons and his drillers were in explaining his problem on this well. When the well was drilled to a depth of approx. 70 ft. a large amount of water was encountered. This was un-expected by Commons and USBR. This water is apparently irrigation water which is laying on top of the clay. Drilling into this clay and water made almost an impossible situation as it continued to come in. After several days trying to get through Commons called me in Boise and wanted some advice. I told him that all I could think of was to drill a small hole in casing and try to lower this mud and water content. This was done but with very little luck in getting rid of the mud and water.

Today Mr. Commons wanted to install 88 22 inch casing from the top to 120 feet approx. and then continue with the largest bit he could get into this casing. The thought being that it michg be possible to get down well into the blue clay with 18 inch casing. This he was told to do. We have pay items for all work to be done.

Attridge

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
MINIDOKA PROJECT-IDAHO
NORTH SIDE PUMPING DIVISION
RUPERT, IDAHO

95/22E-15aa1

Specifications
Group 5

Log of Well No. 15A922
Location SW¼ of NW¼ Sec 15 T9 S, R 22 E BM.
Contractor Perry Date Started Oct. 8, 1956
Date Completed Feb. 15, 1957 Dia. 24"
Depth from ground surface 388.0
Length Casing 24' 4200.5' Dia. Casing 25" Thickness 3/16"
Eleve. Ground Surface 4258.28 Eleve. Bottom 3870.28
Ground Surface to Water 236.7 Date Feb. 18, 1957
Name of Pump 9021.2 Capacity s.f. Horsepower
Drawdown at s.f.= ft. on June 12, 1957
Elev. B.M. , or concrete base

LOG

Depth From	Depth To	Remarks
0	1	Topsoil
1	3	Hardpan
3	17	Yellow clay
17	57	Gray lava
57	70	Red volcanic ash
70	77	Sticky brown clay
77	106	Gray lava
106	118	Brown clay
118	120	Brown clay & lava
120	135	Grey lava, very broken, should be cased
135	159	Hard gray lava
159	190	Hard brown lava
190	202	Yellow clay on north of well. Hard gray lava ledge across well 16" projection from south wall of well.
202	230	Gray lava broken
230	247	Red volcanic ash 2
247	267	Gray black lava
267	272	Cinders 5
272	280	Black lava
280	285	Hard gray lava
285	298	Black lava
298	303	Cinders, some clay 5
303	323	Black lava, almost cinders, caving badly 19
323	333	Hard gray lava
333	382	Broken black lava filled with blue clay 25
382	385	Hard blue clay 3
385	391	Gray sand, very fine 6

GPO 988081

560.3
Pres

MAR 15 1960

409

To: Construction Engineer, Rupert, Idaho

From: Regional Director, Boise, Idaho

Subject: Developing Wells 154922 and 152922 - North Side Pumping Division, Minidoka Project, Idaho--Ref: Your letter of February 12, 1960, same subject.

The data submitted by your letter, together with available information on hand regarding other wells in this same area, have been reviewed. In general it seems that sufficient data are not available, at least not in this office, to reach a final decision on the best course of action to be followed in the development of all the wells which are located in the area underlain by the intercalated lake beds. Costs of developing increased flows by deepening these wells will have to be compared with the costs of securing the same increment of flow in new wells outside the lake-bed area and transporting it into the area, probably as an incremental to an otherwise required importation, with increased losses and canal costs.

Geologically, it appears reasonable to expect some increase in yield from each basaltic member penetrated by a well. But, because casing will usually be required, at least through the lake-bed series, the cost per unit of yield will vary with each individual well. The design of the casing, pump and motor will also depend somewhat upon the individual conditions encountered. As a consequence it appears that the drawdown which can be justified will be a matter of the economics of incremental yield of a particular well when compared with the cost of importing the same quantity of supplemental supply.

Mr. H. J. Mundorff, District Geologist for the U. S. Geological Survey, has advised us that the Survey has a well logging machine, headquartered in Denver, which can log a well by as many as five different methods, each yielding different data. Information will be secured regarding probable costs for use of the machine and skilled operatives. Perhaps its use would be justified if significant data could be secured for all of the seven or eight wells which have been drilled in the lake-bed area. Moving into and out of the area would likely be a large part of the cost for the logging, so the more wells logged, the lower the unit cost.

It is suggested that, as soon as your cost estimates for alternative sources of supply are completed, representatives from this office come to Rupert to review with you all available data. When the data have

been analyzed and agreement reached upon a course of action, it might be advisable then to request a field review by someone from the Chief Engineer's staff and Mr. Mundorff, or one of his staff, who has been engaged in an extensive study on the Snake River Plain. This review, also, should be made in Boise, where all pertinent data will be available.

Please advise us as to when the cost data on alternative means of supplying the area will be available, so that the initial field review can be scheduled. In the meantime we will get an estimate of cost for use of the Geological Survey logging machine and operators. Your comments on the procedure proposed herein also will be appreciated.

[Signed] M. B. Austin

Copy to: Project Superintendent, Burley, Idaho
Assistant Commissioner & Chief Engineer, Denver, Colo, Att: D-200

Blind to: R.O. 200, 750

FCHart:lrh
3-14-60

shaft coupling & shaft bearing were installed. A 12" x 4" black widow spider was installed.

[illegible] air line [illegible] off with about 250 feet [illegible] the [illegible] shaft when it became [illegible] the pump [illegible] unable to lower [illegible] raise it.

[illegible]

UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION
Minidoka Project Office
Construction Field Division
Rupert, Idaho

IN REPLY
REFER TO:

MINIDOKA PROJECT
Official File Copy
Rec'd AUG 7 1963

TO	INIT.	DATE
Gray		5/5
FILES		

August 6, 1963

To: Project Superintendent, Burley, Idaho

From: Construction Engineer, Rupert, Idaho

Subject: Well 2A1021 - North Side Pumping Division

The following data on subject well is being transmitted to you for your information:

Well 2A1021 is equipped with a 300 H.P. pump and motor which is capable of producing approximately 5.0 c.f.s. at about 385 TDH. The original pump test of the well showed that the drawdown would be between 30 and 35 feet at this Q. The pump test, however, did not show the effect continuious, prolonged pumping would have on the well as this could not be done during the test.

On July 2, 1962 the pump was turned on to deliver water to waterusers. On the evening of July 5, 1962 Mr. Harry Drake, who has a domestic well approximately 700-800 feet north of well 2A1021, reported that his well was dry and that his pump had burned up due to lack of water. Well 2A1021 was then turned off on July 6th and it was left off the rest of the year. The domestic well owned by Mr. Bayne Clark which is located approximately 200 feet north of well 2A1021 did not give any trouble at this time. Mr. Drake contended that the reason his pump burned up was because well 2A1021 pulled all the water out of his well. Mr. Drake repaired his pump and in the process drilled his well deeper or to a total depth of approximately 375 feet. No further measurements or tests were made at this time.

On July 9, 1963 it was decided that the water from well 2A1021 was needed and the pump was again scheduled to go on. Mr. Clark and Mr. Drake were informed in advance that the pump was to go on and for them to watch their domestic systems closely so that no harm would be done in case well 2A1021 pulled the water out of their wells. Observation taken on the Drake well showed that his domestic system continued to pump water after 3 or 4 hours of running of 2A1021, which indicated that his well was not running dry. However, after pumping for a short time, the Clark well stopped pumping. Well 2A1021 was immediately shut down. Mr. Clark had his pump removed from his well and it was decided to make some measurements on his well with 2A1021 running inasmuch as it would be easy to measure with his pump out of the hole. Examination of Mr. Clark's

pump after being removed from the well showed that the reason the pump failed was that a piece of cinder had lodged in an impeller and froze the pump, which in turn damages the motor. The pump was generally in a bad state of repair. It was found at this time that it was possible to measure the Drake well also. The following measurements were taken:

Well 2A1021

Date	Time	Depth to water below sole plate	Q	Drawdown
July 10	6:35 pm	343.4	pump off	
" "	7:03 "		pump on	
" "	7:05 "	366.4	5.0	23.0
" "	7:18 "	373.6	5.0	30.2
" "	7:25 "	373.9	5.0	30.5
" "	7:37 "	374.6	5.0	31.2
" "	8:05 "	374.9	5.0	31.5
" "	8:14 "	375.2	5.0	31.8
" "	8:36 "	375.3	5.0	31.9
" "	8:40 "	344.8	pump off	
July 11	11:30 am	344.0	pump off	
" "	11:43 "	375.3	5.0	30.5
" "	2:00 pm	375.6	5.0	30.8
" "	3:55 "	376.0	5.0	31.2
July 12	9:15 am	377.2	5.0	33.2
" "	2:00 pm	376.9	5.0	32.9
July 13	1:45 pm	377.7	5.0	33.7
July 14	8:00 "	378.2	5.0	34.2
July 15	9:30 am	378.5	5.0	34.5
July 16	4:10 pm	378.7	5.0	34.7
July 17	3:20 "	379.1	5.0	35.1
July 19	11:05 am	379.8	5.0	35.8
July 22	3:50 pm	380.1	5.0	36.1
Aug. 1	9:30 am	382.0	5.0	38.0
Aug. 2	11:30 "		pump off	

Clark well

July 10	6:50 pm	345.8	2A1021 off - measured from top of concrete on pump pit
	Total depth is 380.2 from top of concrete		
	8:00 pm	346.3	2A1021 pumping 5.0 c.f.s.
July 11	noon	343.5	Float on tape) Not true
" "	12:45 pm	344.5	" " ") water level
" "	2:00 "	344.5	" " ")
July 12	10:00 a.m.	348.0	pump back in hole
July 15	9:50 "	349.0	
Aug. 1	9:50 "	351.3	

Drake well

Date	Time	Depth to water below sole plate	Q	Drawdown
July 11	12:20 pm	332.6	Drake pump off - 2A1021 pumping 5.0 c	
July 11	12:30 "	332.7	Drake pump on-2A1021 pumping 5.0 cfs	
July 12	10:30 am	333.8		
July 15	10:00 "	334.8		
Aug. 1	9:50 "	337.2		

As noted above, pump 2A1021 run continuously from 11:30 a.m., July 11 to 11:30 a.m. August 2nd. The total drawdown on well 2A1021 was 38.0 feet, Clark well was 5.5 feet and Drake well was 4.6. The figures indicate that the drawdown in all the wells had not leveled off; however this is not known for sure as no measurements were taken between July 15 and August 1, and it is believed the drawdown probably leveled out sometime during this period. At any rate it appears from the data collected that pump No. 2A1021 can be run at any time for as long as desired as it appears that no domestic well in the vicinity is effected.

Robert T. Pittard

Copy to: Irrigation Manager, Rupert, Idaho

7A1022 6 Commons Mar. 5, 1956

Today Mr. Commons and crew finished installing the test pump toa depth of 360 feet and it would go no furthur because of the well being full of mud and other caved material. Since the weight of the pump and column were all on the mud the bottom ten feet of suction would be full of mud and rodks. Mr. Commons instructed to take the pump out.

[redacted]

(6) Commons

Febr. 3, 1956

3A1022 well
This ~~depth~~ to a depth of 115 and there has been no permenant rock as yet. At present the hole is caving and Mr. Commons and the drillers were in discussing what to do. They suggested that they put in our 22 inch casing on the gounds that they might be required to reduce. Since we only have 300 feet which we may need on the new well I told them to put in their own 21 inch casing.

117 ft

A ttridge.

OLK

Febr. 20, 1956

This well drilled to 290 feet at present and caving badly. The 21 inch casing is down to 117 feet. Since we cannot determine how much beyond the 290 feet the casing should go we decided to take out the 21 inch casing which is the property of the contractor for which we will pay him the agreed price for removal only.(2.10 per foot for removal but nothing for installation). Mr. Commons will then install 18 inch I.D. pipe which is the property of the government to a depth of 300 feet plus what additional depth is necessary to insure stability. He will be paid the agreed price for this installation or 1.80 per foot.

293

Attridge

Febr. 27, 1956

This morning Mr. Commons reports that this well caved in 60 feet. Instructed Mr. Commons to install 75 feet of 16 inch casing. The bottom of the well at present is 363. If the casing does not go any furthur there will be 25 to 28 feet of water which will be room for the pump. It cas go to 292 and be safe. The 18 inch casing now runs to 293 and is frozen. This proposed 16 inch casing will be the [illegible] furnished by the contractor for which he will be paid his cost plus 15 percent plus the cost of installation.

Febr. 29
This casing referred to above may be furnished by the Govt. and will be 17 inch O.D. This will be reported later.

clay 308
casing 310 shut off all water
hit red clay 372 - 395
black coarse lava 395-400

3A1022

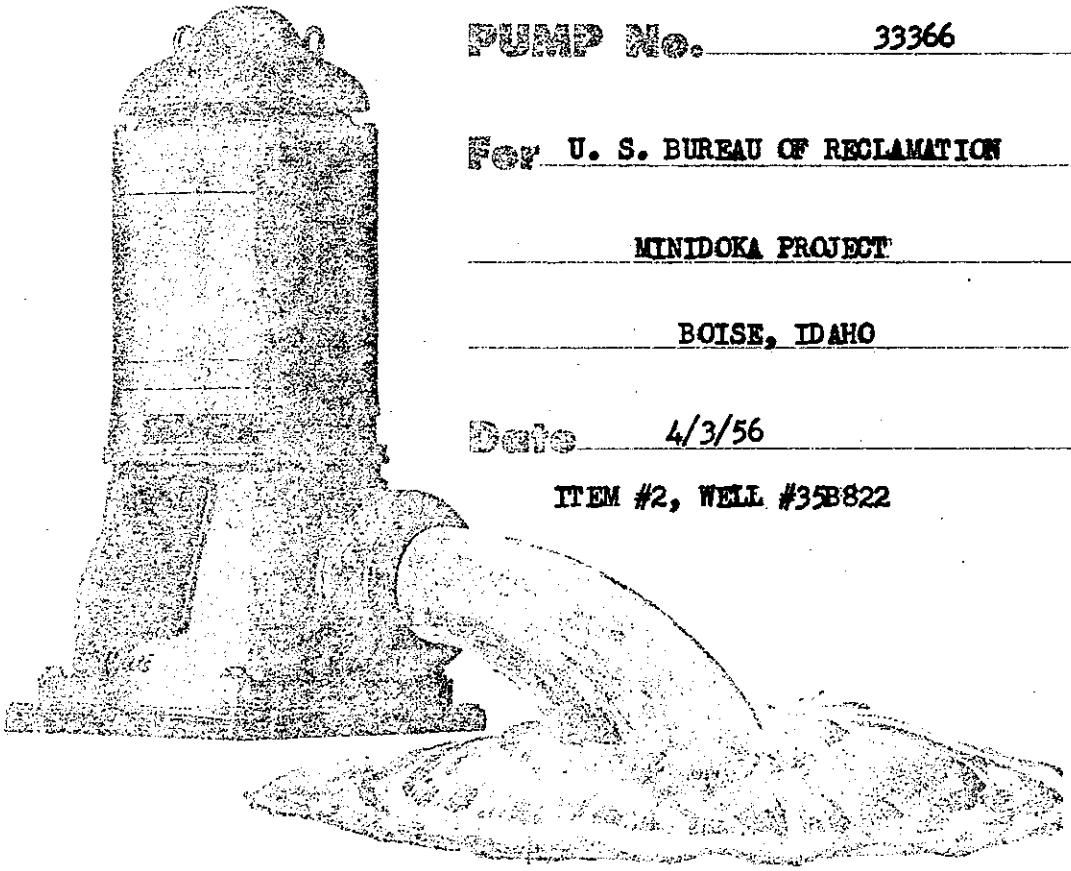
August 18, 1959

At approximately 12:00 midnight, this pump quit pumping water. We experienced an earthquake tremor in this whole section of the country at 11:40 pm on the night of August 17, 1959 and whether this had any effect on this well is uncertain. Nolan Humphrey was notified that the pump was not pumping water on the morning of August 18, 1959 at 07:20 am he arrived at the site and the motor was still running. He stopped the motor and restarted at 07:30 am and the pump started pumping water again. The Acting Construction Engineer, Wm Attridge, was notified.

35B822

PUMP RECORD

8S/22E-35dc2



PUMP No. 33366

For U. S. BUREAU OF RECLAMATION

MINIDOKA PROJECT

BOISE, IDAHO

Date 4/3/56

ITEM #2, WELL #35B822

LAYNE & BOWLER, INC.

MEMPHIS,

TENNESSEE

Motor 35B 822

Sept. 12, 1957

Ditchrider started this pump, it wouldn't pump any water. We backflushed pump [illegible] water from wool, but it wouldn't pump water.

Sept. 20, 1957

Set up well rig and started pulling pump out of well. This pump has 11 - [illegible] joints of column pipe, the suction pipe screen and pump bowles and 1 - 2[illegible] [illegible] of column pipe was plugged solid with mud. We hauled runners to [illegible] and cleaned and installed new seals.

Cons[illegible] run concrete down the outside of well casing to seal off cavern.

Well [illegible] and cleaned mud out of well.

Jan. 27, 1958

Set up well rig and started installing pump. Finished installing pumps in well on Jan. 29, 195[illegible]

Feb. 6, 1958

Electricians connected up motor and checked rotation. We set runners on pump. We pumped [illegible] for about fifteen minutes then it cleared up some. We backflushed twice, the water didn't completely clear up.

[illegible], Idaho
[illegible]

REPORT OF WELL [illegible] - 35B22, GROUP [illegible]

On August 1, 1957 the "B" pump at [illegible] was stopped because the larger "A" pump would supply the [illegible] (all of the [illegible] under this system is not in [illegible]).

On September 11, 1957 the demand for water had dropped to where the capacity of the "B" pump was able to supply enough.

When the "B" pump was started on September 12th it would pump no water.

As was expected there had been a cave-in on the well [illegible] August 1st and September 11th.

Three attempts were made to backflush the "B" well with pumped water from the "A" well on September 12th.

Results:

Well "B" was backflushed for 5 minutes with water from "A". The pump had good back spin which would indicate water was passing through the impellers and back into the ground water.

1

"B" pump was started and run for 5 minutes - no water. When stopped there was fair backspin for 10 seconds.

2

"B" pump was started again and run for 10 minutes - no water. Backspin was 72 seconds and we were encouraged.

3

"B" pump was run a third time for 15 minutes - no water. Backspin was poor, only 10 seconds. This indicated the screen was now completely sealed and the pump would have to be removed and well cleaned and repaired.

Sounding of well indicated beginning of soft mud [illegible] below the ground surface. Well is [illegible] deep.

Lawrence [illegible] Jensen
Irrigation Manager

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
MINIDOKA PROJECT-IDAHO
NORTH SIDE PUMPING DIVISION
RUPERT, IDAHO

Specifications:
Group

Log of Well No. 9T1022 (Test well)
Location SE¼ of NW¼ Sec. 9 T 10S; R 22 E BM.
Contractor Commons Date Started Nov. 5, 1955
Date Completed Nov. 12, 1955 Dia. 6½"
Depth from ground surface
Length Casing Dia. Casing Thickness
Eleve. Ground Surface Eleve. Bottom
Ground Surface to Water Date
Name of Pump Capacity s.f. Horsepower
Drawdown at s.f.= ft. on
Elev. B.M. , or concrete base

LOG

Depth From	Depth To	Remarks
0	64	Topsoil and clay
64	78	Light gray lava - solid
78	82	Dark gray lava - slightly loose
82	95	Dark gray lava - solid
95	109	Dark gray lava - loose
109	152	Brown sandy clay
152	160	Dark gray lava
160	168	Dark gray lava - solid
168	206	Brown sandy clay
206	252	Light gray lava - solid
252	270	Dark gray lava
270	285	Brown sandy clay
285	290	Dark Gray lava - soft
290	305	Dark gray lava - solid
305	315	Dark gray lava - loose
315	340	Black lava - solid
340	345	Coarse lava - broken (water Muddy)
345	355	Very coarse lava some mud and boulders
355	380	Black lava - loose (possibly some water)
380	397	Black lava - solid
397	400	Coarse sand and fine gravel
400	405	Fine brown sand
405	415	Coarse sand and clay traces

MINIDOKA NORTH SIDE PUMPING DIVISION

Production From Deep Wells (AF)

Well No.	1949	1950	1951	1952	1953	1954	1955
T. 7, R. 23							
34A723							
34B723							
T. 7, R. 24							
15A724							
22A724							
22B724							
22C724							
23A724							
26A724							
26B724							
26AD724							
28A724							
28B724							
30A724							
30B724							
31A724							764.83
32A724							
32B724							2847.70
33A724							1311.23
33B724							
34A724							1247.53
35A724							
35B724							1932.13

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.							
T. 7, R. 25							
27A725							
29A725							
30A725							
31A725							
32A725							
32AD725							
33A725							
34A725							
T. 8, R. 21							
22A821							
24A821							
26A821							
26B821							
34A821							
35A821							
35B821							
35C821							
35D821							
T. 8, R. 22							
24A822							
25A822							
30A822							
35A822							
35B822							
35C822							

MINIDOKA NORTH SIDE PUMPING DIVISION

	1949	1950	1951	1952	1953	1954	1955
Well No.							
T. 8, R. 23							
1A823							
1B823							
2A823							
1C823							
2A823							
4A823							
4B823							
4AD823							
5B823							
5C823							
5AD823							
8A823			1160.40			1352.91	1601.26
8AD823							
9AD823							
9BD823							
10A823							
10B823							
10AD823							
10BD823							
10CD823							
10DD823							
11AD823							
12A823							

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1949	1950	1951	1952	1953	1954	1955
T. 8, R. 23							
12B823							
12C823							
12D823							
12E823							
14A823							
14B823							
14AD823							
14BD823							
15A823							
15B823							
15D823							
17A723							
17B823							
17C823							157.06
19A823							
19B823							
20A823							
21A823							
21AD823							
21CD823							
22A823							
22AD823							
22BD823							

MINIDOKA NORTH SIDE PUMPING DIVISION

	1949	1950	1951	1952	1953	1954	1955
Well No.							
T. 8, R. 23							
22CD823							
22DD823							
22ED823							
22FD823							
23A823							
23B823							
24A823							
24B823							
24C823							
25A823							
25B823							
25AD823							
25BD823							
25CD823							
26A823							
26AD823							
26BD823							
26CD823							
26DD823							
27A823			749.09			See 27C	See 27C
27B823							
27C823		1195.85	870.77			2295.05	2195.86
27AD823							

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.							
T. 8, R. 23							
27BD823							
28A823							
28B823							
28C823							
28AD823							
28BD823							
29A823							
29B823							
29AD823							
31A823							
34A823							
34AD823							
34BD823							
34CD823							
34DD823							
35A823							
35B823							
35C823							
35D823							
35AD823							
35BD823							
T. 8, R. 24							
1A824							
1AD824							

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1949	1950	1951	1952	1953	1954	1955
T. 8, R. 24							
2A824							
3A824							
3B824							2710.57
4A824							2032.96
4B824						See 8A	See 8A
4C824							
5A824							
6A824			1967.04			See 18A	See 18A
6B824							1245.08
6C824							
7B824	1334.0	2109.99	1493.56			See 18A	See 18A
8A824			1460.51			3477.05	3425.00
8AD824							
9A824							
9AD824							
10A824							
10B824						3290.92	2936.32
10C824							
11A824		1847.64	1825.07			1744.13	
11B824							2509.95
11C824						[illegible]	770.06
12A824							
13A824							See 13 B

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1949	1950	1951	1952	1953	1954	1955
T. 8, R. 24							Include 13A
13B824							3158.73
13AD824							
14A824						1656.87	1776.14
14B824							
15A824						1173.36	1387.31
18A824			1086.66			5583.55	5954.35
20A824							Includes 20R 1031.18
21A824			1783.91			2379.48	2470.44
21B824							1723.48
21C824							
22A824						[illegible]	879.75
23A824							1630.12
23AD824							
24B824							
24AD824							
24BD824							
25AD824							
25BD824							
25CD824							1547.36
26A824							
26AD824							
27A824							
27AD824							

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.							
T. 8, R. 24							
28AD824							
29A824							
30A824							
30B824							
31A824							
31B824							
32AD824							
33A824							
33AD824							
T. 8, R. 25							
3A825							
3B825							
3C825							
3D825							
3E825							
3AD825							
5A825							
5B825							
6A825							
6B825							
11A825							
12A825							
12B825							
13A825							

MINIDOKA NORTH SIDE PUMPING DIVISION

	1949	1950	1951	1952	1953	1954	1955
Well No.							
T. 8, R. 25							
14C825							
15A825							
15B825							
17A825							
17AD825							
19A825							)
19B825							) 2895.37)
19C825							
19D825							
19AD825							
20R825							
21A825							
23A825							
23B825							
24A825							
29AD825							
29BD825							
T.9, R. 21							
1A921							
3A921							
3B921							
3C921							
8A921							
8B921							

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.							
T. 9, R. 21							
9AH921							
11A921							
11B921							
11C921							
12A921							
22A921							
34A921							
35A921							
T. 9, R. 22							
3A922							
3B922							
7A922							
7B922							
9A922							
9B922							
10A922							
11A922							
11B922							
11C922							
11AD922							
12AD922							
15A922							
15B922							

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1949	1950	1951	1952	1953	1954	1955
T. 9, R. 22							
15AD922							
17AD922							
18A922							
18B922							
19A922							
20A922							
22A922							
22B922							
22C922							
23A922							
26AD922							
28A922							
30A922							
33A922 ~~33B922~~	(POW)		218.73			236.0	269.73
33C922							
33D922							
33AD922							
T. 9, R. 23							
2A923							
2AD923							
3A923							
3B923							
4AD923							
4BD923							

MINIDOKA NORTH SIDE PUMPING DIVISION

Production from deep wells (AF)

Well No.	1949	1950	1951	1952	1953	1954	1955
T. 9, R. 23							
6A923			1438.31			1681.17	1485.05
6B923							
T. 9, R. 24							
6AD924							
6BD924							
T. 10, R. 21							
2A1021							
13AD1021							
24A1021							
25A1021							
T. 10, R. 22							
2A1022							
3A1022							
3AD1022							
7A1022							
9T1022							
10AD1022							
	1334.00	5153.48	14,054.05	19319	17266	24870.49	53896.55
	No. Wells 1	No. Wells 3	No. Wells 11	No. Wells 11		No. Wells 16	No. Wells 38

MINIDOKA NORTH SIDE PUMPING DIVISION

Production From Deep Wells (AF)

Well No.	1956	1957	1958	1959	1960	1961	1962
T. 7, R. 23							
34A723							
34B723	1924.71	1793.67	2357.81	2080.04	2373.06	1991.14	1941.16
T. 7, R. 24							
15A724							
22A724			318.42	365.93	444.28	461.18	469.55
22B724			843.53	1133.25	1195.67	1406.84	1153.35
22C724			890.52	933.45	927.98	987.48	1014.00
23A724			331.94	827.16	887.86	882.44	873.51
26A724			520.64	1040.67	1121.25	1036.46	1180.45
26B724			412.33	492.04	546.27	609.35	485.41
26AD724							
28A724							
28B724			1081.26	1621.43	1991.43	2087.65	1835.51
30A724							
30B724	2079.93	2172.52	2340.19	2213.19	2598.28	2576.29	2401.98
31A724	971.47	881.54	1020.87	875.21	969.26	985.86	825.29
32A724							
32B724	2794.49	2621.29	2985.78	2838.28	2986.04	3093.11	2799.36
33A724	1204.31	1195.14					
33B724			1845.35	1995.68	2216.96	1998.69	2013.54
34A724	1398.86	1342.76	1360.85	1377.31	1511.67	1543.59	1197.63
35A724							
35B724	2459.62	2339.65	2477.96	2483.27	2466.22	2532.52	1958.22
			20	20	20	20	20

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1956	1957	1958	1959	1960	1961	1962
T. 7, R. 25							
27A725			429.36	294.97	344.34	354.03	227.26
29A725				402.35	973.19	861.31	940.82
30A725				822.43	1365.90	1410.30	1389.31
31A725			478.99	595.13	805.50	689.90	679.55
32A725			308.62	773.09	850.34	872.37	785.74
32AD725							
33A725			1024.99	904.72	1109.71	1189.23	1046.98 ?
34A725			1004.56	1092.72	1250.77	1090.09	1092.24
T. 8, R. 21							
22A821			1393.91	1210.92	1417.79	1334.51	1280.50
24A821			324.84	352.44	388.70	339.23	450.52
26A821			)	)	)	)	)
26B821			1833.91)	2121.36)	2510.19)	2128.21)	2179.45)
34A821							
35A821			980.54	972.34	1040.97	1004.46	794.79
35B821			)	)	)	)	)
35C821			)	)	)	)	)
35D821			3255.61)	3331.46)	3491.18)	3655.55)	3423.35)
T. 8, R. 22							
24A822							
25A822							
30A822			889.15	827.48	829.04	724.65	697.93
35A822		)	)	)	)	)	)
35B822		1986.76)	2983.57)	2646.06)	3069.43)	2733.17)	2604.05)
35C822			474.34	483.12	483.23	486.02	437.98

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1956	1957	1958	1959	1960	1961	1962
T. 8, R. 23							
1A823							
1B823							
2A823							
1C823	4260.58	3949.13	4247.11	4143.07	4548.75	5082.55	4213.74
2A823	619.46	903.26	1054.63	995.20	1055.87	957.17	875.64
4A823							
4B823		1947.44	2736.62	2494.44	2785.43	2785.27	2802.06
4AD823							
5B823							
5C823		1667.68	2020.40	1927.39	2039.85	1970.78	1884.60
5AD823							
8A823	1827.45	1576.39	1706.25	1833.11	1842.10	1884.74	1662.26
8AD823							
9AD823							
9BD823							
10A823	478.11	525.39	594.26	553.72	565.33	601.36	550.79
10B823	293.06	298.69	338.84	328.48	359.40	317.56	303.12
10AD823							
10BD823							
10CD823							
10DD823							
11AD823							
12A823	See 12B	See12B	See 12B	See 12B	See 12B	See 12B	See 12B

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1956	1957	1958	1959	1960	1961	1962
T. 8, R. 23							
12B823 +12A	2095.94	1854.10	1959.56	1955.07	1958.98	2109.80	1938.31
12C823							
12D823	2125.91	2290.18	2467.96	2187.84	2312.06	2312.77	2034.17
12E823							
14A823							
14B823	1115.25	1713.70	1979.94	1905.45	1986.93	2060.60	1958.11
14AD823							
14BD823							
15A823							
15B823	2764.28	2945.44	3028.11	2809.53	2994.21	3047.35	2728.77
15D823		242.00	292.19	295.92	314.99	312.50	348.65
17A723							
17B823		1562.73	1618.06	1549.70	1900.48	1962.16	1772.12
17C823	109.25	254.44	317.33	365.93	359.31	350.16	417.61
19A823							
19B823		1666.40	2178.65	1884.24	2386.38	2311.04	2072.89
20A823							
21A823		1342.32	1566.18	1257.16	1501.05	1636.69	1241.86
21AD823							
21CD823							
22A823		689.73	1151.51	1202.78	1299.36	1239.33	1103.58
22AD823							
22BD823							

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1956	1957	1958	1959	1960	1961	1962
T. 8, R. 23							
22CD823							
22DD823							
22ED823							
22FD823							
23A823							
23B823		1430.61	1702.81	1777.85	1990.93	1918.68	1730.56
24A823							
24B823	2534.48	2902.27	3283.74	3427.37	3629.93	3314.58	3116.22
24C823				173.80	410.88	546.58	466.65
25A823	675.94	581.18	665.52	765.36	675.33	733.98	572.39
25B823							
25AD823							
25BD823							
25CD823							
26A823		691.33	746.38	746.31	804.72	755.40	693.35
26AD823							
26BD823							
26CD823							
26DD823							
27A823	See 27C	See 27C	See 27C	See 27C	See 27C	See 27C	See 27C
27B823		389.61	622.03	536.95	731.90	675.90	616.87
27C823	2261.83	1908.48	2023.07	1967.47	2150.01	2237.23	1880.18
27AD823							

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1956	1957	1958	1959	1960	1961	1962
T. 8, R. 23							
27BD823							
28A823							
28B823		2561.25	3282.83	3324.24	3493.05	3363.44	3298.10
28C823		916.88	955.50	913.07	1050.91	1078.60	878.80
28AD823							
28BD823							
29A823							
29B823		2462.51	2824.32	2394.77	2718.55	2765.43	2355.34
29AD823							
31A823		1075.58	1380.43	1243.66	1395.21	1275.05	1253.15
34A823		460.19	895.33	788.35	857.80	807.61	670.39
34AD823							
34BD823							
34CD823							
34DD823							
35A823		1184.71	1482.48	1390.28	1642.49	1480.83	1455.08
35B823		373.72	481.08	331.50	458.37	459.55	384.22
35C823		676.44	763.01	766.99	790.31	860.19	701.91
35D823		306.62	320.71	378.21	461.30	361.45	373.49
35AD823							
35BD823							
T. 8, R. 24							
1A824	1015.32	1415.37	1452.59	1506.01	1468.77	1626.72	1254.52
1AD824							

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1956	1957	1958	1959	1960	1961	1962
T. 8, R. 24							
2A824			369.67	433.69	397.39	430.86	358.64
3A824							
3B824	2712.53	2563.66	2784.94	2624.25	2696.89	2634.70	2361.97
4A824	1858.82	1855.40	2296.75	2032.48	2018.55	2027.83	1943.49
4B824	See 8A	See 8A	See 8A	See 8A	See 8A	See 8A	See 8A
4C824						See 8A	See 8A
5A824							
6A824	See 18A	See 18A	See 18A	See 18A	See 18A	See 18A	See 18A
6B824	1318.41	1159.16	1261.69	1134.53	1252.90	1255.28	1115.52
6C824			336.31	304.70	332.01	350.95	290.88
7B824	See 18A	See 18A	See 18A	See 18A	See 18A	See 18A	See 18A
8A824	3412.68	3069.45	3660.94	3272.85	3421.80	3518.02	3763.56
8AD824							
9A824							
9AD824							
10A824							
10B824	3261.16	3088.94	3189.48	3152.15	3311.29	3140.98	3089.44
10C824							413.89
11A824							
11B824	2621.02	2397.38	2567.52	2526.36			
11C824	906.04	796.25	882.45	849.43	3873.91	3675.52	3464.17
12A824	1381.94	1034.00	1225.44	1134.14	1255.05	1210.12	1072.87
13A824	See 13B	See 13B	See 13B	See 13B	See 13B	See 13B	See 13B

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1956	1957	1958	1959	1960	1961	1962
T. 8, R. 24							
13B824 +13A	3078.59	3004.37	3213.55	3290.17	3326.73	3371.37	2969.94
13AD824							
14A824	1851.77	1608.33	1690.13	1641.33	1893.45	1928.20	1670.26
14B824							
15A824	1380.57	1125.95	1241.27	1327.69	1214.30	1395.90	1254.63
18A824 +6A, 7B	6178.35	5836.22	6580.29	6672.25	6677.08	6304.97	6015.80
20A824	943.85 Inc. 20R	[illegible]					
21A824	2483.51	2295.22	2855.69	3065.36	2755.22	2909.35	2514.07
21B824	1795.82	1729.88	1659.39	1614.40	1617.10	1621.13	1374.65
21C824							
22A824	1063.89	955.87	1060.80	1138.04	1091.68	1148.30	1077.13
23A824	1940.45	1961.60	2238.64	2050.43	2298.65	2346.91	2152.80
23AD824							
24B824							
24AD824							
24BD824							
25AD824							
25BD824							
25CD824							
26A824	1966.86	1792.33	2004.74	1883.68	2048.93	1767.59	1603.94
26AD824							
27A824							
27AD824							

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1956	1957	1958	1959	1960	1961	1962
T. 8, R. 24							
28AD824							
29A824	611.23	989.46	1086.20	1175.86	1180.39	1125.54	973.56
30A824	1033.70	947.56	913.34	936.65	1177.46	1233.18	1021.78
30B824	781.20	635.53	775.58	721.81	753.54	773.94	687.06
31A824							
31B824	2801.48	2772.45	3082.97	2719.33	3216.92	3372.22	2916.24
32AD824							
33A824							
33AD824							
T. 8, R. 25							
3A825							
3B825			2196.17	2576.83	3040.94	3059.32	2778.67
3C825							
3D825			922.07	1804.73	2019.01	2001.84	1813.40
3E825				589.34	745.76	813.18	774.68
3AD825							
5A825							
5B825							
6A825							
6B825				4035.22	4693.41	5347.40	4818.31
11A825							
12A825							
12B825			2404.08	3755.72	4087.92	4195.15	3890.21
13A825			426.46	409.41	495.97	580.29	487.62

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1956	1957	1958	1959	1960	1961	1962
T. 8, R. 25							
14C825			388.23	380.53	430.12	433.61	419.81
15A825							
15B825			1098.11	2532.67	3068.51	3008.29	2859.78
17A825			1548.80	1686.63	1597.51	1678.98	1341.97
17AD825							
19A825							
19B825	2865.40	2548.75	3040.51	3111.62	3213.63	3294.38	2896.25
19C825							
19D825	2149.64	1877.74	2196.35	1763.88	2533.10	2477.62	2180.19
19AD825							
20R825							
21A825			697.42	1355.68	+Gravity 2349.46	1586.69	1399.89
23A825							
23B825			2062.62	2591.44	2878.04	3109.08	2719.24
24A825			396.56	803.03	836.84	888.51	805.81
29AD825							
29BD825							
T.9, R. 21							
1A921			544.01	657.36	1238.18	1239.22	1166.58
3A921			198.73	302.82	376.79	277.21	0.00
3B921			1485.94	1409.98	1423.12	1385.99	1311.89
3C921			650.49	1444.19	1430.12	1480.45	1457.45
8A921							
8B921							

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1956	1957	1958	1959	1960	1961	1962
T. 9, R. 21							
9AH921							
11A921							
11B921							
11C921							
12A921							
22A921							
34A921							
35A921							
T. 9, R. 22							
3A922							
3B922			2234.61	2767.97	2972.85	2701.88	2386.42
7A922							
7B922				3251.53	3649.55	3746.04	3174.65
9A922				1058.41	1241.63	1220.45	1011.52
9B922				966.66	1028.11	884.94	925.99
10A922			480.61	639.15	669.82	732.98	622.25
11A922							
11B922		1569.72	1769.59	1592.62	1626.83		
11C922						1577.52	1525.53
11AD922							
12AD922							
15A922							
15B922							629.56

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1956	1957	1958	1959	1960	1961	1962
T. 9, R. 22							
15AD922							
17AD922							
18A922			)	)	)	)	)
18B922			1587.41)	1699.49)	1851.12)	1878.00)	1737.91)
19A922			492.68	698.94	858.79	1075.80	737.85
20A922			1350.49	1162.76	1251.83	1297.68	1160.26
22A922							461.55
22B922							
22C922							
23A922							
26AD922							
28A922			See 33 C	See 33C	See 33C	See 33C	See 33C
30A922							1117.39
33A922	301.47		)	)	)		
33B922		234.03	)	)	)		
33C922			2403.65)	2514.58)	2453.63)	2330.09	2069.19
33D922							
33AD922							
T. 9, R. 23							
2A923		357.21	367.36	427.90	413.32	364.56	298.00
2AD923							
3A923		790.73	978.95	799.12	1013.41	952.79	897.77
3B923		360.74	336.86	400.99	448.24	422.85	381.51
4AD923							
4BD923							

MINIDOKA NORTH SIDE PUMPING DIVISION

Production From Deep Wells

Well No.	1963	1964	1965	1966	1967	1968
T. 7, R. 23						
34A723						
34B723	1910.01	1921.66	2117	2391.5	2029.6	1788.5
T. 7, R. 24						
15A724						
22A724	449.52	444.71	427	490.8	507.1	490.1
22B724	1362.00	1125.44	1286	1472.8	1153.8	1062.5
22C724	827.15	1024.05	976	1236.6	1188.3	1198.3
23A724	757.37	834.17	871	1031.6	893.8	714.6
26A724	1049.16	955.92	1088	1315.6	1213.8	1120.4
26B724	465.61	501.64	453	556.9	484.0	460.7
26AD724						
28A724						
28B724	1700.21	1812.74	1680	2040.1	1706.0	1633.0
30A724						
30B724	2118.82	2215.28	2186	2812.1	2676.9	2406.9
31A724	759.47	855.59	803	896.2	843.6	759.9
32A724						
32B724	2719.49	2699.95	2765	3328.2	2980.0	2752.3
33A724						
33B724	1988.27	1853.20	1781	2141.2	2024.1	1796.9
34A724	1273.72	1265.19	1226	1624.8	1625.5	1441.5
35A724						
35B724	2070.16	2015.99	2035	2520.0	2364.1	2142.0

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1963	1964	1965	1966	1967	1968
T. 7, R. 25						
27A725	348.64	254.30	293	442.1	363.4	332.5
29A725	883.59	960.78	956	1042.3	885.7	849.7
30A725	1353.49	1453.44	1325	1549.7	1504.0	1237.5
31A725	623.64	606.16	570	804.6	782.0	736.1
32A725	828.29	704.80	871	1043.6	1050.7	937.9
32AD725						
33A725	1034.36	1260.13	1181	1335.9	1189.2	1151.4
34A725	1163.88	1178.94	1340	1556.4	1218.2	1151.8
T. 8, R. 21						
22A821	1322.58	1560.22	1366	1576.3	1486.1	1583.1
24A821	301.79	402.71	225	407.8	372.5	323.2
26A821						
26B821	2106.51	2293.22	2291	2792.7	2380.4	2381.3
34A821						
35A821	796.44	1046.02	1087	1254.7	1029.6	1145.1
35B821						
35C821						
35D821	3401.62	3837.76	3645	4064.6	3729.8	3791.2
T. 8, R. 22						
24A822						
25A822						
30A822	579.94	808.18	673	790.6	677.3	757.6
35A822						
35B822	2204.94	2692.14	2535	3268.9	2634.2	2713.7
35C822	431.90	476.00	421	614.1	476.8	449.6

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1963	1964	1965	1966	1967	1968
T. 8, R. 23						
1A823						
1B823						
2A823						
1C823	4011.41	4509.24	4266	5447.6	4833.4	4662.7
2A823	861.05	899.09	842	1115.4	988.6	931.6
4A823						
4B823	2555.08	2709.01	2711	3048.7	2706.4	2639.1
4AD823						
5B823						
5C823	1627.09	1931.83	1923	2199.1	1929.7	2039.0
5AD823						
8A823	1554.34	1632.57	1708	1888.8	1800.4	1763.5
8AD823						
9AD823						
9BD823						
10A823	505.93	582.02	559	628.3	567.6	489.6
10B823	275.86	314.25	287	312.3	377.0	359.5
10AD823						
10BD823						
10CD823						
10DD823						
11AD823						
12A823	See 12B					

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MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1963	1964	1965	1966	1967	1968
T. 8, R. 23						
12B823 +12A	1935.14	1953.55	1931	2142.6	1941.1	1810.3
12C823						
12D823	2034.54	2523.84	2370	3146.3	2703.2	2439.9
12E823						
14A823						
14B823	1841.33	1963.55	1975	2068.2	1938.4	1825.1
14AD823						
14BD823						
15A823						
15B823	2281.36	2740.69	2650	3074.8	2778.6	2574.6
15D823	295.20	348.37	322	443.1	406.3	331.7
17A723						
17B823	1497.87	1932.37	1739	2330.1	1931.4	1914.6
17C823	367.28	398.30	332	307.7	417.8	434.5
19A823						
19B823	1878.51	2202.77	2232	2182.1	2061.1	2189.5
20A823						
21A823	1120.87	1296.22	1228	1570.2	1158.8	1409.0
21AD823						
21CD823						
22A823	1072.39	1163.94	1108	1313.2	972.3	1172.0
22AD823						
22BD823						

MINIDOKA NORTH SIDE PUMPING DIVISION

	1963	1964	1965	1966	1967	1968	
Well No.							
T. 8, R. 23							
22CD823							
22DD823							
22ED823							
22FD823							
23A823							
23B823	1670.93	1867.96	1732	2338.0	1901.4	1784.7	
24A823							
24B823	2939.36	2873.67	3162	3845.4	3167.3	3393.2	
24C823	215.75	225.39	228		203.7	451.5	
25A823	572.90	655.10	596	750.2	691.4	648.0	
25B823							
25AD823							
25BD823							
25CD823							
26A823	541.86	803.89	779	922.6	777.0	750.8	
26AD823							
26BD823							
26CD823							
26DD823							
27A823	See 27C						
27B823	554.86	732.66	616	729.9	642.1	602.0	
27C823	1790.11	1986.57	2091	2188.1	1923.4	2082.0	
27AD823							

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MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1963	1964	1965	1966	1967	1968
T. 8, R. 23						
27BD823						
28A823						
28B823	3045.55	3329.40	3326	3686.8	3267.6	3163.6
28C823	841.64	921.66	955	1017.3	989.3	817.9
28AD823						
28BD823						
29A823						
29B823	2421.11	2669.06	2730	3070.9	2583.4	2727.2
29AD823						
31A823	1036.53	1303.61	1250	1558.5	1398.9	1346.2
34A823	768.94	884.31	852	1059.4	855.3	830.2
34AD823						
34BD823						
34CD823						
34DD823						
35A823	1528.80	1488.69	1467	1815.0	1522.5	1423.1
35B823	380.53	381.80	393	519.8	424.5	392.6
35C823	632.17	673.80	674	867.2	714.1	736.5
35D823	338.65	373.70	411	428.5	448.5	365.3
35AD823						
35BD823						
T. 8, R. 24						
1A824	1249.19	1348.34	1363	1479.7	1392.5	1303.5
1AD824						

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1963	1964	1965	1966	1967	1968
T. 8, R. 24						
2A824	377.09	337.93	374	428.0	440.3	371.0
3A824						
3B824	2367.64	2365.14	2391	2919.6	2417.1	2294.6
4A824	1775.02	1853.96	1826	2218.9	2052.9	1818.6
4B824	See 8A					
4C824	See 8A					
5A824						
6A824	See 18A					
6B824	952.72	1134.15	1066	1260.0	1183.0	1091.9
6C824	257.83	305.50	277	336.2	319.3	316.0
7B824	See 18A					
8A824 + 4B + 4C	3638.85	3843.54	3917	4160.8	3935.9	3823.9
8AD824						
9A824						
9AD824						
10A824						
10B824	3173.07	3161.40	3201	3928.7	3435.6	3230.9
10C824	576.25	706.39	659	803.2	668.9	648.4
11A824						
11B824						
11C824	3203.17	3443.79	3353	3974.4	3590.7	3176.2
12A824	971.76	1142.52	946	1277.4	1047.8	921.4
13A824	See 13B					

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MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1963	1964	1965	1966	1967	1968
T. 8, R. 24						
13B824 +13A	3023.64	3029.54	3096	3493.4	3144.9	3019.4
13AD824						
14A824	1731.46	1601.71	1630	2071.5	1706.7	1593.3
14B824						
15A824	1171.42	1162.32	1333	1505.8	1208.4	1182.3
18A824 +6A +7B	5542.99	5975.91	5996	7140.1	6540.0	6104.8
20A824						
21A824	1804.21	2115.60	2367	2831.6	2538.9	2453.7
21B824	1376.49	1373.74	1368	1676.0	1399.0	1440.8
21C824						
22A824	1167.35	1192.35	1107	1146.9	1211.5	1194.1
23A824	1967.08	1904.48	1925	2604.1	2124.8	1957.7
23AD824						
24B824						
24AD824						
24BD824						
25AD824						
25BD824						
25CD824						
26A824	1782.59	1776.05	1610	1937.3	1836.5	1639.3
26AD824						
27A824						
27AD824						
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MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1963	1964	1965	1966	1967	1968
T. 8, R. 24						
28AD824						
29A824	1004.97	1051.43	1084	1251.1	1120.8	1059.7
30A824	985.22	982.71	917	1296.6	1057.5	946.7
30B824	495.45	682.52	621	778.9	688.7	682.3
31A824						
31B824	2627.37	2553.90	2592	3239.9	2660.1	2587.3
32AD824						
33A824						
33AD824						
T. 8, R. 25						
3A825						
3B825	2764.97	2984.25	2903	3424.8	2943.2	2796.0
3C825						
3D825 +	1682.02	1925.51	1857	2254.0	2013.8	1827.7
3E825	830.69	820.08	847	1105.5	884.7	883.7
3AD825						
5A825						
5B825						
6A825						
6B825	4520.96	4848.99	4866	5545.5	5010.5	4481.8
11A825						
12A825						
12B825	3612.85	4090.55	3804	4521.8	4008.6	3821.0
13A825	457.20	509.36	381	517.3	409.0	389.2

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1963	1964	1965	1966	1967	1968
T. 8, R. 25						
14C825	413.02	444.03	419	545.3	414.5	483.2
15A825						
15B825	2872.08	3044.32	2929	3474.7	2955.8	2820.8
17A825	1170.12	1211.00	1308	1706.7	1420.7	1531.6
17AD825						
19A825						
19B825	2807.50	3032.84	2912	3686.7	3139.6	2821.5
19C825						
19D825	2010.52	1908.92	1996	2225.0	2362.7	1936.6
19AD825						
20R825						
21A825	1516.51	1543.09	1641	1817.8	1653.6	1407.5
23A825						
23B825	2817.36	2845.49	2839	3278.0	2931.6	3089.8
24A825	753.56	858.86	750	936.3	836.8	798.2
29AD825						
29BD825						
T.9, R. 21						
1A921	1203.85	1491.32	1473	1660.0	1464.5	1556.6
3A921	163.82	360.94	356	435.8	409.9	376.6
3B921	1259.13	1524.92	1313	1575.8	1575.7	1385.6
3C921	1510.24	1538.79	1320	1669.0	1724.5	1443.8
8A921						
8B921						

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MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1963	1964	1965	1966	1967	1968
T. 9, R. 21						
9AH921						
11A921						
11B921						
11C921						
12A921						
22A921						
34A921						
35A921						
T. 9, R. 22						
3A922						
3B922	2499.45	2922.18	2796	2961.9	2652.0	2476.5
7A922						
7B922	2774.22	3444.06	3715	4371.8	3654.6	3508.5
9A922	1050.27	1122.23	1100	1356.9	1132.2	1110.0
9B922	886.92	860.10	800	1125.7	859.0	908.5
10A922	530.32	691.87	739	865.7	696.9	685.8
11A922						
11B922						
11C922	1138.25	1475.29	1589	1813.6	1571.0	1549.7
11AD922						
12AD922						
15A922						
15B922	560.38	767.72	811	874.7	795.6	810.4

MINIDOKA NORTH SIDE PUMPING DIVISION

Well No.	1963	1964	1965	1966	1967	1968
T. 9, R. 22						
15AD922						
17AD922						
18A922						
18B922	1598.66	1782.43	1830	2121.6	1777.2	1510.7
19A922	684.30	815.25	836	838.0	878.9	803.4
20A922	1088.05	1341.66	1229	1448.8	1317.7	1330.4
22A922	340.86	463.27	381	565.8	448.9	343.3
22B922						
22C922						
23A922						
26AD922						
28A922	See 33C					
30A922	1001.62	1307.65	1323	1338.2	1335.5	1195.3
33B922 +28A						
33C922	1680.26	2203.35	2053	2278.0	2265.8	2048.8
33D922						
33AD922						
T. 9, R. 23						
2A923	360.26	385.60	362	557.8	465.0	341.8
2AD923						
3A923	846.22	921.56	984	955.3	1030.7	849.1
3B923	402.82	389.30	396	449.0	422.7	407.9
4AD923						
4BD923						

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MINIDOKA NORTH SIDE PUMPING DIVISION

Production from deep wells (AF)

Well No.	1963	1964	1965	1966	1967	1968
T. 9, R. 23						
6A923	1238.08	1571.35	1460	1735.6	1423.5	1474.5
6B923	690.09	777.83	761	929.2	701.9	751.3
T. 9, R. 24						
6AD924						
6BD924						
T. 10, R. 21						
2A1021	236.81	254.87	94			
13AD1021						
24A1021						
25A1021						
T. 10, R. 22						
2A1022						
3A1022	692.50	784.14	703	808.8	794.3	612.4
3AD1022						
7A1022						
9T1022						
10AD1022						
	177717.08	193643.10	190,813	226,2553	200,597.9	191,237.6
	No. Wells 177	No. Wells 177	No. Wells 177			

These totals do not check those of summary of pump operations

1963 DEEP WELL PUMP DISCHARGE

Well No. or Well Group	Acre Feet Pumped
1 ABC 823	4,011.41
1 A 824	1,249.19
1 A 921	1,203.85
2 A 823	861.05
2 A 824	377.09
2 A 923	360.26
3 AB 824	2,367.64
3 AB 825	2,764.97
3 CD 825	1,682.02
3 E 825	830.69
3 A 921	163.82
3 B 921	1,259.13
3 C 921	1,510.24
3 AB 922	2,499.45
3 A 923	846.22
3 B 923	402.82
3 A 1022	692.50
4 AB 823	2,555.08
4 A 824	1,775.02
4 BC 824 & 8 A 824	3,638.85
5 BC 823	1,627.09
5 AB 825 & 6 AB 825	4,520.96
6 A 824 & 7 B 824 & 18 A 824	5,542.99
6 B 824	952.72
6 C 824	257.83
6 A 923	1,238.08

26

1

1

2

30

Well No. or Well Group	Acre Feet Pumped
6 B 923	690.09
7 AB 922	2,774.22
8 A 823	1,554.34
9 A 922	1,050.27
9 B 922	886.92
10 A 823	505.93
10 B 823	275.86
10 AB 824	3,173.07
10 C 824	576.25
10 A 922	530.32
11 AB 824 & 11 C 824	3,203.17
11 A 825 & 12 AB 825	3,612.85
11 BC 922	1,138.25
12 AB 823	1,935.14
12 CD 823	2,034.51
12 A 824	971.76
13 AB 824	3,023.64
13 A 825	457.20
14 AB 823	1,841.33
14 A 824	1,731.46
14 C 825	413.02
15 AB 823	2,281.36
15 D 823	295.20
15 A 824	1,171.42
15 AB 825	2,872.08
15 AB 922	560.38
17 AB 823	1,497.87

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2

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Well No. or Well Group	Acre Feet Pumped
17 C 823	367.28
17 A 825	1,170.12
18 AB 922	1,598.66
19 AB 823	1,878.51
19 AB 825	2,807.50
19 CD 825	2,010.52
19 A 922	684.30
20 A 922	1,088.05
21 A 823	1,120.87
21 A 824	1,804.21
21 B 824	1,376.49
21 A 825	1,516.51
22 A 724	449.52
22 B 724	1,362.00
22 C 724	827.15
22 A 821	1,322.58
22 A 823	1,072.39
22 A 824	1,167.35
22 A 922	340.86
23 A 724	757.37
23 AB 823	1,670.93
23 A 824	1,967.08
23 AB 825	2,817.36
24 A 821	301.79
24 AB 823	2,939.36
24 C 823	215.75
24 A 825	753.56
25 A 823	572.90
26 A 724	1,049.16

Well No. or Well Group	Acre Feet Pumped
26 B 724	465.61
26 AB 821	2,106.51
26 A 823	541.86
26 A 824	1,782.59
27 A 725	348.64
27 AC 823	1,790.11
27 B 823	554.86
28 AB 724	1,700.21
28 AB 823	3,045.55
28 C 823	841.64
28 A 922 & 33 BC 922	1,680.26
29 A 725	883.59
29 AB 823	2,421.11
29 A 824	1,004.97
30 AB 724	2,118.82
30 A 725	1,353.49
30 A 822	579.94
30 A 824	985.22
30 B 824	495.45
30 A 922	1,001.62
31 A 724	759.47
31 A 725	623.64
31 A 823	1,036.53
31 AB 824	2,627.37
32 AB 724	2,719.49
32 A 725	828.29
33 AB 724	1,988.27
33 A 725	1,034.36

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29

Well No. or Well Group	Acre Feet Pumped
34 AB 723	1,910.01
34 A 724	1,273.72
34 A 725	1,163.88
34 A 823	768.94
35 AB 724	2,070.16
35 A 821	796.44
35 BCD 821	3,401.62
35 AB 822	2,204.94
35 C 822	431.90
35 A 823	1,528.80
35 B 823	380.53
35 C 823	632.17
35 D 823	338.65
2 A 1021	236.81
Total Acre Feet Pumped	177,717.05

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Minidoka Project Office
Burley, Idaho

October 9, 1961

To: Regional Director, Boise, Idaho
Attention: 200

From: Project Superintendent, Burley, Idaho

Subject: Final report of deepwell pump performance - 1961 irrigation season - North Side Pumping Division, Minidoka Project, Idaho

Enclosed is a copy of the final report of deepwell pump performance for the 1961 irrigation season. All deepwell pump installations are included.

My August 31, 1961 letter transmitted the September 1, 1961 report of deepwell pumping installations to which consideration should be given for rectification during the 1961-62 non-irrigation season. At a meeting in the Regional Office on September 19, 1961, agreement was reached on the extent of the rectification program. The enclosed final report does not indicate the need for any additional rectification work at this time.

The same format is employed this year as last. Part 1 is a summary of pump performance during peak period by combined or individual discharge (as determined by the installation) compared with design requirements. Peak period performance for years 1958 through 1960 is also shown.

Part 2 lists individual pump open valve discharge measurements during 1961 with those used in Part 1 underlined.

Part 3 lists combined pumps open valve discharge measurements during 1961 with those used in Part 1 underlined.

Part 4 lists data on each well from 1959 through 1961. The downward trend in pumping water levels is readily apparent and the absence of any tendency of ground water levels to stabilize is of considerable concern. Apparent discrepancies in submergence of pump bowls in some cases is due to pump being lowered between irrigation seasons.

Enclosure

Project Superintendent

Copy to: Irrigation Manager, Rupert, Idaho (w/o encl)
Regional Office, Boise, 409, 407, 750 (w/encl)
Regional Office, Boise, 430 (w/o encl)
AC&CE, Denver, 208, 400 (w/encl)

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INDIVIDUAL PUMP OPEN VALVE DISCHARGES

NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO

Part 2 — OCTOBER 1, 1961 — Sheet 1 of 5

Pump No.	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q
1A 823	4-25	10.00	5-11	10.07	5-16	10.10	7-17	9.72	9-9	10.00														
1B 823	5-2	4.30	7-17	4.11	9-13	4.10																		
1C 823 Intercon.w/1AB823	6-21	7.66	6-15	8.10	6-28	8.00	7-6	8.10	7-17	7.62	7-27	8.00	8-21	8.00										
1A 824	6-8	7.80	6-13	7.80	6-22	7.90	6-30	7.90	7-5	7.80	7-13	7.90	7-20	7.80	7-26	7.82	7-28	7.80	8-9	7.80	8-16	7.60		
1A 921	6-10	7.43	6-15	7.42	6-19	7.42	6-22	7.34	6-27	7.58	7-5	7.41	7-11	7.30	7-18	7.30	7-23	7.30	8-1	7.32				
2A 823	5-27	5.20	6-13	5.20	6-26	5.50	6-28	5.10	7-8	5.10	7-19	5.41	7-26	5.10	8-9	5.10	8-18	5.10	9-8	5.10				
2A 824	4-24	2.10	5-22	1.96	6-1	1.96	6-22	2.03	7-12	1.96	7-26	1.96	8-21	1.96	8-28	1.96	9-1	1.90						
2A 923	5-9	2.00	5-22	2.03	7-3	1.93	7-19	1.93	8-8	1.93	8-10	1.90												
3A 824	5-16	9.00	6-6	9.00	6-20	8.90	7-24	8.92	7-29	8.80	9-11	8.80												
3B 824	4-18	4.50	5-16	4.50	6-20	4.50	7-24	4.47	7-29	4.30	9-4	4.30												
3A 825	6-12	7.68	7-4	7.56	7-13	7.38	8-16	7.40	8-24	7.40	9-13	7.50	9-20	7.38										
3B 825	5-1	5.77	5-1	5.85	7-13	5.52	8-21	5.78	8-24	5.70	9-20	5.80												
3C 825	5-1	6.16	5-20	6.26	5-22	6.27	6-12	6.28	7-26	6.13														
3D 825	7-4	2.90	7-26	2.95	9-5	3.00																		
3E 825	6-12	4.20	7-3	4.13	7-18	4.14	7-26	4.18																
3A 921	5-24	1.70	5-28	1.77	6-10	1.70	6-27	1.70	7-3	1.64	7-12	1.70	7-18	1.70	7-20	1.64	7-26	1.70	8-3	1.64	8-14	1.70	8-22	1.70
3B 921	5-25	6.73	5-28	6.84	6-22	6.68	6-27	6.73	7-5	6.73	7-18	6.73	7-26	6.73	8-3	6.62	8-11	6.67						
3C 921	5-5	7.99	5-23	8.07	5-28	8.14	6-22	8.07	6-27	8.10	7-5	8.10	7-12	8.10	7-18	8.03	7-20	8.10	7-23	8.03				
3A 922	5-27	8.98	7-20	8.84	8-7	8.96	8-14	8.96																
3B 922	4-25	4.56	5-1	4.64	7-20	4.25																		
3A 923	6-21	4.21	7-18	4.20	7-19	4.11	8-8	4.14	8-10	4.20	8-19	4.24	8-23	4.24	9-12	4.20	9-19	4.24						
3B 923	6-7	2.29	6-21	2.24	7-19	2.17	8-8	2.17	8-10	2.00	9-20	2.30												
3A 1022	5-5	3.90	5-25	3.88	6-22	3.76	6-23	3.90	6-27	3.76	7-14	3.90	7-27	3.76	8-15	3.80	8-29	3.80						
4A 823	5-16	10.20	6-3	10.10	7-21	10.03	8-9	10.10	8-19	10.00														
4B 823	4-21	4.60	5-4	4.60	7-21	4.27																		
4A 824	5-23	9.24	5-25	9.54	6-20	9.39	7-7	9.20	7-24	9.26	8-10	9.10	8-14	9.41	9-18	9.10								
4B 824 * } Interconnected w/8A 824	5-1	7.41	6-12	6.80	6-15	6.54	6-20	6.52	6-30	6.39	7-6	6.10	7-24	5.99	8-11	5.90	8-14	5.93	8-24	5.80				
4C 824 * }	6-30	4.02	7-24	4.03	8-11	4.00	9-14	4.00																
5B 823	6-3	7.20	8-18	7.10	9-11	7.20																		
5C 823	6-8	3.30	7-21	3.21																				
5A 825	5-30	11.00	6-7	11.00	6-12	11.00	7-6	11.18	7-11	11.00	8-9	11.00	9-8	11.10										
5B 825	4-26	5.20	7-6	5.21																				
6A 824 * Intercon. w/7B and 16A 824	6-13	10.80	6-30	10.64	7-13	10.60	7-17	10.50	7-19	10.60	8-3	10.76												
6B 824	6-10	5.75	7-6	5.64	7-12	5.64	7-17	5.64	7-27	5.64	8-9	5.62	8-21	5.64										
6C 824	5-9	1.58	5-15	1.60	5-31	1.60	6-14	1.60	6-20	1.52	6-30	1.60	7-6	1.52	7-19	1.56	8-19	1.52	8-24	1.56	8-31	1.56	9-14	1.56
6A 825	4-19	7.50	5-4	7.50	6-13	6.60	7-13	6.21	9-13	6.40														
6B 825	7-13	3.10	9-14	3.00																				
6A 923	7-3	7.58	7-20	7.53	7-20	7.55	7-27	7.55	8-3	7.55														
6B 923	5-1	4.48	7-3	4.24	7-20	4.20	7-27	4.30	8-7	4.34														
7B 824 * Intercon.w/6A&18A824	5-24	7.68	5-25	7.70	6-6	7.60	6-30	7.60	7-13	7.50	7-17	7.28	7-19	7.50	8-24	7.56	8-31	7.50						
7A 922	5-17	9.07	7-20	8.92	8-24	8.32																		

INDIVIDUAL PUMP OPEN VALVE DISCHARGES

NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO

Part 2 — OCTOBER 1, 1961 — Sheet 2 of 5

Pump No.	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q
7B 922	4-29	7.51	5-3	7.58	7-20	7.06	8-24	8.38																
8A 823	5-19	9.40	6-26	9.52	6-27	9.30	7-5	9.30	7-19	9-41	7-31	9.30	8-10	9.20	8-19	9.20								
8A 824 * Intercon.w/4B&4C824	5-3	7.54	6-10	7.60	6-20	7.56	7-6	7.54	7-24	7.62	8-11	7.70	9-14	7.60										
9A 922	6-14	5.76	6-22	5.63	6-27	5.70	7-5	5.63	7-12	5.70	7-18	5.56	7-20	5.50	7-23	5.56	8-2	5.45	8-3	5.36				
9B 922	6-12	4.35	6-22	4.34	6-27	4.48	7-5	4.41	7-12	4.41	7-18	4.20	7-20	4.14	7-23	4.13	7-31	4.07	8-3	4.01	8-14	3.93	8-16	3.73
10A 823	5-16	4.00	5-23	3.91	6-28	3.90	7-5	4.00	7-19	3.93	7-31	3.80	8-10	3.90	8-21	3.90	9-12	3.90						
10B 823	5-9	1.77	5-11	1.70	5-24	1.77	6-26	1.77	7-12	1.70	7-19	1.77	8-9	1.70	8-21	1.70	9-9	1.70						
10A 824 Intercon.w/10B824	5-23	9.60	6-13	9.48	6-20	9.50	7-7	9.44	7-24	9.58	8-25	9.40	9-6	9.40										
10B 824	5-17	5.80	6-20	5.82	7-7	5.80	7-24	5.89	8-23	5.70	9-18	5.80												
10A 922	6-22	3.62	7-11	3.62	7-14	3.43	7-20	3.64	7-27	3.64														
11A 824	4-21	7.30	5-1	7.70	5-10	7.80	5-16	7.80	5-25	7.30	5-31	7.60	6-7	7.60	8-10	7.50	8-22	7.50	8-29	7.40				
11B 824	4-21	3.90	5-17	3.90	5-20	3.90																		
11C 824 Intercon.w/11AB824	5-1	5.90	5-8	5.85	5-9	5.80	5-16	5.80	5-25	5.90	5-31	5.80	6-6	5.90	7-6	5.80	7-20	5.80	8-10	5.80	8-22	5.70		
11A 825 Intercon.w/12AB825	6-9	4.10	6-23	3.90	6-27	4.13	7-13	3.94	7-26	3.97	8-1	3.90	8-15	3.81	8-19	3.80								
11B 922	4-25	4.72	7-27	4.62	8-1	4.58																		
11C 922 Intercon.w/11B922	6-21	5.04	7-14	4.78	7-20	4.94	7-27	4.94	8-7	4.90														
12A 823	4-25	9.20	5-15	9.20	5-26	9.23	6-5	9.20	6-13	9.10	7-17	8.94	7-21	9.10	8-10	9.20	8-19	9.10						
12B 823	4-17	3.10	5-9	3.14	7-17	3.09	9-13	2.90																
12C 823	5-10	9.60	5-26	9.60	5-31	9.80	6-2	9.50	7-17	9.58	7-31	9.50	8-21	9.60										
12D 823	4-20	3.90	7-17	3.76	9-13	3.70																		
12A 824	4-26	5.29	5-9	5.40	5-15	5.40	6-12	5.30	6-30	5.30	7-5	5.00	7-13	5.01	7-20	5.20	7-26	5.02	7-29	5.00	8-23	5.00	8-30	5.00
12A 825	5-1	10.72	6-14	10.60	7-26	10.19																		
12B 825	7-26	4.55																						
13A 824	4-26	9.51	5-6	9.60	5-13	9.30	6-13	9.30	7-26	9.28	8-8	9.30	8-20	9.40	8-24	9.40	9-4	9.30						
13B 824	4-27	5.10	7-26	5.18	8-24	5.00																		
13A 825	6-12	2.90	6-27	2.90	7-6	2.90	7-18	2.96	8-11	2.90	8-17	2.96												
14A 823	5-22	7.16	6-26	7.15	7-19	7.16																		
14B 823	6-26	2.83	7-19	2.74	9-5	2.90																		
14A 824	6-14	8.40	7-3	8.65	7-7	8.60	7-24	8.68	8-10	8.61	8-21	8.50												
14C 825	5-1	2.16	7-6	2.07	7-18	2.02	8-9	2.00	8-15	2.03	8-17	2.00												
15A 823	6-26	9.13	7-19	9.48	9-19	9.04																		
15B 823	5-1	4.48	6-26	4.41	7-19	4.26	9-19	4.58																
15D 823	5-22	2.31	5-26	2.29	6-26	2.31	7-19	2.28	7-18	2.30	8-8	2.28	8-10	2.30	9-19	2.30								
15A 824	4-28	5.39	5-6	5.36	5-23	5.24	6-7	5.10	6-20	5.33	7-6	5.10	7-21	5.35	8-10	5.10	8-10	5.28	8-24	5.10	9-8	5.20		
15A 825	6-10	10.32	6-20	10.21	7-6	10.14	8-21	10.24	8-28	10.18	9-7	10.12												
15B 825	4-28	4.33	5-1	4.17	7-6	4.04	9-14	4.20																
17A 823	5-10	5.79	5-18	5.76	5-25	5.76	7-19	5.66																
17B 823	7-19	2.84	9-8	2.90																				
17C 823	5-22	2.17	5-26	2.20	6-5	2.20	6-14	2.20	6-26	2.17	6-30	2.20	7-19	2.17	7-31	2.20	8-8	2.17	8-21	2.20				
17A 825	5-9	6.90	5-19	6.90	5-26	6.90	6-21	6.90	6-30	6.90	7-6	6.90	7-13	6.90	7-20	6.90	7-26	6.90	8-8	6.60	8-20	6.60		

INDIVIDUAL PUMP OPEN VALVE DISCHARGES

NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO

Part 2

OCTOBER 1, 1961

Pump No.	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q
18A 824 Intercon.w/6A&7B824	4-17	9.50	5-26	9.70	5-27	9.90	6-14	9.60	6-20	9.70	7-13	9.70	7-17	9.51	7-19	9.60	9-18	9.60						
18A 922	5-24	6.51	5-28	6.63	6-3	6.63	7-20	6.46																
18B 922	4-25	2.46	5-10	2.37	6-14	2.37	7-20	2.20																
19A 823	7-3	6.67	7-19	6.60	8-15	6.44	8-23	6.82																
19B 823	7-3	3.17	7-19	3.08																				
19A 825	5-1	10.10	5-27	10.00	6-1	10.21	7-26	10.17	8-7	10.00	8-19	10.20	8-30	9.90	9-6	10.00								
19B 825	4-28	5.30	5-1	5.46	7-26	5.32																		
19C 825	5-8	7.69	5-15	7.80	5-23	7.70	7-26	7.68	8-23	7.50	8-19	7.50												
19D 825	4-17	3.40	7-26	3.18	8-23	3.30																		
19A 922	6-8	4.28	6-20	4.52	6-26	4.49	6-27	4.55	7-5	4.41	7-12	4.41	7-18	4.34	7-20	4.27	7-23	4.34	8-1	4.26	8-4	4.26	8-14	4.33
20A 922	5-28	6.58	6-15	6.37	6-26	6.43	7-12	6.43	7-18	4.30	7-25	6.28	8-4	6.22	8-16	6.10								
21A 823	6-13	7.96	6-20	8.58	7-14	8.14	7-18	8.10																
21A 824 Combined w/21R824	5-1	9.17	6-14	7.96	6-20	8.36	7-17	8.14																
21B 824	5-24	7.30	6-12	7.04	6-23	7.49	7-6	7.20	7-13	7.32	8-10	7.20	9-12	7.20										
21A 825	4-28	7.28	6-1	7.03	7-6	6.93	7-19	7.00	7-26	6.89	8-3	7.00	8-21	7.12	8-25	7.06	9-5	7.06						
22A 724	6-10	2.75	6-22	2.67	7-26	2.52	8-28	2.67																
22B 724	6-16	6.90	7-6	6.72	7-27	6.87	8-28	6.76	9-20	6.72														
22C 724	6-6	4.85	6-21	4.79	6-22	6.84	7-12	4.78	7-26	4.72	7-27	4.78	8-21	4.79	8-28	4.79	9-19	4.81						
22A 821	5-10	5.79	5-18	5.69	5-25	5.84	6-2	5.87	6-13	5.83	6-27	5.95	7-5	5.84	7-18	5.69	7-23	5.78	8-3	5.73	8-22	5.66	8-26	5.64
22A 823	5-31	5.81	6-1	5.82	6-26	5.69	7-18	5.80	7-19	5.71														
22A 824	4-28	4.86	5-3	4.76	5-31	4.81	6-23	4.84	7-7	4.60	7-24	4.80	8-10	4.60	8-25	4.60	9-14	4.60						
23A 724	5-20	5.09	7-10	4.97	7-27	4.90																		
23A 823	6-10	6.34	6-26	6.25	7-19	6.29	9-19	6.46																
23B 823	6-26	2.80	7-19	2.70	9-19	2.54																		
23A 824	5-25	10.40	5-31	10.61	6-7	10.36	6-23	10.60	7-7	10.30	7-24	10.57	8-10	10.30	9-18	10.30								
23A 825	6-27	6.67	7-6	6.63	7-20	6.88	9-8	6.70																
23B 825	5-1	6.88	6-27	6.83	7-6	6.79																		
24A 821	5-15	1.96	5-25	1.90	6-3	1.96	6-22	1.90	7-5	1.96	7-11	1.90	7-18	1.96	7-25	1.96	8-2	1.96						
24A 823	4-27	10.00	4-28	9.81	5-31	9.90	6-5	9.90	7-17	9.55	9-14	9.90	9-19	9.90										
24B 823	4-22	5.00	7-17	5.23	9-14	5.00	9-19	5.00																
24C 823	4-17	7.80	5-17	7.70	6-26	7.64	8-9	7.56	8-31	7.70														
24A 825	6-6	4.32	6-20	4.32	6-27	4.27	7-18	4.28	8-22	4.30	9-1	4.30												
25A 823	6-9	3.62	7-3	3.50	7-19	3.43																		
26A 724	6-21	6.02	7-12	6.00	7-26	5.98	7-27	6.00	8-14	6.00	8-21	5.86												
26B 724	5-29	2.97	5-31	2.73	7-6	2.75	7-12	2.94	7-27	2.80	8-14	2.71	8-21	2.90	8-28	2.88	9-20	2.97						
26A 821	5-25	5.58	7-3	5.31	7-20	5.43	8-22	5.59																
26B 821	7-3	5.07	7-20	5.23	8-23	4.78																		
26A 823	5-25	4.06	6-30	3.95	7-3	3.97	7-19	3.99	7-18	4.00	8-10	4.00												
26A 824	5-10	7.95	5-16	7.90	6-7	7.90	6-20	8.06	7-7	7.90	7-24	7.97	8-10	7.97	8-21	7.90	9-6	7.90						
27A 725	6-1	1.96	7-3	1.94	7-26	1.89	8-14	1.93	8-19	1.94	8-23	1.90	9-1	1.85										

INDIVIDUAL PUMP OPEN VALVE DISCHARGES

NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO

Part 2 — OCTOBER 1, 1961 — Sheet 4 of 5

Pump No.	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q
27A 823	6-22	5.57	6-30	5.52	7-18	5.50	7-19	5.49																
27B 823	6-26	4.00	7-18	3.50	7-19	3.94	9-20	3.50																
27C 823 Intercon.w/27A 823	6-1	4.72	6-22	4.75	7-19	4.63																		
28A 724	5-9	7.10	7-26	6.95	8-28	6.97																		
28B 724	5-1	3.62	7-26	3.43																				
28A 823	5-27	10.34	7-19	10.15	8-23	10.08																		
28B 823	6-15	5.66	7-19	4.84	8-23	4.96																		
28C 823	6-22	5.53	7-19	5.50	7-27	5.56	8-3	5.56	8-23	5.52														
28A 922	4-25	2.44	5-16	2.35	5-25	2.20	6-22	2.25	6-27	2.08	8-8	2.00	8-29	2.00	9-15	2.00								
29A 725	6-12	4.58	6-28	4.69	7-26	4.62																		
29A 823	6-20	8.12	7-19	8.15	8-14	8.08	8-23	8.26																
29B 823	6-26	4.11	7-19	4.08	8-23	4.16																		
29A 824	4-27	5.40	5-31	5.40	6-20	5.45	7-3	5.54	7-19	5.50	7-31	5.50	8-9	5.52										
30A 724	5-9	7.72	5-29	7.95	7-26	7.84	8-21	7.89																
30B 724	4-15	4.20	5-1	4.34	7-26	4.06	9-20	4.34																
30A 725	6-15	6.20	7-20	6.08	7-26	6.11	8-8	6.20	8-14	6.09	8-17	6.20	8-21	6.16										
30A 822	6-15	3.97	6-22	3.77	6-27	3.99	7-5	3.92	7-11	3.92	7-18	3.92	7-23	3.92	8-3	3.73								
30A 824	6-13	6.00	6-20	6.04	6-30	6.10	7-13	6.00	7-17	6.05	7-19	6.00	7-31	6.00	8-9	6.06	9-19	6.10						
30B 824	4-27	3.50	5-9	3.49	5-15	3.50	5-25	3.50	6-14	3.50	7-3	3.50	7-17	3.47	7-31	3.50	8-9	3.47	8-24	3.50	9-18	3.50		
31A 724	6-10	4.35	6-20	4.34	6-22	4.29	7-12	4.34	7-26	4.34	8-9	4.29	8-21	4.34	8-28	4.20								
31A 725	6-22	4.90	7-4	5.00	7-20	4.80	7-26	4.88	8-15	4.85	8-29	5.00												
31A 823	6-26	6.80	7-11	6.80	7-20	6.71	7-27	6.84	8-3	6.84														
31A 824	4-26	9.54	5-22	9.49	5-30	9.50	7-17	9.50	9-12	9.60														
31B 824	4-20	3.60	7-17	3.32	9-19	3.54																		
32A 724	4-24	9.28	5-1	8.95	5-9	9.05	6-10	8.93	7-24	8.57														
32B 724	4-18	4.20	7-24	3.71																				
32A 725	5-3	4.60	5-16	4.60	6-18	4.60	7-3	4.79	7-11	4.60	7-13	4.63	7-20	4.60	7-26	4.60	8-7	4.60	9-11	4.60				
33A 724	5-12	6.47	5-29	5.91	7-24	6.19	8-28	6.38																
33B 724	4-17	4.21	5-10	4.21	5-11	4.07	5-12	4.30	7-24	4.11	9-19	4.04												
33A 725	6-27	6.72	7-20	6.72	7-26	6.85	8-16	6.62	8-21	6.62														
33B 922	4-25	6.08	5-9	6.10	5-25	6.00	6-9	6.20	7-14	5.94	8-2	6.00	8-15	6.02	8-29	6.02								
33C 922	6-6	3.20	7-14	3.00	9-1	3.10																		
34A 723	5-7	7.30	5-29	7.30	7-14	7.03	7-28	7.20	8-10	7.20	9-8	7.20												
34B 723	5-29	3.20	7-14	3.07																				
34A 724	4-19	7.09	6-10	7.09	7-6	6.88	7-12	7.10	8-9	7.19	8-21	7.00												
34A 725	6-1	6.56	6-27	6.40	7-3	6.47	7-26	6.41	9-19	6.50														
34A 823	6-26	4.34	7-19	4.27	8-8	4.27	9-20	4.16																
35A 724	5-12	7.32	7-24	7.14																				
35B 724	4-17	3.93	7-24	3.70	9-19	3.66																		
35A 821	5-22	4.69	6-14	4.77	6-22	4.67	6-27	4.70	7-5	4.70	7-18	4.70	7-20	4.60	8-3	4.54								

INDIVIDUAL PUMP OPEN VALVE DISCHARGES

NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO

Part 2 — OCTOBER 1, 1961 —

Pump No.	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q
35B 821	4-30	6.01	7-20	5.71	8-26	5.64																
35C 821	7-20	5.55	8-26	5.49																		
35D 821 Intercon.w/35BC821	6-22	5.54	7-20	5.49	7-31	5.44	8-3	5.47	8-16	5.65	8-26	5.57										
35A 822	5-19	9.52	6-8	9.40	7-14	9.51																
35B 822	7-14	4.17																				
35C 822	5-11	2.50	5-15	2.45	6-22	2.38	7-14	2.38	7-20	2.50	7-27	2.50										
35A 823	6-8	7.24	7-3	7.22	7-18	7.30	7-19	7.17														
35B 823	5-9	1.94	5-17	1.96	7-3	1.90	7-20	1.90	8-9	1.96	8-11	1.90	9-7	2.00	9-20	2.02						
35C 823	6-14	4.09	6-21	4.01	7-18	4.00	7-19	3.94														
35D 823	5-9	2.00	5-15	1.70	6-22	1.70	7-19	1.70	7-29	1.69	8-9	1.70	8-11	1.60	9-5	1.80	9-20	1.82				
6R 1022	6-27	2.72	7-27	2.70	8-15	2.70	8-29	3.00														
7R 1022	6-26	6.80																				
9R 1021	7-7	1.50	7-14	1.52																		
9R 1022	6-27	12.30	8-3	12.48	8-15	12.10																
15R 1021	7-14	2.37																				
17R 824	7-13	3.30	7-14	3.11	7-20	3.20																
20RR824	6-13	6.58	6-20	6.61	7-20	6.50	7-31	6.50	8-24	6.60												
20RL824	7-13	2.10	7-20	2.10	7-31	2.10																
21R 824 Combined w/21A824	5-24	3.90	5-27	3.00	6-20	3.82	7-17	3.90														
24RR823	7-5	5.70	8-3	5.84																		
24RL823	5-31	2.64																				
28R 922	6-9	5.30	6-27	5.30	7-14	5.41	7-27	5.30	8-15	5.40												
28RR922 Intercon.w/28A922 and w/33BC922	6-10	1.50	6-22	1.50	6-27	1.50	7-14	1.57	7-27	1.50	8-15	1.50	8-29	1.50								
29R 824	5-15	2.10	8-3	2.40																		

INDIVIDUAL PUMP OPEN VALVE DISCHARGES
NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO
OCTOBER 22, 1962

Pump No.	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q
1A 823	5-3	9.77	5-25	9.68	7-23	9.72	8-15	9.60	8-23	9.80	8-30	9.70	9-21	9.70								
1B 823	7-23	3.97	8-23	4.02	8-30	4.12	9-21	4.20	10-3	4.24	10-10	4.24										
1C 823	5-16	7.69	5-21	7.60	6-20	7.70	7-4	7.70	7-12	7.70	7-23	7.43	7-30	7.30	8-23	7.22	8-31	7.56				
2A 923	4-25	2.00	5-10	1.96	5-16	1.96	5-15	2.00	5-22	1.94	6-26	2.00	7-9	1.96	7-24	1.85	7-23	1.94	8-29	1.94		
3A 825	5-18	7.54	6-12	7.54	7-3	7.53	9-11	7.45	9-26	7.42												
3B 825	4-27	5.80	6-7	5.80	6-11	5.80	7-3	5.40	8-22	5.60												
3C 825	5-8	6.14	5-14	6.10	6-7	6.12	6-18	6.16	6-28	6.25	8-10	6.06										
3D 825	5-19	3.00	5-28	3.00	6-28	2.80	9-25	2.82	10-10	2.96												
3A 923	5-16	4.40	6-12	4.40	6-27	4.00	7-3	4.00	7-11	4.00	7-17	4.00	8-2	4.00	8-30	4.00	9-11	4.13	9-17	4.07	9-27	4.00
6A 824	5-2	10.74	5-21	10.70	6-9	10.60	6-25	10.60	7-14	10.70	7-23	10.39	7-30	10.56	8-23	10.56	9-3	10.56	9-17	10.64	9-19	10.78
7B 824	5-18	7.60	6-13	7.50	7-5	7.60	7-12	7.60	7-23	7.38	7-25	7.36	7-30	7.36	8-30	7.42	9-30	7.42	9-24	7.23	10-12	7.64
7A 922	5-5	9.12	6-23	8.82	7-26	7.84	10-12	8.23														
7B 922	6-5	8.23	7-5	8.38	9-2	8.32	10-3	7.22	10-12	7.22												
9A 922	6-2	7.60	6-8	5.51	7-5	5.43	7-14	5.38	10-6	5.26												
10B 823	5-16	1.76	5-17	1.83	6-14	1.76	6-26	1.68	7-2	1.68	7-20	1.68	7-26	1.70	7-28	1.68	8-8	1.68	9-7	1.77	9-26	1.68
10A 922	6-11	3.58	7-20	3.35	7-26	3.36	10-6	3.40														
13A 824	4-28	9.40	6-11	9.40	7-5	9.22	7-16	9.16	8-6	9.24	8-14	9.24										
13B 824	4-28	5.20	5-24	5.00	6-11	5.00	6-23	5.00	7-5	5.00	7-16	5.24	8-8	5.32	8-20	5.00	9-10	5.02				
14C 825	5-23	2.08	6-11	2.06	6-25	2.00	6-28	2.10	8-2	2.00	8-27	1.94	9-6	1.94	9-10	2.03	10-11	2.08				
15A 823	5-18	9.18	6-26	9.14	7-28	9.30	8-8	9.18	9-26	9.20	10-8	9.28										
15B 823	7-3	4.28	7-28	4.42	8-30	4.46	9-26	4.50	10-8	4.48												
15A 825	5-14	10.20	6-23	10.10	6-30	10.40	7-16	10.23	8-8	9.22	9-12	10.00										
15B 825	5-2	4.20	6-7	4.10	7-16	4.04	10-3	4.22														
15A 922	6-27	2.16	7-10	2.19	7-27	2.24	8-28	2.08														
15B 922	5-17	2.16	6-27	2.16	7-10	1.46	7-27	1.19	8-30	1.28												
17A 825	6-9	6.80	6-21	6.80	7-6	6.70	8-2	6.70	8-30	6.80	9-25	6.68										
19A 823	5-10	6.58	6-16	6.50	7-25	6.55	8-9	6.40	8-23	6.20	9-28	6.30										
19B 823	5-9	3.10	6-12	3.10	7-25	3.09	8-24	3.10	10-3	3.10	10-10	3.20										
19C 825	5-10	7.50	6-21	7.40	7-16	7.60	8-1	7.34	8-14	7.44	9-25	7.64	9-28	7.32								
19D 825	5-23	3.58	6-6	3.30	8-1	3.30	8-14	3.20	9-28	3.26												
20A 922	7-10	6.33	8-28	5.88	9-13	5.90	9-11	5.97	9-17	5.93												
22C 724	5-3	4.78	5-14	4.78	6-26	4.68	7-16	4.78	7-19	4.78	7-26	4.85	8-13	4.81	9-26	4.81						
22A 823	5-22	5.80	6-13	5.70	6-27	5.70	7-3	5.70	7-12	5.80	7-25	5.70	7-18	5.80	8-10	5.60	8-22	5.60	9-17	5.83	9-25	5.70
22A 824	5-9	4.92	5-16	4.79	6-5	4.60	6-17	4.50	6-26	4.50	7-4	4.60	7-25	4.60	8-9	4.60	8-29	4.60	9-28	4.60	10-11	4.60
23A 823	5-22	6.48	6-13	5.70	7-4	5.80	8-31	5.70	9-28	5.70												
23B 823	5-22	3.00	6-11	3.10	8-27	3.00																
23A 825	5-7	6.80	6-28	6.97	8-20	6.72	9-8	6.74	9-26	6.82												
23B 825	5-19	6.96	6-28	6.63	7-31	6.66	9-15	6.76	9-26	6.56												
24A 823	5-3	9.96	5-22	9.72	6-20	9.66	6-25	9.74	7-24	9.63	7-23	9.90	9-5	9.70	9-26	9.76						

INDIVIDUAL PUMP OPEN VALVE DISCHARGES

NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO

OCTOBER 22, 1962

Pump No.	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q
24B 823	4-25	5.10	5-3	5.06	5-26	5.00	6-9	5.00	6-18	5.09	7-24	4.89	9-24	4.90								
24A 825	6-7	4.30	6-26	4.20	6-28	4.21	9-26	4.27														
26A 824	5-9	7.91	6-12	7.90	6-28	7.78	7-6	7.70	7-19	7.70	8-31	7.74	9-12	7.74	9-19	7.90						
28A 822	5-19	2.14	6-7	2.31	6-15	2.00	7-10	1.90	7-14	1.88	7-16	1.80	8-8	1.74	8-20	1.70	9-11	1.70	9-17	1.77		
29A 823	5-7	8.20	6-15	8.10	7-25	8.12	8-31	7.80	9-21	8.09	9-25	8.10										
29B 823	5-3	4.30	5-18	4.34	5-18	4.34	5-17	4.20	6-4	4.30	7-25	3.73	8-29	4.20								
30A 724	5-9	7.89	7-5	7.84	7-17	7.71	8-14	7.89	8-30	7.79	9-4	7.78	9-14	7.72	9-26	7.79						
30B 724	4-23	4.20	7-5	4.05	7-17	3.99	8-30	4.26	10-4	4.26	10-6	4.26	10-10	4.20								
32A 724	5-7	8.85	7-9	8.70	7-17	8.72	8-13	8.84	8-30	8.61	9-4	8.80	9-11	8.60	9-27	8.69	10-3	8.83	10-6	8.61		
32B 724	4-21	4.20	7-9	3.88	8-13	3.87	8-30	3.92	9-4	3.88	10-3	4.20	10-10	4.14								
33A 724	5-16	6.26	6-13	6.31	7-5	6.58	7-17	6.30	8-11	6.36	8-30	6.46	9-4	6.38	9-12	6.23	9-24	6.59	10-4	6.34		
33B 724	6-13	4.03	7-17	4.06	8-30	3.79	9-24	3.81	10-4	4.10												
34A 725	5-23	6.40	6-15	6.44	7-2	6.09	7-23	6.34	10-4	6.34	10-4	6.30										
35A 724	5-18	7.17	6-21	7.05	7-5	7.27	7-23	7.06	8-13	7.07	8-30	7.12	9-4	7.07	9-12	7.18	9-14	7.15	9-20	7.24	10-4	7.06
35B 724	4-23	3.78	7-23	3.82	8-30	3.73	9-12	3.66	9-14	3.70	9-24	3.63	10-3	3.66	10-4	3.80	10-10	3.85				
35A 821	5-23	4.81	6-19	4.72	7-8	4.67	7-20	4.67	7-26	4.57	8-2	4.60	8-14	4.46	8-29	4.60	10-8	4.46				
35B 821		5.95	5-5	5.80	6-29	5.78	8-13	5.64														
35C 821	5-19	5.64	8-12	5.64																		
35D 821	5-19	5.66	7-6	5.64	7-20	5.72	8-2	5.59	8-26	5.60												
35C 822	5-15	2.38	5-16	2.50	6-19	2.58	7-14	2.40	7-20	2.31	8-8	2.36	8-14	2.36	9-13	2.36						
35A 823	5-25	7.30	6-19	7.30	7-5	7.34	7-11	7.30	7-24	7.36	7-26	7.30	8-9	7.30	9-12	7.33	9-24	7.38				

PUMP OPEN VALVE DISCHARGES OF COMBINED SYSTEMS

NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO

OCTOBER 22, 1962

Pump No.	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q
1AB 823	5-16	14.13	6-14	14.00	6-22	14.00	7-25	13.90	7-30	13.90				
3AB 825	6-18	13.20	7-19	12.70	9-5	12.94								
3CD 825	6-14	9.12												
7AB 922	7-6	16.86	7-20	16.44	7-25	16.04	8-1	15.94	8-8	15.54	8-28	15.67	10-17	16.43
13AB 824	5-14	14.56	7-5	14.22	7-17	14.30	8-1	14.30						
15AB 823	6-14	12.10	7-2	13.70	7-14	13.58	7-20	13.58						
15AB 825	7-10	14.18												
15AB 922	8-20	3.26												
19AB 823	5-17	9.92	5-21	9.80	6-26	9.60	7-4	9.60	7-9	9.60	8-3	9.60		
19CD 825	7-8	10.70	8-1	10.64	8-16	10.60								
23AB 823	6-21	8.80	7-11	8.90	7-24	8.70	7-31	8.40	8-13	8.30				
23AB 825	7-4	13.54	7-30	13.38										
24AB 823	6-26	14.80	7-3	15.00	7-10	15.04	7-23	14.90	8-9	14.86	9-5	14.72		
29AB 823	6-23	12.30	7-5	12.30	7-13	12.30	7-23	11.80	8-2	11.70	8-13	11.80		
30AB 724	6-13	12.02	6-25	11.34	7-5	11.90	7-19	11.70	7-26	11.70	8-30	12.05		
32AB 724	5-14	12.68	6-24	12.55	7-19	12.57	7-26	12.33	8-30	12.53	9-4	12.68		
33AB 724	6-14	12.45	7-9	12.52	7-7	10.41	7-26	10.20	8-30	10.25				
35AB 724	7-5	10.37	7-19	10.67	7-26	10.83	8-30	10.85						
35BC 821	6-15	11.28	7-6	11.26	7-20	11.21	8-2	11.14	8-26	11.11	9-13	11.11		

INDIVIDUAL PUMP OPEN VALVE DISCHARGES

NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO

OCTOBER 1, 1960

Pump No.	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q
1A 823	Apr	8.20	5-27	9.02	6-3	8.90	7-21	8.83	9-7	8.52	9-14	8.40	10-3	8.87										
1B 823	4-22	4.34	7-21	4.21	9-19	4.10																		
1C 823	5-31	7.75	6-21	7.60	6-22	7.64	7-6	7.00	7-20	7.10	7-21	7.10	7-26	7.10	8-8	7.10	8-29	7.30	9-14	7.20				
1A 824	4-27	8.00	6-1	8.00	6-9	7.80	6-16	7.90	6-28	8.16	7-13	7.90	7-27	7.86	7-24	7.80	8-13	7.80	8-29	7.70				
1A 921	4-28	7.23	6-1	7.36	6-3	7.28	7-1	7.48	7-19	7.46	7-26	7.62	8-8	7.62	8-17	7.62	9-6	7.38	9-6	7.38				
2A 823	5-27	5.63	6-29	5.54	7-7	5.20	7-20	5.56	7-26	5.20	8-8	5.20	8-27	5.40	9-13	5.30								
2A 824	4-27	2.03	6-1	2.03	6-4	2.03	6-8	2.03	6-22	1.96	6-28	1.96	7-9	2.03	7-28	2.03								
2A 923	4-29	2.08	5-11	2.08	5-14	2.08	5-18	2.08	5-25	2.08	6-1	2.08	6-2	2.10	6-11	2.08	6-22	2.10	7-5	2.08	7-16	2.08	7-19	2.08
3A 824	5-23	9.48	5-24	9.20	7-27	9.44	8-4	8.98	8-12	9.14	9-14	9.18												
3B 824	5-6	4.81	7-27	4.55	9-16	4.44																		
3A 825	6-3	7.50	7-28	7.69	9-19	7.78																		
3B 825	5-9	5.95	5-13	5.94	6-3	5.80	7-28	5.76																
3C 825	5-2	6.32	5-23	6.32	8-27	6.24	9-17	6.26																
3D 825	4-27	3.15	4-28	3.18	7-28	3.00																		
3E 825	5-23	4.15	5-20	4.20	6-25	4.20	6-27	4.20	7-7	4.18	7-28	4.21												
3A 921	6-1	1.83	6-9	1.90	6-21	1.77	6-26	1.90	7-5	1.83	7-19	1.70	7-26	1.83	8-8	1.77	8-17	1.77	8-27	1.77	9-13	1.77		
3B 921	4-22	6.69	5-24	6.71	6-19	6.87	6-21	6.94	6-26	6.90	7-5	6.90	7-17	6.90	7-19	6.79	7-26	6.90	8-17	6.84				
3C 921	4-22	6.96	5-17	6.96	6-5	6.89	6-21	6.89	6-26	6.89	7-5	6.89	7-19	6.77	7-26	6.77	8-8	6.88	8-17	6.96	9-10	6.69		
3A 922	5-24	9.25	5-25	9.22	6-1	9.13	6-11	9.00	7-18	9.17	8-15	9.12	9-1	9.11										
3B 922	5-14	4.68	5-16	4.69	7-18	4.52	8-15	4.60	9-16	4.68														
3A 923	4-12	4.20	5-9	4.30	5-25	4.41	6-11	4.30	6-25	4.28	6-29	4.27	7-5	4.22	7-16	4.28	7-19	4.25	7-27	4.24				
3B 923	5-11	2.28	5-19	2.24	6-4	2.28	6-11	2.22	6-22	2.24	6-27	2.22	7-5	2.18	7-16	2.24	7-19	2.26	7-27	2.28				
3A 1022	Apr.	4.00	6-1	4.01	6-6	4.10	6-21	4.01	6-23	4.10	7-3	4.10	7-17	4.10	7-22	4.01	7-23	4.10	8-5	4.10				
4A 823	4-18	10.30	5-31	10.54	7-20	10.27	8-31	10.10	9-16	10.20														
4B 823	5-9	4.57	5-26	4.30	5-28	4.30	6-2	4.40	7-20	4.28	9-16	4.40												
4A 824	6-11	9.43	6-23	9.65	7-6	9.48	7-26	9.58	8-8	9.40	9-19	9.30												
4B 824	4-21	7.72	5-17	7.60	6-28	7.22	7-6	7.04	7-27	7.18	8-8	6.94	9-3	7.00	9-9	7.10								
5B 823	5-19	6.37	5-22	6.30	6-22	6.20	7-20	6.36	9-16	5.80														
5C 823	6-22	3.10	7-20	3.01	9-15	3.00																		
5A 825	4-29	11.30	5-12	11.10	5-24	11.31	6-1	11.40	6-6	11.20	6-16	11.40	7-11	11.20	7-28	11.11	8-13	11.20	9-2	11.20				
5B 825	4-29	5.30	5-7	5.50	5-9	5.55	7-28	5.32	9-2	5.20														
6A 824	5-27	10.82	6-2	10.82	6-10	10.60	6-21	10.76	6-23	10.93	6-27	10.70	7-6	10.70	7-16	10.60	7-25	10.80	9-9	10.80				
6B 824	5-13	5.92	5-26	5.95	6-8	5.87	6-27	5.81	7-9	5.87	7-25	5.87	7-28	5.75	9-20	5.79								
6C 824	5-23	1.64	5-25	1.64	6-23	1.64	7-16	1.60	7-25	1.58	7-29	1.60	8-24	1.60	9-1	1.62	9-14	1.62						
6A 825	6-1	6.39	6-16	6.20	7-9	5.80	7-27	5.60	7-28	6.06	8-18	5.50	9-5	5.80										
6B 825	4-20	3.50	5-26	3.16	5-26	3.20	7-10	3.00	7-28	2.91	8-18	3.00	9-5	3.10										
6A 923	5-23	8.00	6-22	7.66	7-19	7.72																		
6B 923	5-25	4.52	6-2	4.59	7-1	4.42	7-19	4.41																
7B 824	5-26	7.82	6-2	7.82	6-10	7.72	6-21	7.70	6-23	7.78	6-27	7.60	7-6	7.60	7-16	7.50	7-25	7.59	8-24	7.60	9-23	7.70		
7A 922	4-23	9.10	5-24	9.18	5-24	9.33	7-17	9.03	8-27	8.90	9-1	8.93	9-15	8.84	9-15	8.84								

Part 2

INDIVIDUAL PUMP OPEN VALVE DISCHARGES

NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO

October 1, 1960

Pump No.	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q
7B 922	4-28	7.61	5-15	7.60	5-27	7.90	7-17	7.32	9-1	7.38	9-19	7.47														
8A 823	6-11	9.20	6-22	9.63	7-5	9.10	7-20	9.59	7-26	9.10	8-16	9.20	8-27	9.20	8-27	9.20										
8A 824	6-1	7.77	6-9	7.36	6-24	7.87	7-6	7.60	7-26	7.86	8-21	7.90														
9A 922	4-25	6.03	5-25	5.75	6-2	5.80	6-16	5.70	6-21	5.76	6-23	5.70	7-18	5.76	7-26	5.70	8-5	5.80	9-6	5.84						
9B 922	5-16	4.63	6-1	4.58	6-11	4.60	6-16	4.60	6-23	4.60	7-18	4.41	7-26	4.60	8-5	4.60	8-19	4.41								
10A 823	4-29	2.97	6-3	2.87	6-7	2.86	6-18	2.80	7-1	2.91	7-6	2.80	7-20	2.90	7-21	2.80	7-28	2.80	8-17	2.80	8-29	2.80				
10B 823	5-17	1.81	5-31	1.83	6-21	1.70	6-22	1.80	7-5	1.70	7-20	1.80	7-26	1.70	8-16	1.70	8-29	1.70								
10A 824	5-23	9.95	6-8	9.80	6-27	9.80	6-28	9.78	7-26	9.81	8-21	9.80														
10B 824	5-23	6.25	6-8	6.00	6-27	5.92	6-28	6.12	7-6	5.92	7-26	5.97	8-22	5.82												
10A 922	5-19	3.83	6-14	3.85	6-14	3.89	6-29	3.72	7-18	3.86	7-25	3.84	9-9	3.78												
11A 824	Apr.	7.73	6-22	7.90	7-7	7.80	7-24	8.00	7-27	7.56	8-15	8.00	9-6	8.00												
11B 824	4-29	3.84	5-9	4.10	6-1	4.00	7-7	4.00	7-24	4.06	7-27	4.06	8-15	4.00	9-6	4.00										
11C 824	4-27	5.92	6-2	5.90	6-4	5.90	6-16	5.90	6-28	5.96	6-29	5.80	7-8	5.80	7-24	5.90	7-27	5.99	8-20	5.90	9-6	5.90				
11A 825	6-11	4.17	6-29	4.11	7-7	4.10	7-28	4.07	8-18	4.10																
11A 922	4-12	4.69	6-1	5.30	7-18	2.31																				
11B 922	6-4	4.70	7-18	4.57																						
12A 823	4-25	8.01	5-25	8.04	5-25	7.90	6-2	7.90	6-14	7.90	7-25	7.93	8-27	6.80												
12B 823	4-21	3.13	5-6	3.15	5-26	3.10	6-20	3.00	7-25	3.06	8-17	2.80	8-29	3.10	9-7	3.07	9-15	3.00								
12C 823	5-25	7.40	7-25	7.26	8-27	7.70	9-15	7.10																		
12D 823	4-29	4.05	4-26	3.80	5-28	3.80	7-25	3.87	8-29	3.90																
12A 824	4-30	5.50	5-9	5.80	5-11	5.61	5-19	5.80	6-21	5.80	6-24	5.47	6-29	5.50	7-9	5.50	7-26	5.39	7-27	5.39	8-27	5.30				
12A 825	5-27	9.28	5-27	9.26	7-28	8.88	8-29	9.24																		
12B 825	5-9	5.03	5-10	5.00	5-27	5.01	7-15	4.67	7-28	4.74																
13A 824	5-23	9.58	6-7	9.40	6-14	9.30	7-27	9.39	9-2	9.30																
13B 824	4-22	5.30	5-6	5.34	5-9	5.30	5-23	5.33	7-27	5.29	9-2	5.30														
13A 825	6-3	3.05	6-15	3.12	6-28	3.05	7-29	2.97	8-18	2.96	9-8	2.96														
14A 823	5-31	6.41	6-4	6.08	7-20	5.96	8-30	5.92	9-19	6.06																
14B 823	4-20	2.96	4-29	3.02	5-11	2.96	5-14	2.92	5-31	2.91	7-20	2.80														
14A 824	5-31	9.32	6-2	8.60	6-7	8.86	6-28	8.60	7-6	8.66	7-21	8.30	7-26	8.50												
14C 825	5-2	2.36	6-1	2.31	6-6	2.30	6-25	2.20	6-28	2.31	7-7	2.22	7-28	2.24	8-18	2.20										
15A 823	5-23	8.90	6-1	9.13	6-22	8.90	7-20	8.94	9-19	8.91																
15B 823	4-22	4.44	4-29	4.44	5-4	4.52	6-1	4.59	7-20	4.48																
15D 823	5-14	1.70	5-23	1.74	6-7	1.62	6-13	1.56	6-22	1.52	7-6	1.50	7-17	1.44	7-20	1.45	7-29	1.44	8-19	1.45	9-2	1.44				
15A 824	5-17	5.45	6-9	5.38	6-23	5.38	6-28	5.50	7-26	5.54	8-26	5.34	9-5	5.39												
15A 825	6-1	10.28	6-6	10.50	6-10	10.31	7-28	10.06	9-6	10.33																
15B 825	4-30	4.34	7-28	4.13																						
17A 823	5-17	5.83	6-20	5.76	7-20	5.76	8-8	5.89																		
17B 823	5-4	3.09	7-20	2.95																						
17C 823	6-1	2.24	6-21	2.20	6-22	2.24	7-6	2.20	7-20	2.20	7-28	2.20	8-16	2.20	8-22	2.20										
17A 825	5-31	7.02	6-1	7.00	6-7	7.00	6-16	7.00	6-28	7.00	7-14	7.00	7-28	7.00	7-30	7.00	8-25	7.00								

Part 2

INDIVIDUAL PUMP OPEN VALVE DISCHARGES

NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO

October 1, 1960

Pump No.	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q
18A 824	5-25	9.59	5-26	9.58	6-2	9.50	6-24	9.47	6-27	9.40	7-7	9.40	7-16	9.30	7-25	9.41	7-29	9.40	9-14	9.32						
18A 922	4-16	5.66	5-12	5.80	5-15	5.68	6-5	5.60	6-19	5.71	6-27	5.61	7-18	5.60	9-15	5.60										
18B 922	4-18	2.46	6-27	2.44																						
19A 823	5-11	6.76	6-22	6.79	7-20	6.76																				
19B 823	4-25	3.10	6-22	3.22	7-20	3.14	9-7	3.21																		
19A 825	Apr.	10.20	5-17	10.20	5-24	10.30	5-29	10.20	6-16	10.00	7-28	10.23	9-4	10.10												
19B 825	Apr.	5.51	4-25	5.40	5-9	5.40	5-11	5.52	5-25	5.20	6-16	5.60	7-28	5.42	9-2	5.40										
19C 825	Apr.	7.78	4-22	7.80	5-12	7.90	5-23	7.87	5-31	7.90	7-28	7.81	9-5	7.70												
19D 825	4-22	3.40	5-11	3.44	5-12	3.40	5-31	3.40	7-28	3.36	9-5	3.40														
19A 922	5-24	4.55	6-19	4.56	6-27	4.54	7-5	4.62	7-18	4.54	7-17	4.69	7-26	4.62	8-8	4.62										
20A 922	5-12	6.66	5-14	6.65	5-17	6.68	6-21	6.65	6-23	6.70	7-18	6.70	7-26	6.70	8-5	6.50	8-15	6.60	9-15	6.70						
21A 823	4-18	8.95	6-22	8.43	7-6	8.20	7-17	8.18	7-20	8.24	7-29	8.18														
21A 824	4-23	8.50	5-11	8.36	5-28	8.00	6-23	7.97	7-12	7.70	7-26	8.15	8-11	7.74	9-7	7.88										
21B 824	5-20	7.55	5-21	7.40	6-2	7.40	6-28	7.47	7-6	7.40	8-11	7.40	9-3	7.40												
21A 825	5-31	7.34	6-6	7.30	6-10	7.30	6-27	7.30	6-28	7.20	7-7	7.26	7-29	7.20	8-19	7.18										
22A 724	4-27	2.75	5-11	2.82	5-26	2.58	6-27	2.60	7-27	2.62																
22B 724	5-26	6.49	6-4	6.15	6-8	6.07	6-22	6.25	6-27	6.35	7-9	6.14	7-27	6.14	7-28	6.07										
22C 724	5-18	5.92	5-25	4.81	5-26	5.02	6-8	4.88	6-22	4.88	6-29	4.92	7-9	4.88	7-27	4.85	7-28	4.88								
22A 821	5-19	6.05	6-8	5.93	6-19	5.90	6-21	5.98	6-26	5.98	7-5	5.95	7-17	6.01	7-19	5.89	7-26	5.95	8-17	5.92	9-21	5.66				
22A 823	5-31	5.98	6-1	5.86	6-7	5.92	6-11	5.86	6-22	5.90	6-27	5.62	7-6	5.62	7-17	5.88	7-20	5.84	7-29	5.62						
22A 824	5-6	4.96	5-25	4.60	6-7	4.80	6-17	4.80	6-24	4.93	7-6	4.74	7-25	4.72	7-26	4.92	8-2	4.62	9-16	4.70						
23A 724	5-26	5.17	6-27	4.69	7-9	4.27	7-19	4.08	7-22	4.00	7-27	4.13	7-28	4.13												
23A 823	5-27	6.55	7-20	6.40	8-27	6.40																				
23B 823	4-16	2.84	5-6	3.06	5-11	3.04	5-14	3.04	5-20	3.06	7-20	2.89	8-29	2.89												
23A 824	5-21	9.00	6-1	9.23	6-3	8.86	6-13	8.80	6-24	9.23	7-5	8.80	7-25	8.80	8-2	8.72										
23A 825	5-23	7.03	5-27	6.98	6-28	6.85	7-15	6.65	7-29	6.70																
23B 825	5-27	6.98	6-28	7.07	7-29	6.97	8-27	7.00																		
24A 821	5-25	1.96	6-5	1.96	6-21	1.96	6-26	1.96	7-5	1.96	7-19	1.90	7-26	1.96	8-8	1.96	8-17	1.96	9-5	1.96	9-24	1.96				
24A 823	5-17	10.09	5-27	9.97	7-25	9.90	8-29	9.90	9-12	9.97	9-27	9.88														
24B 823	4-25	5.41	4-26	5.00	5-10	5.10	7-25	5.21	9-12	5.02																
24C 823	5-4	7.64	6-2	7.70	6-29	7.64	7-25	6.56																		
24A 825	5-23	4.57	6-10	4.52	6-25	4.40	6-28	4.48	7-7	4.40	7-29	4.41	8-15	4.40												
25A 823	5-9	3.42	5-21	3.52	6-4	3.48	6-13	3.48	6-22	3.58	6-27	3.34	7-5	3.42	7-16	3.38	7-25	3.54	7-28	3.40	9-2	3.55				
26A 724	6-30	6.25	7-27	6.13	8-8	5.99																				
26B 724	4-26	2.75	5-26	2.77	6-22	2.74	6-27	2.76	7-9	2.90	7-27	2.74	7-28	2.96												
26A 821	5-15	5.76	5-17	5.69	6-21	5.61	7-19	5.62																		
26B 821	6-21	5.46	7-19	5.40																						
26A 823	5-9	3.90	6-2	4.15	6-4	4.14	6-13	3.94	6-27	3.94	6-29	3.99	7-5	3.94	7-16	3.94	7-21	3.99	7-28	3.88	9-2	3.94				
26A 824	4-25	8.47	4-30	8.20	5-17	8.20	5-21	8.25	6-6	8.04	6-24	8.15	6-28	8.00	7-6	7.96	7-26	8.22	8-2	8.00	9-16	8.08				
27A 725	4-26	1.96	6-1	2.03	6-6	2.00	6-10	1.94	7-1	2.01	7-7	1.90	7-28	1.96	8-18	1.94										

Part 2

INDIVIDUAL PUMP OPEN VALVE DISCHARGES

NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO

October 1, 1960

Pump No.	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q
27A 823	Apr.	6.00	4-22	5.34	6-2	5.56	6-7	5.54	6-11	5.60	6-25	5.32	6-29	5.59	7-6	5.32	7-17	5.28	7-20	5.59	7-28	5.34						
27B 823	Apr.	4.21	6-2	3.99	6-29	3.91	7-6	4.10	7-16	4.10	7-20	3.95	7-27	3.94														
27C 823	4-12	4.60	4-28	4.70	4-29	4.76	5-18	4.72	5-19	4.70	5-20	4.72	6-13	4.72	6-22	4.74	6-27	4.70	7-6	4.64	7-17	4.66	7-24	4.78	7-28	4.66		
28A 724	4-26	7.00	5-13	7.09	5-16	7.09	5-17	7.09	5-25	7.17	7-27	6.96																
28B 724	4-21	3.79	4-26	3.90	5-13	3.95	7-27	3.57	9-12	3.68	9-14	3.68																
28A 823	6-1	10.50	7-20	10.28																								
28B 823	5-5	5.20	6-1	5.17	7-20	5.07																						
28C 823	4-12	5.56	5-4	5.61	6-29	5.72	7-20	5.79																				
28A 922	5-27	2.62	6-2	2.50	6-6	2.60	6-21	2.47	6-23	2.54	7-5	2.50	7-17	2.42	7-22	2.37	8-5	2.30	8-9	2.30	8-15	2.30	9-7	2.37				
29A 725	4-26	4.69	5-26	4.69	6-14	4.66	6-27	4.69	7-7	4.66	7-28	4.62																
29A 823	6-8	8.60	6-22	8.39	7-20	8.27	8-8	8.30																				
29B 823	4-27	4.70	5-5	4.48	6-22	4.16	7-20	4.08																				
29A 824	5-31	5.63	6-1	5.46	6-7	5.46	6-20	5.40	6-23	5.57	6-28	5.40	7-7	5.40	7-19	5.40	7-25	5.50	7-29	5.40	9-1	5.46	9-9	5.54				
30A 724	Apr.	8.31	5-13	7.89	5-23	7.89	5-25	8.01	7-25	7.89																		
30B 724	Apr.	4.34	4-13	4.24	5-6	4.34	5-13	4.34	7-25	4.34	9-20	4.20																
30A 725	6-13	6.45	6-27	6.40	7-7	6.46	7-28	6.34																				
30A 822	5-19	3.91	6-5	3.99	6-19	3.99	6-21	3.86	6-26	4.06	7-5	3.99	7-17	3.99	7-19	3.86	7-26	3.99										
30A 824	4-12	6.25	4-16	6.10	6-2	6.11	6-7	6.10	6-9	6.10	6-29	6.13	7-16	6.00	7-25	5.98	7-29	6.10	8-23	6.06	8-27	6.06						
30B 824	6-2	3.67	6-7	3.52	6-9	3.54	6-29	3.60	7-5	3.50	7-16	3.44	5-25	3.62	7-29	3.44	8-24	3.46	9-1	3.50	9-9	3.46	9-27	3.50				
31A 724	6-2	4.54	6-6	4.40	6-8	4.44	6-22	4.34	6-24	4.44	7-9	4.44	7-25	4.44	7-28	5.75	9-20	4.40										
31A 725	Apr.	5.04	4-26	5.07	5-12	5.00	5-24	4.80	6-4	4.60	6-16	4.60	6-30	4.91	7-7	5.10	7-28	4.89	7-25	5.00	8-20	5.00	9-5	5.00				
31A 823	4-28	7.07	5-23	7.00	6-22	6.92	7-19	6.70	9-7	6.12																		
31A 824	4-22	9.77	5-6	9.60	5-27	9.56	7-25	9.63	9-19	9.54																		
31B 824	4-27	3.80	4-24	3.60	5-26	3.68	7-25	3.64	9-12	3.60	9-27	3.60																
32A 724	5-11	9.11	5-28	9.05	6-27	8.90	7-25	8.77																				
32B 724	4-18	4.20	6-27	4.09	7-25	4.04	9-21	4.21																				
32A 725	5-10	4.70	5-26	4.62	6-6	4.60	6-16	4.60	6-24	4.68	6-27	4.60	7-9	4.60	7-25	4.60	7-28	4.63	8-19	4.60	8-29	4.60						
33A 724	5-18	6.34	5-19	6.56	5-25	6.35	6-27	6.38	7-27	6.41																		
33B 724	4-18	4.10	5-13	4.22	6-27	4.05	7-27	4.08	9-12	4.21																		
33A 725	6-10	5.80	6-25	5.84	6-27	6.19	7-7	5.88	7-28	5.82																		
33B 922	5-14	6.50	5-16	6.27	6-6	6.50	6-23	6.50	6-25	6.58	7-22	6.17	8-9	6.30	8-15	6.38												
33C 922	5-12	3.30	5-13	3.32	7-22	2.96	8-5	3.34	9-7	3.30																		
34A 723	4-29	7.54	5-3	7.20	5-23	7.62	5-27	7.40	6-3	7.40	7-20	7.35	8-16	7.20	9-1	7.10	9-15	7.20										
34B 723	5-26	3.07	5-29	3.10	7-20	3.12	8-19	3.10	9-16	3.10																		
34A 724	6-4	7.04	6-8	7.01	6-22	7.10	7-24	7.06	7-9	6.96	7-27	7.11	7-28	7.01														
34A 725	6-1	6.65	6-13	6.54	7-1	6.51	7-28	6.48	8-20	6.48																		
34A 823	5-9	4.24	5-14	4.24	6-4	4.28	6-13	4.38	6-22	4.30	6-25	4.36	7-5	4.38	7-16	4.36	7-21	4.38	7-27	4.36								
35A 724	5-9	7.55	6-24	7.46	7-27	7.49																						
35B 724	4-21	3.93	6-24	3.83	7-27	3.65																						
35A 821	4-21	4.46	5-9	4.75	6-21	4.77	6-26	4.77	7-5	4.77	7-19	4.77	7-26	4.77	9-12	4.67												

Part 2

INDIVIDUAL PUMP OPEN VALVE DISCHARGES

NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO

October 1, 1960

Pump No.	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q
35B 821	4-21	5.95	5-13	6.07	5-15	6.00	6-21	5.90	7-19	5.83	9-13	5.64	9-27	5.77												
35C 821	6-21	5.79	7-19	5.71																						
35D 821	6-21	5.75	7-19	5.98																						
35A 822	5-11	9.73	5-31	9.90	6-29	9.61	7-19	9.53																		
35B 822	4-29	3.90	6-3	4.90	6-29	4.06	7-19	4.03																		
35C 822	5-23	2.50	5-25	2.45	6-29	2.41	7-19	2.38	8-8	2.50																
35A 823	5-14	7.54	5-17	7.64	5-18	7.44	6-6	7.48	6-11	7.54	6-22	7.59	6-27	7.48	7-5	7.26	7-16	7.24	7-21	7.49	7-27	7.42				
35B 823	5-4	2.08	5-11	2.10	5-18	1.94	6-1	1.94	6-6	1.94	6-13	1.94	6-22	2.03	6-27	1.94	7-5	1.94	7-21	1.96	7-28	1.94	9-13	1.94		
35C 823	5-10	4.04	5-14	4.00	5-19	4.03	6-4	4.04	6-11	4.04	6-22	4.06	6-27	4.04	7-5	3.88	7-16	3.88	7-21	3.99	7-27	3.88				
35D 823	5-4	1.68	5-14	1.70	5-25	1.70	6-1	1.68	6-6	1.68	6-13	1.68	6-22	1.70	6-27	1.68	7-16	1.62	7-21	1.70	8-29	1.62	9-15	1.68		
6R 1022	6-16	3.10	6-23	3.10	6-30	2.98	7-18	3.10	7-26	3.10	8-11	3.11														
7R 1022	6-30	6.80	8-11	6.80																						
9R 1021	5-26	1.62	6-1	1.50	6-25	1.64	6-30	1.68	7-17	1.68	7-23	1.68	8-5	1.68	8-9	1.60	8-11	1.68								
9R 1022	7-11	12.08	8-11	12.38																						
15R 1021	6-30	2.42	8-11	2.35																						
17R 824	5-26	3.20	5-27	2.56	6-29	2.78	7-19	3.20	7-25	2.82																
20RR 824	6-1	6.40	6-20	6.50	6-23	6.85	6-28	6.50	7-18	6.50	7-26	6.84	7-29	6.50	8-30	6.50	9-14	6.50								
20RL 824	6-10	2.10	6-20	2.30	6-23	2.40	6-28	2.30	7-18	2.20	7-26	2.49														
21R 824	5-17	3.90	6-23	3.96	7-26	3.90	7-29	2.20	7-12	3.80	9-16	3.72														
24RR 823	6-1	4.70	6-10	4.70	6-29	4.12	7-6	4.70	7-19	4.70	7-25	4.84	8-24	4.70	9-30	4.80										
24RL 823	6-10	2.70	6-18	2.80	6-23	2.35	7-7	2.60	7-25	2.72	9-19	2.70														
28RR 922	9-28	2.10																								
28RL 922	6-11	5.70	6-16	5.70	6-21	5.16	6-23	5.70	7-18	5.50	8-11	5.44	9-15	5.50												
29R 824	7-11	2.12	7-18	2.10	7-27	2.03																				
13R 1021	6-30	2.42																								

Part 3

ACTUAL PUMP OPEN VALVE DISCHARGES - COMBINED SYSTEMS

NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO

October 1, 1960

Pump No.	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q
1AB 823	5-23	13.32	6-22	13.10	7-21	13.04														
3AB 824	6-28	14.04	7-27	13.99																
3AB 825	6-3	13.30	6-28	13.59	7-7	13.44	7-28	13.45												
3CD 825	5-31	9.40	6-1	9.34	6-25	9.22	6-27	9.39	7-7	9.18	7-28	9.18								
3AB 922	6-16	13.70	6-21	13.73	6-23	13.70	7-18	13.70	7-26	13.70										
4AB 823	6-18	14.60	6-29	14.72	7-6	14.30	7-20	14.55	7-28	14.10	8-5	14.20	8-22	14.40						
5BC 823	6-6	9.10	6-7	9.42	6-20	9.00	6-22	9.45	7-7	9.00	7-20	9.37	7-20	8.90	7-27	8.90	8-16	9.00	8-23	9.00
5AB 825	6-27	16.54	6-29	16.60	7-26	16.50	7-28	16.48												
6AB 825	6-30	8.99	7-28	8.97																
7AB 922	6-27	16.90	7-5	16.31	7-17	16.35	7-26	16.24												
10AB 824	0																			
11AB 824	5-11	11.67	6-2	11.82	6-10	11.90	6-29	11.54	7-27	11.65										
11AB 922	6-21	9.58	6-30	7.68	7-18	6.88	7-26	6.99	8-10	6.85	8-19	6.71								
12AB 823	7-5	10.60	7-20	9.50	8-16	9.60														
12CD 823	6-6	11.13	6-28	11.24	7-6	10.80	7-21	10.70	7-25	11.13	7-28	10.70	8-16	10.80						
12AB 825	6-29	13.87	7-7	13.74	7-18	13.74	7-28	13.62	9-7	13.87										
13AB 824	6-24	14.65	6-28	14.60	7-12	14.60	7-27	14.63												
14AB 823	6-7	8.94	6-13	8.86	6-25	8.86	6-29	8.93	7-6	8.92	7-17	8.54	7-20	8.76	7-29	8.54				
15AB 823	6-1	13.72	6-4	13.28	6-11	13.30	6-25	13.28	7-1	13.38	7-6	13.26	7-17	13.22	7-20	13.42	7-29	13.22		
15AB 825	6-28	14.33	7-28	14.19	8-15	14.52	9-8	14.24												
17AB 823	6-29	8.67	7-20	8.71																
18AB 922	5-16	8.07	6-9	8.07	6-26	7.95	6-27	7.95	7-5	7.95	7-17	8.02	7-18	7.88	7-26	7.88	8-8	7.88	8-17	7.88
19AB 823	6-22	10.01	7-20	9.90																
19AB 825	6-3	15.76	6-30	15.49	7-9	15.60	7-28	15.65												
19CD 825	6-9	11.10	6-23	11.07	6-29	11.10	7-13	11.10	7-28	11.17	7-30	11.10								
21A&B824	5-17	12.21	6-8	11.98	6-23	11.93	7-26	12.05	7-12	11.50										
23AB 823	6-1	9.36	6-3	9.39	6-4	9.32	6-11	9.34	6-25	9.16	7-6	9.26	7-11	9.49	7-17	9.30	7-20	9.29	7-29	9.28
23AB 825	6-10	14.06	6-28	13.92	7-7	13.88	7-18	13.82	7-29	13.80	8-24	13.52								
24AB 823	6-2	15.00	6-23	15.18	6-28	15.00	7-5	15.00	7-16	15.00	7-25	15.11	7-29	15.00	8-24	14.90				
26AB 821	6-10	10.66	6-21	11.07	6-27	10.89	7-5	10.82	7-17	10.92	7-19	11.02	7-26	10.82						
28AB 724	6-8	10.86	7-5	10.72	7-27	10.53														
28AB 823	6-1	15.67	6-29	15.34	7-20	15.35														
29AB 823	6-22	12.55	7-20	12.35																
30AB 724	5-16	12.00	5-17	12.30	6-22	12.25	6-24	12.18	6-27	12.99	7-9	12.04	7-25	12.23	7-28	12.03				
31AB 824	6-1	13.20	6-23	13.26	6-27	13.10	7-5	13.10	7-16	13.10	7-25	13.27	7-29	13.04	8-23	13.06	9-19	13.10		
32AB 724	6-8	13.22	7-9	12.88	7-25	12.81	7-28	13.06												
33AB 724	6-8	9.58	6-27	10.43	7-9	10.49	7-27	10.49	7-28	10.50										
33BC 922	5-27	9.65	6-30	9.32	7-22	9.13	7-23	9.24												
34AB 723	6-14	10.30	6-29	10.45	7-7	10.00	7-20	10.47	7-21	10.00	7-28	10.00	8-15	10.20						

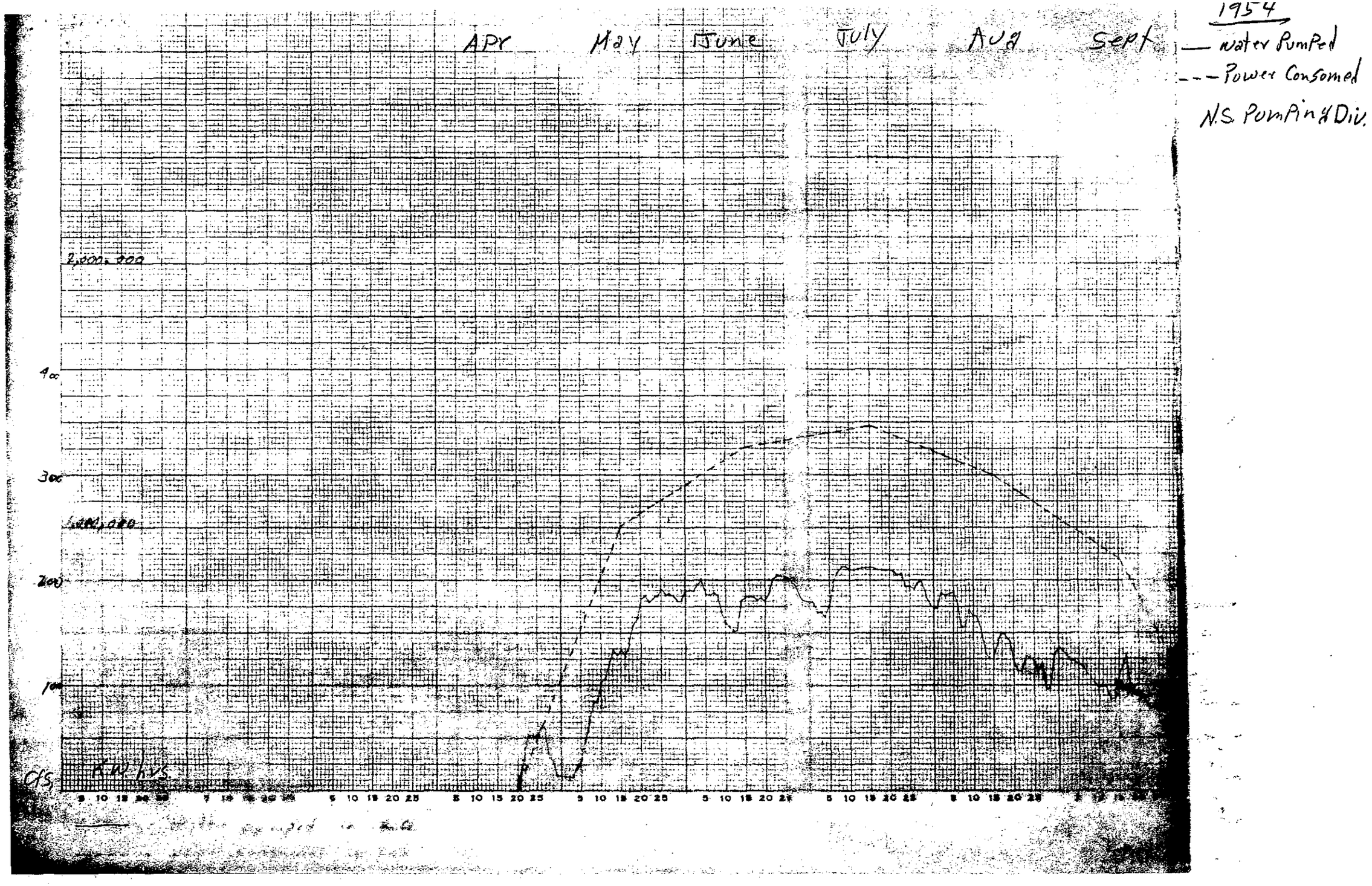
Part 3

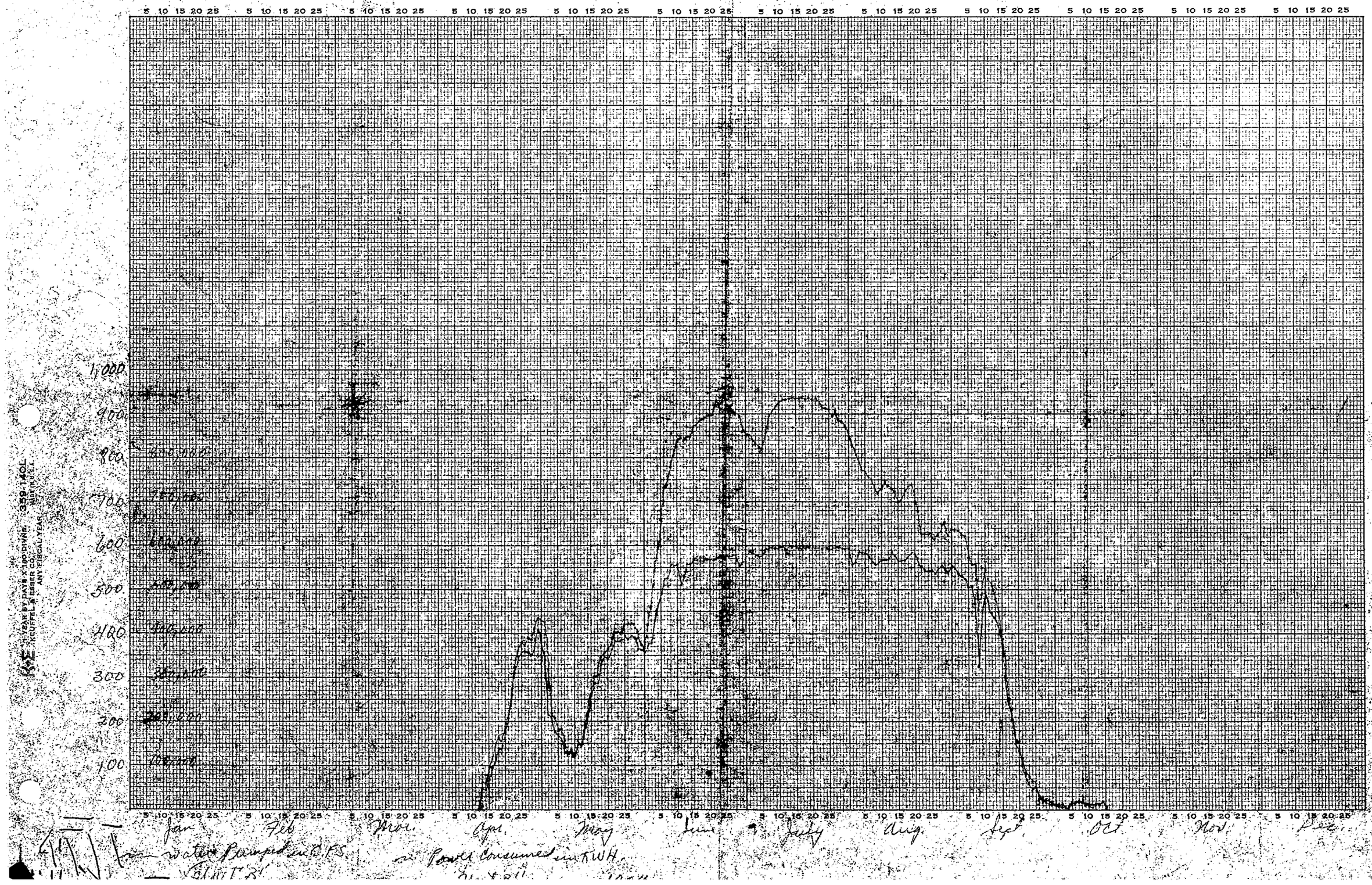
ACTUAL PUMP OPEN VALVE DISCHARGES - COMBINED SYSTEMS

NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO

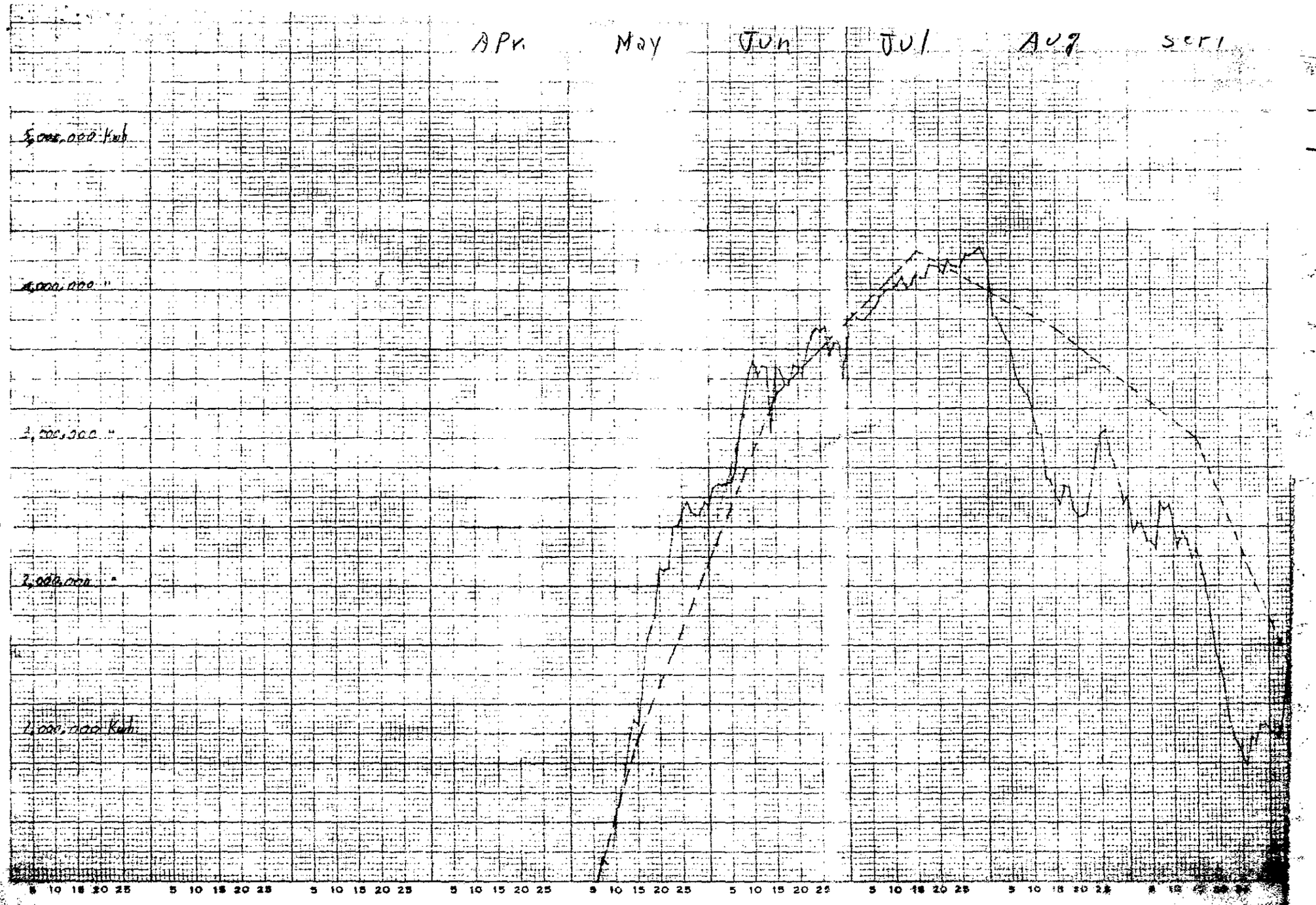
October 1, 1960

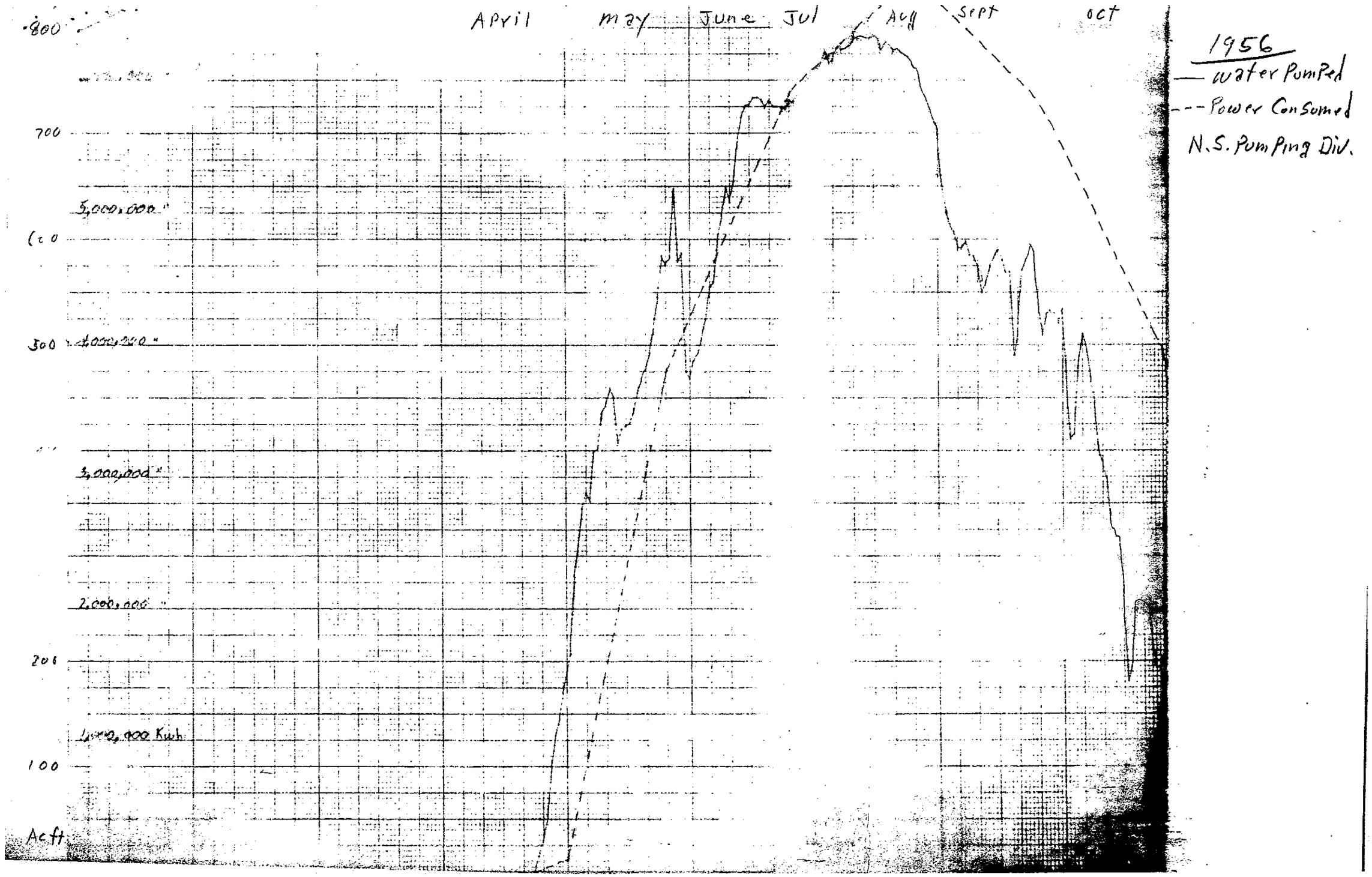
Pump No.	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q	Date	Q
35AB 724	6-8	11.16	6-22	11.30	6-24	11.19	7-9	10.80	7-28	11.05																
35BCD821	6-20	17.60	7-5	17.49	7-17	17.49																				
35AB 822	6-29	13.67	7-19	13.56																						

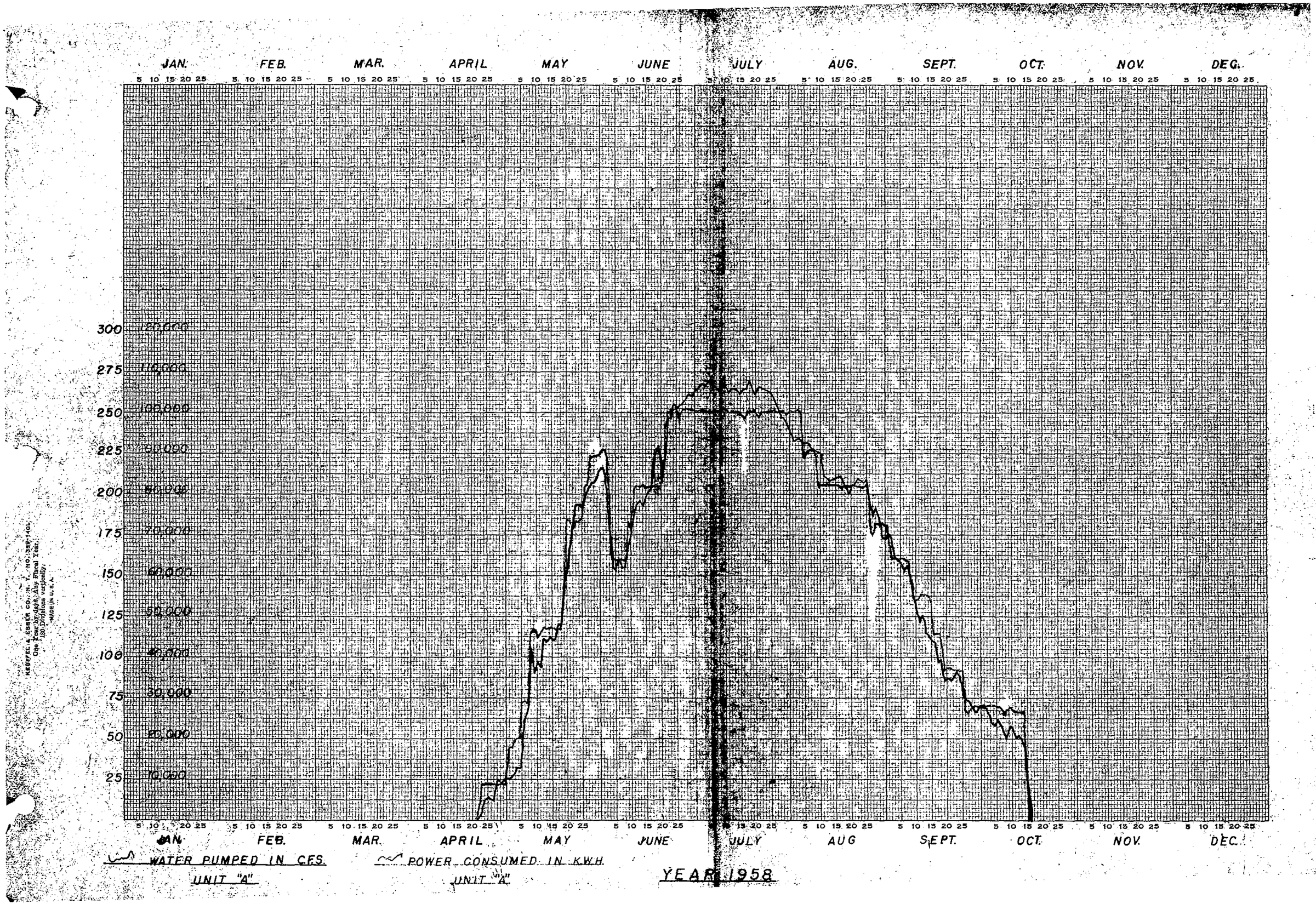

1954
Apr
May
June
July
Aug
Sept
— Water Pumped
--- Power Consumed
N.S. Pumping Div.
2,000,000
400
300
1,000,000
200
100
cfs
KW hrs.
5 10 15 20 25

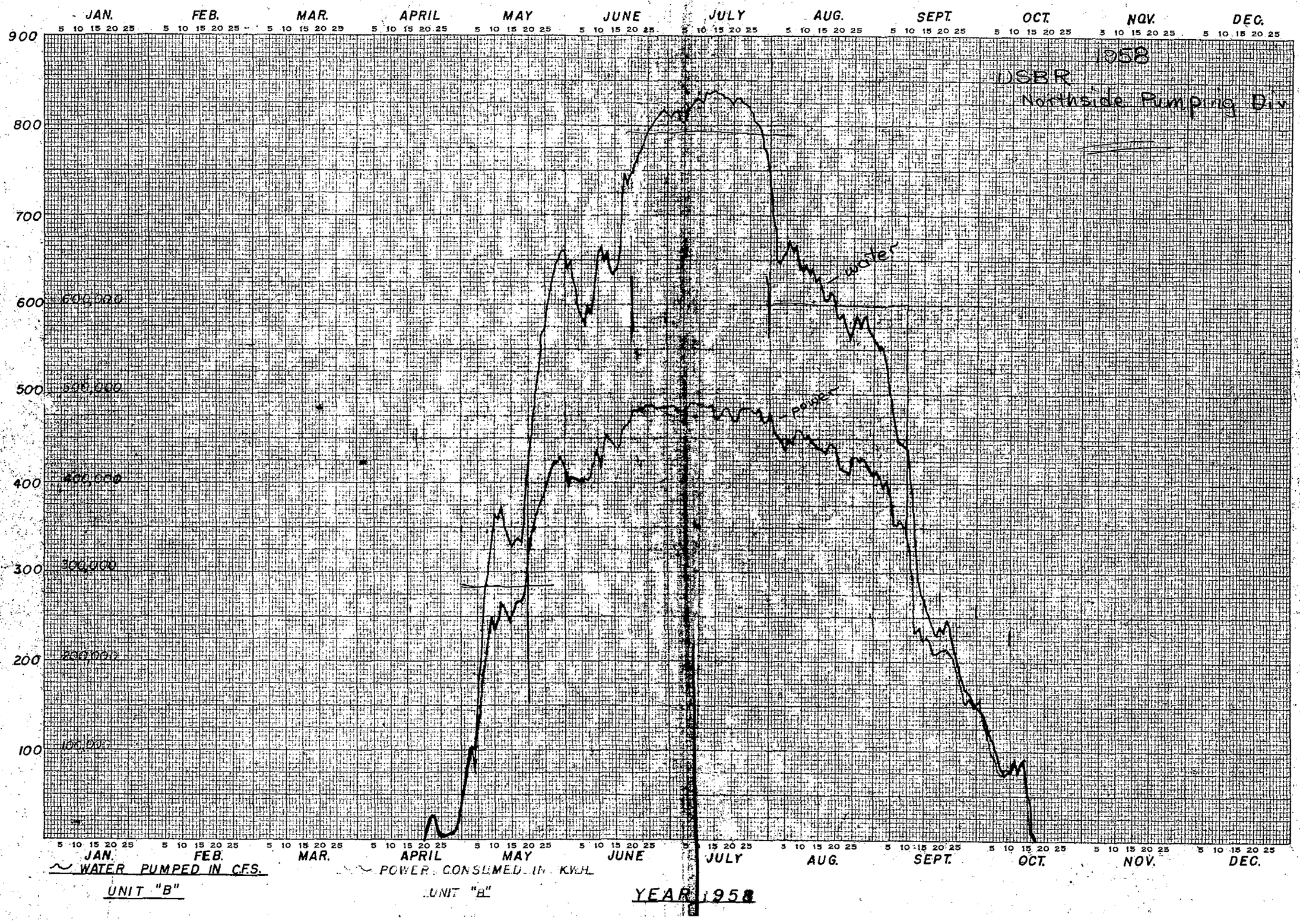


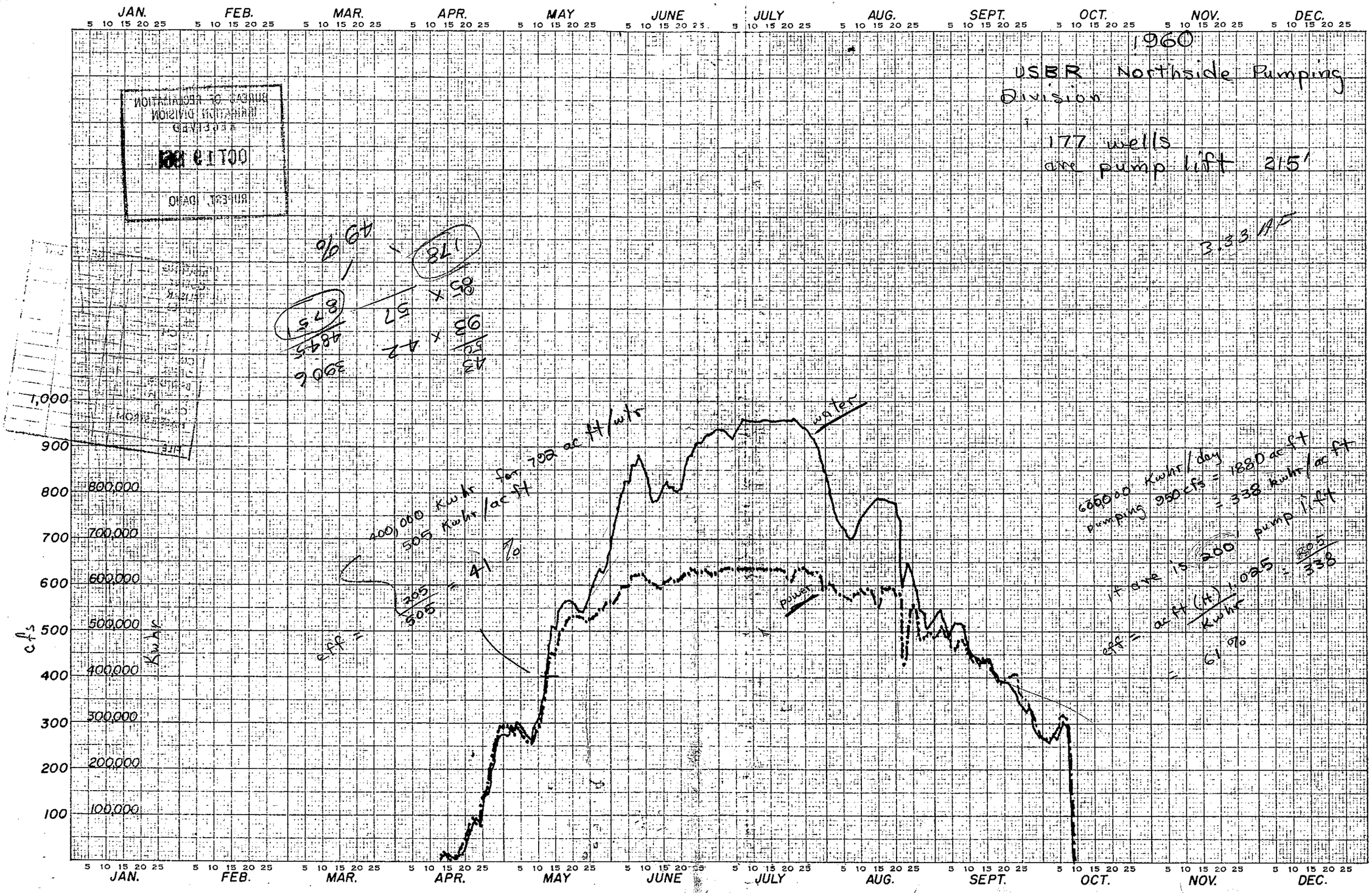
K+E 1 YEAR BY DAYS X 180 DIVNS. 359-140L
KEUFFEL & ESSER CO. MADE IN U.S.A.
ANY FISCAL YEAR


Apr
May
Jun
Jul
Aug
Sept
1955
water Pumped
Power Consumed
N.S. Pumping Div.
5,000,000 Kwh
4,000,000 "
3,000,000 "
2,000,000 "
1,000,000 Kwh
5 10 15 20 25
Water pumped in Ac. ft.
power consumed in Kwh.

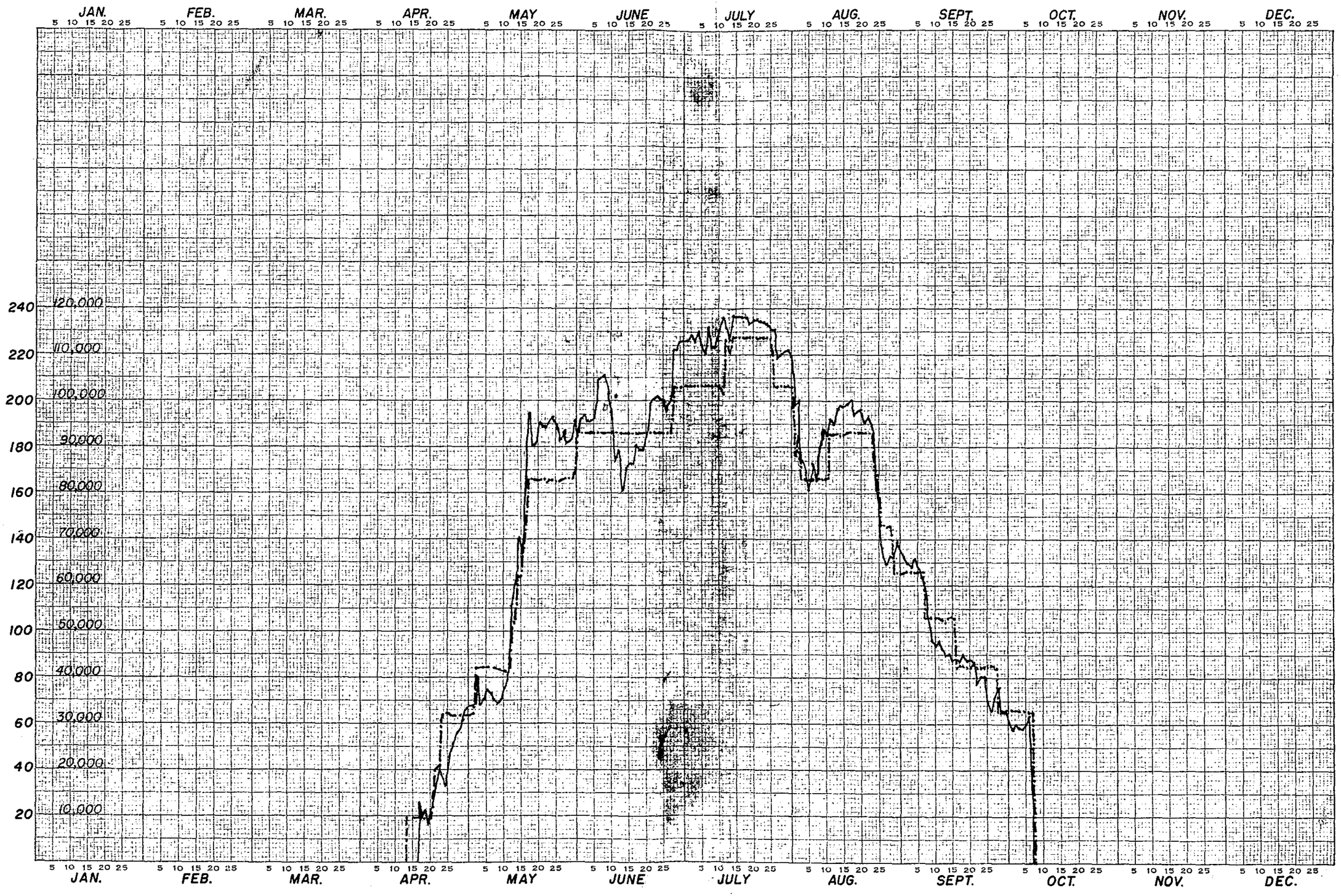

April
May
June
Jul
Aug
Sept
oct
800
700
600
500
400
300
200
100
5,000,000"
4,000,000"
3,000,000"
2,000,000"
1,000,000 Kwh
Acft
1956
water Pumped
Power Consumed
N.S. Pumping Div.


JAN. FEB. MAR. APRIL MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.
5 10 15 20 25
300 120,000
275 110,000
250 100,000
225 90,000
200 80,000
175 70,000
150 60,000
125 50,000
100 40,000
75 30,000
50 20,000
25 10,000
WATER PUMPED IN C.F.S.
UNIT "A"
POWER CONSUMED IN K.W.H.
UNIT "A"
YEAR 1958

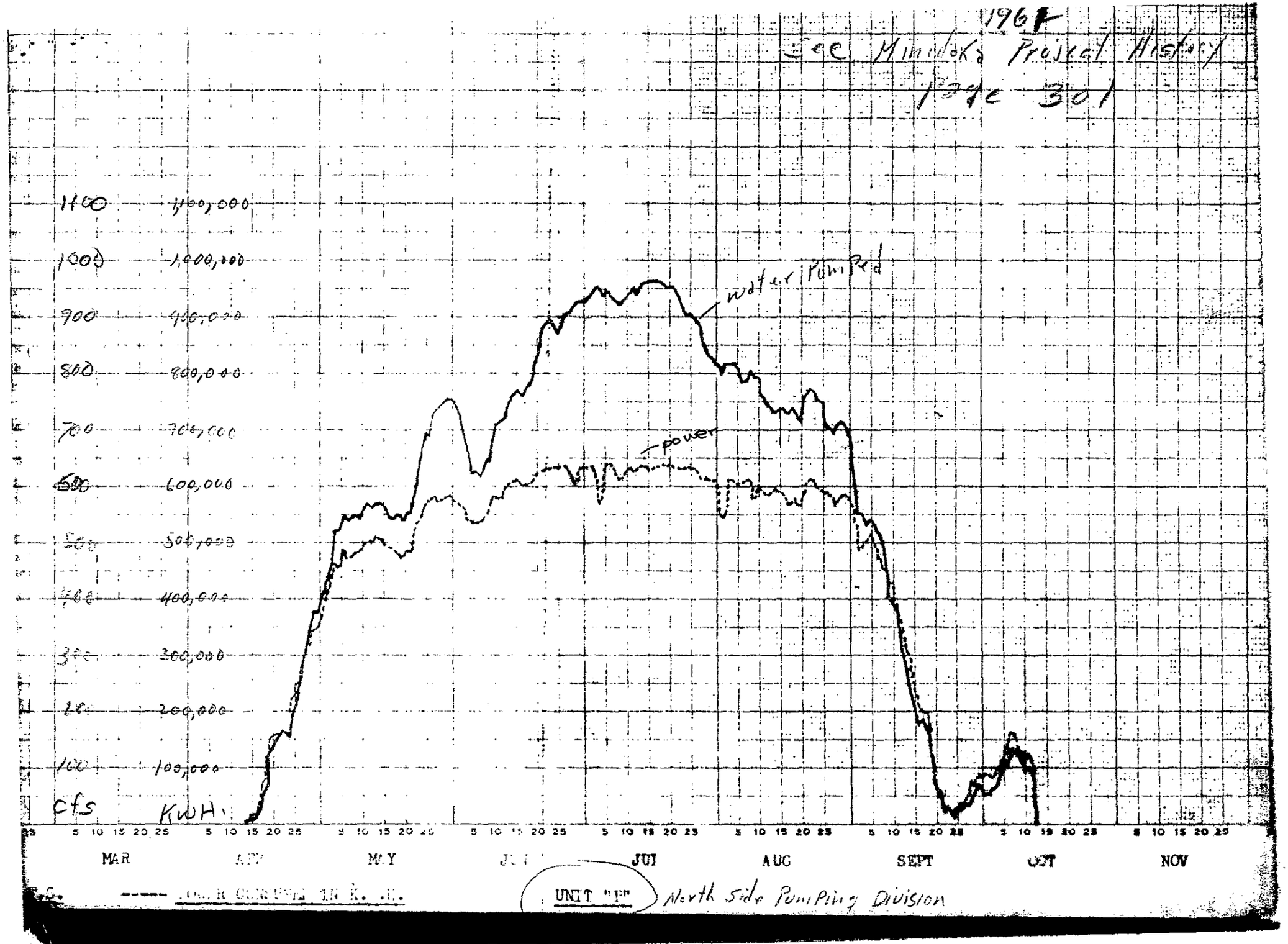

1958
USBR
Northside Pumping Div.
JAN. FEB. MAR. APRIL MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.
900
800
700
600
500
400
300
200
100
600,000
500,000
400,000
300,000
200,000
100,000
water
power
WATER PUMPED IN C.F.S.
UNIT "B"
POWER CONSUMED IN KWH.
UNIT "B"
YEAR 1958

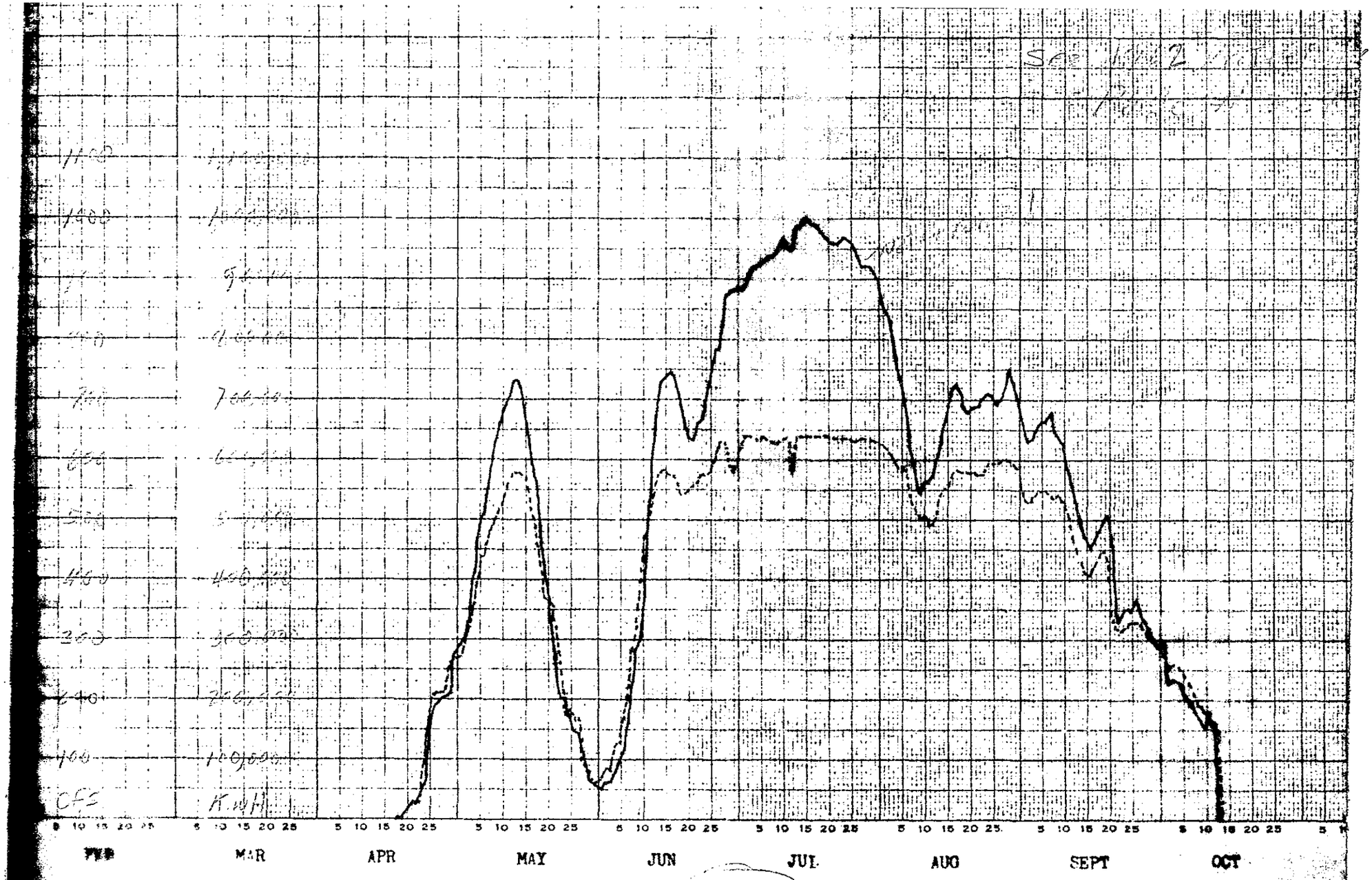


K+E 1 YEAR BY DAYS X 150 DIVNS. 359-140L
KEUFFEL & ESSER CO. MADE IN U.S.A.
ANY FISCAL YEAR



K&E 1 YEAR BY DAYS X 180 DIVNS. 359-140L
KEUFFEL & ESSER CO. MADE IN U.S.A.
ANY FISCAL YEAR


1961
See Minidoka Project History
Page 301
1100 1,100,000
1000 1,000,000
900 900,000
800 800,000
700 700,000
600 600,000
500 500,000
400 400,000
300 300,000
200 200,000
100 100,000
cfs KWH
water Pumped
power
MAR
APR
MAY
JUN
JUL
AUG
SEPT
OCT
NOV
UNIT "F"
North Side Pumping Division



----POWER CONSUMED IN K.W.H.

UNIT "B"

North Side Irrigation
Minidoka Project

GROUP 5

DRAWDOWN TEST USING ELECTRIC MEASURING DEVICE FOR WELL # 224922

REQUIRED CAPACITY _____ = 8 [illegible] DATE May - 6 - 1959

DIAMETER OF DISCHARGE _____

DIAMETER OF ORIFICE _____ PUMP FURNISHED BY USBR

DEPTH TO WATER SURFACE _____ HOURS ON DIESEL ENGINES AT START _____

PUMP SUBMERGENCE 30 ± TOTAL HOURS THIS WELL TEST _____

INSPECTOR C.M. HOURS ON ENGINES AT END OF TEST _____

TIME	STATIC	DRAW DOWN	TUBE	FLOW CFS	REMARKS
10:45	255.0				Start
11:30	269.7	14.7	1.4	1.85	
12:00	269.7	14.7	1.4	1.85	
12:15	272.6	17.6	1.8	2.1	
12:45	266.7	11.7	1.1	1.65	
1:05	276.1	21.1	2.3	2.35	
1:25	270.7	15.7	1.6	1.95	
1:55	266.1	11.1	1.0	1.55	
2:25	271.0	16.0	1.7	2.0	
3:00	267.4	12.4	1.2	1.7	
3:15	275.1	20.1	2.4	2.4	
3:30	270.8	15.8	1.7	2.0	
4:00	269.3	14.3	1.4	1.85	Shut down

CONVERSION FACTORS

For readers who prefer to use metric units, conversion factors for inch-pound units used in this report are listed below. Constituent concentrations are given in mg/L (milligrams per liter), which is equal to parts per million. Specific conductance is expressed as µS/cm (microsiemens per centimeter at 25 degrees Celsius).

Multiply	By	To obtain
acre	4,047	square meter
foot (ft)	0.3048	meter
mile (mi)	1.609	kilometer

Temperature in °C (degrees Celsius) can be converted to °F (degrees Fahrenheit) as follows:

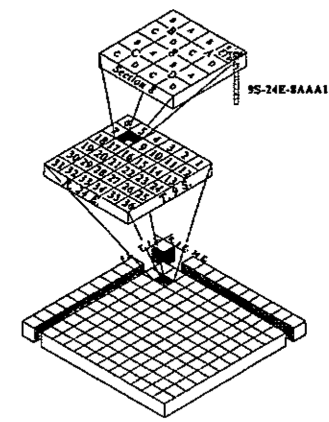
$$°F = (1.8)(°C) + 32$$

All water temperatures are reported to the nearest one-half °C.

WELL-NUMBERING SYSTEM

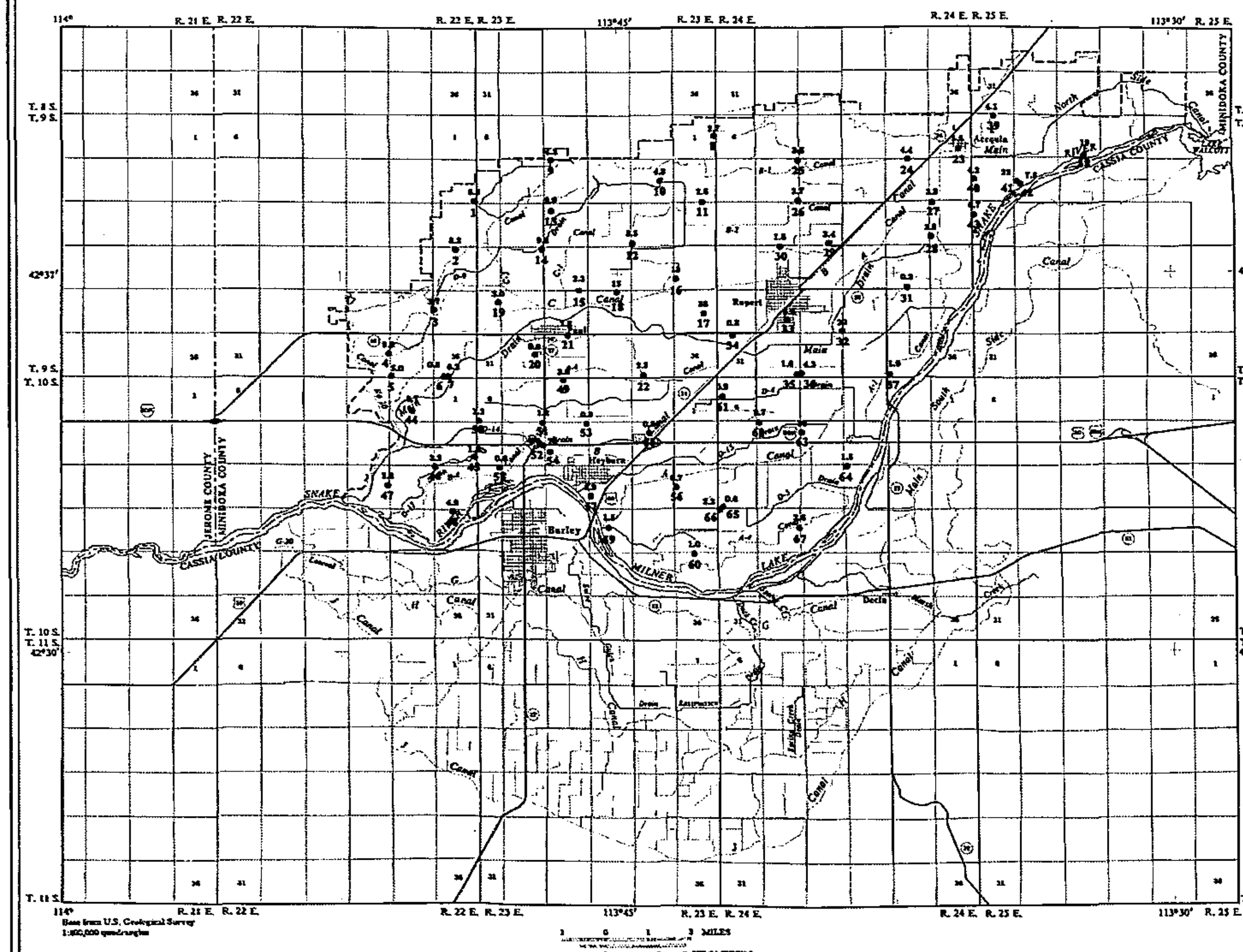
The well-numbering system used by the U.S. Geological Survey in Idaho indicates the location of wells within the official rectangular subdivision of public lands, with reference to the Boise base line and Meridian. The first two segments of the number designate the township (north or south) and range (east or west). The third segment gives the section number; three letters, which indicate the ¼ section (160-acre tract), ¼-¼ section (40-acre tract), and ¼-¼-¼ section (10-acre tract); and serial number of the well within the tract.

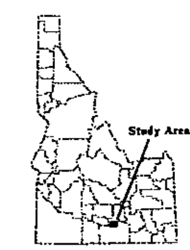
Quarter sections are designated by the letters A, B, C, and D in counterclockwise order from the northeast quarter of each section. Within the quarter sections, 40-acre and 10-acre tracts are lettered in the same manner. Well 9S-24E-8AAA1 (example at right) is in the NE¼NE¼NE¼ sec. 8, T. 9 S., R. 24 E., and is the first well inventoried in that tract.

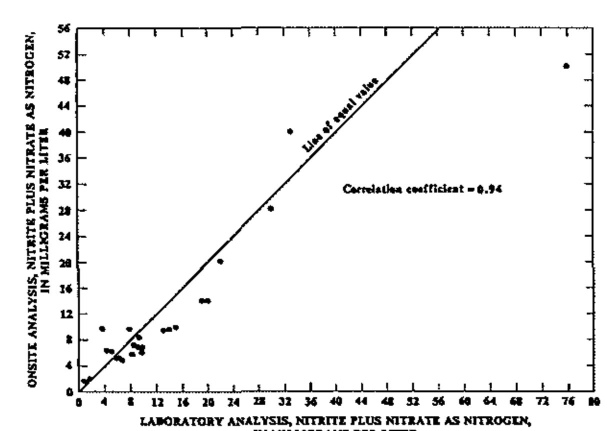


EXPLANATION

- 22 — Nitrite plus nitrate as nitrogen, in milligrams per liter. Laboratory values given when available
- ● — Well
- 41 — Reference number (see table above, right)
- ——— — Boundary of Minidoka Irrigation District and study area







WATER-QUALITY AND SELECTED WELL-INVENTORY DATA

Ref. number	Well location	Date sampled	Total depth of well (feet)	Onsite: Water level (feet below land surface)	Onsite: Specific conductance (µS/cm)	Onsite: pH (standard units)	Onsite: Temperature (°C)	Onsite: Bicarbonate, total (mg/L as HCO_3)	Onsite: Alkalinity, total (mg/L as $CaCO_3$)	Onsite: Chloride, dissolved (mg/L as Cl)	Onsite: Nitrogen, NO_2+NO_3 dissolved (mg/L as N)	Laboratory: Nitrogen, NO_2+NO_3 dissolved (mg/L as N)	Laboratory: Nitrogen, ammonia + organic dissolved (mg/L as N)
1	9S-22E-12DDD1	6- 2-87	127	117.16	782	7.6	13.5	340	280	53	5.2	5.8	0.70
2	24ABB1	6- 2-87	1507	111.18	857	7.5	11.5	360	300	48	5.0	8.2	.08
3	25BBC1	6-10-87	125	33.20	730	7.4	15.6	330	270	38	2.7	--	--
4	34ADD1	6-10-87	300	--	827	7.9	13.5	400	330	48	8.5	9.1	2.2
5	35CCC1	6-10-87	100	62.06	858	7.3	14.0	400	340	43	6.3	5.0	.90
6	36CDC1	6-10-87	260	--	413	7.8	14.0	210	170	30	.8	--	--
7	36CDC2	6-19-87	28 S	--	1,080	7.2	13.5	480	400	62	5.2	8.2	1.2
8	9S-23E- 2ADD1	6-18-87	100	78.00	831	7.5	14.5	280	230	33	2.7	--	--
9	9BBA1	6- 2-87	102	107.83	727	7.3	14.0	330	270	38	4.3	--	--
10	11DBA1	6-18-87	--	84.30	838	7.5	13.0	270	220	32	4.8	--	--
11	13ABA1	6-15-87	137	71.85	736	7.9	13.0	400	310	20	2.8	--	--
12	14CCC1	6-16-87	202	72.86	840	7.4	13.5	410	330	38	7.3	8.5	1.4
13	16BBC1	6- 2-87	132	95.73	903	7.8	13.0	400	330	48	6.8	8.0	1.5
14	20AAA1	6- 2-87	100	70.13	884	7.4	18.0	380	320	45	6.7	8.2	1.5
15	21DDC1	6- 3-87	110	17.33	783	7.5	13.0	320	260	43	2.3	--	--
16	24CBC1	6- 2-87	34.5 S	--	724	7.3	12.0	300	240	28	8.6	13	2.9
17	25DBA1	6-18-87	14 S	--	1,350	7.5	14.5	390	320	85	40	33	3.4
18	27ABA1	6- 2-87	40	--	1,210	7.3	11.5	440	350	74	9.8	15	2.9
19	30ADA1	6-18-87	80	22.85	788	7.6	12.5	330	280	35	3.0	--	--
20	32ADC1	6- 1-87	35	13.57	588	7.8	13.0	230	190	42	.6	--	--
21	33ABB1	6-18-87	25 S	--	858	7.8	14.0	240	300	75	2.8	--	--
22	33CDC1	6-18-87	28 S	--	734	7.4	12.5	380	310	24	2.5	--	--
23	9S-24E- 1DCA1	6- 4-87	172	74.94	622	7.5	15.0	280	210	38	9.6	--	--
24	3CDD1	6-15-87	300	--	568	7.5	14.5	250	200	31	4.4	--	--
25	8AAA1	6- 4-87	61	73.25	579	7.4	15.0	260	210	23	8.5	--	--
26	8CDD1	6- 4-87	101	80.38	585	7.4	14.0	220	180	22	2.7	--	--
27	15BBB1	6- 4-87	48	51.58	632	7.5	16.0	290	240	26	3.8	--	--
28	15CCB1	6- 4-87	82	37.43	643	7.4	16.0	290	240	28	3.6	--	--
29	18DCD1	6- 4-87	120	72.44	541	7.5	16.5	250	210	21	3.4	--	--
30	20ABB1	6-18-87	132	73.88	594	7.6	15.5	280	230	42	3.0	--	--
31	23CDD1	6-17-87	--	36.31	792	7.6	14.5	280	230	73	.2	--	--
32	26DDD1	6-17-87	35 S	--	878	7.5	12.5	330	270	40	14	26	1.5
33	26DBD1	6- 3-87	26 S	--	713	7.0	13.0	330	270	40	3.5	--	--
34	31BAA1	6- 3-87	110	24.37	580	7.5	14.0	220	180	34	.8	--	--
35	32DDD1	6-17-87	30 S	--	1,340	7.4	18.0	600	500	110	1.9	1.8	1.2
36	32DDD2	6-17-87	50 S	--	1,100	7.2	11.5	570	470	75	8.4	4.3	1.2
37	35CCC1	6-17-87	23 S	--	488	7.8	21.0	230	190	25	1.8	--	--
38	9S-25E- 4DCC1	6-17-87	150	18.37	911	7.2	11.0	270	220	52	14	18	1.5
39	6ABD1	6- 4-87	--	--	624	7.8	14.0	240	200	80	4.1	--	--
40	7BCC1	6- 4-87	74	46.28	784	7.5	15.0	280	230	80	4.2	--	--
41	8CBB1	6- 4-87	51	43.40	818	7.4	13.5	260	210	57	20	22	1.7
42	8CBB2	6- 4-87	330	37.73	675	7.6	13.5	260	210	110	9.6	7.8	.20
43	18BCB1	6- 4-87	74	35.84	724	7.6	14.0	320	240	47	4.8	6.7	1.0
44	10S-22E- 20BC1	6-24-87	25 S	--	565	7.4	13.0	250	200	31	.7	--	--
45	12DDA1	6- 1-87	67	8.90	911	7.7	14.8	430	350	48	1.8	--	--
46	13BBB1	6-19-87	35 S	--	1,260	7.5	11.8	480	400	61	3.2	--	--
47	15ADD1	6-24-87	25 S	--	471	7.1	14.0	380	300	50	2.3	--	--
48	24BAA2	6- 1-87	18 S	--	910	7.3	10.0	480	400	30	4.8	--	--
49	10S-23E- 4AAA1	6-18-87	17 S	--	1,090	7.3	12.5	480	410	45	3.0	--	--
50	6DCC1	6-18-87	36 S	--	825	7.5	10.0	330	270	35	1.2	--	--
51	8AAA1	6-18-87	122	12.58	435	7.7	16.5	220	180	10	1.1	--	--
52	8DAA1	6-23-87	25 S	--	865	7.8	14.5	370	300	42	8.8	14	3.0
53	8AAA1	6- 3-87	142	14.49	457	7.7	15.5	220	180	25	.8	--	--
54	8CBC1	6-15-87	32	16.13	1,660	7.2	13.0	430	350	110	50	78	2.8
55	31BDA1	6- 3-87	28	4.40	744	7.2	12.5	400	330	20	1.6	.85	.30
56	12CBA1	6- 3-87	80	5.00	873	7.2	14.0	290	240	78	.7	--	--
57	15CDC1	6-24-87	80	--	1,030	7.8	12.0	440	360	48	3.8	--	--
58	16AAA1	6- 1-87	120	--	888	7.5	12.5	290	240	82	.8	--	--
59	12BBD1	6-24-87	50	22.83	1,170	7.5	13.8	470	380	85	1.3	--	--
60	25BAA1	6- 3-87	187	40.78	880	7.3	12.5	210	170	47	1.0	--	--
61	10S-24E- 6BCD1	6- 3-87	322	18.41	474	7.6	14.6	210	170	33	.8	--	--
62	8BBB1	6-18-87	--	--	853	7.4	12.5	360	300	48	6.1	9.7	1.7
63	9BCD1	6-17-87	20 S	--	1,090	7.8	10.5	340	280	63	31	30	1.8
64	15BBB1	6- 3-87	91	--	590	7.4	12.5	160	180	30	1.5	--	--
65	16CDD1	6- 3-87	--	--	401	7.5	14.5	180	150	20	.6	--	--
66	19BBB1	6- 3-87	20 S	--	1,000	7.0	12.0	440	360	78	3.2	--	--
67	20ADD1	6-17-87	60	--	727	7.5	11.5	330	280	40	8.8	3.6	.80

Notations: --, no data available; S, sand point, water-level measurement not possible

The purpose of this study was to determine concentrations of nitrogen compounds in ground water in the Minidoka Irrigation District. The Minidoka Irrigation District is north of the Snake River and encompasses most of southern Minidoka County. The scope of the study was limited to inventorying 67 wells and making onsite determinations of depth to water, specific conductance, pH, water temperature, and concentrations of alkalinity, dissolved chloride, and dissolved nitrite plus nitrate (as nitrogen). When onsite nitrite plus nitrate concentrations exceeded about 6 mg/L nitrogen, ground-water samples were collected for nitrite plus nitrate (as nitrogen) and ammonia plus organic nitrogen (as nitrogen) analyses at the U.S. Geological Survey National Water Quality Laboratory.

Locations of wells and concentrations of nitrite plus nitrate (as nitrogen) are shown on the map at left. Water-quality and selected well-inventory data for 67 wells sampled during June 1987 are shown in the table above. A statistical summary of selected water-quality data is shown in the table below, and onsite versus laboratory measurements of nitrite plus nitrate (as nitrogen) concentrations are shown in the graph at left.

STATISTICAL SUMMARY OF SELECTED WATER-QUALITY DATA

[*, onsite analysis; **, laboratory analysis; ≥, greater than or equal to]

Water-quality constituent	Number of samples	Median (50 percent)	Mean	Range: Minimum	Range: Maximum	Number of samples with concentrations exceeding national drinking-water limits
*Specific conductance (µS/cm)	67	784	806	401	1,660	
*pH (standard units)	67	7.5	7.5	7.0	7.9	
*Temperature (°C)	67	13.6	13.6	10.0	16.3	
*Bicarbonate (mg/L as HCO_3)	67	330	330	160	600	
*Alkalinity (mg/L as $CaCO_3$)	67	260	270	150	500	
*Chloride, dissolved (mg/L as Cl)	67	43	48	10	110	
*Nitrogen, nitrite + nitrate, dissolved (mg/L as N)	67	3.4	5.8	.2	50	6 ≥ 10 mg/L[1]
**Nitrogen, nitrite + nitrate, dissolved (mg/L as N)	24	8.3	14.0	.85	78	8 ≥ 10 mg/L[1]
**Nitrogen, ammonia + organic, dissolved (mg/L as N)	24	1.5	1.7	.20	3.4	

[1] U.S. Environmental Protection Agency, 1986, Maximum contaminant levels (subpart B of Part 141, National interim primary drinking-water regulations): U.S. Code of Federal Regulations, Title 40, parts 100-149, revised as of July 1, 1986, p. 524-528.

For additional information write to:

Jerry L. Hughes
Acting District Chief
U.S. Geological Survey, WRD
230 Collins Road
Boise, ID 83702
(208) 334-1750

Copies of this report can be purchased from:

U.S. Geological Survey
Western Distribution Branch
Box 25286, Federal Center
Denver, CO 80225
(303) 236-7477

SELECTED WATER-QUALITY DATA FOR THE MINIDOKA IRRIGATION DISTRICT, SOUTH-CENTRAL IDAHO, JUNE 1987

By

H.W. Young, D.J. Parliman, and I. O'Dell

1987

450

February 25, 1971

To: Regional Project Development Engineer
Through: Regional Supervisor of Water & Land Operations

From: G. I. Haskett

Subject: Status of Existing Idle Wells, North Side Pumping Division Extension, Idaho

During the well drilling program for developing lands of the North Side Division, six fringe area wells were drilled and tested. The wells are located on lands proposed for extension, and have not been put to use. Well locations are shown on the attached sketch map, North Side Pumping Division Extension, Idaho.

Pump tests were run on all six wells. Five of the six appear to be adequate irrigation supply wells, capable of pumping over 5 cfs with less than 10 feet of drawdown. One well, No. 23A 922 is a poor well, testing only 1 cfs with over 60 feet of drawdown. The well was originally drilled to 720 feet and tested 2 cfs with 30 feet drawdown. Subsequently, the hole was lost back to 367 feet when the top of a 12-inch liner collapsed.

/s/ Gordon I. Haskett

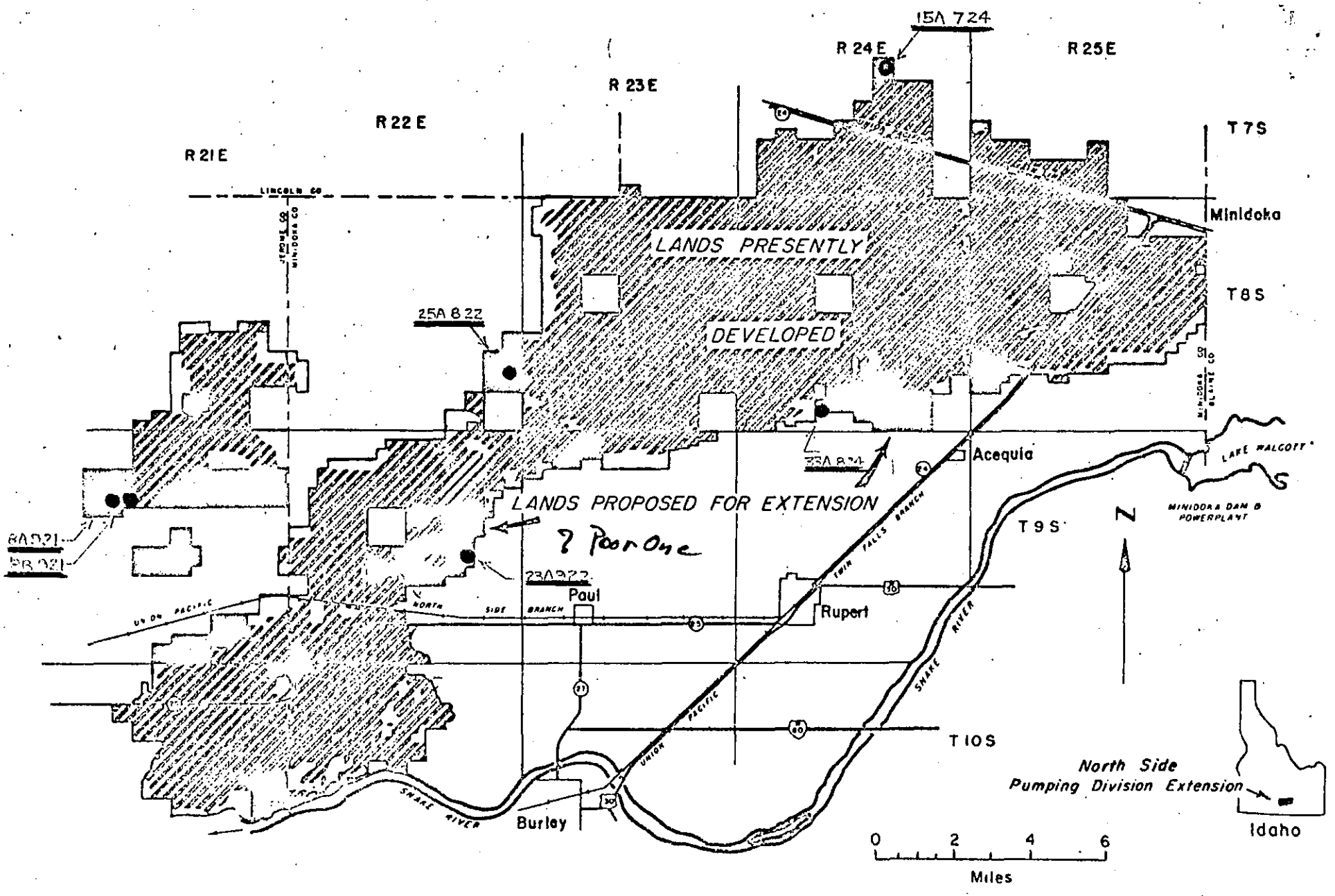
Attachments

GIHaskett:bjl

Noted:

Acting Regional Supervisor of
Water & Land Operations

Copy to:
Area Engineer, Boise (Loren Hampton)
4831 N. Five Mile Rd.
Boise, ID. 83713-1825
208-375-5382



North Side Pumping Division Extension, Idaho

Minidoka Project

August 1970

Data for the six wells are shown in the following tabulation:

Well	Total Depth	Bottom Diam.	Casing	Approx. SWL	PUMP TEST DATA Q (gpm)	dd	Spec.Cap.	Required Q
15A 7/24	285'	16"	18" to 10'	215'	1800	1.1'	1635	900 gpm
25A 8/22	384.6'	18"	18" to 178.2'	240'	1800	5.5'	325	--
					2470	9.2'	270	2420 gpm
33A 8/24	235'	20"	--	140' ±	1750	3' ±	580	1250 gpm
8A 9/21	382.5'	24"	25" to 30'	307'	1610	0.7'	2340	--
8B 9/21	376.1'	18"	18" to 190.5'	308'	2200	1.5'	1460	1170 gpm
23A 9/22	720'	11"	--	210'	900	30' ±	30	2800 gpm
	367' 1/	14"	14" to 367'	190' ±	450	60.7'	7	--

1/ Hole bridged at 367' ± (casing collapsed); 14" csg perforated 329-365', and 265-300'.

Wells are capped with tack-welded plates. On well No. 23A 922 the cap has been pried up and boards dumped in hole.

September 12, 1960

MEMORANDUM FOR FILES

From: W. J. Attridge

Subject: Concerning Well 22A922-5

This morning it was necessary to determine whether or not to continue pumping this well. The contractor, George Gailey, is paid $64.00 per day for standby time waiting while pumping is in progress. As the situation is now, the well has had a good pumping and is relatively clean, but there is some thinking that additional pumping would be advantageous, in that we would be more certain of the long term draw-down and that no more sand will enter the well.

The pump must be repaired. The top bushing is worn from the sand action and the first shaft should be built up. This will require removing the gear head, pump base, and the first joint of column. We considered the possibility of leaving the pump in and having the contractor move to 23A922, but he cannot take his drill tools apart until the pump is out of the well.

Considering these problems, it seems more logical and probably just as cheap to have the contractor remove the pump. He can move to Well 23A922. We will repair the pump and have it reinstalled if it is decided to at a later date.

Mr. Gailey was advised of this decision this morning.

W. J. Attridge

WIRE TO WATER EFFICIENCIES - DEEP WELL PUMPS
NORTH SIDE IRRIGATION FIELD DIVISON, MINIDOKA PROJECT, IDAHO
OCTOBER 1962

Pump Eff. ?

Well No.	Group No.	Percent 1959	Percent 1960	Percent 1961	Percent 1962
1A 823	3	76.6	79.4	78.2	77.5
1B 823	3	72.9	75.5	75.8	70.7
1C 823	3	69.6	75.9	73.8	76.9
1A 824	3	74.5	71.4	74.2	72.9
1A 921	6	74.3	76.5	77.7	76.9
2A 823	3	76.3	80.6	77.5	79.2
2A 824	3	72.8	71.7	71.8	69.0
2A 923	4	77.3	78.2	82.2	69.7
2A 1021					65.3
3A 824	2	75.9	79.3	74.9	80.9
3B 824	2	71.2	71.4	73.0	70.8
3A 825	7	75.0	78.2	76.4	78.5
3B 825	7	71.7	67.0	68.4	71.4
3C 825	7	72.5	73.2	74.4	75.5
3D 825	7	72.3	73.8	72.6	67.6
3E 825	7	75.8	74.7	73.7	72.6
3A 921	6	71.4	71.3	70.6	70.5
3B 921	6		76.2	75.8	88.1
3C 921	5	----- Air Line Plugged ----			
3A 922	5	76.3	73.6	75.3	75.0
3B 922	5	65.1	74.8	65.4	73.0
3A 923	4		78.3	75.9	74.5
3B 923	4	76.1	76.8	75.1	76.9
3A 1022	4	70.2	68.9	68.5	70.4
4A 823	4	73.6	76.6	74.7	77.3
4B 823	4	73.8	72.5	72.3	69.1
4A 824	2	72.1		71.4	72.1
4B 824	1	71.1	72.7	66.2	69.9
4C 824	5			67.6	66.7
5B 823	4	70.6	75.9	76.2	74.3
5C 823	4	71.1	68.7	72.0	72.7
5A 825	7		73.6	74.7	Air Line Broken Off
5B 825	7	66.8	64.9	66.7	67.5
6A 824	1	67.7	70.9	69.4	68.3
6B 824	4	67.5	75.3	70.7	72.2
6C 824	5	77.5	71.3	69.5	74.3
6A 825	7	65.5	70.3	63.1	64.5
6B 825	7	74.4	67.6	72.4	72.0
6A 923	1				70.2
6B 923	4	72.0	78.6	76.7	76.3

WIRE TO WATER EFFICIENCIES - DEEP WELL PUMPS
NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO
OCTOBER 1962

Well No.	Group No.	Percent 1959	Percent 1960	Percent 1961	Percent 1962
7B 824	1				
7A 922	5	66.0	69.4	71.7	66.7
7B 922	5				73.6
8A 823	1	71.7	73.5	74.0	75.9
8A 824	1	58.4	66.4	65.0	60.0
9A 922	5		73.0	70.6	70.0
9B 922	5			Air line out of water	
10A 823	3	69.6	71.9	70.8	69.7
10B 823	3	72.4	76.0	73.8	70.2
10A 824	1				71.2
10B 824	1				71.3
10C 824	5				62.5
10A 922	5	72.8	73.3	69.1	68.4
11A 824	1				66.0
11B 824	2	77.0	79.2		72.0
11C 824	2	66.8	70.6	68.6	71.8
11A 825	7	74.6	76.0	74.4	71.7
11B 922	4		73.6	68.8	67.5
11C 922	4			67.7	65.7
12A 823	3	73.1	76.6	71.6	spare pump #4
12B 823	3	80.5	76.5	77.8	79.3
12C 823	3	73.1	73.1	70.4	72.4
12D 823	3	77.1	76.6	74.8	73.2
12A 824	3	76.8	76.7	73.5	59.1
12A 825	7	69.4	69.2	79.1	81.4
12B 825	7	72.4	77.8	77.5	75.2
13A 824	2	69.8	72.7	72.7	71.5
13B 824	2	76.0	79.9	81.3	72.3
13A 825	5	72.3	60.3	59.8	61.1
14A 823	3	75.5	77.5	73.6	72.7
14B 823	3	70.9	72.0	71.1	67.1
14A 824	1	[illegible]	[illegible]	[illegible]	68.8
14C 825	7	69.3	70.5	67.8	68.6
15A 823	3	77.3	78.7	76.6	74.3
15B 823	3	74.4	74.0	71.2	70.2
15D 823	4	69.4	69.1	73.0	75.0
15A 824	1				73.7
15A 825	5	77.1	76.1	77.4	79.8
15B 825	5	69.8	64.6	66.5	68.4
15A 922	5				73.1

WIRE TO WATER EFFICIENCIES - DEEP WELL PUMPS

NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO

PART 4

OCTOBER 1962

Well No.	Group No.	Percent 1959	Percent 1960	Percent 1961	Percent 1962
15B 922	5				69.3
17A 823	4	74.1	77.0	75.0	75.9
17B 823	4	74.6	74.8	71.6	73.5
17C 823	1	65.7	70.1	68.7	71.2
17A 825	5	73.5	74.8	74.2	75.3
18A 824	1	61.3	66.2	66.9	69.5
18A 922	5	73.2	74.4	69.2	70.5
18B 922	5	71.5	62.3	68.6	56.3
19A 823	4	74.0	78.1	74.6	74.2
19B 823	4	70.8	71.5	71.6	68.8
19A 825	2	72.8	69.1	69.6	70.4
19B 825	2	71.2	76.3	75.5	76.0
19C 825	3	80.8	71.3	70.1	72.6
19D 825	3	72.8	72.6	68.4	72.1
19A 922	6	69.9	68.9	71.3	70.5
20A 922	5				71.5
21A 823	4	71.1	76.5	78.4	75.0
21A 824	1	60.8	59.5	58.1	58.5
21B 824	2		73.2	71.3	69.5
21A 825	5	70.0	74.5	72.6	69.7
22A 724	7	74.3	79.0	73.2	77.2
22B 724	7	75.0	76.1	73.0	73.0
22C 724	7	80.0	74.5	72.9	75.5
22A 821	6	75.3	75.8	74.5	73.6
22A 823	4	70.7	73.3	72.6	72.5
22A 824	2	70.1	75.2	76.2	78.1
22A 922	5				71.1
23A 724	7	75.4	75.5	74.2	74.3
23A 823	4		75.3	74.4	73.3
23B 823	4	74.0	73.4	67.8	66.7
23A 824	2	73.7	76.6	74.3	74.1
23A 825	5	69.8	71.3	75.4	77.9
23B 825	5	67.2	76.1	72.0	70.6
24A 821	6	69.5	71.8	72.4	Airline out of water
24A 823	3	73.7	78.0	77.1	75.9
24B 823	3	73.5	74.6	78.7	71.3
24C 823	1	No Air	Line		
24A 825	5		74.1	70.4	70.9
25A 823	3	68.2	74.9	66.0	70.0
26A 724	7	76.0	77.4	74.5	75.7

WIRE TO WATER EFFICIENCIES - DEEP WELL PUMPS

NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO

OCTOBER 1962

Well No.	Group No.	Percent 1959	Percent 1960	Percent 1961	Percent 1962
26B 724	7	71.0	73.1	74.0	72.4
26A 821	6	72.3	77.1	76.0	73.0
26B 821	6	74.3	77.1	72.7	76.0
26A 823	4	68.9	76.0	76.5	Airline leaks
26A 824	2	69.2	72.6	71.3	70.0
27A 725	7	70.7	71.7	70.2	64.1
27A 823	1	62.1	73.6	72.8	70.3
27B 823	4	71.2	72.4	72.9	70.6
27C 823	1		Airline	out of water	
28A 724	7	67.5	74.3	74.8	72.7
28B 724	7	75.9	76.0	70.7	75.1
28A 823	4	75.1	76.0	75.2	74.0
28B 823	4	75.7	73.6	71.8	67.0
28C 823	4	73.3	76.7	73.9	72.7
28A 922	6	70.9	75.2	68.1	65.6
29A 725	7	76.4	73.1	73.8	72.6
29A 823	4	73.3	76.5	77.2	76.9
29B 823	4	72.7	70.1	70.5	66.2
29A 824	3	75.9	79.0	77.8	77.1
30A 724	3	74.1	74.8	73.6	72.5
30B 724	3	73.3	76.3	74.7	69.7
30A 725	7		73.8		67.1
30A 822	6	69.6	76.6	75.4	74.0
30A 824	3	76.9	71.5	72.6	70.9
30B 824	3	72.4	76.7	73.8	73.8
30A 922	6				71.0
31A 724	2	67.7	74.5	73.5	71.1
31A 725	7	66.8	76.8	71.8	71.5
31A 823	4				70.4
31A 824	3	72.2	73.5	73.1	74.1
31B 824	3	76.5	73.4	69.1	68.4
32A 724	2	78.8	75.6	73.9	75.5
32B 724	2	73.8	71.7	70.7	66.5
32A 725	7	76.2	70.6	72.0	73.7
33A 724	2	75.1	77.3	73.7	74.1
33B 724	7	73.7	72.5	75.6	71.9
33A 725	7	72.4	71.3	71.3	69.7
33B 922	6	72.7		73.4	73.6
33C 922	6				68.9
34A 723	3	68.8	73.5	69.7	68.0

WIRE TO WATER EFFICIENCIES - DEEP WELL PUMPS

NORTH SIDE IRRIGATION FIELD DIVISION, MINIDOKA PROJECT, IDAHO

OCTOBER 1962

Well No.	Group No.	Percent 1959	Percent 1960	Percent 1961	Percent 1962
34B 723	3	74.7	75.2	75.3	63.4
34A 724	2	67.6	71.4	69.2	71.8
34A 725	7	72.5	73.7	72.7	68.3
34A 823	4	66.3	73.6	72.8	75.1
35A 724	2	69.3	77.4	74.3	73.8
35B 724	2	67.1		71.8	74.3
35A 821	6	71.2	77.8	75.5	Airline plugged
35B 821	6	71.8	73.2	Airline	out of water
35C 821	6		75.9	74.2	68.6
35D 821	6	69.0	75.5	69.8	65.8
35A 822	4	75.7	77.5	77.6	74.9
35B 822	4			72.2	74.5
35C 822	5	71.7	71.7	72.0	70.9
35A 823	4			No Airline	
35B 823	4	73.2	73.8	71.4	66.7
35C 823	4	78.4	75.6	75.5	69.0
35D 823	4	76.3	77.3	69.4	69.9