21-898

LA-5636-MS
Informal Report

UC-11
Issued: June 1974

Water Supply at Los Alamos During 1973

by

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UNITED STATES
ATOMIC ENERGY COMMISSION
CONTRACT W-7405-ENG. 36

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National Technical Information Service
U.S. Department of Commerce
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Springfield, Virginia 22151
Price: Printed Copy \$4.00 Microfiche \$1.45**

WATER SUPPLY AT LOS ALAMOS DURING 1973

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ABSTRACT

The Los Alamos water supply for 1973 consisted of 1566 million gal from 16 wells in three fields, with an additional 49 million gal from a gallery in Water Canyon. Water level trends in the well fields were as anticipated for current pumpage practices. Recommendations previously made in Los Alamos Scientific Laboratory reports LA-S039-MS and LA-5296-MS for a new well for the Pajarito field and a replacement well in the Guaje field are still valid. An exceedingly dry spring and summer or an outage of a high-yield well during the period of heavy pumpage could result in a shortage of supply for an indefinite period of time.

Monthly pumping and production data are presented for each of the 16 wells and the gallery in Water Canyon for the years 1971, 1972, and 1973.

1. INTRODUCTION

This report summarizes pumpage, as well as pump and aquifer conditions, for the 16 wells in the Los Alamos, Guaje, and Pajarito well fields which supply most of the water used for municipal and industrial purposes in Los Alamos. A gallery in Water Canyon which makes an appreciable contribution to the Los Alamos water supply is also discussed briefly. The appendix contains basic pumping and production statistics for supply wells on a monthly basis for 1971, 1972, and 1973.

Water is pumped from the wells (Fig. 1) through transmission lines, and lifted by booster pumps into reservoirs for storage and distribution. Water from the gallery flows by gravity through a microfilter station and is pumped into one of the system reservoirs for distribution.

The Utilities and Engineering (U/E) Division of the Zia Company, the USAEC support contractor at Los Alamos, maintains and operates the water-supply system and provides production and water level data to the Los Alamos Scientific Laboratory Environmental Studies Group, H-8, for interpretation and evaluation. The purpose of the joint effort is to ensure reliable and continuing historical records, provide guidance for management of water resources and facilities, and provide for long-range planning for the water-supply system. One summary report¹ and two previous annual reports^{2,3} have been issued as a result of these studies.

Pump operating time and pumpage are taken from monthly operating reports. Monthly average nonpumping and pumping water levels are computed from air-line recorders

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Fig. 1. Location of well fields, supply wells, and gallery water supply.

operated on each well. These data are input information for a computer program that calculates pumping rates, drawdown (difference between monthly average nonpumping and pumping water levels), specific capacity (pump rate per unit drawdown), and other statistics of interest.

Hydrographs have been prepared for one observation well and 16 supply wells. They show monthly average nonpumping and pumping water levels (a measure of well conditions), and the monthly and yearly pumpage.

II. WELL-FIELD CHARACTERISTICS

Production during 1973 was from six wells in the Los Alamos field, seven wells in the Guaje field and three wells in the Pajarito field (Fig. 1). Pumpage from the three fields increased by 56 million gal,

from 1510 million gal in 1972 to 1566 million gal in 1973 (Table I). The total pumpage from the three well fields since 1947 has been 26 748 million gal. The annual production for the individual wells is shown in Table II, and monthly production data for 1971, 1972, and 1973 are given in the Appendix.

The average yearly pumping rate for the three well fields decreased 130 gpm from 8837 gpm in 1972 to 8707 gpm in 1973 (Table III). The maximum average pumping rate was 9139 gpm in 1968. The average yearly pumping rate indicates pumping conditions of wells in the three fields and should not be construed to mean that water can be delivered continuously at this rate.

TABLE I

TOTAL PUMPAGE BY FIELD BY YEAR
IN MILLIONS OF GALLONS

YEAR	LOS PUMP- AGE	ALAMOS PER- CENT	CANYON CUMU- LATIVE	GUAJE CANYON PUMP- AGE	PER- CENT	CUMU- LATIVE	PAJARITO PUMP- AGE	PER- CENT	MESA CUMU- LATIVE	ALL FIELDS PUMP- AGE	CUMU- LATIVE
1947	147	100.0	147	0	0.0	0	0	0.0	0	147	147
1948	264	100.0	411	0	0.0	0	0	0.0	0	264	411
1949	302	100.0	713	0	0.0	0	0	0.0	0	302	713
1950	547	99.5	1260	3	.5	3	0	0.0	0	550	1263
1951	702	91.1	1961	69	8.9	71	0	0.0	0	770	2032
1952	448	56.1	2409	350	43.9	421	0	0.0	0	798	2830
1953	444	54.4	2853	372	45.6	793	0	0.0	0	816	3646
1954	380	50.3	3233	374	49.7	1168	0	0.0	0	754	4400
1955	407	52.1	3640	375	47.9	1542	0	0.0	0	782	5182
1956	437	46.4	4077	505	53.6	2048	0	0.0	0	942	6125
1957	350	48.1	4426	379	51.9	2425	0	0.0	0	727	6852
1958	372	48.5	4798	395	51.5	2821	0	0.0	0	767	7619
1959	391	45.6	5189	479	55.0	3298	0	0.0	0	869	8487
1960	530	49.8	5719	533	50.2	3831	0	0.0	0	1062	9550
1961	546	46.7	6265	624	53.3	4455	0	0.0	0	1170	10720
1962	577	49.1	6842	597	50.9	5052	0	0.0	0	1174	11894
1963	539	45.2	7381	654	54.8	5706	0	0.0	0	1193	13087
1964	627	48.5	8008	665	51.5	6372	0	0.0	0	1292	14380
1965	447	40.0	8455	571	51.1	6943	99	9.9	99	1117	15497
1966	450	37.8	8905	613	51.5	7556	127	10.7	226	1191	16687
1967	373	28.3	9279	464	35.2	8020	481	35.5	707	1319	18006
1968	345	24.6	9623	474	33.8	8494	534	41.6	1291	1402	19408
1969	331	24.8	9954	435	32.6	8929	559	42.6	1860	1335	20743
1970	360	26.1	10314	423	30.7	9352	595	43.2	2454	1377	22120
1971	412	26.5	10726	484	31.1	9835	657	42.3	3111	1553	23673
1972	380	25.2	11107	467	30.9	10302	652	43.9	3774	1510	25183
1973	406	25.9	11512	475	30.3	10778	685	43.7	4459	1566	26748

The heaviest demands for water in 1973 occurred in June, July, and August while January, February, March, November, and December were months of least pumpage. Water for irrigation is responsible for the increased demands for water during the late spring and summer. As a result, the highest water levels in the well fields occur in the winter and early spring when pumpage is the least, and lowest levels occur during the summer when pumpage is the greatest.

Tables IV and V present percents of total pumpage and of field pumpage, respectively, for all wells by year.

A. Los Alamos Well Field

Pumpage from the Los Alamos well field increased 26 million gal from 380 million

gal in 1972 to 406 million gal in 1973.

The six wells produced 25.9% of the total pumpage.

Well LA-1 ceased operations as a supply well in 1956 due to a sand problem and is now used as an observation well to monitor water level trends in the lower part of the Los Alamos well field. The well was replaced by well LA-1B which is located about 150 ft northeast of LA-1. Water-level trends in well LA-1 (Fig. 2) therefore mainly reflect pumpage from nearby LA-1B.

Pumpage from well LA-1B was 12 million gal greater and water levels were slightly lower in 1973 than in 1972 (Fig. 3).

Pumpage from well LA-2 was 8 million gal greater and water levels were slightly lower in 1973 than in 1972 (Fig. 4).

TABLE II
TOTAL PUMPAGE BY WELL BY YEAR IN MILLIONS OF GALLONS

YEAR	LOS ALAMOS CANYON					GUAJE CANYON					PAJARITO MESA					TOTAL			
	LA-1	LA-1B	LA-2	LA-3	LA-4	LA-5	LA-6	G-1	G-1A	G-2	G-3	G-4	G-5	G-6	PH-1		WELL FIELD	PH-2	PH-3
1947	54	0	28	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	147
1948	35	0	59	83	43	40	5	0	0	0	0	0	0	0	0	0	0	0	264
1949	27	0	42	42	37	58	96	0	0	0	0	0	0	0	0	0	0	0	302
1950	11	0	16	58	165	130	168	3	0	0	0	0	0	0	0	0	0	0	550
1951	15	0	58	67	174	187	201	38	0	4	7	13	7	0	0	0	0	0	770
1952	3	0	46	59	120	110	110	75	0	78	65	57	74	0	0	0	0	0	798
1953	0	0	47	70	109	104	114	97	0	106	76	55	38	0	0	0	0	0	816
1954	0	0	57	57	78	80	107	78	5	86	66	59	81	0	0	0	0	0	754
1955	10	0	49	49	94	97	108	70	53	99	69	23	80	0	0	0	0	0	782
1956	0	0	44	42	120	105	126	83	108	96	88	34	97	0	0	0	0	0	942
1957	0	0	30	26	105	86	102	56	87	76	70	24	64	0	0	0	0	0	727
1958	0	0	31	34	110	90	107	68	93	80	69	36	49	0	0	0	0	0	767
1959	0	0	41	35	114	93	108	82	103	85	75	32	102	0	0	0	0	0	869
1960	0	36	52	38	146	119	139	96	123	97	82	37	98	0	0	0	0	0	1062
1961	0	125	44	35	130	100	113	112	147	105	80	45	134	0	0	0	0	0	1170
1962	0	129	36	45	129	108	129	94	135	100	84	42	142	0	0	0	0	0	1174
1963	0	117	41	42	130	105	103	115	150	104	87	46	151	0	0	0	0	0	1193
1964	0	130	34	50	155	119	138	114	129	105	79	43	150	45	0	0	0	0	1292
1965	0	98	40	43	111	51	104	91	117	83	66	24	117	75	99	0	0	0	1117
1966	0	34	21	46	116	79	104	103	133	95	74	34	83	92	108	19	0	0	1191
1967	0	85	5	47	77	74	85	70	131	68	53	45	80	58	111	370	0	0	1319
1968	0	74	11	43	82	63	72	79	103	66	55	31	81	56	68	328	187	0	1402
1969	0	76	4	40	62	68	82	68	91	69	51	17	83	56	34	280	255	0	1335
1970	0	80	7	44	83	66	79	65	92	63	55	8	89	51	66	301	228	0	1377
1971	0	89	32	45	89	74	82	68	112	87	64	21	88	43	101	340	216	0	1553
1972	0	75	39	40	83	64	79	66	94	73	51	33	92	57	85	385	192	0	1510
1973	0	87	47	20	92	68	91	67	88	72	47	37	97	65	47	381	258	0	1566

TABLE III

AVERAGE YEARLY PUMPING RATE BY WELL BY YEAR IN GALLONS PER MINUTE

YEAR	LOS ALAMOS CANYON						GUAJE CANYON						PAJARITO MESA			TOTAL			
	LA-1	LA-1B	LA-2	LA-3	LA-4	LA-5	LA-6	G-1	G-1A	G-2	WELL FIELD	G-3	G-4	G-5	G-6		PM-1	PM-2	PM-3
1947	260	0	297	373	0	0	0	0	0	0	0	0	0	0	0	0	0	0	930
1948	193	0	270	377	454	575	698	0	0	0	0	0	0	0	0	0	0	0	2567
1949	327	0	421	462	665	553	652	0	0	0	0	0	0	0	0	0	0	0	3079
1950	311	0	424	345	632	535	623	0	0	0	0	0	0	0	0	0	0	0	2870
1951	200	0	297	314	590	520	571	539	0	533	634	395	0	0	0	0	0	0	4197
1952	201	0	380	388	581	533	580	508	0	549	458	395	477	0	0	0	0	0	5051
1953	0	0	357	374	599	528	597	495	0	541	399	345	436	0	0	0	0	0	4666
1954	0	0	364	368	611	524	617	496	710	536	412	434	515	0	0	0	0	0	5587
1955	235	0	370	369	595	513	618	488	577	528	489	323	530	0	0	0	0	0	5635
1956	0	0	408	380	589	501	610	469	574	513	465	314	530	0	0	0	0	0	5353
1957	0	0	463	402	618	500	602	444	587	516	465	304	448	0	0	0	0	0	5350
1958	0	0	445	348	619	498	603	461	578	493	452	304	537	0	0	0	0	0	5337
1959	0	0	425	320	613	505	503	465	577	480	424	293	581	0	0	0	0	0	5263
1960	0	644	397	294	594	485	566	449	562	455	383	251	578	0	0	0	0	0	5658
1961	0	558	344	298	586	473	571	442	571	441	369	249	572	0	0	0	0	0	5495
1962	0	547	326	321	584	481	555	454	571	408	344	254	565	0	0	0	0	0	5411
1963	0	536	340	333	585	470	581	424	552	386	317	220	556	0	0	0	0	0	5298
1964	0	520	296	326	574	467	543	434	560	386	292	201	553	392	0	0	0	0	5545
1965	0	543	347	369	597	484	550	428	554	389	312	189	554	390	600	0	0	0	6307
1966	0	540	333	344	588	469	546	420	561	395	308	252	543	391	583	1429	0	0	7701
1967	0	562	346	347	605	485	567	446	559	410	320	277	554	393	645	1422	0	0	7939
1968	0	565	375	335	598	472	565	439	557	405	305	251	539	361	615	1415	1343	0	9139
1969	0	562	407	322	608	475	566	429	561	427	317	222	524	344	602	1412	1310	0	9088
1970	0	561	354	319	596	468	564	398	556	430	337	212	535	307	619	1420	1307	0	8983
1971	0	564	296	296	589	466	556	389	563	426	321	213	554	243	617	1402	1300	0	8796
1972	0	566	299	300	593	467	559	384	544	424	299	196	531	378	586	1393	1309	0	8837
1973	0	553	296	346	589	460	573	375	531	429	278	206	541	364	460	1388	1320	0	8707

TABLE IV
PERCENT OF TOTAL PUMPAGE BY WELL BY YEAR

YEAR	LOS ALAMOS CANYON					GUAJE CANYON					PAJARITO MESA						
	LA-1	LA-1B	LA-2	WELL LA-3	LA-4	LA-5	LA-6	G-1	G-1A	G-2	WELL G-3	G-4	G-5	G-6	PM-1	WELL PM-2	PM-3
1947	36.9	0.0	18.8	44.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1948	13.1	0.0	22.4	31.2	16.2	15.3	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1949	8.9	0.0	13.8	13.8	12.4	19.4	31.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1950	1.9	0.0	2.8	10.5	30.0	23.7	30.6	.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1951	1.9	0.0	7.5	8.7	22.6	23.3	26.2	4.9	0.0	.5	.9	1.6	.9	0.0	0.0	0.0	0.0
1952	.4	0.0	5.8	7.3	15.0	13.7	13.8	9.5	0.0	9.8	8.2	7.1	9.2	0.0	0.0	0.0	0.0
1953	0.0	0.0	5.8	8.5	13.4	12.7	14.0	11.9	0.0	12.9	9.4	6.8	4.5	0.0	0.0	0.0	0.0
1954	0.0	0.0	7.5	7.6	10.4	10.6	14.2	10.3	.6	11.4	8.8	7.8	10.7	0.0	0.0	0.0	0.0
1955	1.2	0.0	6.3	6.2	12.1	12.4	13.8	9.0	6.8	10.1	9.5	2.9	10.3	0.0	0.0	0.0	0.0
1956	0.0	0.0	4.7	4.5	12.8	11.1	13.3	8.8	11.4	10.2	9.3	3.6	10.3	0.0	0.0	0.0	0.0
1957	0.0	0.0	4.1	3.6	14.5	11.8	14.1	7.7	12.0	10.5	9.7	3.3	8.3	0.0	0.0	0.0	0.0
1958	0.0	0.0	4.1	4.4	14.4	11.7	13.9	8.9	12.1	10.4	9.1	4.7	6.4	0.0	0.0	0.0	0.0
1959	0.0	0.0	4.7	4.0	13.1	10.8	12.5	9.5	11.8	9.7	8.6	3.6	11.7	0.0	0.0	0.0	0.0
1960	0.0	3.4	4.9	3.6	13.7	11.2	13.0	9.0	11.6	9.1	7.8	3.5	9.2	0.0	0.0	0.0	0.0
1961	0.0	10.7	3.8	3.0	11.1	8.6	9.6	9.6	12.6	9.0	6.8	3.8	11.5	0.0	0.0	0.0	0.0
1962	0.0	11.0	3.0	3.9	11.0	9.2	11.0	8.0	11.6	8.5	7.1	3.6	12.1	0.0	0.0	0.0	0.0
1963	0.0	9.8	3.4	3.6	10.9	8.8	8.6	9.6	12.5	8.9	7.3	3.9	12.7	0.0	0.0	0.0	0.0
1964	0.0	10.1	2.6	3.9	12.0	9.2	10.7	8.8	10.0	8.1	6.1	3.3	11.5	3.5	0.0	0.0	0.0
1965	0.0	8.8	3.6	3.9	10.0	4.5	9.3	8.1	10.4	7.4	5.9	2.1	10.5	6.7	8.9	0.0	0.0
1966	0.0	5.4	1.8	3.6	9.7	6.7	8.7	8.6	11.2	8.0	6.2	3.8	7.0	7.7	9.1	1.6	0.0
1967	0.0	5.4	.4	3.6	5.8	5.6	6.5	5.3	11.9	5.1	4.0	3.4	6.1	4.4	8.4	28.1	0.0
1968	0.0	5.3	.8	3.0	5.8	4.5	5.1	5.6	7.4	4.7	4.0	2.2	5.8	4.0	4.9	23.4	13.4
1969	0.0	5.7	.3	3.0	4.4	5.1	6.1	5.1	6.8	5.1	3.8	1.3	6.2	4.2	2.6	21.0	19.1
1970	0.0	5.8	.5	3.2	6.1	4.8	5.7	4.7	6.7	4.6	4.0	.6	6.5	3.7	4.8	21.8	16.5
1971	0.0	5.7	.5	2.9	5.7	4.8	5.3	4.4	7.2	5.6	4.1	1.4	5.7	2.8	4.5	21.9	13.9
1972	0.0	5.0	2.6	2.6	5.5	4.3	5.2	4.4	6.2	4.9	3.4	2.2	6.1	3.8	5.6	25.5	12.7
1973	0.0	5.6	3.0	1.3	5.9	4.4	5.8	4.3	5.6	4.6	3.0	2.4	6.2	4.2	3.0	24.3	16.5

TABLE V

PERCENT OF FIELD PUMPAGE BY WELL BY YEAR

YEAR	LOS ALAMOS CANYON					GUAJE CANYON					PAJARITO MESA									
	LA-1	LA-10	LA-2	WELL FIELD	LA-3	LA-4	LA-5	LA-6	G-1	G-1A	G-2	WELL FIELD	G-3	G-4	G-5	G-6	PM-1	WELL FIELD	PM-2	PM-3
1947	36.9	0.0	18.8	44.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1948	13.1	0.0	22.4	31.2	16.2	15.3	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1949	8.9	0.0	13.8	31.7	12.4	19.4	31.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1950	1.9	0.0	2.9	10.6	30.2	23.8	30.7	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1951	2.1	0.0	8.2	9.5	24.7	26.7	28.7	55.3	0.0	0.0	5.8	10.7	18.4	9.8	0.0	0.0	0.0	0.0	0.0	0.0
1952	8	0.0	10.3	13.1	26.7	24.5	24.6	21.6	0.0	0.0	28.4	18.7	16.3	21.1	0.0	0.0	0.0	0.0	0.0	0.0
1953	0.0	0.0	10.6	15.7	24.4	23.4	25.7	26.1	0.0	0.0	22.4	20.5	14.8	10.1	0.0	0.0	0.0	0.0	0.0	0.0
1954	0.0	0.0	15.0	15.1	20.6	21.1	28.2	20.8	1.2	0.0	23.1	17.6	15.7	21.6	0.0	0.0	0.0	0.0	0.0	0.0
1955	2.4	0.0	12.1	11.9	23.2	23.9	26.5	18.8	14.1	0.0	18.0	13.5	6.1	21.4	0.0	0.0	0.0	0.0	0.0	0.0
1956	0.0	0.0	10.1	9.6	27.5	23.9	26.8	16.5	21.3	0.0	18.9	17.4	6.7	19.2	0.0	0.0	0.0	0.0	0.0	0.0
1957	0.0	0.0	8.5	7.5	30.1	24.6	29.3	14.8	23.0	0.0	20.2	19.6	6.4	17.0	0.0	0.0	0.0	0.0	0.0	0.0
1958	0.0	0.0	8.4	9.0	29.7	24.2	28.7	17.2	23.4	0.0	20.3	17.6	9.1	12.4	0.0	0.0	0.0	0.0	0.0	0.0
1959	0.0	0.0	10.4	8.9	29.0	23.9	27.7	17.3	21.5	0.0	17.7	15.6	6.6	21.3	0.0	0.0	0.0	0.0	0.0	0.0
1960	0.0	6.9	9.7	7.2	27.5	22.5	26.2	18.0	23.0	0.0	18.1	15.5	6.9	18.4	0.0	0.0	0.0	0.0	0.0	0.0
1961	0.0	22.8	8.1	6.4	23.7	18.4	20.6	18.0	23.6	0.0	16.9	12.8	7.2	21.5	0.0	0.0	0.0	0.0	0.0	0.0
1962	0.0	0.0	6.2	7.9	22.4	18.7	22.4	15.7	22.8	0.0	16.7	14.0	7.0	23.8	0.0	0.0	0.0	0.0	0.0	0.0
1963	0.0	21.8	7.6	7.9	24.2	19.5	19.1	17.6	22.9	0.0	16.7	13.2	7.1	23.1	0.0	0.0	0.0	0.0	0.0	0.0
1964	0.0	0.0	5.5	8.0	24.7	18.9	22.1	17.1	19.4	0.0	15.8	11.8	6.4	22.6	0.0	0.0	0.0	0.0	0.0	0.0
1965	0.0	21.9	8.9	9.7	24.9	11.3	23.2	15.9	20.4	0.0	14.5	11.5	4.2	22.5	0.0	0.0	0.0	0.0	0.0	0.0
1966	0.0	12.6	4.7	10.2	25.7	17.6	23.1	16.7	21.7	0.0	15.4	12.0	5.5	17.2	0.0	0.0	0.0	0.0	0.0	0.0
1967	0.0	22.7	1.3	12.7	20.7	19.7	22.9	15.1	19.7	0.0	14.6	11.4	9.6	17.2	0.0	0.0	0.0	0.0	0.0	0.0
1968	0.0	21.5	3.3	12.4	23.7	18.4	20.8	16.6	21.8	0.0	14.0	11.9	6.6	17.1	0.0	0.0	0.0	0.0	0.0	0.0
1969	0.0	22.8	1.1	12.1	18.7	20.7	24.6	15.7	20.9	0.0	15.8	11.7	4.0	17.2	0.0	0.0	0.0	0.0	0.0	0.0
1970	0.0	22.2	2.0	12.2	23.2	18.4	22.0	15.3	20.9	0.0	14.8	13.1	1.8	21.0	0.0	0.0	0.0	0.0	0.0	0.0
1971	0.0	21.6	7.7	11.0	21.5	18.1	20.0	14.0	23.1	0.0	15.7	13.3	4.7	18.3	0.0	0.0	0.0	0.0	0.0	0.0
1972	0.0	19.8	10.3	10.4	21.7	16.9	20.8	14.1	23.1	0.0	15.7	10.9	7.1	17.8	0.0	0.0	0.0	0.0	0.0	0.0
1973	0.0	21.5	11.5	5.0	22.8	16.9	22.3	14.2	18.5	0.0	15.3	10.0	7.0	20.5	0.0	0.0	0.0	0.0	0.0	0.0

Fig. 2. Monthly average daily high water level, Los Alamos Canyon well, LA-1.

Fig. 3. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Los Alamos Canyon supply well LA-1B.

Pumpage from well LA-3 decreased 20 million gal and water levels were slightly higher in 1973 than in 1972 (Fig. 5). The well was taken out of service on May 16 because of a possible problem with the chemical quality of the water. It was pumped only for testing during the subsequent six-month period. After the quality of the water was found to be acceptable, the well was put back into service on November 20.

Pumpage from well LA-4 was 9 million gal greater and water levels were slightly lower in 1973 than in 1972 (Fig. 6).

Pumpage from well LA-5 was 4 million gal greater and water levels were slightly lower in 1973 than in 1972 (Fig. 7). The pump was taken out of service in December due to a mechanical problem.

Fig. 4. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Los Alamos Canyon supply well LA-2.

Fig. 5. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Los Alamos Canyon supply well LA-3.

Pumpage from well LA-6 was 12 million gal greater in 1973 than in 1972 and no significant water level changes occurred (Fig. 8).

Due to increased production in the past few years, there has been a slight water level decline in the Los Alamos well field. The decline is as anticipated under the present amount of pumpage. The yearly pumping rate from the six wells increased 23 gpm from 2794 gpm in 1972 to 2817 gpm in 1973. There was no significant change in specific capacities in the six wells.

Fig. 6. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Los Alamos Canyon supply well LA-4.

Fig. 8. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Los Alamos Canyon supply well LA-6.

Fig. 7. Monthly average nonpumping and pumping water levels, monthly average specific capacity, and monthly and yearly pumpage, Los Alamos Canyon supply well LA-5.

Fig. 9. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Guaje Canyon supply well G-1.

B. Guaje Well Field

Pumpage from the Guaje well field increased 8 million gal from 467 million gal in 1972 to 475 million gal in 1973. The seven wells in the field produced 30.3% of the total pumpage (Table I).

Pumpage from well G-1 was one million gal greater and water levels were slightly lower in 1973 than in 1972 (Fig. 9).

Pumpage from well G-1A decreased 6 million gal and no significant water level changes occurred from 1972 to 1973 (Fig.

10). The pumping rate declined about 40 gpm from January through November, while specific capacities have declined for the past few years. The well was taken out of service on November 22 to have the pump rebuilt and the sand cleared out of the well. The pump has been in the well since 1954.

Pumpage from well G-2 decreased one million gal and water levels showed no significant change from 1972 to 1973 (Fig. 11).

Fig. 10. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Guaje Canyon supply well G-1A.

Fig. 11. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Guaje Canyon supply well G-2.

Pumpage from well G-3 decreased 4 million gal and water levels showed no significant change from 1972 to 1973 (Fig. 12).

Pumpage from well G-4 was 4 million gal greater and water levels were slightly lower in 1973 than in 1972 (Fig. 13).

Pumpage from well G-5 was 5 million gal greater and water levels showed no significant changes from 1972 to 1973 (Fig. 14).

Pumpage from well G-6 was 8 million gal greater and water levels were slightly lower in 1973 than in 1972 (Fig. 15).

In general the water levels follow the anticipated trends under the present amount of pumpage. Yearly average pumping rate declined 32 gpm from 2756 gpm in 1972 to 2724 gpm in 1973. Specific capacities of the wells are static or are showing slight declines.

Fig. 12. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Guaje Canyon supply well G-3.

Fig. 13. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Guaje Canyon supply well G-4.

Fig. 14. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Guaje Canyon supply well G-5.

C. Pajarito Well Field

Pumpage from the Pajarito well field increased 23 million gal from 662 million gal in 1972 to 685 million gal in 1973. The three wells produced 43.7% of the total pumpage (Table I).

Pumpage from well PM-1 decreased 38 million gal, and as a result water levels were slightly higher in 1973 than in 1972 (Fig. 16). The pumping rate declined from about 580 gpm in January to about 360 gpm in October. The pump was pulled and replaced and about 300 ft of sand was cleaned out of the bottom of the well. The well was out of service from October 17 to the end of December.

Pumpage from well PM-2 decreased 4 million gal and water levels were slightly lower in 1972 than in 1973 (Fig. 17).

Pumpage from well PM-3 increased 66 million gal and water levels were lower in 1973 than in 1972 (Fig. 18).

The water level trends in well PM-1 show recovery in the past few years due to a decline in pumping rate and some additional development of the well. Water levels in wells PM-2 and PM-3 show slight declines for the past few years. Water levels are following their anticipated trends under the present amount of pumpage. Average

Fig. 15. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Guaje Canyon supply well G-6.

annual pumping rate declined 120 gpm from 3288 gpm in 1972 to 3168 gpm in 1973. The largest decline in pumping rate occurred in PM-1 during the time prior to pump failure. The specific capacities show no significant changes from 1972.

III. WATER CANYON WATER SUPPLY

Production from the gallery in Water Canyon increased about 9 million gal from about 40 million gal in 1972 to about 49 million gal in 1973. The gallery is an excellent source of water, producing as much water from gravity flow as is pumped from some of the weaker wells (LA-2, LA-3, and G-4). Production data for 1971, 1972, and 1973 are shown in Table VI.

IV. SUMMARY

Pumpage has generally increased since the first well went into production in 1947, but the increase has been erratic in the past seven years (Table VII).

Pumpage increased 56 million gal or 172 acre-ft from 1972 to 1973. Requirements vary widely depending on precipitation, e.g., pumpage during a wet spring and summer will be reduced, whereas a dry spring and summer will result in a considerable increase in pumpage.

Fig. 16. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Pajarito Mesa supply well IX-1.

Fig. 17. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Pajarito Mesa supply well IX-2.

Fig. 18. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Pajarito Mesa supply well, IX-3.

Expansion of Laboratory facilities and population and housing increases in the county will undoubtedly result in demands for a greater increase in production. The State Engineer has established underground water rights for the three well fields at 5325 acre-ft/yr.

Well field operations during 1973 were satisfactory. Water-level trends in the Los Alamos, Guaje and Pajarito well fields fell within the range expected from trends established during the past eight years. Two wells, PN-1 and G-1A, were down for re-

pairs and cleaning of sand from the wells. Routine maintenance and repair of equipment during late fall, winter, and early spring will best prepare equipment for the heavy pumping season in late spring and summer when maximum production is necessary.

The average annual pumping rate from the three fields decreased slightly; however, most of the decrease occurred in wells that are being pulled for repairs or replacement. The specific capacities of wells

TABLE VI
PRODUCTION FROM WATER CANYON GALLERY
IN MILLIONS OF GALLONS

Month	1971	1972	1973
January	3.2	3.3	4.3
February	3.0	2.6	2.8
March	3.7	2.7	1.9
April	3.6	4.1	.9
May	3.3	3.7	4.6
June	3.4	3.1	8.9
July	2.8	3.1	8.0
August	3.1	3.1	5.2
September	2.8	3.2	3.4
October	2.6	3.5	3.8
November	2.5	4.0	2.3
December	2.7	3.2	3.1
Total	36.7	39.6	49.2

TABLE VII
WELL FIELD PRODUCTION FOR 1967-1973

Year	Pumpage	
	Million Gallons	Acre-Ft
1967	1319	4048
1968	1402	4302
1969	1335	4097
1970	1337	4226
1971	1553	4766
1972	1510	4634
1973	1566	4806

in the three fields were within acceptable limits and were considered normal.

V. RECOMMENDATIONS

New wells are considered essential for continued efficient operation of the water-supply system. Previous recommendations^{2,3} for a new well in the Pajarito well field and a replacement for well G-4 in the Guaje well field are still valid. Gordon Herkenhoff and Associates, Inc., after an engineering study, concur in these recommendations, and, in fact, recommend three new wells in the Pajarito field to satisfy the long-range requirements of the Los Alamos development. Their report⁴ is being prepared for the USAEC and LASL. Action should be taken in the very near future to satisfy the need for the new wells to cover any shortage that may occur due to the increasing demand for pumpage due to expansion of the Laboratory and housing in the county. The time necessary for completion of a well

from design to production ranges from 18-24 months. An exceedingly dry spring and summer or outage of a high-yield well during the late spring or summer would probably result in a shortage of water for an indefinite period of time without this additional capacity.

We again recommend that the annual pumpage be limited to no more than 400 million gal from the Los Alamos field and no more than 500 million gal from the Guaje field, with additional required water to be pumped from the Pajarito field. Since 1967, when these restrictions were first established, there has been either a reversal or deceleration of water-level declines in most of the wells in the Los Alamos and Guaje fields.

REFERENCES

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APPENDIX

SUMMARY OF LOS ALAMOS MUNICIPAL WELL-FIELD CHARACTERISTICS

MONTHLY PUMPING AND PRODUCTION STATISTICS FOR WELL LA-1 FOR LAST THREE YEARS

DATE	PUMP TIME	PUMP- AGE	RATE GPM	WATER LEVEL NON PUMP FT	DRAW DOWN FT	SPEC CAP- ACITY GPM/ FT	PERCENT OF FIELD PUMP TIME	PERCENT OF TOTAL PUMP TIME	YEARLY AVERAGE PUMP TIME	CUMULATIVE PUMP TIME
NO	HR	THSND GAL	FT	FT	FT	FT	AGE	AGE	THSND GAL	THSND MILLN GAL
JAN 71	-0	-0	0	-0	0	0.0	0.0	0.0	0	10.6
FEB 71	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
MAR 71	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
APR 71	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
MAY 71	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
JUN 71	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
JUL 71	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
AUG 71	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
SEP 71	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
OCT 71	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
NOV 71	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
DEC 71	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
JAN 72	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
FEB 72	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
MAR 72	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
APR 72	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
MAY 72	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
JUN 72	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
JUL 72	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
AUG 72	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
SEP 72	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
OCT 72	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
NOV 72	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
DEC 72	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
JAN 73	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
FEB 73	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
MAR 73	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
APR 73	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
MAY 73	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
JUN 73	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
JUL 73	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
AUG 73	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
SEP 73	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
OCT 73	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
NOV 73	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7
DEC 73	-0	-0	0	-0	0	0.0	0.0	0.0	0	153.7

**MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL LA-2
FOR LAST THREE YEARS**

DATE	PUMP TIME	PUMP- AGE	RATE	WATER LEVEL		DRAW DOWN	SPEC CAP- ACITY	PERCENT OF FIELD PUMP	PERCENT OF TOTAL PUMP	YEARLY AVERAGE PUMP- TIME	AVERAGE PUMP- RATE	CUMULATIVE PUMP- TIME
				NON PUMP	PUMP					THSND GAL	GPM	THSND GAL
MO	YR	HR	GPM	FT	FT	FT	GN/	AGE	AGE	HR	GPM	HR
JAN	71	59	332	65	329	264	1.3	8.7	5.7	11.3	3.6	38.3
FEB	71	107	347	66	328	262	1.3	19.6	14.5	14.6	3.7	843.6
MAR	71	180	347	64	324	260	1.2	18.4	12.4	10.9	3.7	38.4
APR	71	208	296	88	308	220	1.3	16.6	10.3	10.3	3.5	843.8
MAY	71	271	278	111	324	213	1.3	15.8	9.5	10.1	3.2	38.6
JUN	71	6	276	99	304	205	1.3	4.4	2.6	10.4	3.2	852.9
JUL	71	7	269	111	334	223	1.2	12.3	7.4	10.3	3.2	38.1
AUG	71	96	300	90	304	214	1.4	8.4	5.3	10.8	3.2	857.4
SEP	71	9	274	81	301	220	1.2	7.0	4.0	10.0	3.4	39.2
OCT	71	10	301	93	325	232	1.3	16.9	10.9	10.7	3.2	862.5
NOV	71	11	306	91	320	229	1.3	16.7	10.8	10.8	3.4	39.5
DEC	71	12	302	91	310	219	1.4	16.7	10.6	10.6	3.2	865.7
JAN	72	13	287	80	313	233	1.2	16.9	10.3	10.2	3.6	39.7
FEB	72	14	268	72	300	228	1.3	17.0	10.5	10.2	3.5	868.7
MAR	72	15	268	87	324	237	1.1	16.7	9.7	9.7	3.0	39.9
APR	72	16	300	101	320	229	1.3	16.8	10.8	10.7	3.5	871.6
MAY	72	17	263	116	322	226	1.2	17.7	10.0	11.6	3.2	876.2
JUN	72	18	299	109	326	227	1.3	17.9	11.1	10.9	3.3	40.2
JUL	72	19	297	121	328	227	1.3	17.0	11.1	10.9	3.0	878.7
AUG	72	20	305	115	324	219	1.4	16.9	11.2	11.7	3.4	40.5
SEP	72	21	330	87	325	218	1.5	15.9	11.2	11.7	3.2	881.7
OCT	72	22	328	91	312	221	1.5	16.6	11.4	11.5	3.5	40.7
NOV	72	23	338	95	314	219	1.5	16.4	11.5	11.7	3.7	885.9
DEC	72	24	316	83	311	228	1.5	16.5	11.3	11.4	3.3	41.0
JAN	73	25	318	93	323	230	1.4	16.7	11.0	11.0	2.9	890.4
FEB	73	26	322	97	320	223	1.4	15.8	10.5	11.1	3.4	41.7
MAR	73	27	321	90	322	232	1.4	17.0	11.3	11.1	3.5	902.7
APR	73	28	303	91	320	238	1.3	17.5	11.0	10.5	2.9	41.8
MAY	73	29	304	108	325	237	1.3	17.8	11.1	10.7	2.9	903.2
JUN	73	30	280	119	329	230	1.2	20.0	11.6	10.1	2.9	42.0
JUL	73	31	277	139	324	215	1.3	20.5	11.9	10.0	2.9	908.6
AUG	73	32	275	127	329	222	1.2	20.3	11.6	11.5	3.0	42.1
SEP	73	33	285	117	323	226	1.3	19.4	11.4	11.8	3.2	910.9
OCT	73	34	294	98	320	232	1.3	19.6	11.7	10.4	3.0	42.2
NOV	73	35	319	91	321	230	1.4	17.8	11.6	11.1	3.0	913.4
DEC	73	36	332	107	320	213	1.6	19.6	13.3	11.4	3.0	916.7
												42.5
												918.9
												42.6
												921.8
												42.8
												925.1
												43.0
												929.2
												43.4
												935.6
												43.8
												941.0
												44.1
												946.3
												44.3
												950.1
												44.5
												956.0
												44.7
												957.0
												44.8
												960.1

MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL LA-3
FOR LAST THREE YEARS

DATE	PUMP TIME	PUMP-AGE	RATE	WATER LEVEL	DRAW DOWN	SPEC CAP-ACITY	PERCENT OF FIELD PUMP	PERCENT OF TOTAL PUMP	YEARLY AVERAGE PUMP	CUMULATIVE PUMP
MO	HR	THSND GAL	GPM	NON PUMP FT	DOWN FT	FT	PUMP TIME AGE	PUMP TIME AGE	THSND GAL	THSND MILL HR
JAN 71	1	2502	342	47	242	195	17.9	12.2	11.7	54.0
FEB 71	2	2424	354	50	239	189	21.1	15.7	11.9	54.1
MAR 71	3	2690	342	53	235	182	18.4	13.3	11.8	54.3
APR 71	4	4157	333	62	236	174	16.6	11.6	11.6	54.5
MAY 71	5	5200	303	85	242	157	16.7	10.9	11.0	54.8
JUN 71	6	7089	273	109	263	154	18.9	9.5	8.8	55.3
JUL 71	7	3462	262	99	264	165	16.0	11.0	10.9	55.5
AUG 71	8	3023	302	82	258	176	18.4	11.6	10.9	55.7
SEP 71	9	4303	298	98	258	160	18.7	11.7	10.9	56.0
OCT 71	10	3074	305	78	259	181	17.0	11.2	10.9	56.2
NOV 71	11	2990	315	81	255	174	16.8	11.3	11.2	56.3
DEC 71	12	2724	324	78	254	176	16.7	11.4	11.4	56.4
JAN 72	13	2660	324	69	253	184	16.9	11.7	11.5	56.6
FEB 72	14	2478	320	65	247	182	17.2	11.7	11.3	56.7
MAR 72	15	3397	303	74	248	174	16.6	10.9	10.9	56.9
APR 72	16	4310	312	74	252	178	16.8	11.3	11.2	57.1
MAY 72	17	4645	286	83	255	172	17.5	10.7	12.6	57.4
JUN 72	18	4366	284	85	254	169	18.1	9.7	8.9	57.7
JUL 72	19	3558	270	88	256	168	16.4	10.2	10.0	57.9
AUG 72	20	3868	278	84	255	171	16.9	10.2	10.0	58.1
SEP 72	21	3372	291	68	252	184	16.8	10.4	10.3	58.2
OCT 72	22	3244	313	69	248	179	16.6	10.8	10.9	58.4
NOV 72	23	2154	329	59	241	182	16.4	11.2	11.4	58.5
DEC 72	24	2614	340	55	246	191	16.5	11.5	11.6	58.7
JAN 73	25	2643	340	71	256	185	16.7	11.7	11.7	58.9
FEB 73	26	2353	341	72	254	182	16.8	11.1	11.7	58.9
MAR 73	27	3069	348	69	254	185	17.6	12.0	12.0	59.1
APR 73	28	3725	339	70	250	180	17.5	12.6	11.8	59.3
MAY 73	29	1798	333	82	257	175	17.1	4.8	11.7	59.3
JUN 73	30	283	363	58	239	181	7.7	5	13.0	59.4
JUL 73	31	225	375	62	247	185	6.6	5	13.6	59.4
AUG 73	32	0	0	59	0	0	0.0	0.0	0.0	59.4
SEP 73	33	0	0	57	0	0	0.0	0.0	0.0	59.4
OCT 73	34	154	367	57	240	183	9.6	5	13.0	59.4
NOV 73	35	1798	348	58	246	188	9.8	7.0	12.1	59.4
DEC 73	36	3458	367	58	237	179	19.7	14.8	12.6	59.6

MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL LA-4
FOR LAST THREE YEARS

DATE	PUMP TIME	PUMP-AGE	RATE	WATER LEVEL	DRAW DOWN	SPEC ACITY	PERCENT OF PUMP	PERCENT OF FIELD	PERCENT OF TOTAL	YEARLY AVERAGE	CUMULATIVE
MO	YR	HR	THSND GAL	FT	FT	GPY/FT	PUMP-AGE	PUMP-RATE	PUMP-AGE	HR	THSND MILN
JAN 71	1	136	5023	676	272	352	80	7.7	20.0	24.5	21.0
FEB 71	2	105	3782	600	273	358	85	7.1	19.4	24.6	25.2
MAR 71	3	76	2756	604	268	361	93	6.5	19.4	24.6	25.2
APR 71	4	210	7613	604	272	361	89	6.8	16.7	21.0	20.8
MAY 71	5	290	10348	595	287	369	82	7.3	16.9	21.8	21.5
JUN 71	6	511	17497	571	310	392	82	7.0	19.0	23.3	21.5
JUL 71	7	282	9493	561	307	398	91	6.2	18.0	22.3	21.5
AUG 71	8	211	7532	595	293	382	89	6.7	18.4	22.9	21.5
SEP 71	9	8445	5803	586	299	383	84	7.0	18.4	22.9	21.5
OCT 71	10	162	5803	597	289	375	86	6.9	16.4	21.1	21.3
NOV 71	11	156	5613	600	287	370	83	7.2	16.6	21.1	21.3
DEC 71	12	140	5060	602	287	370	83	7.3	16.7	21.3	21.3
JAN 72	13	133	4835	606	284	367	83	7.3	16.4	21.3	21.4
FEB 72	14	122	4418	604	279	364	85	7.1	16.2	20.9	21.4
MAR 72	15	187	6727	600	285	368	83	7.2	16.6	21.6	21.4
APR 72	16	327	8143	598	285	369	84	7.1	16.6	21.3	21.4
MAY 72	17	370	12667	571	290	376	86	6.6	16.6	21.3	21.4
JUN 72	18	280	9867	587	287	371	84	7.0	16.5	21.2	21.4
JUL 72	19	222	7809	596	288	375	87	6.7	16.5	21.2	21.4
AUG 72	20	225	8022	594	283	366	83	7.2	16.4	21.1	21.3
SEP 72	21	136	4895	600	274	357	87	7.2	16.6	21.8	21.3
OCT 72	22	181	6515	600	276	363	83	6.9	16.8	21.5	21.3
NOV 72	23	109	3940	602	278	359	81	7.4	16.4	20.5	20.8
DEC 72	24	130	4749	609	279	364	85	7.2	16.8	20.9	20.8
JAN 73	25	169	6134	605	284	368	84	7.2	16.7	20.9	20.9
FEB 73	26	126	4600	608	285	369	84	7.2	17.4	21.6	20.9
MAR 73	27	147	5336	605	284	366	82	7.4	16.6	20.8	20.8
APR 73	28	166	6115	614	281	366	85	7.2	15.9	20.4	21.3
MAY 73	29	239	8557	597	288	371	83	7.2	18.9	22.8	21.0
JUN 73	30	376	13111	581	308	383	75	7.7	19.8	23.8	20.9
JUL 73	31	310	10611	570	311	394	83	6.9	19.5	23.3	20.6
AUG 73	32	318	10960	574	301	386	85	6.8	20.3	24.0	23.7
SEP 73	33	236	8108	573	303	387	84	6.8	19.6	23.1	20.5
OCT 73	34	222	7722	590	300	378	78	7.4	17.4	23.9	21.4
NOV 73	35	153	5648	615	294	377	83	7.4	17.4	23.9	21.4
DEC 73	36	154	5471	592	292	374	82	7.2	19.3	23.5	20.4

MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL LA-5
FOR LAST THREE YEARS

DATE	PUMP TIME	PUMP- AGE	RATE	WATER LEVEL		SPEC CAP- ACITY	PERCENT OF FIELD PUMP		PUMP TIME	PERCENT OF TOTAL PUMP- AGE		YEARLY AVERAGE PUMP- TIME		CUMULATIVE PUMP- TIME	
				NON PUMP	PUMP		TIME	AGE				HR	GAL	THSND	MILLN
MO	YR	THSND	GPM	FT	FT	FT	AGE	AGE	AGE	AGE	AGE	HR	GAL	HR	GAL
JAN	71	136	488	150	301	151	20.0	19.4	16.7	6.5	4.8	197	5539	71.4	2137.3
FEB	71	155	481	146	300	154	19.4	19.7	20.2	5.8	4.1	197	5551	71.5	2140.4
MAR	71	180	470	146	298	152	18.4	18.3	16.2	5.8	4.5	200	5616	71.7	2145.4
APR	71	210	469	148	300	152	16.7	16.5	16.4	5.5	4.4	207	5821	71.9	2151.4
MAY	71	298	465	160	300	140	16.8	16.9	16.8	5.4	4.8	208	5853	72.0	2159.4
JUN	71	535	461	167	307	140	18.8	18.6	17.5	6.4	5.5	220	6177	72.7	2173.4
JUL	71	8963	457	166	308	142	20.8	21.1	17.5	6.2	5.0	216	6080	73.0	2182.3
AUG	71	211	463	156	302	146	18.4	17.8	16.7	5.3	4.2	215	6037	73.2	2188.2
SEP	71	9	460	159	307	148	18.6	18.0	16.9	6.4	5.0	220	6147	73.6	2194.8
OCT	71	121	470	154	303	148	16.3	16.5	16.8	6.5	4.6	220	6154	73.6	2194.8
NOV	71	156	474	153	301	148	16.7	16.7	16.8	6.5	4.7	220	6152	73.8	2203.8
DEC	71	140	472	153	303	150	16.7	16.7	16.7	6.2	4.7	222	6201	73.9	2207.8
JAN	72	133	472	147	302	155	16.4	16.5	16.7	5.7	4.1	221	6183	74.0	2211.5
FEB	72	182	476	146	300	154	16.2	16.5	16.9	5.7	4.1	223	6221	74.1	2215.0
MAR	72	158	468	148	302	154	16.7	17.0	16.9	6.2	4.6	223	6239	74.3	2220.3
APR	72	227	467	154	305	151	16.6	16.9	16.7	5.0	4.1	225	6276	74.6	2228.7
MAY	72	380	457	159	306	147	18.6	18.3	14.2	4.5	5.4	231	6430	74.9	2236.5
JUN	72	280	456	159	305	146	14.5	14.2	14.2	5.0	4.2	212	5904	75.2	2244.2
JUL	72	19	460	161	311	150	16.5	16.6	16.8	4.9	3.8	203	5967	75.4	2250.3
AUG	72	20	467	157	307	150	16.4	16.6	16.8	4.9	4.0	203	5704	75.7	2250.3
SEP	72	21	475	154	303	150	16.8	17.0	16.9	5.3	4.0	196	5474	75.8	2250.5
OCT	72	184	475	153	306	153	15.7	15.6	16.6	5.7	4.5	196	5484	76.0	2265.2
NOV	72	23	475	150	305	155	17.2	16.9	16.4	5.7	3.9	193	5385	76.1	2268.4
DEC	72	130	483	154	300	156	16.8	16.6	16.5	6.1	3.7	192	5368	76.2	2272.2
JAN	73	159	474	151	307	156	16.7	16.4	16.4	5.1	5.1	195	5454	76.4	2271.0
FEB	73	26	478	148	302	154	17.4	17.0	16.4	5.7	4.4	195	5465	76.5	2280.6
MAR	73	27	474	147	305	158	15.2	15.8	16.3	4.7	4.6	191	5363	76.6	2288.7
APR	73	166	473	151	301	150	15.9	15.7	16.4	5.5	4.3	186	5226	76.8	2289.4
MAY	73	244	466	150	304	154	19.3	18.2	16.4	6.1	4.7	177	4971	77.0	2296.2
JUN	73	319	451	162	314	152	19.9	18.6	16.2	5.6	4.6	185	5186	77.4	2306.4
JUL	73	310	449	165	317	152	19.5	18.4	16.2	6.2	4.8	192	5371	77.7	2311.8
AUG	73	323	450	162	311	148	18.7	17.5	18.7	5.2	4.0	198	5505	78.0	2322.7
SEP	73	266	457	163	315	152	20.4	19.2	18.9	5.8	4.6	206	5721	78.3	2328.2
OCT	73	230	459	160	309	149	20.3	19.0	16.2	6.5	4.8	212	5861	78.5	2335.5
NOV	73	163	465	157	309	152	18.5	17.6	16.2	6.4	4.7	216	5969	78.7	2340.1
DEC	73	17	467	155	307	152	2.1	2.0	16.1	.8	.6	206	5695	78.7	2340.5

MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL LA-6
FOR LAST THREE YEARS

DATE	PUMP TIME	PUMP- AGE	RATE	WATER LEVFL	DRAW DOWN	SPEC CAP- ACITY	PERCENT OF FIELD PUMP TIME	PERCENT OF TOTAL PUMP TIME	YEARLY AVERAGE PUMP- TIME	CUMULATIVE PUMP- TIME
MO	YR	THSND GAL	GPM	NON PUMP FT	PUMP FT	FT	AGE	AGE	HR	THSND GAL
JAN	71	3739	572	102	143	41	13.9	16.0	18.2	19.5
FEB	71	-0	0	-0	0	0	0.0	0.0	0.0	0.0
MAR	71	6386	575	115	158	43	13.4	18.9	23.1	19.8
APR	71	7278	578	121	165	44	13.1	16.7	20.3	20.2
MAY	71	9798	557	129	171	42	13.3	17.1	20.6	20.9
JUN	71	512	552	138	185	47	11.7	19.1	22.6	20.9
JUL	71	8336	539	125	168	43	12.5	16.4	19.6	20.6
AUG	71	6810	548	121	168	47	11.7	18.0	20.7	19.8
SEP	71	7815	543	118	162	44	12.3	18.6	21.2	19.9
OCT	71	5390	555	114	150	36	15.4	16.4	19.6	19.8
NOV	71	5247	561	112	146	34	16.5	16.6	19.8	19.8
DEC	71	4709	561	110	144	34	16.5	16.7	19.8	19.8
JAN	72	4482	562	106	142	36	15.6	16.4	19.6	19.9
FEB	72	4064	555	105	143	38	14.6	16.2	19.3	19.7
MAR	72	6299	564	109	147	38	14.9	16.5	20.2	20.4
APR	72	7473	549	116	153	37	14.8	16.6	19.5	19.6
MAY	72	12453	575	123	162	39	14.7	23.3	28.7	25.4
JUN	72	9461	563	125	163	38	14.8	14.5	17.5	17.5
JUL	72	7560	568	130	166	36	15.8	16.5	20.5	20.7
AUG	72	7766	574	125	163	38	15.1	16.4	20.4	20.6
SEP	72	4726	579	118	156	38	15.2	16.8	20.7	20.6
OCT	72	6301	580	120	158	39	15.3	17.3	21.0	20.3
NOV	72	3996	584	116	153	37	15.8	17.2	20.7	20.2
DEC	72	4524	589	115	154	39	15.1	16.8	20.2	20.1
JAN	73	5958	585	102	139	37	15.9	16.7	20.3	20.3
FEB	73	4426	585	112	150	38	15.4	17.4	20.8	20.1
MAR	73	5113	587	112	149	37	15.7	16.6	19.9	20.0
APR	73	5846	587	110	148	38	15.4	15.9	19.5	20.3
MAY	73	8539	586	113	150	37	15.8	19.2	22.8	20.6
JUN	73	12606	565	120	156	36	15.7	19.6	22.9	20.3
JUL	73	10486	564	126	162	36	15.7	19.5	23.1	20.4
AUG	73	10765	564	124	162	38	14.8	20.3	23.9	23.5
SEP	73	8025	564	128	165	37	15.3	20.5	23.8	23.3
OCT	73	7872	570	126	162	36	15.8	20.3	23.6	20.2
NOV	73	5549	561	122	159	37	15.1	18.7	21.5	19.5
DEC	73	5439	585	119	155	36	16.2	19.4	23.3	20.1
JAN	74	3739	572	102	143	41	13.9	16.0	18.2	19.5
FEB	74	-0	0	-0	0	0	0.0	0.0	0.0	0.0
MAR	74	6386	575	115	158	43	13.4	18.9	23.1	19.8
APR	74	7278	578	121	165	44	13.1	16.7	20.3	20.2
MAY	74	9798	557	129	171	42	13.3	17.1	20.6	20.9
JUN	74	512	552	138	185	47	11.7	19.1	22.6	20.9
JUL	74	8336	539	125	168	43	12.5	16.4	19.6	20.6
AUG	74	6810	548	121	168	47	11.7	18.0	20.7	19.8
SEP	74	7815	543	118	162	44	12.3	18.6	21.2	19.9
OCT	74	5390	555	114	150	36	15.4	16.4	19.6	19.8
NOV	74	5247	561	112	146	34	16.5	16.6	19.8	19.8
DEC	74	4709	561	110	144	34	16.5	16.7	19.8	19.8
JAN	75	4482	562	106	142	36	15.6	16.4	19.6	19.9
FEB	75	4064	555	105	143	38	14.6	16.2	19.3	19.7
MAR	75	6299	564	109	147	38	14.9	16.5	20.2	20.4
APR	75	7473	549	116	153	37	14.8	16.6	19.5	19.6
MAY	75	12453	575	123	162	39	14.7	23.3	28.7	25.4
JUN	75	9461	563	125	163	38	14.8	14.5	17.5	17.5
JUL	75	7560	568	130	166	36	15.8	16.5	20.5	20.7
AUG	75	7766	574	125	163	38	15.1	16.4	20.4	20.6
SEP	75	4726	579	118	156	38	15.2	16.8	20.7	20.6
OCT	75	6301	580	120	158	39	15.3	17.3	21.0	20.3
NOV	75	3996	584	116	153	37	15.8	17.2	20.7	20.2
DEC	75	4524	589	115	154	39	15.1	16.8	20.2	20.1
JAN	76	5958	585	102	139	37	15.9	16.7	20.3	20.3
FEB	76	4426	585	112	150	38	15.4	17.4	20.8	20.1
MAR	76	5113	587	112	149	37	15.7	16.6	19.9	20.0
APR	76	5846	587	110	148	38	15.4	15.9	19.5	20.3
MAY	76	8539	586	113	150	37	15.8	19.2	22.8	20.6
JUN	76	12606	565	120	156	36	15.7	19.6	22.9	20.3
JUL	76	10486	564	126	162	36	15.7	19.5	23.1	20.4
AUG	76	10765	564	124	162	38	14.8	20.3	23.9	23.5
SEP	76	8025	564	128	165	37	15.3	20.5	23.8	23.3
OCT	76	7872	570	126	162	36	15.8	20.3	23.6	20.2
NOV	76	5549	561	122	159	37	15.1	18.7	21.5	19.5
DEC	76	5439	585	119	155	36	16.2	19.4	23.3	20.1
JAN	77	3739	572	102	143	41	13.9	16.0	18.2	19.5
FEB	77	-0	0	-0	0	0	0.0	0.0	0.0	0.0
MAR	77	6386	575	115	158	43	13.4	18.9	23.1	19.8
APR	77	7278	578	121	165	44	13.1	16.7	20.3	20.2
MAY	77	9798	557	129	171	42	13.3	17.1	20.6	20.9
JUN	77	512	552	138	185	47	11.7	19.1	22.6	20.9
JUL	77	8336	539	125	168	43	12.5	16.4	19.6	20.6
AUG	77	6810	548	121	168	47	11.7	18.0	20.7	19.8
SEP	77	7815	543	118	162	44	12.3	18.6	21.2	19.9
OCT	77	5390	555	114	150	36	15.4	16.4	19.6	19.8
NOV	77	5247	561	112	146	34	16.5	16.6	19.8	19.8
DEC	77	4709	561	110	144	34	16.5	16.7	19.8	19.8
JAN	78	4482	562	106	142	36	15.6	16.4	19.6	19.9
FEB	78	4064	555	105	143	38	14.6	16.2	19.3	19.7
MAR	78	6299	564	109	147	38	14.9	16.5	20.2	20.4
APR	78	7473	549	116	153	37	14.8	16.6	19.5	19.6
MAY	78	12453	575	123	162	39	14.7	23.3	28.7	25.4
JUN	78	9461	563	125	163	38	14.8	14.5	17.5	17.5
JUL	78	7560	568	130	166	36	15.8	16.5	20.5	20.7
AUG	78	7766	574	125	163	38	15.1	16.4	20.4	20.6
SEP	78	4726	579	118	156	38	15.2	16.8	20.7	20.6
OCT	78	6301	580	120	158	39	15.3	17.3	21.0	20.3
NOV	78	3996	584	116	153	37	15.8	17.2	20.7	20.2
DEC	78	4524	589	115	154	39	15.1	16.8	20.2	20.1
JAN	79	5958	585	102	139	37	15.9	16.7	20.3	20.3
FEB	79	4426	585	112	150	38	15.4	17.4	20.8	20.1
MAR	79	5113	587	112	149	37	15.7	16.6	19.9	20.0
APR	79	5846	587	110	148	38	15.4	15.9	19.5	20.3
MAY	79	8539	586	113	150	37	15.8	19.2	22.8	20.6
JUN	79	12606	565	120	156	36	15.7	19.6	22.9	20.3
JUL	79	10486	564	126	162	36	15.7	19.5	23.1	20.4
AUG	79	10765	564	124	162	38	14.8	20.3	23.9	23.5
SEP	79	8025	564	128	165	37	15.3	20.5	23.8	23.3
OCT	79	7872	570	126	162	36	15.8	20.3	23.6	20.2
NOV	79	5549	561	122	159	37	15.1	18.7	21.5	19.5
DEC	79	5439	585	119	155	36	16.2	19.4	23.3	20.1
JAN	80	3739	572	102	143	41	13.9	16.0	18.2	19.5
FEB	80	-0	0	-0	0	0	0.0	0.0	0.0	0.0
MAR	80	6386	575	115	158	43	13.4	18.9	23.1	19.8
APR	80	7278	578	121	165	44	13.1	16.7	20.3	20.2
MAY	80	9798	557	129	171	42	13.3	17.1	20.6	20.9
JUN	80	512	552	138	185	47	11.7	19.1	22.6	20.9
JUL	80	8336	539	125	168	43	12.5	16.4	19.6	20.6
AUG	80	6810	548	121	168	47	11.7	18.0	20.7	19.8
SEP	80	7815	543	118	162	44	12.3	18.6	21.2	19.9
OCT	80	5390	555	114	150	36	15.4	16.4	19.6	19.8
NOV	80	5247	561	112	146	34	16.5	16.6	19.8	19.8
DEC	80	4709	561	110	144	34	16.5	16.7	19.8	19.8
JAN	81	4482	562	106	142	36	15.6	16.4	19.6	19.9
FEB	81	4064	555	105	143	38	14.6	16.2	19.3	19.7
MAR	81	6299	564	109	147	38	14.9	16.5	20.2	20.4
APR	81	7473	549	116	153	37	14.8	16.6	19.5	19.6
MAY	81	12453	575	123	162	39	14.7	23.3	28.7	25.4
JUN	81	9461	563	125	163	38	14.8	14.5	17.5	17.5
JUL	81									

MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL G-1
FOR LAST THREE YEARS

DATE	PUMP TIME	PUMP- AGE	RATE	WATER LEVFL	DRAW DOWN	SPEC CAP- ACITY	PERCENT OF FIELD PUMP TIME	PERCENT OF TOTAL PUMP TIME	YEARLY AVERAGE PUMP TIME	CUMULATIVE PUMP TIME
MO	YR	HR	GPM	FT	FT	GPM/FT	AGE	AGE	THSND	THSND
JAN 71	1	142	415	253	367	114	16.1	15.9	14.5	61.3
FEB 71	2	110	409	250	357	107	16.1	15.4	14.5	61.4
MAR 71	3	170	397	251	363	112	12.6	11.8	14.2	61.5
APR 71	4	85	395	257	373	116	4.8	4.5	14.2	61.6
MAY 71	5	469	388	263	385	122	17.4	18.3	14.5	61.7
JUN 71	6	642	379	267	394	127	16.2	16.1	14.5	61.8
JUL 71	7	438	373	267	391	124	16.8	15.6	13.9	61.9
AUG 71	8	315	391	260	388	128	16.1	15.5	14.3	62.0
SEP 71	9	252	392	261	387	126	15.8	15.7	15.0	62.1
OCT 71	10	-0	0	259	-0	0	0.0	0.0	0.0	62.2
NOV 71	11	140	407	256	376	120	16.6	16.3	16.3	62.3
DEC 71	12	145	406	254	376	122	16.7	16.3	16.3	62.4
JAN 72	13	113	405	254	376	122	16.7	16.2	16.2	62.5
FEB 72	14	127	402	254	376	122	16.3	15.8	13.7	62.6
MAR 72	15	173	396	254	371	117	15.2	15.6	13.7	62.7
APR 72	16	328	387	255	382	127	14.5	14.1	13.9	62.8
MAY 72	17	500	380	264	394	130	14.1	13.9	14.1	62.9
JUN 72	18	385	378	267	398	131	14.2	13.7	14.0	63.0
JUL 72	19	303	377	269	396	127	14.3	13.8	13.8	63.1
AUG 72	20	315	375	271	400	129	14.3	13.7	13.8	63.2
SEP 72	21	133	386	275	396	121	14.3	14.0	14.0	63.3
OCT 72	22	174	388	272	398	126	14.7	14.3	14.1	63.4
NOV 72	23	144	384	265	389	124	14.3	13.8	13.8	63.5
DEC 72	24	120	384	266	391	125	14.3	14.0	14.0	63.6
JAN 73	25	188	394	265	389	124	14.6	14.6	14.3	63.7
FEB 73	26	100	395	265	388	123	14.2	14.1	14.2	63.8
MAR 73	27	127	395	265	390	125	14.3	13.8	13.9	63.9
APR 73	28	182	395	265	395	125	14.3	13.8	13.9	64.0
MAY 73	29	283	386	268	400	132	14.5	14.0	13.9	64.1
JUN 73	30	519	354	276	409	134	15.4	14.5	13.5	64.2
JUL 73	31	702	355	278	412	134	14.3	13.4	13.4	64.3
AUG 73	32	40	363	275	413	138	14.1	13.4	13.6	64.4
SEP 73	33	266	371	277	416	139	15.4	15.1	13.9	64.5
OCT 73	34	5349	381	275	409	134	14.5	14.5	14.5	64.6
NOV 73	35	3858	382	271	413	132	15.0	15.5	14.3	64.7
DEC 73	36	3990	408	272	404	132	16.5	17.4	17.6	64.8

MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL G-1A
FOR LAST THREE YEARS

DATE	PUMP TIME	PUMP- AGE	RATE	WATER LEVEL	DRAW DOWN	SPEC CAP- ACITY	PERCENT OF FIELD		PERCENT OF TOTAL		YEARLY AVERAGE		CUMULATIVE							
							PUMP TIME	PUMP- AGE	PUMP TIME	PUMP- AGE	PUMP TIME	PUMP- AGE	PUMP TIME	PUMP- AGE	THSND	MILLN	HR	GAL		
MO	YR	THSND	GPM	FT	FT	GPM/ FT														
JAN	71	112	3915	583	290	353	63	9.2	12.7	17.6	20.3	5.3	4.8	6.3	228	7606	556	52.0	1764.3	
FEB	71	111	3815	573	290	346	56	10.2	16.2	21.8	20.3	6.1	5.2	6.7	224	7468	556	52.1	1768.1	
MAR	71	231	7929	572	293	354	61	9.4	17.1	23.1	20.5	7.4	7.0	6.4	230	7695	557	52.4	1776.0	
APR	71	4	11236	574	300	351	51	11.3	18.3	25.0	20.6	8.6	8.4	6.4	235	7926	563	52.7	1787.2	
MAY	71	5	15229	549	309	367	58	9.5	17.1	25.5	20.5	8.7	9.0	6.3	240	8101	561	53.1	1802.5	
JUN	71	6	21712	556	316	371	55	10.1	16.4	24.0	21.3	9.2	8.5	6.5	257	8657	562	53.8	1824.2	
JUL	71	7	14572	558	316	370	54	10.3	16.6	23.1	20.8	8.2	8.2	6.5	263	8873	563	54.2	1838.8	
AUG	71	8	10810	579	308	373	65	8.9	15.9	22.7	21.2	7.9	7.8	6.6	271	9177	565	54.5	1849.6	
SEP	71	9	8210	554	310	375	65	8.5	15.5	21.8	21.2	6.6	6.1	6.4	276	9340	564	54.8	1857.8	
OCT	71	10	4882	573	302	361	59	9.7	14.5	20.9	22.8	5.4	5.0	6.8	275	9300	564	54.9	1862.7	
NOV	71	11	4668	556	300	361	61	9.1	16.6	22.2	22.4	5.8	5.1	6.4	274	9269	563	55.1	1867.3	
DEC	71	12	4864	559	298	356	58	9.6	16.7	22.5	22.4	6.4	5.8	6.5	276	9320	563	55.2	1872.2	
JAN	72	13	5208	567	298	354	56	10.1	16.7	22.7	22.7	6.5	5.7	6.5	279	9428	562	55.4	1877.4	
FEB	72	14	4149	558	297	356	59	9.5	16.0	21.4	19.0	5.8	4.9	6.1	281	9456	562	55.5	1881.5	
MAR	72	15	5650	544	295	349	54	10.1	15.2	20.1	18.8	5.7	4.9	6.0	276	9266	560	55.7	1887.2	
APR	72	16	10579	538	300	360	60	9.0	14.5	19.6	19.4	7.2	6.9	6.1	276	9211	556	56.0	1897.8	
MAY	72	17	16037	538	308	367	59	9.1	14.0	19.6	19.9	7.9	7.9	6.5	279	9278	555	56.5	1913.8	
JUN	72	18	12528	542	307	360	53	10.2	15.0	20.8	20.1	6.9	6.9	5.9	257	8513	553	56.9	1926.3	
JUL	72	19	10031	552	310	367	57	9.7	14.3	20.2	20.2	6.7	6.3	6.3	246	8135	552	57.2	1936.4	
AUG	72	20	10407	551	306	366	60	9.2	14.3	20.1	20.2	6.9	6.6	6.3	246	8101	549	57.5	1946.8	
SEP	72	21	5338	546	305	369	64	8.5	14.3	19.8	19.8	6.4	5.7	6.2	239	7862	548	57.7	1952.1	
OCT	72	22	5678	544	300	362	62	8.8	14.7	20.1	19.7	6.1	5.5	6.2	242	7928	547	57.8	1957.8	
NOV	72	23	4639	537	301	358	57	9.4	14.3	19.2	19.3	6.4	5.5	6.0	242	7926	546	58.0	1962.4	
DEC	72	24	3781	525	301	360	59	8.9	14.3	18.9	18.9	5.6	4.7	5.9	240	7755	544	58.1	1966.2	
JAN	73	25	4463	534	300	354	54	10.0	14.6	20.0	19.5	5.4	4.7	6.0	239	7773	543	58.2	1970.7	
FEB	73	26	4645	553	299	355	56	9.9	14.2	19.8	19.8	6.3	5.6	6.2	240	7815	543	58.4	1975.3	
MAR	73	27	4177	548	300	356	56	9.8	14.3	19.8	19.2	5.4	4.7	6.1	236	7652	543	58.5	1979.5	
APR	73	28	6318	548	297	361	64	8.6	14.5	19.5	19.2	6.4	5.8	6.1	225	7337	544	58.7	1985.8	
MAY	73	29	9372	554	297	357	60	9.2	15.3	20.9	19.9	7.1	6.4	6.3	207	6781	546	59.0	1995.2	
JUN	73	30	16544	533	306	366	60	8.9	14.4	20.2	20.1	7.7	7.4	6.2	218	7116	544	59.5	2011.7	
JUL	73	31	10426	525	310	366	56	9.4	14.3	19.8	19.8	6.7	6.0	6.1	220	7119	541	59.8	2022.2	
AUG	73	32	12848	522	306	373	67	7.8	14.1	19.4	19.6	7.2	6.5	6.4	228	7352	537	60.2	2035.0	
SEP	73	33	9144	515	306	374	68	7.6	15.4	20.9	19.2	7.3	6.7	6.3	239	7670	534	60.5	2044.2	
OCT	73	34	7218	514	303	362	59	8.7	14.5	19.0	18.7	6.6	5.5	6.0	244	7798	532	60.8	2051.4	
NOV	73	35	2788	500	300	355	55	9.1	8.5	11.2	18.3	3.7	2.9	6.0	240	7644	531	60.9	2054.2	
DEC	73	36	-0	0	-0	-0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	230	7329	531	60.9	2054.2	

MONTHLY PUMPING AND PRODUCTION STATISTICS

FOR WELL G-2

FOR LAST THREE YEARS

DATE	PUMP TIME	PUMP-AGE	RATE	WATER		DRAW DOWN	SPEC	FOR LAST THREE YEARS		PERCENT OF FIELD	PUMP-AGE	PERCENT OF TOTAL	PUMP-AGE	YEARLY AVERAGE		CUMULATIVE
				NON	PUMP		ACITY	PUMP	PUMP-AGE					THSND	GPM	THSND MILLN
MO	YR	THSND	GPM	FT	FT	FT	FT	TIME	USE	TIME	AGE	TIME	AGE	HR	GAL	HR
JAN	71	1	449	335	373	38	11.8	16.1	17.2	15.7	4.9	4.9	4.7	202	5205	51.1
FEB	71	2	439	335	373	38	11.5	16.1	14.5	15.5	3.9	5.1	3.9	197	5095	61.2
MAR	71	3	443	336	377	41	10.8	16.7	17.2	15.9	5.2	4.9	5.2	215	5561	61.4
APR	71	4	444	341	383	42	10.6	17.7	18.6	15.9	6.3	5.0	6.3	236	6104	61.7
MAY	71	5	419	352	388	36	11.6	17.3	19.7	15.6	7.0	4.8	7.0	242	6188	62.2
JUN	71	6	466	359	392	33	12.3	16.3	17.5	15.6	8.1	4.8	8.1	259	6569	62.8
JUL	71	7	407	354	394	40	10.2	16.0	14.1	15.1	7.9	5.7	7.9	263	6599	63.3
AUG	71	8	420	352	388	36	11.7	13.7	14.2	15.4	6.8	4.9	6.8	268	6802	63.5
SEP	71	9	432	349	387	38	11.4	16.1	17.6	16.5	6.8	5.0	6.8	274	6958	63.8
OCT	71	10	447	346	387	41	10.9	29.7	33.3	19.3	11.0	5.3	11.0	285	7275	64.1
NOV	71	11	440	342	382	40	11.0	16.6	17.6	17.6	5.8	4.0	5.8	284	7275	64.1
DEC	71	12	439	341	381	40	11.0	16.7	17.6	17.6	4.6	5.1	4.6	285	7285	64.2
JAN	72	13	441	341	382	41	10.8	16.7	17.6	17.6	4.5	5.1	4.5	286	7304	64.4
FEB	72	14	433	340	382	42	10.3	16.2	14.9	14.8	5.9	4.9	5.9	287	7335	64.5
MAR	72	15	430	338	379	41	10.5	15.2	15.8	14.9	3.9	4.8	3.9	283	7216	64.6
APR	72	16	423	347	389	42	10.1	14.5	15.4	15.2	5.4	4.8	5.4	284	7213	65.1
MAY	72	17	416	356	395	39	10.7	14.3	15.5	15.4	6.2	5.1	6.2	288	7290	65.6
JUN	72	18	417	358	393	35	11.9	14.8	15.8	15.4	5.2	4.5	5.2	285	6768	66.0
JUL	72	19	419	357	397	40	10.5	14.3	15.4	15.4	4.8	4.8	4.8	290	6555	66.3
AUG	72	20	418	356	395	39	10.7	14.3	15.3	15.3	5.0	4.8	5.0	280	6648	66.6
SEP	72	21	427	353	389	36	11.9	14.3	15.5	15.5	6.4	4.9	6.4	292	6443	66.8
OCT	72	22	432	346	388	42	10.3	14.7	14.0	15.7	4.4	4.9	4.4	242	6169	67.0
NOV	72	23	436	341	383	42	10.4	14.3	15.6	15.7	4.5	4.9	4.5	243	6175	67.1
DEC	72	24	436	341	382	41	10.6	14.3	15.7	15.7	5.6	4.9	5.6	241	6118	67.2
JAN	73	25	429	338	380	42	10.5	14.6	15.9	15.5	5.4	4.8	5.4	239	6077	67.4
FEB	73	26	419	338	378	40	10.5	14.3	15.1	15.0	4.3	4.7	4.3	241	6100	67.5
MAR	73	27	444	337	377	40	11.1	14.2	15.4	15.6	3.8	4.9	3.8	237	6008	67.7
APR	73	28	449	337	381	41	10.2	14.4	15.4	15.6	4.4	4.7	4.4	225	5743	67.8
MAY	73	29	440	341	385	44	10.0	15.3	16.6	15.8	7.1	5.1	7.1	206	5306	68.1
JUN	73	30	409	351	389	38	10.2	14.0	15.1	15.4	7.5	4.8	7.5	217	5541	68.6
JUL	73	31	405	353	392	39	10.4	14.2	15.3	15.3	6.6	4.7	6.6	219	5574	69.0
AUG	73	32	414	352	392	40	10.4	14.4	15.7	15.6	7.4	5.3	7.4	228	5786	69.4
SEP	73	33	417	351	394	43	9.7	7.5	15.6	15.6	3.6	5.1	3.6	226	5740	69.5
OCT	73	34	427	345	386	41	11.1	13.3	15.5	16.6	6.1	4.5	6.1	229	5856	69.7
NOV	73	35	455	346	386	40	11.4	14.9	17.9	16.6	9.4	4.6	9.4	231	5912	69.9
DEC	73	36	473	341	382	41	11.5	16.5	20.2	20.4	7.2	5.5	7.2	235	6036	70.1

**MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL 3-3
FOR LAST THREE YEARS**

DATE	PUMP TIME	PUMP- AGE	RATE	WATER LEVEL	DRAW DOWN	SPEC CAP- ACITY	PERCENT OF FIELD PUMP	PERCENT OF TOTAL PUMP	YEARLY AVERAGE PUMP	CONJUGATIVE PUMP
MO	YR	HR	THSND GAL	GPM	FT	FT	TIME AGE	TIME AGE	THSND GPM	THSND GAL
JAN	71	143	3033	353	326	413	16.3	13.6	12.3	61.1
FEB	71	111	2310	347	325	409	16.2	13.2	12.3	61.3
MAR	71	231	4700	339	327	413	17.1	13.7	12.2	61.5
APR	71	321	6341	329	339	419	18.1	14.1	11.8	61.8
MAY	71	459	8519	309	350	431	17.0	14.3	11.5	62.3
JUN	71	655	11574	295	360	435	16.5	12.8	11.3	62.9
JUL	71	418	7643	305	366	432	16.0	12.1	11.3	63.3
AUG	71	316	6799	359	350	430	16.1	12.2	11.4	63.7
SEP	71	256	4841	315	345	429	16.1	12.4	12.0	63.9
OCT	71	142	2785	327	341	426	14.5	11.9	14.1	64.1
NOV	71	140	2772	330	336	424	16.6	13.2	13.2	64.2
DEC	71	145	2858	329	334	421	16.7	13.2	13.2	64.3
JAN	72	153	3000	327	334	421	16.7	13.1	13.1	64.5
FEB	72	126	2494	330	333	421	16.2	12.9	11.3	64.6
MAR	72	173	3433	331	331	420	15.2	12.2	11.4	64.8
APR	72	16	6151	313	339	426	14.5	11.4	11.3	65.1
MAY	72	514	8989	291	354	431	14.5	11.0	10.8	65.6
JUN	72	357	6052	283	357	431	13.9	10.1	10.5	66.0
JUL	72	303	5330	293	350	426	14.3	10.7	10.7	66.3
AUG	72	20	5402	293	347	422	13.9	10.5	10.8	66.6
SEP	72	21	2856	292	342	416	14.3	10.6	10.6	66.9
OCT	72	22	2505	278	339	415	12.7	8.9	10.1	67.1
NOV	72	23	2547	295	334	408	14.3	10.6	10.6	67.2
DEC	72	24	2109	293	334	411	14.3	10.6	10.6	67.3
JAN	73	25	2343	296	332	409	14.0	10.4	10.3	67.5
FEB	73	26	2436	288	332	407	14.3	10.4	10.3	67.6
MAR	73	27	2297	304	329	409	14.2	10.5	10.7	67.8
APR	73	28	3374	306	331	412	13.9	10.4	10.7	67.9
MAY	73	29	2288	298	333	413	17.0	5.1	10.7	68.1
JUN	73	30	6633	276	347	428	14.5	10.6	9.9	68.4
JUL	73	31	5205	262	361	434	14.3	9.9	9.9	68.7
AUG	73	32	6669	265	353	425	14.4	10.1	9.9	69.2
SEP	73	33	4747	267	356	429	15.4	10.8	10.0	69.5
OCT	73	34	3921	276	347	416	14.6	10.3	10.0	69.7
NOV	73	35	2740	278	338	419	15.0	11.0	10.2	69.9
DEC	73	36	2696	277	337	417	16.4	11.8	11.9	70.0

**MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL 3-4
FOR LAST THREE YEARS**

DATE	PUMP TIME	PUMP- AGE	RATE	WATER		DRAW DOWN	SPEC CAP- ACITY	PERCENT OF FIELD		PERCENT OF TOTAL		YEARLY AVERAGE		CUMULATIVE	
				NON PUMP	PUMP			PUMP- AGE	PUMP- RATE	PUMP- AGE	PUMP- RATE	THSND	GAL	THSND	GAL
MO	YR		GPM	FT	FT	GPM/	FT					HR	GAL	HR	GAL
JAN	71	55	216	377	487	2.0	6.3	3.2	7.6	2.4	2.4	54	682	41.5	704.1
FEB	71	22	286	378	484	2.0	3.2	1.6	7.7	1.2	2.5	55	692	41.6	704.6
MAR	71	32	408	378	489	1.9	5.2	1.2	7.6	1.0	2.4	56	707	41.6	704.8
APR	71	93	1196	387	498	1.9	5.2	2.7	7.7	2.5	2.4	61	775	41.7	706.0
MAY	71	5	229	394	505	2.1	12.8	8.0	8.5	6.5	2.6	82	1055	42.0	710.7
JUN	71	6	203	404	520	1.8	8.2	4.4	7.8	4.1	1.6	99	1255	42.4	714.7
JUL	71	7	185	405	517	1.6	6.7	3.1	6.9	3.3	1.1	98	1235	42.5	716.6
AUG	71	8	162	397	518	1.8	6.4	2.4	7.9	3.2	1.2	103	1302	42.7	718.2
SEP	71	10	762	392	512	1.8	3.8	2.0	8.1	1.6	2.5	105	1332	42.7	719.0
OCT	71	19	1568	389	506	1.8	12.4	6.7	9.3	4.4	1.6	114	1454	42.8	720.6
NOV	71	11	1892	384	505	1.8	16.9	9.0	8.9	5.9	2.1	126	1612	43.0	722.4
DEC	71	12	1915	380	499	1.8	16.7	8.9	8.8	6.4	2.3	137	1750	43.1	724.4
JAN	72	13	220	380	499	1.8	16.7	8.7	8.7	6.5	2.5	145	1858	43.3	726.4
FEB	72	14	214	380	500	1.8	15.6	8.0	7.3	5.7	2.3	153	1963	43.4	727.9
MAR	72	15	166	378	496	1.8	14.4	7.6	7.5	5.5	1.9	164	2109	43.6	730.1
APR	72	16	177	390	504	1.6	14.5	6.5	6.4	7.2	2.0	184	2299	43.9	733.6
MAY	72	17	183	404	517	1.6	14.5	6.9	6.8	8.2	2.2	198	2372	44.4	739.2
JUN	72	18	191	404	515	1.7	13.4	6.6	7.1	6.2	2.2	200	2372	44.8	743.1
JUL	72	19	3480	405	512	1.8	14.3	7.0	7.0	6.7	2.2	210	2501	45.1	746.6
AUG	72	20	3742	401	507	1.8	14.4	7.2	7.2	7.0	2.4	226	2677	45.4	750.4
SEP	72	21	196	401	504	1.9	14.3	7.1	7.1	6.4	2.1	235	2774	45.5	752.3
OCT	72	22	200	389	500	1.8	13.6	7.0	7.2	5.7	1.9	239	2807	45.7	754.2
NOV	72	23	218	382	514	1.7	14.3	7.8	7.8	6.4	2.2	239	2806	45.8	756.1
DEC	72	24	216	384	510	1.7	14.3	7.6	7.8	6.4	2.2	237	2776	46.0	757.7
JAN	73	25	218	380	509	1.7	14.0	7.7	7.9	5.6	1.9	235	2753	46.1	759.4
FEB	73	26	224	380	512	1.7	14.2	8.0	8.0	5.2	2.4	237	2782	46.2	761.3
MAR	73	27	221	380	517	1.7	14.2	7.7	7.8	5.4	2.4	233	2742	46.4	763.0
APR	73	28	222	381	515	1.7	14.2	7.7	7.8	5.4	2.4	222	2660	46.6	765.5
MAY	73	29	210	384	511	1.7	15.7	8.1	7.5	7.2	2.5	222	2660	46.6	765.5
JUN	73	30	203	400	520	1.7	14.2	7.6	7.6	7.2	2.4	216	2679	46.8	769.1
JUL	73	31	204	407	538	1.6	14.3	7.7	7.7	6.7	2.4	219	2727	47.4	775.3
AUG	73	32	201	406	532	1.6	14.1	7.5	7.6	6.7	2.3	219	2727	47.7	779.3
SEP	73	33	202	405	528	1.6	15.5	8.2	7.6	7.2	2.5	226	2827	48.1	784.3
OCT	73	34	200	397	518	1.6	15.5	8.2	7.6	7.3	2.6	238	2968	48.4	787.9
NOV	73	35	178	390	519	1.6	14.5	7.8	6.5	6.6	2.1	243	3037	48.6	790.7
DEC	73	36	222	390	534	1.4	16.7	9.8	9.6	7.2	2.7	246	3043	48.8	792.6
		168	2239	390	534	1.5	17.0	9.8	9.6	7.5	2.8	250	3099	49.0	794.9

**MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL G-5
FOR LAST THREE YEARS**

DATE	PUMP TIME	PUMP- AGE	RATE	WATER LEVEL	DRAW DOWN	SPEC CAP- ACITY	PERCENT OF FIELD		PERCENT OF TOTAL	YEARLY AVERAGE		CUMULATIVE
							PUMP TIME	PUMP- AGE		PUMP- TIME	PUMP- AGE	PUMP- TIME
MO	YR	THSND GAL	GPM	NON PUMP FT	PUMP FT	FT				HR	GAL	THSND GAL
JAN	71	143	553	450	518	68	16.3	21.3	19.3	229	7370	55.6 1805.3
FEB	71	110	550	449	516	67	16.1	20.7	19.5	225	7253	55.7 1808.9
MAR	71	331	543	451	519	68	17.1	21.9	19.5	232	7474	55.9 1816.5
APR	71	4	551	458	525	67	17.6	23.1	19.8	237	7684	56.2 1826.8
MAY	71	37	527	460	531	71	1.4	2.0	19.6	207	6741	56.3 1828.0
JUN	71	453	528	466	537	71	11.4	15.9	20.3	207	6741	56.3 1828.0
JUL	71	369	648	463	538	75	14.1	22.7	24.1	207	6725	56.7 1842.4
AUG	71	313	546	442	517	75	16.0	21.5	20.0	215	7218	57.1 1856.7
SEP	71	8200	516	435	511	76	16.6	21.8	19.7	222	7400	57.4 1867.0
OCT	71	4578	537	445	516	71	14.5	19.6	23.2	221	7346	57.7 1875.2
NOV	71	4533	544	444	512	68	16.5	21.6	21.8	220	7318	57.8 1879.7
DEC	71	4642	545	443	511	68	16.4	21.5	21.8	220	7318	57.9 1884.3
JAN	72	153	539	441	512	71	7.6	16.7	21.6	221	7362	58.1 1888.9
FEB	72	124	543	442	512	70	16.0	20.9	18.5	222	7379	58.2 1893.9
MAR	72	15	535	440	511	71	15.1	19.6	18.5	223	7413	58.4 1897.9
APR	72	328	533	439	515	76	14.5	19.5	19.2	218	7466	58.5 1903.4
MAY	72	17	515	448	515	67	14.7	19.7	19.1	220	7527	58.9 1913.9
JUN	72	378	523	444	517	73	14.7	19.7	19.4	254	8296	59.4 1930.1
JUL	72	19	531	439	516	77	6.9	19.5	19.5	248	7806	59.8 1941.9
AUG	72	20	528	446	517	71	14.4	19.6	19.4	249	7894	60.1 1951.6
SEP	72	21	537	443	515	72	14.3	19.5	19.5	249	7894	60.4 1961.7
OCT	72	174	544	441	516	75	14.3	19.5	19.5	240	7648	60.5 1965.9
NOV	72	23	543	437	514	77	14.7	20.1	19.7	243	7740	60.7 1972.6
DEC	72	24	546	437	510	73	14.5	19.7	19.5	244	7758	60.9 1977.4
JAN	73	120	545	437	510	73	14.3	19.7	19.7	242	7699	61.0 1981.3
FEB	73	132	545	437	506	69	14.0	19.3	19.7	240	7646	61.1 1985.6
MAR	73	26	545	437	504	67	14.3	19.6	19.6	241	7694	61.3 1990.2
APR	73	132	556	437	508	71	14.8	20.2	19.5	241	7694	61.4 1994.6
MAY	73	188	555	436	509	73	14.2	20.2	19.5	238	7601	61.4 1994.6
JUN	73	29	540	439	514	75	15.7	20.9	19.4	226	7248	61.6 2000.9
JUL	73	31	528	452	526	74	14.3	19.9	19.9	207	6683	61.9 2010.3
AUG	73	32	535	453	530	77	14.3	20.2	20.2	218	7052	62.4 2026.5
SEP	73	418	537	451	524	73	14.4	20.3	20.2	221	7132	62.7 2037.2
OCT	73	296	539	451	527	76	15.4	21.9	20.1	229	7412	63.1 2050.6
NOV	73	233	546	446	517	71	14.4	21.1	19.9	240	7771	63.4 2060.2
DEC	73	166	551	444	511	67	14.9	21.7	20.2	245	7933	63.7 2073.8
			557	443	507	64	16.8	24.2	24.0	246	7986	63.8 2073.8
										250	8121	64.0 2078.7

MONTHLY PUMPING AND PRODUCTION STATISTICS

FOR WELL 3-6
FOR LAST THREE YEARS

DATE	PUMP TIME	PUMP- AGE	RATE	WATER LEVEL		DRAW DOWN	SPEC CAP- ACITY	PERCENT OF FIELD PUMP TIME	PERCENT OF TOTAL PUMP TIME	YEARLY AVERAGE PUMP TIME	AVERAGE RATE	CUMULATIVE PUMP TIME						
				NON PUMP	PUMP								THSND GAL	THSND GAL	THSND GAL	THSND GAL		
MO YR	HR		GPM	FT	FT	FT	FT				GPM	HR	GAL					
JAN 71	143	2509	292	562	625	63	4.6	16.3	11.3	10.2	6.8	3.1	3.2	230	4215	305	19.7	435.3
FEB 71	2	1895	287	562	620	58	5.0	16.1	10.8	10.2	6.1	2.6	3.3	225	4098	303	19.8	437.2
MAR 71	3	3885	280	564	627	63	4.4	17.1	11.3	10.1	7.4	3.4	3.1	232	4173	300	20.0	441.1
APR 71	4	5372	275	573	630	57	4.8	18.3	12.0	9.9	8.4	4.0	3.0	238	4231	296	20.4	446.4
MAY 71	5	7265	262	580	635	55	4.8	17.1	12.2	9.8	8.7	4.3	3.0	244	4227	299	20.8	453.7
JUN 71	6	8420	237	589	644	55	4.5	14.9	9.3	9.1	7.5	3.3	2.8	255	4234	277	21.4	462.1
JUL 71	7	4565	210	590	642	52	4.0	13.8	7.2	7.8	6.9	2.6	2.4	255	4174	266	21.8	466.7
AUG 71	8	4068	220	582	631	49	4.5	15.7	8.5	8.1	7.8	2.9	2.5	263	4073	259	22.1	470.7
SEP 71	9	3052	198	577	623	46	4.3	16.1	8.1	7.6	6.8	2.3	2.3	269	4052	251	22.3	473.6
OCT 71	10	1789	211	571	617	46	4.6	14.4	7.6	9.1	5.4	1.8	2.5	268	3973	247	22.5	475.6
NOV 71	11	-0	0	566	-0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	255	3755	245	22.5	475.6
DEC 71	12	-0	0	562	-0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	244	3568	243	22.5	475.6
JAN 72	13	-0	0	-0	-0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	232	3359	241	22.5	475.6
FEB 72	14	784	451	564	647	83	5.4	3.7	4.0	15.4	1.4	0.9	4.9	226	3267	241	22.5	475.6
MAR 72	15	108	438	562	665	102	4.3	9.5	10.1	15.2	3.4	2.5	4.9	215	3180	246	22.6	479.2
APR 72	16	298	406	575	675	100	4.1	13.2	13.5	14.6	6.6	4.7	4.6	213	3336	241	22.9	486.5
MAY 72	17	494	376	594	686	92	4.1	13.9	13.6	13.9	7.9	5.5	4.6	216	3660	243	23.4	497.6
JUN 72	18	364	367	587	679	92	4.0	14.1	13.3	13.6	6.6	4.4	4.0	197	3626	307	23.8	505.6
JUL 72	19	6612	344	590	681	91	4.0	14.3	13.6	13.4	7.0	4.5	4.2	192	3796	330	24.1	512.2
AUG 72	20	7021	347	586	677	91	4.0	14.4	13.6	13.4	7.0	4.5	4.2	193	4042	350	24.4	519.3
SEP 72	21	3588	367	578	673	95	3.9	14.3	13.3	13.3	6.4	3.8	4.2	185	4087	368	24.6	522.8
OCT 72	22	3858	370	574	665	91	4.1	14.7	13.7	13.4	6.4	3.8	4.2	188	4259	378	24.7	526.7
NOV 72	23	144	3201	370	571	86	4.3	14.3	13.3	13.3	6.4	3.8	4.1	200	4526	378	24.9	529.9
DEC 72	24	120	2676	372	571	680	84	4.2	14.0	13.4	13.4	5.6	3.3	210	4749	378	25.0	532.6
JAN 73	25	132	2708	342	567	654	87	3.9	14.0	12.1	12.4	5.2	2.9	221	4975	376	25.1	535.3
FEB 73	26	141	3056	361	567	649	82	4.4	14.3	13.0	13.0	6.4	3.7	230	5164	374	25.3	538.3
MAR 73	27	126	2873	380	569	657	88	4.3	14.2	13.2	13.3	5.4	3.2	231	5167	372	25.4	541.2
APR 73	28	188	4273	379	569	662	93	4.1	14.2	13.2	13.3	6.3	3.9	222	4919	369	25.6	545.5
MAY 73	29	288	6210	359	573	664	91	3.9	15.7	13.8	12.9	7.2	4.3	205	4507	366	25.9	551.7
JUN 73	30	308	10720	352	592	681	89	4.0	14.1	13.1	13.3	7.4	4.8	217	4733	363	26.4	562.4
JUL 73	31	332	1173	360	598	683	85	4.2	14.3	13.7	13.6	7.4	4.7	220	4780	363	26.7	569.6
AUG 73	32	419	9063	361	592	677	85	4.2	14.4	13.7	13.5	7.4	4.6	228	4950	362	27.1	578.7
SEP 73	33	296	6487	365	591	681	90	4.1	15.4	13.6	13.6	7.3	4.8	239	5191	362	27.4	585.1
OCT 73	34	232	5178	372	581	671	90	4.1	14.3	13.6	13.6	6.4	3.9	244	5301	362	27.7	590.3
NOV 73	35	163	3703	379	577	668	91	4.2	14.9	13.9	13.9	6.4	3.8	245	5343	363	27.8	594.0
DEC 73	36	166	3844	386	577	660	83	4.6	16.8	16.8	16.6	7.4	4.6	249	5441	364	28.0	597.8

MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL PM-1
FOR LAST THREE YEARS

DATE		PUMP TIME	PUMP-AGE	RATE	WATER LEVEL		DRAW DOWN	SPEC CAP-ACITY	PERCENT OF FIELD		PERCENT OF TOTAL		YEARLY AVERAGE		CUMULATIVE	
MO	YR	HR	THSND GAL	GPM	NON PUMP	PUMP	FT	GPM/FT	PUMP TIME	PUMP-AGE	PUMP TIME	PUMP-AGE	PUMP TIME	PUMP-AGE	THSND	HR
JAN	71	1	4438	672	729	764	35	19.2	20.5	11.3	19.8	5.2	5.4	5884	622	13.4
FEB	71	2	7656	668	731	768	37	18.1	32.2	18.9	19.6	10.5	10.4	158	627	13.6
MAR	71	3	9847	586	731	765	34	17.2	35.7	18.2	17.7	9.0	8.7	173	622	13.9
APR	71	4	7040	590	732	765	33	17.9	26.3	13.3	17.9	5.3	5.3	197	616	14.1
MAY	71	5	8352	575	735	764	29	19.8	27.0	13.5	17.5	4.6	4.9	192	7101	14.1
JUN	71	6	13143	622	735	766	31	20.1	27.1	14.7	18.7	4.4	5.2	197	7176	14.3
JUL	71	7	12657	610	738	771	33	18.5	31.6	17.3	18.6	6.6	7.1	199	7315	14.7
AUG	71	8	9469	616	735	766	31	19.9	29.9	16.2	18.6	6.5	6.8	201	7427	15.0
SEP	71	9	10001	615	738	767	29	21.2	30.8	16.9	18.7	7.2	7.5	222	8214	15.3
OCT	71	10	7037	659	733	765	32	20.6	26.6	16.9	18.7	6.4	7.1	229	8478	15.5
NOV	71	11	5601	635	733	766	33	19.2	23.7	12.5	19.0	6.1	6.1	232	8622	15.7
DEC	71	12	5769	616	732	765	33	18.7	24.2	15.1	18.5	6.9	6.9	232	8646	15.9
JAN	72	13	5467	696	730	765	35	1.9	21.2	12.0	20.4	5.6	6.3	227	8417	16.0
FEB	72	14	5600	697	731	765	34	20.5	22.3	12.7	20.4	6.3	6.6	229	8503	16.1
MAR	72	15	6170	681	728	764	36	18.9	19.8	11.0	20.2	5.8	5.3	224	8332	16.3
APR	72	16	8590	573	734	763	29	19.7	27.9	14.0	17.5	5.5	5.6	214	8035	16.4
MAY	72	17	13568	581	738	765	27	21.5	32.6	17.3	17.7	6.2	6.7	218	8155	16.7
JUN	72	18	11628	577	736	767	31	18.6	32.3	16.9	17.6	6.1	6.4	230	8589	17.1
JUL	72	19	9256	578	738	767	29	19.9	25.4	12.6	17.6	5.9	5.8	229	8463	17.4
AUG	72	20	9199	568	741	764	23	24.7	27.6	13.7	17.4	5.9	5.9	222	8180	17.7
SEP	72	21	3972	543	737	757	20	24.1	20.2	9.1	16.7	4.8	4.3	223	8157	17.9
OCT	72	22	4398	502	737	757	20	25.1	23.1	9.9	15.6	5.1	4.3	211	7655	18.1
NOV	72	23	3797	575	735	757	22	26.2	19.6	9.3	17.5	4.0	4.5	208	7435	18.2
DEC	72	24	3294	504	735	758	23	21.9	20.5	8.6	15.6	4.0	4.5	205	7284	18.3
JAN	73	25	4273	579	735	758	23	25.2	20.6	9.9	17.5	5.1	4.5	201	7078	18.6
FEB	73	26	3595	576	735	758	23	26.0	20.1	9.6	17.5	4.7	4.4	198	6812	18.7
MAR	73	27	4146	576	735	758	23	26.0	20.9	10.0	17.5	5.1	4.7	195	6643	18.7
APR	73	28	2862	507	735	754	19	30.7	15.0	6.2	15.8	3.1	2.6	182	6166	18.8
MAY	73	29	4526	460	734	749	15	30.7	18.5	7.1	14.5	4.1	3.1	164	5412	18.9
JUN	73	30	7177	443	737	755	18	26.6	15.5	6.4	14.1	4.0	3.2	158	5041	19.0
JUL	73	31	4242	429	737	754	17	25.2	15.5	5.5	13.7	3.3	2.4	144	4267	19.3
AUG	73	32	4922	414	735	753	18	23.0	16.4	5.7	13.3	3.5	2.5	150	4624	19.5
SEP	73	33	9557	405	740	755	15	27.0	32.5	16.3	13.1	9.6	7.0	144	4267	19.7
OCT	73	34	1242	363	739	756	17	21.4	7.3	2.1	11.9	1.6	1.9	166	4733	20.1
NOV	73	35	-0	0	-0	-0	0	0.0	0.0	0.0	0.0	0.0	0.0	159	4470	20.1
DEC	73	36	-0	0	-0	-0	0	0.0	0.0	0.0	0.0	0.0	0.0	150	4153	20.1
														141	3879	20.1
																20.1

MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL PM-2
FOR LAST THREE YEARS

DATE	MO	YR	PUMP TIME	PUMP- AGE	RATE	WATER LEVEL	DRAW DOWN	SPEC CAP- ACITY	PERCENT OF PUMP TIME	FIELD RATE	PERCENT OF TOTAL PUMP TIME	TOTAL PUMP- RATE	YEARLY AVERAGE PUMP TIME	PUMP- AGE	RATE	CUMULATIVE PUMP TIME
			HR	THSND GAL	GPM	NON PUMP FT	FT	GPY/ FT	AGE	AGE	AGE	AGE	THSND GAL	THSND GAL	THSND GAL	THSND GAL
JAN 71			1	210	17888	1420	838	24.9	39.1	45.4	10.0	21.8	294	25448	1420	15.5
FEB 71			2	191	16311	1423	837	24.5	32.2	40.2	10.5	22.2	293	24993	1420	15.7
MAR 71			3	311	26415	1416	839	24.8	39.7	51.4	10.6	23.3	301	25655	1420	16.0
APR 71			4	353	29811	1408	842	26.1	46.6	56.5	9.3	22.3	311	26455	1419	16.3
MAY 71			5	371	33354	1409	842	25.2	41.4	50.8	7.0	18.6	312	26512	1418	16.7
JUN 71			6	460	38806	1406	844	25.6	35.4	43.3	5.4	15.2	316	26812	1416	17.2
JUL 71			7	452	37564	1395	844	23.9	41.3	51.4	4.6	16.1	321	27189	1412	17.6
AUG 71			8	393	32877	1394	842	24.0	45.9	54.1	9.9	23.6	322	27220	1409	18.0
SEP 71			9	366	30543	1391	842	23.6	41.6	51.6	9.7	22.8	325	27431	1405	18.4
OCT 71			10	363	30466	1399	842	24.2	54.3	64.2	13.4	31.0	330	27789	1405	18.7
NOV 71			11	349	29333	1401	842	24.2	39.0	47.4	14.5	31.8	336	28287	1403	19.1
DEC 71			12	216	18163	1401	841	24.2	36.5	44.2	14.9	32.1	336	28287	1403	19.3
JAN 72			13	350	29398	1400	843	24.6	56.5	64.3	14.9	32.9	348	29253	1401	19.6
FEB 72			14	331	27835	1402	841	23.8	50.0	62.9	15.5	32.9	360	30214	1400	20.0
MAR 72			15	386	32393	1399	844	24.1	50.5	57.8	12.4	28.1	366	30712	1399	20.4
APR 72			16	404	31755	1393	844	24.0	45.1	54.9	8.9	22.0	370	31441	1398	20.8
MAY 72			17	397	33189	1393	844	24.0	33.3	42.3	6.3	14.3	372	31793	1397	21.2
JUN 72			18	404	33654	1388	844	23.9	39.8	48.9	7.3	14.4	368	30764	1395	21.6
JUL 72			19	544	45435	1392	847	25.3	51.8	61.8	12.0	28.4	375	31420	1396	22.1
AUG 72			20	438	36456	1387	847	25.9	44.7	54.3	9.4	23.2	379	31618	1395	22.5
SEP 72			21	360	30044	1391	845	24.0	59.6	64.9	14.1	32.2	378	31677	1395	22.9
OCT 72			22	339	28344	1394	844	24.0	53.7	63.9	11.9	27.6	376	31500	1394	23.2
NOV 72			23	332	27692	1390	847	25.3	61.3	71.0	14.9	32.5	375	31564	1394	23.6
DEC 72			24	326	27087	1385	848	25.9	61.3	71.0	15.2	33.5	384	32107	1393	23.9
JAN 73			25	325	27097	1390	847	24.4	54.5	62.7	12.4	24.5	382	31915	1392	24.2
FEB 73			26	277	23170	1394	847	24.5	53.6	61.7	12.4	29.1	378	31527	1391	24.5
MAR 73			27	325	27198	1395	848	24.9	56.6	65.5	13.4	30.6	373	31654	1391	24.8
APR 73			28	334	27862	1390	847	24.5	53.4	60.0	11.9	25.5	367	30823	1391	25.2
MAY 73			29	356	29829	1396	848	24.5	40.2	47.1	8.9	17.8	363	30603	1391	25.5
JUN 73			30	476	39602	1387	850	23.9	38.5	44.2	9.7	17.8	364	30818	1391	26.0
JUL 73			31	484	40146	1382	850	23.4	45.6	52.1	8.7	22.9	369	30754	1389	26.3
AUG 73			32	494	40974	1382	851	23.4	40.9	47.2	9.4	23.5	371	30918	1389	26.7
SEP 73			33	385	32012	1385	851	23.5	38.7	54.6	12.5	27.8	379	31042	1388	27.4
OCT 73			34	440	36560	1385	850	23.5	56.3	60.6	14.5	31.7	383	31687	1387	28.0
NOV 73			35	369	30632	1384	849	23.1	65.3	66.5	14.5	31.7	383	31687	1387	28.2
DEC 73			36	306	25469	1387	850	23.5	65.4	66.6	13.6	30.2	381	31713	1388	28.5

MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL PM-3
FOR LAST THREE YEARS

OATE	MO	YR	PUMP TIME	RATE	WATER LEVEL	DRAW DOWN	SPEC CAP- ACITY	PERCENT OF FIELD PUMP	PERCENT OF TOTAL PUMP	YEARLY AVERAGE PUMP	CUMULATIVE PUMP
			HR	GPM	FT	FT	GPM/	AGE	AGE	THSND	THSND
JAN	71	1	217	1309	750	773	56.9	40.4	10.3	19002	8.7
FEB	71	2	211	1312	750	773	57.0	35.6	11.6	19070	8.9
MAR	71	3	193	1304	750	774	54.3	24.6	6.2	18672	9.1
APR	71	4	205	1291	751	773	54.3	27.1	5.4	18672	9.3
MAY	71	5	283	1299	751	774	56.5	31.6	5.3	18442	9.3
JUN	71	6	486	1292	753	775	58.7	37.4	6.1	17704	9.6
JUL	71	7	296	1248	753	776	56.0	27.1	5.6	17476	10.1
AUG	71	8	207	1264	750	776	50.4	24.2	5.2	18844	10.4
SEP	71	9	242	1287	751	776	51.5	27.5	6.4	17902	10.6
OCT	71	10	128	1300	750	773	56.5	19.1	4.9	18227	10.8
NOV	71	11	124	1311	750	773	57.0	20.0	5.2	18221	10.9
DEC	71	12	182	1314	750	773	57.1	32.9	8.0	18221	11.1
JAN	72	1	138	1310	750	773	57.0	22.3	5.9	18225	11.2
FEB	72	2	137	1317	750	773	57.3	22.8	6.4	17509	11.4
MAR	72	3	227	1285	751	774	55.9	29.7	7.5	17027	11.5
APR	72	4	242	1315	751	775	54.8	27.0	7.5	17227	11.7
MAY	72	5	406	1303	753	777	54.3	34.1	5.3	17227	12.0
JUN	72	6	300	1305	753	776	56.7	28.8	6.5	17117	12.4
JUL	72	7	240	1309	753	776	56.9	22.8	5.3	17117	12.7
AUG	72	8	272	1317	753	776	57.3	27.8	5.3	16782	12.9
SEP	72	9	122	1309	753	774	57.3	20.2	4.0	17217	13.2
OCT	72	10	146	1322	753	775	62.3	23.1	4.8	16458	13.3
NOV	72	11	118	1319	753	773	60.9	23.1	5.1	16592	13.5
DEC	72	12	97	1332	753	774	65.9	21.1	5.3	16557	13.6
JAN	73	1	148	1333	753	776	63.4	18.2	4.5	16008	13.7
FEB	73	2	136	1319	753	776	57.9	24.8	5.8	16090	13.8
MAR	73	3	129	1318	753	776	57.4	26.3	6.1	16090	14.0
APR	73	4	198	1322	753	776	57.3	22.5	5.5	16085	14.1
MAY	73	5	365	1322	753	776	57.3	31.6	6.6	15477	14.3
JUN	73	6	491	1320	755	780	57.5	39.7	7.3	15195	14.7
JUL	73	7	413	1320	756	780	55.0	38.9	7.3	14963	15.2
AUG	73	8	516	1320	756	781	52.8	42.7	8.3	14748	15.6
SEP	73	9	217	1312	756	779	57.1	42.7	9.1	14748	15.8
OCT	73	10	285	1320	755	780	52.8	36.4	8.1	14748	16.1
NOV	73	11	196	1315	755	778	57.2	34.7	7.7	14748	16.6
DEC	73	12	162	1313	755	778	57.1	34.6	7.2	21487	16.8

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