MAGMA ELECTRIC CO.

P.O. Box 56
HOLTVILLE, CALIFORNIA 92250
(619) 356-4635

EAST MESA PLANT

February 4, 1987

FROM: M. B. Pierce
Magma Electric Co.
Plant Superintendent

TO: A. W. Hoch, President
Magma Power Co.

SUBJECT: Monthly Status Report
January 1987

I. Status

The facility has been on line 98.4 percent of the month with gross generation of 7098 Megawatt hours and sales of 4095 Megawatt hours. The average brine flow has been 1.298 M lbs/hr at 349°F (2,920 gpm).

II. Major Operating Events

20 Jan. High winds blew over two IID 34.5 KV structures approximately 3 miles west of the facility. This resulted in total down time of 12.2 hours for the month.

III. Production Well Highlights

20 Jan. Well #48-7 was unable to restart after the power outage. Pump and down hole equipment was pulled for inspection and repairs.

26 Jan. Work was completed on Well #83-7. It was put into service with an average flow of 156 K lbs/hr.

IV. PROBLEMS & SOLUTIONS

Work has began on the control or possible elimination of scale production in Well #48-7, with cooperation from Nalco and Betz.

Fastener problems have developed in the downhole pump application. Metallurgical consultants at Dow Chemicals' Plant Technical Services have become involved in the analysis

of this problem as well as vendor sources.

Sincerely,

M. B. Pierce

Michael B. Pierce
Plant Superintendent

CC: A. W. Hoch
B.C. McCabe
Jim Shepard
April Taylor
Joe Aidlin
T.C. Hinrichs
R.L. Tenney
Buck McCabe
Ed Zajac
G.K. Crane
Sean Hagerty
A.L. Johnson
Paul M. Pankratz
J.M. Leathers
R.L. Walzel
Fred Teeters
S.G. Stiger
P.M. Wright
Marcelo Lipmann
Richard E. Corbaley

PLANT JAN 87	BRINE FLOW LBS/HR	TEMP IN DEGREES	TEMP OUT DEGREES F	GROSS MW DAY	NET MW DAY	HOURS DAY	COOLING H2O DEGREES F	COND PRESS	WET BULB DEGREES F	HEAT RATE LBS/KW	PLANT EFF.	TURBINE IN DEGREES F.	TURBINE OUT DEGREES F.
1	1359667	350	157	252	150	24.0	57.3	42.0	47.0	129.5	13.7	309	163
2	1350000	350	157	252	150	24.0	59.0	42.0	50.3	128.6	13.8	300	163
3	1347000	350	157	252	148	24.0	59.3	42.3	47.3	128.3	13.8	302	161
4	1340333	350	156	252	150	24.0	59.0	42.0	48.7	127.7	13.8	301	160
5	1341667	350	156	252	148	24.0	59.3	42.3	52.0	127.8	13.8	300	158
6	1344000	350	158	252	147	24.0	59.0	41.7	49.0	128.0	13.9	301	158
7	1345667	350	159	238	146	24.0	50.3	41.0	49.0	135.7	13.2	303	157
8	1345000	350	160	252	145	24.0	58.0	40.0	45.7	128.1	14.6	303	161
9	1340000	350	159	252	147	24.0	57.0	39.7	43.1	127.6	14.0	303	157
10	1320000	350	156	238	145	24.0	54.3	39.7	42.7	133.1	13.2	302	156
11	1324667	350	156	252	147	24.0	54.0	39.7	43.3	126.2	13.9	302	158
12	1321667	350	156	238	147	24.0	54.0	40.0	45.3	133.3	13.2	303	159
13	1321000	350	158	266	146	24.0	55.3	40.0	44.7	119.2	14.9	302	159
14	1325333	350	158	238	144	24.0	56.7	40.0	44.3	133.6	13.3	302	159
15	1321000	350	157	238	146	24.0	54.0	39.7	40.3	133.2	13.3	303	159
16	1318000	350	156	252	147	24.0	52.7	38.7	37.7	129.5	14.0	304	159
17	1317000	350	155	252	149	24.0	51.3	37.0	36.3	128.4	14.0	304	157
18	1315333	350	152	252	151	24.0	50.7	36.7	38.3	125.3	13.8	303	155
19	1313000	350	152	252	150	24.0	51.3	37.0	43.3	126.0	13.8	303	156
20	673333	350	152	84	41	11.8	52.0	37.7	46.0	94.6	18.2	303	159
21	1053333	349	155	196	99	24.0	49.7	31.3	41.0	129.0	13.6	304	160
22	1054333	349	155	196	104	24.0	50.7	32.3	44.6	129.1	13.6	305	158
23	1057333	349	155	196	105	24.0	52.3	33.7	49.0	129.5	13.6	305	157
24	1061000	349	154	196	104	24.0	52.7	35.3	48.7	129.9	13.5	305	157
25	1059000	349	154	196	103	24.0	54.3	36.3	47.7	129.7	13.5	305	158
26	1106333	349	156	210	114	24.0	54.7	38.3	50.7	124.4	14.9	305	157
27	1175667	348	158	210	120	24.0	58.0	40.7	56.0	134.4	13.4	302	154
28	1202333	348	157	224	127	24.0	60.0	42.5	56.0	126.6	13.9	302	154
29	1203000	348	157	210	125	24.0	61.0	43.3	60.7	137.5	13.0	301	154
30	1195000	348	155	224	125	24.0	60.3	43.3	58.0	128.0	13.8	300	154
31	1193333	348	156	224	125	24.0	59.3	42.7	59.7	127.9	13.9	300	153
AVERAGE	1236914	349	156	229	132		56	39	47	127.9	13.8	303	158
TOTAL	905173618			7098	4095	731.8							

ON LINE PERCENTAGE = 98.36%
PEAK PERIOD AVERAGE = 5.37
MID PEAK AVERAGE = 5.63
OFF PEAK AVERAGE = 5.38

MEGAWATTS JAN 87	PEAK PER DAY	MID PEAK PER DAY	OFF PEAK PER DAY	PEAK AVERAGE	MID PEAK AVERAGE	OFF PEAK AVERAGE	TOTAL PER DAY	AVERAGE PER HOUR
1			150	0.00	0.00	6.25	150	6.25
2	25	60	65	6.25	6.67	5.91	150	6.25
3			148	0.00	0.00	6.17	148	6.17
4			150	0.00	0.00	6.25	150	6.25
5	25	59	64	6.25	6.56	5.82	148	6.17
6	25	58	64	6.25	6.44	5.82	147	6.13
7	24	57	65	6.00	6.33	5.91	146	6.08
8	25	57	63	6.25	6.33	5.73	145	6.04
9	24	58	65	6.00	6.44	5.91	147	6.13
10			145	0.00	0.00	6.04	145	6.04
11			147	0.00	0.00	6.13	147	6.13
12	24	59	64	6.00	6.56	5.82	147	6.13
13	24	58	64	6.00	6.44	5.82	146	6.08
14	24	57	63	6.00	6.33	5.73	144	6.00
15	25	57	64	6.25	6.33	5.82	146	6.08
16	25	58	64	6.25	6.44	5.82	147	6.13
17			149	0.00	0.00	6.21	149	6.21
18			151	0.00	0.00	6.29	151	6.29
19	24	60	66	6.00	6.67	6.00	150	6.25
20	1	0	40	0.25	0.00	3.64	41	1.71
21	17	39	43	4.25	4.33	3.91	99	4.13
22	17	43	44	4.25	4.78	4.00	104	4.33
23	17	43	45	4.25	4.78	4.09	105	4.38
24			104	0.00	0.00	4.33	104	4.33
25			103	0.00	0.00	4.29	103	4.29
26	21	46	47	5.25	5.11	4.27	114	4.75
27	22	46	52	5.50	5.11	4.73	120	5.00
28	21	51	55	5.25	5.67	5.00	127	5.29
29	20	50	55	5.00	5.56	5.00	125	5.21
30	21	49	55	5.25	5.44	5.00	125	5.21
31			125	0.00	0.00	5.21	125	5.21
TOTAL	451	1065	2579				4095	
AVERAGE	21.5	50.7	83.2	5.37	5.63	5.38	132.1	5.50

PEAK EARNINGS	52451.00
MID PEAK	87928.50
OFF PEAK	153060.20
BONUS PAYMENT	3685.95
TOTAL	297125.65

POWER DATE JAN 87	SPRAYS PANEL 201	WELLS PANEL 202	TOSHIBA PANEL 203	KVA PANEL 204	ELEC BFP PANEL 206	GROSS MW PANEL 207	MW BOUGHT 31 DK METER	MW SOLD 31 K METER	DEMAND METER
1	14.0	25.2	37.8	4.2	24.5	252.0	0.0	150.0	0.0
2	14.0	21.0	33.6	2.8	24.5	252.0	0.0	150.0	0.0
3	14.0	25.2	33.6	2.8	24.5	252.0	0.0	148.0	0.0
4	14.0	21.0	33.6	4.2	24.5	252.0	0.0	150.0	0.0
5	14.0	25.2	37.8	2.8	24.5	252.0	0.0	148.0	0.0
6	14.0	21.0	33.6	4.2	24.5	252.0	0.0	147.0	0.0
7	14.0	25.2	33.6	2.8	28.0	238.0	0.0	146.0	0.0
8	14.0	21.0	33.6	2.8	24.5	252.0	0.0	145.0	0.0
9	12.6	25.2	37.8	4.2	24.5	252.0	0.0	147.0	0.0
10	16.8	21.0	33.6	2.8	24.5	238.0	0.0	145.0	0.0
11	12.6	25.2	33.6	2.8	24.5	252.0	0.0	147.0	0.0
12	12.6	21.0	33.6	4.2	24.5	238.0	0.0	147.0	0.0
13	14.0	21.0	33.6	2.8	24.5	266.0	0.0	146.0	0.0
14	14.0	25.2	37.8	2.8	24.5	238.0	0.0	144.0	0.0
15	14.0	21.0	33.6	4.2	24.5	238.0	0.0	146.0	0.0
16	15.4	25.2	33.6	2.8	24.5	252.0	0.0	147.0	0.0
17	14.0	25.2	33.6	4.2	24.5	252.0	0.0	149.0	0.0
18	14.0	21.0	37.8	2.8	28.0	252.0	0.0	151.0	0.0
19	14.0	25.2	33.6	4.2	24.5	252.0	0.0	150.0	0.0
20	8.4	8.4	21.0	1.4	7.0	84.0	10.0	41.0	2.2
21	15.4	21.0	33.6	4.2	21.0	196.0	0.0	99.0	2.2
22	14.0	16.8	33.6	2.8	28.0	196.0	0.0	104.0	2.2
23	14.0	12.6	33.6	2.8	24.5	196.0	0.0	105.0	2.2
24	15.4	16.8	33.6	4.2	24.5	196.0	0.0	104.0	2.2
25	14.0	12.6	33.6	2.8	24.5	196.0	0.0	103.0	2.2
26	14.0	16.8	33.6	2.8	24.5	210.0	0.0	114.0	2.2
27	14.0	12.6	33.6	4.2	24.5	210.0	0.0	120.0	2.2
28	12.6	16.8	33.6	2.8	24.5	224.0	0.0	127.0	2.2
29	14.0	16.8	33.6	4.2	24.5	210.0	0.0	125.0	2.2
30	15.4	12.6	33.6	2.8	24.5	224.0	0.0	125.0	0.0
31	14.0	16.8	33.6	2.8	24.5	224.0	0.0	125.0	0.0
AVERAGE	13.9	20.1	33.9	3.3	24.2	229.0		132.1	
TOTAL	431.2	621.6	1050.0	102.2	749.0	7098.0	10.0	4095.0	

METER DIFFERENCE = 59

WELLS	WELL #1	WELL #2	WELL #3	WELL #4	WELL #5	WELL #6	WELL #7	WELL #8	WELL #9	WELL #10	TOTAL
DATE	FLOW	FLOW	FLOW	FLOW	FLOW	FLOW	FLOW	FLOW	FLOW	FLOW	BRINE
JAN 87	44-7A	44-7	44-7B	48-7A	48-7	88-7	63-7	61-7	81-7	83-7	FLOW
1			168000	260000	315000	215000	160000	147000	127000		1392000
2			165000	260000	315000	212000	159000	146000	127000		1384000
3			169000	260000	312000	215000	158000	145000	126000		1385000
4			167000	258000	310000	214000	158000	146000	126000		1379000
5			169000	258000	312000	213000	160000	146000	127000		1385000
6			165000	258000	310000	213000	160000	146000	128000		1380000
7			166000	261000	308000	213000	160000	145000	128000		1381000
8			162000	262000	305000	212000	160000	145000	128000		1374000
9			163000	262000	304000	213000	160000	138000	128000		1368000
10			164000	262000	304000	213000	160000	126000	128000		1357000
11			165000	263000	303000	213000	160000	127000	128000		1359000
12			164000	262000	301000	212000	160000	126000	128000		1353000
13			163000	263000	303000	213000	160000	126000	128000		1356000
14			163000	266000	303000	211000	160000	126000	128000		1357000
15			160000	267000	301000	210000	160000	125000	127000		1350000
16			157000	266000	301000	211000	160000	125000	127000		1347000
17			156000	267000	300000	212000	160000	126000	127000		1348000
18			159000	268000	300000	211000	156000	126000	128000		1348000
19			160000	268000	300000	210000	156000	126000	128000		1348000
20			155000	273000	299000	216000	158000	126000	129000		1356000
21			158000	283000		215000	158000	143000	132000		1089000
22			163000	289000		210000	156000	143000	129000		1090000
23			167000	294000		209000	156000	144000	129000		1099000
24			166000	297000		210000	156000	143000	129000		1101000
25			164000	299000		209000	155000	143000	129000		1099000
26			163000	298000		211000	153000	141000	126000	160000	1252000
27			166000	300000		210000	152000	141000	125000	159000	1253000
28			169000	298000		208000	152000	138000	123000	158000	1245000
29			167000	298000		210000	152000	137000	122000	155000	1241000
30			164000	297000		210000	152000	137000	120000	153000	1233000
31			163000	298000		209000	152000	136000	120000	152000	1230000
AVERAGE			163548	274677	305300	211710	157387	136613	126903	156167	1298032

INJECTION WELLS JAN 87	46-7B #1 PSIG	WELL 46-7B #1 FLOW	46-7 #3 PSIG	WELL 46-7 #3 FLOW	84-7 #4 PSIG	WELL 84-7 #4 FLOW	TOTAL BRINE FLOW
1	442	940000	467	72000	442	366000	1378000
2	442	930000	461	72000	441	366000	1368000
3	442	940000	460	72000	442	366000	1378000
4	441	930000	462	72000	440	360000	1362000
5	440	930000	462	72000	440	360000	1362000
6	442	930000	463	72000	441	360000	1362000
7	444	930000	467	72000	444	360000	1362000
8	447	930000	468	72000	445	360000	1362000
9	445	930000	467	72000	443	366000	1368000
10	440	920000	461	72000	440	348000	1340000
11	441	920000	460	72000	440	354000	1346000
12	440	920000	460	66000	440	354000	1340000
13	441	920000	462	66000	440	354000	1340000
14	441	920000	462	66000	440	354000	1340000
15	441	920000	463	72000	440	354000	1346000
16	440	920000	461	66000	440	354000	1340000
17	436	920000	459	66000	436	354000	1340000
18	439	920000	459	66000	437	354000	1340000
19	439	920000	459	66000	438	354000	1340000
20	400	810000	475	78000	435	348000	1236000
21	389	760000	480	84000	282	192000	1036000
22	343	550000	495	144000	353	378000	1072000
23	344	640000	445	72000	424	360000	1072000
24	372	720000	410	60000	388	306000	1086000
25	375	720000	408	54000	387	306000	1080000
26	424	770000	413	54000	393	312000	1136000
27	417	860000	415	54000	394	324000	1238000
28	420	850000	420	54000	399	318000	1222000
29	420	840000	420	54000	400	324000	1218000
30	421	840000	420	54000	400	324000	1218000
31	420	850000	420	54000	400	324000	1228000
AVERAGE	423	864516	452	69097	420	342387	1276000
TOTAL		643200000		51408000		254736000	949344000

ELL NUMBER 3 JANUARY 97	WELLHEAD PSIG	TEMPERATURE DEGREES F.	NITROGEN PSIG	ANNULUS PSIG	FLOW LBS/HR	HOURS	AMPS	NPSH FEET	NPSH PSIG	FLOW GPM	POWER CONSUMPTION KW/1,000,000LBS
1	280	335	270	30	168000	24.0	109	612.0	265.6	378.0	538.8
2	283	335	280	30	165000	24.0	109	637.5	275.4	371.3	548.6
3	280	335	278	30	169000	24.0	109	632.4	273.5	380.3	535.6
4	282	335	282	30	167000	24.0	109	642.6	277.4	375.8	542.0
5	282	335	293	29	169000	24.0	109	673.2	288.2	380.3	535.6
6	281	335	294	28	165000	24.0	109	678.3	289.1	371.3	548.6
7	280	334	290	28	166000	24.0	109	668.1	285.2	373.5	545.3
8	280	335	307	28	162000	24.0	110	711.4	301.9	364.5	563.9
9	281	334	304	32	163000	24.0	109	693.6	299.0	366.8	555.3
10	280	334	293	26	164000	24.0	109	680.8	288.1	369.0	551.9
11	280	334	250	26	165000	24.0	109	571.2	245.9	371.3	548.6
12	280	334	310	26	164000	24.0	109	724.2	304.6	369.0	551.9
13	281	334	289	26	163000	24.0	109	670.7	284.2	366.8	555.3
14	280	334	299	26	163000	24.0	110	696.2	294.0	366.8	560.4
15	280	334	295	26	160000	24.0	109	685.9	290.1	360.0	565.7
16	281	334	283	26	157000	24.0	109	655.3	278.3	353.3	576.5
17	281	334	297	26	156000	24.0	109	691.1	292.1	351.0	580.2
18	280	334	277	26	159000	24.0	109	640.1	272.4	357.8	569.3
19	280	334	284	26	160000	24.0	109	657.9	279.3	360.0	565.7
20	280	333	295	26	155000	6.5	109	685.9	290.1	348.8	584.0
21	280	330	305	19	158000	23.5	111	729.3	299.8	355.5	583.4
22	280	333	314	25	163000	24.0	111	736.9	306.7	366.8	565.5
23	279	333	313	26	167000	24.0	109	731.8	307.8	375.8	542.0
24	277	335	305	27	166000	24.0	109	708.9	299.9	373.5	545.3
25	277	335	294	28	164000	24.0	109	678.3	289.1	369.0	551.9
26	281	335	302	28	163000	24.0	109	698.7	297.0	366.8	555.3
27	285	335	305	27	166000	24.0	109	708.9	299.9	373.5	545.3
28	288	335	291	28	169000	24.0	109	679.7	286.2	380.3	535.6
29	289	335	287	28	167000	24.0	109	660.4	282.3	375.8	542.0
30	286	335	280	28	164000	24.0	109	642.6	275.4	369.0	551.9
31	286	335	310	28	163000	24.0	109	719.1	304.9	366.8	555.3
AVERAGE	281	334	293	27	163548		109	677	288	368	555
TOTAL					118736129	726.0					

WELL NUMBER 4 JANUARY 87	WELLHEAD PSIG	TEMPERATURE DEGREES F.	NITROGEN PSIG	ANNULUS PSIG	FLOW LBS/HR	HOURS	SHPS	NPSH FEET	NPSH PSIG	FLOW GPM	POWER CONSUMPTION KW/1,000,000LBS
1	310	347	275	88	260000	24.0	314	476.8	271.6	585.0	1002.9
2	310	347	288	87	260000	24.0	314	512.6	284.3	585.0	1002.9
3	310	347	290	85	260000	24.0	314	522.8	286.3	585.0	1002.9
4	310	347	280	85	258000	24.0	312	497.2	276.4	580.5	1004.2
5	312	347	290	85	258000	24.0	312	522.8	286.3	580.5	1004.2
6	309	347	286	87	258000	24.0	311	507.5	282.4	580.5	1001.0
7	303	347	284	85	261000	24.0	313	507.5	280.4	587.3	995.6
8	300	347	280	88	262000	24.0	314	489.6	276.5	589.5	995.2
9	300	347	280	88	262000	24.0	312	489.6	276.5	589.5	998.5
10	300	347	281	86	262000	24.0	312	497.2	277.4	589.5	998.9
11	300	348	276	85	263000	24.0	312	487.0	272.5	591.8	988.1
12	300	348	281	85	262000	24.0	312	499.8	277.4	589.5	988.9
13	299	348	280	85	263000	24.0	312	497.2	276.4	591.8	985.1
14	294	348	275	85	266000	24.0	313	484.5	271.5	598.5	977.1
15	290	348	272	85	267000	24.0	313	476.8	268.6	600.8	973.5
16	290	348	263	86	267000	24.0	313	451.3	259.8	600.8	973.5
17	290	348	270	85	268000	24.0	313	471.7	266.6	603.0	969.8
18	290	348	270	85	268000	24.0	313	471.7	266.6	603.0	969.8
19	290	348	270	85	268000	24.0	313	471.7	266.6	603.0	969.8
20	290	348	277	83	273000	13.5	331	494.7	273.5	614.3	1006.8
21	288	348	280	84	283000	23.5	319	499.8	276.4	636.8	936.0
22	284	348	266	85	269000	24.0	320	461.5	262.7	650.3	919.5
23	277	348	277	85	294000	24.0	321	489.6	273.3	661.5	906.7
24	275	348	275	89	297000	24.0	321	474.3	271.6	668.3	897.5
25	276	349	277	89	299000	24.0	322	479.4	273.6	672.8	894.3
26	277	349	278	89	298000	24.0	322	482.0	274.6	670.5	897.7
27	277	348	270	88	300000	24.0	324	464.1	266.7	675.0	896.8
28	280	349	276	85	298000	24.0	322	487.0	272.5	670.5	897.3
29	280	349	280	85	298000	24.0	324	497.2	276.4	670.5	902.9
30	280	349	299	85	297000	24.0	324	545.7	295.1	668.3	905.9
31	280	348	312	85	298000	24.0	324	578.8	307.9	670.5	902.9
AVERAGE	293	348	279	86	274742		317	493	276	618	959
TOTAL					201385039	733.0					

WELL NUMBER 5 JANUARY 87	WELLHEAD PSIG	TEMPERATURE DEGREES F.	NITROGEN PSIG	ANNULUS PSIG	FLOW LBS/HR	HOURS	AMPS	NPSH FEET	NPSH PSIG	FLOW GPM	POWER CONSUMPTION KW/1,000,000LBS
1	308	350	240	110	315000	24	279	331.5	237.6	708.8	735.8
2	307	350	245	110	315000	24	280	344.3	242.5	708.8	738.1
3	310	350	247	110	312000	24	280	349.3	244.5	702.0	745.2
4	310	350	245	110	310000	24	278	344.3	242.5	697.5	744.7
5	312	350	245	115	312000	24	275	331.5	242.6	702.0	731.9
6	316	350	249	117	310000	24	272	336.6	246.6	697.5	728.6
7	315	350	250	120	308000	24	271	331.5	247.6	693.0	730.6
8	315	350	250	120	305000	24	272	331.5	247.6	686.3	740.6
9	315	350	251	120	304000	24	271	334.0	248.6	684.0	740.2
10	316	350	249	121	304000	24	270	326.4	246.7	684.0	737.5
11	318	350	250	124	303000	24	270	321.3	247.7	681.8	740.9
12	318	350	250	125	301000	24	171	318.8	247.7	677.3	471.8
13	315	350	249	125	303000	24	272	316.2	246.7	681.8	745.4
14	315	350	250	125	303000	24	271	318.8	247.7	681.8	742.7
15	315	350	250	126	301000	24	271	316.2	247.7	677.3	747.6
16	316	350	250	128	301000	24	271	311.1	247.8	677.3	747.6
17	315	350	249	130	300000	24	272	303.5	246.8	675.0	752.9
18	316	350	250	130	300000	24	272	306.0	247.8	675.0	752.9
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
AVERAGE	314	350	248	120	305944		268	326	246	688	726
TOTAL					132168000	432.0					

WELL NUMBER 6 JANUARY 87	WELLHEAD PSIG	TEMPERATURE DEGREES F.	NITROGEN PSIG	ANNULUS PSIG	FLOW LBS/HR	HOURS	AMPS	NPSH FEET	NPSH PSIG	FLOW GPM	POWER CONSUMPTION KW/1,000,000LBS
1	338	350	238	96	215000	24.0	200	362.1	235.4	483.8	772.5
2	336	350	238	96	212000	24.0	201	362.1	235.4	477.0	787.3
3	338	350	238	96	215000	24.0	200	362.1	235.4	483.8	772.5
4	337	350	238	96	214000	24.0	200	362.1	235.4	481.5	776.1
5	338	350	238	96	213000	24.0	200	362.1	235.4	479.3	779.7
6	335	350	238	96	213000	24.0	200	362.1	235.4	479.3	779.7
7	336	350	238	96	213000	24.0	201	362.1	235.4	479.3	783.6
8	335	350	238	96	212000	24.0	201	362.1	235.4	477.0	787.3
9	335	350	238	96	212000	24.0	200	362.1	235.4	477.0	783.4
10	335	350	238	96	213000	24.0	199	362.1	235.4	479.3	775.8
11	335	350	238	96	213000	24.0	200	362.1	235.4	479.3	779.7
12	335	350	238	96	212000	24.0	200	362.1	235.4	477.0	783.4
13	335	350	238	97	213000	24.0	201	359.5	235.4	479.3	783.6
14	336	350	239	97	211000	24.0	201	362.1	236.4	474.8	791.0
15	337	350	239	97	210000	24.0	199	362.1	236.4	472.5	786.9
16	336	350	237	97	211000	24.0	201	357.0	234.4	474.8	791.0
17	336	350	237	97	211000	24.0	201	357.0	234.4	474.8	791.0
18	336	350	237	97	211000	24.0	201	357.0	234.4	474.8	791.0
19	337	350	238	97	210000	24.0	200	359.5	235.4	472.5	790.9
20	334	350	238	97	216000	17.0	204	359.5	235.4	486.0	788.3
21	337	350	239	96	215000	23.5	205	364.7	236.4	483.8	791.8
22	339	350	238	97	210000	24.0	201	359.5	235.4	472.5	794.3
23	339	350	236	97	209000	24.0	200	359.5	235.4	470.3	794.6
24	338	350	239	98	210000	24.0	200	359.5	236.4	472.5	790.9
25	337	350	238	98	209000	24.0	200	357.0	235.4	470.3	794.6
26	336	350	238	98	211000	24.0	202	357.0	235.4	474.8	795.0
27	338	350	238	98	210000	24.0	200	357.0	235.4	472.5	790.9
28	340	350	238	97	208000	24.0	200	359.5	235.4	468.0	798.5
29	339	350	238	98	210000	24.0	200	357.0	235.4	472.5	790.9
30	338	350	238	98	210000	24.0	200	357.0	235.4	472.5	790.9
31	338	350	239	98	209000	24.0	200	359.5	236.4	470.3	794.6
AVERAGE	337	350	238	97	211645		201	360	235	476	787
TOTAL					155876661	736.5					

WELL NUMBER 7 JANUARY 87	WELLHEAD PSIG	TEMPERATURE DEGREES F.	NITROGEN PSIG	ANNULUS PSIG	FLOW LBS/HR	HOURS	AMPS	NPSH FEET	NPSH PSIG	FLOW GPM	POWER CONSUMPTION KW/1,000,000LBS
1	278	350	290	90	160000	24.0	111	510.0	286.3	360.0	576.1
2	276	350	300	90	159000	24.0	111	535.5	296.2	357.8	579.7
3	277	350	300	90	158000	24.0	111	535.5	296.2	355.5	583.4
4	276	350	288	90	158000	24.0	111	504.9	284.4	355.5	583.4
5	272	350	295	90	160000	24.0	111	522.8	291.3	360.0	576.1
6	270	350	294	90	160000	24.0	111	520.2	290.3	360.0	576.1
7	270	350	294	90	160000	24.0	110	520.2	290.3	360.0	570.9
8	270	350	292	90	160000	24.0	112	515.1	288.3	360.0	581.3
9	270	350	294	91	160000	24.0	111	517.7	290.3	360.0	576.1
10	270	350	294	90	160000	24.0	111	520.2	290.3	360.0	576.1
11	270	350	293	90	160000	24.0	111	517.7	289.3	360.0	576.1
12	270	350	295	90	160000	24.0	110	522.8	291.3	360.0	570.9
13	270	350	297	90	160000	24.0	110	527.8	293.2	360.0	570.9
14	269	350	300	90	160000	24.0	110	535.5	296.2	360.0	570.9
15	270	350	304	90	160000	24.0	110	545.7	300.1	360.0	570.9
16	270	350	298	90	160000	24.0	110	530.4	294.2	360.0	570.9
17	270	350	298	90	160000	24.0	110	530.4	294.2	360.0	570.9
18	269	350	291	90	156000	24.0	110	512.6	287.3	351.0	585.5
19	270	350	291	90	156000	24.0	110	512.6	287.3	351.0	585.5
20	268	348	291	87	158000	8.0	110	520.2	287.3	355.5	578.1
21	269	349	290	88	158000	23.5	110	515.1	286.3	355.5	578.1
22	269	350	286	90	156000	24.0	109	499.8	282.4	351.0	581.2
23	268	350	282	91	156000	24.0	110	487.0	278.5	351.0	585.5
24	267	350	285	90	156000	24.0	110	497.2	281.4	351.0	585.5
25	267	350	281	90	155000	24.0	110	487.0	277.5	348.8	589.3
26	273	350	281	90	153000	24.0	111	487.0	277.5	344.3	602.4
27	279	350	282	90	152000	24.0	111	489.6	278.5	342.0	606.4
28	280	350	285	90	152000	24.0	111	497.2	281.4	342.0	606.4
29	280	351	285	90	152000	24.0	111	497.2	281.4	342.0	606.4
30	280	351	285	90	152000	24.0	111	497.2	281.4	342.0	606.4
31	280	350	285	92	152000	24.0	111	492.2	281.5	342.0	606.4
AVERAGE	272	350	291	90	157387		111	513	287	354	585
TOTAL					114499113	727.5					

WELL NUMBER 6 JANUARY 87	WELLHEAD PSIG	TEMPERATURE DEGREES F.	NITROGEN PSIG	ANNULUS PSIG	FLOW LBS/HR	HOURS	AMPS	NPSH FEET	NPSH PSIG	FLOW GPM	POWER CONSUMPTION KW/1,000,000LBS
1	286	353	330	5	147000	24.0	114	828.7	324.1	330.8	644.0
2	286	353	320	8	146000	24.0	115	795.6	314.3	328.5	654.1
3	284	353	320	8	145000	24.0	116	795.6	314.3	326.3	664.3
4	284	353	298	8	146000	24.0	116	739.5	292.7	328.5	659.8
5	284	353	313	10	146000	24.0	117	772.7	307.5	328.5	665.5
6	280	353	312	10	146000	24.0	116	770.1	306.5	328.5	659.8
7	280	353	326	10	145000	24.0	115	805.8	320.2	326.3	658.6
8	280	353	338	10	145000	24.0	115	836.4	332.0	326.3	658.6
9	281	353	335	11	138000	24.0	114	826.2	329.1	310.5	686.0
10	280	353	331	13	126000	24.0	113	810.9	325.2	283.5	744.7
11	280	353	330	12	127000	24.0	113	810.9	324.2	285.8	738.9
12	280	353	333	12	126000	24.0	112	818.6	327.1	283.5	738.1
13	281	353	346	10	126000	24.0	113	856.8	339.9	283.5	744.7
14	281	353	323	9	126000	24.0	112	800.7	317.3	283.5	738.1
15	280	353	331	9	125000	24.0	112	821.1	325.1	281.3	744.0
16	281	353	333	10	125000	24.0	112	823.7	327.1	281.3	744.0
17	282	353	335	10	126000	24.0	113	828.7	329.1	283.5	744.7
18	280	353	335	11	126000	24.0	113	826.2	329.1	283.5	744.7
19	280	353	335	10	126000	24.0	113	828.7	329.1	283.5	744.7
20	278	353	346	10	126000	9.0	112	856.8	339.9	283.5	738.1
21	283	353	336	5	143000	23.5	116	844.1	330.0	321.8	673.6
22	282	353	346	5	143000	24.0	116	869.6	339.8	321.8	673.6
23	281	353	332	8	144000	24.0	114	826.2	326.1	324.0	657.4
24	280	353	340	9	143000	24.0	113	844.1	334.0	321.8	662.0
25	281	353	342	12	143000	24.0	114	841.5	336.0	321.8	662.0
26	285	353	348	25	141000	24.0	114	823.7	342.1	317.3	671.4
27	295	353	332	21	141000	16.5	117	793.1	326.3	317.3	689.1
28	293	353	330	11	138000	24.0	116	813.4	324.2	310.5	698.9
29	295	353	320	10	137000	24.0	117	790.5	314.3	308.3	709.2
30	292	353	330	9	137000	24.0	116	818.6	324.1	308.3	703.1
31	294	353	328	9	136000	24.0	117	813.4	322.2	306.0	714.4
AVERAGE	284	353	331	10	136613		114	817	325	307	698
TOTAL					98497903	721.0					

WELL NUMBER 9 JANUARY 87	WELLHEAD PSIG	TEMPERATURE DEGREES F.	NITROGEN PSIG	ANNULUS PSIG	FLOW LBS/HR	HOURS	AMPS	NPSH FEET	NPSH PSIG	FLOW GPM	POWER CONSUMPTION KW/1,000,000LBS
1	273	347	280	95	127000	24.0	119	471.7	276.6	285.8	778.1
2	274	347	290	95	127000	24.0	119	497.2	286.4	285.8	778.1
3	275	347	290	95	126000	24.0	119	497.2	286.4	283.5	784.3
4	273	348	308	95	126000	24.0	119	543.2	304.1	283.5	784.3
5	268	347	305	95	127000	24.0	120	535.5	301.2	285.8	784.6
6	267	347	322	95	128000	24.0	119	578.8	317.9	288.0	772.0
7	266	347	315	95	128000	24.0	119	561.0	311.0	288.0	772.0
8	266	347	302	95	128000	24.0	119	527.8	298.2	288.0	772.0
9	266	347	313	95	128000	24.0	119	555.9	309.0	288.0	772.0
10	264	348	289	95	128000	24.0	119	494.7	285.5	288.0	772.0
11	264	348	292	95	128000	24.0	119	502.3	288.4	288.0	772.0
12	263	348	305	95	128000	24.0	118	535.5	301.2	288.0	765.5
13	264	348	323	95	128000	24.0	117	581.4	318.8	288.0	759.0
14	263	348	300	95	128000	24.0	117	522.8	296.3	288.0	759.0
15	264	348	318	95	127000	24.0	118	568.7	313.9	285.8	771.6
16	264	348	300	94	127000	24.0	118	525.3	296.2	285.8	771.6
17	264	348	311	92	127000	24.0	117	558.4	307.0	285.8	765.0
18	264	348	312	92	128000	24.0	116	561.0	308.0	288.0	752.6
19	263	348	327	93	128000	24.0	117	596.7	322.7	288.0	759.0
20	266	347	336	98	128000	14.5	118	606.9	331.7	288.0	765.5
21	265	347	311	99	132000	23.5	120	540.6	307.1	297.0	754.9
22	264	347	314	94	129000	24.0	118	561.0	310.0	290.3	759.6
23	264	347	314	94	129000	24.0	117	561.0	310.0	290.3	753.2
24	262	347	322	92	129000	24.0	117	586.5	317.8	290.3	753.2
25	262	348	350	92	129000	24.0	116	657.9	345.3	290.3	746.7
26	267	348	317	90	126000	24.0	118	576.8	312.9	283.5	777.7
27	274	348	320	90	125000	24.0	118	586.5	315.8	281.3	783.9
28	275	348	320	91	122000	24.0	118	583.9	315.8	274.5	803.2
29	277	348	330	90	122000	24.0	117	612.0	325.6	274.5	796.4
30	272	348	287	86	120000	24.0	116	512.6	283.3	270.0	802.7
31	275	348	326	85	120000	24.0	117	614.6	321.6	270.0	809.6
AVERAGE	267	348	311	93	126871		118	555	307	285	773
TOTAL					93123290	734.0					

WELL NUMBER 101 JANUARY 87	WELLHEAD PSIG	TEMPERATURE DEGREES F.	NITROGEN PSIG	ANNULUS PSIG	FLOW LBS/HR	HOURS	AMPS	NPSH FEET	NPSH PSIG	FLOW GPM	POWER CONSUMPTION KW/1,000,000LBS
1											
2											
3											
4											
5											
6											
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8											
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21											
22											
23											
24											
25											
26	291	340	322	59	160000	10.5	123	670.7	317.2	360.0	638.4
27	290	343	310	60	159000	23.3	121	637.5	305.4	357.8	631.5
28	290	344	305	65	158000	24.0	121	612.0	300.6	355.5	635.9
29	290	345	300	60	155000	24.0	120	612.0	295.6	348.8	642.9
30	287	345	295	63	152000	24.0	120	591.6	290.8	342.0	655.6
31	288	345	295	63	153000	24.0	121	591.6	290.8	344.3	656.7
AVERAGE	289	344	305	62	156167		121	619	300	351	644
TOTAL					20270433	129.8					