

## MAGMA ELECTRIC CO.

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

Mike A

EAST MESA PLANT

January 5, 1987

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

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

SUBJECT: Monthly Status Report, December 1986

### I. Status

The facility has been on line 81.85 percent of the month, with gross generation of 6776 Megawatt hours and sales of 4276 Megawatt hours. The average brine flow has been 1.381 M lbs/hr at 350° F (3.107 gpm).

### II. Major Operating Events

15 Dec. IID had a failure of their 34.5 KV line at the intersection of the HX line and the Magma plant feeder.

16 Dec. The new rotating assembly for the main turbine which was installed in November developed a vibration problem. The unit was removed and sent back to the manufacturer for disassembly and evaluation. The original rotating assembly was then reinstalled.

18 Dec. During start up procedures, one of the Isobutane control valves developed problems.

19 Dec. In the low pressure circuit of the Isobutane systems, a leak developed on one of the welds, which required evacuation of the low side.

22 Dec. Plant start up.

### III. Production Well Highlights

6 Dec. Well #81-7 was shut down in exchange for the increased flow of #48-7. Well #48-7 was put into

service with an average flow of 329 K lbs/hr.

19 Dec. Well #44-7A lost production. Shut down for repairs. Well #48-7A was put into service with an average flow of 270 K lbs/hr. Well #81-7 was put back into service with an average flow of 122 K lbs/hr.

Sincerely,



Michael B. Pierce  
Plant Superintendent

MBP/mc

CC: \April Taylor  
B.C. McCabe  
Jim Shepard  
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 DEC 86	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	1313667	343	165	238	164	23.8	56.3	31.0	47.0	131.4	14.6	306	157
2	1291000	346	160	266	164	24.0	56.0	31.0	49.7	116.5	15.7	303	154
3	1279000	345	160	266	166	24.0	56.7	32.0	51.0	115.4	16.0	305	154
4	1267667	346	159	252	164	24.0	57.7	32.0	54.0	120.7	15.1	303	154
5	1274000	347	160	266	161	24.0	58.7	36.3	56.0	114.9	15.9	302	154
6	1395333	347	160	280	179	24.0	60.0	46.0	54.7	119.6	15.3	303	156
7	1467000	348	161	280	189	24.0	62.0	48.3	53.3	125.7	14.5	302	156
8	1439667	348	160	294	187	24.0	61.0	47.0	50.7	117.5	15.4	303	155
9	1463667	349	160	294	194	24.0	60.3	47.0	47.0	119.5	16.1	302	154
10	1464333	349	158	294	194	24.0	57.3	46.0	45.0	119.5	14.9	300	153
11	1463667	349	157	280	197	24.0	55.7	45.0	43.7	125.5	14.2	302	153
12	1460000	350	157	308	198	24.0	55.0	44.3	41.7	113.8	15.5	300	153
13	1460333	350	158	294	195	24.0	55.0	45.0	45.3	119.2	14.9	300	153
14	1454000	350	158	294	196	24.0	55.3	45.3	43.7	118.7	15.0	301	153
15	1430000	350	158	224	143	19.0	57.0	46.0	46.0	121.3	14.7	302	155
16	1451000	349	157	266	176	21.5	57.0	46.0	45.0	117.3	15.2	301	156
17				14	0	0.0							
18				0	3	2.0							
19				112	62	13.2							
20						0.0							
21						0.0							
22				14	5	2.5							
23	1259500	349	157	224	127	24.0	57.3	40.3	48.3	134.9	13.2	305	158
24	1394333	349	159	238	142	23.0	59.0	44.3	49.0	134.7	13.3	305	170
25	1376667	350	156	252	153	24.0	59.3	44.0	46.3	131.1	13.4	302	166
26	1359333	350	154	266	153	24.0	57.0	42.3	49.3	122.6	14.2	303	161
27	1351667	350	153	252	154	24.0	56.7	42.0	46.0	128.7	13.5	301	160
28	1346000	350	154	252	152	24.0	57.3	42.0	46.3	128.2	13.6	300	160
29	1349333	350	154	252	153	24.0	57.0	41.7	49.0	128.5	13.5	301	162
30	1355667	350	156	252	153	24.0	57.0	42.0	46.3	129.1	13.6	302	164
31	1359333	350	157	252	152	24.0	57.0	42.0	48.7	129.5	13.7	303	164
AVERAGE	1381047	349	158	234	147		57.5	42.0	48.1	123.4	14.6	302	157
TOTAL	841057428			6776	4276	609.0							

ON LINE PERCENTAGE = 81.85  
PEAK PERIOD AVERAGE = 5.84  
MID PEAK AVERAGE = 5.91  
OFF PEAK AVERAGE = 5.66

MEGAWATTS DEC 86	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	28	63	73	7.00	7.00	6.64	164	6.83
2	28	62	74	7.00	6.89	6.73	164	6.83
3	28	65	73	7.00	7.22	6.64	166	6.92
4	27	65	72	6.75	7.22	6.55	164	6.83
5	27	62	72	6.75	6.89	6.55	161	6.71
6			179	0.00	0.00	7.46	179	7.46
7			189	0.00	0.00	7.88	189	7.88
8	31	70	86	7.75	7.78	7.82	187	7.79
9	32	76	86	8.00	8.44	7.82	194	8.08
10	32	76	86	8.00	8.44	7.82	194	8.08
11	33	77	87	8.25	8.56	7.91	197	8.21
12	33	77	88	8.25	8.56	8.00	198	8.25
13			195	0.00	0.00	8.13	195	8.13
14			196	0.00	0.00	8.17	196	8.17
15	29	37	77	7.75	4.11	7.00	143	5.96
16	33	75	68	8.25	8.33	6.18	176	7.33
17	0	0	0	0.00	0.00	0.00	0	0.00
18	0	0	3	0.00	0.00	0.27	3	0.13
19	0	29	33	0.00	3.22	3.00	62	2.58
20			0	0.00	0.00	0.00	0	0.00
21			0	0.00	0.00	0.00	0	0.00
22	0	0	5	0.00	0.00	0.45	5	0.21
23	26	46	55	6.50	5.11	5.00	127	5.29
24	23	51	68	5.75	5.67	6.18	142	5.92
25			153	0.00	0.00	6.38	153	6.38
26	26	60	67	6.50	6.67	6.09	153	6.38
27			154	0.00	0.00	6.42	154	6.42
28			152	0.00	0.00	6.33	152	6.33
29	26	60	67	6.50	6.67	6.09	153	6.38
30	26	61	66	6.50	6.78	6.00	153	6.38
31	26	59	67	6.50	6.56	6.09	152	6.33
TOTAL	514	1171	2591				4276	
AVERAGE	23.4	53.2	83.6	5.84	5.91	5.66	137.9	5.75

PEAK EARNINGS 59541.20

MID PEAK 96532.90

OFF PEAK 153756.20

BONUS PAYMENT 10150.45

TOTAL 309830.30

PROJECTED 309830.3

POWER DATE DEC 86	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	16.8	33.6	1.4	14.0	238.0	0.0	164.0	2.4
2	14.0	21.0	33.6	2.8	24.5	266.0	0.0	164.0	2.4
3	15.4	16.8	33.6	1.4	24.5	266.0	0.0	166.0	2.4
4	14.0	21.0	33.6	2.8	24.5	252.0	0.0	164.0	2.4
5	15.4	21.0	33.6	2.8	24.5	266.0	0.0	161.0	2.4
6	14.0	21.0	33.6	1.4	24.5	280.0	0.0	179.0	2.4
7	15.4	25.2	33.6	2.8	24.5	280.0	0.0	189.0	2.4
8	12.6	25.2	33.6	1.4	24.5	294.0	0.0	187.0	2.4
9	14.0	21.0	37.8	2.8	24.5	294.0	0.0	194.0	2.4
10	12.6	25.2	33.6	4.2	21.0	294.0	0.0	194.0	2.4
11	15.4	25.2	33.6	2.8	24.5	280.0	0.0	197.0	2.4
12	12.6	21.0	33.6	4.2	24.5	308.0	0.0	198.0	2.4
13	16.8	25.2	33.6	2.8	24.5	294.0	0.0	195.0	2.4
14	12.6	25.2	37.8	2.8	24.5	294.0	0.0	196.0	2.4
15	12.6	21.0	29.4	2.8	17.5	224.0	5.0	143.0	2.4
16	11.2	21.0	29.4	4.2	21.0	266.0	1.0	176.0	3.6
17	2.8	0.0	4.2	0.0	0.0	14.0	4.0	0.0	3.6
18	11.2	8.4	25.2	2.8	0.0	0.0	42.0	3.0	3.6
19	11.2	16.8	33.6	1.4	14.0	112.0	27.0	62.0	3.6
20	2.8	0.0	0.0	1.4	0.0	0.0	6.0	0.0	3.6
21	0.0	0.0	0.0	1.4	0.0	0.0	2.0	0.0	3.6
22	11.2	8.4	33.6	1.4	0.0	14.0	42.0	5.0	3.6
23	12.6	16.8	29.4	4.2	24.5	224.0	0.0	127.0	3.6
24	14.0	25.2	33.6	2.8	24.5	238.0	3.0	142.0	3.6
25	15.4	25.2	37.8	4.2	24.5	252.0	0.0	153.0	3.6
26	14.0	25.2	33.6	2.8	24.5	266.0	0.0	153.0	3.6
27	15.4	25.2	33.6	4.2	24.5	252.0	0.0	154.0	0.0
28	14.0	25.2	33.6	2.8	24.5	252.0	0.0	152.0	0.0
29	14.0	21.0	33.6	2.8	24.5	252.0	0.0	153.0	0.0
30	14.0	25.2	33.6	4.2	24.5	252.0	0.0	153.0	0.0
31	14.0	21.0	33.6	2.8	24.5	252.0	0.0	152.0	0.0
AVERAGE	12.6	19.2	30.2	2.7	19.4	218.6		137.9	
TOTAL	389.2	596.4	936.6	82.6	602.0	6776.0	132.0	4276.0	

METER DIFFERENCE = 25.2

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
86	44-7A	44-7	44-7B	4B-7A	4B-7	8B-7	63-7	61-7	81-7	83-7	FLOW
1	1424000		1180000			232000	160000	146000	116000	124000	1382000
2	1415000		1140000			225000	148000	145000	117000	121000	1316000
3	1409000		1140000			220000	148000	148000	118000	120000	1303000
4	1408000		1143000			220000	148000	146000	118000	120000	1303000
5	1404000		1147000			220000	148000	146000	115000	118000	1298000
6	1403000		1148000		1346000	215000	149000	144000	114000	118000	1637000
7	1403000		1143000		1339000	213000	138000	148000		118000	1592000
8	1405000		1142000		1339000	215000	142000	146000		119000	1508000
9	1401000		1139000		1338000	210000	144000	145000		117000	1494000
0	1401000		1140000		1335000	210000	145000	146000		117000	1494000
1	1401000		1138000		1328000	209000	146000	146000		118000	1486000
2	1399000		1138000		1327000	210000	147000	146000		118000	1485000
3	1400000		1141000		1325000	211000	148000	146000		117000	1488000
4	1400000		1144000		1327000	210000	148000	145000		116000	1490000
5	1402000		1142000		1330000	214000	150000	146000		110000	1474000
6	1400000		1145000		1325000	210000	148000	143000		120000	1491000
7											
8											
9	1410000		1147000	1300000		222000	145000	147000	123000		1498000
0											
1											
2							150000	149000	123000		422000
3			1165000	1292000	1339000	256000	147000	146000	125000		1470000
4			1170000	1278000	1333000	226000	152000	1452000	126000		1435000
5			1167000	1270000	1326000	221000	150000	148000	126000		1468000
6			1166000	1264000	1322000	217000	150000	148000	125000		1392000
7			1161000	1260000	1321000	217000	151000	147000	124000		1381000
8			1162000	1259000	1320000	216000	152000	147000	123000		1375000
9			1165000	1257000	1321000	217000	154000	147000	123000		1384000
0			1168000	1262000	1320000	215000	160000	148000	126000		1399000
1			1162000	1260000	1318000	213000	160000	146000	125000		1384000
RAGE	405000		151653	270000	328950	217846	149333	146741	121568	118188	1450885

INJECTION:	46-7B	WELL 46-7B	46-7	WELL 46-7	84-7	WELL 84-7	TOTAL
WELLS	#1	#1	#3	#3	#4	#4	BRINE
DEC 86	PSIG	FLOW	PSIG	FLOW	PSIG	FLOW	FLOW
1	380	770000	449	156000	428	450000	1376000
2	382	740000	473	138000	450	444000	1322000
3	390	760000	478	132000	455	426000	1318000
4	390	780000	480	138000	459	414000	1332000
5	397	790000	472	132000	450	396000	1318000
6	438	950000	462	126000	442	384000	1460000
7	465	1030000	465	126000	446	378000	1534000
8	465	1020000	469	126000	449	378000	1524000
9	468	1030000	469	126000	448	378000	1534000
10	465	1020000	470	138000	448	372000	1530000
11	466	1020000	470	144000	449	372000	1536000
12	465	1020000	470	132000	447	372000	1524000
13	465	1020000	470	132000	446	372000	1524000
14	465	1020000	470	132000	450	372000	1524000
15	444	1000000	464	138000	445	378000	1516000
16	459	1010000	462	138000	443	372000	1520000
17							
18							
19	190	400000	415	120000			520000
20							
21							
22	252	470000					470000
23	417	920000	375	132000	350	474000	1526000
24	294	960000	436	144000	407	432000	1536000
25	430	940000	438	138000	417	384000	1462000
26	432	940000	443	138000	421	378000	1456000
27	431	920000	441	132000	423	366000	1418000
28	433	930000	446	132000	427	360000	1422000
29	434	930000	449	132000	429	366000	1428000
30	440	930000	460	60000	435	366000	1356000
31	441	940000	463	60000	441	372000	1372000
AVERAGE	415	898519	456	128538	436	390240	1383630
TOTAL		582240000		80208000		234144000	896592000

WELL NUMBER 1 DEC 86	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	299	333	261	58	424000	24.0	372	517.7	287.3	954.0	728.6
2	300	335	280	60	415000	23.5	374	561.0	276.0	933.8	748.4
3	302	335	300	65	407000	24.0	370	599.3	295.7	920.3	751.2
4	302	335	295	65	408000	24.0	372	586.5	290.8	918.0	757.1
5	302	335	286	65	404000	24.0	370	563.6	282.0	909.0	760.5
6	300	335	295	65	403000	24.0	370	586.5	290.8	906.8	762.4
7	297	335	290	65	403000	24.0	370	573.8	285.9	906.8	762.4
8	295	335	290	65	405000	24.0	371	573.8	285.9	911.3	760.7
9	299	335	283	65	401000	24.0	370	555.9	279.0	902.3	766.2
10	297	335	271	65	401000	24.0	369	525.3	267.2	902.3	764.1
11	295	335	272	65	401000	24.0	368	527.8	268.2	902.3	762.1
12	295	335	278	65	399000	24.0	366	543.2	274.1	897.8	761.7
13	296	335	283	65	400000	24.0	365	555.9	279.0	900.0	757.7
14	296	335	290	65	400000	24.0	364	573.8	285.9	900.0	755.7
15	297	336	283	64	402000	21.0	364	558.4	279.0	904.5	751.9
16	300	336	291	65	400000	21.5	363	576.3	286.9	900.0	753.6
17											
18											
19	300	334	285	59	408000	13.0	364	576.3	280.9	918.0	740.8
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
AVERAGE TOTAL	298	335	284	64	404882 158309000	391.0	368	562	280	911	756



WELL NUMBER 3 DEC 86	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	292	339	265	65	180000	24.0	110	516.0	261.3	405.0	507.5
2	293	340	267	64	140000	23.5	112	517.7	263.3	315.0	664.3
3	298	343	253	64	140000	24.0	111	482.0	249.6	315.0	658.4
4	295	344	255	64	143000	24.0	110	589.1	290.8	321.8	638.8
5	299	345	273	52	147000	24.0	110	563.6	269.0	330.8	621.4
6	297	346	263	53	148000	24.0	110	535.5	259.2	333.0	617.2
7	296	347	288	55	143000	24.0	109	594.2	283.7	321.8	633.0
8	300	347	285	56	142000	24.0	109	583.9	280.8	319.5	637.4
9	299	346	277	59	139000	24.0	109	555.9	273.0	312.8	631.2
10	297	346	287	58	140000	24.0	109	583.9	282.8	315.0	646.5
11	297	348	274	59	138000	24.0	108	553.3	272.0	310.5	649.9
12	299	346	256	59	138000	24.0	109	502.3	252.4	310.5	657.9
13	297	348	255	63	141000	24.0	110	489.6	251.5	317.3	647.8
14	297	348	263	60	144000	24.0	110	517.7	259.3	324.0	634.3
15	297	349	272	60	142000	19.0	109	540.6	268.1	319.5	637.4
16	297	350	273	60	145000	21.5	108	543.2	269.1	326.3	618.5
17											
18											
19	300	343	268	43	147000	13.0	111	573.8	263.9	330.8	627.0
20											
21											
22											
23	309	331	262	28	165000	24.0	111	596.7	257.7	371.3	556.6
24	298	333	275	30	170000	24.0	110	624.8	270.5	382.3	537.3
25	293	334	280	32	167000	24.0	110	632.4	275.5	375.8	547.0
26	295	334	283	32	166000	24.0	109	640.1	278.4	373.5	545.3
27	296	333	320	32	161000	24.0	109	734.4	314.7	362.3	562.2
28	295	333	261	32	162000	24.0	109	583.9	256.8	364.5	558.7
29	291	333	285	30	165000	24.0	110	650.3	280.3	371.3	553.6
30	283	335	285	31	168000	24.0	109	647.7	280.4	378.0	538.8
31	282	335	270	30	162000	24.0	110	612.0	265.6	364.5	563.9
AVERAGE	296	341	275	49	151654		110	575	270	341	604
TOTAL					91750577	605.0					

WELL NUMBER 4 MAR B6	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											
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18											
19	340	343	330	70	300000	13	330	663.0	325.3	675.0	913.4
20											
21											
22											
23	323	346	277	76	292000	24	331	512.6	273.3	657.0	941.3
24	323	346	283	80	276000	24	324	517.7	279.3	621.0	974.8
25	320	347	280	81	270000	24	324	507.5	276.4	607.5	996.5
26	318	347	280	85	264000	24	322	497.2	276.4	594.0	1012.8
27	320	347	273	85	260000	24	318	479.4	269.6	585.0	1015.6
28	320	347	265	85	259000	24	318	459.0	261.7	582.8	1019.6
29	320	347	290	85	257000	24	315	522.8	286.3	578.3	1017.8
30	314	347	277	85	262000	24	317	469.6	273.5	589.5	1004.7
31	310	348	280	88	260000	24	318	469.6	276.5	585.0	1015.6
AVERAGE	321	347	284	82	270000		322	514	280	608	991
TOTAL					6183000	229.0					

WELL NUMBER DEC 86	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	308	346	263	86	346000	15.0	298	451.3	259.2	778.5	715.2
7	308	347	253	90	339000	24.0	290	415.7	250.0	762.8	710.4
8	307	350	255	90	339000	24.0	284	420.7	252.0	762.8	695.7
9	307	350	246	95	338000	24.0	282	385.0	243.2	760.5	692.8
10	310	350	250	97	335000	24.0	283	390.2	247.2	753.8	701.5
11	315	350	248	98	328000	24.0	280	382.5	245.3	738.0	708.9
12	317	350	249	100	327000	24.0	279	380.0	246.3	735.8	708.5
13	318	350	256	101	325000	24.0	278	395.3	253.2	731.3	710.3
14	319	350	254	102	327000	24.0	276	387.6	251.2	735.8	700.9
15	316	350	253	105	330000	20.0	279	377.4	250.3	742.5	702.1
16	319	350	260	107	325000	21.5	278	390.2	257.2	731.3	719.3
17											
18											
19											
20											
21											
22											
23	313	348	262	84	339000	11.0	291	453.9	258.8	762.8	712.8
24	310	349	257	92	333000	24.0	288	420.7	254.0	749.3	718.2
25	307	350	252	100	326000	24.0	283	387.6	249.2	733.5	720.9
26	307	350	250	100	322000	24.0	282	382.5	247.3	724.5	727.2
27	306	350	252	104	321000	24.0	281	377.4	249.3	722.3	726.9
28	305	350	254	105	320000	24.0	280	380.0	251.3	720.0	726.6
29	304	350	245	110	321000	24.0	281	344.3	242.5	722.3	726.9
30	300	350	251	110	320000	24.0	280	359.5	248.4	720.0	726.6
31	303	350	240	110	318000	24.0	280	331.5	237.6	715.5	731.2
AVERAGE	310	350	253	99	328950		283	391	250	740	714
TOTAL					148520925	451.5					

WELL NUMBER & DEC 86	WELLHEAD PSIG	TEMPERATURE DEGREES F.	NITROGEN PSIG	ANNULUS PSIG	FLOW LBS/HR	HOURS	AMPS	NPSH FEET	NPSH PSIG	FLOW BPM	POWER CONSUMPTION KW/1,000,000 LBS
1	318	350	221	91	232000	24.0	209	331.5	218.6	522.0	748.1
2	330	350	220	92	225000	23.5	208	326.4	217.7	506.3	767.7
3	334	350	228	93	220000	24.0	208	344.3	225.5	495.0	785.1
4	332	350	238	94	220000	24.0	205	367.2	235.4	495.0	773.8
5	333	350	233	95	220000	24.0	206	351.9	230.5	495.0	777.6
6	335	350	240	95	215000	24.0	205	369.8	237.4	483.8	791.8
7	334	350	240	95	213000	24.0	203	369.8	237.4	479.3	791.4
8	336	350	240	95	215000	24.0	203	369.8	237.4	483.8	784.1
9	341	350	238	95	210000	24.0	202	364.7	235.4	472.5	798.8
10	340	350	236	95	210000	24.0	201	359.5	233.4	472.5	794.8
11	340	350	241	95	209000	24.0	200	372.3	238.3	470.3	794.6
12	339	350	240	95	210000	24.0	200	369.8	237.4	472.5	790.9
13	338	350	240	95	211000	24.0	198	369.8	237.4	474.8	779.2
14	339	350	243	95	210000	24.0	200	377.4	240.3	472.5	790.9
15	340	350	245	94	214000	19.5	202	385.0	242.2	481.5	783.8
16	343	350	247	95	210000	21.5	200	387.6	244.2	472.5	790.9
17											
18											
19	338	350	235	95	225000	13.0	208	357.0	232.4	506.3	767.7
20											
21											
22											
23	313	349	227	93	256000	24.0	217	341.7	224.6	576.0	703.9
24	334	350	239	95	226000	24.0	208	367.2	236.4	508.5	764.3
25	334	350	234	95	221000	24.0	203	354.5	231.5	497.3	762.8
26	337	350	238	95	217000	24.0	203	364.7	235.4	488.3	776.8
27	338	350	237	95	217000	24.0	202	362.1	234.4	488.3	773.0
28	338	350	239	95	216000	24.0	201	367.2	236.4	486.0	772.7
29	337	350	239	95	217000	24.0	201	367.2	236.4	488.3	769.2
30	337	350	238	95	215000	24.0	200	364.7	235.4	483.8	772.5
31	335	350	238	95	213000	24.0	200	364.7	235.4	479.3	779.7
AVERAGE	335	350	237	95	217962		204	363	234	490	776
TOTAL					131975712	605.5					

WELL NUMBER 7 DEC 86	WELLHEAD PSIG	TEMPERATURE DEGREES F.	NITROGEN PSIG	ANNULUS PSIG	FLOW LBS/HR	HOURS	AMPS	NFSH FEET	NFSH PSIG	FLOW GPM	POWER CONSUMPTION KW/1,000,000LBS
1	300	335	264	80	160000	24.0	115	469.2	260.6	360.0	596.9
2	298	336	271	80	148000	23.5	112	487.0	267.5	333.0	628.4
3	298	337	288	80	148000	24.0	112	530.4	284.2	333.0	628.4
4	299	337	292	82	148000	24.0	111	535.5	288.2	333.0	622.8
5	299	337	292	82	148000	24.0	111	535.5	288.2	333.0	622.8
6	298	337	278	85	149000	24.0	110	492.2	274.5	335.3	613.0
7	296	337	270	85	138000	24.0	109	471.7	266.6	310.5	655.9
8	299	337	283	83	142000	24.0	111	510.0	279.3	319.5	649.1
9	300	337	280	85	144000	24.0	111	497.2	276.4	324.0	640.1
10	300	338	274	85	145000	24.0	110	482.0	270.6	301.0	339.0
11	301	339	278	85	146000	24.0	110	492.2	274.5	328.5	625.6
12	300	339	274	85	147000	24.0	110	482.0	270.6	330.8	621.4
13	300	338	288	86	148000	24.0	109	515.1	284.3	333.0	611.6
14	300	338	288	88	148000	24.0	110	510.0	284.3	333.0	617.2
15	302	336	296	85	150000	16.5	111	538.1	292.1	337.5	614.5
16	302	350	291	85	148000	21.5	116	525.3	287.2	333.0	617.2
17											
18											
19	300	348	311	78	150000	13.0	113	594.2	306.7	337.5	625.6
20											
21											
22	298	348	302	80	150000	15.0	114	566.1	297.9	337.5	631.1
23	303	349	293	84	147000	24.0	112	532.9	289.2	330.8	632.7
24	296	350	292	87	152000	24.0	111	522.8	288.3	342.0	606.4
25	295	350	290	90	150000	24.0	111	510.0	286.3	337.5	614.5
26	296	350	290	90	150000	24.0	111	510.0	286.3	337.5	614.5
27	295	350	290	90	151000	24.0	111	510.0	286.3	339.8	610.4
28	295	350	290	90	152000	24.0	111	510.0	286.3	342.0	606.4
29	287	350	289	90	154000	24.0	111	507.5	285.4	346.5	598.5
30	287	350	297	90	160000	24.0	111	527.8	293.2	360.0	576.1
31	282	350	295	90	160000	24.0	111	522.8	291.3	360.0	576.1
AVERAGE	297	343	287	85	149370		111	514	283	335	607
TOTAL					92236204	617.5					

L NUMBER B	WELLHEAD	TEMPERATURE	NITROGEN	ANNULUS	FLOW	HOURS	AMPS	NPSH	NPSH	FLOW	POWER CONSUMPTION
DEC B6	PSIG	DEGREES F.	PSIG	PSIG	LBS/HR			FEET	PSIG	GPM	KW/1,000,000LBS
1	305	352	358	11	146000	24.0	112	884.8	351.7	328.5	637.0
2	300	353	340	12	150000	23.5	115	836.4	334.0	337.5	636.6
3	300	353	340	5	148000	24.0	114	854.2	333.9	333.0	639.6
4	300	353	329	5	146000	24.0	114	826.2	323.1	328.5	648.4
5	302	353	343	8	146000	24.0	114	854.2	336.9	328.5	648.4
6	300	353	324	10	144000	24.0	114	800.7	318.3	324.0	657.4
7	300	353	320	8	146000	24.0	113	795.6	314.3	328.5	642.7
8	302	353	325	8	146000	24.0	113	808.3	319.2	328.5	642.7
9	302	353	339	8	145000	24.0	113	844.1	333.0	326.3	647.1
10	300	353	332	10	146000	24.0	113	821.1	326.1	328.5	642.7
11	300	354	327	8	146000	24.0	113	813.4	321.2	328.5	642.7
12	300	354	330	10	146000	24.0	114	816.0	324.2	328.5	648.4
13	300	353	326	10	146000	24.0	113	805.8	320.2	328.5	642.7
14	300	353	325	10	145000	24.0	113	803.3	319.3	326.3	647.1
15	301	353	398	8	146000	20.5	113	994.5	390.9	328.5	642.7
16	300	353	323	5	143000	21.5	114	810.9	317.2	321.8	662.0
17											
18											
19	300	353	330	10	149000	13.0	114	816.0	324.2	335.3	635.3
20											
21											
22	307	351	300	22	149000	21.0	114	708.9	294.9	335.3	635.3
23	301	353	330	14	146000	24.0	113	805.8	324.2	328.5	642.7
24	297	353	335	7	152000	24.0	114	836.4	329.0	342.0	622.8
25	295	353	326	5	148000	24.0	113	818.6	320.1	333.0	634.0
26	292	353	326	5	148000	24.0	113	818.6	320.1	333.0	634.0
27	294	353	326	5	147000	24.0	114	818.6	320.1	330.8	644.0
28	295	353	322	5	147000	24.0	114	808.3	316.2	330.8	644.0
29	290	353	321	6	147000	24.0	114	803.3	315.3	330.8	644.0
30	287	353	315	8	148000	24.0	114	782.8	309.4	333.0	639.6
31	284	353	325	10	146000	24.0	114	803.3	319.3	328.5	648.4
AVERAGE	298	353	331	9	146741		114	822	325	330	643
TOTAL					92079815	627.5					

WELL NUMBER	WELLHEAD	TEMPERATURE	NITROGEN	ANNULUS	FLOW	HOURS	AMPS	NPSH	NPSH	FLOW	POWER CONSUMPTION
DEC 86	PSIG	DEGREES F.	PSIG	PSIG	LBS/HR			FEET	PSIG	GPM	KW/1,000,000LBS
1	302	345	262	78	116000	24.0	114	469.2	258.6	261.0	816.1
2	302	345	261	80	117000	23.5	114	461.5	257.7	263.3	809.1
3	300	345	271	83	118000	24.0	114	479.4	267.6	265.5	802.3
4	298	346	361	84	118000	24.0	114	706.3	355.9	265.5	802.3
5	298	346	315	84	115000	24.0	114	589.1	310.8	258.8	823.2
6	300	346	292	85	114000	11.5	115	527.8	288.2	256.5	837.7
7											
8											
9											
10											
11											
12											
13											
14											
15											
16	310	342	315	73	120000	21.5	117	617.1	310.6	270.0	809.6
17											
18											
19	300	345	295	88	123000	13.0	122	527.8	291.2	276.8	823.6
20											
21											
22	314	344	320	48	123000	20.0	119	693.6	315.0	276.8	803.4
23	302	346	300	65	125000	24.0	121	599.3	295.7	281.3	803.8
24	295	347	309	85	126000	24.0	121	571.2	304.9	283.5	797.4
25	292	347	315	90	126000	24.0	120	573.8	310.9	283.5	790.9
26	292	347	290	93	125000	24.0	120	502.3	286.4	281.3	797.2
27	291	347	300	91	124000	24.0	120	532.9	296.2	279.0	803.6
28	292	347	289	90	123000	24.0	119	507.5	285.4	276.8	803.4
29	289	347	289	95	123000	24.0	119	494.7	285.5	276.8	803.4
30	283	347	295	95	126000	24.0	119	510.0	291.3	283.5	784.3
31	280	347	290	95	125000	24.0	119	497.2	286.4	281.3	790.5
AVERAGE	297	346	298	83	121500		118	548	294	273	806
TOTAL					48782250	401.5					

L NUMBER	10	WELLHEAD	TEMPERATURE	NITROGEN	ANNULUS	FLOW	HOURS	AKPS	NPSH	NPSH	FLOW	POWER CONSUMPTION
DEC 86		PSIG	DEGREES F.	PSIG	PSIG	LBS/HR			FEET	PSIG	GPM	KW/1,000,000LBS
1		297	344	275	85	124000	24.0	117	484.5	271.5	279.0	783.5
2		298	345	260	85	121000	23.5	116	446.2	256.8	272.3	796.1
3		302	345	269	83	120000	24.0	116	474.3	265.6	270.0	802.7
4		300	345	299	85	120000	24.0	116	545.7	295.1	270.0	802.7
5		300	346	270	83	118000	24.0	115	476.8	266.6	265.5	809.3
6		298	345	284	82	118000	24.0	116	515.1	280.3	265.5	816.3
7		299	345	305	85	118000	24.0	116	561.0	301.0	265.5	816.3
8		297	344	321	85	119000	24.0	115	601.8	316.7	267.8	802.5
9		299	345	299	85	117000	24.0	112	545.7	295.1	263.3	794.9
10		298	345	305	85	117000	24.0	112	561.0	301.0	263.3	794.9
11		297	345	308	86	118000	24.0	113	566.1	303.9	265.5	795.2
12		297	345	305	86	118000	24.0	113	558.4	301.0	265.5	795.2
13		299	345	286	86	117000	24.0	112	510.0	282.3	263.3	794.9
14		299	345	306	86	116000	24.0	113	561.0	302.0	261.0	808.9
15		298	344	325	83	110000	14.0	108	617.1	320.6	247.5	815.3
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
AVERAGE		299	345	294	85	118067		114	535	291	266	802
TOTAL						41264300	349.5					