

TABLE VI
WASKADA LOWER AMARANTH WATER FLOOD
SUMMARY OF RESERVOIR PRESSURE MEASUREMENTS

<u>Date</u>	<u>Well</u>	<u>Pattern(s)</u>	<u>Pressure</u> (kPag)	<u>Remarks</u>
	13A-24, 26			
Dec 17/82	13A-24	11	6966	Still building at 21 kPa/day (BHP)
Dec 17/82	1A-25	10/19/20	5847	Stabilized reading (BHP)
Jan 06/83	9-24	9/10	2718	Still building at 70 kPa/day (BHP)
Jan 06/83	3-25	10/11/18/19	6185	Stabilized reading (BHP)
Jan 13/83	13A-24	11	6871	Stabilized reading (BHP)
Jan 13/83	1A-25	10/19/20	5799	Stabilized reading (BHP)
Feb 14/83	15-24	10	1792	Still building at 57 kPa/day (BHP)
Feb 14/83	3-25	10/11/18/19	5413	Still building at 12 kPa/day (BHP)
Feb 08/83	2-25	10/19	5537	BHP gradient
Jul 11/83	13A-24	11	6852	\bar{P} by leakoff analysis (DW)
Jul 20/83	15-24	10	8605 ?	\bar{P} by leakoff analysis (DW)
Jul 25/83	5-25	18	7571	\bar{P} by leakoff analysis (DW)
Jul 16/83	7-25	19	7361	\bar{P} by leakoff analysis (DW)
Sep 30/83	15-25	23	3092	\bar{P} by buildup analysis (BHP)
Sep 30/83	15-23	12	2947	\bar{P} by buildup analysis (BHP)
Sep 30/83	16-22	13	5965	BHP gradient
Dec 28/83	7-26	17	2198	\bar{P} by buildup analysis (BHP)
Jan 31/84	13A-27	27	5286	\bar{P} by buildup analysis (BHP)
Jan 31/84	7-27	15	3878	\bar{P} by buildup analysis (BHP)
Jan 31/84	13-26	25	4220	\bar{P} by buildup analysis (BHP)

Table 1

Waskada Lower Amaranth
Reservoir Pressure Measurement Summary

				Calculated Reservoir Pressure
<u>Well</u>		<u>Date of Test</u>	<u>Test Duration</u> (Hrs)	<u>@ MPP</u> (kPag)
5-30-1-25	WPM	85 12 13	1346.3	9372
13-30-1-25	WPM	85 10 17	672.3	11692
15-30-1-25	WPM	85 10 29	380.8	6325
5-31-1-25	WPM	85 11 15	605.3	12474
7-31-1-25	WPM	85 11 15	605.2	9187
13-31-1-25	WPM	85 08 30	555.8	4381
15-31-1-25	WPM	85 09 07	358.0	3067
13-32-1-25	WPM	85 09 08	346.0	4029
7-13-1-26	WPM	85 11 20	339.5	2904
13-13-1-26	WPM	85 10 01	336.9	4492
15-13-1-26	WPM	85 10 01	335.8	9031
15-14-1-26	WPM	85 10 01	338.8	10141
16-22-1-26	WPM	85 11 28	1128.2	8859
15-23-1-26	WPM	85 12 13	548.4	6149
5-24-1-26	WPM	85 03 01	354.2	4808
7-24-1-26	WPM	85 03 01	380.5	8206
13A-24-1-26	WPM	85 10 23	150.2	4245
15-24-1-26	WPM	86 01 14	581.3	8007
5-25-1-26	WPM	85 11 12	236.3	7896
7-25-1-26	WPM	85 11 12	676.8	6999
13-25-1-26	WPM	85 10 17	529.0	9090
15-25-1-26	WPM	85 12 13	355.3	12421
5-26-1-26	WPM	86 01 13	887.5	8364
13-26-1-26	WPM	85 10 17	529.2	7503
3-27-1-26	WPM	86 01 05	401.4	6572
13-35-1-26	WPM	84 12 14	313.5	3262
15-35-1-26	WPM	84 12 15	285.0	3132

<u>Well</u>		<u>Date of Test</u>	<u>Test Duration</u> (Hrs)	Calculated Reservoir Pressure <u>@ MPP</u> (kPag)
15-36-1-26	WPM	85 09 08	349.8	3636
13-8-2-25	WPM	85 10 08	402.8	3259
5-2-2-26	WPM	84 12 14	307.5	3104
7-2-2-26	WPM	84 12 15	290.8	3015
13-3-2-26	WPM	85 10 03	528.0	4257
7-11-2-26	WPM	84 11 17	218.0	2371
		86 01 15	840.9	13513

Table 1

**Waskada Lower Amaranth
Reservoir Pressure Measurement Summary**

<u>Well</u>		<u>Unit</u>	<u>Test Date</u>	<u>Test Duration</u> (Hrs)	<u>Reservoir Pressure</u> <u>@ MPP</u> (kPag)	<u>*Reservoir Pressure</u> <u>@ Pool Datum</u> (kPag)
5-25-1-26	WPM	Unit 1	85 11 12	236.3	7896	7856
7-26-1-26	WPM	Unit 1	86 04 29	171.8	7960	7921
5-27-1-26	WPM	Unit 2	86 05 13	317.3	6947	6857
7-27-1-26	WPM	Unit 2	86 05 12	6.4	8216	8193
13A-27-1-26	WPM	Unit 2	86 05 08	6.3	7020	6989
15A-27-1-26	WPM	Unit 2	86 04 29	172.5	8609	8587
5-35-1-26	WPM	Unit 2	86 04 08	500.3	8293	8153
5-36-1-26	WPM	Unit 3	86 11 06	364.0	3525	3525
7-36-1-26	WPM	Unit 3	86 10 24	391.6	3077	3112
13-36-1-26	WPM	Unit 3	86 06 17	504.1	10448	10387
7-5-2-25	WPM	Unit 3	86 07 11	365.6	4221	4466
16-11-1-26	WPM	Unit 4	86 06 02	335.9	9104	8852
5-13-1-26	WPM	Unit 4	86 06 02	335.5	11755	11687
7-23-1-26	WPM	Unit 4	86 05 08	413.5	9302	9227
5-24-1-26	WPM	Unit 4	86 05 13	244.2	5503	5467
7-24-1-26	WPM	Unit 4	86 05 13	339.4	11060	11010
5-34-1-26	WPM	Unit 5	86 02 27	361.0	3809	3689
15-34-1-26	WPM	Unit 5	86 02 20	530.0	3964	3853
13-35-1-26	WPM	Unit 5	86 02 17	1678.7	6824	6724
15-35-1-26	WPM	Unit 5	86 02 17	1678.8	9472	9401
5-2-2-26	WPM	Unit 5	86 04 08	643.7	10606	10581
7-2-2-26	WPM	Unit 5	86 04 30	381.7	14041	14010
15-2-2-26	WPM	Unit 5	86 02 28	310.5	3523	3501
7-3-2-26	WPM	Unit 5	86 02 27	363.6	2245	2231
13-17-1-25	WPM	Unit 7	86 11 22	358.9	4220	4153
7-18-1-25	WPM	Unit 7	86 11 22	362.6	2519	2475
5-20-1-25	WPM	Unit 7	86 11 14	363.7	4402	4440
13-20-1-25	WPM	Unit 7	86 11 23	365.3	8206	8251
15-20-1-25	WPM	Unit 7	86 11 23	361.5	3578	3618
5-8-2-25	WPM	Unit 8	86 06 17	117.0	4582	4867
7-8-2-25	WPM	Unit 8	86 10 23	408.3	1930	2145
15-8-2-25	WPM	Unit 8	86 06 17	50.2	8476	8828
5-1-2-26	WPM	Unit 13	86 12 10	312.4	2123	2068
7-1-2-26	WPM	Unit 13	86 12 10	316.8	2972	2979
13-1-2-26	WPM	Unit 13	86 11 06	360.5	3015	3070
15-1-2-26	WPM	Unit 13	86 12 09	335.7	1994	2060

*The pool datum used in these calculations is 440m subsea.

Table 1

**Waskada Lower Amaranth
Reservoir Pressure Measurement Summary**

<u>Well</u>	<u>Unit</u>	<u>Test Date</u>	<u>Test Duration (Hrs.)</u>	<u>Reservoir Pressure @ MPP (kPag)</u>	<u>**Reservoir Pressure @ Pool Datum (kPag)</u>
13A-24-1-26 WPM	Unit 1	87 10 13	677.1	7458	7144
15-24-1-26 WPM	Unit 1	87 04 21	771.4	10113	10087
5-25-1-26 WPM	Unit 1	87 04 10	459.9	8075	8031
7-25-1-26 WPM	Unit 1	87 05 13	698.3	9063	9004
13-25-1-26 WPM	Unit 1	87 06 01	917.4	10907	10916
15-25-1-26 WPM	Unit 1	87 07 06	1146.8	11844	11893
*7-26-1-26 WPM	Unit 1	87 09 30	886.8	4072	4033
5-30-1-25 WPM	Unit 3	87 09 01	174.4	8725	8750
13-30-1-25 WPM	Unit 3	87 07 26	598.4	12573	12573
15-30-1-25 WPM	Unit 3	87 07 21	429.3	7787	7818
5-31-1-25 WPM	Unit 3	87 07 21	454.8	11536	11665
7-31-1-25 WPM	Unit 3	87 07 21	429.8	9625	9750
13-31-1-25 WPM	Unit 3	87 07 21	454.9	12668	12685
15-31-1-25 WPM	Unit 3	87 07 21	453.1	12969	13096
13-32-1-25 WPM	Unit 3	87 07 28	456.5	9710	9867
13-36-1-25 WPM	Unit 3	87 08 27	413.3	10626	10566
15-36-1-25 WPM	Unit 3	87 08 27	413.0	11700	11725
16-11-1-26 WPM	Unit 4	87 09 30	498.8	9612	9361
7-13-1-26 WPM	Unit 4	87 07 26	48.1	9122	9040
13-13-1-26 WPM	Unit 4	87 07 16	174.3	7995	7943
15-13-1-26 WPM	Unit 4	87 12 10	219.0	9656	9341
15-14-1-26 WPM	Unit 4	87 08 07	384.3	8105	7947
7-23-1-26 WPM	Unit 4	87 06 03	675.7	8878	8807
7-24-1-26 WPM	Unit 4	87 06 24	765.7	8797	8748
5-2-2-26 WPM	Unit 5	87 08 18	486.6	11508	11483
5-8-2-25 WPM	Unit 8	87 07 26	45.8	8651	8934
13-8-2-25 WPM	Unit 8	87 08 27	436.0	9787	9468
7-33-1-26 WPM	Unit 15	87 02 22	360.0	4058	3989
15-33-1-26 WPM	Unit 15	87 02 22	360.0	2491	2489
13-3-2-26 WPM	Unit 15	87 02 21	347.0	2159	2110
*15-3-2-26 WPM	Unit 15	87 02 05	1756.0	1689	1667
*5-4-2-26 WPM	Unit 15	87 02 05	8782.0	3044	2947
7-4-2-26 WPM	Unit 15	87 02 21	352.0	1851	1737
7-11-2-26 WPM	Pilot	87 08 18	480.2	13156	13170

* Retest planned in 1988

** The pool datum used in these calculations is 440 m subsea.

Table 1

**Waskada Lower Amaranth
Reservoir Pressure Measurement Summary**

<u>Well</u>	<u>Unit</u>	<u>Test Date</u>	<u>Test Duration</u> (Hrs.)	<u>Reservoir Pressure</u> <u>@ MPP</u> (kPag)	<u>**Reservoir Pressure @</u> <u>Pool Datum</u> (kPag)
15-23-1-26 WPM	1	88-11	354.0	9474	9430
7A-30-1-25 WPM	3	88-11	581.0	9640	9725
7-36-1-26 WPM	3	88-10	500.0	9887	9938
13-34-1-26 WPM	5	88-10	575.0	8813	8687
15-34-1-26 WPM	5	88-11	595.0	8250	8133
5-2-2-26 WPM	5	88-09	521.0	10324	10302
7-8-2-25 WPM	8	88-09	672.0	6869	7152
* 15-8-2-25 WPM	8	88-11	0.2	N/A	N/A
7-1-2-26 WPM	13	88-10	508.0	13506	13506
13-1-2-26 WPM	13	88-11	672.0	11715	11787
13-33-1-26 WPM	15	88-10	575.0	8813	8687

* Retest planned in 1989

** The pool datum used in these calculations is 440 m subsea.

Table 1

Waskada Lower Amaranth
Injection Well Summary

<u>Well</u>	<u>Unit</u>	<u>Test Date</u>	<u>Test Duration</u> (Hrs.)	<u>Reservoir Pressure</u> <u>@ MPP</u> (Rm ³)	<u>Reservoir Pressure @</u> <u>Pool Datum</u> (Kpag)
13A-24-1-26 WPM	Unit 1	89-11	149.2	9076	9035
15-24-1-26 WPM	Unit 1	89-12	432.0	10505	10482
5-25-1-26 WPM	Unit 1	89-05	9120.0	5337	5306
7-25-1-26 WPM	Unit 1	89-05	5400.0	5887	5862
13-25-1-26 WPM	Unit 1	89-09	5400.0	9137	9202
15-25-1-26 WPM	Unit 1	89-12	1632.7	11095	11144
7-26-1-26 WPM	Unit 1	89-05	4872.0	5683	5647
13-23-1-26 WPM	Unit 2	89-02	262.0	8684	8556
5-26-1-26 WPM	Unit 2	89-05	8496.0	6080	6055
13-26-1-26 WPM	Unit 2	89-05	18984.0	4671	4652
7-27-1-26 WPM	Unit 2	89-05	9072.0	4829	4806
5-27-1-26 WPM	Unit 2	89-05	18984.0	6307	6268
5-35-1-26 WPM	Unit 2	89-05	18984.0	6609	6512
5-30-1-25 WPM	Unit 3	89-05	7728.0	6781	6808
13-30-1-25 WPM	Unit 3	89-05	5760.0	9310	9309
15-30-1-25 WPM	Unit 3	89-05	4800.0	5560	5587
5-31-1-25 WPM	Unit 3	89-04	8578.7	10128	10257
7-31-1-25 WPM	Unit 3	89-05	6984.0	7478	7594
13-31-1-25 WPM	Unit 3	89-09	14136.0	9705	9721
15-31-1-25 WPM	Unit 3	89-02	4976.5	12697	12824
5-36-1-26 WPM	Unit 3	89-03	2160.2	11469	11462
13-36-1-26 WPM	Unit 3	89-09	798.2	11590	11530
15-36-1-26 WPM	Unit 3	89-09	797.2	10586	10611
7-5-2-25 WPM	Unit 3	89-01	1226.0	7731	7966
13-32-2-26 WPM	Unit 3	89-05	5448.0	8918	9071
16-11-1-26 WPM	Unit 4	89-04	1060.5	10699	10448
5-13-1-26 WPM	Unit 4	89-12	2474.8	13963	13899
7-13-1-26 WPM	Unit 4	89-05	7333.0	9099	9021
13-13-1-26 WPM	Unit 4	89-12	11256.0	9096	9046
15-13-1-26 WPM	Unit 4	89-05	4896.0	9774	9697
15-14-1-26 WPM	Unit 4	89-10	937.2	10278	10120
7-23-1-26 WPM	Unit 4	89-09	3864.0	8241	8167
5-24-1-26 WPM	Unit 4	89-05	4824.0	5161	5130
7-24-1-26 WPM	Unit 4	89-09	5352.0	9479	9429
5-34-1-26 WPM	Unit 5	89-05	7704.0	5742	5635
13-35-1-26 WPM	Unit 5	89-12	1010.8	14987	14888
15-35-1-26 WPM	Unit 5	89-09	8208.0	12481	12467
5-2-2-26 WPM	Unit 5	89-06	946.0	14967	14942
7-2-2-26 WPM	Unit 5	89-01	1351.0	12565	12534
7-3-2-26 WPM	Unit 5	89-02	2934.3	12188	12172
13-17-1-25 WPM	Unit 7	89-01	1200.0	8789	8700
7-18-1-25 WPM	Unit 7	89-01	1221.0	8714	8666
5-20-1-25 WPM	Unit 7	89-01	650.0	8761	8794
13-20-1-25 WPM	Unit 7	89-02	509.0	8813	8813
15-20-1-25 WPM	Unit 7	89-05	6984.0	9249	9306
5-8-2-25 WPM	Unit 8	89-11	102.8	8014	8297
5-1-2-26 WPM	Unit 13	89-09	943.7	13756	13685
15-1-2-26 WPM	Unit 13	89-09	943.2	12449	12513

Table 1

<u>Well</u>	<u>Unit</u>	<u>Test Date</u>	<u>Test Duration</u> (Hrs.)	<u>Reservoir Pressure</u> <u>@ MPP</u> (Rm ³)	<u>Reservoir Pressure @</u> <u>Pool Datum</u> (Kpag)
5-32-1-25 WPM	Unit 14	89-01	269.0	5218	5373
7-32-1-25 WPM	Unit 14	89-08	986.0	8743	8903
7-33-1-26 WPM	Unit 15	89-08	0.6	5475	5382
15-33-1-26 WPM	Unit 15	89-07	794.0	11337	11270
13-3-2-26 WPM	Unit 15	89-06	897.2	9377	9313
7-4-2-26 WPM	Unit 15	89-08	1827.9	9429	9289
13-8-1-25 WPM		89-05	3806.0	8850	9169

Table 1

**Waskada Lower Amaranth
Injection Well Summary**

<u>Well</u>	<u>Unit</u>	<u>Test Date</u>	<u>Test Duration (Hrs.)</u>	<u>Reservoir Pressure @ MPP (Kpag)</u>	<u>Reservoir Pressure @ Pool Datum (Kpag)</u>
15-23-1-26 WPM	Unit 1	90-09	6.4	6471	6426
13A-24-1-26 WPM	Unit 1	90-07	100.5	9177	9136
15-24-1-26 WPM	Unit 1	90-09	454.6	10748	10725
7-25-1-26 WPM	Unit 1	90-09	478.1	8919	8859
13-25-1-26 WPM	Unit 1	90-09	312.6	8546	8555
15-25-1-26 WPM	Unit 1	90-09	479.1	12558	12607
7-26-1-26 WPM	Unit 1	90-09	173.5	8088	7960
13-23-1-26 WPM	Unit 2	90-09	19.6	7109	6981
5-26-1-26 WPM	Unit 2	91-01	432.0	9126	9073
7-27-1-26 WPM	Unit 2	90-12	557.0	5292	5271
5-35-1-26 WPM	Unit 2	90-10	52.5	8600	8460
7A-30-1-25 WPM	Unit 3	90-09	49.7	9033	9118
13-30-1-25 WPM	Unit 3	90-09	407.0	8890	8889
15-30-1-25 WPM	Unit 3	91-02	93.4	7849	7876
5-31-1-25 WPM	Unit 3	90-06	18408.0	8508	8677
7-31-1-25 WPM	Unit 3	90-11	1968.0	7110	7231
13-31-1-25 WPM	Unit 3	90-10	166.2	9760	9777
15-31-1-25 WPM	Unit 3	90-06	12576.0	11097	11220
13-32-1-25 WPM	Unit 3	90-09	118.2	9146	9303
5-36-1-26 WPM	Unit 3	90-07	313.3	12291	12286
7-36-1-26 WPM	Unit 3	91-02	379.8	7997	8026
13-36-1-26 WPM	Unit 3	90-07	263.8	12339	12279
15-36-1-26 WPM	Unit 3	90-07	313.9	10910	10935
5-13-1-26 WPM	Unit 4	90-07	405.3	10686	10618
7-13-1-26 WPM	Unit 4	91-02	366.0	9550	9471
13-13-1-26 WPM	Unit 4	90-06	15600.0	8805	8753
15-13-1-26 WPM	Unit 4	90-06	14232.0	8871	8791
15-14-1-26 WPM	Unit 4	90-07	405.3	10673	10515
7-23-1-26 WPM	Unit 4	91-02	768.0	8641	8575
5-24-1-26 WPM	Unit 4	90-12	556.0	4579	4545
7-24-1-26 WPM	Unit 4	90-06	11232.0	8946	8909
5-34-1-26 WPM	Unit 5	90-07	196.8	7709	7603
13-34-1-26 WPM	Unit 5	90-07	503.6	9205	9079
15-34-1-26 WPM	Unit 5	90-07	336.6	8664	8547
13-35-1-26 WPM	Unit 5	90-07	671.0	14503	14404
15-35-1-26 WPM	Unit 5	90-07	503.3	13601	13530
5-2-2-26 WPM	Unit 5	90-07	552.7	15102	15097
7-2-2-26 WPM	Unit 5	90-07	480.7	13863	13832
15-2-2-26 WPM	Unit 5	90-07	553.7	10209	10187
7-3-2-26 WPM	Unit 5	90-07	504.6	11853	11837
13-17-1-25 WPM	Unit 7	90-07	214.0	8907	8862
7-18-1-25 WPM	Unit 7	89-01	1221.0	8714	8666
5-20-1-25 WPM	Unit 7	90-09	405.0	7870	7893
13-20-1-25 WPM	Unit 7	90-07	289.0	8291	8291
15-20-1-25 WPM	Unit 7	91-01	432.0	10132	10186
5-8-2-25 WPM	Unit 8	90-09	139.7	6936	7219
7-8-2-25 WPM	Unit 8	90-07	119.7	8895	9179
13-8-2-25 WPM	Unit 8	91-01	480.0	8859	9170
15-8-2-25 WPM	Unit 8	90-12	554.0	8803	9145

Table 1

<u>Well</u>	<u>Unit</u>	<u>Test Date</u>	<u>Test Duration</u> (Hrs.)	<u>Reservoir Pressure</u> <u>@ MPP</u> (Kpag)	<u>Reservoir Pressure @</u> <u>Pool Datum</u> (Kpag)
5-1-2-26 WPM	Unit 13	90-07	312.2	12902	12831
7-1-2-26 WPM	Unit 13	90-07	312.1	12167	12158
13-1-2-26 WPM	Unit 13	90-07	553.7	11866	11937
15-1-2-26 WPM	Unit 13	90-07	554.0	11943	12007
5-32-1-25 WPM	Unit 14	90-07	432.0	8748	8903
7-32-1-25 WPM	Unit 14	90-07	480.1	10202	10362
7-33-1-26 WPM	Unit 15	91-01	360.0	8036	7946
13-33-1-26 WPM	Unit 15	91-01	960.0	9214	9089
15-33-1-26 WPM	Unit 15	90-07	337.1	12524	12457
13-3-2-26 WPM	Unit 15	90-09	383.5	9576	9512
5-4-2-26 WPM	Unit 15	90-07	337.6	9982	9860
7-4-2-26 WPM	Unit 15	90-07	599.0	10302	10162
15-3-2-26 WPM	Unit 15	90-10	430.3	11605	11578

Injection Well Summary

<u>Well</u>	<u>Unit</u>	<u>Test Date</u>	<u>Test Duration (Hrs.)</u>	<u>Reservoir Pressure @ MPP (Kpag)</u>	<u>Reservoir Pressure @ Pool Datum (Kpag)</u>
15-23-1-26 WPM	Unit 1	90-09	6.4	6471	6426
13A-24-1-26 WPM	Unit 1	91-11	343.3	6918	6877
15-24-1-26 WPM	Unit 1	92-03	1032.9	9621	9598
5-25-1-26 WPM	Unit 1	91-04	600.0	6094	6048
7-25-1-26 WPM	Unit 1	91-08	163.9	8088	8025
13-25-1-26 WPM	Unit 1	91-12	788.1	8677	8686
15-25-1-26 WPM	Unit 1	90-09	479.1	12558	12607
7-26-1-26 WPM	Unit 1	90-09	173.5	8088	7960
13-23-1-26 WPM	Unit 2	90-09	19.6	7109	6981
5-26-1-26 WPM	Unit 2	91-01	432.0	9126	9073
7-27-1-26 WPM	Unit 2	90-12	557.0	5292	5271
5-35-1-26 WPM	Unit 2	90-10	52.5	8600	8460
5-30-1-25 WPM	Unit 3	91-04	600.0	8168	8193
7A-30-1-25 WPM	Unit 3	91-08	936.3	9743	9828
13-30-1-25 WPM	Unit 3	91-09	656.2	11230	11229
15-30-1-25 WPM	Unit 3	91-02	93.4	7849	7876
5-31-1-25 WPM	Unit 3	90-06	18408.0	8508	8677
7-31-1-25 WPM	Unit 3	91-12	523.8	8994	9119
13-31-1-25 WPM	Unit 3	91-10	512.5	9356	9372
15-31-1-25 WPM	Unit 3	90-06	12576.0	11097	11220
13-32-1-25 WPM	Unit 3	91-08	1155.0	8496	8653
5-36-1-26 WPM	Unit 3	90-07	313.3	12291	12286
7-36-1-26 WPM	Unit 3	91-02	379.8	7997	8026
13-36-1-26 WPM	Unit 3	90-07	263.8	12339	12279
15-36-1-26 WPM	Unit 3	90-07	313.9	10910	10935
7-5-2-25 WPM	Unit 3	91-04	600.0	9013	9242
5-13-1-26 WPM	Unit 4	92-02	832.6	10458	10390
7-13-1-26 WPM	Unit 4	91-02	366.0	9550	9471
13-13-1-26 WPM	Unit 4	90-06	15600.0	8805	8753
15-13-1-26 WPM	Unit 4	90-06	14232.0	8871	8791
15-14-1-26 WPM	Unit 4	90-07	405.3	10673	10515
7-23-1-26 WPM	Unit 4	92-04	274.8	8858	8787
5-24-1-26 WPM	Unit 4	92-12	1172.0	5791	5761
7-24-1-26 WPM	Unit 4	91-08	586.4	9541	9448
5-34-1-26 WPM	Unit 5	92-07	53.0	4272	4165
13-34-1-26 WPM	Unit 5	92-07	2356.5	8939	9893
15-34-1-26 WPM	Unit 5	90-07	336.6	8664	8547
13-35-1-26 WPM	Unit 5	90-07	671.0	14503	14404
15-35-1-26 WPM	Unit 5	90-07	503.3	13601	13530
5-2-2-26 WPM	Unit 5	90-07	552.7	15102	15097
7-2-2-26 WPM	Unit 5	90-07	480.7	13863	13832
15-2-2-26 WPM	Unit 5	92-07	2076.5	9314	9291
7-3-2-26 WPM	Unit 5	90-07	504.6	11853	11837
13-17-1-25 WPM	Unit 7	90-07	214.0	8907	8862
7-18-1-25 WPM	Unit 7	89-01	1221.0	8714	8666
5-20-1-25 WPM	Unit 7	90-09	405.0	7870	7893
13-20-1-25 WPM	Unit 7	90-07	289.0	8291	8291
15-20-1-25 WPM	Unit 7	91-08	1280.2	9822	9912
5-8-2-25 WPM	Unit 8	91-11	110.7	6449	6732
7-8-2-25 WPM	Unit 8	90-07	119.7	8895	9179
13-8-2-25 WPM	Unit 8	91-01	480.0	8859	9170
15-8-2-25 WPM	Unit 8	90-12	554.0	8803	9145

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<u>Well</u>	<u>Unit</u>	<u>Test Date</u>	<u>Test Duration (Hrs.)</u>	<u>Reservoir Pressure @ MPP (Kpag)</u>	<u>Reservoir Pressure @ Pool Datum (Kpag)</u>
5-1-2-26 WPM	Unit 13	90-07	312.2	12902	12831
7-1-2-26 WPM	Unit 13	90-07	312.1	12167	12158
13-1-2-26 WPM	Unit 13	90-07	553.7	11866	11937
15-1-2-26 WPM	Unit 13	90-07	554.0	11943	12007
5-32-1-25 WPM	Unit 14	91-10	551.4	8759	8914
7-32-1-25 WPM	Unit 14	91-11	1900.5	8723	8882
7-33-1-26 WPM	Unit 15	91-01	360.0	8036	7946
13-33-1-26 WPM	Unit 15	91-01	960.0	9214	9089
15-33-1-26 WPM	Unit 15	90-07	337.1	12524	12457
13-3-2-26 WPM	Unit 15	92-07	284.5	9078	9102
15-3-2-26 WPM	Unit 15	90-10	430.3	11605	11578
5-4-2-26 WPM	Unit 15	90-07	337.6	9982	9860
7-4-2-26 WPM	Unit 15	90-07	599.0	10302	10162

**Waskada Lower Amaranth
Injection Well Summary**

<u>Well</u>	<u>Unit</u>	<u>Test Date</u>	<u>Test Duration</u> (Hrs.)	<u>Reservoir Pressure</u> <u>@ MPP</u> (Kpag)	<u>Reservoir Pressure @</u> <u>Pool Datum</u> (Kpag)
15-23-1-26 WPM	Unit 1	90-09	6.4	6471	6426
13A-24-1-26 WPM	Unit 1	91-11	343.3	6918	6877
15-24-1-26 WPM	Unit 1	90-09	454.6	10748	10725
7-25-1-26 WPM	Unit 1	91-08	163.9	8088	8025
13-25-1-26 WPM	Unit 1	91-12	788.1	8677	8686
15-25-1-26 WPM	Unit 1	90-09	479.1	12558	12607
7-26-1-26 WPM	Unit 1	90-09	173.5	8088	7960
13-23-1-26 WPM	Unit 2	90-09	19.6	7109	6981
5-26-1-26 WPM	Unit 2	91-01	432.0	9126	9073
7-27-1-26 WPM	Unit 2	90-12	557.0	5292	5271
5-35-1-26 WPM	Unit 2	90-10	52.5	8600	8460
7A-30-1-25 WPM	Unit 3	91-08	936.3	9743	9828
13-30-1-25 WPM	Unit 3	91-09	656.2	11230	11229
15-30-1-25 WPM	Unit 3	91-02	93.4	7849	7876
5-31-1-25 WPM	Unit 3	90-06	18408.0	8508	8677
7-31-1-25 WPM	Unit 3	91-12	523.8	8994	9119
13-31-1-25 WPM	Unit 3	91-10	512.5	9356	9372
15-31-1-25 WPM	Unit 3	90-06	12576.0	11097	11220
13-32-1-25 WPM	Unit 3	91-08	512.0	8319	8476
5-36-1-26 WPM	Unit 3	90-07	313.3	12291	12286
7-36-1-26 WPM	Unit 3	91-02	379.8	7997	8026
13-36-1-26 WPM	Unit 3	90-07	263.8	12339	12279
15-36-1-26 WPM	Unit 3	90-07	313.9	10910	10935
5-13-1-26 WPM	Unit 4	90-07	405.3	10686	10618
7-13-1-26 WPM	Unit 4	91-02	366.0	9550	9471
13-13-1-26 WPM	Unit 4	90-06	15600.0	8805	8753
15-13-1-26 WPM	Unit 4	90-06	14232.0	8871	8791
15-14-1-26 WPM	Unit 4	90-07	405.3	10673	10515
7-23-1-26 WPM	Unit 4	91-02	768.0	8641	8575
5-24-1-26 WPM	Unit 4	90-12	556.0	4579	4545
7-24-1-26 WPM	Unit 4	91-08	586.4	9541	9448
5-34-1-26 WPM	Unit 5	90-07	196.8	7709	7603
13-34-1-26 WPM	Unit 5	90-07	503.6	9205	9079
15-34-1-26 WPM	Unit 5	90-07	336.6	8664	8547
13-35-1-26 WPM	Unit 5	90-07	671.0	14503	14404
15-35-1-26 WPM	Unit 5	90-07	503.3	13601	13530
5-2-2-26 WPM	Unit 5	90-07	552.7	15102	15097
7-2-2-26 WPM	Unit 5	90-07	480.7	13863	13832
15-2-2-26 WPM	Unit 5	90-07	553.7	10209	10187
7-3-2-26 WPM	Unit 5	90-07	504.6	11853	11837
13-17-1-25 WPM	Unit 7	90-07	214.0	8907	8862
7-18-1-25 WPM	Unit 7	89-01	1221.0	8714	8666
5-20-1-25 WPM	Unit 7	90-09	405.0	7870	7893
13-20-1-25 WPM	Unit 7	90-07	289.0	8291	8291
15-20-1-25 WPM	Unit 7	91-08	1280.2	9822	9912
5-8-2-25 WPM	Unit 8	91-11	110.7	6449	6732
7-8-2-25 WPM	Unit 8	90-07	119.7	8895	9179
13-8-2-25 WPM	Unit 8	91-01	480.0	8859	9170
15-8-2-25 WPM	Unit 8	90-12	554.0	8803	9145

Table 1

<u>Well</u>	<u>Unit</u>	<u>Test Date</u>	<u>Test Duration (Hrs.)</u>	<u>Reservoir Pressure @ MPP (Kpag)</u>	<u>Reservoir Pressure @ Pool Datum (Kpag)</u>
5-1-2-26 WPM	Unit 13	90-07	312.2	12902	12831
7-1-2-26 WPM	Unit 13	90-07	312.1	12167	12158
13-1-2-26 WPM	Unit 13	90-07	553.7	11866	11937
15-1-2-26 WPM	Unit 13	90-07	554.0	11943	12007
5-32-1-25 WPM	Unit 14	91-10	551.4	8759	8914
7-32-1-25 WPM	Unit 14	91-11	1900.5	8723	8882
7-33-1-26 WPM	Unit 15	91-01	360.0	8036	7946
13-33-1-26 WPM	Unit 15	91-01	960.0	9214	9089
15-33-1-26 WPM	Unit 15	90-07	337.1	12524	12457
13-3-2-26 WPM	Unit 15	90-09	383.5	9576	9512
5-4-2-26 WPM	Unit 15	90-07	337.6	9982	9860
7-4-2-26 WPM	Unit 15	90-07	599.0	10302	10162
15-3-2-26 WPM	Unit 15	90-10	430.3	11605	11578

1991 Annual Pressure Survey
Waskada Lower Amaranth Injection Wells

Well	Pool	Test Date	Shut In Time (hrs.)	Pressure @ MPP (kPag)	Pressure @ Datum (kPag)
15-20-1-25 WPM	LAm	91/01/18	432	10132	10186
5-26-1-26 WPM	LAm	91/01/18	432	9126	9073
13-33-1-26 WPM	LAm	91/01/08	960	9214	9089
13-8-2-25 WPM	LAm	91/01/18	480	8859	9170

Lower Amaranth Datum Depth = 440 m subsea

**Waskada Reduced Spacing Pilot Project
Pressure Survey Results**

Well	Pool	Test Dates	Shut-In Time (hrs.)	Reservoir Pressure @ MPP (kPag)	Reservoir Pressure @ Datum (kPag)	Slope kPa/Cycle	Radius of Investigation (m)	Skin	Perm (mD)
8A-23-1-26 WPM	LAm	91/03/13 - 03/20	166.4	4020	3989	968	41	-3.9	41.9
3C-24-1-26 WPM	LAm	91/05/02 - 05/09	173.2	4323	4281	1253	52	-3.9	8.4
4C-24-1-26 WPM	LAm	91/03/22 - 04/01	236.6	4086	3985	1399	41	-4.6	36.6
6A-24-1-26 WPM	LAm	91/05/02 - 05/09	171.3	4022	3994	1165	64	-2.3	13.0

Lower Amaranth Datum Depth = 440 m subsea

TABLE 1
PRESSURE SURVEYS

<u>Well</u>	<u>Date</u>	<u>Shut-in Time</u>	<u>Bottom Hole Pressure</u>
		Hours	Psig
03-30-1-25	Oct.16/76	24	124
04-30	Oct.16/76	48	544
05-30	Oct.16/76	24	756
06-30	Oct.16/76	Nil	1044 (est)
11-30	Oct.16/76	Nil	128 (est)
12-30	Oct.19/76	96	153
03-30	May 22/77	72	537
04-30	May 22/77	72	991
05-30	May 22/77	72	1180
12-30	May 22/77	72	332

No pressure surveys have been taken since 1977.

Table 1
Waskada Mission Canyon
Reservoir Pressure Measurement Summary

<u>Well</u>	<u>Unit</u>	<u>Test Date</u>	<u>Test Duration</u> (Hrs)	<u>Reservoir Pressure</u> @ MPP (KPag)	<u>Reservoir Pressure</u> @ Datum (kPa)
9 13MC3a-1-26 WPM	12	87 05 07	*Static Pressure	2182	1832

This well was suspended in September, 1984
until June, 1987 at which point in time was
converted from a producer to a water injector.

Waskada Mission Canyon

Reservoir Pressure Measurement Histories

<u>Test Date</u>	<u>Well</u>	<u>Test Duration</u>	<u>Reservoir Pressure @ MPP (KPaq)</u>	<u>Reservoir Pressure @ Datum (KPaq)</u>
<u>Unit #1 (Upper Alida)</u>				
77/05/20	3-30-1-25	72.0	3654	3703
77/05/20	4-30-1-25	72.0	6825	6833
77/05/20	5-30-1-25	72.0	8136	8136
77/05/20	12-30-1-25	72.0	2282	2289
81/05/28	4-30-1-25	216.0	9374	N/A
81/08/14	12-30-1-25	408.0	7143	N/A
86/01/02	6-30-1-25	Extended	8433	8436
89/03/14	6-30-1-25	1152.0	6984	6984
89/05/19	6-30-1-25	1608.0	7124	7124
<u>Unit #9 (Upper Alida)</u>				
84/05/24	13-27-1-26	212.8	8345	8254
84/06/01	15-27-1-26	265.1	9147	9045
84/09/18	13-27-1-26	68.4	7524	7434
84/09/21	15-27-1-26	119.3	10031	9925
86/03/13	1-34-1-26	353.0	7577	7342
89/05/17	1-34-1-26	Extended	4612	4387
89/12/13	1-34-1-26	Extended	4232	4015
<u>Unit #10 (Lower Alida)</u>				
83/10/06	9-27MC3a-1-26	Extended	7213	7147
84/05/24	13-26MC3a-1-26	257.4	4553	N/A
*84/06/01	6-27-1-26	315.8	1554	1621
84/06/08	1-27MC3a-1-26	Extended	4960	5032
84/06/08	2-27MC3a-1-26	Extended	5707	5763
84/06/08	9-27MC3a-1-26	Extended	6577	6509
84/06/13	5-26MC3a-1-26	70.2	4109	N/A
84/06/13	11-26MC3a-1-26	70.0	4647	N/A
84/08/21	2-27MC3a-1-26	Extended	6085	6143
84/08/21	9-27MC3a-1-26	Extended	6561	6488
84/12/27	2-27MC3a-1-26	Extended	6399	6456
84/12/27	9-27MC3a-1-26	Extended	6629	6557
86/01/02	9-27MC3a-1-26	Extended	6633	6559
86/01/07	13-26MC3a-1-26	381.7	5009	4964
86/02/05	3-27MC3a-1-26	360.9	6742	6764
86/02/28	11-27-1-26	315.2	5683	N/A
89/05/17	13-26MC3a-1-26	Extended	6009	5967

<u>Test Date</u>	<u>Well</u>	<u>Test Duration</u>	<u>Reservoir Pressure @ MPP (KPaq)</u>	<u>Reservoir Pressure @ Datum (KPaq)</u>
<u>Unit #12 (Lower Alida)</u>				
81/07/23	3-25-1-26	89.1	7862	N/A
81/09/24	2-25-1-26	90.5	7296	N/A
81/10/12	1-26-1-26	Static	9173	N/A
82/02/03	8-24-1-26	Static	5346	5387
82/02/03	9-24-1-26	Static	5408	5536
84/03/12	8-24-1-26	71.4	3989	N/A
84/03/12	3-25MC3a-1-26	70.6	3809	N/A
84/04/13	8-24-1-26	71.4	4214	N/A
84/04/13	3-25MC3a-1-26	71.5	4080	N/A
84/05/12	8-24-1-26	71.9	3922	N/A
84/05/12	3-25MC3a-1-26	71.7	4170	N/A
84/06/13	8-24-1-26	70.5	4376	N/A
84/06/13	3-25MC3a-1-26	70.3	3455	N/A
84/11/22	8-23-1-26	949.2	2701	2740
86/03/27	1-24-1-26	288.3	1861	N/A
87/05/07	9-23MC3A-1-26	Extended	2182	2122
89/05/18	9-23MC3a-1-26	Extended	4420	4362
89/05/18	1-24-1-26	Extended	5089	5142
89/12/13	9-23MC3a-1-26	Extended	4197	4146
89/12/13	1-24-1-26	Extended	4937	4987

*Horner Analysis not performed

Lower Alida Datum 465 subsea
Upper Alida Datum 450 subsea

Waskada Mission Canyon

Reservoir Pressure Measurement Histories

<u>Test Date</u>	<u>Well</u>	<u>Test Duration</u>	<u>Reservoir Pressure @ MPP (KPaq)</u>	<u>Reservoir Pressure @ Datum (KPaq)</u>
<u>Unit #1 (Upper Alida)</u>				
77/05/20	3-30-1-25	72.0	3654	3703
77/05/20	4-30-1-25	72.0	6825	6833
77/05/20	5-30-1-25	72.0	8136	8136
77/05/20	12-30-1-25	72.0	2282	2289
81/05/28	4-30-1-25	216.0	9374	N/A
81/08/14	12-30-1-25	408.0	7243	N/A
86/01/02	6-30-1-25	Extended	8433	8436
89/03/14	6-30-1-25	1152.0	6984	6984
89/05/19	6-30-1-25	1608.0	7124	7124
<u>Unit #9 (Upper Alida)</u>				
84/05/24	13-27-1-26	212.8	8345	8254
84/06/01	15-27-1-26	265.1	9147	9045
84/09/18	13-27-1-26	68.4	7524	7434
84/09/21	15-27-1-26	119.3	10031	9925
86/03/13	1-34-1-26	353.0	7577	7342
89/05/17	1-34-1-26	Extended	4612	4387
89/12/13	1-34-1-26	Extended	4232	4015
90/06/13	1-34-1-26	Extended	4215	3987
<u>Unit #10 (Lower Alida)</u>				
83/10/06	9-27MC3a-1-26	Extended	7213	7147
84/05/24	13-26MC3a-1-26	257.4	4553	N/A
*84/06/01	6-27-1-26	315.8	1554	1621
84/06/08	1-27MC3a-1-26	Extended	4960	5032
84/06/08	2-27MC3a-1-26	Extended	5707	5763
84/06/08	9-27MC3a-1-26	Extended	6577	6509
84/06/13	5-26MC3a-1-26	70.2	4109	N/A
84/06/13	11-26MC3a-1-26	70.0	4647	N/A
84/08/21	2-27MC3a-1-26	Extended	6085	6143
84/08/21	9-27MC3a-1-26	Extended	6561	6488
84/12/27	2-27MC3a-1-26	Extended	6399	6456
84/12/27	9-27MC3a-1-26	Extended	6629	6557
86/01/02	9-27MC3a-1-26	Extended	6633	6559
86/01/07	13-26MC3a-1-26	381.7	5009	4964
86/02/05	3-27MC3a-1-26	360.9	6742	6764
86/02/28	11-27-1-26	315.2	5683	N/A
89/05/17	13-26MC3a-1-26	Extended	6009	5967

<u>Test Date</u>	<u>Well</u>	<u>Test Duration</u>	<u>Reservoir Pressure @ MPP (KPaq)</u>	<u>Reservoir Pressure @ Datum (KPaq)</u>
<u>Unit #12 (Lower Alida)</u>				
81/07/23	3-25-1-26	89.1	7862	N/A
81/09/24	2-25-1-26	90.5	7296	N/A
81/10/12	1-26-1-26	Static	9173	N/A
82/02/03	8-24-1-26	Static	5346	5387
82/02/03	9-24-1-26	Static	5408	5536
84/03/12	8-24-1-26	71.4	3989	N/A
84/03/12	3-25MC3a-1-26	70.6	3809	N/A
84/04/13	8-24-1-26	71.4	4214	N/A
84/04/13	3-25MC3a-1-26	71.5	4080	N/A
84/05/12	8-24-1-26	71.9	3922	N/A
84/05/12	3-25MC3a-1-26	71.7	4170	N/A
84/06/13	8-24-1-26	70.5	4376	N/A
84/06/13	3-25MC3a-1-26	70.3	3455	N/A
84/11/22	8-23-1-26	949.2	2701	2740
86/03/27	1-24-1-26	288.3	1861	N/A
87/05/07	9-23MC3a-1-26	Extended	2182	2122
89/05/18	9-23MC3a-1-26	Extended	4420	4362
89/05/18	1-24-1-26	Extended	5089	5142
89/12/13	9-23MC3a-1-26	Extended	4197	4146
89/12/13	1-24-1-26	Extended	4937	4987
90/06/12	9-23MC3a-1-26	Extended	4194	4133
90/06/13	1-24-1-26	Extended	4899	4947

*Horner Analysis not performed

Lower Alida Datum 465 subsea
Upper Alida Datum 450 subsea

Waskada Mission Canyon

Reservoir Pressure Measurement Histories

<u>Test Date</u>	<u>Well</u>	<u>Test Duration</u>	<u>Reservoir Pressure @ MPP (KPaq)</u>	<u>Reservoir Pressure @ Datum (KPaq)</u>
<u>Unit #1 (Upper Alida)</u>				
77/05/20	3-30-1-25	72.0	3654	3703
77/05/20	4-30-1-25	72.0	6825	6833
77/05/20	5-30-1-25	72.0	8136	8136
77/05/20	12-30-1-25	72.0	2282	2289
81/05/28	4-30-1-25	216.0	9374	N/A
81/08/14	12-30-1-25	408.0	7243	N/A
86/01/02	6-30-1-25	Extended	8433	8436
89/03/14	6-30-1-25	1152.0	6984	6984
89/05/19	6-30-1-25	1608.0	7124	7124
90/12/20	6-30-1-25	13374.0	6700	6712
<u>Unit #9 (Upper Alida)</u>				
84/05/24	13-27-1-26	212.8	8345	8254
84/06/01	15-27-1-26	265.1	9147	9045
84/09/18	13-27-1-26	68.4	7524	7434
84/09/21	15-27-1-26	119.3	10031	9925
86/03/13	1-34-1-26	353.0	7577	7342
89/05/17	1-34-1-26	Extended	4612	4387
89/12/13	1-34-1-26	Extended	4232	4015
90/06/13	1-34-1-26	Extended	4215	3987
<u>Unit #10 (Lower Alida)</u>				
83/10/06	9-27MC3a-1-26	Extended	7213	7147
84/05/24	13-26MC3a-1-26	257.4	4553	N/A
*84/06/01	6-27-1-26	315.8	1554	1621
84/06/08	1-27MC3a-1-26	Extended	4960	5032
84/06/08	2-27MC3a-1-26	Extended	5707	5763
84/06/08	9-27MC3a-1-26	Extended	6577	6509
84/06/13	5-26MC3a-1-26	70.2	4109	N/A
84/06/13	11-26MC3a-1-26	70.0	4647	N/A
84/08/21	2-27MC3a-1-26	Extended	6085	6143
84/08/21	9-27MC3a-1-26	Extended	6561	6488
84/12/27	2-27MC3a-1-26	Extended	6399	6456
84/12/27	9-27MC3a-1-26	Extended	6629	6557
86/01/02	9-27MC3a-1-26	Extended	6633	6559
86/01/07	13-26MC3a-1-26	381.7	5009	4964
86/02/05	3-27MC3a-1-26	360.9	6742	6764
86/02/28	11-27-1-26	315.2	5683	N/A
89/05/17	13-26MC3a-1-26	Extended	6009	5967

Table 1

<u>Test Date</u>	<u>Well</u>	<u>Test Duration</u>	<u>Reservoir Pressure @ MPP (KPaq)</u>	<u>Reservoir Pressure @ Datum (KPaq)</u>
<u>Unit #12 (Lower Alida)</u>				
81/07/23	3-25-1-26	89.1	7862	N/A
81/09/24	2-25-1-26	90.5	7296	N/A
81/10/12	1-26-1-26	Static	9173	N/A
82/02/03	8-24-1-26	Static	5346	5387
82/02/03	9-24-1-26	Static	5408	5536
84/03/12	8-24-1-26	71.4	3989	N/A
84/03/12	3-25MC3a-1-26	70.6	3809	N/A
84/04/13	8-24-1-26	71.4	4214	N/A
84/04/13	3-25MC3a-1-26	71.5	4080	N/A
84/05/12	8-24-1-26	71.9	3922	N/A
84/05/12	3-25MC3a-1-26	71.7	4170	N/A
84/06/13	8-24-1-26	70.5	4376	N/A
84/06/13	3-25MC3a-1-26	70.3	3455	N/A
84/11/22	8-23-1-26	949.2	2701	2740
86/03/27	1-24-1-26	288.3	1861	N/A
87/05/07	9-23MC3A-1-26	Extended	2182	2122
89/05/18	9-23MC3a-1-26	Extended	4420	4362
89/05/18	1-24-1-26	Extended	5089	5142
89/12/13	9-23MC3a-1-26	Extended	4197	4146
89/12/13	1-24-1-26	Extended	4937	4987
90/06/12	9-23MC3a-1-26	Extended	4194	4133
90/06/13	1-24-1-26	Extended	4899	4947

*Horner Analysis not performed

Lower Alida Datum 465 subsea
Upper Alida Datum 450 subsea