

OREGON NATURAL GAS CORP.

16 42C-10

MIST

COLUMBIA

OREGON

07/28/88

INTERVAL 531.0 TO 2774.0

RUN 2

RLAC 12702.

ENGINEER B. KELCH

MR. THOMAS

MAR DEC

20.

 * SEARCH LENGTH=8", WINDOW LENGTH=8", STEP *
 * LENGTH=2" *
 * 4 0 0 0 0 *

DEPTH	WL	**FORMATION DIP**				***BOREHOLE***	
		ANG	AZ	BEARING	GRADE	DA	DAZ BEARING
539.5	8.00	10.8	356	N 4 W	100	0.4	116 S 64 E
541.5	8.00	18.5	302	N 58 W	100	0.3	69 N 69 E
543.5	8.00	14.0	248	S 68 W	100	0.3	20 N 20 E
549.5	8.00	11.1	276	N 84 W	100	0.4	67 N 67 E
551.5	8.00	11.4	275	N 81 W	100	0.4	67 N 67 E
553.5	8.00	11.6	262	S 82 W	100	0.4	66 N 66 E
555.5	8.00	13.3	259	S 79 W	100	0.4	70 N 70 E
559.5	8.00	16.0	247	S 67 W	100	0.4	75 N 75 E
561.5	8.00	14.0	226	S 48 W	75	0.2	74 N 74 E
563.5	8.00	20.3	291	N 69 W	83	0.3	77 N 77 E
571.5	8.00	11.2	282	N 78 W	100	0.4	83 N 83 E
573.5	8.00	12.3	275	N 85 W	100	0.3	84 N 84 E
575.5	8.00	12.8	274	N 86 W	100	0.4	89 N 89 E
577.5	8.00	12.5	264	S 84 W	100	0.3	91 S 89 E
579.5	8.00	13.2	270	N 90 W	100	0.3	94 S 86 E
581.5	8.00	15.8	275	N 85 W	100	0.4	92 S 88 E
583.5	8.00	17.1	269	S 89 W	100	0.3	98 S 82 E
585.5	8.00	14.4	270	N 90 W	100	0.3	93 S 87 E
587.5	8.00	12.9	274	N 86 W	100	0.3	99 S 81 E
589.5	8.00	11.5	285	N 75 W	100	0.2	93 S 87 E
591.5	8.00	12.6	281	N 79 W	100	0.4	91 S 89 E
593.5	8.00	12.7	273	N 87 W	100	0.3	89 N 89 E
595.5	8.00	17.2	278	N 82 W	100	0.4	84 N 84 E
601.5	8.00	9.5	324	N 36 W	100	0.4	73 N 73 E
603.5	8.00	10.2	320	N 40 W	100	0.5	72 N 72 E
605.5	8.00	9.3	324	N 36 W	100	0.5	70 N 70 E
607.5	8.00	8.5	324	N 36 W	100	0.5	65 N 65 E
609.5	8.00	8.6	323	N 37 W	100	0.5	63 N 63 E
611.5	8.00	8.5	318	N 42 W	100	0.5	63 N 63 E

OREGON NATURAL GAS CORP.

1W 420-10

MIST

COLUMBIA

OREGON

07/28/88

DEPTH	WL	**FORMATION DIP**				***BOREHOLE***			
		ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
613.5	8.00	10.5	331	N 29 W	100	0.5	62	N 62 E	
615.5	8.00	11.6	325	N 35 W	100	0.5	61	N 61 E	
617.5	8.00	12.1	321	N 38 W	100	0.5	58	N 58 E	
619.5	8.00	8.7	298	N 62 W	100	0.5	53	N 53 E	
621.5	8.00	5.5	297	N 63 W	100	0.6	50	N 50 E	
625.5	8.00	11.6	241	S 61 W	100	0.6	45	N 45 E	
627.5	8.00	11.5	242	S 62 W	100	0.6	44	N 44 E	
629.5	8.00	8.5	270	N 50 W	100	0.6	43	N 43 E	
631.5	8.00	9.8	247	S 67 W	100	0.6	39	N 39 E	
633.5	8.00	10.4	241	S 61 W	100	0.7	39	N 39 E	
635.5	8.00	8.5	242	S 62 W	100	0.7	34	N 34 E	
637.5	8.00	8.4	236	S 56 W	100	0.7	29	N 29 E	
643.5	8.00	6.4	305	N 55 W	100	0.7	21	N 21 E	
645.5	8.00	6.6	255	N 61 W	100	0.7	17	N 17 E	
649.5	8.00	4.5	301	N 59 W	100	0.7	12	N 12 E	
651.5	8.00	4.6	292	N 68 W	100	0.7	9	N 9 E	
653.5	8.00	4.4	274	N 86 W	100	0.7	7	N 7 E	
655.5	8.00	4.2	264	S 84 W	100	0.7	6	N 6 E	
657.5	8.00	4.0	251	S 71 W	100	0.7	0	N 0 E	
659.5	8.00	4.7	253	S 73 W	100	0.7	359	N 1 W	
661.5	8.00	11.0	267	S 87 W	100	0.7	354	N 6 W	
663.5	8.00	12.9	262	S 83 W	100	0.6	353	N 7 W	
665.5	8.00	10.6	262	S 82 W	100	0.6	350	N 10 W	
667.5	8.00	10.2	264	S 84 W	100	0.6	345	N 10 W	
669.5	8.00	7.5	273	N 87 W	100	0.6	345	N 15 W	
671.5	8.00	7.5	270	N 82 W	100	0.6	339	N 21 W	
673.5	8.00	8.3	274	N 86 W	100	0.6	339	N 21 W	
675.5	8.00	8.6	268	S 88 W	100	0.6	336	N 24 W	
677.5	8.00	10.2	263	S 83 W	100	0.6	330	N 30 W	
679.5	8.00	9.7	256	S 76 W	100	0.6	336	N 30 W	
681.5	8.00	11.0	248	S 68 W	100	0.5	327	N 33 W	
683.5	8.00	11.4	246	S 66 W	100	0.5	325	N 35 W	
685.5	8.00	10.8	235	S 55 W	100	0.5	322	N 38 W	
687.5	8.00	17.7	2	N 2 E	100	0.5	321	N 39 W	
691.5	8.00	16.3	10	N 10 E	100	0.4	320	N 40 W	
693.5	8.00	15.1	4	N 4 E	100	0.4	314	N 46 W	
695.5	8.00	13.5	1	N 1 E	100	0.3	314	N 45 W	
697.5	8.00	9.7	352	N 6 W	100	0.3	309	N 51 W	
699.5	8.00	7.5	340	N 20 W	100	0.3	303	N 57 W	
701.5	8.00	6.8	335	N 25 W	100	0.2	310	N 56 W	

OREGON NATURAL GAS CORP.

1W 42D-10

MIST

COLUMBIA

OREGON

67725788

DEPTH	WT	**FORMATION DIP**				GRADE	***POREHOLE***		
		ANG	AZ	BEARING	DA		DAZ	BEARING	
703.5	8.00	6.0	330	N 30 W	100	0.2	305	N 55 W	
705.5	8.00	6.0	315	N 45 W	100	0.2	303	N 57 W	
707.5	8.00	5.9	306	N 54 W	100	0.2	316	N 44 W	
709.5	8.00	5.5	289	N 71 W	100	0.1	321	N 39 W	
711.5	8.00	5.0	275	N 85 W	100	0.1	330	N 30 W	
713.5	8.00	4.5	251	N 69 W	100	0.1	343	N 17 W	
715.5	8.00	4.7	268	N 72 W	100	0.1	11	N 11 E	
717.5	8.00	4.6	285	N 75 W	100	0.2	16	N 16 E	
719.5	8.00	3.9	289	N 71 W	100	0.2	31	N 31 E	
721.5	8.00	3.1	252	N 67 W	100	0.2	32	N 32 E	
723.5	8.00	3.4	302	N 58 W	100	0.3	43	N 43 E	
725.5	8.00	3.5	309	N 51 W	100	0.3	43	N 43 E	
727.5	8.00	2.9	320	N 40 W	100	0.3	43	N 43 E	
729.5	8.00	1.2	328	N 32 W	100	0.2	43	N 43 E	
731.5	8.00	2.7	317	N 43 W	100	0.3	51	N 51 E	
733.5	8.00	1.8	344	N 16 W	100	0.3	49	N 49 E	
735.5	8.00	2.8	330	N 30 W	100	0.3	46	N 46 E	
737.5	8.00	3.4	318	N 42 W	100	0.3	41	N 41 E	
739.5	8.00	15.0	352	N 8 W	100	0.3	38	N 38 E	
741.5	8.00	15.8	356	N 4 W	100	0.3	39	N 39 E	
747.5	8.00	22.2	261	S 81 W	100	0.3	33	N 33 E	
749.5	8.00	16.7	194	S 14 W	100	0.3	34	N 34 E	
751.5	8.00	13.3	219	S 39 W	100	0.3	27	N 27 E	
763.5	8.00	6.6	232	S 52 W	100	0.4	1	N 1 E	
767.5	8.00	10.3	239	S 59 W	100	0.5	351	N 4 W	
769.5	8.00	13.1	223	S 43 W	100	0.6	355	N 5 W	
773.5	8.00	11.4	230	S 50 W	100	0.6	350	N 10 W	
775.5	8.00	7.0	278	N 82 W	100	0.6	353	N 7 W	
777.5	8.00	6.0	281	N 79 W	100	0.6	353	N 7 W	
779.5	8.00	7.5	266	N 80 W	100	0.6	350	N 10 W	
781.5	8.00	4.8	277	N 83 W	100	0.6	352	N 8 W	
783.5	8.00	8.0	277	N 83 W	100	0.6	354	N 6 W	
785.5	8.00	15.1	271	N 89 W	100	0.6	353	N 7 E	
787.5	8.00	7.9	260	S 80 W	100	0.5	356	N 4 W	
791.5	8.00	5.4	245	S 65 W	100	0.5	350	N 10 W	
793.5	8.00	4.2	318	N 42 W	100	0.4	354	N 6 W	
795.5	8.00	4.5	316	N 50 W	100	0.4	352	N 8 W	
797.5	8.00	3.2	295	N 65 W	100	0.4	345	N 17 W	
799.5	8.00	5.0	293	N 67 W	100	0.4	342	N 18 W	
801.5	8.00	5.1	295	N 65 W	100	0.3	342	N 18 W	

OREGON NATURAL GAS CORP.

IW 420-10

MIST

COLUMBIA

OREGON

07/26/88

DEPTH	WL	**FORMATION DIP**				GRADE	***FOREHOLE***		
		ANG	AZ	BEARING	DA		DAZ	DEARING	
803.5	8.00	5.0	296	N 64 W	100	0.2	335	N 55 W	
805.5	8.00	5.1	287	N 73 W	100	0.2	329	N 51 W	
813.5	8.00	6.5	336	N 24 W	100	0.2	325	N 35 W	
815.5	8.00	7.6	327	N 33 W	100	0.2	338	N 22 W	
817.5	8.00	6.7	325	N 35 W	100	0.2	340	N 28 W	
823.5	8.00	7.1	324	N 36 W	100	0.2	347	N 13 W	
827.5	8.00	5.1	297	N 63 W	100	0.3	326	N 34 W	
829.5	8.00	8.2	274	N 86 W	100	0.3	330	N 50 W	
831.5	8.00	8.3	273	N 87 W	100	0.3	318	N 47 W	
833.5	8.00	7.9	265	S 85 W	100	0.4	319	N 41 W	
835.5	8.00	8.2	264	S 84 W	100	0.3	319	N 41 W	
837.5	8.00	6.8	276	N 84 W	100	0.4	320	N 40 W	
839.5	8.00	6.2	273	N 87 W	100	0.4	317	N 41 W	
841.5	8.00	4.5	251	N 65 W	100	0.4	317	N 41 W	
843.5	8.00	5.1	282	N 78 W	100	0.4	324	N 36 W	
845.5	8.00	4.3	283	N 77 W	100	0.4	326	N 36 W	
847.5	8.00	4.1	279	N 61 W	100	0.4	330	N 30 W	
849.5	8.00	0.2	247	S 67 W	100	0.4	325	N 25 W	
861.5	8.00	7.8	234	S 54 W	100	0.5	350	N 10 W	
863.5	8.00	8.6	239	S 59 W	100	0.6	355	N 5 W	
865.5	8.00	8.5	221	S 41 W	100	0.6	353	N 7 W	
867.5	8.00	8.6	219	S 39 W	100	0.6	356	N 4 W	
869.5	8.00	0.7	200	S 20 W	100	0.6	357	N 2 W	
871.5	8.00	0.6	198	S 18 W	100	0.6	357	N 3 W	
873.5	8.00	1.0	197	S 17 W	100	0.6	355	N 5 W	
877.5	8.00	0.6	204	S 24 W	100	0.6	356	N 4 W	
879.5	8.00	0.9	204	S 24 W	100	0.6	353	N 7 W	
881.5	8.00	0.5	186	S 6 W	100	0.6	354	N 8 W	
887.5	8.00	4.0	271	N 89 W	100	0.6	353	N 7 W	
889.5	8.00	6.5	267	S 87 W	100	0.6	352	N 6 W	
891.5	8.00	5.4	265	S 65 W	100	0.7	352	N 8 W	
893.5	8.00	5.5	267	S 67 W	100	0.7	351	N 9 W	
895.5	8.00	12.2	271	N 89 W	100	0.7	345	N 15 W	
897.5	8.00	10.7	265	S 85 W	100	0.7	339	N 23 W	
899.5	8.00	11.2	280	N 89 W	100	0.7	331	N 29 W	
901.5	8.00	5.3	278	N 82 W	100	0.8	328	N 32 W	
903.5	8.00	5.8	280	N 88 W	100	0.8	324	N 36 W	
905.5	8.00	5.0	277	N 83 W	100	0.8	326	N 37 W	
907.5	8.00	3.5	275	N 85 W	100	0.8	320	N 40 W	
909.5	8.00	4.0	276	N 84 W	100	0.9	323	N 37 W	

OREGON NATURAL GAS CORP.

16 420-10

MIET

COLUMBIA

OREGON

07/28/88

DEPTH	WL	**FORMATION DIP**				GRADE	***BOREHOLE****			
		ANG	AZ	BEARING			DA	DAZ	BEARING	
911.5	8.00	5.2	272	N 88 W	100	0.9	322	N 38 W		
913.5	8.00	5.8	276	N 84 W	100	0.9	324	N 35 W		
915.5	8.00	6.1	280	N 80 W	100	0.9	323	N 37 W		
917.5	8.00	6.6	272	N 88 W	100	0.8	322	N 38 W		
919.5	8.00	6.4	273	N 87 W	100	0.8	324	N 36 W		
921.5	8.00	5.8	276	N 90 W	100	0.8	325	N 35 W		
923.5	8.00	4.5	252	S 72 W	100	0.9	325	N 35 W		
925.5	8.00	3.2	245	S 69 W	100	0.9	327	N 33 W		
927.5	8.00	3.6	248	S 68 W	100	0.9	328	N 32 W		
929.5	8.00	5.8	252	S 72 W	100	0.8	329	N 31 W		
931.5	8.00	5.1	244	S 64 W	100	0.8	332	N 28 W		
933.5	8.00	5.4	256	S 70 W	100	0.8	337	N 23 W		
935.5	8.00	1.2	212	S 32 W	100	0.8	337	N 23 W		
937.5	8.00	1.2	202	S 22 W	100	0.8	337	N 23 W		
939.5	8.00	4.5	220	S 40 W	100	0.8	338	N 22 W		
941.5	8.00	1.8	236	S 56 W	100	0.8	341	N 19 W		
945.5	8.00	5.8	283	N 77 W	100	0.8	334	N 26 W		
947.5	8.00	4.6	294	N 66 W	100	0.8	332	N 28 W		
949.5	8.00	4.8	294	N 66 W	100	0.8	336	N 30 W		
951.5	8.00	4.6	286	N 74 W	100	0.8	328	N 32 W		
953.5	8.00	1.8	4	N 4 E	100	0.7	327	N 33 W		
955.5	8.00	8.9	0	N 0 E	100	0.7	321	N 33 W		
957.5	8.00	13.4	2	N 2 E	100	0.7	319	N 41 W		
959.5	8.00	9.8	347	N 13 W	100	0.7	314	N 46 W		
961.5	8.00	9.8	343	N 17 W	100	0.6	309	N 51 W		
963.5	8.00	7.4	321	N 32 W	100	0.6	303	N 57 W		
965.5	8.00	7.5	319	N 41 W	100	0.6	294	N 66 W		
967.5	8.00	4.2	333	N 27 W	100	0.5	291	N 69 W		
969.5	8.00	1.5	353	N 7 W	100	0.4	289	N 71 W		
981.5	8.00	13.6	295	N 65 W	100	0.4	262	S 82 W		
983.5	8.00	11.1	284	N 76 W	100	0.5	264	S 84 W		
987.5	8.00	12.4	249	S 69 W	100	0.5	273	N 87 W		
993.5	8.00	10.2	257	S 77 W	100	0.5	273	N 87 W		
995.5	8.00	9.9	263	S 83 W	100	0.6	261	S 81 W		
997.5	8.00	12.0	215	S 35 W	100	0.5	249	S 69 W		
999.5	8.00	14.4	234	S 54 W	100	0.5	237	S 57 W		
1001.5	8.00	14.0	235	S 55 W	100	0.5	227	S 47 W		
1003.5	8.00	13.5	234	S 54 W	100	0.7	218	S 38 W		
1005.5	8.00	10.7	247	S 67 W	100	0.7	214	S 34 W		
1007.5	8.00	10.1	243	S 63 W	100	0.8	211	S 31 W		

CNIGCA NATURAL GAS CORP.

W 420-10

MIST

COLUMBIA

OREGON

6/28/88

DEPTH	WL	**FORMATION DIP**			GRADE	***BOREHOLE***		
		ANC	AZ	BEARING		DA	DAZ	BEARING
1009.5	8.00	10.3	246	S 66 W	100	0.9	208	S 88 W
1013.5	8.00	21.1	244	S 64 W	100	1.0	204	S 24 W
1015.5	8.00	14.1	265	N 71 W	100	1.0	201	S 21 W
1017.5	8.00	12.9	263	S 85 W	100	1.1	198	S 38 W
1019.5	8.00	13.1	258	S 78 W	100	1.1	196	S 16 W
1023.5	8.00	5.8	214	S 34 W	100	1.2	189	S 9 W
1025.5	8.00	10.1	226	S 46 W	100	1.3	190	S 18 W
1027.5	8.00	10.5	264	S 84 W	100	1.2	189	S 3 W
1029.5	8.00	11.7	258	S 78 W	100	1.3	189	S 9 W
1031.5	8.00	13.8	265	S 89 W	100	1.4	187	S 7 W
1033.5	8.00	13.3	248	S 68 W	100	1.4	186	S 6 W
1035.5	8.00	13.1	243	S 63 W	100	1.5	188	S 6 W
1037.5	8.00	5.0	222	S 42 W	100	1.5	184	S 4 W
1039.5	8.00	11.3	243	S 63 W	100	1.5	183	S 5 W
1041.5	8.00	10.6	247	S 67 W	100	1.6	183	S 5 W
1045.5	8.00	2.4	339	N 21 W	100	1.8	182	S 2 W
1047.5	8.00	1.3	329	N 31 W	100	1.9	181	S 1 W
1049.5	8.00	1.2	323	N 37 W	100	1.9	181	S 1 W
1051.5	8.00	1.2	316	N 44 W	100	2.0	180	S 0 E
1055.5	8.00	3.6	324	N 36 W	100	2.2	179	S 3 E
1057.5	8.00	7.3	356	N 4 W	100	2.2	179	S 1 E
1059.5	8.00	7.5	353	N 7 W	100	2.3	178	S 2 E
1061.5	8.00	7.8	14	N 14 E	100	2.4	178	S 3 E
1063.5	8.00	5.0	21	N 21 E	100	2.5	179	S 1 E
1065.5	8.00	3.5	16	N 16 E	100	2.6	178	S 2 E
1067.5	8.00	3.7	14	N 14 E	100	2.6	178	S 2 E
1069.5	8.00	3.6	3	N 3 E	100	2.8	178	S 2 E
1071.5	8.00	3.8	2	N 2 E	100	2.8	178	S 2 E
1077.5	8.00	3.8	352	N 8 W	100	3.1	177	S 5 E
1081.5	8.00	4.4	72	N 72 E	100	3.2	176	S 4 E
1083.5	8.00	4.6	76	N 76 E	100	3.2	176	S 4 E
1085.5	8.00	5.0	86	N 86 E	100	3.4	175	S 5 E
1087.5	8.00	13.6	58	N 58 E	100	3.4	175	S 5 E
1089.5	8.00	19.5	313	N 47 W	100	3.5	175	S 6 E
1091.5	8.00	7.6	325	N 35 W	100	3.6	173	S 7 E
1093.5	8.00	8.6	319	N 41 W	100	3.7	173	S 7 E
1095.5	8.00	8.6	318	N 42 W	100	3.8	173	S 7 E
1097.5	8.00	7.5	320	N 40 W	100	3.8	172	S 8 E
1099.5	8.00	9.8	322	N 38 W	100	3.9	173	S 7 E
1101.5	8.00	11.5	298	N 62 W	100	4.0	172	S 5 E

OREGON NATURAL GAS CORP.

1W 420-10

HIST

COLUMBIA

OREGON

07728788

DEPTH	WL	**FORMATION DIP**				***BOREHOLE****			
		ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
1103.5	8.00	10.4	322	N 38 W	100	4.0	172	S 8 E	
1105.5	8.00	10.9	287	N 73 W	100	4.0	171	S 9 E	
1107.5	8.00	7.1	305	N 55 W	100	4.1	171	S 9 E	
1109.5	8.00	7.1	322	N 37 W	100	4.2	172	S 8 E	
1111.5	8.00	7.4	320	N 40 W	100	4.3	172	S 8 E	
1113.5	8.00	11.3	304	N 56 W	100	4.5	173	S 7 E	
1115.5	8.00	10.9	317	N 43 W	100	4.5	173	S 7 E	
1117.5	8.00	9.7	282	N 78 W	100	4.6	172	S 8 E	
1119.5	8.00	9.7	281	N 79 W	100	4.7	173	S 7 E	
1121.5	8.00	9.4	281	N 79 W	100	4.8	173	S 7 E	
1123.5	8.00	10.1	279	N 81 W	100	4.9	172	S 8 E	
1125.5	8.00	11.2	263	N 77 W	100	5.0	172	S 8 E	
1127.5	8.00	10.3	274	N 86 W	100	5.0	172	S 8 E	
1129.5	8.00	11.4	273	N 87 W	100	5.1	173	S 7 E	
1131.5	8.00	10.3	274	N 86 W	100	5.2	173	S 7 E	
1133.5	8.00	10.9	268	S 88 W	100	5.2	173	S 7 E	
1135.5	8.00	11.3	270	N 90 E	100	5.3	173	S 7 E	
1137.5	8.00	12.0	270	N 90 W	100	5.4	173	S 7 E	
1139.5	8.00	12.4	274	N 86 W	100	5.6	173	S 7 E	
1141.5	8.00	12.3	277	N 83 W	100	5.6	172	S 8 E	
1143.5	8.00	12.3	264	S 84 W	100	5.8	172	S 8 E	
1145.5	8.00	13.6	269	S 89 W	100	5.8	172	S 8 E	
1147.5	8.00	10.5	253	S 73 W	100	5.9	172	S 8 E	
1149.5	8.00	10.1	253	S 73 W	100	6.0	172	S 8 E	
1151.5	8.00	14.5	266	S 86 W	100	6.0	172	S 8 E	
1153.5	8.00	14.2	267	S 87 W	100	6.1	172	S 8 E	
1155.5	8.00	14.6	267	S 87 W	100	6.2	172	S 8 E	
1159.5	8.00	10.9	277	N 83 W	100	6.4	172	S 8 E	
1161.5	8.00	11.7	269	S 89 E	100	6.5	172	S 8 E	
1163.5	8.00	13.6	261	S 81 W	100	6.6	171	S 9 E	
1165.5	8.00	13.5	271	N 89 E	100	6.7	171	S 9 E	
1167.5	8.00	13.8	276	N 84 W	100	6.8	170	S 10 E	
1169.5	8.00	14.3	275	N 85 E	100	6.9	171	S 9 E	
1171.5	8.00	14.7	274	N 86 W	100	7.0	171	S 9 E	
1173.5	8.00	15.3	268	S 88 W	100	7.1	170	S 10 E	
1175.5	8.00	14.8	266	S 86 W	100	7.2	170	S 10 E	
1177.5	8.00	14.8	267	S 87 W	100	7.3	171	S 9 E	
1179.5	8.00	14.7	266	S 86 W	100	7.5	171	S 9 E	
1181.5	8.00	12.7	270	N 90 W	100	7.6	171	S 9 E	
1183.5	8.00	11.3	280	N 80 W	100	7.7	171	S 9 E	

ORIGON NATURAL GAS CORP.

L# 420-10

MIST

COLUMBIA

OREGON

07/28/88

DEPTH	WL	**FORMATION DIP**				***BOREHOLE***			
		ANG	PZ	BEARING	GRADE	DA	DAZ	BEARING	
1185.5	8.00	6.3	312	N 48 W	100	7.8	170	S 10 E	
1187.5	8.00	4.4	257	N 63 W	100	7.9	171	S 9 E	
1189.5	8.00	4.8	255	N 61 W	100	7.9	170	S 10 E	
1191.5	8.00	5.9	318	N 42 W	100	8.0	170	S 10 E	
1193.5	8.00	6.7	281	N 79 W	100	8.1	170	S 10 E	
1197.5	8.00	8.5	238	S 55 W	100	8.2	170	S 10 E	
1199.5	8.00	12.2	258	S 78 W	100	8.4	170	S 10 E	
1201.5	8.00	20.1	263	S 83 W	100	8.5	169	S 11 E	
1203.5	8.00	15.5	276	N 84 W	100	8.6	169	S 11 E	
1205.5	8.00	14.8	281	N 79 W	100	8.7	169	S 11 E	
1207.5	8.00	17.2	278	N 82 W	100	8.8	169	S 11 E	
1211.5	8.00	25.7	348	N 12 W	76	8.8	169	S 11 E	
1213.5	8.00	24.9	346	N 14 W	100	8.9	169	S 11 E	
1215.5	8.00	16.8	322	N 38 W	100	9.0	169	S 11 E	
1217.5	8.00	20.6	300	N 60 W	100	9.0	169	S 11 E	
1219.5	8.00	11.2	261	S 81 W	100	9.1	169	S 11 E	
1223.5	8.00	14.2	252	S 72 W	100	9.2	169	S 11 E	
1225.5	8.00	15.6	252	S 72 W	100	9.3	168	S 12 E	
1227.5	8.00	12.4	260	S 80 W	100	9.4	168	S 12 E	
1229.5	8.00	13.5	255	S 75 W	100	9.4	168	S 12 E	
1231.5	8.00	9.4	257	S 77 W	100	9.4	168	S 12 E	
1233.5	8.00	8.6	256	S 76 W	100	9.5	168	S 12 E	
1235.5	8.00	6.6	256	S 70 W	100	9.6	167	S 13 E	
1237.5	8.00	7.6	275	N 85 W	100	9.7	167	S 13 E	
1239.5	8.00	7.1	270	N 90 W	100	9.8	167	S 13 E	
1241.5	8.00	7.1	271	N 89 W	100	9.8	167	S 13 E	
1243.5	8.00	5.9	264	S 84 W	100	9.9	167	S 13 E	
1245.5	8.00	5.7	267	S 87 W	100	9.9	166	S 14 E	
1247.5	8.00	8.6	278	N 82 W	100	10.0	166	S 14 E	
1249.5	8.00	9.0	288	N 72 W	100	10.1	166	S 14 E	
1251.5	8.00	9.2	278	N 82 W	100	10.1	166	S 14 E	
1253.5	8.00	6.6	272	N 88 W	100	10.2	166	S 14 E	
1255.5	8.00	7.4	277	N 83 W	100	10.2	166	S 14 E	
1257.5	8.00	6.4	267	S 87 W	100	10.3	165	S 15 E	
1259.5	8.00	6.2	265	S 85 W	100	10.3	165	S 15 E	
1261.5	8.00	7.1	270	N 90 W	100	10.4	164	S 16 E	
1263.5	8.00	6.5	266	S 86 W	100	10.4	165	S 16 E	
1265.5	8.00	7.4	266	S 86 W	100	10.4	164	S 16 E	
1267.5	8.00	7.1	258	S 78 W	100	10.5	164	S 16 E	
1269.5	8.00	9.4	278	N 82 W	100	10.5	164	S 16 E	

OREGON NATURAL GAS CORP.

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MIST

COLUMBIA

OREGON

07728788

DEPTH	NL	**FORMATION DIP**				***BOREHOLE****			
		ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
1271.5	8.00	8.6	280	N 80 W	100	10.5	164	S 16 E	
1273.5	8.00	8.6	267	S 87 W	100	10.6	164	S 16 E	
1275.5	8.00	10.3	266	S 86 W	100	10.7	164	S 16 E	
1277.5	8.00	11.9	269	S 89 W	100	10.7	164	S 16 E	
1279.5	8.00	11.5	265	S 89 W	100	10.8	164	S 16 E	
1281.5	8.00	19.6	235	S 55 W	100	10.8	164	S 16 E	
1283.5	8.00	20.4	227	S 47 W	100	10.8	164	S 16 E	
1285.5	8.00	15.9	264	S 84 W	100	10.8	163	S 17 E	
1289.5	8.00	14.5	285	N 71 W	100	10.8	164	S 16 E	
1291.5	8.00	15.7	291	N 69 W	100	10.8	163	S 17 E	
1293.5	8.00	14.0	288	N 72 W	100	10.9	163	S 17 E	
1295.5	8.00	24.5	243	S 63 W	100	10.9	164	S 16 E	
1297.5	8.00	15.2	222	S 43 W	100	10.8	163	S 17 E	
1299.5	8.00	16.3	223	S 43 W	100	10.8	163	S 17 E	
1305.5	8.00	17.4	217	S 37 W	100	10.8	163	S 17 E	
1307.5	8.00	16.4	214	S 34 W	100	10.8	163	S 17 E	
1309.5	8.00	8.9	267	S 87 W	100	10.8	163	S 17 E	
1311.5	8.00	11.0	252	S 72 W	100	10.8	163	S 17 E	
1313.5	8.00	9.3	251	S 71 W	100	10.8	163	S 17 E	
1315.5	8.00	10.5	282	N 78 W	100	10.8	163	S 17 E	
1317.5	8.00	12.5	262	S 82 W	100	10.8	163	S 17 E	
1333.5	8.00	9.1	210	S 30 W	100	10.7	163	S 17 E	
1335.5	8.00	6.1	232	S 32 W	100	10.7	163	S 17 E	
1337.5	8.00	12.2	238	S 38 W	100	10.7	163	S 17 E	
1339.5	8.00	10.8	242	S 62 W	100	10.7	163	S 17 E	
1341.5	8.00	9.8	242	S 62 W	100	10.7	163	S 17 E	
1343.5	8.00	13.5	264	S 84 W	100	10.6	163	S 17 E	
1345.5	8.00	15.8	265	S 89 W	100	10.6	163	S 17 E	
1347.5	8.00	18.9	251	S 71 W	100	10.6	163	S 17 E	
1349.5	8.00	15.2	245	S 65 W	100	10.6	163	S 17 E	
1357.5	8.00	16.8	313	N 47 W	100	10.5	163	S 17 E	
1359.5	8.00	14.3	312	N 47 W	100	10.5	163	S 17 E	
1361.5	8.00	17.2	309	N 51 W	100	10.5	163	S 17 E	
1363.5	8.00	11.7	344	N 16 W	100	10.4	163	S 17 E	
1365.5	8.00	10.1	342	N 18 W	100	10.4	163	S 17 E	
1367.5	8.00	10.2	340	N 20 W	100	10.4	163	S 17 E	
1369.5	8.00	6.3	337	N 23 W	100	10.4	163	S 17 E	
1371.5	8.00	5.8	339	N 21 W	100	10.4	163	S 17 E	
1373.5	8.00	22.7	345	N 15 W	100	10.4	163	S 17 E	
1375.5	8.00	22.8	344	N 16 W	100	10.4	163	S 17 E	

OREGON NATURAL GAS CORP.

W 420-10

MIST

COLUMBIA

OREGON

07/28/88

ELEV	WL	**FORMATION DIP**				***BOREHOLE***			
		ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
1377.5	8.00	8.4	342	N 18 W	100	10.4	163	S 17 E	
1379.5	8.00	11.2	341	N 19 W	100	10.4	163	S 17 E	
1383.5	8.00	12.1	336	N 24 W	100	10.3	163	S 17 E	
1385.5	8.00	12.5	342	N 18 W	100	10.3	163	S 17 E	
1395.5	8.00	14.8	321	N 39 W	100	10.3	163	S 17 E	
1397.5	8.00	15.5	305	N 55 W	100	10.3	163	S 17 E	
1403.5	8.00	16.2	358	N 2 W	100	10.2	163	S 17 E	
1405.5	8.00	8.5	11	N 11 E	100	10.2	163	S 17 E	
1407.5	8.00	15.3	355	N 5 W	100	10.2	163	S 17 E	
1411.5	8.00	9.5	344	N 12 W	100	10.2	163	S 17 E	
1415.5	8.00	8.7	342	N 18 W	100	10.1	163	S 17 E	
1417.5	8.00	19.6	16	N 16 E	100	10.2	163	S 17 E	
1427.5	8.00	20.5	15	N 15 E	100	10.1	163	S 17 E	
1433.5	8.00	18.8	8	N 8 E	100	10.2	163	S 17 E	
1435.5	8.00	18.4	5	N 5 E	100	10.1	162	S 18 E	
1437.5	8.00	7.5	22	N 22 E	100	10.2	163	S 17 E	
1439.5	8.00	16.9	269	S 89 W	100	10.2	163	S 17 E	
1447.5	8.00	15.8	251	S 70 W	100	10.2	162	S 18 E	
1451.5	8.00	15.1	253	S 73 W	100	10.1	162	S 18 E	
1453.5	8.00	12.3	253	S 73 W	100	10.1	162	S 18 E	
1455.5	8.00	3.9	226	S 48 W	100	10.0	163	S 17 E	
1459.5	8.00	11.5	271	N 85 W	100	9.8	163	S 17 E	
1463.5	8.00	7.5	285	N 75 W	100	9.8	162	S 18 E	
1479.5	8.00	10.0	346	N 14 W	100	9.8	162	S 18 E	
1491.5	8.00	10.2	340	N 20 W	100	9.6	162	S 18 E	
1507.5	8.00	17.6	301	N 59 W	100	9.5	162	S 18 E	
1509.5	8.00	12.9	301	N 59 W	100	9.5	162	S 18 E	
1523.5	8.00	11.4	293	N 67 W	99	9.3	162	S 18 E	
1527.5	8.00	11.1	309	N 51 W	100	9.2	162	S 18 E	
1535.5	8.00	16.2	297	N 63 W	100	9.1	162	S 17 E	
1537.5	8.00	15.9	294	N 66 W	100	9.1	162	S 18 E	
1547.5	8.00	16.8	261	S 81 W	100	9.0	162	S 18 E	
1549.5	8.00	11.7	271	N 89 W	100	9.0	162	S 18 E	
1551.5	8.00	9.1	257	N 63 W	100	9.0	162	S 18 E	
1553.5	8.00	14.5	264	S 84 W	100	9.0	162	S 18 E	
1555.5	8.00	12.2	272	N 88 W	100	9.0	162	S 18 E	
1557.5	8.00	19.1	322	N 38 W	100	9.0	161	S 19 E	
1559.5	8.00	13.6	343	N 17 W	100	9.0	162	S 18 E	
1561.5	8.00	12.9	354	N 6 W	100	8.9	162	S 18 E	
1563.5	8.00	14.7	325	N 35 W	100	8.9	162	S 18 E	

OREGON NATURAL GAS CORP.

IW 42D-10

MIST

COLUMBIA

OREGON

07/28/88

DEPTH	WL	**FORMATION DIP**				GRADE	***BOREHOLE****			
		ANG	AZ	BEARING	DA		DAZ	BEARING		
1567.5	8.00	13.3	318	N 42 W	100	8.9	162	S 18 E		
1573.5	8.00	14.4	310	N 50 W	100	9.0	162	S 18 E		
1575.5	8.00	14.4	352	N 8 W	100	8.9	162	S 18 E		
1577.5	8.00	12.4	333	N 27 W	100	8.9	162	S 18 E		
1579.5	8.00	14.8	11	N 11 E	100	8.9	162	S 18 E		
1605.5	8.00	17.8	15	N 19 E	100	8.9	162	S 18 E		
1607.5	8.00	16.7	27	N 27 E	100	8.9	162	S 18 E		
1615.5	8.00	13.0	47	N 47 E	100	8.9	162	S 18 E		
1617.5	8.00	22.8	55	N 55 E	100	8.9	162	S 18 E		
1619.5	8.00	14.3	12	N 12 E	100	8.9	162	S 18 E		
1629.5	8.00	9.4	249	S 69 W	100	8.9	162	S 18 E		
1631.5	8.00	8.1	252	S 72 W	100	8.9	162	S 18 E		
1637.5	8.00	11.4	231	S 51 W	100	8.9	162	S 18 E		
1639.5	8.00	10.8	241	S 61 W	100	8.9	162	S 18 E		
1643.5	8.00	20.5	315	N 45 W	100	8.9	162	S 18 E		
1649.5	8.00	26.2	328	N 32 W	100	8.9	162	S 18 E		
1651.5	8.00	25.0	328	N 32 W	100	8.9	162	S 18 E		
1653.5	8.00	2.4	335	N 25 W	72	8.9	162	S 18 E		
1657.5	8.00	4.6	287	N 75 W	100	8.9	162	S 18 E		
1659.5	8.00	6.1	281	N 79 W	100	8.9	162	S 18 E		
1661.5	8.00	6.4	325	N 35 W	100	8.9	162	S 18 E		
1663.5	8.00	5.1	302	N 58 W	100	8.9	162	S 18 E		
1667.5	8.00	8.3	337	N 23 W	100	8.9	162	S 18 E		
1677.5	8.00	9.5	346	N 14 W	100	9.0	161	S 19 E		
1681.5	8.00	14.8	334	N 28 W	100	9.0	161	S 19 E		
1683.5	8.00	14.9	334	N 28 W	100	9.0	161	S 19 E		
1685.5	8.00	10.8	342	N 18 W	100	9.0	161	S 19 E		
1691.5	8.00	9.8	341	N 19 W	100	9.0	161	S 19 E		
1695.5	8.00	28.1	306	N 54 W	100	9.0	161	S 19 E		
1699.5	8.00	26.9	308	N 52 W	100	9.0	161	S 19 E		
1705.5	8.00	22.9	299	N 61 W	100	9.0	161	S 19 E		
1711.5	8.00	8.9	342	N 18 W	100	9.0	161	S 19 E		
1719.5	8.00	10.7	12	N 12 E	100	9.1	160	S 20 E		
1721.5	8.00	7.1	26	N 20 E	100	9.0	160	S 20 E		
1729.5	8.00	10.9	339	N 21 W	100	9.1	160	S 20 E		
1731.5	8.00	10.0	347	N 13 W	100	9.1	160	S 20 E		
1733.5	8.00	9.4	333	N 27 W	100	9.0	161	S 19 E		
1737.5	8.00	22.1	295	N 65 W	100	9.1	160	S 20 E		
1739.5	8.00	27.2	256	N 64 W	100	9.1	160	S 20 E		
1741.5	8.00	28.1	306	N 54 W	100	9.0	160	S 20 E		

OREGON NATURAL GAS CORP.

IN 420-10

W-157

COLUMBIA

OREGON

07/28/88

DEPTH	WL	**PERFORATION DIP**			GRADE	***BOREHOLE***		
		ANG	AZ	BEARING		DA	DAZ	BEARING
1743.5	8.00	24.2	307	N 53 W	100	9.0	160	S 20 E
1747.5	8.00	17.9	314	N 46 W	100	9.0	161	S 19 E
1751.5	8.00	4.6	247	S 67 W	100	9.0	160	S 20 E
1767.5	8.00	27.2	268	S 80 W	100	9.0	161	S 19 E
1769.5	8.00	23.9	265	S 85 W	100	9.0	161	S 19 E
1779.5	8.00	11.7	307	N 53 W	100	9.1	161	S 19 E
1783.5	8.00	13.0	3	N 3 E	100	9.1	161	S 19 E
1787.5	8.00	20.2	42	N 42 E	100	9.1	160	S 20 E
1789.5	8.00	20.5	40	N 40 E	100	9.1	161	S 19 E
1793.5	8.00	21.4	41	N 41 E	100	9.1	161	S 19 E
1841.5	8.00	18.2	7	N 7 E	100	9.2	162	S 18 E
1843.5	8.00	21.8	10	N 10 E	100	9.2	162	S 18 E
1853.5	8.00	8.8	309	N 51 W	100	9.3	162	S 18 E
1855.5	8.00	8.0	273	N 87 W	100	9.3	162	S 18 E
1857.5	8.00	6.0	264	S 84 W	100	9.4	161	S 19 E
1859.5	8.00	8.1	279	N 81 W	100	9.3	161	S 19 E
1861.5	8.00	6.9	292	N 68 W	100	9.3	162	S 18 E
1863.5	8.00	12.7	306	N 54 W	100	9.3	162	S 18 E
1873.5	8.00	21.8	318	N 42 W	100	9.3	162	S 18 E
1885.5	8.00	10.2	342	N 18 W	100	9.2	161	S 19 E
1893.5	8.00	15.9	32	N 32 E	100	9.3	160	S 20 E
1895.5	8.00	16.6	31	N 31 E	100	9.3	161	S 19 E
1897.5	8.00	15.9	65	N 65 E	100	9.2	161	S 19 E
1899.5	8.00	16.5	81	N 81 E	100	9.3	161	S 19 E
1901.5	8.00	17.3	79	N 79 E	100	9.3	160	S 20 E
1903.5	8.00	15.8	97	S 83 E	100	9.3	160	S 20 E
1907.5	8.00	8.2	337	N 23 W	100	9.2	161	S 19 E
1911.5	8.00	12.1	322	N 38 W	100	9.2	161	S 19 E
1913.5	8.00	12.8	324	N 36 W	100	9.2	160	S 20 E
1915.5	8.00	21.1	309	N 51 W	100	9.3	161	S 19 E
1917.5	8.00	21.6	311	N 49 W	90	9.2	161	S 19 E
1921.5	8.00	7.7	317	N 43 W	100	9.2	161	S 19 E
1923.5	8.00	8.4	308	N 52 W	100	9.2	161	S 19 E
1925.5	8.00	8.4	303	N 57 W	100	9.2	161	S 19 E
1927.5	8.00	15.6	318	N 42 W	100	9.2	161	S 19 E
1929.5	8.00	15.2	292	N 68 W	100	9.1	160	S 20 E
1931.5	8.00	18.0	313	N 47 W	100	9.1	161	S 19 E
1933.5	8.00	13.9	4	N 4 E	100	9.1	161	S 19 E
1935.5	8.00	17.2	52	N 52 E	100	9.1	161	S 19 E
1937.5	8.00	12.3	30	N 30 E	100	9.1	161	S 19 E

OREGON NATURAL GAS CORP.

FW 42D-10

MIST

COLUMBIA

OREGON

07728788

DEPTH	WL	**FORMATION DIP**			GRADE	***BOREHOLE***		
		ANG	AZ	BEARING		DA	DAZ	BEARING
1941.5	8.00	15.9	52	N 52 E	100	9.1	161	S 19 E
1943.5	8.00	6.1	29	N 29 E	100	9.0	161	S 19 E
1945.5	8.00	6.3	25	N 25 E	100	9.1	161	S 19 E
1947.5	8.00	5.9	27	N 27 E	100	9.0	161	S 19 E
1953.5	8.00	8.1	328	N 32 W	100	9.0	161	S 19 E
1955.5	8.00	9.6	328	N 32 W	100	9.0	161	S 19 E
1959.5	8.00	4.3	333	N 27 W	100	8.9	161	S 19 E
1961.5	8.00	5.8	2	N 2 E	100	8.9	161	S 19 E
1963.5	8.00	5.8	9	N 9 E	100	8.9	161	S 19 E
1965.5	8.00	5.8	24	N 24 E	100	8.9	161	S 19 E
1969.5	8.00	4.4	44	N 44 E	100	8.9	161	S 19 E
1971.5	8.00	4.6	38	N 38 E	100	8.9	161	S 19 E
1973.5	8.00	5.1	58	N 58 E	100	8.8	161	S 19 E
1975.5	8.00	6.6	26	N 26 E	100	8.8	161	S 19 E
1977.5	8.00	3.5	33	N 33 E	100	8.8	161	S 19 E
1979.5	8.00	2.5	358	N 4 W	100	8.9	161	S 19 E
1981.5	8.00	5.2	13	N 13 E	100	8.9	161	S 19 E
1983.5	8.00	4.0	22	N 22 E	100	8.8	161	S 19 E
1985.5	8.00	5.2	12	N 12 E	100	8.8	161	S 19 E
1987.5	8.00	5.4	13	N 13 E	100	8.8	161	S 19 E
1989.5	8.00	5.4	8	N 8 E	100	8.8	161	S 19 E
1991.5	8.00	4.4	356	N 4 W	100	8.8	161	S 19 E
1993.5	8.00	4.7	18	N 18 E	100	8.7	161	S 19 E
1995.5	8.00	4.1	0	N 0 E	100	8.8	160	S 20 E
1997.5	8.00	3.8	8	N 8 E	100	8.7	161	S 19 E
1999.5	8.00	6.5	43	N 43 E	100	8.8	161	S 19 E
2001.5	8.00	6.5	26	N 26 E	100	8.8	160	S 20 E
2003.5	8.00	6.0	34	N 34 E	100	8.8	161	S 19 E
2005.5	8.00	5.3	32	N 32 E	100	8.8	161	S 19 E
2007.5	8.00	7.4	23	N 23 E	100	8.8	161	S 19 E
2009.5	8.00	9.0	21	N 21 E	100	8.7	160	S 20 E
2011.5	8.00	9.2	15	N 15 E	100	8.8	161	S 19 E
2013.5	8.00	9.4	13	N 13 E	100	8.7	161	S 19 E
2015.5	8.00	8.9	16	N 16 E	100	8.7	160	S 20 E
2035.5	8.00	1.4	38	N 38 E	100	8.8	160	S 20 E
2037.5	8.00	1.3	6	N 6 E	100	8.8	160	S 20 E
2039.5	8.00	2.9	4	N 4 E	100	8.8	160	S 20 E
2041.5	8.00	3.6	354	N 6 W	100	8.8	160	S 20 E
2043.5	8.00	4.4	357	N 3 W	100	8.8	160	S 20 E
2045.5	8.00	5.7	2	N 2 E	100	8.8	160	S 20 E

CRECCA NATURAL GAS CORP.

IW 42D-10

PIST

COLUMBIA

OREGON

07/28/88

DEPTH	EL	**FORMATION DIP**					***BOREHOLE***		
		ARC	AZ	BEARING	GRADE	DA	DAZ	BEARING	
2047.5	8.00	5.5	357	N 3 W	100	8.6	160	S 20 E	
2049.5	8.00	4.7	354	N 6 W	100	8.6	160	S 20 E	
2051.5	8.00	4.8	336	N 24 W	100	8.6	160	S 20 E	
2053.5	8.00	4.1	329	N 31 W	100	8.5	160	S 20 E	
2055.5	8.00	4.7	314	N 46 W	100	8.6	160	S 20 E	
2057.5	8.00	5.1	326	N 34 W	100	8.5	160	S 20 E	
2059.5	8.00	4.7	330	N 30 W	100	8.6	160	S 20 E	
2061.5	8.00	4.2	327	N 33 W	100	8.5	160	S 20 E	
2065.5	8.00	0.6	345	N 15 W	100	8.5	160	S 20 E	
2069.5	8.00	7.5	327	N 23 W	100	8.5	160	S 20 E	
2071.5	8.00	7.5	337	N 23 W	100	8.2	160	S 20 E	
2079.5	8.00	4.9	334	N 26 W	100	8.0	160	S 20 E	
2089.0	8.00	6.2	357	N 3 W	100	7.9	164	S 16 E	
2091.0	8.00	5.4	22	N 22 E	100	7.9	160	S 20 E	
2093.0	8.00	5.6	22	N 22 E	100	7.9	160	S 20 E	
2111.0	8.00	4.4	329	N 31 W	100	8.0	162	S 18 E	
2113.0	8.00	5.1	323	N 37 W	100	7.9	162	S 18 E	
2115.0	8.00	6.1	326	N 34 W	100	7.9	161	S 19 E	
2117.0	8.00	5.7	326	N 34 W	100	7.9	161	S 19 E	
2119.0	8.00	6.0	323	N 37 W	100	7.9	161	S 19 E	
2121.0	8.00	1.1	265	S 29 W	100	7.9	162	S 18 E	
2123.0	8.00	1.9	283	S 23 W	100	7.9	162	S 18 E	
2125.0	8.00	4.2	232	S 52 W	100	7.9	162	S 18 E	
2127.0	8.00	3.0	213	S 33 W	100	7.9	162	S 18 E	
2129.0	8.00	5.2	256	S 76 W	100	8.0	161	S 19 E	
2131.0	8.00	6.7	278	N 82 W	100	8.0	162	S 18 E	
2135.0	8.00	7.8	336	N 24 W	100	8.0	162	S 18 E	
2137.0	8.00	4.0	327	N 33 W	100	8.1	162	S 18 E	
2139.0	8.00	5.1	327	N 33 W	100	8.1	161	S 19 E	
2141.0	8.00	4.3	323	N 37 W	100	8.1	162	S 18 E	
2143.0	8.00	5.3	324	N 36 W	100	8.1	162	S 18 E	
2145.0	8.00	5.0	321	N 39 W	100	8.1	161	S 19 E	
2147.0	8.00	4.0	309	N 51 W	100	8.1	162	S 18 E	
2149.0	8.00	11.4	248	S 60 W	100	8.1	162	S 18 E	
2151.0	8.00	10.3	255	S 75 W	100	8.1	162	S 18 E	
2153.0	8.00	11.8	251	S 71 W	100	8.1	162	S 18 E	
2155.0	8.00	12.8	257	S 77 W	100	8.1	162	S 18 E	
2157.0	8.00	5.2	173	S 7 E	100	8.1	162	S 18 E	
2159.0	8.00	4.3	174	S 6 E	100	8.1	162	S 18 E	
2161.0	8.00	3.3	211	S 31 W	100	8.2	162	S 18 E	

OREGON NATURAL GAS CORP.

IW 42D-10

MIST

COLUMBIA

OREGON

07728738

DEPTH	ML	**FORMATION DIP**			GRADE	***WELLHOLE****		
		ANG	AZ	BEARING		DA	DAZ	BEARING
2165.0	8.00	0.6	277	N 83 W	100	8.2	162	S 18 E
2167.0	8.00	3.4	344	N 16 W	100	8.2	162	S 18 E
2169.0	8.00	5.0	351	N 9 W	100	8.2	162	S 18 E
2171.0	8.00	10.6	15	N 15 E	100	8.2	162	S 18 E
2173.0	8.00	6.0	20	N 20 E	100	8.2	162	S 18 E
2177.0	8.00	9.4	5	N 5 E	100	8.2	162	S 18 E
2179.0	8.00	2.0	13	N 13 E	100	8.2	162	S 18 E
2181.0	8.00	4.2	338	N 22 W	100	8.2	162	S 18 E
2187.0	8.00	3.2	327	N 33 W	100	8.2	162	S 18 E
2189.0	8.00	3.2	324	N 36 W	100	8.2	162	S 18 E
2191.0	8.00	5.0	312	N 48 W	100	8.3	162	S 18 E
2193.0	8.00	5.2	312	N 48 W	100	8.3	162	S 18 E
2195.0	8.00	3.5	335	N 25 W	100	8.3	162	S 18 E
2197.0	8.00	2.6	327	N 33 W	100	8.3	162	S 18 E
2201.0	8.00	3.2	292	N 68 W	100	8.3	162	S 18 E
2203.0	8.00	2.8	276	N 84 W	100	8.3	162	S 18 E
2205.0	8.00	3.0	279	N 81 W	100	8.3	162	S 18 E
2207.0	8.00	3.3	272	N 88 W	100	8.3	162	S 18 E
2209.0	8.00	3.9	328	N 32 W	100	8.4	162	S 18 E
2211.0	8.00	3.5	334	N 26 W	100	8.4	162	S 18 E
2213.0	8.00	3.4	338	N 22 W	100	8.4	162	S 18 E
2215.0	8.00	7.7	328	N 32 W	100	8.4	162	S 18 E
2217.0	8.00	11.7	334	N 26 W	100	8.4	162	S 18 E
2219.0	8.00	9.9	325	N 35 W	100	8.4	162	S 18 E
2221.0	8.00	10.6	328	N 32 W	100	8.4	162	S 18 E
2223.0	8.00	14.5	314	N 46 W	100	8.4	162	S 18 E
2225.0	8.00	15.3	295	N 65 W	100	8.4	162	S 18 E
2227.0	8.00	15.3	294	N 66 W	100	8.4	162	S 18 E
2233.0	8.00	25.8	292	N 68 W	100	8.4	162	S 18 E
2235.0	8.00	26.2	292	N 68 W	100	8.4	162	S 18 E
2237.0	8.00	21.7	305	N 55 W	100	8.4	162	S 18 E
2241.0	8.00	6.5	342	N 18 W	100	8.5	162	S 18 E
2243.0	8.00	5.4	343	N 17 W	100	8.5	162	S 18 E
2245.0	8.00	5.8	344	N 16 W	100	8.5	162	S 18 E
2247.0	8.00	2.9	341	N 19 W	100	8.5	162	S 18 E
2249.0	8.00	3.8	335	N 25 W	100	8.5	162	S 18 E
2251.0	8.00	5.2	330	N 30 W	100	8.5	162	S 18 E
2253.0	8.00	4.0	322	N 38 W	100	8.5	162	S 18 E
2255.0	8.00	4.9	315	N 41 W	100	8.6	162	S 18 E
2263.0	8.00	6.5	349	N 11 W	100	8.6	162	S 18 E

OREGON NATURAL GAS CORP.

W 420-10

MIST

COLUMBIA

OREGON

07/28/88

DEPTH	WL	**FORMATION DIP**				GRADE	***BOREHOLE***			
		ANI	AZ	BEARING	DA		DAZ	BEARING		
2265.0	8.00	6.6	348	N 12 W	100	8.6	162	S 16 E		
2267.0	8.00	7.2	348	N 12 W	100	8.6	162	S 16 E		
2269.0	8.00	5.2	351	N 9 W	100	8.6	162	S 18 E		
2275.0	8.00	3.7	327	N 33 W	100	8.6	162	S 18 E		
2277.0	8.00	3.1	26	N 26 E	100	8.6	162	S 18 E		
2279.0	8.00	2.4	25	N 25 E	100	8.6	162	S 18 E		
2281.0	8.00	2.9	18	N 18 E	100	8.6	162	S 18 E		
2283.0	8.00	2.8	27	N 27 E	100	8.6	162	S 18 E		
2285.0	8.00	5.2	298	N 62 W	100	8.6	163	S 17 E		
2287.0	8.00	4.4	304	N 56 W	100	8.6	162	S 18 E		
2291.0	8.00	5.4	312	N 48 W	100	8.7	162	S 18 E		
2293.0	8.00	2.7	15	N 15 E	100	8.7	162	S 18 E		
2297.0	8.00	3.5	358	N 2 W	100	8.6	162	S 18 E		
2299.0	8.00	4.2	329	N 31 W	100	8.7	162	S 18 E		
2301.0	8.00	4.1	327	N 33 W	100	8.7	162	S 18 E		
2303.0	8.00	3.8	338	N 22 W	100	8.8	162	S 18 E		
2305.0	8.00	3.8	327	N 33 W	100	8.7	162	S 18 E		
2307.0	8.00	3.1	319	N 41 W	100	8.7	162	S 18 E		
2309.0	8.00	3.0	317	N 43 W	100	8.8	162	S 18 E		
2311.0	8.00	2.5	315	N 45 W	100	8.8	162	S 18 E		
2317.0	8.00	7.2	332	N 28 W	100	8.8	162	S 18 E		
2319.0	8.00	4.7	323	N 37 W	100	8.7	162	S 18 E		
2321.0	8.00	5.0	320	N 40 W	100	8.8	162	S 18 E		
2323.0	8.00	4.3	325	N 35 W	100	8.8	162	S 18 E		
2327.0	8.00	11.4	192	S 12 W	100	8.8	162	S 18 E		
2329.0	8.00	9.3	200	S 20 W	69	8.8	162	S 18 E		
2331.0	8.00	14.7	169	S 11 E	100	8.8	162	S 18 E		
2333.0	8.00	9.5	131	S 49 E	100	8.8	162	S 18 E		
2335.0	8.00	27.0	36	N 36 E	100	8.8	162	S 18 E		
2337.0	8.00	24.6	24	N 24 E	100	8.9	162	S 18 E		
2339.0	8.00	3.3	342	N 17 W	100	8.9	162	S 18 E		
2341.0	8.00	3.5	325	N 35 W	100	8.9	162	S 18 E		
2343.0	8.00	5.2	334	N 26 W	100	8.9	162	S 18 E		
2345.0	8.00	6.4	328	N 32 W	100	8.9	162	S 18 E		
2347.0	8.00	4.5	317	N 43 W	100	8.9	162	S 18 E		
2349.0	8.00	4.4	318	N 42 W	100	8.9	162	S 18 E		
2351.0	8.00	4.7	4	N 4 E	100	8.9	162	S 18 E		
2355.0	8.00	6.4	55	N 55 E	100	8.9	162	S 18 E		
2357.0	8.00	5.9	51	N 51 E	100	8.0	162	S 18 E		
2363.0	8.00	27.2	331	N 29 W	100	9.0	162	S 18 E		

OREGON NATURAL GAS CORP.

IN 420-10

MIST

COLUMBIA

OREGON

67728788

DEPTH	WL	**FORMATION DIP**				***BOREHOLE***			
		ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
2365.0	8.00	30.1	325	N 35 W	100	9.0	162	S 18 E	
2371.0	8.00	5.3	231	S 51 W	100	9.0	162	S 18 E	
2373.0	8.00	3.6	226	S 46 W	100	9.0	162	S 18 E	
2375.0	8.00	1.2	214	S 34 W	100	9.0	162	S 18 E	
2379.0	8.00	1.9	229	S 49 W	100	9.0	162	S 18 E	
2381.0	8.00	2.3	295	N 65 W	100	9.0	162	S 18 E	
2387.0	8.00	2.6	324	N 36 W	100	9.1	162	S 18 E	
2395.0	8.00	15.4	333	N 27 W	100	9.1	162	S 18 E	
2397.0	8.00	13.5	339	N 21 W	100	9.1	162	S 18 E	
2399.0	8.00	18.2	5	N 9 E	100	9.1	162	S 18 E	
2401.0	8.00	18.0	10	N 10 E	100	9.1	162	S 18 E	
2403.0	8.00	18.3	12	N 12 E	100	9.1	162	S 18 E	
2405.0	8.00	16.9	25	N 25 E	100	9.1	162	S 18 E	
2407.0	8.00	2.1	320	N 40 W	100	9.1	162	S 18 E	
2409.0	8.00	2.1	311	N 49 W	100	9.2	162	S 18 E	
2411.0	8.00	2.1	287	N 75 W	100	9.2	162	S 18 E	
2413.0	8.00	5.5	7	N 7 E	100	9.2	162	S 18 E	
2415.0	8.00	6.7	4	N 4 E	100	9.2	162	S 18 E	
2417.0	8.00	5.8	352	N 8 W	100	9.2	162	S 18 E	
2419.0	8.00	5.6	357	N 3 W	100	9.2	162	S 18 E	
2421.0	8.00	3.1	341	N 19 W	100	9.2	162	S 18 E	
2423.0	8.00	1.3	239	S 59 W	100	9.2	162	S 18 E	
2425.0	8.00	1.9	222	S 42 W	100	9.2	162	S 18 E	
2427.0	8.00	2.3	228	S 48 W	100	9.2	162	S 18 E	
2429.0	8.00	2.5	222	S 42 W	100	9.3	162	S 18 E	
2431.0	8.00	4.2	304	N 56 W	100	9.3	162	S 18 E	
2435.0	8.00	2.7	291	N 69 W	100	9.3	162	S 18 E	
2441.0	8.00	6.4	270	N 90 W	100	9.3	162	S 18 E	
2443.0	8.00	7.5	300	N 60 W	100	9.3	162	S 18 E	
2445.0	8.00	6.3	298	N 62 W	100	9.3	162	S 18 E	
2447.0	8.00	5.2	258	N 62 W	100	9.3	162	S 18 E	
2449.0	8.00	5.1	318	N 42 W	100	9.3	162	S 18 E	
2451.0	8.00	4.1	310	N 50 W	100	9.4	162	S 18 E	
2453.0	8.00	3.7	320	N 40 W	100	9.3	162	S 18 E	
2455.0	8.00	5.7	325	N 31 W	100	9.3	162	S 18 E	
2457.0	8.00	1.9	303	N 57 W	100	9.3	162	S 18 E	
2461.0	8.00	3.0	264	S 84 W	100	9.4	162	S 18 E	
2463.0	8.00	3.0	273	N 87 W	100	9.4	162	S 18 E	
2465.0	8.00	3.1	280	N 80 W	100	9.4	162	S 18 E	
2467.0	8.00	1.7	293	N 67 W	100	9.4	162	S 18 E	

CHLOCCO NATURAL GAS CORP.

IW 420-10

MIST

COLUMBIA

GREGOR

07/28/88

DEPTH	WL	**FORMATION DIP**			GRADE	***BOREHOLE***		
		ANG	AZ	BEARING		DA	DAZ	BEARING
2469.0	8.00	4.5	281	N 79 W	100	9.5	162	S 18 E
2471.0	8.00	6.5	315	N 41 W	100	9.5	162	S 18 E
2475.0	8.00	5.4	349	N 11 W	100	9.5	162	S 18 E
2477.0	8.00	5.3	348	N 12 W	100	9.5	162	S 18 E
2479.0	8.00	4.1	343	N 17 W	100	9.5	162	S 18 E
2481.0	8.00	4.8	349	N 11 W	100	9.6	162	S 18 E
2485.0	8.00	22.2	337	N 23 W	100	9.6	162	S 18 E
2489.0	8.00	19.4	324	N 36 W	100	9.6	162	S 18 E
2503.0	8.00	4.1	256	N 64 W	100	9.6	162	S 18 E
2505.0	8.00	4.5	300	N 60 W	100	9.6	162	S 18 E
2507.0	8.00	5.0	300	N 60 W	100	9.6	162	S 18 E
2509.0	8.00	5.2	302	N 58 W	100	9.6	162	S 18 E
2511.0	8.00	17.1	301	N 55 W	100	9.7	162	S 18 E
2513.0	8.00	20.1	332	N 28 W	100	9.6	162	S 18 E
2515.0	8.00	10.0	313	N 47 W	100	9.7	162	S 18 E
2517.0	8.00	8.9	300	N 60 W	100	9.6	162	S 18 E
2519.0	8.00	8.3	307	N 53 W	100	9.7	162	S 18 E
2521.0	8.00	11.4	318	N 42 W	100	9.7	162	S 18 E
2523.0	8.00	8.7	256	N 64 W	100	9.7	162	S 18 E
2525.0	8.00	7.2	285	N 71 W	100	9.7	162	S 18 E
2527.0	8.00	6.8	290	N 70 W	100	9.7	162	S 18 E
2529.0	8.00	5.9	295	N 65 W	100	9.7	162	S 18 E
2531.0	8.00	5.1	313	N 47 W	100	9.6	162	S 18 E
2533.0	8.00	11.7	334	N 26 W	100	9.6	162	S 18 E
2539.0	8.00	7.8	179	S 1 E	100	9.7	162	S 18 E
2541.0	8.00	8.1	171	S 9 E	100	9.7	162	S 18 E
2543.0	8.00	10.5	163	S 17 E	100	9.7	162	S 18 E
2545.0	8.00	12.9	153	S 27 E	100	9.7	162	S 18 E
2549.0	8.00	14.9	164	S 16 E	100	9.7	162	S 18 E
2551.0	8.00	15.7	166	S 14 E	100	9.7	162	S 18 E
2555.0	8.00	22.7	326	N 34 W	100	9.8	161	S 18 E
2557.0	8.00	26.6	309	N 51 W	100	9.8	161	S 18 E
2559.0	8.00	24.2	314	N 46 W	100	9.8	162	S 18 E
2563.0	8.00	24.3	261	S 81 W	95	9.8	161	S 18 E
2565.0	8.00	23.3	263	S 83 W	100	9.8	161	S 18 E
2567.0	8.00	23.6	264	S 84 W	100	9.8	162	S 18 E
2573.0	8.00	13.5	298	N 62 W	100	9.8	162	S 18 E
2577.0	8.00	12.7	258	N 62 W	100	9.8	162	S 18 E
2579.0	8.00	4.8	330	N 30 W	100	9.8	161	S 18 E
2581.0	8.00	6.0	310	N 50 W	100	9.8	162	S 18 E

OREGON NATURAL GAS CORP.

TR 420-10

MIST

COLUMBIA

OREGON

07/28/85

DEPTH	WL	**FORMATION DIP**				***BOREHOLE*****		
		ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
2585.0	8.00	5.0	315	N 45 W	100	9.9	161	S 19 E
2587.0	8.00	4.9	343	N 17 W	100	9.9	161	S 19 E
2589.0	8.00	5.5	359	N 1 W	100	9.9	162	S 18 E
2593.0	8.00	7.1	23	N 23 E	100	9.9	161	S 19 E
2595.0	8.00	2.4	336	N 24 W	100	9.9	161	S 19 E
2599.0	8.00	2.4	305	N 55 W	100	9.9	162	S 18 E
2601.0	8.00	5.5	278	N 82 W	100	9.9	161	S 19 E
2603.0	8.00	8.0	293	N 67 W	100	9.9	162	S 18 E
2605.0	8.00	8.5	320	N 40 W	100	10.0	161	S 19 E
2607.0	8.00	8.7	321	N 39 W	100	10.0	161	S 19 E
2609.0	8.00	10.2	325	N 35 W	100	10.0	162	S 18 E
2611.0	8.00	7.5	347	N 13 W	100	10.0	161	S 19 E
2613.0	8.00	9.1	18	N 18 E	100	10.0	161	S 19 E
2625.0	8.00	2.8	24	N 24 E	100	10.1	161	S 19 E
2629.0	8.00	3.0	23	N 23 E	100	10.1	161	S 19 E
2631.0	8.00	1.5	355	N 5 W	100	10.1	161	S 19 E
2633.0	8.00	6.1	300	N 54 W	100	10.2	161	S 19 E
2635.0	8.00	8.9	318	N 42 W	100	10.1	162	S 18 E
2637.0	8.00	9.0	316	N 44 W	100	10.1	162	S 18 E
2639.0	8.00	8.6	313	N 47 W	100	10.2	161	S 19 E
2645.0	8.00	6.6	310	N 44 W	100	10.2	161	S 19 E
2647.0	8.00	6.8	316	N 44 W	100	10.2	162	S 18 E
2649.0	8.00	7.7	300	N 60 W	100	10.2	161	S 19 E
2655.0	8.00	9.5	333	N 27 W	100	10.3	162	S 18 E
2657.0	8.00	11.1	25	N 25 E	100	10.3	161	S 19 E
2659.0	8.00	11.4	18	N 18 E	100	10.3	161	S 19 E
2661.0	8.00	12.2	14	N 14 E	100	10.3	161	S 19 E
2663.0	8.00	8.2	0	N 0 E	100	10.3	161	S 19 E
2665.0	8.00	8.2	354	N 6 W	100	10.3	161	S 19 E
2671.0	8.00	2.2	306	N 54 W	100	10.3	161	S 19 E
2673.0	8.00	4.0	271	N 89 W	100	10.3	161	S 19 E
2675.0	8.00	4.7	258	S 78 W	100	10.3	161	S 19 E
2677.0	8.00	4.1	259	S 79 W	100	10.4	161	S 19 E
2679.0	8.00	7.2	225	S 45 W	100	10.4	161	S 19 E
2681.0	8.00	12.5	264	S 24 W	100	10.4	162	S 18 E
2683.0	8.00	2.9	308	N 52 W	100	10.4	162	S 18 E
2685.0	8.00	3.3	318	N 42 W	100	10.4	162	S 18 E
2687.0	8.00	5.0	334	N 26 W	100	10.4	162	S 18 E
2689.0	8.00	5.4	336	N 24 W	100	10.4	161	S 19 E
2691.0	8.00	6.7	351	N 9 W	100	10.4	162	S 18 E

OREGON NATURAL GAS CORP.

IW 420-10

MIST

COLUMBIA

OREGON

07/28/88

DEPTH	WL	**FORMATION DIP**				GRADE	***BOREHOLE***		
		ANG	AZ	BEARING	DA		DAZ	BEARING	
2693.0	8.00	7.3	348	N 12 W	100	10.4	162	S 18 E	
2695.0	8.00	8.4	337	N 23 W	100	10.5	161	S 19 E	
2697.0	8.00	9.5	323	N 27 W	100	10.4	161	S 19 E	
2699.0	8.00	7.7	13	N 13 E	100	10.5	161	S 19 E	
2701.0	8.00	7.9	15	N 15 E	100	10.5	161	S 19 E	
2703.0	8.00	8.0	11	N 11 E	100	10.5	161	S 19 E	
2705.0	8.00	6.0	17	N 17 E	100	10.5	161	S 19 E	
2707.0	8.00	7.0	304	N 56 W	100	10.5	161	S 19 E	
2709.0	8.00	6.6	307	N 53 W	100	10.5	161	S 19 E	
2711.0	8.00	5.6	317	N 43 W	100	10.5	161	S 19 E	
2713.0	8.00	5.7	326	N 34 W	100	10.5	161	S 19 E	
2715.0	8.00	5.6	340	N 20 W	100	10.5	161	S 19 E	
2717.0	8.00	6.9	332	N 28 W	100	10.5	161	S 19 E	
2719.0	8.00	7.8	343	N 17 W	100	10.5	161	S 19 E	
2723.0	8.00	8.4	356	N 4 W	100	10.5	161	S 19 E	
2725.0	8.00	5.5	2	N 2 E	100	10.5	161	S 19 E	
2727.0	8.00	4.5	8	N 8 E	100	10.6	161	S 19 E	
2729.0	8.00	2.3	311	N 49 W	100	10.6	161	S 19 E	
2733.0	8.00	4.0	313	N 47 W	100	10.7	161	S 19 E	
2735.0	8.00	3.4	313	N 47 W	100	10.6	161	S 19 E	
2737.0	8.00	4.6	329	N 51 W	100	10.6	161	S 19 E	
2747.0	8.00	19.1	336	N 24 W	100	10.5	161	S 19 E	
2753.0	8.00	12.5	356	N 4 W	100	10.7	161	S 19 E	
2755.0	8.00	11.3	354	N 6 W	100	10.7	161	S 19 E	
2757.0	8.00	11.5	354	N 6 W	100	10.7	161	S 19 E	
2759.0	8.00	10.7	352	N 8 W	100	10.7	161	S 19 E	
2763.0	8.00	15.0	325	N 35 W	100	10.5	162	S 18 E	
2765.0	8.00	17.4	315	N 45 W	100	10.6	161	S 19 E	