Table E - 4 (concluded)
Contamination Indicator Parameters for the Lacustrine Unit

Location Code	Hydraulic Position[a]	pH	Conductivity µmhos/cm@25°C	TOC mg/L	TOX mg/L	Gross Alpha µCi/mL	Gross Beta µCi/mL	Tritium µCi/mL	Cs-137 µCi/mL	Co-60 µCi/mL
WNW1103C	DOWN - C (1)									
WNW1103C	DOWN - C (2)	7.74	1383			<4.03E-09	1.79±0.18E-07		<5.80E-08	7.89±4.60E-08
WNW1103C	DOWN - C (3)					<6.05E-09	7.23±1.20E-08	<1.00E-07	<1.47E-07	<1.60E-07
WNW1103C	DOWN - C (4)					<7.17E-09	4.96±1.38E-08	<1.00E-07	<1.99E-07	<2.07E-07
WNW1103C	DOWN - C (5)					<3.90E-09	3.65±0.68E-08	<1.00E-07	<5.66E-08	<6.16E-08
WNW1103C	DOWN - C (6)					<4.06E-09	1.03±0.11E-07	<1.14E-07	<4.27E-08	<4.05E-08
WNW1103C	DOWN - C (7)							2.64±1.39E-07		
WNW1103C	DOWN - C (8)							<1.00E-07	<5.02E-07	<4.76E-06
WNW1104C	DOWN - C (1)									
WNW1104C	DOWN - C (2)									
WNW1104C	DOWN - C (3)					<1.18E-08	1.58±0.52E-08	<1.00E-07	<2.83E-08	<3.08E-08
WNW1104C	DOWN - C (4)					<1.14E-08	1.26±0.37E-08	<1.00E-07	<2.88E-08	<2.99E-08
WNW1104C	DOWN - C (5)					1.03±0.95E-08	1.47±0.82E-08	<1.00E-07	<2.83E-08	<3.08E-08
WNW1104C	DOWN - C (6)					<1.08E-08	1.15±0.61E-08	<1.00E-07	<3.40E-08	<3.35E-08
WNW1104C	DOWN - C (7)					1.03±0.95E-08	1.50±0.66E-08	3.63±1.26E-07	<2.31E-08	<2.19E-08
WNW1104C	DOWN - C (8)					<6.78E-09	1.59±0.68E-08	<1.00E-07	<2.31E-08	<1.92E-08
WNW8610	DOWN - C (1)	8.25	763	4.6	<0.005	<1.48E-09	6.39±2.48E-09	<1.00E-07	<2.88E-08	<2.99E-08
WNW8610	DOWN - C (2)	7.59	801	12.0	0.008	<2.99E-09	8.83±2.70E-09	<1.00E-07	<2.88E-08	<2.99E-08
WNW8610	DOWN - C (3)	8.30	713	1.4	<0.005	<5.04E-09	4.80±2.23E-09	<1.00E-07	<2.88E-08	<3.11E-08
WNW8610	DOWN - C (4)	8.05	692	2.3	<0.005	<3.13E-09	<2.85E-09	<1.00E-07	<2.88E-08	<2.99E-08
WNW8610	DOWN - C (5)	7.99	777	1.4	0.006	<6.34E-09	8.88±3.51E-09	<1.00E-07	<3.97E-08	<4.13E-08
WNW8610	DOWN - C (6)	7.91	776	8.4	<0.005	<4.11E-09	6.95±3.06E-09	<1.00E-07	<2.83E-08	<3.08E-08
WNW8610	DOWN - C (7)	8.09	723	<1.0	<0.005	<3.83E-09	5.45±2.97E-09	<1.00E-07	<2.83E-08	<3.08E-08
WNW8610	DOWN - C (8)	7.69	723	10.0	<0.005	<2.92E-09	7.13±3.21E-09	<1.00E-07	<3.40E-08	<3.35E-08
WNW8611	DOWN - C (1)	7.53	856	1.2	<0.005	<5.13E-09	5.83±2.40E-09	<1.00E-07	<2.88E-08	<2.99E-08
WNW8611	DOWN - C (2)	7.62	938	8.7	0.010	<5.26E-09	4.94±2.29E-09	<1.00E-07	<3.59E-08	<3.18E-08
WNW8611	DOWN - C (3)	7.92	882	13.0	<0.005	<3.28E-09	2.90±2.06E-09	<1.00E-07	<3.97E-08	<4.13E-08
WNW8611	DOWN - C (4)	7.65	913	1.1	<0.005	<9.07E-09	<2.89E-09	<1.00E-07	<2.83E-08	<3.08E-08
WNW8611	DOWN - C (5)	7.48	908			<3.94E-09	5.57±2.81E-09	<1.00E-07	<2.83E-08	<3.08E-08
WNW8611	DOWN - C (6)	7.40	934	1.7	0.020	<7.08E-09	6.57±3.22E-09	<1.00E-07	<2.83E-08	<3.08E-08
WNW8611	DOWN - C (7)	7.24	924	<1.0	<0.005	<2.92E-09	<3.75E-09	<1.00E-07	<3.40E-08	<3.35E-08
WNW8611	DOWN - C (8)	7.44	889	1.9	<0.005	8.44±6.10E-09	<2.88E-09	<1.00E-07	<2.31E-08	<2.19E-08

a) General position in geologic unit. Sample rep number is indicated in parenthesis next to the hydraulic position.

Table E - 5
Contamination Indicator Parameters for the Weathered Lavery Till Unit

Location Code	Hydraulic Position[a]	pH	Conductivity µmhos/cm@25°C	TOC mg/L	TOX mg/L	Gross Alpha µCi/mL	Gross Beta µCi/mL	Tritium µCi/mL	Cs-137 µCi/mL	Co-60 µCi/mL
WNW0908	UP (1)									
WNW0908	UP (2)	6.79	2810			<1.58E-07	1.30±0.57E-08	<1.00E-07	<3.59E-08	<3.18E-08
WNW0908	UP (3)	6.81	2780	18.0	0.006	<1.16E-08	1.18±1.04E-08	<1.00E-07	<3.43E-08	<3.11E-08
WNW0908	UP (4)	6.58	2700	2.0	<0.005	<7.68E-08	1.62±0.50E-08	<1.00E-07	<3.59E-08	<3.18E-08
WNW0908	UP (5)	6.65	2570	2.8	<0.005	<1.72E-08	1.87±1.55E-08	<1.00E-07	<3.97E-08	<4.13E-08
WNW0908	UP (6)							<1.00E-07		
WNW0908	UP (7)									
WNW0908	UP (8)									
WNW1005	UP (1)									
WNW1005	UP (2)	7.37	714			<2.44E-09	4.43±2.95E-09	1.91±1.08E-07		
WNW1005	UP (3)	7.19	702	2.2	<0.005	<7.69E-09	3.68±2.89E-09	<1.00E-07	<2.88E-08	<2.99E-08
WNW1005	UP (4)	7.19	702	18.0	0.006	<7.71E-09	3.78±2.68E-09	<1.00E-07	2.88±1.85E-08	<3.08E-08
WNW1005	UP (5)	7.19	724	1.9	<0.005	<7.37E-09	4.73±2.62E-09	<1.00E-07	<3.97E-08	<4.13E-08
WNW1005	UP (6)	7.06	763	<1.0	<0.005	<9.54E-09	6.22±3.39E-09	<1.00E-07	<3.97E-08	<4.13E-08
WNW1005	UP (7)	8.77[b]	775	4.5	0.010	7.79±7.23E-09	3.92±2.90E-09	<1.33E-07	<2.31E-08	<2.19E-08
WNW1005	UP (8)	6.92	838	9.3	<0.005	<4.88E-09	<3.12E-09	<1.37E-07	<2.31E-08	<2.19E-08
WNW1008C	UP (1)									
WNW1008C	UP (2)	7.33	542			<2.62E-09	<2.29E-09	<1.00E-07		
WNW1008C	UP (3)	7.61	541	5.0		<3.44E-09	<3.04E-09	<1.00E-07	<2.88E-08	<2.99E-08
WNW1008C	UP (4)	7.51	458	4.9	0.006	<4.59E-09	5.72±2.70E-09	<1.00E-07	<2.83E-08	<3.08E-08
WNW1008C	UP (5)	7.54	481	8.6	0.011	<3.49E-09	<2.56E-09	<1.00E-07	<3.97E-08	<4.13E-08
WNW1008C	UP (6)	7.37	510	3.1	<0.005	<3.24E-09	<2.49E-09	<1.00E-07	<3.97E-08	<4.13E-08
WNW1008C	UP (7)	7.40	521	10.0	0.008	<1.38E-09	2.69±2.24E-09	<1.00E-07	<2.31E-08	<2.19E-08
WNW1008C	UP (8)	7.27	539	4.9		<1.90E-09	<2.22E-09	<1.00E-07	<3.40E-08	<3.35E-08
WNW0906	DOWN - B (1)									
WNW0906	DOWN - B (2)	7.23	700			<3.33E-09	4.16±2.82E-09	<1.00E-07		
WNW0906	DOWN - B (3)	7.38	695	26.0	0.073	<4.57E-09	<3.15E-09	<1.00E-07	<3.97E-08	<4.13E-08
WNW0906	DOWN - B (4)	7.29	674	6.6	0.011	<4.94E-09	7.61±3.00E-09	<1.00E-07	<3.97E-08	<4.13E-08
WNW0906	DOWN - B (5)	7.26	761	4.4	<0.005	<5.88E-09	<2.76E-09	<1.00E-07	<3.97E-08	<4.13E-08
WNW0906	DOWN - B (6)									
WNW0906	DOWN - B (7)									
WNW0906	DOWN - B (8)									

a) General position in geologic unit. Sample rep number is indicated in parenthesis next to hydraulic position.

b) Apparent analytical outlier

Table E - 5 (continued)
Contamination Indicator Parameters for the Weathered Lavery Till Unit

Location Code	Hydraulic Position[a]	pH	Conductivity µmhos/cm@25°C	TOC mg/L	TOX mg/L	Gross Alpha µCi/mL	Gross Beta µCi/mL	Tritium µCi/mL	Cs-137 µCi/mL	Co-60 µCi/mL
WNW0907	DOWN - B (1)									
WNW0907	DOWN - B (2)	7.27	417			5.19±4.55E-09	8.56±3.27E-09	<1.00E-07		
WNW0907	DOWN - B (3)	7.22	755	49.0	0.006	<6.70E-09	6.79±2.97E-09	<1.00E-07	<2.88E-08	<2.99E-08
WNW0907	DOWN - B (4)	7.13	743	1.5	<0.005	<7.53E-09	5.00±2.97E-09	<1.00E-07	<3.97E-08	1.24±0.47E-08
WNW0907	DOWN - B (5)	7.03	751	6.2	<0.005	<6.95E-09	<2.81E-09	<1.00E-07	<2.83E-08	<3.08E-08
WNW0907	DOWN - B (6)	6.98	790	<1.0	<0.005	1.87±1.20E-08	5.66±3.32E-09	<1.00E-07	<3.97E-08	<4.13E-08
WNW0907	DOWN - B (7)					<2.09E-09	<2.54E-09	<1.00E-07	<3.40E-08	<3.35E-08
WNW0907	DOWN - B (8)									
WNW1006	DOWN - B (1)									
WNW1006	DOWN - B (2)	6.96	2180			<2.16E-08	<2.98E-08	<1.00E-07		
WNW1006	DOWN - B (3)	6.69	2300	31.0		<1.05E-07	<5.23E-09	<1.00E-07	<2.88E-08	<2.99E-08
WNW1006	DOWN - B (4)	6.58	2230	15.0	<0.005	<1.69E-08	1.01±0.37E-08	<1.00E-07	<2.83E-08	<3.08E-08
WNW1006	DOWN - B (5)	6.78	2140	<1.0	<0.005	<2.49E-08	<8.45E-09	<1.00E-07	<2.83E-08	<3.08E-08
WNW1006	DOWN - B (6)	6.73	2205		<0.005	<2.42E-08	<5.79E-09	<1.00E-07	<2.83E-08	<3.08E-08
WNW1006	DOWN - B (7)	6.69	2105	2.7	<0.005	<8.74E-09	1.00±0.74E-08	<1.00E-07	<3.40E-08	<3.35E-08
WNW1006	DOWN - B (8)	6.70	2045	3.8	<0.005	<1.02E-08	9.65±8.01E-09	<1.00E-07	<2.31E-08	<2.19E-08
WNW1007	DOWN - B (1)									
WNW1007	DOWN - B (2)	6.80	1375			6.41±5.62E-09	4.02±2.90E-09	<1.00E-07		
WNW1007	DOWN - B (3)	6.92	1404	1.5	<0.005	<1.75E-08	<4.00E-09	<1.00E-07	<2.88E-08	<2.99E-08
WNW1007	DOWN - B (4)	7.05	1693	12.0	0.130	<2.23E-08	1.05±0.41E-08	<1.00E-07	3.67±2.60E-08	<3.08E-08
WNW1007	DOWN - B (5)	6.92	1671	5.2		<4.17E-08	1.40±0.41E-08	<1.00E-07	<2.83E-08	<3.08E-08
WNW1007	DOWN - B (6)	6.90	1559	5.2	<0.005	<9.32E-09	7.60±5.82E-09	<1.00E-07	<2.83E-08	<3.08E-08
WNW1007	DOWN - B (7)	6.75	1386	9.6	<0.005	<1.00E-08	7.61±6.15E-09	<1.00E-07	<3.40E-08	<4.53E-08
WNW1007	DOWN - B (8)	6.55	1550	3.3	<0.005	1.29±1.08E-08	<6.20E-09	<1.00E-07	<2.31E-08	<2.19E-08
WNW1101A	DOWN - B (1)									
WNW1101A	DOWN - B 92)	7.15	710			5.11±3.69E-09	<2.59E-09	<1.00E-07	<2.88E-08	<2.99E-08
WNW1101A	DOWN - B (3)	7.22	651	2.7	<0.005	<2.64E-09	<2.67E-09	<1.00E-07	<2.88E-08	<3.11E-08
WNW1101A	DOWN - B (4)	7.24	640	1.8	0.004	<5.52E-09	3.53±2.99E-09	<1.00E-07	<2.83E-08	3.28±0.98E-08
WNW1101A	DOWN - B (5)	7.01	751	1.0	0.010	<4.69E-09	3.70±3.08E-09	<1.00E-07	<2.83E-08	<3.08E-08
WNW1101A	DOWN - B (6)	7.24	757	32.0	<0.005	4.89±3.91E-09	<2.49E-09	<1.15E-07	2.57±2.45E-08	<2.19E-08
WNW1101A	DOWN - B (7)	7.26	843	3.6	<0.005	9.74±7.65E-09	<3.06E-09	<1.00E-07	<2.31E-08	<2.19E-08
WNW1101A	DOWN - B (8)	6.81	1022	<1.0	<0.005	<4.71E-09	4.85±3.16E-09	<1.00E-07	<2.31E-08	<1.92E-08

a) General position in geologic unit. Sample rep number is indicated in parenthesis next to hydraulic position.

Table E - 5 (continued)
Contamination Indicator Parameters for the Weathered Lavery Till Unit

Location Code	Hydraulic Position[a]	pH	Conductivity µmhos/cm@25°C	TOC mg/L	TOX mg/L	Gross Alpha µCi/mL	Gross Beta µCi/mL	Tritium µCi/mL	Cs-137 µCi/mL	Co-60 µCi/mL
WNW1106A	DOWN - B (1)									
WNW1106A	DOWN - B (2)	7.02	887			8.29±6.42E-09	6.22±3.23E-09	4.48±0.75E-07	<3.59E-08	<3.18E-08
WNW1106A	DOWN - B (3)	7.08	814	2.4	<0.005	<3.62E-09	4.96±3.05E-09	5.12±0.88E-07	<2.83E-08	<3.08E-08
WNW1106A	DOWN - B (4)	7.43	793	1.8	<0.005	<5.93E-09	6.82±2.68E-09	2.89±0.87E-07	<2.88E-08	<2.99E-08
WNW1106A	DOWN - B (5)	7.15	823	2.2	<0.005	5.82±4.66E-09	8.16±3.29E-09	7.59±1.37E-07	<2.83E-08	<3.08E-08
WNW1106A	DOWN - B (6)	7.50	834	2.7	0.018	<8.14E-09	8.11±3.49E-09	4.09±1.23E-07	<2.31E-08	<2.19E-08
WNW1106A	DOWN - B (7)	7.19	944	1.4	<0.005	<7.74E-09	9.29±3.52E-09	3.96±1.28E-07	<3.40E-08	<3.35E-08
WNW1106A	DOWN - B (8)	6.71	1118	<1.0		7.43±5.95E-09	7.22±3.56E-09	8.01±0.86E-07	<3.40E-08	<3.35E-08
WNW1108A	DOWN - B (1)									
WNW1108A	DOWN - B (2)	7.03	1946			<7.80E-09	8.53±3.68E-09	<1.00E-07	<2.88E-08	<2.99E-08
WNW1108A	DOWN - B (3)	7.14	1484	1.3	<0.005	<9.26E-09	3.30±3.28E-09	<1.00E-07	<2.83E-08	<3.08E-08
WNW1108A	DOWN - B (4)	7.23	1449	2.4	0.027	<1.29E-08	4.45±3.99E-09	<1.00E-07	<2.88E-08	<2.99E-08
WNW1108A	DOWN - B (5)	6.98	1500	2.3	<0.005	<9.83E-09	<5.77E-09	<1.18E-07	<2.83E-08	4.74±2.74E-08
WNW1108A	DOWN - B (6)	6.90	1442	2.3	<0.005	<1.10E-08	<5.28E-09	<1.00E-07	<2.83E-08	3.75±1.46E-08
WNW1108A	DOWN - B (7)					<8.19E-09	2.24±2.05E-08	<1.00E-07	<2.31E-08	<2.19E-08
WNW1108A	DOWN - B (8)									
WNW1109A	DOWN - B (1)									
WNW1109A	DOWN - B (2)	7.50	700			7.05±4.37E-09	9.84±3.24E-09	2.95±0.76E-07	<2.88E-08	<2.99E-08
WNW1109A	DOWN - B (3)	7.22	771	3.3	<0.005	<3.51E-09	6.65±3.10E-09	1.57±0.83E-07	<3.97E-08	<4.13E-08
WNW1109A	DOWN - B (4)	7.21	744	4.3	0.023	1.58±0.88E-08	<3.13E-09	1.03±0.86E-07	<2.88E-08	<2.99E-08
WNW1109A	DOWN - B (5)	6.99	860	2.1	<0.005	1.16±1.13E-08	6.87±3.54E-09	3.48±1.25E-07	<3.97E-08	<4.13E-08
WNW1109A	DOWN - B (6)	6.89	857	4.8	<0.005	<4.31E-09	7.67±2.89E-09	4.80±1.27E-07	<3.40E-08	<3.35E-08
WNW1109A	DOWN - B (7)	6.84	854	1.9	<0.005	6.46±6.00E-09	4.29±3.13E-09	3.66±1.24E-07	<2.31E-08	<2.19E-08
WNW1109A	DOWN - B (8)	6.85	819		<0.005	<3.89E-09	6.87±3.09E-09	5.24±0.83E-07	<2.31E-08	<2.19E-08
WNW1102A	DOWN - C (1)									
WNW1102A	DOWN - C (2)	7.18	824			<4.11E-09	6.50±2.80E-09	<1.00E-07	<2.88E-08	3.28±0.93E-08
WNW1102A	DOWN - C (3)	7.22	753	7.0	0.007	<4.29E-09	3.54±2.86E-09	<1.00E-07	<3.59E-08	<3.18E-08
WNW1102A	DOWN - C (4)	7.31	805	6.3	<0.005	<7.09E-09	<3.25E-09	1.30±0.86E-07	<3.59E-08	<3.18E-08
WNW1102A	DOWN - C (5)	6.52	876	2.3	<0.005	<1.22E-08	6.26±3.59E-09	<1.00E-07	<2.83E-08	<3.08E-08
WNW1102A	DOWN - C (6)	7.12	903	2.2	<0.005	<9.51E-09	<5.19E-09	<1.18E-07	<3.40E-08	<3.35E-08
WNW1102A	DOWN - C (7)	7.13	933	3.5	0.006	<8.58E-09	6.58±3.26E-09	<1.20E-07	<3.40E-08	<3.35E-08
WNW1102A	DOWN - C (8)	6.85	1114	13.0	<0.005	<4.11E-09	8.48±5.69E-09	1.88±0.78E-07	<2.31E-08	<1.92E-08

a) General position in geologic unit. Sample rep number is indicated in parenthesis next to hydraulic position.

Table E - 5 (concluded)
Contamination Indicator Parameters for the Weathered Lavery Till Unit

Location Code	Hydraulic Position[a]	pH	Conductivity µmhos/cm@25°C	TOC mg/L	TOX mg/L	Gross Alpha µCi/mL	Gross Beta µCi/mL	Tritium µCi/mL	Cs-137 µCi/mL	Co-60 µCi/mL
WNW1103A	DOWN - C (1)									
WNW1103A	DOWN - C (2)	7.04	821			<4.63E-09	6.71±3.19E-09	1.57±0.73E-07	<2.88E-08	<2.99E-08
WNW1103A	DOWN - C (3)	7.23	814	3.2	<0.005	<4.28E-09	<2.76E-09	2.34±0.84E-07	<2.83E-08	<3.08E-08
WNW1103A	DOWN - C (4)	7.21	869	5.7	<0.005	1.37±1.12E-08	1.07±0.32E-08	2.91±0.86E-07	<2.88E-08	<2.99E-08
WNW1103A	DOWN - C (5)	7.03	842	1.6	0.009	<9.31E-09	5.84±3.38E-09	3.62±0.81E-07	<3.45E-08	<3.84E-08
WNW1103A	DOWN - C (6)	7.19	899	3.1	<0.005	<6.82E-09	6.74±3.17E-09	6.58±1.34E-07	<2.31E-08	<2.19E-08
WNW1103A	DOWN - C (7)	6.97	916	4.0	<0.005	<5.61E-09	1.04±0.38E-08	5.44±1.30E-07	<3.40E-08	<3.35E-08
WNW1103A	DOWN - C (8)	6.81	958			<5.91E-09	4.76±3.19E-09	4.27±0.82E-07	<2.31E-08	<1.92E-08
WNW1104A	DOWN - C (1)									
WNW1104A	DOWN - C (2)	7.22	627			<3.71E-09	3.06±2.67E-09	<1.00E-07	<2.88E-08	<2.99E-08
WNW1104A	DOWN - C (3)	7.31	608	1.4	0.005	<5.29E-09	4.09±2.86E-09	<1.00E-07	<3.59E-08	<3.18E-08
WNW1104A	DOWN - C (4)	7.52	654	2.6	<0.005	<5.34E-09	8.86±3.42E-09	<1.00E-07	<2.83E-08	<3.08E-08
WNW1104A	DOWN - C (5)	7.34	624	2.4	<0.005	7.50±4.43E-09	6.43±3.00E-09	<1.00E-07	<2.83E-08	<3.08E-08
WNW1104A	DOWN - C (6)	7.14	645	2.5	0.012	<3.26E-09	4.91±2.66E-09	2.34±1.20E-07	<2.58E-08	5.24±2.25E-08
WNW1104A	DOWN - C (7)	7.19	673	3.1	<0.005	<4.62E-09	4.81±2.87E-09	<1.19E-07	<3.40E-08	<3.35E-08
WNW1104A	DOWN - C (8)	7.10	685	<1.0	<0.005	<3.48E-09	4.46±2.81E-09	1.88±0.78E-07	<3.40E-08	<3.35E-08
WNW1107A	DOWN - C (1)									
WNW1107A	DOWN - C (2)	6.60	1305			<1.53E-08	9.01±3.93E-09	2.52±0.08E-05	<2.88E-08	<2.99E-08
WNW1107A	DOWN - C (3)	6.46	1390	21.0	0.051	<1.28E-08	9.72±3.99E-09	2.88±0.09E-05	<3.59E-08	<3.18E-08
WNW1107A	DOWN - C (4)	6.56	1520	22.5	0.097	<4.93E-08	1.58±0.49E-08	2.95±0.09E-05	<2.88E-08	<2.99E-08
WNW1107A	DOWN - C (5)	6.35	1319	22.0	0.081	<1.31E-08	6.12±6.00E-09	2.76±0.09E-05	<3.97E-08	<4.13E-08
WNW1107A	DOWN - C (6)	6.50	1213	18.0	0.085	6.98±6.84E-09	8.88±4.54E-09	2.57±0.09E-05	<3.40E-08	<3.35E-08
WNW1107A	DOWN - C (7)	6.63	1161	13.0	0.072	<7.86E-09	<4.65E-09	2.46±0.08E-05	<2.31E-08	<2.19E-08
WNW1107A	DOWN - C (8)	6.30	1233		0.021	<8.61E-09	<5.67E-09	2.02±0.07E-05	<2.31E-08	<2.19E-08
WNW1110A	DOWN - C (1)									
WNW1110A	DOWN - C (2)	6.99	1407			<1.11E-08	8.80±3.84E-09	<1.00E-07	<3.59E-08	<3.18E-08
WNW1110A	DOWN - C (3)	6.86	1368	1.6	<0.005	<2.34E-08	6.33±3.93E-09	<1.00E-07	<3.59E-08	<3.18E-08
WNW1110A	DOWN - C (4)	7.01	1376	6.6	<0.005	<2.44E-08	1.26±0.44E-08	<1.00E-07	<9.70E-07	<4.13E-08
WNW1110A	DOWN - C (5)	6.75	1470	7.7	0.006	<1.20E-08	<5.86E-09	<1.19E-07	<3.97E-08	<4.13E-08
WNW1110A	DOWN - C (6)	6.83	1572	2.2	<0.005	<1.70E-08	7.75±5.87E-09	<1.00E-07	<3.40E-08	<3.35E-08
WNW1110A	DOWN - C (7)	7.04	1668	5.1	<0.005	<1.26E-08	8.65±4.88E-09	<1.00E-07	<2.31E-08	<2.19E-08
WNW1110A	DOWN - C (8)									

a) General position in geologic unit. Sample rep number is indicated in parenthesis next to the hydraulic position.

Table E-6a

Groundwater Quality Parameters (mg/L) for the Sand and Gravel Unit

Location Code	Hydraulic Position[a]	Date	Chloride	Sulfate	Nitrate + Nitrite-N	Ammonia	Bicarbonate Alkalinity (as mgCaCO3/L)	Carbonate Alkalinity (as mgCaCO3/L)	Phenols
WNW0301	UP	May-91	130	18	*3.00	0.17	230	<1	<0.005
WNW0301	UP	Nov-91	130	17	2.40	<0.05	240	<1	<0.005
WNW0401	UP	May-91	330	21	*3.00	<0.05	170	<1	0.009
WNW0401	UP	Nov-91	170	18	5.40	<0.05	160	<1	<0.005
WNW0403	UP	May-91	180	48	*9.00	<0.05	140	<1	0.011
WNW0403	UP	Nov-91	54	22	12.00	<0.05	110	<1	<0.005
WNWNB1S	UP	Jun-91	29	<2[c]	*9.00	<0.05	180	<1	0.006
WNWNB1S	UP	Dec-91	120	24	5.00	<0.05	83	<1	<0.005
WNW0201	DOWN - B	May-91	190	35	*2.00	<0.05	190	<1	0.033
WNW0201	DOWN - B	Nov-91	100	24	0.47	<0.05	290	<1	<0.005
WNW8613A	DOWN - B	Jun-91	80	<2[c]	*1.00	<0.05	190	<1	0.005
WNW8613A	DOWN - B	Dec-91	66	35	2.60	<0.05	180	<1	<0.005
WNW8613B	DOWN - B	Jun-91	110	<2[c]	*2.00	<0.05	85	<1	<0.005
WNW8613B	DOWN - B	Dec-91	50	230	5.60	<0.05	100	<1	<0.005
WNW8613C	DOWN - B	Jun-91	4.3	<2[c]	*0.90	<0.05	160	<1	<0.005
WNW8613C	DOWN - B	Dec-91	25	100	5.80	<0.05	300	<1	<0.005
WNW0103[b]	DOWN - C	May-91	400	240	*0.07	28.29	<1	2200	0.210
WNW0103	DOWN - C	Dec-91	298	80	3.82	20.30	<1	<1	0.052
WNW0104	DOWN - C	May-91	120	34	*1.00	<0.05	180	<1	0.024
WNW0104	DOWN - C	Dec-91	166	36	1.30	<0.03	210	<1	0.003
WNW0111	DOWN - C	Jun-91	36	56	<0.02	0.52	229	<1	0.003
WNW0111	DOWN - C	Dec-91	16	230	5.71	1.08	201	<1	0.002
WNW0203	DOWN - C	May-91	720	50	*2.00	<0.05	130	<1	0.005
WNW0203	DOWN - C	Nov-91	510	35	1.10	<0.05	250	<1	<0.005
WNW0205	DOWN - C	May-91	1200	120	*0.06	<0.05	110	<1	0.010
WNW0205	DOWN - C	Nov-91	980	70	0.14	<0.05	110	<1	<0.005
WNW0305	DOWN - C	May-91	735	47	*0.40	0.17	160	<1	0.009
WNW0305	DOWN - C	Nov-91	240	28	0.12	<0.05	220	<1	<0.005

a) General position in geologic unit

b) Hydroxide alkalinity (as mgCaCO3/L) at location WNW0103 = 12,800 in May and 8,360 in December

c) Apparent analytical outlier

** Nitrate-N only*

Table E-6a (continued)
Groundwater Quality Parameters (mg/L) for the Sand and Gravel Unit

Location Code	Hydraulic Position[a]	Date	Chloride	Sulfate	Nitrate + Nitrite-N	Ammonia	Bicarbonate Alkalinity (as mgCaCO3/L)	Carbonate Alkalinity (as mgCaCO3/L)	Phenols
WNW0307	DOWN - C	May-91	480	34	*0.60	0.17	140	<1	0.014
WNW0307	DOWN - C	Nov-91	170	24	0.31	0.11	170	<1	<0.005
WNW0406	DOWN - C	May-91	13	96	*2.00	0.48	180	<1	<0.005
WNW0406	DOWN - C	Nov-91	18	110	3.90	0.46	230	<1	0.009
WNW0408	DOWN - C	Jun-91	218	27	0.75	<0.03	181	<1	0.003
WNW0408	DOWN - C	Dec-91	207	24	0.15	<0.03	182	<1	<0.002
WNW0501	DOWN - C	Jun-91	191	26	2.24	<0.03	157	<1	<0.002
WNW0501	DOWN - C	Dec-91	145	20	2.29	<0.03	195	<1	0.002
WNW0502	DOWN - C	Jun-91	155	27	4.42	<0.03	170	<1	<0.004
WNW0502	DOWN - C	Dec-91	139	26	4.82	<0.03	180	<1	<0.002
WNW0602	DOWN - C	May-91	17	54	*0.10	0.17	220	<1	0.006
WNW0602	DOWN - C	Nov-91	15	43	0.07	0.13	220	<1	<0.005
WNW0603	DOWN - C	May-91	12	69	*0.40	<0.05	390	<1	<0.005
WNW0603	DOWN - C	Nov-91	8.2	240	0.16	<0.05	350	<1	<0.005
WNW0604	DOWN - C	May-91	88	100	*<0.01	1.00	160	<1	0.010
WNW0604	DOWN - C	Nov-91	20	61	<0.05	1.24	200	<1	<0.005
WNW0701	DOWN - C	Jun-91	1.7	190	*0.20	0.20	160	<1	0.011
WNW0701	DOWN - C	Dec-91	2.6	210	<0.05	0.20	450	<1	<0.005
WNW0706	DOWN - C	Jun-91	8.6	130	*3.00	<0.05	270	<1	0.007
WNW0706	DOWN - C	Dec-91	6.7	100	2.20	<0.05	120	<1	<0.005
WNW8605	DOWN - C	Jun-91	67	52	<0.02	1.79	251	<1	<0.002
WNW8605	DOWN - C	Dec-91	51	223	<0.05	1.61	268	<1	0.002
WNW8606	DOWN - C	May-91	660	120	*0.50	<0.05	95	<1	<0.005
WNW8606	DOWN - C	Nov-91	650	75	0.16	<0.05	120	<1	<0.005
WNW8607	DOWN - C	May-91	27	120	*5.00	<0.05	140	<1	0.005
WNW8607	DOWN - C	Nov-91	14	280	8.30	<0.05	210	<1	<0.005
WNW8608	DOWN - C	May-91	17	100	*1.00	1.74	130	<1	0.005
WNW8608	DOWN - C	Nov-91	23	130	3.50	1.18	210	<1	<0.005
WNW8609	DOWN - C	May-91	39	38	*7.00	<0.05	200	<1	0.026
WNW8609	DOWN - C	Nov-91	47	36	4.00	<0.05	260	<1	<0.005

a) General position in geologic unit

** Nitrate-N only*

Table E-6a (concluded)
Groundwater Quality Parameters (mg/L) for the Sand and Gravel Unit

Location Code	Hydraulic Position[a]	Date	Chloride	Sulfate	Nitrate + Nitrite-N	Ammonia	Bicarbonate Alkalinity (as mgCaCO3/L)	Carbonate Alkalinity (as mgCaCO3/L)	Phenols
WNSP008	DOWN - C	May-91	100	80	*0.10	<0.05	270	<1	0.007
WNSP008	DOWN - C	Nov-91	81	35	0.13	<0.05	250	<1	<0.005
WNW0105	DOWN - D	May-91	130	220	*1.00	<0.05	190	<1	0.011
WNW0105	DOWN - D	Nov-91	140	36	1.05	<0.05	230	<1	<0.005
WNW0106	DOWN - D	May-91	110	170	*0.10	<0.05	250	<1	<0.005
WNW0106	DOWN - D	Nov-91	120		<0.05	<0.05	270	<1	<0.005
WNW0116	DOWN - D	May-91	110	62	*1.00	<0.05	230	<1	<0.005
WNW0116	DOWN - D	Nov-91	190	31	1.50	<0.05	200	<1	<0.005
WNW0207	DOWN - D	May-91	66	40	*<0.01	0.10	510	<1	0.011
WNW0207	DOWN - D	Nov-91	4.0	28	0.05	0.08	500	<1	<0.005
WNW0601	DOWN - D	May-91	27	63	*0.40	<0.05	100	<1	<0.005
WNW0601	DOWN - D	Nov-91	28	130	0.21	<0.05	80	<1	<0.005
WNW0605	DOWN - D	May-91	29	73	*0.40	<0.05	170	<1	<0.005
WNW0605	DOWN - D	Nov-91	29	110	0.29	<0.05	92	<1	<0.005
WNW0801	DOWN - D	May-91	150	32	*0.90	<0.05	160	<1	<0.005
WNW0801	DOWN - D	Nov-91	200	27	1.10	<0.05	200	<1	<0.005
WNW0802	DOWN - D	May-91	4.0	20	*<0.01	<0.05	81	<1	0.006
WNW0802	DOWN - D	Nov-91	140	33	<0.05	0.13	220	<1	<0.005
WNW0803	DOWN - D	May-91	55	230	*<0.01	<0.05	420	<1	0.005
WNW0803	DOWN - D	Nov-91	110	120	0.42	<0.05	175	<1	<0.005
WNW0804	DOWN - D	May-91	46	72	*0.02	<0.05	200	<1	0.010
WNW0804	DOWN - D	Nov-91	75	84	1.00	<0.05	190	<1	<0.005
WNW8603	DOWN - D	May-91	130	35	*2.00	<0.05	190	<1	<0.005
WNW8603	DOWN - D	Nov-91	180	28	1.90	<0.05	200	<1	<0.005
WNW8604	DOWN - D	May-91	130	34	*1.00	<0.05	200	<1	<0.010
WNW8604	DOWN - D	Dec-91	180	37	1.31	<0.03	198	<1	<0.002
WNW8612	DOWN - D	May-91	68	87	*<0.01	<0.05	230	<1	<0.010
WNW8612	DOWN - D	Nov-91	78	63	<0.05	<0.05	220	<1	<0.005
WNDMPNE	DOWN - D	May-91	88	33	*1.00	<0.05	180	<1	<0.005
WNDMPNE	DOWN - D	Nov-91	62	79	0.84	0.05	140	<1	<0.005
WNGSEEP	DOWN - D	May-91	71	60	*0.50	<0.05	120	<1	0.010

a) General position in geologic unit

** Nitrate-N only*

Table E-6b
Groundwater Quality Metals (mg/L) for the Sand and Gravel Unit

Location Code	Hydraulic Position[a]	Date	Calcium		Magnesium		Sodium		Potassium		Iron		Manganese	
			Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.
WNW0301	UP	May-91	110	110	12	9.4	23	24	3.1	1.3	25	<0.05	0.66	0.20
WNW0301	UP	Nov-91	120	120	14	12	34	39	4.5	1.8	20	0.10	0.49	0.06
WNW0401	UP	May-91	140	130	32	13	72	77	7.8	1.8	130	0.16	3.00	0.05
WNW0401	UP	Nov-91	76	110	10	11	50	75	3.6	1.7	16	0.03	0.36	0.04
WNW0403	UP	May-91	120	120	24	9.2	33	33	6.3	1.5	91	<0.05	1.7	<0.01
WNW0403	UP	Nov-91	71	74	10	5.9	14	16	5.6	1.2	28	0.35	0.42	<0.01
WNWNB1S	UP	Jun-91	87	93	9.7	9.8	22	23	2.5	1.4	3.1	0.04	0.05	0.01
WNWNB1S	UP	Dec-91	52	53	7.0	6.0	53	59	3.2	1.6	9.2	0.20	0.11	<0.01
WNW0201	DOWN - B	May-91	130	120	14	12	63	65	5.4	4.6	12	<0.05	0.59	0.43
WNW0201	DOWN - B	Nov-91	98	84	9.4	8.1	42	38	3.5	3.7	0.41	0.07	0.63	0.72
WNW8613A	DOWN - B	Jun-91	85	90	18	14	13	15	6.8	5.6	30	0.53	1.3	0.10
WNW8613A	DOWN - B	Dec-91	81	83	16	14	14	17	5.3	3.4	24	2.0	1.1	0.06
WNW8613B	DOWN - B	Jun-91	64	68	20	11	18	21	9.0	3.4	80	0.44	3.6	0.26
WNW8613B	DOWN - B	Dec-91	130	140	23	20	19	22	7.0	4.8	46	1.0	1.9	0.19
WNW8613C	DOWN - B	Jun-91	60	70	8.6	9.5	4.1	5.1	4.8	5.8	3.3	0.1	0.18	0.10
WNW8613C	DOWN - B	Dec-91	120	80	29	13	25	28	7.8	4.4	61	0.2	1.9	0.01
WNW0103	DOWN - C	May-91	24	26	0.9	1.2	7000	6200	6.3	7.3	4.4	4.8	0.18	0.23
WNW0103	DOWN - C	Dec-91	27	24	0.7	0.5	3160	2640	1.2	1.1	6.1	6.4	0.52	0.52
WNW0104	DOWN - C	May-91	110	100	16	15	42	44	2.3	2.7	2.1	0.05	0.19	0.09
WNW0104	DOWN - C	Dec-91	112	112	17	16	49	49	2.0	1.9	1.3	0.03	0.10	0.08
WNW0111	DOWN - C	Jun-91	84	91	12	13	24	24	7.0	7.7	1.1	1.0	4.3	4.6
WNW0111	DOWN - C	Dec-91	117	115	16	15	19	19	7.3	7.7	0.40	0.02	8.6	8.4
WNW0203	DOWN - C	May-91	250	260	27	27	200	200	3.8	3.6	2.9	0.59	0.56	0.55
WNW0203	DOWN - C	Nov-91	190	190	20	20	180	180	4.5	4.9	1.4	0.53	0.12	0.12
WNW0205	DOWN - C	May-91	160	130	63	18	540	580	15	5.8	310	0.31	8.6	1.5
WNW0205	DOWN - C	Nov-91	90	89	12	12	570	570	5.0	5.4	0.34	0.15	0.73	0.72
WNW0305	DOWN - C	May-91	190	190	20	20	225	220	3.8	3.7	4.2	0.95	1.8	2.0
WNW0305	DOWN - C	Nov-91	82	89	8.9	8.7	110	120	3.5	2.8	5.4	0.26	0.96	0.92
WNW0307	DOWN - C	May-91	98	92	15	9.1	210	200	4.6	2.2	51	0.08	3.2	1.2
WNW0307	DOWN - C	Nov-91	49	48	5.6	4.8	97	100	2.6	2.0	6.1	0.13	0.54	0.32

a) General position in geologic unit

Table E-6b (continued)
Groundwater Quality Metals (mg/L) for the Sand and Gravel Unit

Location Code	Hydraulic Position[a]	Date	Calcium		Magnesium		Sodium		Potassium		Iron		Manganese	
			Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.
WNW0406	DOWN - C	May-91	93	90	13	11	10	9.8	2.2	1.6	11	<0.05	2.7	2.6
WNW0406	DOWN - C	Nov-91	110	100	16	13	12	12	4.4	2.1	16	0.07	3.4	2.8
WNW0408	DOWN - C	Jun-91	113	124	19	20	47	47	3.2	3.3	2.9	0.80	0.26	0.34
WNW0408	DOWN - C	Dec-91	116	110	22	20	56	56	5.1	3.5	12	0.02	0.32	0.11
WNW0501	DOWN - C	Jun-91	120	116	18	15	33	32	2.8	1.4	12	0.01	0.27	0.02
WNW0501	DOWN - C	Dec-91	110	106	16	14	44	43	3.3	2.0	8.1	0.02	0.20	0.02
WNW0502	DOWN - C	Jun-91	103	106	16	15	29	31	2.8	1.2	12	0.01	0.24	0.01
WNW0502	DOWN - C	Dec-91	103	108	15	15	34	35	2.7	1.6	8.7	0.14	0.14	0.01
WNW0602	DOWN - C	May-91	90	86	16	11	6.7	6.4	3.6	1.4	38	0.07	8.1	7.1
WNW0602	DOWN - C	Nov-91	87	90	13	11	7.1	7.8	4.4	1.5	18	0.03	6.8	5.8
WNW0603	DOWN - C	May-91	160	140	25	21	5.6	4.8	1.8	1.6	2.9	0.13	0.47	0.40
WNW0603	DOWN - C	Nov-91	160	180	23	27	5.3	6.4	2.4	1.5	2.9	<0.03	0.37	0.40
WNW0604	DOWN - C	May-91	69	70	11	11	6.7	6.8	1.0	0.8	3.0	3.0	18	17
WNW0604	DOWN - C	Nov-91	77	76	12	12	5.4	5.6	0.9	1.0	4.6	5.0	21	21
WNW0701	DOWN - C	Jun-91	140	84	26	15	16	13	2.0	0.9	5.7	0.55	0.49	0.19
WNW0701	DOWN - C	Dec-91	140	140	24	23	16	17	2.2	1.5	3.5	0.09	0.36	0.30
WNW0706	DOWN - C	Jun-91	140	130	27	17	4.4	8.0	4.0	1.6	38	1.1	1.3	0.15
WNW0706	DOWN - C	Dec-91	86	84	15	12	3.1	3.6	4.8	1.4	18	0.33	0.42	0.01
WNW8605	DOWN - C	Jun-91	88	97	13	14	57	60	10	11	4.0	4.6	9.7	11
WNW8605	DOWN - C	Dec-91	101	102	15	15	77	77	10	10	4.2	4.3	12	12
WNW8606	DOWN - C	May-91	91	91	12	12	380	380	4.6	4.5	0.23	0.22	1.3	1.3
WNW8606	DOWN - C	Nov-91	63	61	7.8	7.6	430	420	3.5	3.6	0.14	0.14	0.34	0.34
WNW8607	DOWN - C	May-91	96	97	12	12	16	16	2.8	2.8	0.09	0.05	0.05	0.05
WNW8607	DOWN - C	Nov-91	160	160	20	20	15	15	5.6	6.4	<0.03	<0.03	0.17	0.17
WNW8608	DOWN - C	May-91	71	74	9.8	9.1	10	10	2.0	2.0	6.7	0.06	7.5	7.8
WNW8608	DOWN - C	Nov-91	110	110	13	13	13	14	3.2	3.4	1.4	0.10	7.6	8.1
WNW8609	DOWN - C	May-91	110	110	15	14	11	11	1.4	1.5	0.19	0.05	<0.01	<0.01
WNW8609	DOWN - C	Nov-91	120	120	16	16	11	11	1.7	2.0	0.06	<0.03	0.02	0.02
WNSP008	DOWN - C	May-91	110	110	14	15	57	58	1.4	1.4	0.31	0.06	2.2	2.2
WNSP008	DOWN - C	Nov-91	90	100	12	12	60	59	1.9	1.6	0.10	0.05	1.4	1.5

a) General position in geologic unit

Table E-6b (concluded)
Groundwater Quality Metals (mg/L) for the Sand and Gravel Unit

Location Code	Hydraulic Position[a]	Date	Calcium		Magnesium		Sodium		Potassium		Iron		Manganese	
			Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.
WNW0105	DOWN - D	May-91	120	120	19	19	36	36	1.2	1.3	4.6	0.10	2.8	2.7
WNW0105	DOWN - D	Nov-91	115	120	18	19	36	37	1.2	1.6	6.5	0.06	2.4	2.4
WNW0106	DOWN - D	May-91	180	150	35	23	53	56	7.6	3.8	58	0.33	9.5	6.3
WNW0106	DOWN - D	Nov-91	120	110	20	18	38	39	3.8	2.4	14	0.06	5.4	4.6
WNW0116	DOWN - D	May-91	100	100	13	13	56	58	2.4	1.5	6.9	0.38	1.5	1.2
WNW0116	DOWN - D	Nov-91	100	110	15	14	61	59	2.1	1.2	7.8	0.13	2.5	0.99
WNW0207	DOWN - D	May-91	180	170	36	30	7.7	7.2	3.5	1.4	26	0.59	1.5	1.3
WNW0207	DOWN - D	Nov-91	140	150	29	30	7.0	8.0	2.2	1.4	4.8	0.17	1.2	1.3
WNW0601	DOWN - D	May-91	56	51	10	7.3	16	15	2.3	1.0	12	0.09	0.41	<0.01
WNW0601	DOWN - D	Nov-91	66	65	19	9.1	16	16	7.8	1.4	56	0.04	1.4	0.01
WNW0605	DOWN - D	May-91	80	70	17	14	13	13	3.2	2.5	6.4	<0.05	0.16	0.06
WNW0605	DOWN - D	Nov-91	62	68	8.3	8.8	16	19	2.2	1.9	2.7	0.03	0.05	<0.01
WNW0801	DOWN - D	May-91	97	97	12	12	65	65	1.9	1.8	0.94	<0.05	0.52	0.50
WNW0801	DOWN - D	Nov-91	120	120	14	14	64	64	2.1	2.1	0.12	<0.03	0.80	0.79
WNW0802	DOWN - D	May-91	37	39	2.7	2.8	3.1	3.7	0.8	0.7	0.19	0.24	0.13	0.29
WNW0802	DOWN - D	Nov-91	130	130	9.7	9.5	32	32	1.4	1.4	0.43	0.40	1.6	1.7
WNW0803	DOWN - D	May-91	210	210	40	40	23	22	1.4	1.4	0.57	<0.05	0.12	0.11
WNW0803	DOWN - D	Nov-91	160	160	30	30	21	22	1.7	1.5	0.44	0.14	0.15	0.16
WNW0804	DOWN - D	May-91	110	110	13	13	22	22	2.0	1.5	2.2	<0.05	0.21	0.12
WNW0804	DOWN - D	Nov-91	100	100	12	12	30	33	2.8	1.5	5.7	0.26	0.15	0.02
WNW8603	DOWN - D	May-91	120	120	20	20	32	33	1.7	1.8	<0.05	<0.05	<0.01	<0.01
WNW8603	DOWN - D	Nov-91	130	120	20	19	38	38	2.2	2.2	<0.03	0.24	0.01	0.01
WNW8604	DOWN - D	May-91	120	120	19	19	38	37	2.3	2.2	0.21	0.09	0.03	0.03
WNW8604	DOWN - D	Dec-91	119	119	19	19	46	45	2.3	2.3	0.05	0.03	0.02	0.02
WNW8612	DOWN - D	May-91	110	100	24	23	12	12	1.0	1.1	0.74	0.62	0.09	0.09
WNW8612	DOWN - D	Nov-91	100	100	22	22	13	13	0.8	0.9	0.62	0.54	0.09	0.09
WNDMPNE	DOWN - D	May-91	86	93	11	12	27	30	<0.7	<0.7	1.1	0.37	0.14	0.16
WNDMPNE	DOWN - D	Nov-91	80	82	11	11	22	22	1.7	2.1	0.31	0.21	1.0	1.00
WNGSEEP	DOWN - D	May-91	79	0.1	12	16	17	1.6	1.8	1.6	0.07	0.07	<0.01	<0.01
WNGSEEP	DOWN - D	Nov-91	87	0.1	13	24	24	1.6	1.5	1.6	<0.03	<0.03	<0.01	<0.01

a) General position in geologic unit

Table E-7a
Groundwater Quality Parameters (mg/L) for the Till-Sand Unit

Location Code	Hydraulic Position[a]	Date	Chloride	Sulfate	Nitrate + Nitrite-N	Ammonia	Bicarbonate Alkalinity (as mgCaCO3/L)	Carbonate Alkalinity (as mgCaCO3/L)	Phenols
WNW0302	UP	May-91	370	20	*1.00	<0.05	250	<1	<0.005
WNW0302	UP	Nov-91	280	23	1.40	<0.05	250	<1	<0.005
WNW0402	UP	May-91	220	42	*<0.01	<0.05	220	<1	0.014
WNW0402	UP	Nov-91	220	24	<0.05	<0.05	220	<1	<0.005
WNW0404	UP	May-91	66	33	*0.03	<0.05	110	<1	0.012
WNW0404	UP	Nov-91	<1.0[c]	18	0.12	<0.05	80	10	<0.005
WNW0202[b]	DOWN - B	May-91	32	30	*<0.01	1.12	<1	44	0.007
WNW0202	DOWN - B	Nov-91	16	26	<0.05	0.57	<1	24	<0.005
WNW0204	DOWN - B	May-91	130	28	*<0.01	0.18	165	<1	0.010
WNW0204	DOWN - B	Nov-91	65	25	<0.05	0.14	130	<1	<0.005
WNW0206	DOWN - B	May-91	49	33	*0.02	0.06	160	<1	<0.005
WNW0206	DOWN - B	Nov-91	64	28	<0.05	0.08	180	<1	<0.005
WNW0208	DOWN - B	May-91	2.6	16	*<0.01	<0.05	140	<1	<0.005
WNW0208	DOWN - B	Nov-91	<1.0	12	<0.05	0.21	140	<1	<0.005
WNW0905	DOWN - B	Jun-91	12	500	*<0.20	0.07	410	<1	0.006
WNW0905	DOWN - B	Dec-91	12	230	<0.05	0.10	430	<1	<0.005

a) General position in geologic unit

b) Hydroxide alkalinity (as mgCaCoO3/L) at location WNW0202 = 416 in May and 130 in November

c) Apparent analytical outlier

** Nitrate-N only*

Table E-7b
Groundwater Quality Metals (mg/L) for the Till-Sand Unit

Location Code	Hydraulic Position[a]	Date	Calcium		Magnesium		Sodium		Potassium		Iron		Manganese	
			Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.
WNW0302	UP	May-91	170	160	21	20	85	81	1.8	1.7	0.73	<0.05	0.06	0.03
WNW0302	UP	Nov-91	150	150	19	18	88	85	1.8	2.1	0.63	<0.03	0.05	0.04
WNW0402	UP	May-91	150	140	26	26	27	28	2.1	1.7	2.7	1.5	0.15	0.15
WNW0402	UP	Nov-91	140	150	25	26	26	29	2.6	2.0	4.8	0.78	0.16	0.12
WNW0404	UP	May-91	37	39	6.0	6.0	8.2	8.4	2.1	1.8	2.3	0.70	0.05	0.03
WNW0404	UP	Nov-91	30	29	5.8	5.6	8.2	8.4	1.1	1.7	0.24	<0.03	0.01	0.01
WNW0202	DOWN - B	May-91	130	92	<0.5	<0.5	44	39	48	42	0.05	<0.05	<0.01	<0.01
WNW0202	DOWN - B	Nov-91	51	54	0.3	<0.2	27	28	21	24	0.42	<0.03	<0.01	<0.01
WNW0204	DOWN - B	May-91	68	67	14	14	11	11	2.7	2.7	1.2	0.15	0.07	0.05
WNW0204	DOWN - B	Nov-91	68	67	14	14	11	11	2.5	3.0	0.33	0.07	0.06	0.05
WNW0206	DOWN - B	May-91	78	73	17	16	13	11	2.4	2.2	1.5	0.24	0.19	0.17
WNW0206	DOWN - B	Nov-91	76	76	16	16	11	11	1.2	1.4	0.73	0.37	0.19	0.20
WNW0208	DOWN - B	May-91	40	37	9.4	9.0	15	14	0.8	0.8	0.35	<0.05	0.06	0.06
WNW0208	DOWN - B	Nov-91	38	37	9.1	8.9	15	15	1.3	1.8	0.31	0.04	0.07	0.07
WNW0905	DOWN - B	Jun-91	225	225	75	77	10	10	3.5	3.5	2.1	1.8	0.66	0.63
WNW0905	DOWN - B	Dec-91	240	250	82	84	12	12	4.7	4.8	2.7	2.0	0.70	0.72

a) General position in geologic unit

Table E-8a

Groundwater Quality Parameters (mg/L) for the Unweathered Lavery Till Unit

Location Code	Hydraulic Position[a]	Date	Chloride	Sulfate	Nitrate + Nitrite-N	Ammonia	Bicarbonate Alkalinity (as mgCaCO3/L)	Carbonate Alkalinity (as mgCaCO3/L)	Phenols
WNW0405	UP	May-91	26	160	*0.80	<0.05	250	<1	0.005
WNW0405	UP	Nov-91	22	310	3.60	<0.05	210	<1	<0.005
WNW0704	UP	Jun-91	3.1	140	*<0.20	0.62	450	<1	<0.005
WNW0704	UP	Dec-91	4.4	240	3.50	<0.05	350	<1	<0.005
WNW0707	UP	Jun-91	7.3	110	*2.00	0.09	340	<1	0.012
WNW0707	UP	Dec-91	6.3	71	0.69	<0.05	120	<1	<0.005
WNW1008C	UP	Jun-91	28	<2	*<0.10	0.08	220	<1	<0.005
WNW1008C	UP	Dec-91	34	16	<0.05	0.05	220	<1	<0.005
WNW0109	DOWN - B	May-91	2.6	110	*0.30	<0.05	220	<1	0.012
WNW0109	DOWN - B	Nov-91	3.7	150	0.06	0.06	200	<1	<0.005
WNW0110	DOWN - B	May-91	1.7	100	*0.20	<0.05	210	<1	<0.005
WNW0110	DOWN - B	Nov-91	<1.0	160	0.13	0.07	220	<1	<0.005
WNW0115	DOWN - B	May-91	6.8	120	*0.10	<0.05	180	<1	0.009
WNW0115	DOWN - B	Nov-91	7.9	120	<0.05	0.13	550	<1	<0.005
WNW0702	DOWN - B	Jun-91	2.2	380	*0.60	<0.05	230	<1	0.012
WNW0702	DOWN - B	Dec-91	2.3	340	0.11	0.09	200	<1	0.008
WNW0703	DOWN - B	Jun-91	2.1	230	*<0.20	0.08	170	<1	0.009
WNW0703	DOWN - B	Dec-91	1.8	240	<0.05	<0.05	160	<1	<0.005
WNW0705	DOWN - B	Jun-91	4.0	48	*0.10	<0.05	230	<1	0.010
WNW0705	DOWN - B	Dec-91	8.2	25	0.13	<0.05	110	<1	<0.005
WNW0904	DOWN - B	Jun-91	7.3	180	*0.60	0.07	230	<1	0.014
WNW0904	DOWN - B	Dec-91	14	170	0.29	0.19	300	<1	<0.005
WNW1101B	DOWN - B	Jun-91	4.6	260	<0.10	0.07	270	<1	<0.005
WNW1101B	DOWN - B	Dec-91	2.3	290	0.74	<0.05	260	<1	0.016
WNW1106B	DOWN - B	Jun-91	3.6	140	<0.10	0.17	290	<1	<0.005
WNW1106B	DOWN - B	Dec-91	3.2	160	<0.05	0.07	290	<1	<0.010
WNW1109B	DOWN - B	Jun-91	2.6	63	*0.10	0.12	160	<1	0.013
WNW1109B	DOWN - B	Dec-91	3.8	56	<0.05	0.11	180	<1	<0.010
WNW0107	DOWN - C	May-91	4.2	280	*0.10	<0.05	220	<1	<0.005
WNW0107	DOWN - C	Nov-91	2.6	310	0.09	0.07	240	<1	<0.005

a) General position in geologic unit

** Nitrate-N only*

Table E-8a (concluded)
Groundwater Quality Parameters (mg/L) for the Unweathered Lavery Till Unit

Location Code	Hydraulic Position[a]	Date	Chloride	Sulfate	Nitrate + Nitrite-N	Ammonia	Bicarbonate Alkalinity	Carbonate Alkalinity	Phenols
WNW0108	DOWN - C	May-91	4.2	330	*0.70	<0.05	180	<1	0.028
WNW0108	DOWN - C	Dec-91	3.3	330	0.35	<0.05	200	<1	<0.008
WNW0114	DOWN - C	May-91	5.1	110	*0.10	<0.05	210	<1	<0.010
WNW0114	DOWN - C	Nov-91	22	82	0.16	<0.05	220	<1	<0.005
WNW0409	DOWN - C	May-91	3.5	76	*0.10	0.11	130	<1	<0.005
WNW0409	DOWN - C	Nov-91	<1.0	55	0.22	0.07	120	<1	<0.005
WNW1102B	DOWN - C	Jun-91	<1.0	46	<0.10	0.06	280	<1	<0.005
WNW1102B	DOWN - C	Dec-91	<1.0	110	0.09	<0.05	300	<1	<0.010
WNW1103B	DOWN - C	Jun-91	2.7	85	0.15	0.05	300	<1	<0.005
WNW1103B	DOWN - C	Dec-91	1.3	130	0.41	<0.05	310	<1	0.039
WNW1104B	DOWN - C	Jun-91	3.6	120	0.12	<0.05	220	<1	<0.005
WNW1104B	DOWN - C	Dec-91	1.7	200	0.80	<0.05	230	<1	<0.010
WNW1105A	DOWN - C	Jun-91	3.0	260	0.90	<0.05	160	<1	<0.005
WNW1105B	DOWN - C	Jun-91	3.0	300	*1.00	0.06	160	<1	<0.005
WNW1105B	DOWN - C	Dec-91	2.7	290	0.90	0.06	170	<1	<0.010
WNW1111A	DOWN - C	Jun-91	3.6	170	2.60	<0.05	410	<1	<0.005
WNW1111A	DOWN - C	Dec-91	2.0	300	<0.05	<0.05	400	<1	0.014

a) General position in geologic unit

** Nitrate-N only*

Table E-8b

Groundwater Quality Metals (mg/L) for the Unweathered Lavery Till Unit

Location Code	Hydraulic Position[a]	Date	Calcium		Magnesium		Sodium		Potassium		Iron		Manganese	
			Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.
WNW0405	UP	May-91	110	110	20	18	48	45	2.7	2.7	0.15	<0.05	0.06	0.06
WNW0405	UP	Nov-91	150	150	25	25	35	34	3.1	3.3	0.16	0.03	0.03	0.02
WNW0704	UP	Jun-91	170	175	28	27	12	14	4.6	4.3	4.6	0.17	12	13
WNW0704	UP	Dec-91	160	170	23	24	7.6	7.6	2.9	2.6	0.97	0.03	3.2	2.5
WNW0707	UP	Jun-91	140	78	32	12	4.6	6.9	6.1	1.7	64	1.1	2.1	0.24
WNW0707	UP	Dec-91	60	55	17	8.5	3.1	3.1	6.4	1.5	41	<0.03	0.62	<0.01
WNW1008C	UP	Jun-91	77	83	1.8[b]	19	12	14	1.6	1.2	0.43	0.03	0.21	0.20
WNW1008C	UP	Dec-91	70	74	17	17	13	14	0.9	1.0	0.47	0.04	0.16	0.13
WNW0109	DOWN - B	May-91	100	100	22	22	19	18	2.6	1.8	5.1	0.23	0.15	<0.01
WNW0109	DOWN - B	Nov-91	72	96	17	21	12	17	1.4	1.8	3.5	0.03	0.07	0.03
WNW0110	DOWN - B	May-91	76	83	21	23	19	19	2.1	2.2	0.51	<0.05	0.01	<0.01
WNW0110	DOWN - B	Nov-91	98	100	28	29	18	19	2.6	6.9	2.8	<0.03	0.14	0.02
WNW0115	DOWN - B	May-91	89	67	19	11	16	19	5.1	2.6	26	0.39	0.49	0.02
WNW0115	DOWN - B	Nov-91	110	68	39	12	15	16	10	2.0	83	0.18	1.3	0.14
WNW0702	DOWN - B	Jun-91	130	130	33	33	44	48	4.5	3.4	9.1	0.47	0.21	0.08
WNW0702	DOWN - B	Dec-91	140	140	31	31	38	38	2.6	2.7	0.26	<0.03	0.01	<0.01
WNW0703	DOWN - B	Jun-91	100	110	22	24	17	17	2.4	2.2	2.9	<0.05	0.26	0.20
WNW0703	DOWN - B	Dec-91	120	120	25	24	18	20	2.2	2.8	5.7	<0.03	0.17	0.07
WNW0705	DOWN - B	Jun-91	72	69	11	10	3.2	3.6	1.7	1.4	2.1	<0.03	0.12	0.09
WNW0705	DOWN - B	Dec-91	44	70	6.7	9.0	2.6	3.2	1.6	1.3	4.1	<0.03	0.06	0.04
WNW0904	DOWN - B	Jun-91	100	100	36	32	18	22	5.0	2.9	17	1.4	0.38	0.16
WNW0904	DOWN - B	Dec-91	120	120	37	36	21	24	3.9	2.4	11	0.17	0.23	0.07
WNW1101B	DOWN - B	Jun-91	120	160	37	46	29	38	2.8	4.6	0.05	<0.03	0.04	<0.01
WNW1101B	DOWN - B	Dec-91	120	100	36	31	25	23	4.9	3.6	0.74	<0.03	0.04	0.01
WNW1106B	DOWN - B	Jun-91	91	92	36	39	23	26	3.4	2.8	3.3	<0.03	0.26	0.29
WNW1106B	DOWN - B	Dec-91	88	86	34	32	23	21	3.7	4.1	2.8	<0.03	0.08	0.02
WNW1109B	DOWN - B	Jun-91	44	48	14	15	11	11	2.2	1.8	1.7	0.04	0.11	0.08
WNW1109B	DOWN - B	Dec-91	53	51	17	16	12	12	3.0	1.6	4.8	<0.03	0.12	0.06
WNW0107	DOWN - C	May-91	150	140	34	33	19	20	3.1	2.9	0.09	0.08	0.04	0.08
WNW0107	DOWN - C	Nov-91	130	130	34	34	23	23	2.4	2.6	0.11	0.12	0.10	0.06

a) General position in geologic unit
b) Apparent analytical outlier

Table E-8b (concluded)
Groundwater Quality Metals (mg/L) for the Unweathered Lavery Till Unit

Location Code	Hydraulic Position[a]	Date	Calcium		Magnesium		Sodium		Potassium		Iron		Manganese	
			Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.
WNW0108	DOWN - C	May-91	140	120	33	30	27	27	2.9	2.7	0.48	<0.05	0.02	0.02
WNW0108	DOWN - C	Dec-91	120	140	32	34	25	27	1.6	2.8	0.96	<0.03	0.03	<0.01
WNW0114	DOWN - C	May-91	89	90	15	15	12	14	1.8	1.7	0.33	<0.05	0.02	0.02
WNW0114	DOWN - C	Nov-91	91	93	14	15	6.8	8.2	1.6	1.8	0.29	0.20	0.07	0.02
WNW0409	DOWN - C	May-91	45	47	12	10	21	21	5.7	6.1	6.5	0.13	0.11	<0.01
WNW0409	DOWN - C	Nov-91	45	42	11	9.5	18	19	6.6	6.5	6.7	2.0	0.08	0.03
WNW1102B	DOWN - C	Jun-91	66	63	30	27	13	12	2.0	1.6	0.46	0.04	0.03	0.01
WNW1102B	DOWN - C	Dec-91	64	93	25	34	12	14	2.4	2.6	1.9	0.03	0.04	<0.01
WNW1103B	DOWN - C	Jun-91	75	76	35	36	23	24	2.6	2.5	0.10	<0.03	0.05	0.07
WNW1103B	DOWN - C	Dec-91	76	74	35	34	22	22	2.2	2.3	0.10	0.09	0.01	<0.01
WNW1104B	DOWN - C	Jun-91	77	76	26	27	27	27	2.4	2.4	<0.03	<0.03	0.10	0.13
WNW1104B	DOWN - C	Dec-91	74	71	25	24	24	23	1.4	1.4	<0.03	<0.03	0.06	0.07
WNW1105A	DOWN - C	Jun-91	100	95	23	22	23	22	1.9	1.8	<0.03	<0.03	0.09	0.10
WNW1105B	DOWN - C	Jun-91	100	100	26	26	32	34	2.1	2.2	0.05	0.04	0.34	0.33
WNW1105B	DOWN - C	Dec-91	92	89	23	22	31	29	1.8	1.8	0.20	<0.03	0.18	0.02
WNW1111A	DOWN - C	Jun-91	120	120	56	57	14	14	2.4	2.4	0.12	<0.03	0.12	0.19
WNW1111A	DOWN - C	Dec-91	140	140	64	65	16	16	3.1	3.3	0.11	0.12	0.04	0.05

a) General position in geologic unit

Table E-9a
Groundwater Quality Parameters (mg/L) for the Lacustrine Unit

Location Code	Hydraulic Position[a]	Date	Chloride	Sulfate	Nitrate + Nitrite-N	Ammonia	Bicarbonate Alkalinity (as mgCaCO3/L)	Carbonate Alkalinity (as mgCaCO3/L)	Phenols
WNW0901	UP	Jun-91	12	4	*<0.20	0.50	180	<1	0.013
WNW0901	UP	Dec-91	12	6	<0.05	0.62	170	<1	<0.005
WNW0902	UP	Jun-91	21	<2	*<0.20	0.55	190	<1	0.008
WNW0902	UP	Dec-91	21	<2	<0.05	0.58	190	<1	<0.005
WNW1001	UP	Jun-91	32	<2	*<0.10	0.36	160	<1	<0.005
WNW1001	UP	Dec-91	35	2	<0.05	0.55	170	<1	<0.005
WNW1008B	UP	Jun-91	43	<2	*<0.10	0.32	140	<1	0.011
WNW1008B	UP	Dec-91	42	5	<0.05	0.37	87	<1	<0.005
WNW0903	DOWN - B	Jun-91	3.9	120	*3.30	0.46	140	<1	0.007
WNW0903	DOWN - B	Dec-91	2.7	160	<0.05	0.55	270	<1	<0.005
WNW1002	DOWN - B	Jun-91	1.5	130	*<0.10	0.66	340	<1	
WNW1002	DOWN - B	Dec-91	<1.0	150	<0.05	0.76	370	<1	<0.005
WNW1003	DOWN - B	Jun-91	14	7	*0.10	0.49	240	<1	0.013
WNW1003	DOWN - B	Dec-91	12	6	<0.05	0.54	210	<1	<0.005
WNW1004	DOWN - B	Jun-91	1.9	22	*<0.10	0.47	230	<1	<0.005
WNW1004	DOWN - B	Dec-91	1.1	15	<0.05	0.52	230	<1	<0.005
WNW1101C	DOWN - B	Jun-91	1.6	92	*<0.10	0.27	180	<1	<0.005
WNW1101C	DOWN - B	Dec-91	1.3	120	<0.05	0.13	190	<1	<0.010
WNW8610	DOWN - C	May-91	3.4	110	*<0.00	0.28	250	<1	0.010
WNW8610	DOWN - C	Nov-91	<1.0	120	<0.05	0.27	280	<1	<0.005
WNW8611	DOWN - C	May-91	2.6	240	*0.03	<0.05	270	<1	<0.010
WNW8611	DOWN - C	Nov-91	1.2	240	0.20	<0.05	260	<1	<0.005

a) General position in geologic unit

** Nitrate-N only*

Table E-9b
Groundwater Quality Metals (mg/L) for the Lacustrine Unit

Location Code	Hydraulic Position[a]	Date	Calcium		Magnesium		Sodium		Potassium		Iron		Manganese	
			Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss
WNW0901	UP	Jun-91	31	32	9.0	8.9	24	26	5.8	5.9	4.0	0.12	0.20	0.13
WNW0901	UP	Dec-91	37	32	9.7	8.4	30	28	6.7	6.5	3.3	0.15	0.18	0.13
WNW0902	UP	Jun-91	38	38	14	14	26	26	4.1	4.2	2.4	0.06	0.17	0.13
WNW0902	UP	Dec-91	42	40	13	36	28	29	3.6	3.4	0.95	0.31	0.13	0.07
WNW1001	UP	Jun-91	31	31	8.8	7.9	38	42	5.3	5.0	6.0	0.40	0.17	0.09
WNW1001	UP	Dec-91	31	32	8.4	8.1	40	44	4.6	5.2	3.7	0.16	0.11	0.09
WNW1008B	UP	Jun-91	32	36	7.4	8.6	29	34	5.0	4.4	0.60	2.5	0.32	0.35
WNW1008B	UP	Dec-91	39	38	9.0	8.5	39	40	4.4	4.6	2.2	0.90	0.20	0.17
WNW0903	DOWN - B	Jun-91	190	67	99	28	34	36	19	5.1	240	<0.05	3.7	0.23
WNW0903	DOWN - B	Dec-91	96	76	41	33	40	42	8.9	4.8	27	0.07	0.56	0.16
WNW1002	DOWN - B	Jun-91	83	88	35	37	32	35	2.7	2.7	3.2	0.62	0.09	0.05
WNW1002	DOWN - B	Dec-91	90	90	38	38	36	35	2.3	2.2	1.0	0.84	0.06	0.06
WNW1003	DOWN - B	Jun-91	95	26	31	7.0	7.2	51	1.8	3.9	1.5	0.06	0.03	0.17
WNW1003	DOWN - B	Dec-91	27	27	7.3	7.2	52	55	3.9	4.1	1.3	0.07	0.22	0.20
WNW1004	DOWN - B	Jun-91	43	45	14	17	48	29	5.9	3.7	21	0.07	0.48	0.07
WNW1004	DOWN - B	Dec-91	44	44	17	17	28	28	2.2	2.0	0.89	0.38	0.06	0.06
WNW1101C	DOWN - B	Jun-91	58	51	14	10	27	27	9.1	8.8	8.5	<0.03	0.30	0.18
WNW1101C	DOWN - B	Dec-91	64	59	15	11	24	28	6.9	5.9	14	0.17	0.32	0.10
WNW8610	DOWN - C	May-91	53	37	34	31	63	66	5.2	4.9	11	0.17	0.32	0.05
WNW8610	DOWN - C	Nov-91	59	32	38	33	69	70	5.5	4.9	10	0.14	0.30	0.03
WNW8611	DOWN - C	May-91	88	86	30	29	63	63	3.2	3.2	3.2	0.09	0.09	0.02
WNW8611	DOWN - C	Nov-91	80	74	31	30	67	66	3.0	2.5	4.6	0.08	0.09	0.01

a) General position in geologic unit

Table E-10a

Groundwater Quality Parameters (mg/L) for the Weathered Lavery Till Unit

Location Code	Hydraulic Position[a]	Date	Chloride	Sulfate	Nitrate + Nitrite-N	Ammonia	Bicarbonate Alkalinity (as mgCaCO3/L)	Carbonate Alkalinity (as mgCaCO3/L)	Phenols
WNW0908	UP	Jun-91	4.8	1000	*<0.20	<0.05	360	<1	0.009
WNW1005	UP	Jun-91	2.6	37	*<0.10	<0.05	370	<1	<0.005
WNW1005	UP	Dec-91	2.9	85	<0.05	<0.05	370	<1	<0.005
WNW1008C	UP	Jun-91	28	<2	*<0.10	0.08	220	<1	<0.005
WNW1008C	UP	Dec-91	34	16	<0.05	0.05	220	<1	<0.005
WNW0906	DOWN - B	Jun-91	9.9	110	*1.00	<0.05	230	<1	0.010
WNW0907	DOWN - B	Jun-91	2.0	37	*<0.20	<0.05	320	<1	0.013
WNW1006	DOWN - B	Jun-91	2.9	1000	*<0.10	0.06	320	<1	0.007
WNW1006	DOWN - B	Dec-91	2.3	310	<0.05	0.14	360	<1	<0.005
WNW1007	DOWN - B	Jun-91	9.8	690	*0.20	0.05	320	10	0.028
WNW1007	DOWN - B	Dec-91	4.6	550	0.00		340	<1	<0.005
WNW1101A	DOWN - B	Jun-91	2.0	130	*<0.10	<0.05	<1[b]	<1	<0.005
WNW1101A	DOWN - B	Dec-91	2.4	330	0.08	<0.05	220	<1	0.013
WNW1106A	DOWN - B	Jun-91	4.6	160	0.13	0.05	290	<1	<0.005
WNW1106A	DOWN - B	Dec-91	3.8	190	<0.05	0.56	310	<1	<0.010
WNW1108A	DOWN - B	Jun-91	3.2	560	*<0.10	0.11	310	<1	0.030
WNW1109A	DOWN - B	Jun-91	1.7	220	*0.30	<0.05	190	<1	<0.005
WNW1109A	DOWN - B	Dec-91	1.6	180	0.09	<0.05	220	<1	<0.010
WNW1102A	DOWN - C	Jun-91	3.6	240	0.20	<0.05	250	<1	<0.005
WNW1102A	DOWN - C	Dec-91	3.0	360	<0.05	<0.05	270	<1	<0.010
WNW1103A	DOWN - C	Jun-91	2.7	140	0.50	<0.05	340	<1	<0.005
WNW1103A	DOWN - C	Dec-91	2.6	190	<0.05	<0.05	510	<1	<0.010
WNW1104A	DOWN - C	Jun-91	3.6	110	0.81	<0.05	220	<1	<0.005
WNW1104A	DOWN - C	Dec-91	7.0	130	0.14	0.07	220	<1	<0.010
WNW1107A	DOWN - C	Jun-91	8.3	260	*<0.10	0.56	580	<1	<0.005
WNW1107A	DOWN - C	Dec-91	7.0	150	<0.05	0.14	460	<1	0.015
WNW1110A	DOWN - C	Jun-91	4.1	420	*<0.10	0.07	460	<1	<0.005

a) General position in geologic unit
b) Apparent analytical outlier
** Nitrate-N only*

Table E-10b
Groundwater Quality Metals (mg/L) for the Weathered Lavery Till Unit

Location Code	Hydraulic Position[a]	Date	Calcium		Magnesium		Sodium		Potassium		Iron		Manganese	
			Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.
WNW0908	UP	Jun-91	440	460	150	160	21	22	6.8	7.7	0.33	<0.05	0.26	0.24
WNW1005	UP	Jun-91	44	110	18	35	25	8.1	4.6	1.6	9.4	<0.03	0.21	<0.01
WNW1005	UP	Dec-91	110	110	37	37	10	11	3.2	3.3	4.5	0.13	0.12	0.06
WNW1008C	UP	Jun-91	77	83	1.8	19	12	14	1.6	1.2	0.43	0.03	0.21	0.20
WNW1008C	UP	Dec-91	70	74	17	17	13	14	0.9	1.0	0.47	0.04	0.16	0.13
WNW0906	DOWN - B	Jun-91	77	81	30	31	20	21	3.1	2.9	3.4	0.48	0.18	0.25
WNW0907	DOWN - B	Jun-91	94	100	39	41	8.9	9.3	2.4	2.6	0.27	<0.05	0.02	0.04
WNW1006	DOWN - B	Jun-91	340	320	140	130	20	20	4.0	3.8	0.08	0.39	0.42	0.59
WNW1006	DOWN - B	Dec-91	290	300	120	120	19	20	3.6	4.2	0.14	0.06	0.30	0.19
WNW1007	DOWN - B	Jun-91	220	240	74	80	18	20	13	9.0	20	0.72	0.82	0.63
WNW1007	DOWN - B	Dec-91	190	200	69	72	17	18	4.4	6.5	4.4	0.05	0.19	0.07
WNW1101A	DOWN - B	Jun-91	82	86	23	24	9.2	9.4	1.7	1.9	<0.03	<0.03	0.20	0.23
WNW1101A	DOWN - B	Dec-91	120	110	29	29	12	11	1.6	2.2	0.07	<0.03	0.05	0.10
WNW1106A	DOWN - B	Jun-91	110	110	38	41	13	16	3.4	3.9	0.04	<0.03	0.28	0.39
WNW1106A	DOWN - B	Dec-91	130	130	47	47	14	14	3.6	3.8	0.08	0.03	0.08	0.04
WNW1108A	DOWN - B	Jun-91	170	180	62	69	18	20	3.9	3.8	5.1	0.10	0.23	0.18
WNW1109A	DOWN - B	Jun-91	100	100	26	27	10	11	3.9	4.0	0.12	0.05	0.36	0.35
WNW1109A	DOWN - B	Dec-91	110	110	28	28	10	11	2.6	2.6	0.17	<0.03	0.03	0.02
WNW1102A	DOWN - C	Jun-91	110	110	38	39	8.6	8.8	2.7	2.8	<0.03	<0.03	0.17	0.14
WNW1102A	DOWN - C	Dec-91	150	150	52	51	11	12	3.5	3.0	0.40	0.04	0.04	0.05
WNW1103A	DOWN - C	Jun-91	100	110	43	44	13	13	2.7	2.3	1.6	0.07	0.10	0.03
WNW1103A	DOWN - C	Dec-91	120	260	47	89	12	16	2.7	3.8	2.0	<0.03	0.14	<0.01
WNW1104A	DOWN - C	Jun-91	84	99	23	30	9.1	10	2.2	1.8	0.14	<0.03	0.09	0.07
WNW1104A	DOWN - C	Dec-91	89	94	24	26	12	12	2.2	2.3	0.25	<0.03	0.07	0.08
WNW1107A	DOWN - C	Jun-91	180	190	71	74	9.7	9.3	2.8	2.9	0.64	0.55	12	16
WNW1107A	DOWN - C	Dec-91	120	120	50	50	8.9	9.0	2.3	2.1	0.08	<0.03	2.8	2.9
WNW1110A	DOWN - C	Jun-91	150	140	96	90	28	27	4.2	4.0	0.09	<0.03	0.16	0.15

a) General position in geologic unit