



COLLECTING A GROUNDWATER SAMPLE

APPENDIX E

SUMMARY OF GROUNDWATER MONITORING

Table E-1

Supporting Groundwater Monitoring Stations Sampled During 1989 ($\mu\text{Ci/mL}$)

Location Code	Date Sampled	pH	Conductivity *	Alpha	Beta	H-3	Cs-137	Co-60
Wells Near Site Facilities								
WNW80-03	06/23/89	6.79	651	<1.63E-09	2.25E-07 \pm 8.85E-09	<1.24E-07	<1.1E-08	<1.4E-08
WNW80-03	12/19/89	7.48	514	<2.34E-09	2.49E-07 \pm 1.14E-08	1.41E-07 \pm 1.09E-07	<3.7E-08	<3.8E-08
WNW80-04	06/23/89	6.97	611	<4.39E-09	2.50E-08 \pm 3.33E-09	1.80E-07 \pm 1.19E-07	<1.1E-08	<1.4E-08
WNW80-04	12/19/89	7.26	604	<1.91E-09	1.62E-08 \pm 3.04E-09	3.23E-07 \pm 1.16E-07	<3.7E-08	<3.8E-08
Wells Near NRC Disposal Unit								
WNW82-1A	06/23/89	7.03	1353	2.35E-08 \pm 2.05E-08	7.69E-09 \pm 2.37E-09	2.32E-07 \pm 1.21E-07	<1.1E-08	<1.4E-08
WNW82-1A	12/19/89	7.37	1369	2.92E-08 \pm 1.66E-08	1.18E-08 \pm 4.63E-09	5.43E-07 \pm 1.14E-07	<3.7E-08	<3.8E-08
WNW82-1B	06/23/89	7.10	1380	<1.73E-09	1.64E-08 \pm 4.80E-09	<1.17E-07	<1.1E-08	<1.4E-08
WNW82-1B	12/19/89	7.26	1329	<6.89E-09	1.01E-08 \pm 2.85E-09	4.02E-07 \pm 1.10E-07	<3.7E-08	<3.8E-08
WNW82-1C	06/28/89	7.43	395	<5.17E-09	4.22E-09 \pm 1.91E-09	<1.0E-07	<1.1E-08	<1.4E-08
WNW82-1C	12/20/89	7.99	NA	<1.41E-09	<3.53E-09	2.18E-07 \pm 1.10E-07	<3.7E-08	<3.8E-08
WNW82-2B	06/28/89	7.10	752	1.16E-08 \pm 8.62E-09	1.21E-08 \pm 3.52E-09	<1.0E-07	<1.1E-08	<1.4E-08
WNW82-2B	12/20/89	7.39	742	<5.00E-09	9.98E-09 \pm 3.30E-09	1.83E-07 \pm 1.09E-07	<3.7E-08	<3.8E-08
WNW82-2C	06/28/89	9.00	688	3.88E-08 \pm 2.54E-08	2.97E-08 \pm 5.93E-09	<1.0E-07	<1.1E-08	<1.4E-08
WNW82-2C	12/20/89		***NOT AVAILABLE***					
WNW82-3A	06/23/89	7.56	288	1.37E-08 \pm 8.52E-09	1.43E-08 \pm 2.66E-09	<1.0E-07	<1.1E-08	<1.4E-08
WNW82-3A	12/20/89		***NOT AVAILABLE***					
WNW82-4A1	06/23/89	6.58	1428	<6.83E-09	8.76E-09 \pm 4.14E-09	6.81E-05 \pm 2.06E-06	<1.1E-08	<1.4E-08
WNW82-4A1	12/20/89	6.81	1421	1.60E-08 \pm 1.40E-08	9.37E-09 \pm 4.44E-09	5.61E-05 \pm 1.70E-06	<3.7E-08	<3.8E-08
WNW82-4A2	06/23/89	6.78	1509	<1.60E-08	1.11E-08 \pm 5.02E-09	1.52E-07 \pm 1.18E-07	<1.1E-08	<1.4E-08
WNW82-4A2	12/20/89	6.95	1470	<6.23E-09	4.63E-09 \pm 3.80E-09	3.25E-07 \pm 1.14E-07	<3.7E-08	<3.8E-08
WNW82-4A3	06/23/89	6.73	1382	<5.44E-09	3.72E-09 \pm 3.60E-09	1.84E-07 \pm 1.19E-07	<1.1E-08	<1.4E-08
WNW82-4A3	12/20/89	6.92	1430	<6.61E-09	6.64E-09 \pm 4.25E-09	4.08E-07 \pm 1.18E-07	<3.7E-08	<3.8E-08

* Measured in $\mu\text{mhos/cm}$ @25°C

Table E - 2

Parameter	1989 Fuel Tank Groundwater Monitoring		
	WNW86-13 (Sample date: 6-19-89)	WNW86-13 (Sample date: 10-10-89)	WNW86-13 (Sample date: 11-20-89)*
pH	6.89	6.88	
Conductivity (μ mhos/cm @25°C)	614	696	
TOC (mg/L)	2.3	2.8	
Phenols (mg/L)	<0.007	<0.008	
Benzene (μ g/L)	0.2	<0.2	<0.4
Toluene (μ g/L)	0.51	0.36	<0.4
o-xylene (μ g/L)	<0.2	<1	<1
m-xylene (μ g/L)	<0.2	<1	<1
p-xylene (μ g/L)	<0.2	<0.4	<1
H-3 (μ Ci/mL)	<1.0E-07	<1.0E-07	
Alpha (μ Ci/mL)	<2.7E-09	<3.48E-09	
Beta (μ Ci/mL)	4.54 \pm 1.65E-09	4.40 \pm 1.70E-09	

* Sample collected 11-20-89 analyzed for volatile compounds only

Table E - 3

**1989 Water Quality Parameters for the High-Level Waste Tank Complex Groundwater Monitoring Unit
(mg/L)**

Location Code	Hydraulic Position	Sample Date	pH	Conductivity**	TOC	Phenols	TOX	Chloride	Nitrate-N	Sulfate	Fluoride
*** QUALITY STANDARDS ***			6.5-8.5	N/A	N/A	.001	N/A	250	10	250	1.5
WNW80-02	UP	05/24/89	7.77	429	< 1.0	.006	< .010	52	.90	50	< .10
WNW80-02	UP	06/12/89	7.69	433	< 1.0	< .007	.028	54	.33	16	< .10
WNW80-02	UP	06/19/89	7.65	432	< 1.0	< .007	.011	52	.50	17	< .10
WNW80-02	UP	06/26/89	7.56	442	< 1.0	< .007	< .010	55	.54	26	< .10
WNW80-02	UP	09/07/89	7.68	403	< 1.0	< .007	.012	50	.62	13	< .10
WNW80-02	UP	10/23/89	7.81	404	< 1.0	< .008	< .010	48	.48	18	< .10
WNW80-02	UP	12/14/89	7.85	394	< 1.0	< .008	< .005	40	.35	16	< .10
WNW80-02	UP	12/14/89	7.87	402	< 1.0	< .008	.005	44	.37	14	< .10
WNDMPNE *	DOWN	06/09/89	6.66	641	8.0	< .020	.012	66	.80	49	< .10
WNDMPNE	DOWN	06/14/89	6.64	577	4.7	< .020	.010	52	.84	58	< .10
WNDMPNE	DOWN	06/22/89	6.50	499	5.2	.014	.012	29	.52	46	< .10
WNDMPNE	DOWN	06/28/89	6.68	641	4.2	< .007	< .010	64	1.10	38	< .10
WNDMPNE	DOWN	09/26/89	7.40	712	4.8	< .006	< .010	88	0.64	95	< .10
WNDMPNE	DOWN	11/13/89	6.79	637	4.0	< .020	N/A	58	.80	56	< .10
WNDMPNE	DOWN	12/19/89	6.98	644	5.3	< .008	.010	61	1.10	57	< .10
WNDMPNE	DOWN	12/19/89	6.96	651	1.8	< .008	< .010	64	1.20	60	< .10
WNW86-07	DOWN	06/06/89	6.69	721	1.2	< .005	< .100	15	1.20	140	< .10
WNW86-07	DOWN	06/14/89	6.27	655	< 1.0	< .007	.017	14	1.30	140	< .10
WNW86-07	DOWN	06/21/89	6.23	694	< 1.0	.025	< .010	14	1.10	62	< .10
WNW86-07	DOWN	06/26/89	6.27	667	< 1.0	< .007	.022	14	.99	140	< .10
WNW86-07	DOWN	09/07/89	6.83	809	< 1.0	< .007	< .010	6.6	1.10	160	< .10
WNW86-07	DOWN	10/26/89	6.17	711	2.1	< .008	.016	13	1.10	190	< .10
WNW86-07	DOWN	12/12/89	6.11	726	8.6	< .020	.008	19	1.00	180	< .10
WNW86-07	DOWN	12/12/89	6.05	697	3.2	< .008	< .005	20	1.20	180	< .10

*** Quality Standards for Class GA Groundwater, from 6 NYCRR Part 703.5

** Measured in $\mu\text{mhos/cm}$ @ 25°C

* Monitors former cold dump

N/A Not available

Table E - 3 (continued)

1989 Water Quality Parameters for the High-Level Waste Tank Complex Groundwater Monitoring Unit
(mg/L)

Location Code	Hydraulic Position	Sample Date	pH	Conductivity**	TOC	Phenols	TOX	Chloride	Nitrate-N	Sulfate	Fluoride
*** QUALITY STANDARDS ***			6.5-8.5	N/A	N/A	.001	N/A	250	10	250	1.5
WNW86-08	DOWN	06/06/89	6.82	531	5.3	<.005	<.010	11	.24	200	<.10
WNW86-08	DOWN	06/14/89	6.73	584	2.0	<.007	.011	14	.63	120	<.10
WNW86-08	DOWN	06/21/89	6.85	596	2.8	.061	<.010	13	.078	130	<.10
WNW86-08	DOWN	06/26/89	6.71	558	3.8	<.020	.015	11	.057	99	<.10
WNW86-08	DOWN	09/06/89	6.68	716	4.4	<.007	<.010	13	.11	120	<.10
WNW86-08	DOWN	10/26/89	6.51	674	8.2	<.008	.016	12	.180	160	<.10
WNW86-08	DOWN	12/12/89	6.64	591	7.8	<.008	.016	10	.053	130	.10
WNW86-08	DOWN	12/12/89	6.61	592	7.4	<.008	.037	11	<.050	130	.11
WNW86-09	DOWN	06/06/89	7.16	660	2.5	<.005	.015	52	1.20	130	<.10
WNW86-09	DOWN	06/14/89	6.96	653	1.0	<.020	.021	44	1.50	46	<.10
WNW86-09	DOWN	06/21/89	7.13	648	1.0	.053	<.010	46	1.30	47	<.10
WNW86-09	DOWN	06/26/89	6.99	648	1.0	<.008	.018	42	1.00	40	<.10
WNW86-09	DOWN	09/26/89	7.04	652	3.0	<.006	.014	35	.87	42	<.10
WNW86-09	DOWN	10/18/89	7.17	653	9.8	<.008	.013	30	.71	26	<.10
WNW86-09	DOWN	12/12/89	7.15	642	19.0	<.020	.022	24	1.80	26	<.10
WNW86-09	DOWN	12/12/89	7.14	636	1.9	.009	.017	38	1.60	30	<.10
WNW86-12	DOWN	06/09/89	7.44	649	< 1.0	<.007	.013	45	<.05	62	<.10
WNW86-12	DOWN	06/14/89	7.32	645	< 1.0	<.007	.010	43	.14	73	<.10
WNW86-12	DOWN	06/22/89	7.28	494	< 1.0	.007	<.010	44	<.05	66	<.10
WNW86-12	DOWN	06/28/89	7.38	651	< 1.0	<.007	<.010	45	<.05	59	<.10
WNW86-12	DOWN	09/20/89	7.45	666	9.0	<.007	<.010	51	<.05	64	<.10
WNW86-12	DOWN	10/18/89	7.30	673	4.3	<.008	<.010	50	<.05	62	<.10
WNW86-12	DOWN	11/20/89	7.50	679	< 1.0	<.008	N/A	50	.082	61	<.10
WNW86-12	DOWN	12/14/89	7.62	683	2.8	<.008	<.005	49	<.05	60	<.10

*** Quality Standards for Class GA Groundwater, from 6 NYCRR Part 703.5

** Measured in $\mu\text{mhos/cm}@25^{\circ}\text{C}$

N/A Not available

Table E-4

1989 Total Metals for High-Level Waste Tank Complex Groundwater Monitoring Unit (mg/L)

Location Code	Hydraulic Position	Sample Date	Arsenic	Barium	Cadmium	Chromium	Iron	Lead	Manganese	Mercury	Selenium	Silver	Sodium
QUALITY STANDARD ***			.025	1.0	.01	.05	.30	.025	.30	.002	.01	.05	< 20
WNW80-02	UP	05/24/89	<.005	.08	<.005	.020	2.4	<.005	.075	<.0004	<.005	<.005	5.0
WNW80-02	UP	06/12/89	<.005	<.06	<.005	.019	1.1	.005	.051	<.0004	<.005	<.005	5.0
WNW80-02	UP	06/19/89	.017	.08	.013	<.010	.37	<.005	.043	<.0004	<.005	<.005	8.0
WNW80-02	UP	06/26/89	<.005	.08	.006	<.010	2.2	.008	.095	<.0004	<.005	<.005	8.0
WNW80-02	UP	09/07/89	<.005	.06	<.005	<.010	2.8	<.005	.056	<.0002	<.005	<.005	2.8
WNW80-02	UP	10/23/89	<.005	.07	.010	<.010	12.0	.014	.14	<.0004	<.005	<.005	< 5.0
WNW80-02	UP	12/14/89	<.005	.11	<.005	<.010	5.8	.013	.098	<.0004	<.005	<.010	3.5
WNW80-02	UP	12/14/89	<.005	.07	<.005	<.010	.62	<.005	.019	<.0004	<.005	<.010	3.5
WNDMPNE*	DOWN	06/09/89	<.005	<.06	<.005	.030	11.0	.011	.63	<.0004	<.005	.005	15.0
WNDMPNE	DOWN	06/14/89	.013	.11	<.005	.036	16.0	.011	.64	<.0004	<.005	<.005	15.0
WNDMPNE	DOWN	06/22/89	.014	.16	<.005	<.010	1.9	<.005	.16	<.0004	<.005	.005	12.0
WNDMPNE	DOWN	06/28/89	.022	.10	.011	<.010	.91	<.005	.11	<.0004	<.005	.007	19.0
WNDMPNE	DOWN	09/26/89	<.005	<.06	.008	<.010	.74	<.005	.031	<.0004	<.005	.005	24.0
WNDMPNE	DOWN	11/13/89	<.005	.14	.010	<.010	.05	<.005	.012	<.0004	<.005	<.005	21.0
WNDMPNE	DOWN	12/19/89	<.005	.11	<.005	<.010	6.5	.260	.17	<.0004	<.005	<.010	18.0
WNDMPNE	DOWN	12/19/89	<.005	.07	<.005	<.010	.21	<.005	.014	<.0004	<.005	<.010	19.0
WNW86-07	DOWN	06/06/89	<.005	<.06	<.005	.022	1.8	<.005	.57	<.0004	<.005	.006	14.0
WNW86-07	DOWN	06/14/89	<.005	<.06	<.005	.025	.39	<.005	.26	<.0004	<.005	<.005	12.0
WNW86-07	DOWN	06/21/89	.022	<.06	.010	<.010	1.6	.005	.39	<.0004	<.005	.006	11.0
WNW86-07	DOWN	06/26/89	.017	<.06	<.005	<.010	1.0	<.005	.24	<.0004	<.005	<.005	10.0
WNW86-07	DOWN	09/07/89	<.005	<.06	.007	<.010	1.2	<.005	.36	<.0002	<.005	.005	7.0
WNW86-07	DOWN	10/26/89	<.005	.05	.008	<.010	1.0	.006	.28	<.0004	.021	.008	16.0
WNW86-07	DOWN	12/12/89	<.005	<.06	.007	<.010	.55	<.005	.68	<.0004	<.005	<.010	12.0
WNW86-07	DOWN	12/12/89	<.005	<.06	<.005	<.010	.26	<.005	.94	<.0004	<.005	<.010	9.9

*** Quality Standards for Class GA Groundwater, from 6 NYCRR Part 703.5

* Monitors former cold dump

Table E-4 (continued)

1989 Total Metals for High-Level Waste Tank Complex Groundwater Monitoring Unit (mg/L)

Location Code	Hydraulic Position	Sample Date	Arsenic	Barium	Cadmium	Chromium	Iron	Lead	Manganese	Mercury	Selenium	Silver	Sodium
QUALITY STANDARD ***			.025	1.0	.01	.05	.30	.025	.30	.002	.01	.05	<20
WNW86-08	DOWN	06/06/89	.006	.06	<.005	.030	8.2	.006	8.0	<.0004	<.005	<.005	9.0
WNW86-08	DOWN	06/14/89	.021	.14	<.005	.040	24.0	.016	4.5	<.0004	<.005	<.005	8.0
WNW86-08	DOWN	06/21/89	.007	.11	.008	.011	7.0	.008	4.1	<.0004	<.005	<.005	10.0
WNW86-08	DOWN	06/26/89	<.005	.12	<.005	<.010	4.7	.006	6.5	<.0004	<.005	<.005	10.0
WNW86-08	DOWN	09/06/89	<.005	.07	.008	<.020	2.7	<.005	6.3	<.0002	<.005	<.005	8.0
WNW86-08	DOWN	10/26/89	.006	.13	.007	<.010	7.7	.006	13.0	<.0004	.018	<.005	6.0
WNW86-08	DOWN	12/12/89	.006	.15	.007	<.010	5.7	.006	11.0	<.0004	<.005	<.010	6.1
WNW86-08	DOWN	12/12/89	<.005	.11	<.005	<.010	5.9	<.005	11.0	<.0004	<.005	<.010	5.7
WNW86-09	DOWN	06/06/89	.016	.12	<.005	.038	24.0	.022	.62	<.0004	<.005	.007	11.0
WNW86-09	DOWN	06/14/89	.007	.40	<.005	.038	11.0	.016	.37	<.0004	<.005	.006	10.0
WNW86-09	DOWN	06/21/89	.017	.69	.008	.056	74.0	.068	2.8	<.0004	<.005	.009	13.0
WNW86-09	DOWN	06/26/89	.009	.48	.010	.034	43.0	.042	1.6	<.0004	<.005	<.005	11.0
WNW86-09	DOWN	09/26/89	<.005	<.06	.010	<.010	9.6	.007	.44	<.0002	<.005	.009	10.0
WNW86-09	DOWN	10/18/89	<.005	.13	.014	.013	16.0	.010	.66	<.0004	<.005	.008	11.0
WNW86-09	DOWN	12/12/89	.006	.24	.008	.010	13.0	.008	.62	<.0004	<.005	<.010	7.3
WNW86-09	DOWN	12/12/89	<.005	.21	<.005	<.010	4.4	<.005	.16	<.0004	<.005	<.010	8.3
WNW86-12	DOWN	06/09/89	<.005	.16	<.005	.020	2.3	<.005	.10	<.0004	<.005	<.005	12.0
WNW86-12	DOWN	06/14/89	<.005	.26	<.005	.025	2.4	<.005	.11	<.0004	<.005	.008	11.0
WNW86-12	DOWN	06/22/89	<.005	.40	.008	<.010	1.6	<.005	.11	<.0004	<.005	.005	11.0
WNW86-12	DOWN	06/28/89	.013	.39	.010	<.010	1.4	<.005	.11	<.0004	<.005	<.005	11.0
WNW86-12	DOWN	09/20/89	<.005	.30	<.005	<.010	1.0	<.005	.10	<.0002	<.005	.007	10.0
WNW86-12	DOWN	10/18/89	<.005	.16	.011	<.010	.99	<.005	.10	<.0004	<.005	.005	10.0
WNW86-12	DOWN	11/20/89	<.005	.37	.009	<.010	.58	<.005	.10	<.0004	<.005	<.005	14.0
WNW86-12	DOWN	12/14/89	<.005	.34	<.006	.012	1.3	<.006	.086	<.0004	<.005	<.010	10.0

*** Quality Standards for Class GA Groundwater, from 6 NYCRR Part 703.5

* Monitors former cold dump

Table E-5

1989 Dissolved Metals for High-Level Waste Tank Complex Groundwater Monitoring Unit (mg/L)

Location Code	Hydraulic Position	Sample Date	Arsenic	Barium	Cadmium	Chromium	Iron	Lead	Manganese	Mercury	Selenium	Silver	Sodium
QUALITY STANDARD ***			.025	1.0	.01	.05	30	.025	.30	.002	.01	.05	<20
WNW80-02	UP	05/24/89	<.005	<.06	<.005	<.010	<.05	<.005	.024	<.0004	<.005	<.005	< 5.0
WNW80-02	UP	06/12/89	<.005	<.06	<.005	<.010	<.05	<.005	.012	<.0004	<.005	<.005	5.0
WNW80-02	UP	06/19/89	<.005	<.06	.007	<.010	<.03	<.005	<.010	<.0004	<.005	.007	6.0
WNW80-02	UP	06/26/89	<.005	<.06	<.005	<.010	<.03	<.005	.015	<.0004	<.005	<.005	7.0
WNW80-02	UP	09/07/89	<.005	<.06	<.005	<.005	<.03	<.005	.016	<.0002	<.005	<.005	3.5
WNW80-02	UP	10/23/89	<.005	.07	<.005	<.010	<.03	<.005	.027	<.0004	<.005	<.005	< 5.0
WNW80-02	UP	12/14/89	<.005	.06	<.005	<.010	<.05	<.005	.016	<.0004	<.005	<.010	3.1
WNW80-02	UP	12/14/89	<.005	.07	<.005	<.010	<.05	<.005	.010	<.0004	<.005	<.010	3.0
WNDMPNE*	DOWN	06/09/89	<.005	<.06	<.005	<.010	<.05	<.005	.20	<.0004	<.005	<.005	15.0
WNDMPNE	DOWN	06/14/89	<.005	<.06	<.005	.012	.06	<.005	.11	<.0004	<.005	<.005	14.0
WNDMPNE	DOWN	06/22/89	<.005	.08	<.005	<.010	<.03	<.005	.049	<.0004	<.005	<.005	12.0
WNDMPNE	DOWN	06/28/89	<.005	<.06	<.005	<.010	.20	<.005	.33	<.0004	<.005	<.005	18.0
WNDMPNE	DOWN	09/26/89	<.005	<.06	<.005	<.010	.04	<.005	.024	<.0004	<.005	<.005	22.0
WNDMPNE	DOWN	11/13/89	<.005	<.06	<.005	<.010	<.05	<.005	<.010	<.0004	<.005	<.005	19.0
WNDMPNE	DOWN	12/19/89	<.005	.08	<.005	<.010	<.05	.020	.022	<.0004	<.005	<.010	16.0
WNDMPNE	DOWN	12/19/89	<.005	.07	<.005	<.010	<.05	<.005	.009	<.0004	<.005	<.010	8.8
WNW86-07	DOWN	06/06/89	<.005	<.06	<.005	<.010	<.05	<.005	.20	<.0004	<.005	<.005	13.0
WNW86-07	DOWN	06/14/89	<.005	<.06	<.005	<.010	<.05	<.005	.18	<.0004	<.005	<.005	10.0
WNW86-07	DOWN	06/21/89	<.005	<.06	<.005	<.010	<.03	<.005	.089	<.0004	<.005	<.005	12.0
WNW86-07	DOWN	06/26/89	<.005	<.06	<.005	<.010	<.03	<.005	.089	<.0004	<.005	<.005	11.0
WNW86-07	DOWN	09/07/89	<.005	<.06	<.005	<.005	.03	<.005	.013	<.0002	<.005	<.005	6.0
WNW86-07	DOWN	10/26/89	<.005	<.05	.007	<.010	.04	<.005	.10	<.0004	<.005	<.005	7.0
WNW86-07	DOWN	12/12/89	<.005	<.06	<.005	<.010	<.05	<.005	.57	<.0004	<.005	<.010	9.4
WNW86-07	DOWN	12/12/89	<.005	<.06	<.005	<.010	<.05	<.005	.88	<.0004	<.005	<.010	9.3

*** Quality Standards for Class GA Groundwater, from 6 NYCRR Part 703.5

* Monitors former cold dump

Table E-5 (continued)

1989 Dissolved Metals for High-Level Waste Tank Complex Groundwater Monitoring Unit (mg/L)

Location Code	Hydraulic Position	Sample Date	Arsenic	Barium	Cadmium	Chromium	Iron	Lead	Manganese	Mercury	Selenium	Silver	Sodium
QUALITY STANDARD ***			.025	1.0	.01	.05	.30	.025	.30	.002	.01	.05	<20
WNW86-08	DOWN	06/06/89	<.005	<.06	<.005	<.010	.50	<.005	8.1	<.0004	<.005	<.005	8.0
WNW86-08	DOWN	06/14/89	<.005	<.06	<.005	<.010	.31	<.005	7.1	<.0004	<.005	<.005	8.0
WNW86-08	DOWN	06/21/89	<.005	<.06	.008	<.010	.11	<.005	4.8	<.0004	<.005	<.005	10.0
WNW86-08	DOWN	06/26/89	<.005	<.06	<.005	<.010	.16	<.005	6.5	<.0004	<.005	<.005	9.0
WNW86-08	DOWN	09/06/89	<.005	.07	<.005	<.005	.05	<.005	5.2	<.0002	<.005	<.005	6.0
WNW86-08	DOWN	10/26/89	<.005	.10	<.005	<.010	1.1	<.005	10.0	<.0004	<.005	<.005	< 5.0
WNW86-08	DOWN	12/12/89	<.005	.13	<.005	<.010	1.3	<.005	9.8	<.0004	<.005	<.010	5.9
WNW86-08	DOWN	12/12/89	<.005	.10	<.006	<.010	1.1	<.005	11.0	<.0004	<.005	<.010	5.6
WNW86-09	DOWN	06/06/89	<.005	<.06	<.005	.010	<.05	<.005	.010	<.0004	<.005	<.005	9.0
WNW86-09	DOWN	06/14/89	<.005	<.06	<.005	<.010	<.05	<.005	.008	<.0004	<.005	<.005	9.0
WNW86-09	DOWN	06/21/89	<.005	<.06	<.005	<.010	<.03	<.005	.011	<.0004	<.005	<.005	10.0
WNW86-09	DOWN	06/26/89	<.005	<.06	<.005	<.010	<.03	<.005	.010	<.0004	<.005	<.005	10.0
WNW86-09	DOWN	09/26/89	<.005	<.06	<.005	<.010	.03	<.005	.016	<.0002	<.005	<.005	6.0
WNW86-09	DOWN	10/18/89	<.005	<.06	.007	<.010	<.04	<.005	.018	<.0004	<.005	<.005	7.1
WNW86-09	DOWN	12/12/89	<.005	.17	.006	<.010	<.05	<.005	.009	<.0004	<.005	<.010	7.0
WNW86-09	DOWN	12/12/89	<.005	.17	<.005	<.010	<.05	<.005	.012	<.0004	<.005	<.010	7.3
WNW86-12	DOWN	06/09/89	<.005	<.06	<.005	<.010	.33	<.005	.093	<.0004	<.005	<.005	10.0
WNW86-12	DOWN	06/14/89	<.005	<.06	<.005	<.010	.37	<.005	.093	<.0004	<.005	<.005	11.0
WNW86-12	DOWN	06/22/89	<.005	<.06	<.005	<.010	.30	<.005	.077	<.0004	<.005	.009	11.0
WNW86-12	DOWN	06/28/89	<.005	<.06	<.005	<.010	.30	<.005	.079	<.0004	<.005	<.005	13.0
WNW86-12	DOWN	09/20/89	<.005	.26	<.005	<.005	.35	<.005	.085	<.0002	<.005	<.005	9.0
WNW86-12	DOWN	10/18/89	<.005	.12	<.005	<.010	.35	<.005	.093	<.0004	<.005	<.005	10.0
WNW86-12	DOWN	11/20/89	<.005	<.06	<.005	<.010	.30	<.005	.095	<.0004	<.005	<.005	13.0
WNW86-12	DOWN	12/14/89	<.005	.31	<.005	<.010	.32	<.005	.086	<.0004	<.005	<.010	10.0

*** Quality Standards for Class GA Groundwater, from 6 NYCRR Part 703.5

* Monitors former cold dump

Table E-6

1989 Radioactivity Concentrations for Groundwater in High-Level Radioactive Waste Tank Complex Monitoring Unit ($\mu\text{Ci}/\text{mL}$)

Location Code	Hydraulic Position	Sample Date	Gross Alpha	Gross Beta	H-3	Cs-137	Co-60
			3.0E-03	1.0E-06	2.0E-03	3E-06	5E-06
DOE DCUs			1.5E-03	1.0E-06	2.0E-05	N/A	N/A
Quality Standard***							
WNW80-02	UP	05/24/89	< 1.29E-09	1.23E-09 \pm 1.19E-09	< 1E-7	< 1.1E-08	< 1.4E-08
WNW80-02	UP	06/12/89	< 1.31E-09	1.59E-09 \pm 1.24E-09	2.37E-7 \pm 1.21E-7	< 3.7E-08	< 3.8E-08
WNW80-02	UP	06/19/89	< 3.40E-10	< 1.09E-09	< 1E-7	< 3.7E-08	< 3.8E-08
WNW80-02	UP	06/26/89	< 9.00E-10	< 1.16E-09	< 1E-7	< 3.7E-08	< 3.8E-08
WNW80-02	UP	09/07/89	< 1.34E-09	1.68E-09 \pm 1.26E-09	1.95E-7 \pm 1.15E-7	< 3.7E-08	< 3.8E-08
WNW80-02	UP	10/23/89	1.85E-09 \pm 1.80E-09	1.80E-09 \pm 1.24E-09	1.37E-7 \pm 1.08E-7	< 3.7E-08	< 3.8E-08
WNW80-02	UP	12/14/89	< 1.10E-09	1.38E-09 \pm 1.19E-09	1.30E-7 \pm 1.10E-7	< 3.7E-08	< 3.8E-08
WNW80-02	UP	12/14/89	< 1.13E-09	1.21E-09 \pm 1.17E-09	1.23E-7 \pm 1.11E-7	< 3.7E-08	< 3.8E-08
WNDMPNE*	DOWN	06/09/89	< 2.91E-09	1.30E-07 \pm 7.05E-09	8.60E-7 \pm 1.36E-7	< 1.1E-08	< 1.4E-08
WNDMPNE	DOWN	06/14/89	< 2.64E-09	1.13E-07 \pm 6.49E-09	4.92E-7 \pm 1.28E-7	< 3.7E-08	< 3.8E-08
WNDMPNE	DOWN	06/22/89	< 1.59E-09	8.59E-08 \pm 5.60E-09	3.17E-7 \pm 1.24E-7	< 3.7E-08	< 3.8E-08
WNDMPNE	DOWN	06/28/89	< 1.68E-09	1.08E-07 \pm 6.44E-09	5.86E-7 \pm 1.29E-7	< 3.7E-08	< 3.8E-08
WNDMPNE	DOWN	09/26/89	< 1.81E-09	9.93E-08 \pm 6.21E-09	8.44E-7 \pm 1.29E-7	< 3.7E-08	< 3.8E-08
WNDMPNE	DOWN	11/13/89	< 3.34E-09	1.32E-07 \pm 7.11E-09	5.86E-7 \pm 1.37E-7	< 3.7E-08	< 3.8E-08
WNDMPNE	DOWN	12/19/89	< 5.22E-10	1.24E-07 \pm 6.79E-09	9.24E-7 \pm 1.21E-7	< 3.7E-08	< 3.8E-08
WNDMPNE	DOWN	12/19/89	< 1.81E-09	1.20E-07 \pm 6.65E-09	8.85E-7 \pm 1.19E-7	< 3.7E-08	< 3.8E-08
WNW86-07	DOWN	06/06/89	< 6.87E-10	6.55E-09 \pm 1.92E-09	< 1E-7	< 1.1E-08	< 1.4E-08
WNW86-07	DOWN	06/14/89	< 1.34E-09	4.38E-09 \pm 1.64E-09	< 1E-7	< 3.7E-08	< 3.8E-08
WNW86-07	DOWN	06/21/89	< 2.27E-09	3.12E-09 \pm 1.47E-09	< 1E-7	< 3.7E-08	< 3.8E-08
WNW86-07	DOWN	06/26/89	< 3.57E-09	5.63E-09 \pm 1.86E-09	< 1.17E-7	< 3.7E-08	< 3.8E-08
WNW86-07	DOWN	09/07/89	< 7.49E-09	4.66E-09 \pm 1.86E-09	4.24E-7 \pm 1.19E-7	< 3.7E-08	< 3.8E-08
WNW86-07	DOWN	10/26/89	< 2.38E-09	5.34E-09 \pm 1.79E-09	< 1.05E-7	< 3.7E-08	< 3.8E-08
WNW86-07	DOWN	12/12/89	< 3.14E-09	7.31E-09 \pm 2.04E-09	2.44E-7 \pm 1.07E-7	< 3.7E-08	< 3.8E-08
WNW86-07	DOWN	12/12/89	< 1.99E-09	4.16E-09 \pm 1.63E-09	1.73E-7 \pm 1.07E-7	< 3.7E-08	< 3.8E-08

*** Quality Standards for Class GA Groundwaters from 6 NYCRR Part 703.5

* Monitors former cold dump

N/A Not available

Table E-6 (continued)

**1989 Radioactivity Concentrations for Groundwater in High-Level Radioactive Waste Tank Complex Monitoring
Unit (μ Ci/mL)**

Location Code	Hydraulic Position	Sample Date	Gross Alpha	Gross Beta	H-3	Cs-137	Co-60
DOE DCGs			3.0E-08	1.0E-06	2.0E-03	3E-06	5E-06
Quality Standard***			1.5E-08	1.0E-06	2.0E-05	N/A	N/A
WNW86-08	DOWN	06/06/89	< 4.51E-10	1.25E-08 \pm 2.34E-09	< 1E-07	< 1.1E-08	< 1.4E-08
WNW86-08	DOWN	06/14/89	< 2.45E-09	1.10E-08 \pm 2.24E-09	5.92E-07 \pm 1.53E-07	< 3.7E-08	< 3.8E-08
WNW86-08	DOWN	06/21/89	< 2.17E-09	9.88E-09 \pm 2.19E-09	1.92E-06 \pm 1.58E-07	< 3.7E-08	< 3.8E-08
WNW86-08	DOWN	06/26/89	< 1.69E-09	1.04E-08 \pm 2.15E-09	7.18E-07 \pm 1.35E-07	< 3.7E-08	< 3.8E-08
WNW86-08	DOWN	09/06/89	< 4.77E-09	1.13E-08 \pm 2.42E-09	2.43E-06 \pm 1.78E-07	< 3.7E-08	< 3.8E-08
WNW86-08	DOWN	10/26/89	< 3.37E-09	1.10E-08 \pm 2.34E-09	< 1E-07	< 3.7E-08	< 3.8E-08
WNW86-08	DOWN	12/12/89	< 2.30E-09	1.13E-08 \pm 2.28E-09	< 1E-07	< 3.7E-08	< 3.8E-08
WNW86-08	DOWN	12/12/89	< 1.58E-09	8.22E-09 \pm 1.99E-09	< 1E-07	< 3.7E-08	< 3.8E-08
WNW86-09	DOWN	06/06/89	< 1.74E-09	1.92E-07 \pm 8.54E-09	2.18E-06 \pm 1.72E-07	< 1.1E-08	< 1.4E-08
WNW86-09	DOWN	06/14/89	< 2.37E-09	1.84E-07 \pm 8.38E-09	2.44E-06 \pm 1.73E-07	< 3.7E-08	< 3.8E-08
WNW86-09	DOWN	06/21/89	< 4.21E-09	1.82E-07 \pm 8.42E-09	2.29E-06 \pm 1.67E-07	< 3.7E-08	< 3.8E-08
WNW86-09	DOWN	06/26/89	< 3.63E-09	1.75E-07 \pm 8.24E-09	2.31E-06 \pm 1.69E-07	< 3.7E-08	< 3.8E-08
WNW86-09	DOWN	09/26/89	< 3.22E-09	2.33E-07 \pm 9.48E-09	2.66E-06 \pm 1.74E-07	< 3.7E-08	< 3.8E-08
WNW86-09	DOWN	10/18/89	< 1.90E-09	2.06E-07 \pm 8.90E-09	2.74E-06 \pm 1.69E-07	< 3.7E-08	< 3.8E-08
WNW86-09	DOWN	12/12/89	< 3.47E-09	2.42E-07 \pm 9.63E-09	2.42E-06 \pm 1.61E-07	< 3.7E-08	< 3.8E-08
WNW86-09	DOWN	12/12/89	< 3.45E-09	2.21E-07 \pm 9.46E-09	2.37E-06 \pm 1.61E-07	< 3.7E-08	< 3.8E-08
WNW86-12*	DOWN	06/09/89	< 2.56E-09	1.76E-09 \pm 1.38E-09	4.60E-06 \pm 2.30E-07	< 1.1E-08	< 1.4E-08
WNW86-12	DOWN	06/14/89	4.65E-09 \pm 4.52E-09	2.47E-09 \pm 1.48E-09	3.57E-06 \pm 2.04E-07	< 3.7E-08	< 3.8E-08
WNW86-12	DOWN	06/22/89	< 1.83E-09	2.05E-09 \pm 1.41E-09	3.50E-06 \pm 2.00E-07	< 3.7E-08	< 3.8E-08
WNW86-12	DOWN	06/28/89	< 3.60E-09	1.40E-09 \pm 1.35E-09	3.42E-06 \pm 1.98E-07	< 3.7E-08	< 3.8E-08
WNW86-12	DOWN	09/20/89	< 2.31E-09	3.85E-09 \pm 1.68E-09	3.31E-06 \pm 1.89E-07	< 3.7E-08	< 3.8E-08
WNW86-12	DOWN	10/18/89	5.04E-09 \pm 4.40E-09	< 1.25E-09	3.41E-06 \pm 1.87E-07	< 3.7E-08	< 3.8E-08
WNW86-12	DOWN	11/20/89	< 1.87E-09	1.85E-09 \pm 1.39E-09	3.61E-06 \pm 1.91E-07	< 3.7E-08	< 3.8E-08
WNW86-12	DOWN	12/14/89	< 3.36E-09	< 1.29E-09	3.56E-06 \pm 1.89E-07	< 3.7E-08	< 3.8E-08

*** Quality Standards for Class GA Groundwaters from 6NYCRR Part 703.5

* Monitors former cold dump

N/A Not available

Table E-7

**1989 Water Quality Parameters for Low-Level Radioactive Waste Lagoon System Groundwater Monitoring Unit
(mg/L)**

Location Code	Hydraulic Position	Sample Date	pH	Conductivity *	TOC	Phenols	TOX	Chloride	Nitrate-N	Sulfate	Fluoride
QUALITY STANDARDS ***			6.5-8.5	N/A	N/A	.001	N/A	250	10	250	1.5
WNW86-06	UP	06/05/89	6.72	3106	1.9	.014	.016	860	.14	37	<.10
WNW86-06	UP	06/13/89	6.64	3516	1.3	<.007	.024	1000	.12	36	<.10
WNW86-06	UP	06/21/89	6.53	3593	2.0	.014	.016	1100	<.05	75	<.10
WNW86-06	UP	06/28/89	6.71	3270	1.8	.076	.024	980	.12	42	<.10
WNW86-06	UP	09/26/89	6.54	917	< 1.0	<.020	.010	210	.027	18	<.10
WNW86-06	UP	10/26/89	6.55	1301	4.1	<.008	.018	340	<.06	18	<.10
WNW86-06	UP	12/13/89	6.65	2430	1.4	.018	<.005	670	.13	49	<.10
WNW86-06	UP	12/13/89	6.64	2485	2.8	<.008	.025	610	.16	47	<.10
WNGSEEP	DOWN	06/08/89	6.32	535	1.0	<.020	.016	69	.61	56	<.10
WNGSEEP	DOWN	06/19/89	6.17	550	4.0	<.007	<.010	88	.63	52	<.10
WNGSEEP	DOWN	06/22/89	6.09	551	< 1.0	<.007	<.010	65	.57	53	<.10
WNGSEEP	DOWN	06/28/89	6.04	555	1.2	<.008	<.010	60	.62	80	<.10
WNGSEEP	DOWN	10/04/89	6.16	709	2.9	<.007	<.010	90	.35	60	<.10
WNGSEEP	DOWN	10/23/89	6.24	679	1.0	<.008	<.010	87	.40	51	<.10
WNGSEEP	DOWN	12/11/89	6.32	593	3.2	<.008	<.005	61	.82	54	<.10
WNGSEEP	DOWN	12/11/89	6.34	593	1.2	<.008	.006	57	.76	56	<.10
WNSP008	DOWN	06/08/89	6.84	961	2.0	<.007	.017	100	.75	64	<.10
WNSP008	DOWN	06/13/89	6.77	869	1.5	<.007	.013	89	.56	92	<.10
WNSP008	DOWN	06/22/89	6.61	875	2.0	<.007	<.010	70	.68	55	<.10
WNSP008	DOWN	06/28/89	6.67	967	3.1	<.008	<.010	98	1.50	79	<.10
WNSP008	DOWN	10/04/89	6.90	963	3.0	<.006	<.010	100	.50	55	<.10
WNSP008	DOWN	10/23/89	6.90	881	2.8	<.020	.012	83	.56	50	.12
WNSP008	DOWN	12/11/89	6.76	927	1.9	<.008	.014	81	.64	80	<.10
WNSP008	DOWN	12/11/89	6.91	933	2.8	<.008	.103	80	.54	85	<.10
WNW80-05	DOWN	05/24/89	6.77	658	< 1.0	<.005	<.010	76	.66	61	<.10
WNW80-05	DOWN	06/12/89	6.72	762	< 1.0	<.020	.013	78	.43	91	<.10
WNW80-05	DOWN	06/19/89	6.76	722	< 1.0	<.007	<.010	73	.58	70	<.10
WNW80-05	DOWN	06/26/89	6.77	608	1.8	<.007	<.010	59	.34	71	<.10
WNW80-05	DOWN	10/03/89	6.61	1065	4.0	<.007	<.010	160	.32	75	<.10
WNW80-05	DOWN	11/13/89	6.54	1019	< 1.0	<.008	N/A	150	.30	68	<.10
WNW80-05	DOWN	12/18/89	6.96	890	< 1.0	<.007	.030	100	.39	60	<.10
WNW80-05	DOWN	12/18/89	6.92	851	1.2	<.008	.020	97	.42	55	<.10

*** Quality Standards for Class GA Groundwaters, from 6 NYCRR Part 703.5

* Measured in $\mu\text{mhos/cm}$ @ 25°C N/A Not available

Table E-7 (continued)

**1989 Water Quality Parameters for Low-level Radioactive Waste Lagoon System Groundwater Monitoring Unit
(mg/L)**

Location Code	Hydraulic Position	Sample Date	pH	Conductivity*	TOC	Phenols	TOX	Chloride	Nitrate-N	Sulfate	Fluoride
QUALITY STANDARDS ***			6.5-8.5	N/A	N/A	.001	N/A	250	10	250	1.5
WNW80-06	DOWN	05/24/89	6.32	706	3.0	<.005	<.010	44	.096	83	<.10
WNW80-06	DOWN	06/12/89	6.24	660	1.0	<.007	<.010	39	<.05	110	<.10
WNW80-06	DOWN	06/19/89	6.18	731	< 1.0	<.008	<.010	38	.42	100	<.10
WNW80-06	DOWN	06/26/89	6.10	793	3.8	<.007	<.010	37	.36	130	<.10
WNW80-06	DOWN	10/23/89	6.27	873	9.6	<.020	<.010	35	.051	140	.12
WNW80-06	DOWN	11/13/89	6.41	791	4.0	<.020	N/A	32	.056	160	<.10
WNW80-06	DOWN	12/18/89	6.33	857	3.0	<.008	<.010	28	.14	170	.11
WNW80-06	DOWN	12/18/89	6.48	813	3.0	<.008	.010	42	.074	120	<.10
WNW86-03	DOWN	06/05/89	7.27	861	2.3	<.005	<.010	120	1.50	41	<.10
WNW86-03	DOWN	06/12/89	7.26	859	< 1.0	<.007	<.010	120	1.20	40	<.10
WNW86-03	DOWN	06/20/89	7.15	858	< 1.0	<.007	<.010	120	1.30	38	<.10
WNW86-03	DOWN	06/28/89	7.20	863	< 1.0	.065	<.010	120	1.10	36	<.10
WNW86-03	DOWN	09/27/89	7.22	880	< 1.0	<.020	<.010	130	.91	38	<.10
WNW86-03	DOWN	10/18/89	7.21	889	17.0	<.008	<.010	130	1.50	37	<.10
WNW86-03	DOWN	12/11/89	7.36	929	2.0	<.008	.006	180	1.60	37	<.10
WNW86-03	DOWN	12/11/89	7.29	925	8.0	<.020	.001	150	1.60	43	<.10
WNW86-04	DOWN	06/05/89	7.21	845	< 1.0	<.005	<.010	110	1.50	59	<.10
WNW86-04	DOWN	06/12/89	7.23	851	< 1.0	<.020	<.010	110	1.20	40	<.10
WNW86-04	DOWN	06/20/89	7.01	858	< 1.0	<.007	<.010	110	1.40	39	<.10
WNW86-04	DOWN	06/28/89	7.08	857	< 1.0	<.020	<.010	110	1.20	40	<.10
WNW86-04	DOWN	09/27/89	7.25	884	1.2	<.006	<.010	120	1.60	38	<.10
WNW86-04	DOWN	10/18/89	7.13	895	7.0	<.008	<.010	130	1.20	38	<.10
WNW86-04	DOWN	12/11/89	7.25	933	< 1.0	<.008	.025	130	1.50	120	<.10
WNW86-04	DOWN	12/11/89	7.25	919	1.3	<.020	<.005	130	1.30	53	<.10
WNW86-05	DOWN	06/12/89	6.66	879	< 1.0	<.010	.040	42	<.10	63.82	.14
WNW86-05	DOWN	06/16/89	6.51	758	22.4	<.010	.050	15	<.10	72.30	.13
WNW86-05	DOWN	06/22/89	6.74	577	19.6	<.010	<.010	.8	<.10	44.80	.14
WNW86-05	DOWN	06/26/89	6.54	754	24.0	<.010	<.010	13	<.10	40.70	.10
WNW86-05	DOWN	10/03/89	6.53	966	16.4	.027	.019	65	<.10	60.40	.11
WNW86-05	DOWN	12/13/89	6.73	940	13.8	.014	.023	29	<.10	225	.12
WNW86-05	DOWN	12/14/89	6.75	969	13.6	<.010	<.010	28	<.10	230	.11
WNW86-05	DOWN	12/18/89	6.65	1054	14.7	.010	.025	33	<.10	88	.10

*** Quality Standards for Class GA Groundwaters, from 6 NYCRR Part 703.5

* Measured in $\mu\text{mhos/cm}$ @ 25°C

N/A Not available

Table E-8

1989 Total Metals for Low-Level Radioactive Waste Lagoon System Groundwater Monitoring Unit (mg/L)

Location Code	Hydraulic Position	Sample Date	Arsenic	Barium	Cadmium	Chromium	Iron	Lead	Manganese	Mercury	Selenium	Silver	Sodium
QUALITY STANDARD ***			.025	1.0	.01	.05	30	.025	.30	.002	.01	.05	<20
WNW86-06	UP	06/05/89	<.005	<.06	<.006	.027	.61	<.007	3.3	<.0004	<.005	.008	470
WNW86-06	UP	06/13/89	<.005	<.06	.006	.027	.41	<.005	2.4	<.0004	<.005	.005	500
WNW86-06	UP	06/21/89	.020	.13	.007	.019	.57	.006	2.2	<.0004	<.005	.010	680
WNW86-06	UP	06/28/89	.009	.13	.006	<.010	.35	<.005	3.1	<.0004	<.005	<.005	570
WNW86-06	UP	09/26/89	<.005	<.05	.014	<.010	.32	<.005	1.4	<.0004	<.005	<.005	120
WNW86-06	UP	10/26/89	<.005	.07	.009	<.010	.15	<.005	2.4	<.0004	.021	.005	160
WNW86-06	UP	12/13/89	<.005	.12	<.005	<.010	.34	<.005	4.8	<.0004	<.005	<.010	350
WNW86-06	UP	12/13/89	<.005	.12	<.005	<.010	.81	<.005	4.8	<.0004	<.005	<.010	350
WNGSEEP	DOWN	06/08/89	<.005	<.06	<.005	.020	.06	<.005	<.005	<.0004	<.005	<.005	14.0
WNGSEEP	DOWN	06/19/89	.015	.13	.013	<.010	.06	<.005	.019	<.0004	<.005	<.005	15.0
WNGSEEP	DOWN	06/22/89	<.005	.12	.008	<.020	.05	<.005	.011	<.0004	<.005	<.005	14.0
WNGSEEP	DOWN	06/28/89	.008	.14	<.005	<.010	.11	<.005	<.010	<.0004	<.005	<.005	14.0
WNGSEEP	DOWN	10/04/89	<.005	.14	.007	<.010	.04	<.005	<.010	<.0004	.005	.005	17.0
WNGSEEP	DOWN	10/23/89	<.005	.15	.010	<.010	.03	<.005	<.010	<.0004	.014	.008	14.0
WNGSEEP	DOWN	12/11/89	<.005	.13	<.005	<.010	<.05	.006	<.005	<.0004	<.005	<.010	14.0
WNGSEEP	DOWN	12/11/89	<.005	.13	.010	<.010	<.05	.006	<.005	<.0004	<.005	<.010	14.0
WNSP008	DOWN	06/08/89	<.005	<.06	<.005	.023	.05	<.005	2.3	<.0004	<.005	<.005	47.0
WNSP008	DOWN	06/13/89	<.005	<.06	<.005	.025	.06	<.005	2.0	<.0004	<.005	<.005	45.0
WNSP008	DOWN	06/22/89	.015	.06	<.005	<.010	.03	<.005	1.8	<.0004	<.005	<.005	42.0
WNSP008	DOWN	06/28/89	.033	.07	.006	.010	.05	<.005	2.1	<.0004	<.005	<.005	49.0
WNSP008	DOWN	10/04/89	<.005	.08	.006	<.010	.11	<.005	2.3	<.0004	.006	.007	56.0
WNSP008	DOWN	10/23/89	<.005	.08	.009	<.010	.07	<.005	2.1	<.0004	<.005	.007	47.0
WNSP008	DOWN	12/11/89	<.005	.09	.012	.011	.05	.010	2.0	<.0004	<.005	<.010	55.0
WNSP008	DOWN	12/11/89	<.005	.09	.014	<.020	.06	.017	1.9	<.0004	<.005	<.010	56.0
WNW80-05	DOWN	05/24/89	.005	.09	<.005	.029	26.0	.018	.50	<.0004	<.005	<.005	18.0
WNW80-05	DOWN	06/12/89	<.005	<.06	<.005	.026	4.2	<.006	.074	<.0004	<.005	.011	22.0
WNW80-05	DOWN	06/19/89	.022	.08	.015	.012	14.0	.014	.13	<.0004	<.005	.016	24.0
WNW80-05	DOWN	06/26/89	.010	.11	.008	<.010	6.9	.010	.12	<.0004	<.005	<.005	20.0
WNW80-05	DOWN	10/03/89	<.005	.15	.010	.020	3.9	.008	.062	.0023	<.005	.007	29.0
WNW80-05	DOWN	11/13/89	<.005	.21	.008	<.010	1.3	<.005	.038	<.0004	<.005	<.005	31.0
WNW80-05	DOWN	12/18/89	<.005	.13	<.005	<.010	7.6	.007	.034	<.0004	<.005	<.010	26.0
WNW80-05	DOWN	12/18/89	<.005	.12	<.005	<.010	2.1	<.005	.014	<.0004	<.005	<.010	26.0

*** Quality Standards for Class GA Groundwater, from 6 NYCRR Part 703.5

Table E-8 (continued)

1989 Total Metals for Low-Level Radioactive Waste Lagoon System Groundwater Monitoring Unit (mg/L)

Location Code	Hydraulic Position	Sample Date	Arsenic	Barium	Cadmium	Chromium	Iron	Lead	Manganese	Mercury	Selenium	Silver	Sodium
QUALITY STANDARD ***			.025	1.0	.01	.05	.30	.025	.30	.002	.01	.05	<20
WNW80-06	DOWN	05/24/89	<.005	<.06	<.005	.026	.68	<.005	6.0	<.0004	<.005	<.005	11.0
WNW80-06	DOWN	06/12/89	<.005	<.06	<.005	.020	.45	<.005	7.6	<.0004	<.005	<.005	9.0
WNW80-06	DOWN	06/19/89	.019	<.06	.014	<.010	.32	<.005	6.7	<.0004	<.005	<.005	12.0
WNW80-06	DOWN	06/26/89	.013	.08	.006	<.010	.23	.005	3.7	<.0004	<.005	<.005	12.0
WNW80-06	DOWN	10/23/89	<.005	.16	.010	<.010	.48	.039	8.4	<.0004	<.005	<.005	18.0
WNW80-06	DOWN	11/13/89	<.005	.14	.006	<.010	.10	.017	4.2	<.0004	<.005	<.005	13.0
WNW80-06	DOWN	12/18/89	<.005	.07	<.005	.014	.96	.014	5.4	<.0004	<.005	<.010	11.0
WNW80-06	DOWN	12/18/89	<.005	.06	<.005	.013	.75	.013	6.1	<.0004	<.005	<.010	11.0
WNW86-03	DOWN	06/05/89	<.005	.08	.007	.026	1.6	<.005	.055	<.0004	<.005	<.005	24.0
WNW86-03	DOWN	06/12/89	<.005	.10	<.005	.026	.58	<.005	.047	<.0004	<.005	<.005	25.0
WNW86-03	DOWN	06/20/89	.015	.22	.013	<.010	1.7	<.005	.055	<.0004	<.005	<.005	25.0
WNW86-03	DOWN	06/28/89	<.005	.19	.007	<.010	2.6	<.005	.068	<.0004	<.005	.006	25.0
WNW86-03	DOWN	09/27/89	<.005	.20	.009	<.010	.99	<.005	.033	<.0004	<.005	.006	26.0
WNW86-03	DOWN	10/18/89	<.005	.07	.011	<.010	3.4	<.005	.11	.0005	<.005	.014	31.0
WNW86-03	DOWN	12/11/89	<.005	.26	.009	.013	2.5	.007	.069	.0010	<.005	<.010	27.0
WNW86-03	DOWN	12/11/89	<.005	.26	.005	.011	7.2	.011	.15	.0006	<.005	<.010	27.0
WNW86-04	DOWN	06/05/89	.011	.48	.006	.033	17.0	.034	.27	<.0004	<.005	.006	25.0
WNW86-04	DOWN	06/12/89	<.005	<.06	<.005	.018	.67	<.005	.041	<.0004	<.005	<.005	29.0
WNW86-04	DOWN	06/20/89	<.005	.24	.005	.026	4.9	.007	.14	<.0004	<.005	<.005	26.0
WNW86-04	DOWN	06/28/89	.008	.24	.010	.011	8.7	.008	.22	<.0004	<.005	<.005	25.0
WNW86-04	DOWN	09/27/89	<.005	.25	.011	<.010	14.0	.005	.23	.0028	<.005	.007	27.0
WNW86-04	DOWN	10/18/89	<.005	.11	.015	.012	22.0	.008	.38	<.0004	<.005	.007	32.0
WNW86-04	DOWN	12/11/89	<.005	.25	.014	.014	15.0	.010	.26	.0009	<.005	<.010	29.0
WNW86-04	DOWN	12/11/89	<.005	.26	<.005	.019	8.7	.009	.18	.0006	<.005	<.010	28.0
WNW86-05	DOWN	06/12/89	.008	.123	.004	.042	7.60	.006	8.41	.0005	<.002	.024	52.6
WNW86-05	DOWN	06/16/89	.008	.104	.005	.036	4.29	.005	7.99	<.0002	<.002	.249	50.7
WNW86-05	DOWN	06/22/89	.008	.087	<.002	.039	3.51	.003	5.68	.0003	<.002	.019	27.8
WNW86-05	DOWN	06/26/89	.011	.113	<.002	.050	5.53	.004	8.52	.0006	<.002	.024	44.1
WNW86-05	DOWN	10/03/89	.010	.135	.004	.052	5.18	<.002	11.9	<.0002	<.002	.028	88.2
WNW86-05	DOWN	12/13/89	.008	.138	<.002	.027	5.19	<.002	12.1	<.0002	<.002	.019	62.1
WNW86-05	DOWN	12/14/89	.010	.141	<.002	.030	6.20	<.002	12.4	<.0002	<.002	.020	62.9
WNW86-05	DOWN	12/18/89	.008	.148	<.002	.034	6.06	<.004	13.2	<.0002	<.002	.021	67.9

*** Quality Standards for Class GA Groundwater, from 6 NYCRR Part 703.5

Table E-9

1989 Dissolved Metals for Low-Level Radioactive Waste Lagoon System Groundwater Monitoring Unit (mg/L)

Location Code	Hydraulic Position	Sample Date	Arsenic	Barium	Cadmium	Chromium	Iron	Lead	Manganese	Mercury	Selenium	Silver	Sodium
QUALITY STANDARD ***			.025	1.0	.01	.05	.30	.025	.30	.002	.01	.05	<20
WNW86-06	UP	06/05/89	<.005	<.06	<.005	<.010	<.05	<.005	1.4	<.0004	<.005	<.005	480
WNW86-06	UP	06/13/89	<.005	<.06	<.005	<.010	<.05	<.005	1.7	<.0004	<.005	<.005	520
WNW86-06	UP	06/21/89	<.005	<.06	.006	.011	<.03	<.005	1.9	<.0004	<.005	.008	600
WNW86-06	UP	06/28/89	<.005	<.06	<.005	<.010	<.03	<.005	1.5	<.0004	<.005	<.005	530
WNW86-06	UP	09/26/89	<.005	<.05	.008	<.010	.03	<.005	.61	<.0004	<.005	<.005	120
WNW86-06	UP	10/26/89	<.005	<.05	<.005	<.010	.03	<.005	.93	<.0004	<.005	<.005	140
WNW86-06	UP	12/13/89	<.005	.07	<.005	<.010	<.05	<.005	1.5	<.0004	<.005	<.010	270
WNW86-06	UP	12/13/89	<.005	.08	<.005	<.010	<.05	<.005	1.7	<.0004	<.005	<.010	280
WNGSEEP	DOWN	06/08/89	<.005	<.06	<.005	<.010	<.05	<.005	.009	<.0004	<.005	<.005	12.0
WNGSEEP	DOWN	06/19/89	<.005	.11	<.005	<.010	<.03	<.005	<.010	<.0004	<.005	<.005	14.0
WNGSEEP	DOWN	06/22/89	<.005	<.06	<.005	<.010	<.03	<.005	<.010	<.0004	<.005	<.005	14.0
WNGSEEP	DOWN	06/28/89	<.005	<.06	.008	<.010	<.03	<.005	<.010	<.0004	<.005	<.005	14.0
WNGSEEP	DOWN	10/04/89	<.005	.14	.006	<.010	.03	<.005	<.010	<.0004	<.005	<.005	16.0
WNGSEEP	DOWN	10/23/89	<.005	.10	<.005	<.010	<.03	<.005	<.010	<.0004	<.005	<.005	11.0
WNGSEEP	DOWN	12/11/89	<.005	.11	<.005	<.010	<.05	<.005	<.005	<.0004	<.005	<.010	13.0
WNGSEEP	DOWN	12/11/89	<.005	.11	<.005	<.010	<.05	<.005	<.005	<.0004	<.005	<.010	13.0
WNWP008	DOWN	06/08/89	<.005	<.06	<.005	<.010	<.05	<.005	2.2	<.0004	<.005	<.005	46.0
WNWP008	DOWN	06/13/89	<.005	<.06	<.005	<.010	<.05	<.005	2.2	<.0004	<.005	<.005	46.0
WNWP008	DOWN	06/22/89	<.005	<.06	<.005	<.010	<.03	<.005	1.8	<.0004	<.005	.007	41.0
WNWP008	DOWN	06/28/89	<.005	<.06	<.005	<.010	<.03	<.005	2.1	<.0004	<.005	<.005	49.0
WNWP008	DOWN	10/04/89	<.005	.07	<.005	<.010	.03	<.005	1.5	<.0004	<.005	<.005	53.0
WNWP008	DOWN	10/23/89	<.005	<.05	.009	<.010	.03	<.005	1.9	<.0004	<.005	<.005	45.0
WNWP008	DOWN	12/11/89	<.005	.08	<.005	<.010	<.05	<.005	1.8	<.0004	<.005	<.010	50.0
WNWP008	DOWN	12/11/89	<.005	.07	<.005	<.020	<.05	<.005	2.1	<.0004	<.005	<.010	47.0
WNW80-05	DOWN	05/24/89	<.005	<.06	<.005	<.010	.49	<.005	.036	<.0004	<.005	<.005	20.0
WNW80-05	DOWN	06/12/89	<.005	<.06	<.005	<.010	.54	<.005	.036	<.0004	<.005	<.005	21.0
WNW80-05	DOWN	06/19/89	<.005	<.06	<.005	<.010	.23	<.005	.010	<.0004	<.005	.016	22.0
WNW80-05	DOWN	06/26/89	<.005	<.06	<.005	<.010	.25	<.005	.018	<.0004	<.005	<.005	21.0
WNW80-05	DOWN	10/03/89	<.005	.15	.010	<.010	.28	<.005	.036	<.0004	<.005	.005	25.0
WNW80-05	DOWN	11/13/89	<.005	<.06	<.005	<.010	.28	<.005	.032	<.0004	<.005	<.005	30.0
WNW80-05	DOWN	12/18/89	<.005	.11	<.005	<.010	.29	<.005	.021	<.0004	<.005	<.010	24.0
WNW80-05	DOWN	12/18/89	<.005	.12	<.005	<.010	.17	<.005	.014	<.0004	<.005	<.010	23.0

*** Quality Standards for Class GA Groundwater from 6 NYCRR Part 703.5

Table E-9 (continued)

1989 Dissolved Metals for Low-Level Radioactive Waste Lagoon System Groundwater Monitoring Unit (mg/L)													
Location Code	Hydraulic Position	Sample Date	Arsenic	Barium	Cadmium	Chromium	Iron	Lead	Manganese	Mercury	Selenium	Silver	Sodium
QUALITY STANDARD ***			.025	1.0	.01	.05	.30	.025	.30	.002	.01	.05	<20
WNW80-06	DOWN	05/24/89	<.005	<.06	<.005	.014	.32	<.005	6.1	<.0004	<.005	<.005	10.0
WNW80-06	DOWN	06/12/89	<.005	<.06	<.005	<.010	.37	<.005	7.9	<.0004	<.005	<.005	9.0
WNW80-06	DOWN	06/19/89	<.005	<.06	<.005	<.010	.031	<.005	6.7	<.0004	<.005	<.005	12.0
WNW80-06	DOWN	06/26/89	<.005	<.06	<.005	<.010	.32	<.005	5.3	<.0004	<.005	<.005	12.0
WNW80-06	DOWN	10/23/89	<.005	<.06	<.005	<.010	.20	<.005	6.7	<.0004	<.005	<.005	12.0
WNW80-06	DOWN	11/13/89	<.005	<.06	<.005	<.010	<.05	<.005	3.7	<.0004	<.005	<.005	12.0
WNW80-06	DOWN	12/18/89	<.005	.06	<.005	.014	.24	<.005	3.0	<.0004	<.005	<.010	9.3
WNW80-06	DOWN	12/18/89	<.005	<.06	<.005	<.010	.20	<.005	5.0	<.0004	<.005	<.010	9.1
WNW86-03	DOWN	06/05/89	<.005	<.06	<.005	<.010	<.05	<.005	.014	<.0004	<.005	<.005	23.0
WNW86-03	DOWN	06/12/89	<.005	<.06	<.005	<.010	<.05	<.005	.008	<.0004	<.005	<.005	25.0
WNW86-03	DOWN	06/20/89	<.005	<.06	<.005	<.010	<.03	<.005	<.010	<.0004	<.005	<.005	24.0
WNW86-03	DOWN	06/28/89	<.005	<.06	<.005	<.010	.03	<.005	<.010	<.0004	<.005	<.005	26.0
WNW86-03	DOWN	09/27/89	<.005	.20	.009	<.010	<.03	<.005	.010	<.0004	<.005	.006	24.0
WNW86-03	DOWN	10/18/89	<.005	<.06	.007	<.010	<.03	<.005	.012	<.0004	<.005	<.005	24.0
WNW86-03	DOWN	12/11/89	<.005	.24	<.005	<.010	<.05	.006	.006	<.0004	<.005	<.010	23.0
WNW86-03	DOWN	12/11/89	<.005	.23	<.005	.011	<.05	<.005	<.005	<.0004	<.005	<.010	25.0
WNW86-04	DOWN	06/05/89	<.005	<.06	<.005	<.010	<.05	<.005	.043	<.0004	<.005	<.005	23.0
WNW86-04	DOWN	06/12/89	<.005	<.06	<.005	<.010	<.05	<.005	.034	<.0004	<.005	<.005	25.0
WNW86-04	DOWN	06/20/89	<.005	.18	.006	<.010	.05	<.005	.024	<.0004	<.005	<.005	26.0
WNW86-04	DOWN	06/28/89	<.005	<.06	<.005	<.010	.03	<.005	.028	<.0004	<.005	.006	25.0
WNW86-04	DOWN	09/27/89	<.005	.17	<.005	<.010	.04	<.005	.034	<.0004	<.005	<.005	22.0
WNW86-04	DOWN	10/18/89	<.005	<.06	.008	<.010	<.03	<.005	.036	<.0004	<.005	<.005	25.0
WNW86-04	DOWN	12/11/89	<.005	.20	<.005	.012	<.05	<.005	.029	<.0004	<.005	<.010	27.0
WNW86-04	DOWN	12/11/89	<.005	.26	<.005	.015	.06	<.005	.045	.0005	<.005	<.010	24.0
WNW86-05	DOWN	06/12/89	.008	.142	.048	.045	4.62	<.002	9.14	.0003	<.002	.025	58.7
WNW86-05	DOWN	06/16/89	.008	.111	.004	.036	4.32	.002	8.59	<.0002	<.002	.026	54.4
WNW86-05	DOWN	06/22/89	.009	.087	<.002	.041	3.09	<.002	6.48	.0005	<.002	.020	32.2
WNW86-05	DOWN	06/26/89	.010	.108	.004	.050	4.49	<.002	8.65	.0002	<.002	.025	45.4
WNW86-05	DOWN	10/03/89	.010	.137	.003	.051	5.05	<.002	12.10	<.0002	<.002	.028	89.6
WNW86-05	DOWN	12/13/89	.008	.132	<.002	.028	4.92	<.002	11.90	<.0002	<.002	.019	61.4
WNW86-05	DOWN	12/14/89	.007	.137	<.002	.029	5.14	<.002	12.50	<.0002	<.002	.021	63.3
WNW86-05	DOWN	12/18/89	.007	.149	<.002	.033	5.65	<.002	13.50	<.0002	<.002	.022	69.9

Table E - 10

**1989 Radioactivity Concentrations in the Low-Level Radioactive Waste Lagoon System Groundwater Monitoring Unit
($\mu\text{Ci/mL}$)**

Location Code	Hydraulic Position	Sample Date	Gross Alpha	Gross Beta	Tritium	Cs-137	Co-60
DOE DCGs			3.0E-08	1.0E-06	2.0E-03	3E-06	5E-06
Quality Standard***			1.5E-08	1.0E-06	2.0E-05	N/A	N/A
WNW86-06	UP	06/05/89	<1.09E-08	5.99E-09 \pm 5.18E-09	<1E-7	<1.1E-08	<1.4E-08
WNW86-06	UP	06/13/89	<2.98E-09	1.03E-08 \pm 5.96E-09	<1E-7	<3.7E-08	<3.8E-08
WNW86-06	UP	06/21/89	<1.05E-08	1.61E-08 \pm 6.89E-09	<1E-7	<3.7E-08	<3.8E-08
WNW86-06	UP	06/28/89	<1.18E-08	1.00E-08 \pm 6.00E-09	<1E-7	<3.7E-08	<3.8E-08
WNW86-06	UP	09/26/89	4.60E-09 \pm 4.02E-09	<3.94E-09	<1E-7	<3.7E-08	<3.8E-08
WNW86-06	UP	10/26/89	<4.46E-09	<4.19E-09	<1E-7	<3.7E-08	<3.8E-08
WNW86-06	UP	12/13/89	<8.54E-09	5.05E-09 \pm 4.89E-09	<1.18E-7	<3.7E-08	<3.8E-08
WNW86-06	UP	12/13/89	<4.30E-09	1.08E-08 \pm 5.62E-09	<1E-7	<3.7E-08	<3.8E-08
WNGSEEP	DOWN	06/08/89	<1.85E-09	3.20E-09 \pm 1.45E-09	8.94E-7 \pm 1.39E-7	<1.1E-08	<1.4E-08
WNGSEEP	DOWN	06/19/89	<1.42E-09	1.34E-09 \pm 1.22E-09	1.05E-6 \pm 1.39E-7	<3.7E-08	<3.8E-08
WNGSEEP	DOWN	06/22/89	<2.33E-09	3.13E-09 \pm 1.48E-09	1.05E-6 \pm 1.46E-7	<3.7E-08	<3.8E-08
WNGSEEP	DOWN	06/28/89	<1.76E-09	4.08E-09 \pm 1.60E-09	1.10E-6 \pm 1.39E-7	<3.7E-08	<3.8E-08
WNGSEEP	DOWN	10/04/89	<2.72E-09	6.26E-09 \pm 1.87E-09	1.43E-6 \pm 1.33E-7	<3.7E-08	<3.8E-08
WNGSEEP	DOWN	10/23/89	<2.55E-09	3.73E-09 \pm 1.62E-09	1.65E-6 \pm 1.41E-7	<3.7E-08	<3.8E-08
WNGSEEP	DOWN	12/11/89	<1.56E-09	4.20E-09 \pm 1.64E-09	1.45E-6 \pm 1.37E-7	<3.7E-08	<3.8E-08
WNGSEEP	DOWN	12/11/89	<1.29E-09	3.62E-09 \pm 1.55E-09	1.42E-6 \pm 1.35E-7	<3.7E-08	<3.8E-08
WNSP008	DOWN	06/08/89	<1.50E-09	4.21E-08 \pm 4.41E-09	6.34E-6 \pm 2.93E-7	<1.1E-08	<1.4E-08
WNSP008	DOWN	06/13/89	<6.38E-09	5.11E-08 \pm 4.76E-09	5.25E-6 \pm 2.48E-7	<3.7E-08	<3.8E-08
WNSP008	DOWN	06/22/89	<4.24E-09	4.43E-08 \pm 4.35E-09	5.68E-6 \pm 2.78E-7	<3.7E-08	<3.8E-08
WNSP008	DOWN	06/28/89	<4.40E-09	5.53E-08 \pm 5.78E-09	6.62E-6 \pm 2.84E-7	<3.7E-08	<3.8E-08
WNSP008	DOWN	10/04/89	<5.30E-09	4.05E-08 \pm 4.92E-09	6.30E-6 \pm 2.62E-7	<3.7E-08	<3.8E-08
WNSP008	DOWN	10/23/89	<3.18E-09	4.60E-08 \pm 5.17E-09	5.67E-6 \pm 2.54E-7	<3.7E-08	<3.8E-08
WNSP008	DOWN	12/11/89	<7.21E-10	4.58E-08 \pm 5.08E-09	6.67E-6 \pm 2.76E-7	<3.7E-08	<3.8E-08
WNSP008	DOWN	12/11/89	5.43E-09 \pm 5.28E-09	4.93E-08 \pm 5.33E-09	6.32E-6 \pm 2.66E-7	<3.7E-08	<3.8E-08
WNW80-05	DOWN	05/24/89	<6.00E-10	3.35E-09 \pm 1.55E-09	6.50E-7 \pm 1.37E-7	<1.1E-08	<1.4E-08
WNW80-05	DOWN	06/12/89	<2.74E-09	2.37E-09 \pm 1.47E-09	9.08E-7 \pm 1.37E-7	<3.7E-08	<3.8E-08
WNW80-05	DOWN	06/19/89	<2.75E-09	2.21E-09 \pm 1.42E-09	7.23E-7 \pm 1.32E-7	<3.7E-08	<3.8E-08
WNW80-05	DOWN	06/26/89	<1.45E-09	1.78E-09 \pm 1.34E-09	2.62E-7 \pm 1.21E-7	<3.7E-08	<3.8E-08
WNW80-05	DOWN	10/03/89	<7.83E-09	5.11E-09 \pm 1.97E-09	1.39E-6 \pm 1.33E-7	<3.7E-08	<3.8E-08
WNW80-05	DOWN	11/13/89	<8.86E-09	4.07E-09 \pm 1.85E-09	1.27E-6 \pm 1.50E-7	<3.7E-08	<3.8E-08
WNW80-05	DOWN	12/18/89	<3.19E-09	3.62E-09 \pm 1.71E-09	9.20E-7 \pm 1.27E-7	<3.7E-08	<3.8E-08
WNW80-05	DOWN	12/18/89	<1.02E-09	4.26E-09 \pm 1.75E-09	8.36E-7 \pm 1.23E-7	<3.7E-08	<3.8E-08

*** Quality Standards for Class GA Groundwater, from 6 NYCRR Part 703.5 N/A Not available

Table E - 10 (continued)

1989 Radioactivity Concentrations in the Low-Level Radioactive Waste Lagoon System Groundwater Monitoring Unit
($\mu\text{Ci/mL}$)

Location Code	Hydraulic Position	Sample Date	Gross Alpha	Gross Beta	Tritium	Cs-137	Co-60
DOE DCGs			3.0E-08	1.0E-06	2.0E-03	3E-06	5E-06
Quality Standard***			1.5E-08	1.0E-06	2.0E-05	N/A	N/A
WNW80-06	DOWN	05/24/89	<2.82E-09	3.98E-09 ± 1.61E-09	1.22E-6 ± 1.52E-7	<1.1E-08	<1.4E-08
WNW80-06	DOWN	06/12/89	<1.98E-09	3.58E-09 ± 1.56E-09	5.48E-7 ± 1.66E-7	<3.7E-08	<3.8E-08
WNW80-06	DOWN	06/19/89	<4.03E-09	2.75E-09 ± 1.55E-09	1.26E-6 ± 1.44E-7	<3.7E-08	<3.8E-08
WNW80-06	DOWN	06/26/89	<7.83E-10	4.59E-09 ± 1.74E-09	1.05E-6 ± 1.39E-7	<3.7E-08	<3.8E-08
WNW80-06	DOWN	10/23/89	<7.66E-09	7.13E-09 ± 2.18E-09	2.62E-7 ± 1.56E-7	<3.7E-08	<3.8E-08
WNW80-06	DOWN	11/13/89	<2.28E-09	3.94E-09 ± 1.69E-09	2.95E-7 ± 1.61E-7	<3.7E-08	<3.8E-08
WNW80-06	DOWN	12/18/89	<9.13E-10	4.18E-09 ± 1.72E-09	7.95E-7 ± 1.37E-7	<3.7E-08	<3.8E-08
WNW80-06	DOWN	12/18/89	<4.44E-09	4.23E-09 ± 1.88E-09	9.09E-7 ± 1.48E-7	<3.7E-08	<3.8E-08
WNW86-03	DOWN	06/05/89	<2.96E-09	7.95E-09 ± 2.45E-09	1.27E-6 ± 1.51E-7	<1.1E-08	<1.4E-08
WNW86-03	DOWN	06/12/89	<1.36E-09	8.93E-09 ± 2.29E-09	8.57E-7 ± 1.34E-7	<3.7E-08	<3.8E-08
WNW86-03	DOWN	06/20/89	<2.24E-09	1.33E-08 ± 2.95E-09	1.07E-6 ± 1.38E-7	<3.7E-08	<3.8E-08
WNW86-03	DOWN	06/28/89	<1.10E-09	1.08E-08 ± 2.41E-09	9.91E-7 ± 1.37E-7	<3.7E-08	<3.8E-08
WNW86-03	DOWN	09/27/89	<6.12E-09	8.45E-09 ± 2.58E-09	1.15E-6 ± 1.35E-7	<3.7E-08	<3.8E-08
WNW86-03	DOWN	10/18/89	<7.89E-10	1.01E-08 ± 2.65E-09	1.32E-6 ± 1.32E-7	<3.7E-08	<3.8E-08
WNW86-03	DOWN	12/11/89	<5.19E-09	1.33E-08 ± 3.05E-09	1.10E-6 ± 1.29E-7	<3.7E-08	<3.8E-08
WNW86-03	DOWN	12/11/89	<3.98E-09	1.32E-08 ± 2.90E-09	1.12E-6 ± 1.27E-7	<3.7E-08	<3.8E-08
WNW86-04	DOWN	06/05/89	<2.70E-09	7.16E-08 ± 5.48E-09	1.44E-6 ± 1.54E-7	<1.1E-08	<1.4E-08
WNW86-04	DOWN	06/12/89	<5.23E-09	9.31E-08 ± 6.30E-09	1.10E-6 ± 1.39E-7	<3.7E-08	<3.8E-08
WNW86-04	DOWN	06/20/89	<3.44E-09	8.63E-08 ± 6.11E-09	1.26E-6 ± 1.42E-7	<3.7E-08	<3.8E-08
WNW86-04	DOWN	06/28/89	<1.06E-09	8.44E-08 ± 5.95E-09	1.24E-6 ± 1.42E-7	<3.7E-08	<3.8E-08
WNW86-04	DOWN	09/27/89	<3.19E-09	7.31E-08 ± 6.04E-09	1.62E-6 ± 1.39E-7	<3.7E-08	<3.8E-08
WNW86-04	DOWN	10/18/89	<4.10E-09	7.75E-08 ± 6.24E-09	1.56E-6 ± 1.38E-7	<3.7E-08	<3.8E-08
WNW86-04	DOWN	12/11/89	<2.91E-09	8.75E-08 ± 5.92E-09	1.31E-6 ± 1.30E-7	<3.7E-08	<3.8E-08
WNW86-04	DOWN	12/11/89	<5.52E-09	8.25E-08 ± 6.46E-09	1.31E-6 ± 1.30E-7	<3.7E-08	<3.8E-08
WNW86-05	DOWN	06/12/89	1.13E-08 ± 8.35E-09	3.39E-05 ± 1.57E-07	2.52E-5 ± 8.05E-7	<1.1E-08	<1.4E-08
WNW86-05	DOWN	06/16/89	6.13E-09 ± 5.97E-09	3.10E-05 ± 1.49E-07	1.85E-5 ± 6.16E-7	<3.7E-08	<3.8E-08
WNW86-05	DOWN	06/22/89	6.93E-09 ± 5.14E-09	2.32E-05 ± 1.26E-07	9.11E-6 ± 3.49E-7	<3.7E-08	<3.8E-08
WNW86-05	DOWN	06/26/89	1.15E-08 ± 7.52E-09	3.04E-05 ± 1.47E-07	1.61E-5 ± 5.46E-7	<3.7E-08	<3.8E-08
WNW86-05	DOWN	10/03/89	<6.14E-09	3.74E-05 ± 1.65E-07	1.46E-5 ± 5.04E-7	<3.7E-08	<3.8E-08
WNW86-05	DOWN	12/13/89	8.13E-09 ± 6.51E-09	3.83E-05 ± .65E-07	1.85E-5 ± 6.15E-7	<3.7E-08	<3.8E-08
WNW86-05	DOWN	12/14/89	1.48E-08 ± 8.79E-09	4.03E-05 ± 1.70E-07	1.93E-5 ± 6.37E-7	<3.7E-08	<3.8E-08
WNW86-05	DOWN	12/18/89	1.43E-08 ± 9.33E-09	4.55E-05 ± 1.83E-07	2.07E-5 ± 6.77E-7	<3.7E-08	<3.8E-08

*** Quality Standards for Class GA Groundwater, from 6 NYCRR Part 703.5 N/A Not available

Table E - 11

1989 Water Quality Parameters for NRC-Licensed Disposal Area Groundwater Monitoring Unit (mg/L)

Location Code	Hydraulic Position	Sample Date	pH	Conductivity*	TOC	Phenols	TOX	Chloride	Nitrate-N	Sulfate	Fluoride
QUALITY STANDARDS ***			6.5-8.5	N/A	N/A	.001	N/A	250	10	250	1.5
WNW83-1D	UP	06/07/89	7.85	290	< 1.0	<.007	<.010	6.2	<.05	78	.43
WNW83-1D	UP	06/14/89	7.63	289	21.0	<.007	<.010	5.6	<.05	90	.44
WNW83-1D	UP	06/22/89	7.86	289	< 1.0	<.008	<.010	5.9	<.05	32	.40
WNW83-1D	UP	06/23/89	7.73	287	2.0	<.007	<.010	6.4	<.05	24	.44
WNW83-1D	UP	10/10/89	7.66	289	4.6	<.008	<.010	6.1	<.05	55	.40
WNW83-1D	UP	12/12/89	7.93	294	3.0	<.008	<.005	1.2	.056	3.6	.41
WNW83-1D	UP	12/18/89	7.79	288	2.5	<.008	0.020	6.7	<.05	11	.35
WNW83-1D	UP	12/21/89	7.88	295	7.0	<.008	.020	6.5	<.05	46	.36
WNW86-10	DOWN	06/07/89	7.97	672	1.5	<.007	.011	<2.0	<.05	130	.14
WNW86-10	DOWN	06/14/89	7.70	697	< 1.0	<.006	<.010	<2.0	<.05	130	.15
WNW86-10	DOWN	06/21/89	8.06	683	< 1.0	.071	<.010	<2.0	<.05	65	.14
WNW86-10	DOWN	06/23/89	8.11	628	< 1.0	<.020	<.010	<2.0	.051	80	.16
WNW86-10	DOWN	10/12/89	8.27	649	4.0	<.008	<.010	<1.0	.087	64	.15
WNW86-10	DOWN	12/12/89	8.63	654	1.0	<.008	.027	<1.0	<.05	95	.16
WNW86-10	DOWN	12/13/89	8.53	646	1.7	<.008	<.005	<1.0	<.05	80	.15
WNW86-10	DOWN	12/14/89	8.14	648	< 1.0	<.008	<.005	<1.0	.053	92	.12
WNW86-11	DOWN	06/07/89	7.55	756	< 1.0	<.007	<.010	<2.0	<.05	33	.16
WNW86-11	DOWN	06/15/89	7.80	710	2.4	<.005	<.010	<2.0	.086	120	.18
WNW86-11	DOWN	06/19/89	8.03	674	< 1.0	.058	<.010	<2.0	<.05	130	.16
WNW86-11	DOWN				*** Sample not available***						
WNW86-11	DOWN	10/12/89	7.81	769	2.9	<.008	<.010	<1.0	.30	150	.19
WNW86-11	DOWN	12/12/89	7.73	823	3.2	<.008	<.005	<1.0	.15	190	.19
WNW86-11	DOWN	12/13/89	7.84	805	12.0	.010	<.005	1.4	.29	170	.16
WNW86-11	DOWN	12/14/89	7.91	770	15.0	<.008	<.005	<1.0	.19	180	.15

* in $\mu\text{mhos/cm}$ @25°C

*** Quality Standards for Class GA Groundwaters from 6 NYCRR Part 703.5

Table E - 12

1989 Total Metals for NRC-Licensed Disposal Area Groundwater Monitoring Unit (mg/L)

Location Code	Hydraulic Position	Sample Date	Arsenic	Barium	Cadmium	Chromium	Iron	Lead	Manganese	Mercury	Selenium	Silver	Sodium
QUALITY STANDARD ***			.025	1.0	.01	.05	.30	.025	.30	.002	.01	.05	<20
WNW83-1D	UP	06/07/89	.007	.59	<.005	.026	9.9	.006	.19	<.0004	<.005	<.005	22.0
WNW83-1D	UP	06/14/89	<.005	.80	.014	.011	5.9	.007	.18	<.0004	<.005	<.005	22.0
WNW83-1D	UP	06/22/89	<.005	.81	.016	.018	17.0	.017	.29	<.0004	<.005	<.005	21.0
WNW83-1D	UP	06/23/89	<.005	.91	<.005	<.010	5.9	.007	.17	<.0004	<.005	<.005	22.0
WNW83-1D	UP	10/10/89	<.005	.78	.005	<.010	13.0	.006	.22	<.0004	<.005	<.005	21.0
WNW83-1D	UP	12/12/89	<.005	.76	<.005	.046	22.0	.016	.26	<.0004	<.005	<.010	22.0
WNW83-1D	UP	12/18/89	<.005	.80	<.005	.017	11.0	.037	.20	<.0004	<.005	<.010	22.0
WNW83-1D	UP	12/21/89	<.005	.79	.007	.040	18.0	.020	.25	<.0004	<.005	<.010	19.0
WNW86-10	DOWN	06/07/89	<.005	<.06	<.005	.078	4.6	.011	.15	<.0004	<.005	.010	65.0
WNW86-10	DOWN	06/14/89	<.005	.12	.006	.040	4.2	.032	.18	<.0004	<.005	.016	72.0
WNW86-10	DOWN	06/21/89	.010	.13	.011	.055	9.3	.041	.27	<.0004	<.005	<.005	70.0
WNW86-10	DOWN	06/23/89	.009	<.06	<.005	.039	7.4	.036	.43	<.0004	<.005	.005	64.0
WNW86-10	DOWN	10/12/89	<.005	.58	.008	<.010	1.4	<.005	.066	<.0004	<.005	<.005	69.0
WNW86-10	DOWN	12/12/89	<.005	<.06	<.005	.071	4.9	<.005	.11	<.0004	<.005	<.010	78.0
WNW86-10	DOWN	12/13/89	<.005	.07	<.005	.055	1.0	.009	.064	<.0004	<.005	<.010	77.0
WNW86-10	DOWN	12/14/89	<.005	.09	<.005	.077	3.4	.011	.096	<.0004	<.005	<.010	69.0
WNW86-11	DOWN	06/07/89	.006	<.06	<.005	.120	14.0	.024	.360	<.0004	<.005	<.006	60.0
WNW86-11	DOWN	06/15/89	.011	.17	.009	.110	32.0	.047	.760	<.0004	<.005	.027	58.0
WNW86-11	DOWN	06/19/89	.011	.07	.009	.066	11.0	.039	.260	<.0004	<.005	.009	59.0
WNW86-11	DOWN	06/23/89	** SAMPLE NOT AVAILABLE **										
WNW86-11	DOWN	10/12/89	<.005	.15	.014	.150	29.0	.028	.630	<.0004	<.005	.009	64.0
WNW86-11	DOWN	12/12/89	.007	.09	<.005	.097	18.0	.010	.410	<.0004	<.005	<.010	64.0
WNW86-11	DOWN	12/13/89	<.005	.07	<.005	.027	3.4	.026	.230	<.0004	<.005	<.010	54.0
WNW86-11	DOWN	12/14/89	<.005	.06	<.005	.031	2.2	.018	.170	<.0004	<.005	<.010	62.0

***Quality Standards for Class GA Groundwater from 6 NYCRR Part 703.5

Table E - 13

1989 Dissolved Metals for NRC-Licensed Disposal Area Groundwater Monitoring Unit (mg/L)

Location Code	Hydraulic Position	Sample Date	Arsenic	Barium	Cadmium	Chromium	Iron	Lead	Manganese	Mercury	Selenium	Silver	Sodium
QUALITY STANDARD ***			.025	1.0	.01	.05	.30	.025	.30	.002	.01	.05	<20
WNW83-1D	UP	06/07/89	<.005	<.06	<.005	<.010	<.05	<.005	.12	<.0004	<.005	<.005	21.0
WNW83-1D	UP	06/14/89	<.005	.76	<.005	<.010	<.03	<.005	.11	<.0004	<.005	<.005	22.0
WNW83-1D	UP	06/22/89	<.005	<.06	.005	<.010	<.03	<.005	.12	<.0004	<.005	<.005	23.0
WNW83-1D	UP	06/23/89	<.005	<.06	<.005	<.010	<.03	<.005	.11	<.0004	<.005	<.005	22.0
WNW83-1D	UP	10/10/89	<.005	.78	<.005	<.010	.05	<.005	.11	<.0004	<.005	<.005	18.0
WNW83-1D	UP	12/12/89	<.005	.65	<.005	<.010	<.05	<.005	.12	<.0004	<.005	<.010	20.0
WNW83-1D	UP	12/18/89	<.005	.71	<.005	<.010	<.05	<.005	.10	<.0004	<.005	<.010	19.0
WNW83-1D	UP	12/21/89	<.005	.68	<.005	.010	<.05	<.005	.13	<.0004	<.005	<.010	22.0
WNW86-10	DOWN	06/07/89	<.005	<.06	<.005	<.010	<.05	<.005	.068	<.0004	<.005	<.005	62.0
WNW86-10	DOWN	06/14/89	<.005	<.06	<.005	<.010	<.03	<.005	.10	<.0004	<.005	<.005	72.0
WNW86-10	DOWN	06/21/89	<.005	.10	<.005	<.010	<.03	<.005	.070	<.0004	<.005	<.005	70.0
WNW86-10	DOWN	06/23/89	.008	.21	.011	<.010	<.03	<.005	.075	<.0004	<.005	<.005	64.0
WNW86-10	DOWN	10/12/89	<.005	.06	<.005	<.010	<.03	<.005	.040	<.0004	<.005	<.005	67.0
WNW86-10	DOWN	12/12/89	<.005	<.06	<.005	.013	.46	<.005	.057	<.0004	<.005	<.010	72.0
WNW86-10	DOWN	12/13/89	<.005	<.06	<.005	<.010	.12	<.005	<.06	<.0004	<.005	<.010	61.0
WNW86-10	DOWN	12/14/89	<.005	.07	<.005	<.010	<.05	<.005	.035	<.0004	<.005	<.010	56.0
WNW86-11	DOWN	06/07/89	<.005	<.06	<.005	<.010	<.05	<.005	.12	<.0004	<.005	<.005	57.0
WNW86-11	DOWN	06/15/89	<.005	<.06	<.005	<.010	<.03	<.005	.048	<.0004	<.005	<.005	61.0
WNW86-11	DOWN	06/19/89	<.005	.07	<.005	<.010	.03	<.005	.048	<.0004	<.005	<.005	60.0
WNW86-11	DOWN	06/23/89	** SAMPLE NOT AVAILABLE **										
WNW86-11	DOWN	10/12/89	<.005	<.05	.006	<.010	<.03	<.005	.14	<.0004	<.005	<.005	59.0
WNW86-11	DOWN	12/12/89	<.005	<.06	<.005	.011	.99	<.005	.22	<.0004	<.005	<.010	56.0
WNW86-11	DOWN	12/13/89	<.005	<.06	<.005	<.010	<.05	<.005	<.06	<.0004	<.005	<.010	54.0
WNW86-11	DOWN	12/14/89	<.005	<.06	<.005	<.010	<.05	<.005	.092	<.0004	<.005	<.010	52.0

*** Quality Standards for Class GA Groundwater from 6 NYCRR Part 703.5

Table E-14.

1989 Radioactivity Concentrations for Groundwater in the NRC-Licensed Disposal Area Groundwater Monitoring Unit
($\mu\text{Ci}/\text{mL}$)

Location Code	Hydraulic Position	Sample Date	Gross Alpha	Gross Beta	Tritium	Cs-137	Co-60	
DOE DCGs			3.0E-08	1.0E-06	2.0E-03	3E-06	5E-06	
Quality Standard***			1.5E-08	1.0E-06	2.0E-05	N/A	N/A	
WNW83-1D	UP	06/07/89	<1.11E-09	3.79E-09 ± 1.46E-09	<1E-7	<1.1E-08	<1.4E-08	
WNW83-1D	UP	06/14/89	<1.29E-09	2.99E-09 ± 1.36E-09	<1E-7	<3.7E-08	<3.8E-08	
WNW83-1D	UP	06/22/89	<9.09E-10	5.39E-09 ± 1.63E-09	<1E-7	<3.7E-08	<3.8E-08	
WNW83-1D	UP	06/23/89	<1.02E-09	2.83E-09 ± 1.34E-09	<1E-7	<3.7E-08	<3.8E-08	
WNW83-1D	UP	10/10/89	<1.26E-09	1.57E-09 ± 1.17E-09	<1E-7	<3.7E-08	<3.8E-08	
WNW83-1D	UP	11/20/89	<2.23E-10	2.56E-09 ± 1.30E-09	<1E-7	<3.7E-08	<3.8E-08	
WNW83-1D	UP	12/12/89	<1.08E-09	3.52E-09 ± 1.43E-09	<1E-7	<3.7E-08	<3.8E-08	
WNW83-1D	UP	12/21/89	<7.98E-10	3.01E-09 ± 1.39E-09	<1E-7	<3.7E-08	<3.8E-08	
WNW86-10	DOWN	06/07/89	<2.05E-09	7.22E-09 ± 1.95E-09	<1E-7	<1.1E-08	<1.4E-08	
WNW86-10	DOWN	06/14/89	<2.04E-09	7.79E-09 ± 2.00E-09	<1E-7	<3.7E-08	<3.8E-08	
WNW86-10	DOWN	06/21/89	<7.17E-10	9.36E-09 ± 2.19E-09	1.49E-7 ± 1.05E-7	<3.7E-08	<3.8E-08	
WNW86-10	DOWN	06/23/89	<1.71E-09	7.37E-09 ± 1.99E-09	<1.03E-7	<3.7E-09	<3.8E-08	
WNW86-10	DOWN	10/12/89	<3.19E-09	6.47E-09 ± 1.88E-09	<1.05E-7	<3.7E-08	<3.8E-08	
WNW86-10	DOWN	12/12/89	<2.29E-09	5.22E-09 ± 1.77E-09	<1.04E-7	<3.7E-08	<3.8E-08	
WNW86-10	DOWN	12/13/89	<1.77E-09	6.62E-09 ± 1.92E-09	1.78E-7 ± 1.07E-7	<3.7E-08	<3.8E-08	
WNW86-10	DOWN	12/14/89	<2.10E-09	7.97E-09 ± 2.08E-09	<1E-7	<3.7E-08	<3.8E-08	
WNW86-11	DOWN	06/07/89	5.10E-09 ± 4.97E-09	4.72E-09 ± 1.76E-09	<1E-7	<1.1E-08	<1.4E-08	
WNW86-11	DOWN	06/15/89	<2.54E-09	3.13E-09 ± 1.55E-09	<1E-7	<3.7E-08	<3.8E-08	
WNW86-11	DOWN	06/19/89	<2.86E-09	3.64E-09 ± 1.56E-09	<1E-7	<3.7E-08	<3.8E-08	
WNW86-11	DOWN	06/23/89	*** Sample not available***					
WNW86-11	DOWN	10/12/89	<3.89E-09	3.18E-09 ± 1.58E-09	<1E-7	<3.7E-08	<3.8E-08	
WNW86-11	DOWN	12/12/89	7.02E-09 ± 6.14E-09	3.38E-09 ± 1.63E-09	1.80E-7 ± 1.06E-7	<3.7E-08	<3.8E-08	
WNW86-11	DOWN	12/13/89	<2.75E-09	6.36E-09 ± 1.92E-09	2.39E-7 ± 1.08E-7	<3.7E-08	<3.8E-08	
WNW86-11	DOWN	12/14/89	<2.77E-09	2.87E-09 ± 1.62E-09	<1.04E-7	<3.7E-08	<3.8E-08	

*** Quality Standards for Class GA Groundwater, from 6 NYCRR Part 703.5

Table E - 15

Summary of Special NDA Well Sampling Positive Results						
Analyte	NDA Well 85-I-9	NDA Well 89-5-N	NDA Well 89-14-E	Field Blank	Laboratory ^o Blank	Groundwater Quality Standard (NYCRR)*
SEMIVOLATILE ORGANICS						
bis(2-ethylhexyl) phthalate ¹	300.0 µg/L	320.0 µg/L	< 10.0 µg/L	< 10.0 µg/L	< 10.0 µg/L	4.2 µg/L
tributyl phosphate ²	< 10.0 µg/L	2.1E+5 µg/L	< 10.0 µg/L	< 10.0 µg/L	< 10.0 µg/L	not listed
VOLATILE ORGANICS						
trichlorofluoromethane	< 5.0 µg/L	38.0 µg/L	44.0 µg/L	18.0 µg/L	36.0 µg/L	not listed
2-hexanone	< 10.0 µg/L	25.0 µg/L	< 10.0 µg/L	< 10.0 µg/L	< 10.0 µg/L	not listed
2-butanone ³	< 10.0 µg/L	14.0 µg/L	< 10.0 µg/L	< 10.0 µg/L	< 10.0 µg/L	not listed
METALS						
aluminum	423.0 µg/L	N/A	N/A	< 60.0 µg/L	91.6 µg/L	not listed
barium	67.3 µg/L	N/A	N/A	< 2.0 µg/L	< 2.0 µg/L	1,000 µg/L
boron	1,150 µg/L	N/A	N/A	< 30.0 µg/L	70.2 µg/L	not listed
cadmium	4.0 µg/L	N/A	N/A	< 2.0 µg/L	< 2.0 µg/L	10.0 µg/L
calcium	96,400 µg/L	N/A	N/A	43.4 µg/L	32.0 µg/L	not listed
chromium ⁵	25.9 µg/L	N/A	N/A	< 10.0 µg/L	< 10.0 µg/L	50.0 µg/L
copper	11.3 µg/L	N/A	N/A	< 10.0 µg/L	< 10.0 µg/L	1,000 µg/L
iron	242.0 µg/L	N/A	N/A	< 10.0 µg/L	71.2 µg/L	300 µg/L
magnesium	54,800 µg/L	N/A	N/A	< 60.0 µg/L	< 60.0 µg/L	not listed
manganese	46.3 µg/L	N/A	N/A	< 2.0 µg/L	< 2.0 µg/L	300 µg/L
molybdenum	11.2 µg/l	N/A	N/A	< 10.0 µg/L	< 10.0 µg/L	not listed
sodium	10,000 µg/L	N/A	N/A	< 100 µg/L	< 100 µg/L	< 20mg/L
titanium	26.5 µg/L	N/A	N/A	< 5.0 µg/L	< 5.0 µg/L	not listed
vanadium	18.1 µg/L	N/A	N/A	< 10.0 µg/L	< 10.0 µg/L	5,000 µg/L
zinc	25.6 µg/L	N/A	N/A	11.5 µg/L	19.9 µg/L	not listed
lead	2.2 µg/L	N/A	N/A	< 2.0 µg/L	< 2.0 µg/L	25.0 µg/L
potassium	2,060 µg/L	N/A	N/A	< 100 µg/L	< 100 µg/L	not listed
WATER QUALITY						
sulfate	50.0 mg/L	N/A	N/A	< 1.5 mg/L	< 1.5mg/L	250 mg/L
chloride	2.2 mg/L	N/A	N/A	< 0.5 mg/L	< 0.5 mg/L	250 mg/L
oil and grease	2.4 mg/L	N/A	N/A	< 0.10 mg/L	< 0.10 mg/L	not listed
Total Organic Carbon - TOC ⁴	1.63 mg/L	N/A	N/A	1.1 mg/L	< 1.0 mg/L	not listed
C.O.D.	7.0 mg/L	N/A	N/A	< 2.0 mg/L	< 2.0 mg/L	not listed
phosphorous	0.042 mg/L	N/A	N/A	< 0.02 mg/L	< 0.02 mg/L	not listed
Total Suspended Solids	15.0 mg/L	N/A	N/A	0.5 mg/L	1.0 mg/L	not listed

* From the Official Compilation of Code Rules and Regulations of the State of New York, Title 6 Environmental Conservation, Chapter X, Division of Water Resources, Part 703.5; Class GA

¹ Common plasticizer, possibly from plastics or plastic solvents in the NDA

² Probably present in well organic phase, included with aqueous sample.

³ Common laboratory contaminant.

⁴ Range in upgradient well 80-02 for 1988 = 1.0 to 3.0 mg/l.

⁵ Hexavalent

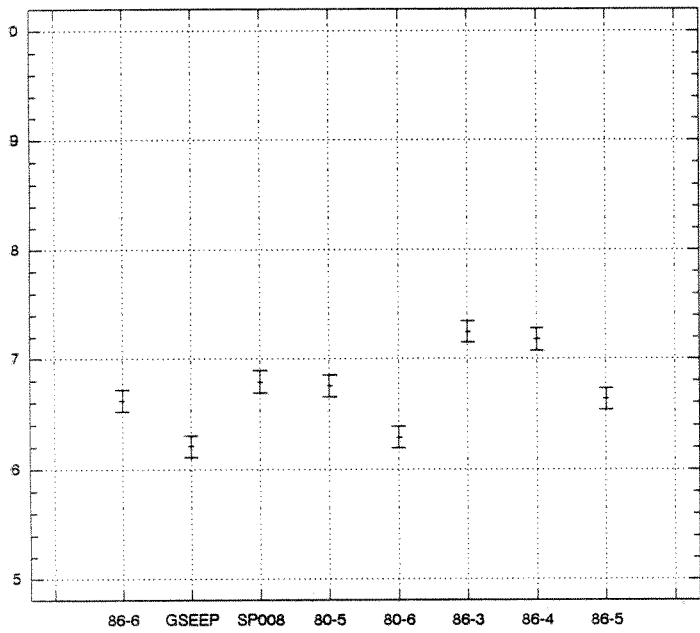


Figure E-1.
pH in groundwater samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit. Well 86-6 is upgradient.

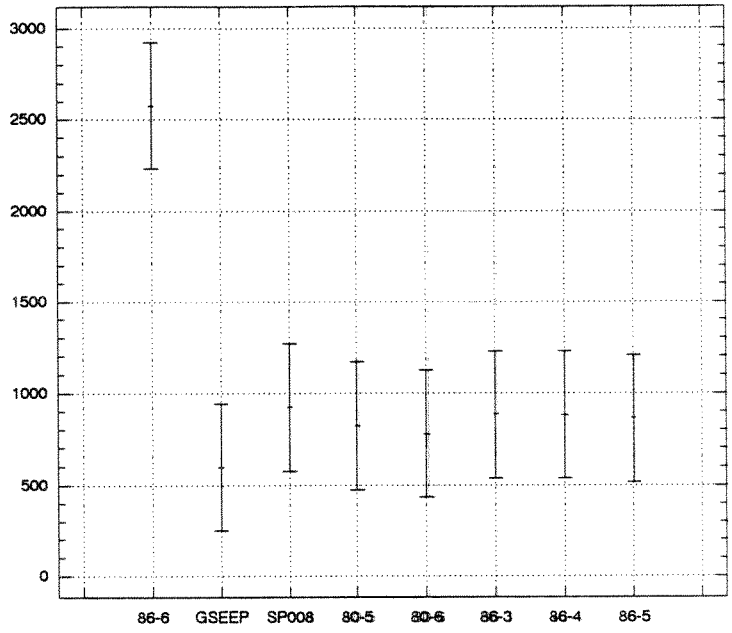


Figure E-2.
Conductivity ($\mu\text{mhos/cm at } 25^\circ\text{C}$) in groundwater samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit. Well 86-6 is upgradient.

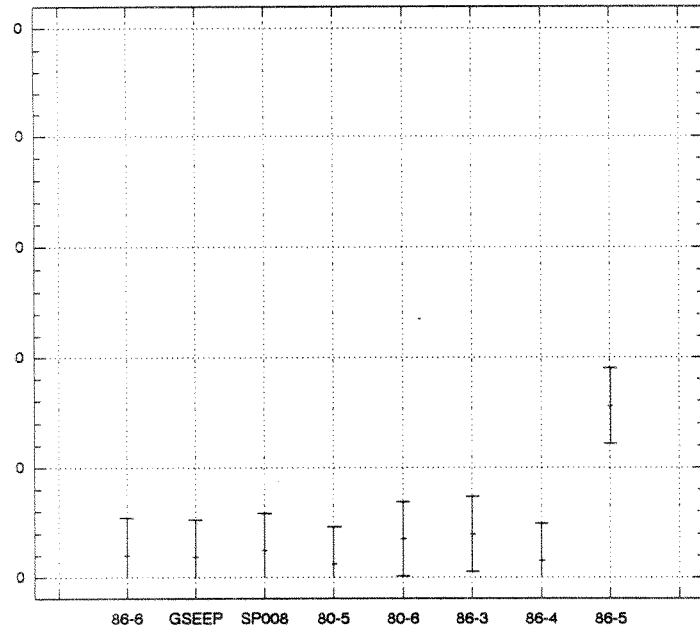


Figure E-3.
Total Organic Carbon (mg/L) in groundwater samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit. Well 86-6 is upgradient.

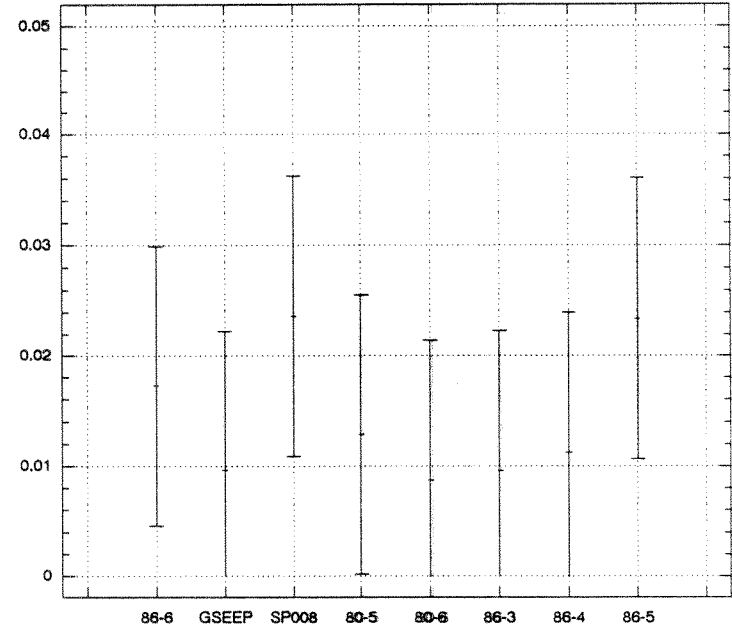


Figure E-4.
Total Organic Halogens (mg/L) in groundwater samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit. Well 86-6 is upgradient.

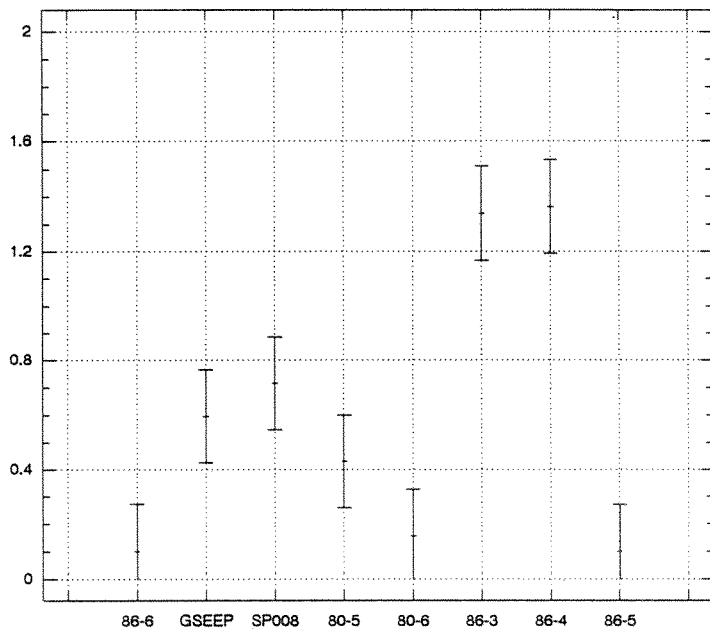


Figure E-5.
Nitrate-N (mg/L) in groundwater samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit. Well 86-6 is upgradient.

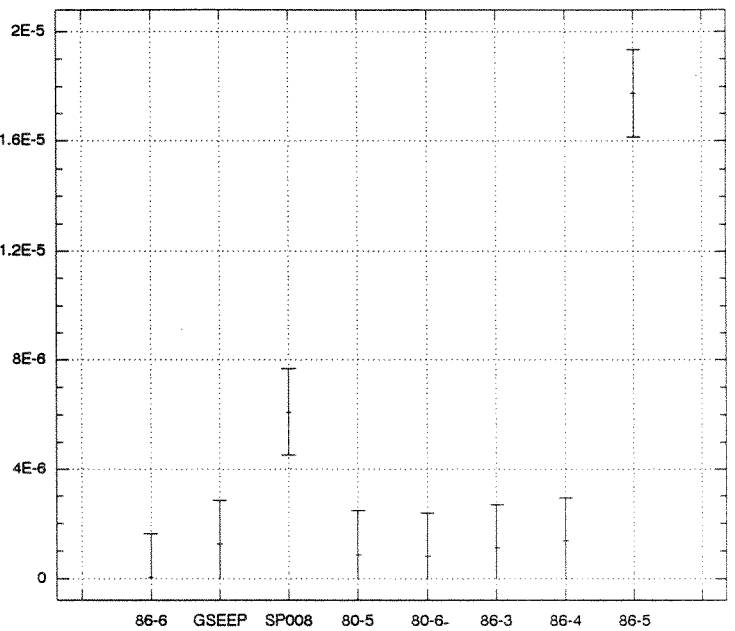


Figure E-6
Tritium activity (µCi/ml) in groundwater samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit. Well 86-6 is upgradient. Figure E-7 follows without Well 86-5 to provide adequate scaling.

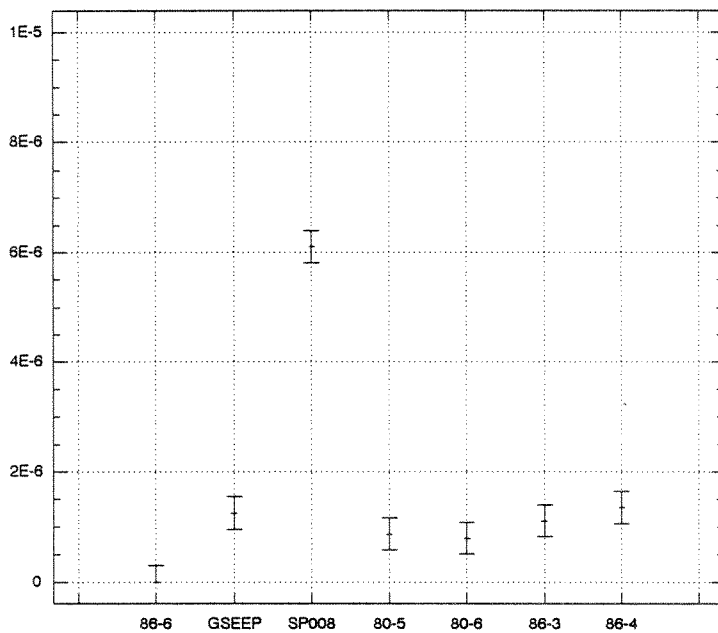


Figure E-7
Tritium activity (µCi/ml) in groundwater samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit without Well 86-5.

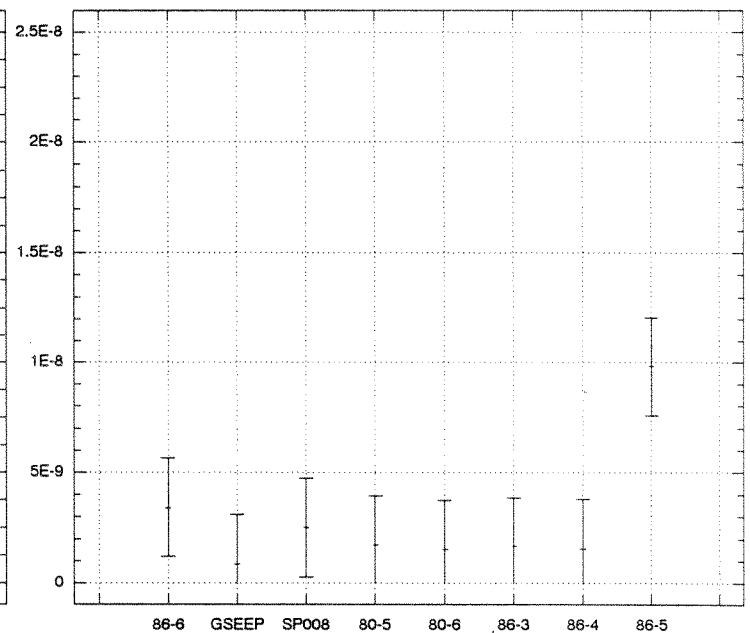


Figure E-8
Gross alpha activity (µCi/ml) in groundwater samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit. Well 86-6 is upgradient.

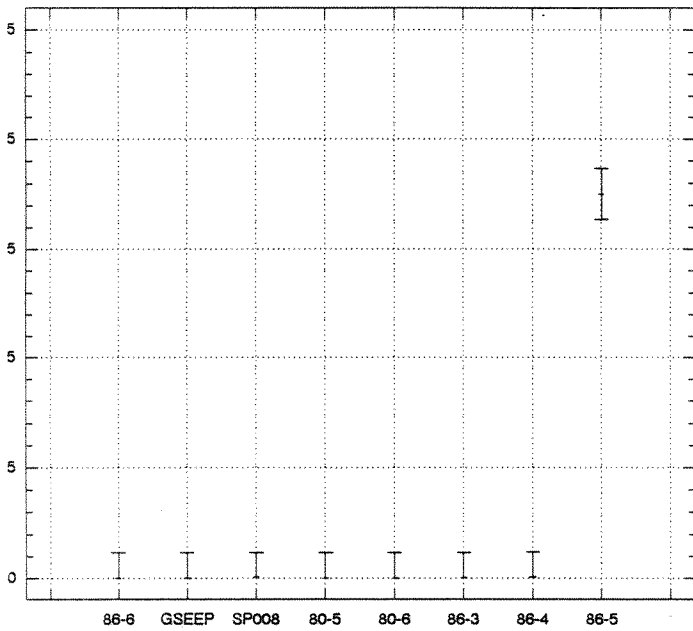


Figure E-9

Gross beta activity ($\mu\text{Ci/ml}$) in groundwater samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit. Well 86-6 is upgradient. Figure E-10 follows without Well 86-5 to provide adequate scaling.

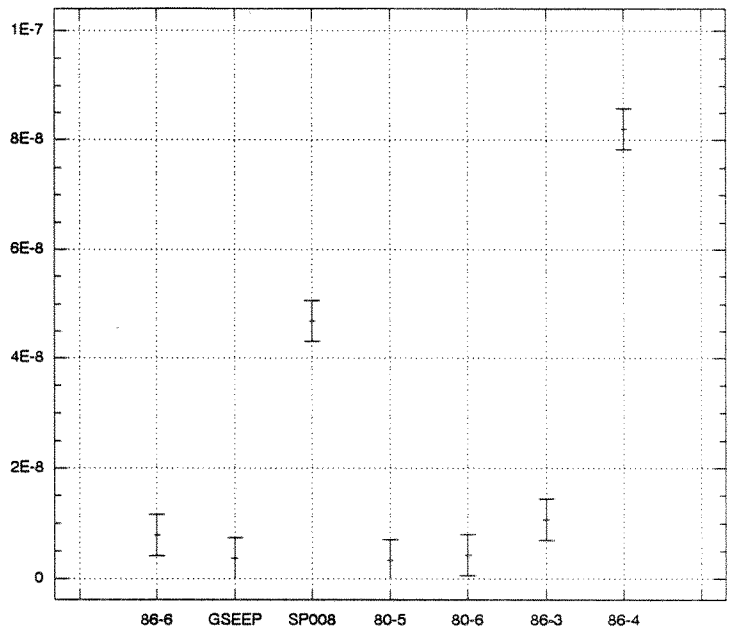


Figure E-10.

Gross beta activity ($\mu\text{Ci/ml}$) in groundwater samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit without Well 86-5 to provide adequate scaling.

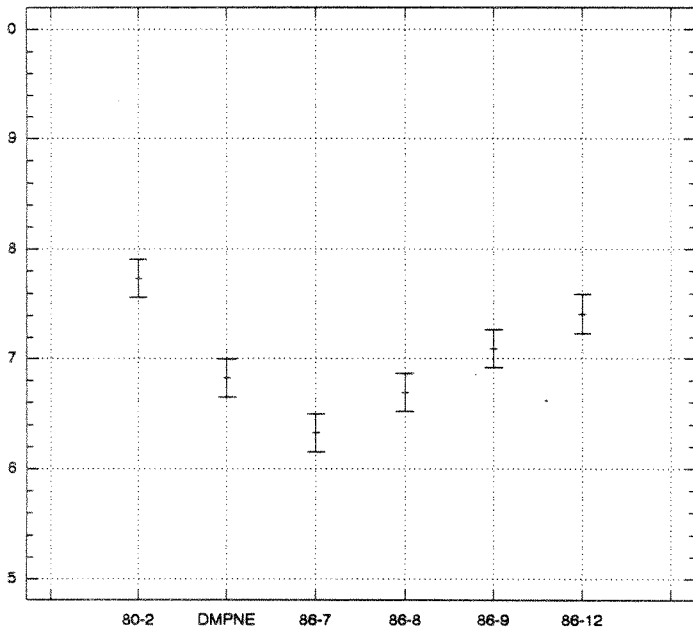


Figure E-11.

pH in groundwater samples from the High-Level Radioactive Waste Tank Complex Monitoring Unit. Well 80-2 is upgradient.

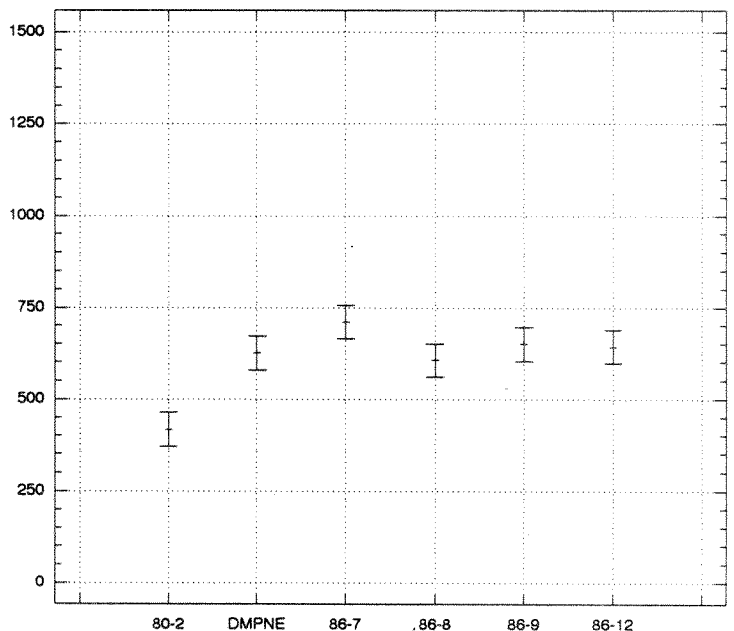


Figure E-12.

Conductivity ($\mu\text{mhos/cm}$ at 25°C) in groundwater samples from the High-Level Radioactive Waste Tank Complex Monitoring Unit. Well 80-2 is upgradient.

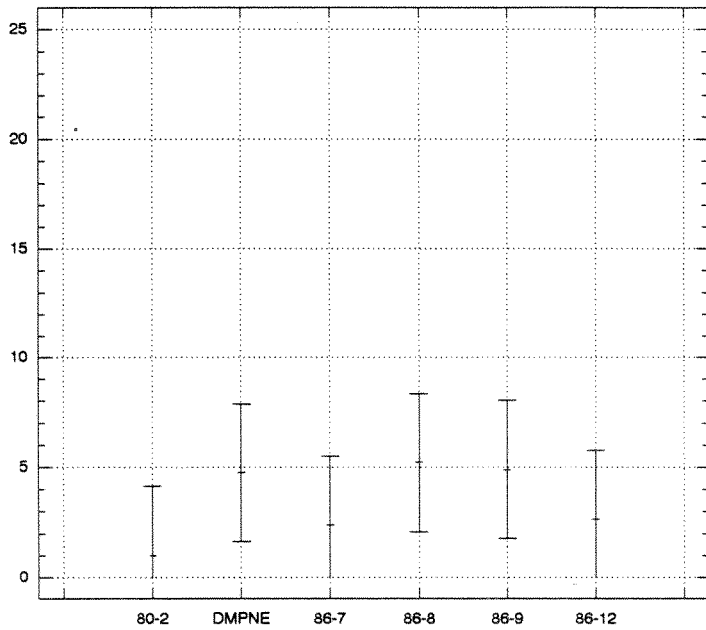


Figure E-13.

Total Organic Carbon (mg/L) in groundwater samples from the High-Level Radioactive Waste Tank Complex Monitoring Unit. Well 80-2 is upgradient.

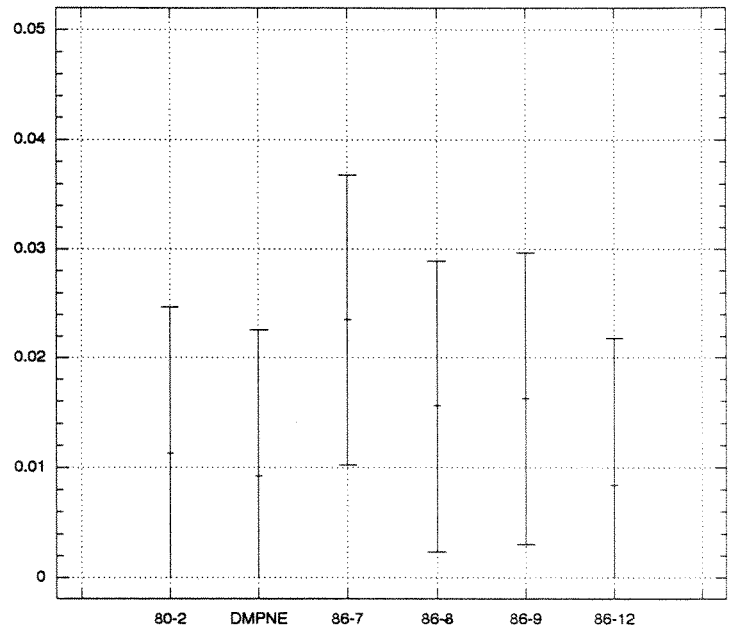


Figure E - 14.

Total Organic Halogens (mg/L) in groundwater samples from the High-Level Radioactive Waste Tank Complex Monitoring Unit. Well 80-2 is upgradient.

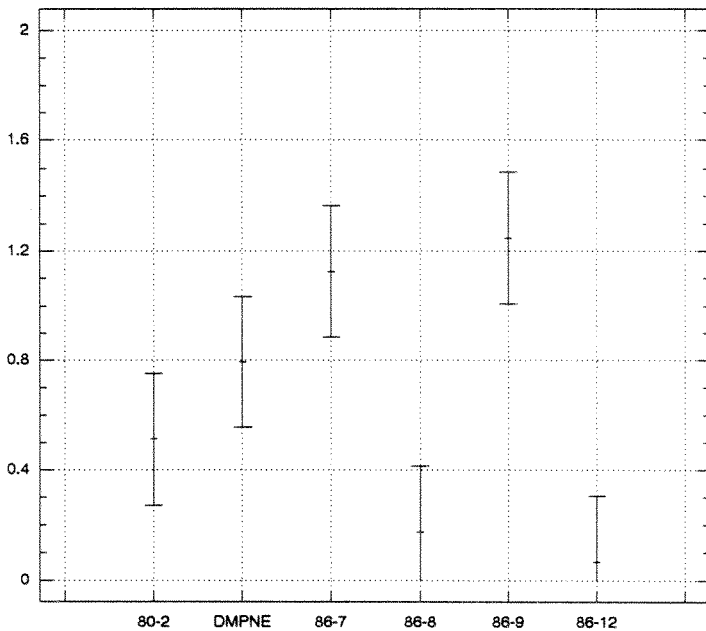


Figure E - 15.

Nitrate-N (mg/L) in groundwater samples from the High-Level Radioactive Waste Tank Complex Monitoring Unit. Well 80-2 is upgradient.

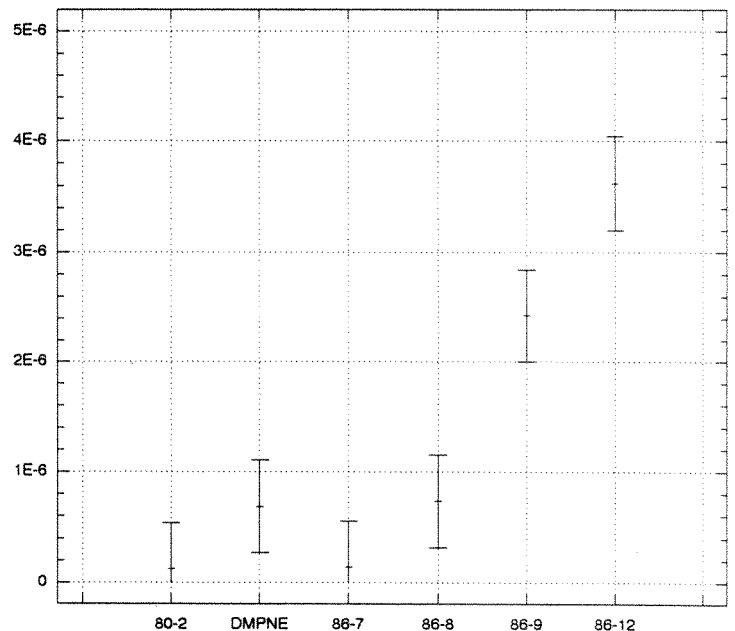


Figure E-16.

Tritium activity ($\mu\text{Ci/ml}$) in groundwater samples from the High-Level Radioactive Waste Tank Complex Monitoring Unit. Well 80-2 is upgradient.

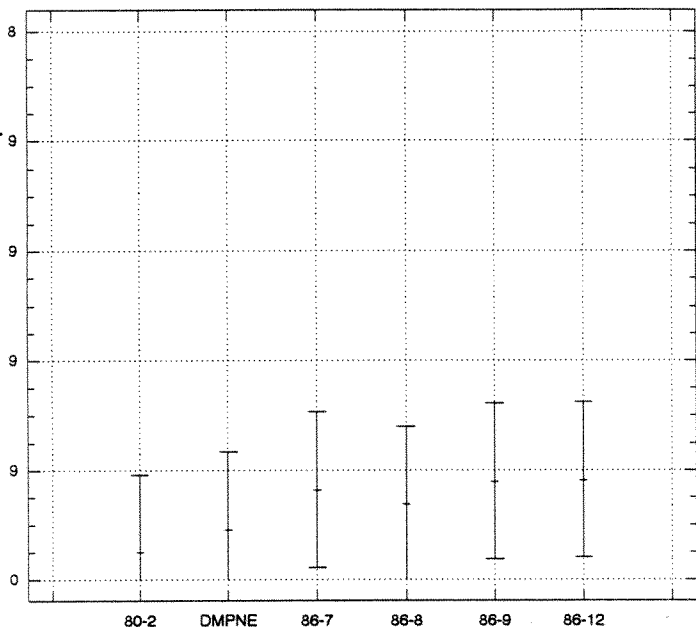


Figure E-17.

Gross alpha activity ($\mu\text{Ci/ml}$) in groundwater samples from the High-Level Radioactive Waste Tank Complex Monitoring Unit. Well 80-2 is upgradient.

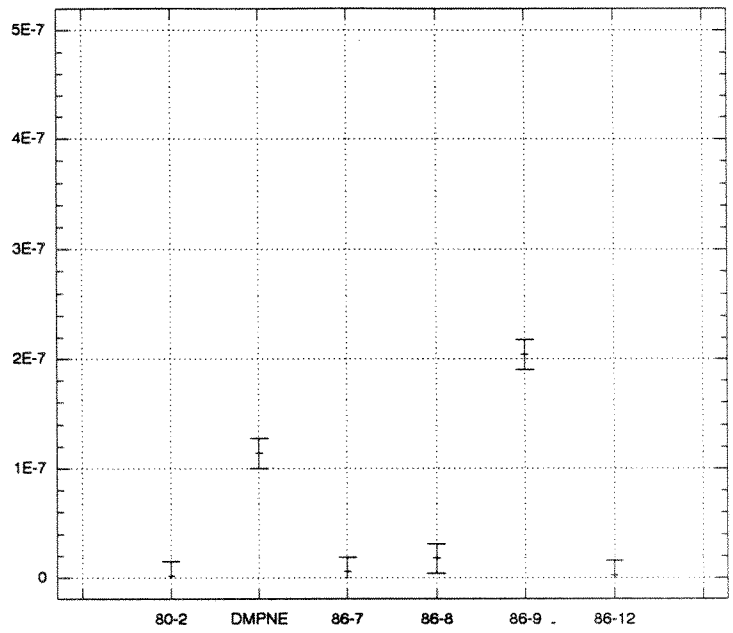


Figure E-18.

Gross beta activity ($\mu\text{Ci/ml}$) in groundwater samples from the High-Level Radioactive Waste Tank Complex Monitoring Unit. Well 80-2 is upgradient.

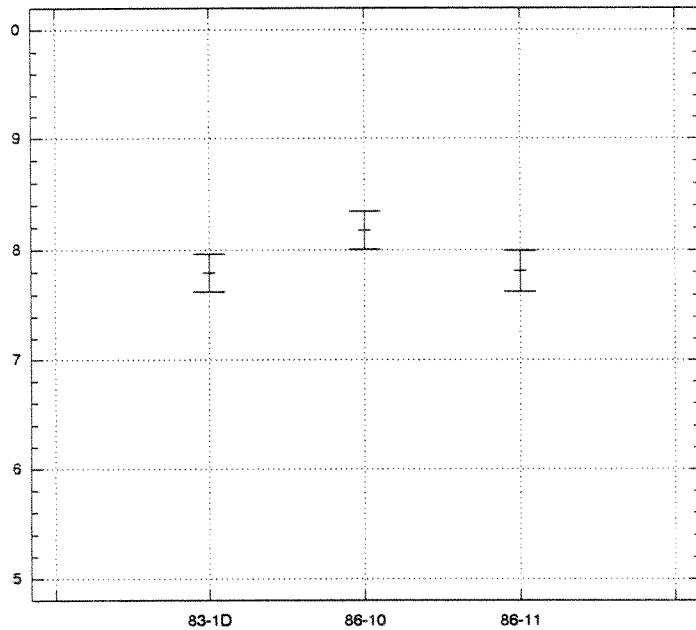


Figure E-19.

pH in groundwater samples from the NRC-Licensed Disposal Area Monitoring Unit. Well 83-1D is upgradient.

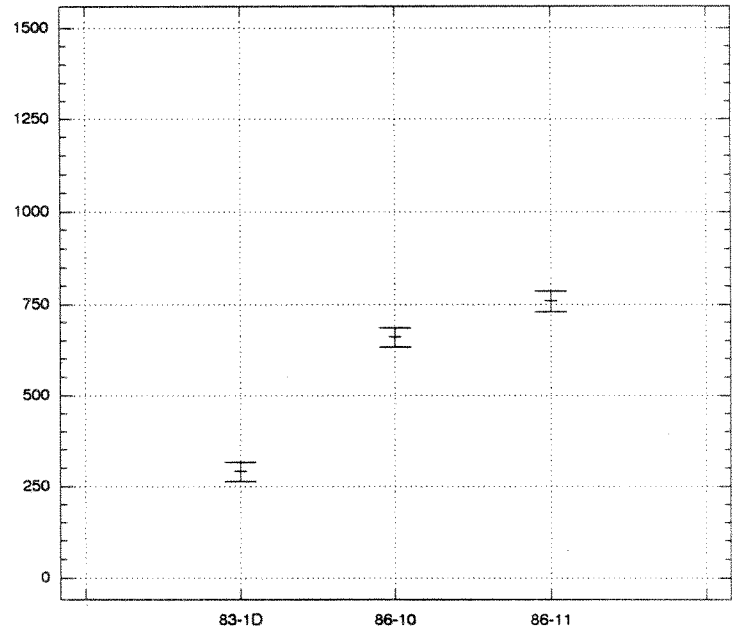


Figure E-20.

Conductivity ($\mu\text{mhos/cm at } 25^{\circ}\text{C}$) in groundwater samples from the NRC-Licensed Disposal Area Monitoring Unit. Well 83-1D is upgradient.

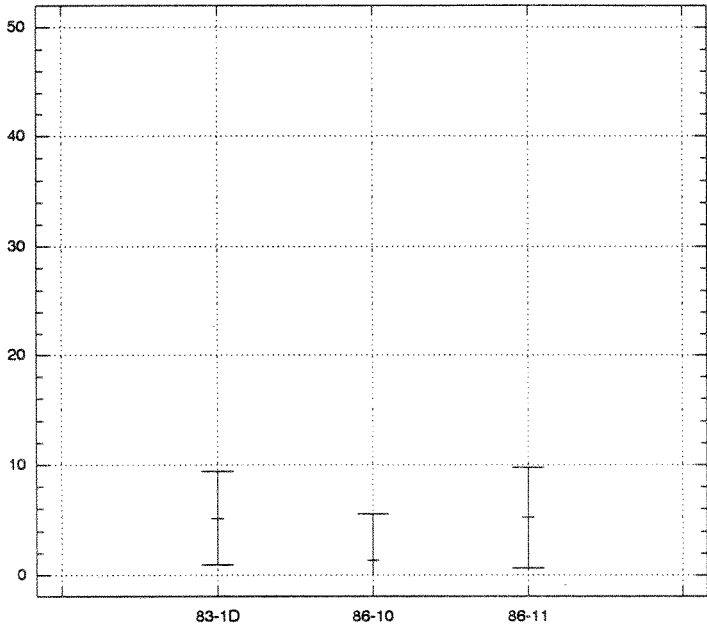


Figure E-21.
Total Organic Carbon (mg/L) in groundwater samples from the NRC-Licensed Disposal Area Monitoring Unit. Well 83-1D is upgradient.

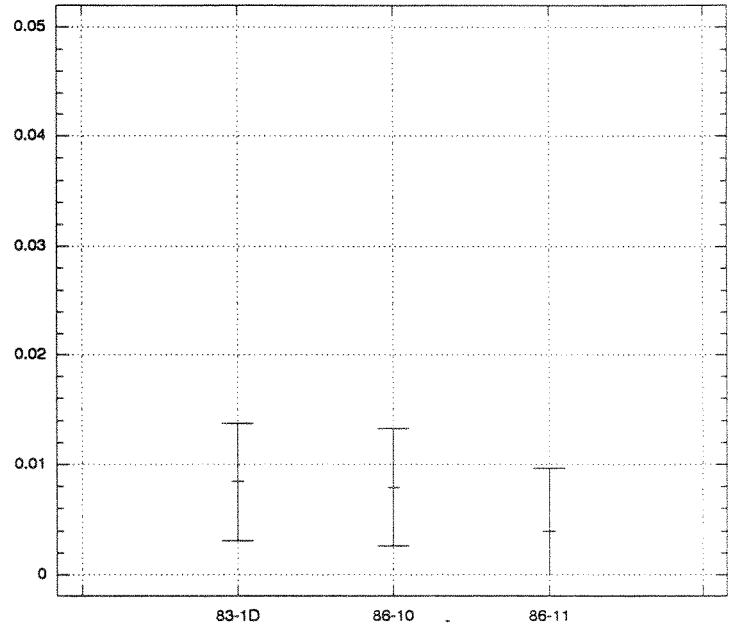


Figure E-22.
Total Organic Halogens (mg/L) in groundwater samples from the NRC-Licensed Disposal Area Monitoring Unit. Well 83-1D is upgradient.

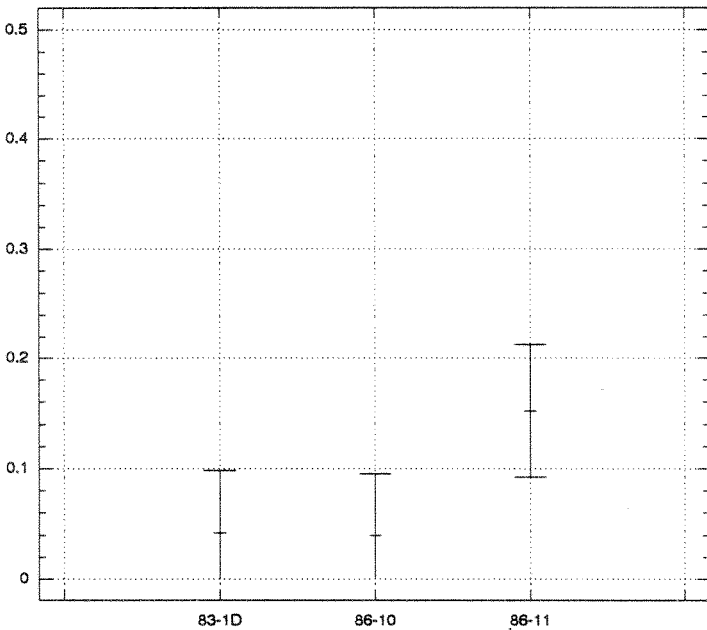


Figure E-23.
Nitrate-N (mg/L) in groundwater samples from the NRC-Licensed Disposal Area Monitoring Unit. Well 83-1D is upgradient.

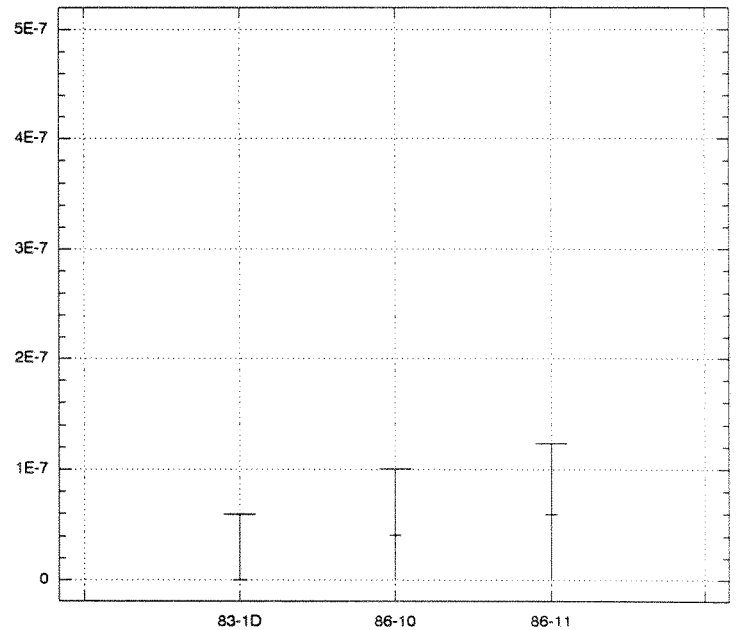


Figure E-24.
Tritium activity (µCi/ml) in groundwater samples from the NRC-Licensed Disposal Area Monitoring Unit. Well 83-1D is upgradient.

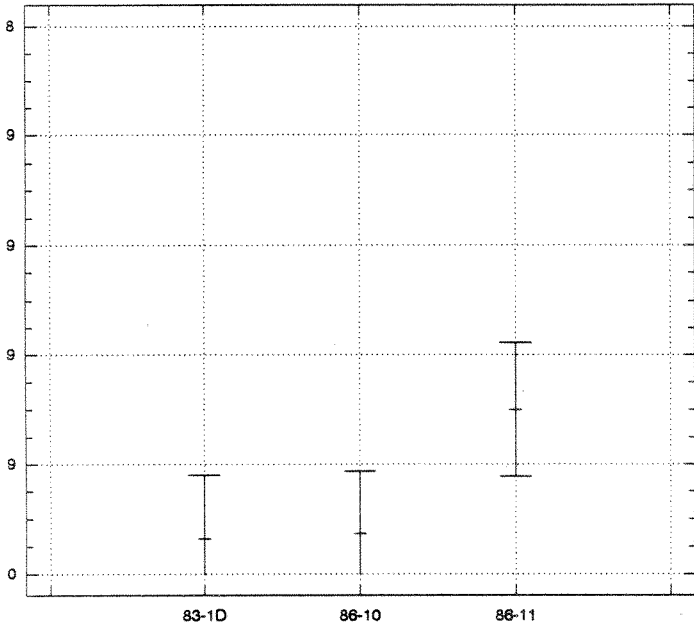


Figure E-25.

Gross alpha activity ($\mu\text{Ci/ml}$) in groundwater samples from the NRC-Licensed Disposal Area Monitoring Unit. Well 83-1D is upgradient.

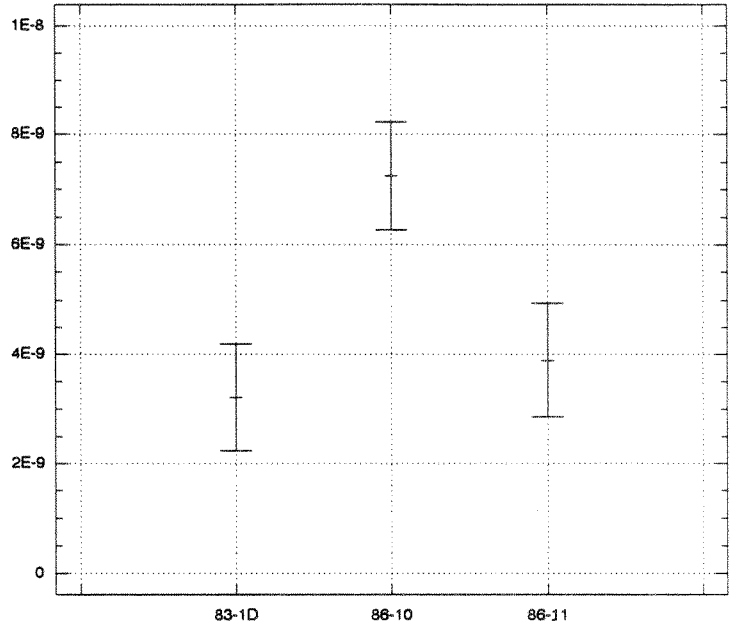


Figure E-26.

Gross beta activity ($\mu\text{Ci/ml}$) in groundwater samples from the NRC-Licensed Disposal Area Monitoring Unit. Well 83-1D is upgradient.