Appendix E

Summary of Groundwater Monitoring Data

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Table E-1
Groundwater Monitoring Network: Super Solid Waste Management Units

SSWMUs and Constituent SWMUs	Well ID Number [1]	Additional Analytes Measured in 1997[2]	Well ID Nimber [1]	Additional Analytes Measured in 1997[2]
SSWMU #1 - Low-Level Waste Treatment Facilities:				
	103* (S:D)	M, V	110* (T:D)	M, V
• Former Lagoon 1	104 (S:U)	S, SV, V	111* (S:D)	S, SV, V, M9
• LLWTF Lagoons	105 (S:D)	M, V	114 (T:D)	*p*
• LLWTF Building	106 (S:D)	M, V	115 (T:U)	*p*
• Interceptors	107 (T:D)	M, V	116* (S:U)	M, S, V
• Neutralization Pit	108 (T:D)	M, V	8604 (S:U)	M, V
	109 (T:D)	*p*	8605* (S:D)	S, SV, M, V
SSWMU #2 - Miscellaneous Small Units:				
	201 (S:U)	M	206 (TS:D)	
• Sludge Ponds	202 (TS:U)	*p*	207 (S[T]:D)	*p*
• Solvent Dike	203 (S:D)	M	208 (TS:D)	V
• Equalization Mixing Basin	204* (TS:U)		8606 (S:D)	*p*
• Paper Incinerator	205 (S:D)	M		
SSWMU #3 - Liquid Waste Treatment System:				
• Liquid Waste Treatment System	301* (S:B)	M	307 (S:D)	*p*
• Cement Solidification System	302 (TS:U)	M	NB1S (S[WT]:B)	
• Main Process Bldg. (specific areas)	305 (S:D)	*p*		
SSWMU #4 - HLW Storage and Processing Area:				
• Vitrification Facility	401* (S[T]:B)	M, R	405 (T:C)	
• Vitrification Test Tanks	402 (TS:U)		406* (S:D)	R, V
• HLW Tanks	403 (S:U)	M, V	408* (S:D)	M, R, V
• Supernatant Treatment System	404 (TS:U)	*p*	409 (T:D)	

** Monitoring for certain parameters is required by the RCRA 3008(h) Order on Consent.*

[1] Hydrogeologic unit monitored and well position in SSWMU follow the well ID in parentheses. Hydrogeologic units monitored are: WT (weathered Lavery till); T (unweathered Lavery till); S (sand and gravel); K (Kent recessional sequence); TS (till-sand). Units enclosed in brackets indicate the hydrogeologic unit is only a secondary monitoring unit. Well position in SSWMU: U (upgradient); D (downgradient); B (background); C (crossgradient). Example: 401 (S[T]:B) monitors background conditions in the sand and gravel unit and secondarily in the unweathered Lavery till.*

[2] See Table 3-1 (p. 3-7) for a description of codes and analytes. The parameters listed in this table, Table E-1, are in addition to the contamination indicator parameters (I) and radiological indicator parameters (RI) routinely scheduled for 1997. Wells measured for potentiometric (water-level) data only are designated by p.

Table E-1 (*continued*)
Groundwater Monitoring Network: Super Solid Waste Management Units

SSWMUs and Constituent SWMUs	Well ID Number [1]	Additional Analytes Measured in 1997 [2]	Well ID Number [1]	Additional Analytes Measured in 1997[2]
SSWMU #5 - Maintenance Shop Leach Field:				
• *Maintenance Shop Leach Field*	501* (S:U)	M, S, V	502* (S:D)	M, S, SM, V
SSWMU #6 - Low-level Waste Storage Area:				
• Hardstands (old & new)	601 (S:D)	M	605 (S[T]:D)	M, S
• Lag Storage	602 (S:D)	M, S	8607* (S:U)	M, V
• Lag Storage Additions	603 (S:U)	*p*	8608 (S:U)	*p*
(LSAs 1, 2, 3, 4)	604 (S:D)	M	8609* (S:U)	M, S, V
SSWMU #7 - CPC Waste Storage Area:				
	701 (TS:U)	*p*	705 (T:C)	*p*
• CPC Waste Storage Area	702 (T:C)	*P*	706 (S:B)	M
	703 (T:D)	*P*	707 (T[WT]:D)	M
	704 (T:D)	M, V		
SSWMU #8 - Construction and Demolition Debris Landfill:				
	801* (S:U)	M, S, V	804* (S:D)	M, V
• Former Construction and Demolition	802 (S[T]:D)	M, V	8603* (S:U)	M, S
Debris Landfill	803* (S:D)	M, SV, V	8612* (S:D)	M, SV, V

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[1] Hydrogeologic unit monitored and well position in SSWMU follow the well ID in parentheses. Hydrogeologic units monitored are: WT (weathered Lavery till); T (unweathered Lavery till); S (sand and gravel); K (Kent recessional sequence); TS (till-sand). Units enclosed in brackets indicate the hydrogeologic unit is only a secondary monitoring unit. Well position in SSWMU: U (upgradient); D (downgradient); B (background); C (crossgradient). Example: 401 (S[T]:B) monitors background conditions in the sand and gravel unit and secondarily in the unweathered Lavery till.*

[2] See Table 3-1 (p. 3-7) for a description of codes and analytes. The parameters listed in this table, Table E-1, are in addition to the contamination indicator parameters (I) and radiological indicator parameters (RI) routinely scheduled for 1997. Wells measured for potentiometric (water-level) data only are designated by p.

Table E-1 *(continued)*
Groundwater Monitoring Network: Super Solid Waste Management Units

SSWMUs and Constituent SWMUs	Well ID Number [1]	Additonal Analytes Measured in 1997 [2]	Well ID Number [1]	Additional Analytes Measured in 1997 [2]
SSWMU #9 - NRC-licensed Disposal Area:				
	901* (K[T]:U)	M	908* (WT[T]:U)	M,
• NRC-licensed Disposal Area	902* (K[T]:U)	M9	909* (WT[T]:D)	M9, R, V,
SV				
• Container Storage Area	903* (K[T]:D)	M	910* (T:D)	M
• Trench Interceptor Project	904 (T:D)	*p*	8610* (K:D)	
	905 (S:D)	*p*	8611* (K:D)	M
	906* (WT:D)	M	NDATR* (Interceptor	M, R, V,
SV				
	907 (WT[T]:D)	*p*	Trench Manhole Sump:D)	
SSWMU #10 - IRTS Drum Cell:				
	1001 (K[T]:U)	*p*	1006* (WT[T]:D)	M
• IRTS Drum Cell	1002 (K[T]:D)	*p*	1007 (WT[T]:D)	
• Background (south plateau)	1003 (K:D)	*p*	1008B (K[T]:B)	M
	1004 (K[T]:D)	*p*	1008C* (WT[T]:B)	M
	1005* (WT[T]:U)	M		
SSMUW #11 - State-licensed Disposal Area:				
	1101A (WT[T]:U)	See	1105A (WT[T]:D)	See
• State-licensed Disposal Area	1101B (T:U)	Appendix F	1105B (T:D)	Appendix F
(SDA) [NYSERDA]	1101C (K:U)		1106A (K:U)	
	1102A (WT[T]:D)		1106B (T:U)	
NOTE: The SDA is sampled by	1102B (T:D)		1107A (T:D)	
NYSERDA under an independent	1103A (WT[T]:D)		1108A (WT[T]:U)	
monitoring program.	1103B (T:D)		1109A (T:U)	
	1103C (K:D)		1109B (WT[T]:U)	
	1104A (WT[T]:D)		1110A (WT[T]:D)	
	1104B (T:D)		1111A (WT[T]:D)	
	1104C (K:D)			

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[2] See Table 3-1 (p. 3-7) for a description of codes and analytes. The parameters listed in this table, Table E-1, are in addition to the contamination indicator parameters (I) and radiological indicator parameters (RI) routinely scheduled for 1997. Wells measured for potentiometric (water-level) data only are designated by p.

Table E-1 (*concluded*)
Groundwater Monitoring Network: Super Solid Waste Management Units

SSWMUs and Constituent SWMUs	Well ID Number[1]	Additional Analytes Measured in 1997[2]	Well ID Number[1]	Additional Analytes Measured in 1997[2]
Motor Fuel Storage Area (Monitored underground storage tanks. Not a SSWMU. Wells were decommissioned in summer 1997 after the tanks were removed from service.)	R8613A (S[T]:C)	*p*	R8613C (S:C)	*p*
	R8613B (S:C)	*p*		
Main Plant Area Well Points: (Monitor groundwater at various locations north and east of the main plant. Not in a SSWMU.)	**Well Point ID Number**	**Analytes Measured in 1997**	**Well ID Number**	**Analytes Measured in 1997**
	WP-A (S)	RI	WP-H (S)	RI
	WP-C (S)	RI		
North Plateau Groundwater Seeps (Monitor groundwater emanating from seeps along the north plateau edge. Not in a SSWMU.	**Seep ID Number**	**Analytes Measured in 1997**	**Seep ID Number**	**Analytes Measured in 1997**
	SP02 (S)	RI	SP12 (S)	I, RI, V
	SP04 (S)	RI	SP18 (S)	RI
	SP05 (S)	RI	SP23 (S)	RI
	SP06 (S)	RI	GSEEP* (S)	V
	SP11 (S)	RI		

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[1] Hydrogeologic unit monitored and well position in SSWMU follow the well ID in parentheses. Hydrogeologic units monitored are: WT (weathered Lavery till); T (unweathered Lavery till); S (sand and gravel); K (Kent recessional sequence); TS (till-sand). Units enclosed in brackets indicate the hydrogeologic unit is only a secondary monitoring unit. Well position in SSWMU: U (upgradient); D (downgradient); B (background); C (crossgradient). Example: 401 (S[T]:B) monitors background conditions in the sand and gravel unit and secondarily in the unweathered Lavery till.*

[2] See Table 3-1 (p. 3-7) for a description of codes and analytes. The parameters listed in this table, Table E-1, are in addition to the contamination indicator parameters (I) and radiological indicator parameters (RI) routinely scheduled for 1997. Wells measured for potentiometric (water-level) data only are designated by p.

Table E - 2
1997 Contamination Indicator and Radiological Indicator Results for the Sand and Gravel Unit

Location Code	Hydraulic Position	pH	Conductivity µmhos/cm@25°C	Gross Alpha µCi/mL	Gross Beta µCi/mL	H-3 µCi/mL
301	UP(1)	7.31	475	-0.20±1.17E-09	9.87±2.97E-09	-0.34±5.91E-08
301	UP(2)	6.93	922	0.82±1.60E-09	2.47±3.05E-09	6.98±7.62E-08
301	UP(3)	6.96	492	0.09±1.15E-09	2.92±2.94E-09	9.98±7.98E-08
301	UP(4)	6.45	529	9.41±9.98E-10	4.39±2.07E-09	1.64±0.81E-07
401	UP(1)	6.95	1603	-1.22±3.16E-09	-1.39±5.02E-09	4.15±8.12E-08
401	UP(2)	6.71	2720	-3.75±4.90E-09	1.31±0.56E-08	7.14±7.65E-08
401	UP(3)	6.98	2390	-0.29±5.54E-09	5.89±5.56E-09	3.61±8.05E-08
401	UP(4)	6.93	2915	1.79±6.24E-09	-4.27±5.86E-09	1.12±0.81E-07
403	UP(1)	6.96	748	1.64±1.26E-09	0.06±2.31E-09	5.39±0.90E-07
403	UP(2)	7.06	1194	0.77±2.70E-09	6.04±3.55E-09	9.60±7.69E-08
403	UP(3)	6.86	1256	0.55±2.72E-09	1.17±0.28E-08	2.86±8.16E-08
403	UP(4)	7.38	1117	-0.76±2.75E-09	4.80±4.00E-09	1.66±0.80E-07
706	UP(1)	6.83	562	0.70±1.15E-09	1.09±0.26E-08	1.18±8.13E-08
706	UP(2)	7.47	871	1.20±1.20E-09	1.58±0.28E-08	7.14±7.68E-08
706	UP(3)	6.56	582	0.58±1.32E-09	1.10±0.26E-08	4.93±8.12E-08
706	UP(4)	6.66	573	0.37±1.68E-09	7.78±2.55E-09	2.59±8.03E-08
NB1S	UP(1)	6.08	377	5.81±6.91E-10	0.96±1.67E-09	-5.07±8.02E-08
NB1S	UP(2)	7.46	385	2.95±6.65E-10	2.90±1.76E-09	2.84±7.88E-08
NB1S	UP(3)	7.02	695	-0.03±1.11E-09	2.14±1.76E-09	5.59±7.96E-08
NB1S	UP(4)	6.75	634	0.11±1.55E-09	2.47±1.89E-09	6.76±8.08E-08
201	DOWN -B(1)	6.68	1913	3.13±2.76E-09	3.14±0.68E-08	-4.64±7.92E-08
201	DOWN -B(2)	6.67	1439	-0.22±2.88E-09	2.60±0.97E-08	4.14±8.02E-08
201	DOWN -B(3)	6.44	1875	-3.19±4.36E-09	4.30±0.65E-08	1.05±8.15E-08
201	DOWN -B(4)	6.62	1978	0.62±4.57E-09	2.36±0.65E-08	1.12±0.79E-07
103	DOWN - C(1)	10.55	2945	5.85±7.43E-09	4.54±0.69E-08	7.47±7.68E-08
103	DOWN - C(2)	10.11	4110	9.05±8.69E-09	8.39±0.77E-08	1.84±0.81E-07
103	DOWN - C(3)	10.99	4230	5.98±9.10E-09	5.75±0.73E-08	1.03±0.83E-07
103	DOWN - C(4)	10.66	3550	1.28±0.76E-08	3.61±0.91E-08	2.32±0.81E-07
104	DOWN - C(1)	7.27	1294	-2.67±7.38E-09	1.56±0.02E-05	7.85±0.84E-07
104	DOWN - C(2)	7.36	1143	-3.20±7.69E-09	1.56±0.02E-05	6.63±0.87E-07
104	DOWN - C(3)	6.91	1116	-0.83±1.00E-08	1.53±0.02E-05	5.82±0.89E-07
104	DOWN - C(4)	7.22	1188	-1.91±8.36E-09	1.72±0.02E-05	6.89±0.87E-07
111	DOWN - C(1)	6.61	491	0.00±5.07E-09	4.00±0.08E-06	3.01±0.80E-07
111	DOWN - C(2)	6.68	427	4.04±6.85E-09	3.05±0.07E-06	3.47±0.83E-07
111	DOWN - C(3)	6.89	460	-1.18±6.92E-09	2.81±0.07E-06	3.11±0.86E-07
111	DOWN - C(4)	6.90	682	2.98±8.26E-09	5.70±0.10E-06	1.02±0.09E-06

Sample collection period (rep) noted in parenthesis next to hydraulic position.

Table E - 2 (*continued*)
1997 Contamination Indicator and Radiological Indicator Results for the Sand and Gravel Unit

Location Code	Hydraulic Position	pH	Conductivity µmhos/cm@25°C	Gross Alpha µCi/mL	Gross Beta µCi/mL	H-3 µCi/mL
203	DOWN - C(2)	6.86	4035	*NS*	*NS*	*NS*
203	DOWN - C(3)	6.59	346	*NS*	*NS*	*NS*
203	DOWN - C(4)	6.85	3270	*NS*	*NS*	*NS*
205	DOWN - C(1)	6.93	1272	0.84±2.42E-09	6.42±5.12E-09	1.30±6.81E-08
205	DOWN - C(2)	7.16	1079	0.13±2.05E-09	1.22±0.38E-08	7.51±7.64E-08
205	DOWN - C(3)	6.88	1186	0.61±3.06E-09	8.74±5.33E-09	-2.38±8.12E-08
205	DOWN - C(4)	6.69	1667	-0.71±3.74E-09	1.06±0.61E-08	1.20±0.56E-07
406	DOWN - C(1)	7.13	566	1.11±1.17E-09	1.08±0.26E-08	1.63±0.98E-07
406	DOWN - C(2)	7.26	571	9.56±7.98E-10	9.39±1.77E-09	3.91±0.84E-07
406	DOWN - C(3)	6.59	577	1.77±1.13E-09	1.07±0.18E-08	1.16±0.97E-07
406	DOWN - C(4)	6.87	588	-0.38±1.54E-09	8.48±2.55E-09	3.24±0.87E-07
408	DOWN - C(1)	7.33	1718	1.20±0.90E-09	4.23±0.00E-04	7.11±1.96E-07
408	DOWN - C(2)	6.95	1560	1.60±2.20E-09	4.71±0.01E-04	1.21±1.07E-07
408	DOWN - C(3)	7.03	1679	*NR*	*NR*	*NR*
408	DOWN - C(4)	6.49	1730	-6.24±0.33E-06	4.94±0.03E-04	1.37±0.85E-07
501	DOWN - C(1)	7.50	1434	-3.92±7.68E-09	1.85±0.01E-04	3.29±0.80E-07
501	DOWN - C(2)	7.65	1289	-5.26±5.43E-09	1.92±0.00E-04	3.23±0.83E-07
501	DOWN - C(3)	7.04	1383	-0.78±1.35E-08	1.61±0.01E-04	2.22±0.84E-07
501	DOWN - C(4)	7.29	1411	-0.65±1.27E-08	1.66±0.01E-04	3.20±0.82E-07
502	DOWN - C(1)	7.59	1390	-5.85±6.62E-09	1.63±0.01E-04	5.16±0.82E-07
502	DOWN - C(2)	7.67	1244	-4.38±8.05E-09	1.49±0.01E-04	6.76±0.87E-07
502	DOWN - C(3)	7.02	1355	-0.80±1.38E-08	1.47±0.01E-04	3.72±0.86E-07
502	DOWN - C(4)	7.37	1343	0.26±1.36E-08	1.48±0.01E-04	3.41±0.83E-07
602	DOWN - C(1)	6.60	673	-0.25±1.46E-09	4.90±0.45E-08	2.88±0.17E-06
602	DOWN - C(2)	7.16	632	0.64±1.45E-09	1.36±0.35E-08	7.73±0.28E-06
602	DOWN - C(3)	6.62	638	0.56±1.56E-09	5.47±0.49E-08	1.43±0.12E-06
602	DOWN - C(4)	6.52	686	-0.53±1.29E-09	3.61±0.31E-08	4.78±0.20E-06
604	DOWN - C(1)	6.46	703	0.31±1.15E-09	5.48±2.39E-09	-9.35±1.28E-07
604	DOWN - C(2)	7.22	572	1.66±9.70E-10	3.46±2.23E-09	1.39±0.80E-07
604	DOWN - C(3)	6.52	549	1.13±1.46E-09	1.84±0.29E-08	-3.10±0.90E-07
604	DOWN - C(4)	6.43	592	0.40±1.80E-09	3.72±2.39E-09	2.15±0.81E-07
8605	DOWN - C(1)	6.96	885	1.47±7.62E-09	1.64±0.02E-05	1.88±0.11E-06
8605	DOWN - C(2)	7.15	909	4.44±9.63E-09	1.65±0.02E-05	1.75±0.11E-06
8605	DOWN - C(3)	7.54	964	0.18±1.18E-08	1.75±0.02E-05	1.74±0.11E-06
8605	DOWN - C(4)	7.09	1239	1.07±1.40E-08	1.37±0.02E-05	9.31±0.91E-07

Sample collection period (rep) noted in parenthesis next to hydraulic position.
NR - Not reported. These results have not been reported because the data validation process indicated the data were not reliable.
NS - Not sampled.

Table E - 2 (continued)
1997 Contamination Indicator and Radiological Indicator Results for the Sand and Gravel Unit

Location Code	Hydraulic Position	pH	Conductivity µmhos/cm@25°C	Gross Alpha µCi/mL	Gross Beta µCi/mL	H-3 µCi/mL
8607	DOWN - C(1)	6.26	633	0.16±1.55E-09	1.89±0.34E-08	-1.15±0.81E-07
8607	DOWN - C(2)	6.46	973	-0.11±1.44E-09	1.46±0.36E-08	-1.89±8.04E-08
8607	DOWN - C(3)	6.12	697	0.87±1.48E-09	1.33±0.34E-08	1.66±7.90E-08
8607	DOWN - C(4)	6.49	909	2.64±2.60E-09	1.77±0.37E-08	1.24±0.82E-07
8609	DOWN - C(1)	7.19	619	0.80±1.29E-09	3.82±0.08E-07	6.90±0.89E-07
8609	DOWN - C(2)	7.22	783	-0.23±1.01E-09	4.01±0.08E-07	7.80±0.88E-07
8609	DOWN - C(3)	7.14	820	-0.60±1.83E-09	4.23±0.12E-07	8.75±0.91E-07
8609	DOWN - C(4)	6.77	897	-0.22±2.57E-09	4.64±0.12E-07	8.98±0.92E-07
GSEEP	DOWN - D(1)	6.77	780	1.69±1.50E-09	8.02±3.18E-09	7.94±0.89E-07
GSEEP	DOWN - D(2)	7.02	746	1.04±1.40E-09	3.68±3.06E-09	8.04±0.88E-07
GSEEP	DOWN - D(3)	6.65	771	0.49±1.75E-09	7.32±3.24E-09	8.18±0.63E-07
GSEEP	DOWN - D(4)	6.62	969	-0.19±2.28E-09	6.68±3.26E-09	1.12±0.10E-06
105	DOWN - D(1)	6.99	1435	2.64±2.41E-09	3.60±0.25E-08	1.44±0.08E-06
105	DOWN - D(2)	7.13	1462	-0.65±3.21E-09	4.25±0.38E-08	8.37±0.90E-07
105	DOWN - D(3)	7.14	1425	2.14±4.19E-09	4.36±0.40E-08	6.08±0.89E-07
105	DOWN - D(4)	7.18	1431	2.47±3.47E-09	4.69±0.42E-08	6.07±0.90E-07
106	DOWN - D(1)	6.96	1190	-0.87±2.52E-09	5.97±2.67E-09	4.93±0.21E-06
106	DOWN - D(2)	7.01	1241	-1.24±2.59E-09	6.18±2.80E-09	2.48±0.13E-06
106	DOWN - D(3)	7.04	1148	0.78±2.79E-09	6.03±2.85E-09	2.41±0.09E-06
106	DOWN - D(4)	7.04	1160	-0.96±2.63E-09	0.68±2.99E-09	2.94±0.15E-06
116	DOWN - D(1)	7.34	1012	2.30±2.18E-09	1.64±0.09E-07	2.58±0.87E-07
116	DOWN - D(2)	7.24	1147	1.46±2.18E-09	1.14±0.08E-07	2.47±0.78E-07
116	DOWN - D(3)	7.02	650	0.62±1.73E-09	8.43±0.45E-08	1.17±0.80E-07
116	DOWN - D(4)	6.90	695	0.71±1.36E-09	6.97±0.32E-08	1.58±0.81E-07
601	DOWN - D(2)	6.85	528	*NS*	*NS*	*NS*
601	DOWN - D(3)	6.61	541	*NS*	*NS*	*NS*
601	DOWN - D(4)	6.13	495	*NS*	*NS*	*NS*
605	DOWN - D(1)	6.89	462	-1.69±9.94E-10	7.24±0.51E-08	4.17±0.89E-07
605	DOWN - D(2)	7.00	467	-0.69±9.19E-10	6.60±0.51E-08	-5.55±7.44E-08
605	DOWN - D(3)	6.93	516	-0.26±1.13E-09	6.15±0.50E-08	-1.33±8.14E-08
605	DOWN - D(4)	6.08	461	0.37±1.16E-09	6.98±0.52E-08	7.78±7.99E-08
801	DOWN - D(1)	6.85	1115	-2.49±4.87E-09	6.94±0.08E-06	4.67±0.81E-07
801	DOWN - D(2)	7.10	1482	-6.29±6.16E-09	7.94±0.12E-06	5.07±0.85E-07
801	DOWN - D(3)	6.64	1022	-9.72±8.52E-09	6.50±0.11E-06	3.57±0.86E-07
801	DOWN - D(4)	7.03	1016	0.25±1.28E-08	5.84±0.10E-06	3.23±0.82E-07

Sample collection period (rep) noted in parenthesis next to hydraulic position.
NS - Not sampled.

Table E - 2 (concluded)
1997 Contamination Indicator and Radiological Indicator Results for the Sand and Gravel Unit

Location Code	Hydraulic Position	pH	Conductivity µmhos/cm@25°C	Gross Alpha µCi/mL	Gross Beta µCi/mL	H-3 µCi/mL
802	DOWN - D(1)	6.89	380	8.54±9.68E-10	2.46±1.96E-09	3.07±0.56E-07
802	DOWN - D(2)	7.87	264	7.86±7.86E-10	2.71±2.14E-09	8.18±7.96E-08
802	DOWN - D(3)	6.89	194	4.71±6.92E-10	2.52±2.04E-09	-2.09±8.04E-08
802	DOWN - D(4)	6.96	768	1.09±2.15E-09	3.62±2.42E-09	3.94±0.83E-07
803	DOWN - D(1)	6.94	1413	2.74±3.41E-09	1.24±0.29E-08	5.03±0.82E-07
803	DOWN - D(2)	6.97	1456	2.46±3.44E-09	1.21±0.30E-08	4.30±0.83E-07
803	DOWN - D(3)	6.79	1370	4.49±3.59E-09	1.01±0.30E-08	4.75±0.87E-07
803	DOWN - D(4)	6.84	1488	0.50±3.66E-09	1.40±0.34E-08	4.31±0.85E-07
804	DOWN - D(1)	6.88	604	-0.09±1.22E-09	2.05±0.08E-07	1.88±0.78E-07
804	DOWN - D(2)	6.85	864	0.02±1.38E-09	2.12±0.08E-07	9.22±7.88E-08
804	DOWN - D(3)	7.61	609	1.09±1.50E-09	1.76±0.08E-07	1.32±0.81E-07
804	DOWN - D(4)	6.89	572	-0.13±1.58E-09	1.60±0.07E-07	2.26±0.82E-07
8603	DOWN - D(1)	7.39	1590	-4.64±9.09E-09	3.09±0.07E-06	5.20±0.82E-07
8603	DOWN - D(2)	7.42	1547	-0.43±1.02E-08	4.18±0.09E-06	6.95±0.87E-07
8603	DOWN - D(3)	7.20	1583	-1.21±1.01E-08	4.91±0.07E-06	4.48±0.87E-07
8603	DOWN - D(4)	7.42	1694	0.00±9.68E-09	7.75±0.08E-06	4.30±0.84E-07
8604	DOWN - D(1)	7.19	1664	-4.58±8.98E-09	4.75±0.03E-05	3.96±0.81E-07
8604	DOWN - D(2)	7.13	1633	-0.23±1.21E-08	5.00±0.03E-05	5.24±0.85E-07
8604	DOWN - D(3)	6.88	1618	-0.61±1.69E-08	4.64±0.03E-05	4.36±0.87E-07
8604	DOWN - D(4)	7.42	1474	-0.27±1.19E-08	3.98±0.03E-05	5.78±0.85E-07
8612	DOWN - D(1)	7.42	1077	2.02±2.31E-09	7.15±2.64E-09	9.41±0.92E-07
8612	DOWN - D(2)	7.49	1103	-0.08±2.32E-09	4.24±2.69E-09	8.81±0.89E-07
8612	DOWN - D(3)	7.01	1109	1.91±2.90E-09	2.64±2.74E-09	8.90±0.91E-07
8612	DOWN - D(4)	7.19	1108	0.38±2.81E-09	-0.68±2.94E-09	8.97±0.93E-07

Sample collection period (rep) noted in parenthesis next to hydraulic position.

Table E - 3
1997 Contamination Indicator and Radiological Indicator Results for the Till-Sand Unit

Location Code	Hydraulic Position	pH	Conductivity µmhos/cm@25°C	Gross Alpha µCi/mL	Gross Beta µCi/mL	H-3 µCi/mL
302	UP(1)	7.34	2280	-2.20±3.08E-09	1.51±0.56E-08	-9.36±8.23E-08
302	UP(2)	7.27	2235	0.22±4.44E-09	4.98±5.25E-09	-6.21±7.80E-08
302	UP(3)	7.06	2440	-0.81±5.71E-09	3.59±5.49E-09	-6.74±8.06E-08
302	UP(4)	7.01	2320	2.74±5.40E-09	-3.70±5.78E-09	9.62±7.91E-08
402	UP(1)	7.22	1585	2.23±3.46E-09	-2.95±4.92E-09	8.36±7.95E-08
402	UP(2)	7.31	2230	-1.68±4.39E-09	2.59±5.20E-09	-0.17±8.13E-08
402	UP(3)	7.15	2230	-0.30±5.69E-09	1.50±5.50E-09	-9.92±8.22E-08
402	UP(4)	6.92	2220	0.70±5.11E-09	-4.15±5.76E-09	2.20±0.81E-07
204	DOWN - B(1)	8.20	775	-0.21±1.06E-09	8.46±1.32E-09	1.92±0.81E-07
204	DOWN - B(2)	8.05	775	1.26±1.05E-09	2.84±1.61E-09	-0.11±7.73E-08
204	DOWN - B(3)	7.68	774	2.51±8.52E-10	1.85±1.01E-09	3.88±8.06E-08
204	DOWN - B(4)	7.84	853	0.61±1.40E-09	3.75±1.65E-09	1.26±0.81E-07
206	DOWN - C(1)	7.70	875	0.89±1.20E-09	2.35±2.10E-09	4.83±7.90E-08
206	DOWN - C(2)	7.64	894	0.32±1.68E-09	-0.30±2.94E-09	1.44±5.61E-08
206	DOWN - C(3)	7.56	925	1.48±2.25E-09	2.02±0.38E-08	-2.87±8.01E-08
206	DOWN - C(4)	7.65	939	-0.57±2.31E-09	4.27±3.15E-09	1.34±0.80E-07
208	DOWN - C(1)	8.08	304	7.87±8.10E-10	1.78±1.46E-09	4.52±7.92E-08
208	DOWN - C(2)	7.93	303	8.90±7.35E-10	2.49±1.49E-09	1.09±7.91E-08
208	DOWN - C(3)	7.85	297	9.87±7.12E-10	0.58±1.25E-09	-7.91±8.00E-08
208	DOWN - C(4)	8.20	296	6.61±8.13E-10	2.12±1.47E-09	-1.34±7.74E-08

Sample collection period (rep) noted in parenthesis next to hydraulic position.

Table E - 4
1997 Contamination Indicator and Radiological Indicator Results for the Weathered Lavery Till Unit

Location Code	Hydraulic Position	pH	Conductivity µmhos/cm@25°C	Gross Alpha µCi/mL	Gross Beta µCi/mL	H-3 µCi/mL
908	UP(1)	6.97	2440	8.23±5.20E-09	1.04±5.18E-09	4.14±8.20E-08
908	UP(3)	6.99	2860	7.09±7.61E-09	1.61±0.60E-08	1.11±0.81E-07
1005	UP(1)	7.23	784	4.15±2.10E-09	7.18±3.19E-09	8.61±7.93E-08
1005	UP(3)	7.24	765	2.97±2.38E-09	4.01±3.15E-09	5.94±7.72E-08
1008C	UP(1)	7.68	587	0.86±1.25E-09	4.60±1.95E-09	1.89±7.84E-08
1008C	UP(3)	7.58	580	0.73±1.06E-09	2.86±1.31E-09	7.10±5.58E-08
906	DOWN - B(1)	7.44	610	3.22±1.51E-09	1.29±2.19E-09	7.58±8.30E-08
906	DOWN - B(3)	7.26	611	3.30±1.75E-09	7.12±2.39E-09	1.06±0.82E-07
1006	DOWN - B(1)	6.94	2410	2.88±4.46E-09	-1.60±5.09E-09	7.08±7.96E-08
1006	DOWN - B(3)	7.01	2315	1.49±3.76E-09	1.16±0.40E-08	5.36±7.73E-08
1007	DOWN - B(1)	6.93	1152	0.76±2.75E-09	6.94±2.72E-09	9.73±8.18E-08
1007	DOWN - B(3)	6.99	1230	2.46±3.75E-09	8.59±3.00E-09	1.36±0.78E-07
NDATR	DOWN - C(1)	7.25	642	2.90±1.72E-09	7.14±0.51E-08	3.76±0.16E-06
NDATR	DOWN - C(2)	7.78	728	0.94±1.59E-09	7.31±0.54E-08	6.91±0.26E-06
NDATR	DOWN - C(3)	7.16	540	1.36±1.46E-09	6.71±0.52E-08	3.14±0.10E-06
NDATR	DOWN - C(4)	6.22	821	3.13±2.63E-09	8.63±0.58E-08	1.15±0.03E-05
909	DOWN - C(1)	6.67	1498	0.92±3.46E-09	3.00±0.14E-07	2.67±0.14E-06
909	DOWN - C(2)	7.01	1552	1.95±2.50E-09	3.78±0.11E-07	2.53±0.13E-06
909	DOWN - C(3)	6.73	1662	1.34±4.78E-09	3.96±0.10E-07	3.51±0.16E-06

Sample collection period (rep) noted in parenthesis next to hydraulic position.

Table E - 5
1997 Contamination Indicator and Radiological Indicator Results for the Unweathered Lavery Till Unit

Location Code	Hydraulic Position	pH	Conductivity µmhos/cm@25°C	Gross Alpha µCi/mL	Gross Beta µCi/mL	H-3 µCi/mL
405	UP(1)	7.35	1018	0.07±2.80E-09	4.84±2.64E-09	1.88±8.40E-08
405	UP(2)	6.97	628	-0.30±1.46E-09	6.38±1.94E-09	1.81±0.78E-07
405	UP(3)	7.52	750	-0.25±1.76E-09	3.39±2.67E-09	-3.97±8.30E-08
405	UP(4)	6.88	882	-0.55±2.00E-09	-1.38±2.86E-09	-0.63±8.47E-08
110	DOWN - B(1)	7.49	564	0.85±1.11E-09	4.15±1.90E-09	1.56±0.11E-06
110	DOWN - B(2)	7.69	554	0.97±1.13E-09	2.03±1.80E-09	1.48±0.10E-06
110	DOWN - B(3)	7.22	538	3.49±1.70E-09	4.95±1.92E-09	1.47±0.11E-06
110	DOWN - B(4)	7.63	521	2.26±1.81E-09	0.28±1.78E-09	1.54±0.08E-06
704	DOWN - B(1)	6.69	923	0.38±1.94E-09	2.16±0.31E-08	4.60±9.03E-08
704	DOWN - B(2)	6.66	895	-0.42±2.07E-09	1.55±0.30E-08	6.19±8.02E-08
704	DOWN - B(3)	6.58	909	0.08±2.26E-09	1.49±0.31E-08	-7.31±8.19E-08
704	DOWN - B(4)	6.53	957	2.08±2.92E-09	1.44±0.33E-08	-2.94±9.21E-08
707	DOWN - B(1)	6.52	299	5.46±6.50E-10	1.14±0.21E-08	-4.58±8.35E-08
707	DOWN - B(2)	6.85	292	9.87±7.00E-10	4.50±1.83E-09	4.32±7.92E-08
707	DOWN - B(3)	6.58	369	4.70±8.87E-10	5.48±1.86E-09	-8.93±8.06E-08
707	DOWN - B(4)	6.27	541	0.54±1.48E-09	2.45±1.87E-09	4.56±8.00E-08
107	DOWN - C(1)	7.26	795	1.71±1.80E-09	5.57±2.81E-09	1.03±0.10E-06
107	DOWN - C(2)	7.28	679	0.88±1.49E-09	1.71±2.99E-09	8.44±0.88E-07
107	DOWN - C(3)	7.33	660	5.33±1.58E-09	3.58±2.16E-09	9.54±0.94E-07
107	DOWN - C(4)	7.27	759	0.47±2.10E-09	3.89±3.08E-09	1.10±0.09E-06
108	DOWN - C(1)	7.48	586	2.58±1.34E-09	1.14±1.76E-09	6.47±8.42E-08
108	DOWN - C(2)	7.46	599	1.75±1.24E-09	5.48±1.96E-09	1.20±0.80E-07
108	DOWN - C(3)	7.52	588	2.69±1.52E-09	3.09±1.81E-09	1.58±0.83E-07
108	DOWN - C(4)	6.96	613	2.41±1.28E-09	2.18±1.32E-09	8.97±7.89E-08
409	DOWN - C(1)	8.07	361	9.80±8.08E-10	5.11±1.61E-09	8.60±7.92E-08
409	DOWN - C(2)	7.99	348	1.18±0.80E-09	4.28±1.58E-09	2.19±7.90E-08
409	DOWN - C(3)	8.09	344	1.37±0.85E-09	3.41±1.42E-09	-1.07±0.80E-07
409	DOWN - C(4)	8.00	305	3.57±6.92E-10	2.70±1.49E-09	1.23±0.79E-07
910	DOWN - C(1)	7.14	643	0.04±1.58E-09	2.46±0.07E-07	-1.48±7.97E-08
910	DOWN - C(3)	7.12	1013	0.82±2.28E-09	1.30±0.05E-07	0.76±7.74E-08

Sample collection period (rep) noted in parenthesis next to hydraulic position.

Table E - 6
1997 Contamination Indicator and Radiological Indicator Results for the Kent Recessional Sequence

Location Code	Hydraulic Position	pH	Conductivity µmhos/cm@25°C	Gross Alpha µCi/mL	Gross Beta µCi/mL	H-3 µCi/mL
901	UP(1)	7.93	408	3.86±8.85E-10	3.95±1.59E-09	-8.70±7.68E-08
901	UP(3)	7.64	379	4.08±7.07E-10	1.23±0.18E-08	5.46±7.87E-08
902	UP(1)	8.21	450	1.14±1.18E-09	3.92±1.62E-09	-7.88±5.45E-08
902	UP(3)	7.91	448	9.24±8.62E-10	2.98±1.41E-09	-0.39±7.89E-08
1008B	UP(1)	8.05	372	4.32±9.91E-10	4.68±1.64E-09	-0.11±7.78E-08
1008B	UP(3)	8.15	310	6.03±6.95E-10	2.85±1.38E-09	4.19±7.92E-08
903	DOWN - B(1)	7.77	768	2.03±1.61E-09	2.18±2.27E-09	-1.43±0.76E-07
903	DOWN - B(3)	7.94	702	2.44±1.91E-09	2.71±2.23E-09	1.63±5.39E-08
8610	DOWN - B(1)	8.22	930	1.96±1.74E-09	2.73±2.32E-09	-1.24±0.80E-07
8610	DOWN - B(3)	8.13	958	1.34±1.94E-09	2.86±0.33E-08	-3.85±7.59E-08
8611	DOWN - B(1)	7.52	1013	2.57±2.37E-09	3.32±2.75E-09	-1.24±0.56E-07
8611	DOWN - B(3)	7.55	970	0.56±1.41E-09	-0.12±2.07E-09	1.49±7.62E-08

Sample collection period (rep) noted in parenthesis next to hydraulic position.

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Table E - 7
1997 Contamination Indicator and Radiological Indicator Results at North Plateau Seep Monitoring Locations

Location Code	Date Collected	pH	Conductivity µmhos/cm@25°C	Gross Alpha µCi/mL	Gross Beta µCi/mL	H-3 µCi/mL
SP02	12/12/96	*NS*	*NS*	0.50±1.46E-09	1.28±3.67E-09	8.50±0.88E-07
SP02	6/17/97	*NS*	*NS*	1.53±1.90E-09	7.36±2.83E-09	7.83±0.90E-07
SP04	12/12/96	*NS*	*NS*	5.06±2.51E-09	7.59±3.31E-09	3.92±0.82E-07
SP04	6/17/97	*NS*	*NS*	1.65±0.46E-08	2.08±0.40E-08	3.07±0.86E-07
SP04	9/9/97	*NS*	*NS*	-0.06±2.53E-09	2.13±2.99E-09	6.27±0.86E-07
SP05	12/12/96	*NS*	*NS*	3.07±9.63E-10	2.40±2.25E-09	2.79±0.80E-07
SP05	6/17/97	*NS*	*NS*	1.28±1.50E-09	2.74±1.91E-09	1.31±0.82E-07
SP06	12/12/96	*NS*	*NS*	4.65±8.38E-10	0.95±1.76E-09	2.63±0.69E-07
SP06	6/17/97	*NS*	*NS*	0.21±1.02E-09	1.68±1.55E-09	8.89±7.05E-08
SP11	12/12/96	*NS*	*NS*	1.20±1.54E-09	5.73±2.79E-09	2.92±0.80E-07
SP11	6/17/97	*NS*	*NS*	0.72±2.05E-09	5.54±3.18E-09	8.30±8.13E-08
SP12	12/12/96	7.62	721	1.05±2.04E-09	4.50±4.51E-09	1.06±0.09E-06
SP12	6/2/97	7.00	840	1.14±2.15E-09	3.39±3.90E-09	7.46±0.89E-07
SP18	12/12/96	*NS*	*NS*	1.04±0.44E-09	0.00±2.71E-09	-8.64±6.03E-08
SP18	6/17/97	*NS*	*NS*	0.90±3.70E-10	2.75±1.48E-09	6.65±7.80E-08

NS - Not sampled.

Table E - 8

1997 Contamination Indicator and Radiological Indicator Results at Well Points

Location Code	Date Collected	pH	Conductivity µmhos/cm@25°C	Gross Alpha µCi/mL	Gross Beta µCi/mL	H-3 µCi/mL
WP-A	12/97	8.56	111	0.69±4.65E-10	4.83±0.33E-08	1.86±0.06E-05
WP-C	12/97	7.22	135	3.38±6.56E-10	2.19±0.38E-08	9.79±0.21E-05
WP-H	12/97	7.65	490	1.00±1.05E-09	2.55±0.03E-06	4.02±0.17E-06

NS - Not sampled

Table E - 9

Detections of Volatile Organic Compounds at Selected Groundwater Monitoring Locations

Location Code	Date	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	DCDFMeth (µg/L)	1,2-DCE (Total) (µg/L)	TCE (µg/L)
SP-12	12/12/96	<5.0	2.0*	<5.0	N/A	<5.0
	6/2/97	<5.0	1.5*	<5.0	N/A	<5.0
801	6/3/97	<5.0	<5.0	<5.0	N/A	1.7*
803	12/5/96	<5.0	<5.0	2.0*	N/A	<5.0
	3/6/97	<5.0	<5.0	2.0*	N/A	<5.0
	6/2/97	<5.0	<5.0	4.0*	N/A	<5.0
	9/2/97	<5.0	<5.0	3.0*	N/A	<5.0
8609	3/6/97	<5.0	<5.0	<5.0	N/A	<5.0
8612	12/9/96	4.0*	33.0	3.0*	19.0	<5.0
	3/6/97	3.0*	24.5	2.0*	14.0	<5.0
	6/2/97	4.0*	29.0	4.0*	15.5	<5.0
	9/2/97	4.5*	23.0	5.0	22.2	<5.0

Note: Samples are collected according to different schedules (annual, semiannual, or quarterly schedules).

** Compound was detected below the practical quantitation limit (PQL).*

Table E - 10

Tributyl Phosphate Sampling Results for 1997 at Selected Groundwater Monitoring Locations

Location Code	Date	Tributyl Phosphate (TBP) *(µg/L)*
111	12/4/96	<10.0
	6/4/97	<10.0
8605	12/4/96	700
	6/3/97	445

Note: Samples are collected according to different schedules (annual, semiannual, or quarterly schedules). Practical quantitation limit for TBP is 10 µg/L.

Table E - 11
RCRA Hazardous Constituent List and Appendix IX Metals (µg/L) Sampling Results

Location Code	Hydraulic Position	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper
Sand and Gravel									
301	UP(2)	*NS*	*NS*	*NS*	*NS*	*NS*	48.1	*NS*	*NS*
301	UP(3)	*NS*	*NS*	*NS*	*NS*	*NS*	77.4	*NS*	*NS*
301	UP(4)	*NS*	*NS*	*NS*	*NS*	*NS*	23.5	*NS*	*NS*
401	UP(1)	<10.0	<10.0	323	<1.0	<5.0	219	*NS*	*NS*
401	UP(2)	*NS*	*NS*	*NS*	*NS*	*NS*	214	*NS*	*NS*
401	UP(3)	*NS*	*NS*	*NS*	*NS*	*NS*	193	*NS*	*NS*
401	UP(4)	*NS*	*NS*	*NS*	*NS*	*NS*	898	*NS*	*NS*
403	UP(1)	<10.0	71.2	776	4.0	13.4	1270	*NS*	*NS*
403	UP(2)	*NS*	*NS*	*NS*	*NS*	*NS*	835	*NS*	*NS*
403	UP(3)	*NS*	*NS*	*NS*	*NS*	*NS*	1390	*NS*	*NS*
403	UP(4)	*NS*	*NS*	*NS*	*NS*	*NS*	1360	*NS*	*NS*
706	UP(1)	<10.0	13.2	240	1.3	<5.0	23.8	*NS*	*NS*
201	DOWN - B(1)	<10.0	<10.0	259	<1.0	<5.0	<10.0	*NS*	*NS*
201	DOWN - B(2)	*NS*	*NS*	*NS*	*NS*	*NS*	<1.7	*NS*	*NS*
201	DOWN - B(3)	*NS*	*NS*	*NS*	*NS*	*NS*	*NR*	*NS*	*NS*
201	DOWN - B(4)	*NS*	*NS*	*NS*	*NS*	*NS*	<1.3	*NS*	*NS*
103	DOWN - C(1)	<10.0	110	39	0.26	<5.0	13.0	*NS*	*NS*
104	DOWN - C(1)	<10.0	<10.0	155	0.60	<5.0	18.0	*NS*	*NS*
111	DOWN - C(1)	<10.0	<10.0	65	0.26	<5.0	2.60	<50.0	<20.0
203	DOWN - C(2)	*NS*	*NS*	*NS*	*NS*	*NS*	352	*NS*	*NS*
203	DOWN - C(3)	*NS*	*NS*	*NS*	*NS*	*NS*	149	*NS*	*NS*
203	DOWN - C(4)	*NS*	*NS*	*NS*	*NS*	*NS*	118	*NS*	*NS*
205	DOWN - C(1)	<10.0	<10.0	< 200	<1.0	<5.0	454	*NS*	*NS*
205	DOWN - C(2)	*NS*	*NS*	*NS*	*NS*	*NS*	228	*NS*	*NS*
205	DOWN - C(3)	*NS*	*NS*	*NS*	*NS*	*NS*	104	*NS*	*NS*
205	DOWN - C(4)	*NS*	*NS*	*NS*	*NS*	*NS*	164	*NS*	*NS*
408	DOWN - C(1)	<10.0	<10.0	310	0.32	<5.0	49.0	*NS*	*NS*
408	DOWN - C(2)	*NS*	*NS*	*NS*	*NS*	*NS*	66.0	*NS*	*NS*
408	DOWN - C(3)	*NS*	*NS*	*NS*	*NS*	*NS*	120	*NS*	*NS*
408	DOWN - C(4)	*NS*	*NS*	*NS*	*NS*	*NS*	120	*NS*	*NS*
501	DOWN - C(1)	<10.0	<10.0	320	<1.0	<5.0	53.0	*NS*	*NS*

Sample collection period (rep) noted in parenthesis next to hydraulic position.
NS - Not sampled.
NR - Not reported. These results have not been reported because the data validation process indicated the data were not reliable.

Table E - 11 (continued)
RCRA Hazardous Constituent List and Appendix IX Metals (µg/L) Sampling Results

Location Code	Hydraulic Position	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Tin	Vanadium	Zinc
Sand and Gravel										
301	UP(2)	*NS*	*NS*	148	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
301	UP(3)	*NS*	*NS*	192	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
301	UP(4)	*NS*	*NS*	179	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
401	UP(1)	<3.0	<0.20	308	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
401	UP(2)	*NS*	*NS*	185	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
401	UP(3)	*NS*	*NS*	142	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
401	UP(4)	*NS*	*NS*	340	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
403	UP(1)	110	0.29	419	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
403	UP(2)	*NS*	*NS*	198	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
403	UP(3)	*NS*	*NS*	271	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
403	UP(4)	*NS*	*NS*	454	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
706	UP(1)	22	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
201	DOWN - B(1)	<3.0	<0.20	40.1	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
201	DOWN - B(2)	*NS*	*NS*	*NR*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
201	DOWN - B(3)	*NS*	*NS*	32.6	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
201	DOWN - B(4)	*NS*	*NS*	56.6	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
103	DOWN - C(1)	24	0.09	31.0	11	<10.0	<50.0	*NS*	*NS*	*NS*
104	DOWN - C(1)	<3.0	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
111	DOWN - C(1)	<3.0	*NS*	<40.0	<5.0	5.40	<10.0	<100	<50.0	<20.0
111	DOWN - C(2)	*NS*	0.07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
203	DOWN - C(2)	*NS*	*NS*	224	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
203	DOWN - C(3)	*NS*	*NS*	698	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
203	DOWN - C(4)	*NS*	*NS*	835	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
205	DOWN - C(1)	3.0	<0.20	60.7	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
205	DOWN - C(2)	*NS*	*NS*	30.6	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
205	DOWN - C(3)	*NS*	*NS*	44.9	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
205	DOWN - C(4)	*NS*	*NS*	39.4	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
408	DOWN - C(1)	<3.0	<0.20	210	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
408	DOWN - C(2)	*NS*	*NS*	280	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
408	DOWN - C(3)	*NS*	*NS*	320	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
408	DOWN - C(4)	*NS*	*NS*	270	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
501	DOWN - C(1)	<3.0	<0.20	58.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*

Sample collection period (rep) noted in parenthesis next to hydraulic position.
NS - Not sampled
NR - Not reported. These results have not been reported because the data validation process indicated the data were not reliable.

Table E - 11 (continued)
RCRA Hazardous Constituent List and Appendix IX Metals (µg/L) Sampling Results

Location Code	Hydraulic Position	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper
Sand and Gravel									
502	DOWN - C(1)	<10.0	<10.0	460	0.2	<5.0	3400	11.0	34.0
502	DOWN - C(2)	*NS*	<10.0	290	*NS*	<5.0	640	12.5	<25.0
502	DOWN - C(3)	*NS*	<10.0	300	*NS*	<5.0	240	24.0	<25.0
502	DOWN - C(4)	*NS*	<10.0	310	*NS*	<5.0	450	12.0	<25.0
602	DOWN - C(1)	<10.0	54.7	608	2.6	6.8	78.8	*NS*	*NS*
604	DOWN - C(1)	<10.0	<10.0	< 200	<1.0	<5.0	<10.0	*NS*	*NS*
8605	DOWN - C(1)	<10.0	5.7	91	<1.0	<5.0	2.20	<50.0	<20.0
8607	DOWN - C(1)	<10.0	<10.0	< 200	<1.0	<5.0	<10.0	*NS*	*NS*
8609	DOWN - C(1)	<10.0	<10.0	212	<1.0	<5.0	<10.0	*NS*	*NS*
105	DOWN - D(1)	<10.0	13.8	221	<1.0	<5.0	11.0	*NS*	*NS*
106	DOWN - D(1)	<10.0	12.7	220	1.0	<5.0	210	*NS*	*NS*
106	DOWN - D(2)	*NS*	*NS*	*NS*	*NS*	*NS*	1520	*NS*	*NS*
106	DOWN - D(3)	*NS*	*NS*	*NS*	*NS*	*NS*	3000	*NS*	*NS*
106	DOWN - D(4)	*NS*	*NS*	*NS*	*NS*	*NS*	656	*NS*	*NS*
116	DOWN - D(1)	<10.0	50.8	510	2.1	8.9	1090	*NS*	*NS*
116	DOWN - D(2)	*NS*	*NS*	*NS*	*NS*	*NS*	45.2	*NS*	*NS*
116	DOWN - D(3)	*NS*	*NS*	*NS*	*NS*	*NS*	69.3	*NS*	*NS*
116	DOWN - D(4)	*NS*	*NS*	*NS*	*NS*	*NS*	45.5	*NS*	*NS*
601	DOWN - D(2)	*NS*	*NS*	*NS*	*NS*	*NS*	10200	*NS*	*NS*
601	DOWN - D(3)	*NS*	*NS*	*NS*	*NS*	*NS*	7000	*NS*	*NS*
601	DOWN - D(4)	*NS*	*NS*	*NS*	*NS*	*NS*	310	*NS*	*NS*
605	DOWN - D(1)	<10.0	<10.0	< 200	<1.0	<5.0	1540	*NS*	*NS*
605	DOWN - D(2)	*NS*	*NS*	*NS*	*NS*	*NS*	6.50	*NS*	*NS*
605	DOWN - D(3)	*NS*	*NS*	*NS*	*NS*	*NS*	9.50	*NS*	*NS*
605	DOWN - D(4)	*NS*	*NS*	*NS*	*NS*	*NS*	10.0	*NS*	*NS*
801	DOWN - D(1)	<10.0	<10.0	130	0.24	<5.0	9.10	*NS*	*NS*
802	DOWN - D(1)	<10.0	<10.0	380	<1.0	<5.0	69.3	*NS*	*NS*
803	DOWN - D(1)	19.5	<10.0	< 200	<1.0	<5.0	<10.0	*NS*	*NS*
804	DOWN - D(1)	<10.0	<10.0	< 200	<1.0	<5.0	62.7	*NS*	*NS*

Sample collection period (rep) noted in parenthesis next to hydraulic position.
NS - Not sampled

Table E - 11 (continued)
RCRA Hazardous Constituent List and Appendix IX Metals (µg/L) Sampling Results

Location Code	Hydraulic Position	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Tin	Vanadium	Zinc
Sand and Gravel										
502	DOWN - C(1)	<3.0	<0.20	120	<5.0	<10.0	4.70	*NS*	13.0	<20.0
502	DOWN - C(2)	<3.0	0.13	50.0	<5.0	<5.00	*NS*	*NS*	<50.0	<20.0
502	DOWN - C(3)	<3.0	<0.20	32.0	<5.0	<5.00	*NS*	*NS*	<50.0	<20.0
502	DOWN - C(4)	1.3	<0.20	37.0	<5.0	<5.00	*NS*	*NS*	<50.0	<20.0
602	DOWN - C(1)	85	<0.20	109	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
604	DOWN - C(1)	4.2	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
8605	DOWN - C(1)	<3.0	*NS*	<40.0	<5.0	<10.0	9.90	<100	2.20	<20.0
8605	DOWN - C(2)	*NS*	0.08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
8607	DOWN - C(1)	<3.0	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
8609	DOWN - C(1)	<3.0	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
105	DOWN - D(1)	<3.0	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
106	DOWN - D (1)	17	<0.20	276	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
106	DOWN - D(2)	*NS*	*NS*	346	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
106	DOWN - D(3)	*NS*	*NS*	659	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
106	DOWN - D(4)	*NS*	*NS*	277	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
116	DOWN - D(1)	73	<0.20	491	<5.0	29.0	<10.0	*NS*	*NS*	*NS*
116	DOWN - D(2)	*NS*	*NS*	127	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
116	DOWN - D(3)	*NS*	*NS*	249	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
116	DOWN - D(4)	*NS*	*NS*	143	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
601	DOWN - D(2)	*NS*	*NS*	589	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
601	DOWN - D(3)	*NS*	*NS*	865	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
601	DOWN - D(4)	*NS*	*NS*	398	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
605	DOWN - D(1)	5.2	<0.20	284	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
605	DOWN - D(2)	*NS*	*NS*	14.0	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
605	DOWN - D(3)	*NS*	*NS*	43.8	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
605	DOWN - D(4)	*NS*	*NS*	81.4	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
801	DOWN - D(1)	<3.0	<0.20	14.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
802	DOWN - D(1)	<3.0	<0.20	43.3	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
803	DOWN - D(1)	<3.0	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
804	DOWN - D(1)	7.3	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*

Sample collection period (rep) noted in parenthesis next to hydraulic position.
NS - Not sampled

Table E - 11 *(continued)*
RCRA Hazardous Constituent List and Appendix IX Metals (µg/L) Sampling Results

Location Code	Hydraulic Position	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper
Sand and Gravel									
8603	DOWN - D(1)	<10.0	<10.0	330	<1.0	<5.0	<10.0	*NS*	*NS*
8604	DOWN - D(1)	<10.0	<10.0	300	0.26	<5.0	3.80	*NS*	*NS*
8612	DOWN - D(1)	<10.0	<10.0	245	<1.0	<5.0	<10.0	*NS*	*NS*
Till-Sand									
302	UP(1)	<10.0	<10.0	562	<1.0	<5.0	<10.0	*NS*	*NS*
Unweathered Lavery Till									
110	DOWN - B(1)	<10.0	<10.0	< 200	<1.0	<5.0	<10.0	*NS*	*NS*
704	DOWN - B(1)	<10.0	<10.0	< 200	<1.0	<5.0	<10.0	*NS*	*NS*
707	DOWN - B(1)	<10.0	12.2	< 200	1.3	<5.0	157	*NS*	*NS*
107	DOWN - C(1)	<10.0	<10.0	< 200	<1.0	<5.0	27.0	*NS*	*NS*
108	DOWN - C(1)	<10.0	<10.0	221	<1.0	<5.0	17.8	*NS*	*NS*
910	DOWN - C(1)	<10.0	<10.0	< 200	<1.0	<5.0	<10.0	*NS*	*NS*
Weathered Lavery Till									
908	UP(1)	<10.0	<10.0	< 200	<1.0	<5.0	15.1	*NS*	*NS*
1005	UP(1)	<10.0	<10.0	< 200	<1.0	<5.0	<10.0	*NS*	*NS*
1008C	UP(1)	<10.0	<10.0	229	<1.0	<5.0	31.1	*NS*	*NS*
906	DOWN - B(1)	<10.0	<10.0	< 200	<1.0	<5.0	<10.0	*NS*	*NS*
1006	DOWN - B(1)	<10.0	<10.0	< 200	<1.0	<5.0	<10.0	*NS*	*NS*
NDATR	DOWN - C(1)	<10.0	<10.0	< 200	<1.0	<5.0	<10.0	<50.0	<25.0
NDATR	DOWN - C(2)	<10.0	<10.0	< 200	<1.0	<5.0	<10.0	<50.0	<25.0
NDATR	DOWN - C(3)	<10.0	<10.0	< 200	<1.0	<5.0	<10.0	<50.0	<25.0
NDATR	DOWN - C(4)	<10.0	<10.0	< 200	<1.0	<5.0	<10.0	<50.0	<25.0
909	DOWN - C(1)	<10.0	14.4	< 200	<1.0	<5.0	<10.0	<50.0	26.8

Sample collection period (rep) noted in parenthesis next to hydraulic position.
NS - Not sampled

Table E - 11 (continued)
RCRA Hazardous Constituent List and Appendix IX Metals (µg/L) Sampling Results

Location Code	Hydraulic Position	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Tin	Vanadium	Zinc
Sand and Gravel										
8603	DOWN - D(1)	<3.0	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
8604	DOWN - D(1)	<3.0	<0.20	13.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
8612	DOWN - D(1)	<3.0	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
Till-Sand										
302	UP(1)	<3.0	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
Unweathered Lavery Till										
110	DOWN - B(1)	<3.0	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
704	DOWN - B(1)	<3.0	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
707	DOWN - B(1)	15	<0.20	119	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
107	DOWN - C(1)	5.8	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
108	DOWN - C(1)	11	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
910	DOWN - C(1)	5.2	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
Weathered Lavery Till										
908	UP(1)	7.0	<0.20	<40.0	<5.00	<10.0	<10.0	*NS*	*NS*	*NS*
1005	UP(1)	<3.0	<0.20	<40.0	<5.00	<10.0	<10.0	*NS*	*NS*	*NS*
1008C	UP(1)	<3.0	<0.20	<40.0	<5.00	<10.0	<10.0	*NS*	*NS*	*NS*
906	DOWN - B(1)	<3.0	<0.20	<40.0	<5.00	<10.0	<10.0	*NS*	*NS*	*NS*
1006	DOWN - B(1)	<3.0	<0.20	<40.0	<5.00	<10.0	<10.0	*NS*	*NS*	*NS*
NDATR	DOWN - C(1)	<3.0	<0.20	<40.0	<5.0	<10.0	<10.0	<3000	<50.0	28.8
NDATR	DOWN - C(2)	<3.0	<0.20	<40.0	<5.0	<10.0	<10.0	<3000	<50.0	<20.0
NDATR	DOWN - C(3)	<3.0	<0.20	<40.0	<5.0	<10.0	<10.0	<3000	<50.0	<20.0
NDATR	DOWN - C(4)	5.8	<0.20	<40.0	<5.0	<10.0	<10.0	<3000	<50.0	83.1
909	DOWN - C(1)	9.1	<0.20	<40.0	<5.0	<10.0	<10.0	<3000	<50.0	125

Sample collection period (rep) noted in parenthesis next to hydraulic position.
NR - Not reported. These results have not been reported because the data validation process indicated the data were not reliable.
NS - Not sampled

Table E - 11 *(concluded)*
RCRA Hazardous Constituent List and Appendix IX Metals (µg/L) Sampling Results

Location Code	Hydraulic Position	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper
Kent Recessional Sequence									
901	UP(1)	<10.0	<10.0	671	<1.0	<5.0	<10.0	*NS*	*NS*
902	UP(1)	<10.0	<10.0	770	<1.0	<5.0	<10.0	<50.0	<25.0
902	UP(3)	<10.0	<10.0	774	<1.0	<5.0	<10.0	<50.0	<25.0
1008B	UP(1)	<10.0	<10.0	713	<1.0	<5.0	<10.0	*NS*	*NS*
903	DOWN - B(1)	<10.0	<10.0	< 200	<1.0	<5.0	<10.0	*NS*	*NS*
8611	DOWN - B(1)	<10.0	<10.0	< 200	<1.0	5.2	<10.0	*NS*	*NS*

Location Code	Hydraulic Position	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Tin	Vanadium	Zinc
Kent Recessional Sequence										
901	UP(1)	5.0	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
902	UP(1)	<3.0	<0.20	<40.0	<5.0	<10.0	<10.0	<3000	<50.0	<20.0
902	UP(3)	<3.0	<0.20	<40.0	<5.0	<10.0	<10.0	<3000	<50.0	75.5
1008B	UP(1)	<3.0	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
903	DOWN - B(1)	<3.0	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*
8611	DOWN - B(1)	9.3	<0.20	<40.0	<5.0	<10.0	<10.0	*NS*	*NS*	*NS*

Sample collection period (rep) noted in parenthesis next to hydraulic position.
NS - Not sampled

Table E - 12

Sampling Parameters at Early Warning Monitoring Wells (µg/L)

Location Code	Sample Round	Aluminum *Total*	Iron *Total*	Manganese *Total*
502	(1)	72	35,000	49
	(2)	150	4,500	94
	(2)	230	3,400	69
	(3)	<200	2,000	72
	(4)	91	3,000	17

Note: These parameters were sampled in addition to routine monitoring parameters in 1997.

Table E - 13
1997 Alpha- Beta- and Gamma-emitting Radioisotopic Results (µCi/mL)

Location Code	Hydraulic Position	C-14	K-40	Co-60	I-129	Cs-137
Sand and Gravel						
401	A(2)	0.73±2.24E-08	0.00±2.74E-07	0.00±1.96E-08	0.33±1.01E-09	0.00±1.77E-08
406	C(2)	1.49±2.26E-08	0.00±2.02E-07	0.00±3.19E-08	2.70±6.33E-10	0.00±1.83E-08
408	C(2)	-1.56±1.28E-08	1.06±5.88E-08	0.46±2.39E-09	0.37±1.93E-09	1.94±3.88E-09
Weathered Till						
NDATR	C(1)	-8.25±9.86E-09	0.00±2.04E-07	0.00±1.75E-08	2.37±8.71E-10	0.00±1.47E-08
NDATR	C(3)	0.71±1.44E-08	0.00±2.25E-07	0.00±1.75E-08	0.93±1.52E-09	0.00±1.40E-08
909	C(1)	-0.33±1.02E-08	0.00±2.02E-07	0.00±1.43E-08	9.51±2.40E-09	0.00±1.36E-08

Sample collection period (rep) noted in parenthesis next to hydraulic position.

Table E - 13 *(concluded)*
1997 Alpha- Beta- and Gamma-emitting Radioisotopic Results (µCi/mL)

Location Code	Hydraulic Position	Sr-90	Tc-99	Ra-226	Ra-228	U-232
Sand and Gravel						
401	A(2)	5.88±2.13E-09	-1.22±0.97E-09	9.23±4.63E-10	-4.29±5.38E-10	0.34±3.33E-10
111	C(2)	1.41±0.03E-06	*NS*	*NS*	*NS*	*NS*
406	C(2)	2.88±1.83E-09	3.65±1.12E-09	4.93±3.56E-10	-9.68±3.46E-10	-1.00±3.76E-11
408	C(2)	1.93±0.00E-04	2.01±0.21E-08	5.22±3.41E-10	-0.46±7.63E-09	1.47±1.33E-11
501	C(2)	8.98±0.03E-05	*NS*	*NS*	*NS*	*NS*
502	C(2)	6.93±0.02E-05	*NS*	*NS*	*NS*	*NS*
602	C(1)	3.03±0.47E-08	*NS*	*NS*	*NS*	*NS*
602	C(3)	2.87±0.45E-08	*NS*	*NS*	*NS*	*NS*
8605	C(2)	7.76±0.08E-06	*NS*	*NS*	*NS*	*NS*
8609	C(1)	1.85±0.11E-07	*NS*	*NS*	*NS*	*NS*
8609	C(3)	2.18±0.11E-07	*NS*	*NS*	*NS*	*NS*
116	D(1)	7.13±0.62E-08	*NS*	*NS*	*NS*	*NS*
116	D(3)	4.35±0.50E-08	*NS*	*NS*	*NS*	*NS*
605	D(1)	4.24±0.54E-08	*NS*	*NS*	*NS*	*NS*
605	D(3)	4.56±0.54E-08	*NS*	*NS*	*NS*	*NS*
801	D(1)	3.47±0.05E-06	*NS*	*NS*	*NS*	*NS*
801	D(2)	3.62±0.05E-06	*NS*	*NS*	*NS*	*NS*
801	D(3)	3.29±0.05E-06	*NS*	*NS*	*NS*	*NS*
801	D(4)	3.17±0.05E-06	*NS*	*NS*	*NS*	*NS*
8603	D(1)	1.54±0.03E-06	*NS*	*NS*	*NS*	*NS*
8603	D(3)	2.45±0.03E-06	*NS*	*NS*	*NS*	*NS*
Weathered Lavery Till						
NDATR	C(1)	3.52±0.50E-08	-1.39±1.93E-09	5.50±3.80E-10	3.91±0.53E-09	8.26±6.71E-11
NDATR	C(3)	3.51±0.49E-08	-3.30±1.61E-09	4.06±3.44E-10	7.37±3.52E-09	1.80±9.95E-11
NDATR	C(4)	*NS*	*NS*	*NS*	1.46±3.50E-09	*NS*
909	C(1)	1.47±0.09E-07	1.12±0.59E-08	3.36±2.95E-10	1.74±0.46E-09	2.35±1.83E-10

		U-233/234	U-235/236	U-238	Total U (µg/mL)
Sand and Gravel					
401	A(2)	5.03±3.83E-11	1.00±1.84E-11	4.36±3.11E-11	1.62±0.74E-04
406	C(2)	1.63±0.52E-10	0.80±2.12E-11	1.37±0.48E-10	0.00±9.50E-04
408	C(2)	3.35±0.76E-10	2.55±1.94E-11	1.78±0.53E-10	6.04±0.09E-04
Weathered Lavery Till					
NDATR	C(1)	1.27±0.16E-09	0.26±1.20E-10	7.80±0.33E-10	3.89±0.07E-04
NDATR	C(3)	7.00±2.41E-10	1.26±1.22E-10	4.97±2.09E-10	1.76±0.07E-03
909	C(1)	5.36±0.34E-09	2.40±0.63E-10	1.21±0.13E-09	1.90±0.03E-03

Sample collection period (rep) noted in parenthesis next to hydraulic position.
NS - Not sampled

Table E - 14

Modified Practical Quantitation Limits (PQLs) in µg/L for Appendix IX Parameters

COMPOUND	PQL	COMPOUND	PQL
Appendix IX Volatiles		*Appendix IX Volatiles*	
Acetone	10	Methacrylonitrile	5
Acetonitrile	100	Methyl ethyl ketone	10
Acrolein	5	Methyl iodide	5
Acrylonitrile	5	Methyl methacrylate	5
Allyl chloride	5	4-Methyl-2-pentanone	10
Benzene	5	Methylene bromide	10
Bromodichloromethane	5	Methylene chloride	5
Bromoform	5	Pentachloroethane	5
Bromomethane	10	Propionitrile	50
Carbon disulfide	10	Styrene	5
Carbon tetrachloride	5	1,1,1,2-Tetrachloroethane	5
Chlorobenzene	5	1,1,2,2-Tetrachloroethane	5
Chloroethane	10	Tetrachloroethylene	5
Chloroform	5	Toluene	5
Chloromethane	10	1,1,1-Trichloroethane	5
Chloroprene	5	1,1,2-Trichloroethane	5
1,2-Dibromo-3-chloropropane	5	1,2,3-Trichloropropane	5
Dibromochloromethane	5	Vinyl acetate	10
1,2-Dibromoethane	5	Vinyl chloride	10
Dichlorodifluoromethane	5	Xylene (total)	5
1,1-Dichloroethane	5	cis-1,3-Dichloropropene	5
1,2-Dichloroethane	5	trans-1,2-Dichloroethylene	5
1,1-Dichloroethylene	5	trans-1,3-Dichloropropene	5
1,2-Dichloropropane	5	trans-1,4-Dichloro-2-butene	5
Ethyl benzene	5	Trichloroethylene	5
Ethyl methacrylate	5	Trichlorofluoromethane	5
2-Hexanone	10	1,2-Dichloroethylene (total)	5
Isobutyl alcohol	100		
Metals		*Metals*	
Aluminum	200	Manganese	15
Antimony*	10	Lead*	3
Arsenic*	10	Mercury*	0.2
Barium*	200	Nickel*	5 or 40**
Beryllium*	1	Selenium*	5
Cadmium*	5	Silver*	10
Chromium*	5 or 10**	Thallium*	10
Cobalt	50	Tin	3000
Copper	25	Vanadium	50
Iron	100	Zinc	20

** These parameters comprise the WVDP sampling list for metals from RCRA Part 264, Appendix IX, Hazardous Constituents List.*
*** Ni and Cr - Lower PQL per WVDP-266, Field Data Collection Plan (West Valley Nuclear Services Co., Inc. and Dames & Moore December 1996)*
Note: Specific quantitation limits are highly matrix-dependent and may not always be achievable.

Table E - 14 (*continued*)

Modified Practical Quantitation Limits (PQLs) in µg/L for Appendix IX Parameters

COMPOUND	PQL	COMPOUND	PQL
Appendix IX Semivolatiles		*Appendix IX Semivolatiles*	
Acenaphthene	10	2,4-Dinitrotoluene	10
Acenaphthylene	10	2,6-Dinitrotoluene	10
Acetophenone	10	Diphenylamine	10
2-Acetylaminofluorene	10	Ethyl methanesulfonate	10
4-Aminobiphenyl	10	Famphur	10
Aniline	10	Fluoranthene	10
Anthracene	10	Fluorene	10
Aramite	10	Hexachlorobenzene	10
Benzo[a]anthracene	10	Hexachlorobutadiene	10
Benzo[a]pyrene	10	Hexachlorocyclopentadiene	10
Benzo[b]fluoranthene	10	Hexachloroethane	10
Benzo[ghi]perylene	10	Hexachlorophene	10
Benzo[k]fluoranthene	10	Hexachloropropene	10
Benzyl alcohol	10	Indeno(1,2,3,-cd)pyrene	10
Bis(2-chlorethyl)ether	10	Isodrin	10
Bis(2-chloroethoxy)methane	10	Isophorone	10
Bis(2-chloroisopropyl)ether	10	Isosafrole	10
Bis(2-ethylhexyl)phthalate	10	Kepone	10
Bis(2-chloro-1- methylethyl) ether	10	Methapyrilene	10
4-Bromophenyl phenyl ether	10	Methyl methanesulfonate	10
Butyl benzyl phthalate	10	3-Methylcholanthrene	10
Carbazole	10	2-Methylnaphthalene	10
Chlorobenzilate	10	1,4-Naphthoquinone	10
2-Chloronaphthalene	10	1-Naphthylamine	10
2-Chlorophenol	10	2-Naphthylamine	10
4-Chlorophenyl phenyl ether	10	Nitrobenzene	10
Chrysene	10	5-Nitro-o-toluidine	10
Di-n-butyl phthalate	10	4-Nitroquinoline 1-oxide	50
Di-n-octyl phthalate	10	N-Nitrosodi-n-butylamine	10
Diallate	10	N-Nitrosodiethylamine	10
Dibenz[a,h]anthracene	10	N-Nitrosodipropylamine	10
Dibenzofuran	10	N-Nitroso-di-N-phenylamine	10
3,3-Dichlorobenzidine	10	N-Nitrosodimethylamine	10
2,4-Dichlorophenol	10	N-Nitrosodipropylamine	10
2,6-Dichlorophenol	10	N-Nitrosodiphenylamine	10
Diethyl phthalate	10	N-Nitrosomethylethylamine	10
Dimethoate	10	N-Nitrosomorpholine	10
7, 12-Dimethylbenz[a]anthracene	10	N-Nitrosopiperidine	10
3,3-Dimethylbenzidine	20	N-Nitrosopyrrolidine	10
2,4-Dimethylphenol	10	Naphthalene	10
Dimethyl phthalate	10	0,0,0-Triethyl phosphorothioate	10
4,6-Dinitro-o-cresol	25	0,0-Diethyl 0-2-pyrazinyl- phosphorothioate	10
2,4-Dinitrophenol	25		

Note: Specific quantitation limits are highly matrix-dependent and may not always be achievable.

Table E - 14 *(concluded)*

Modified Practical Quantitation Limits (PQLs) in µg/L for Appendix IX Parameters

COMPOUND	PQL	COMPOUND	PQL
Appendix IX Semivolatiles		*Appendix IX Semivolatiles*	
p-(Dimethylamino)azobenzene	10	2,3,4,6-Tetrachlorophenol	10
p-Chloroaniline	10	Tetraethyl dithiopyrophosphate	10
p-Chloro-m-cresol	10	1,2,4-Trichlorobenzene	10
p-Cresol	10	2,4,5-Trichlorophenol	25
p-Dichlorobenzene	10	2,4,6-Trichlorophenol	10
p-Nitroaniline	25	alpha,alpha-Dimethylphenethylamine	10
p-Nitrophenol	25	m-Cresol	10
p-Phenylenediamine	10	m-Dichlorobenzene	10
Parathion	10	m-Dinitrobenzene	10
Pentachlorobenzene	10	m-Nitroaniline	25
Pentachloronitrobenzene	10	o-Cresol	10
Pentachlorophenol	25	o-Dichlorobenzene	10
Phenacetin	10	o-Nitroaniline	25
Phenanthrene	10	o-Nitrophenol	10
Phenol	10	o-Toluidine	10
Pronamide	10	sym-Trinitrobenzene	10
Pyrene	10	2-Picoline	10
Safrole	10	Pyridine	10
1,2,4,5-Tetrachlorobenzene	10	1,4-Dioxane	10

Note: Specific quantitation limits are highly matrix-dependent and may not always be achievable.

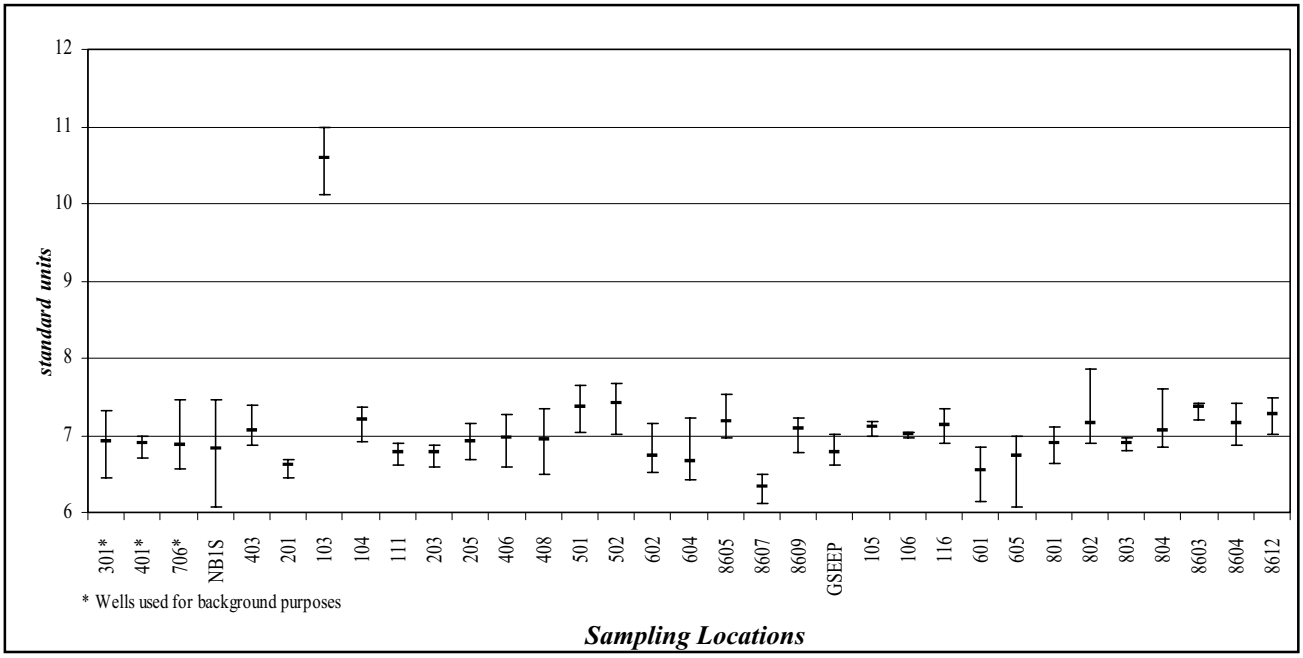

Figure E-1. pH in Groundwater Samples from the Sand and Gravel Unit

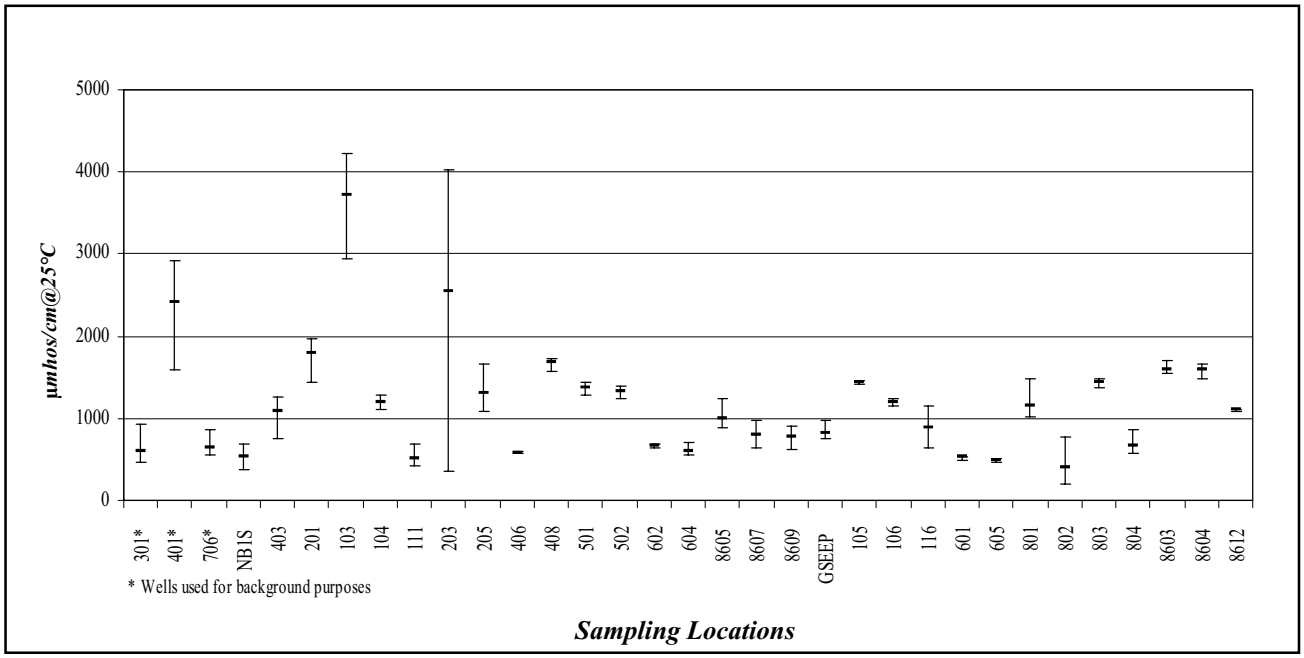

Figure E-2. Conductivity (µmhos/cm@25°C) in Groundwater Samples from the Sand and Gravel Unit

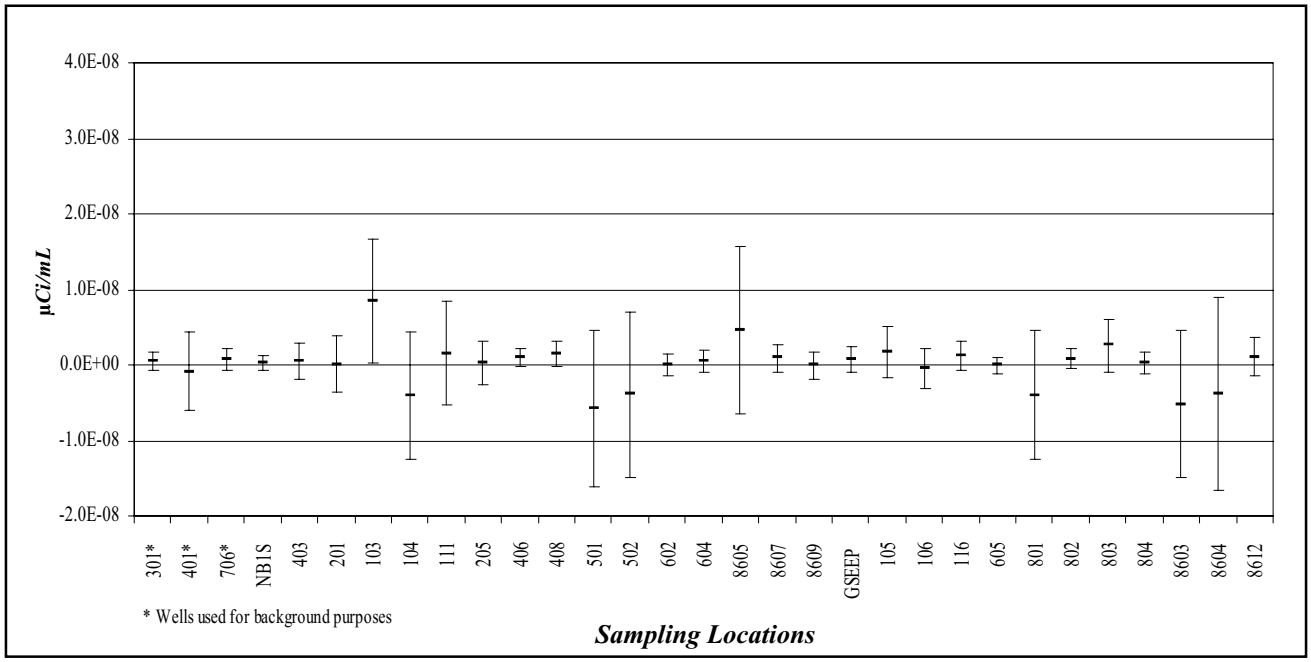

Figure E-3. Gross Alpha (µCi/mL) in Groundwater Samples from the Sand and Gravel Unit

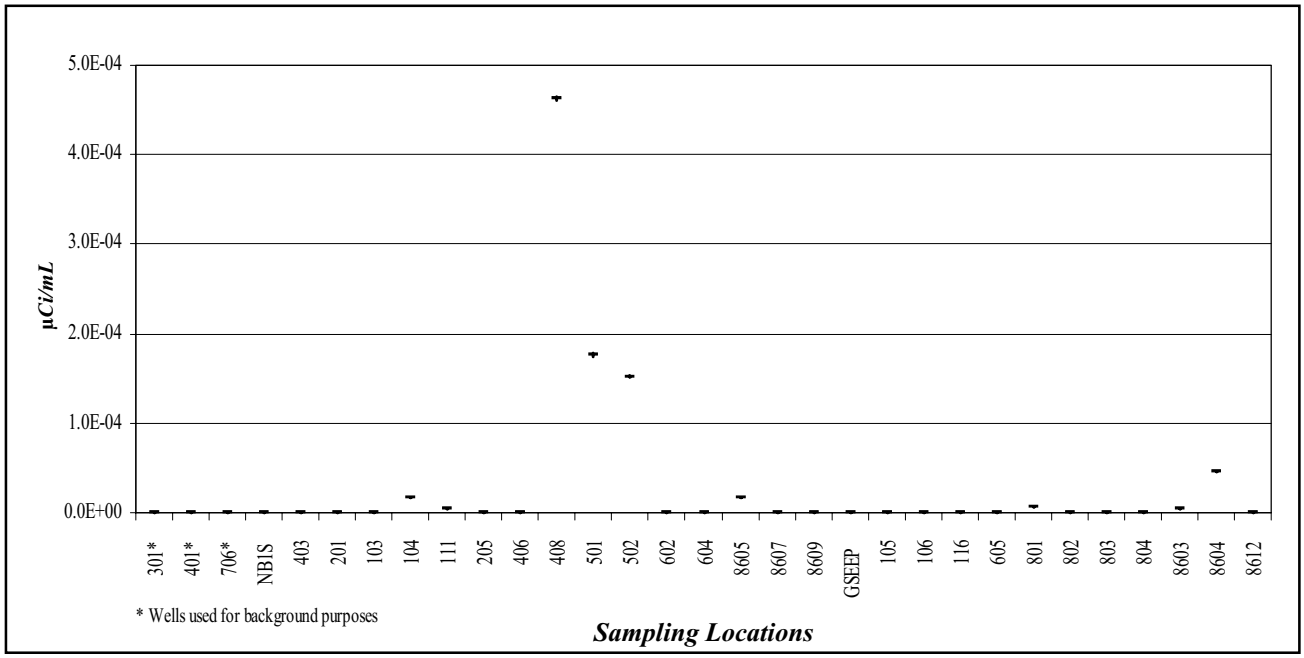

Figure E-4. Gross Beta (µCi/mL) in Groundwater Samples from the Sand and Gravel Unit (Figs. E-4a and E-4b follow with magnified scales.)

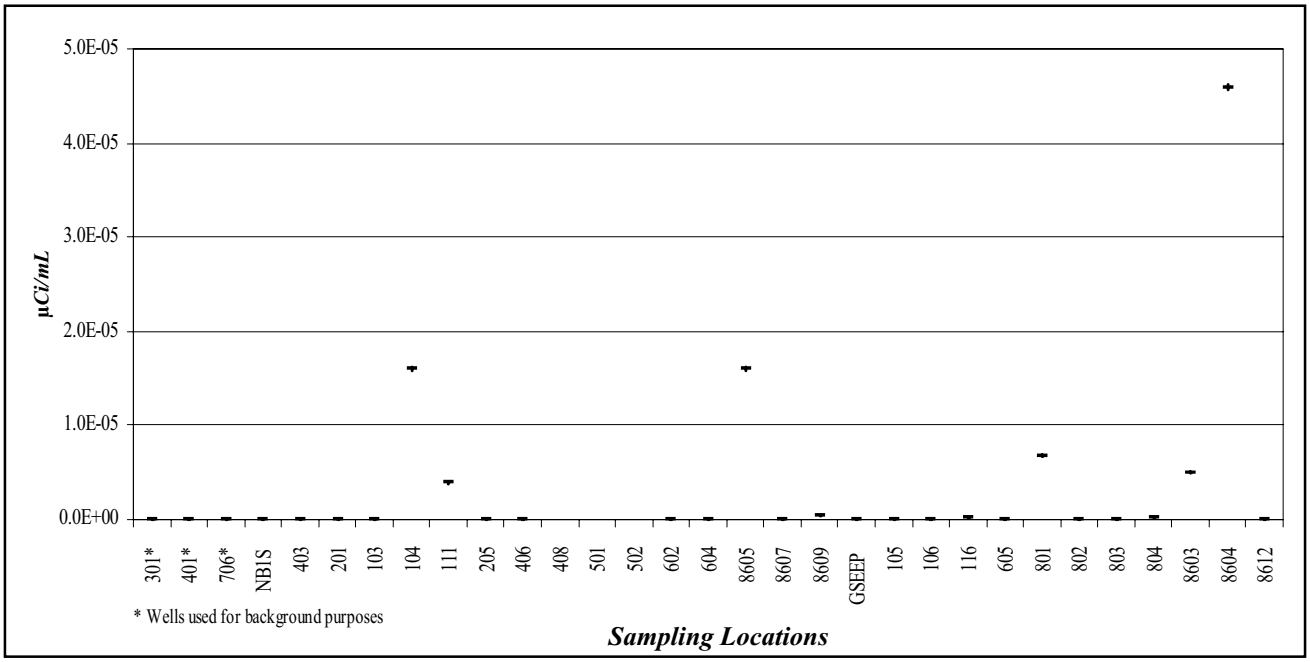

Figure E-4a. Gross Beta (µCi/mL) in Groundwater Samples from the Sand and Gravel Unit (magnified scale of Fig. E-4)

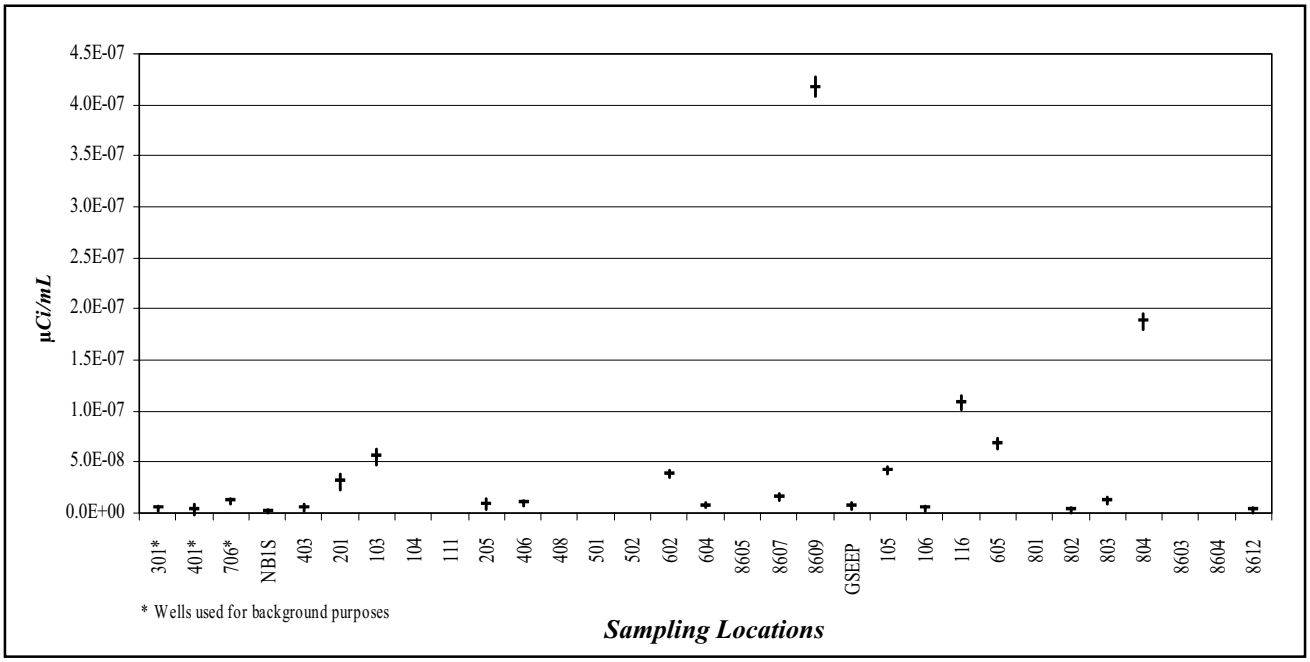

Figure E-4b. Gross Beta (µCi/mL) in Groundwater Samples from the Sand and Gravel Unit (magnified scale of Fig. E-4a)

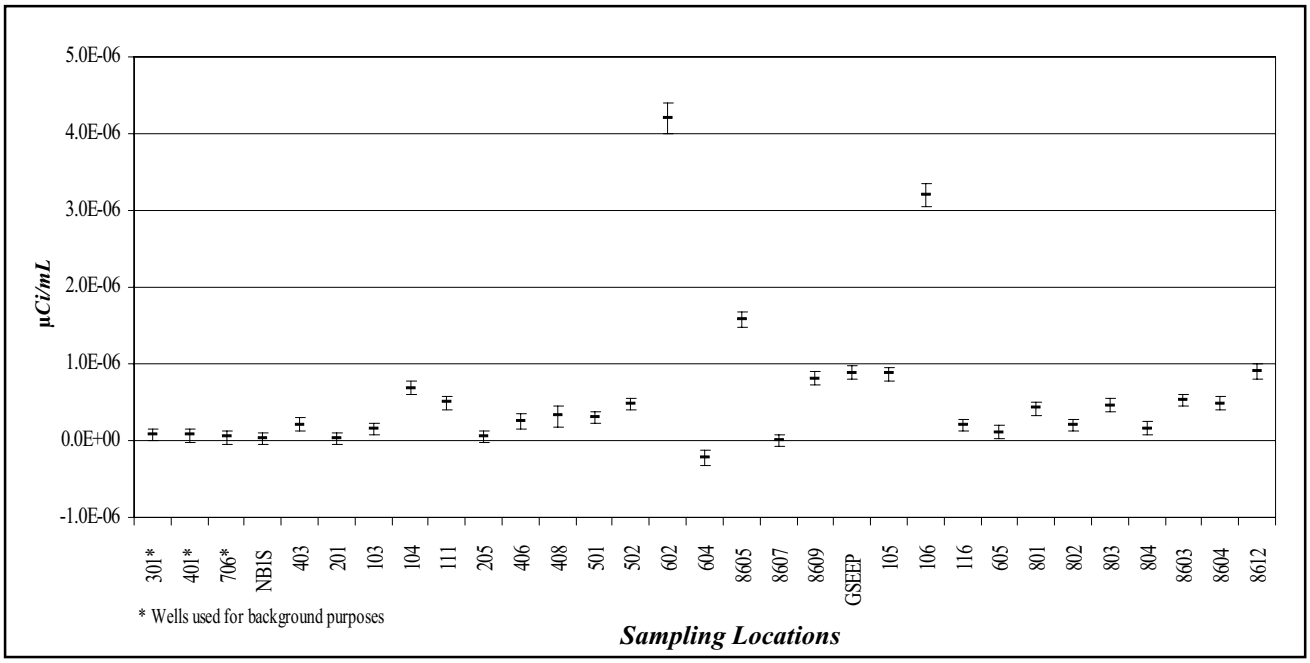

Figure E-5. Tritium Activity (µCi/mL) in Groundwater Samples from the Sand and Gravel Unit (Fig. E-5a follows with magnified scale.)

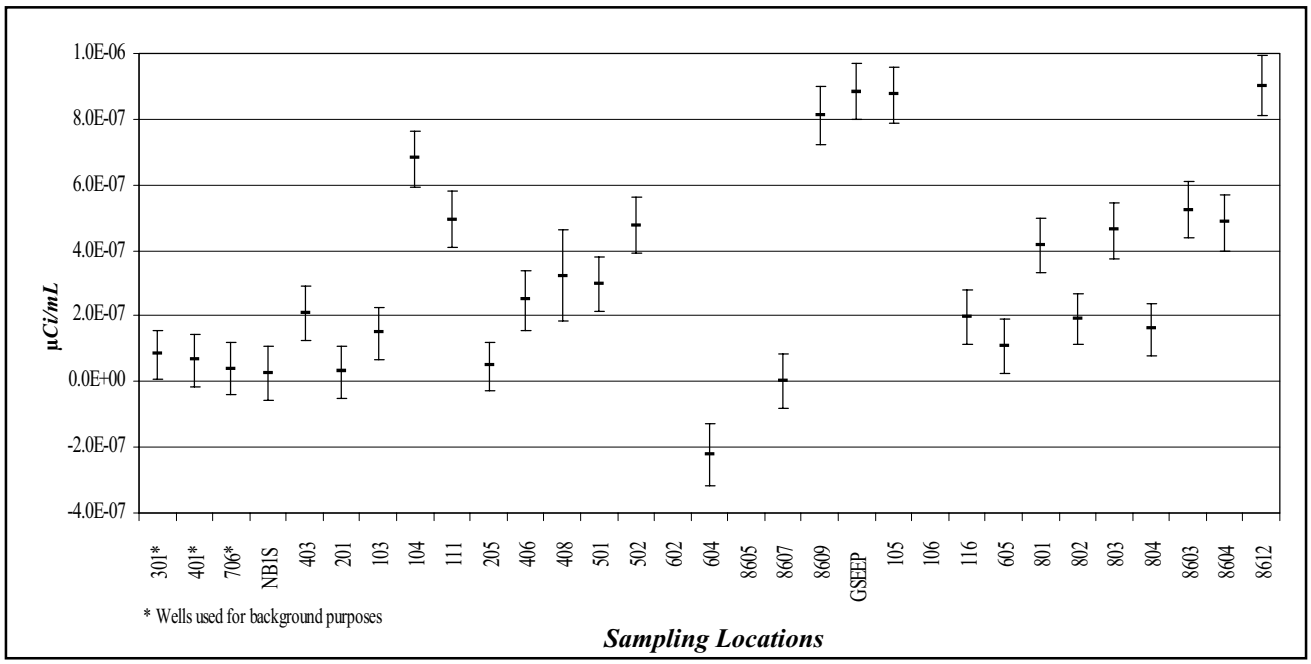

Figure E-5a. Tritium Activity (µCi/mL) in Groundwater Samples from the Sand and Gravel Unit (magnified scale of Fig. E-5)

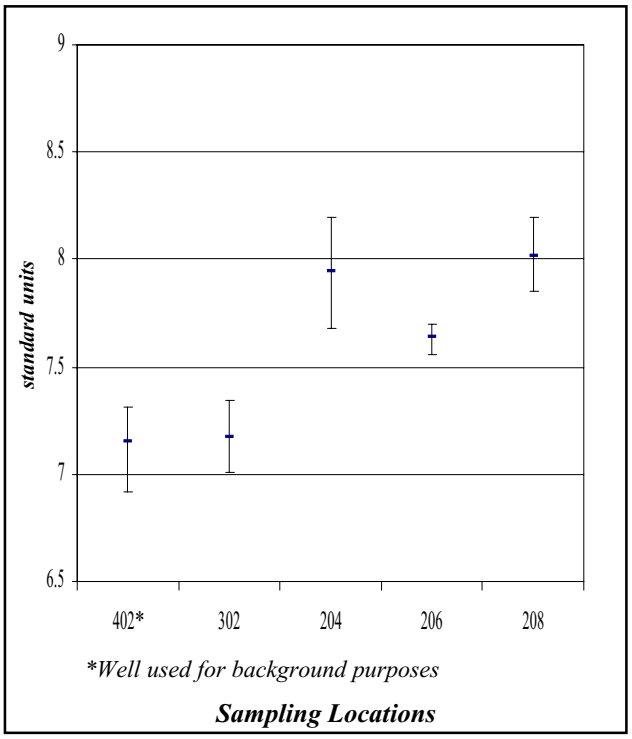

Figure E-6. pH of Groundwater Samples from the Till-Sand Unit

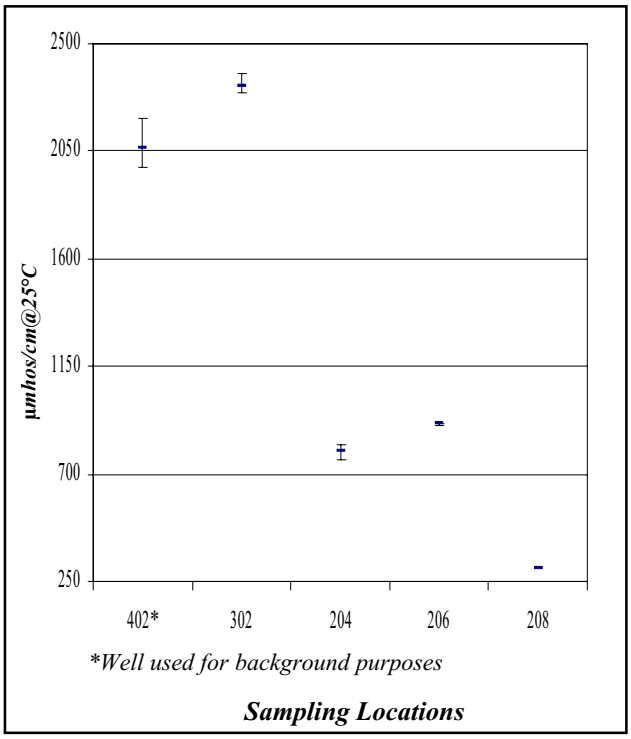

Figure E-7. Conductivity (µmhos/cm@25°C) of Groundwater Samples from the Till-Sand Unit

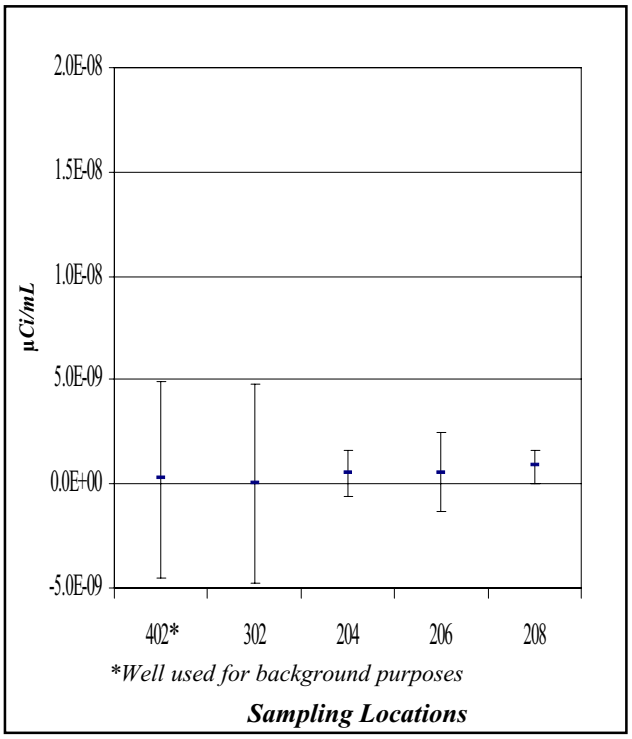

Figure E-8. Gross Alpha (µCi/mL) in Groundwater Samples from the Till-Sand Unit

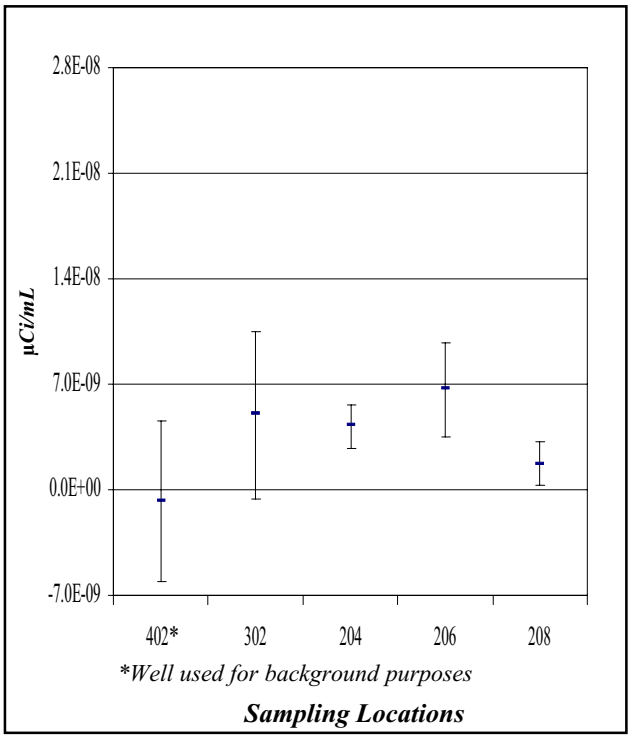

Figure E-9. Gross Beta (µCi/mL) in Groundwater Samples from the Till-Sand Unit

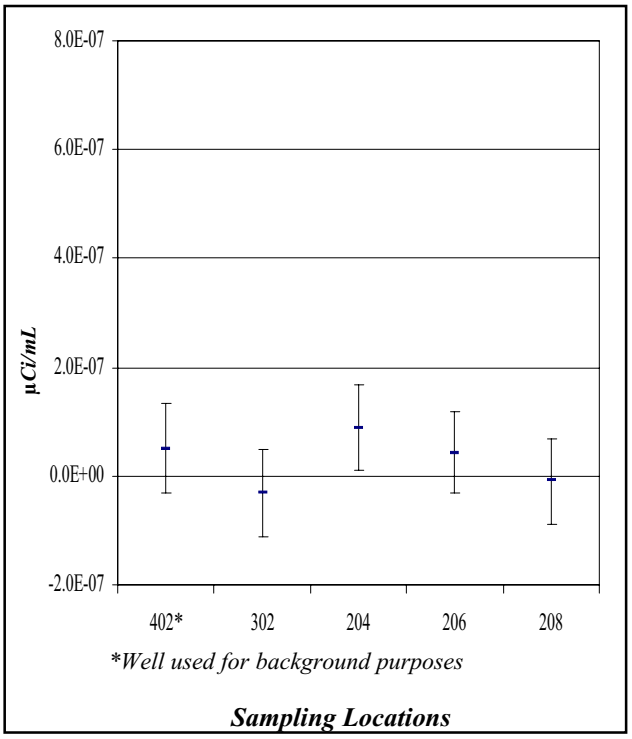

Figure E-10. Tritium Activity (µCi/mL) in Groundwater Samples from the Till-Sand Unit

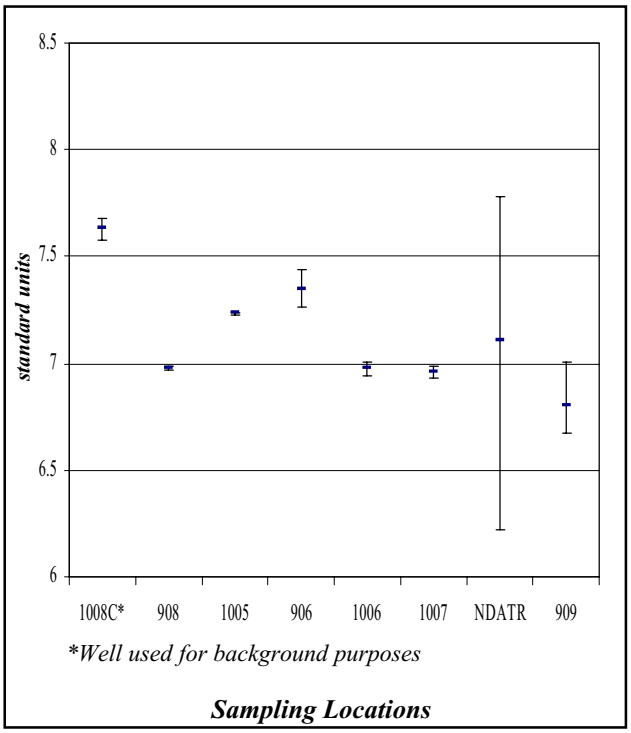

Figure E-11. pH of Groundwater Samples from the Weathered Lavery Till Unit

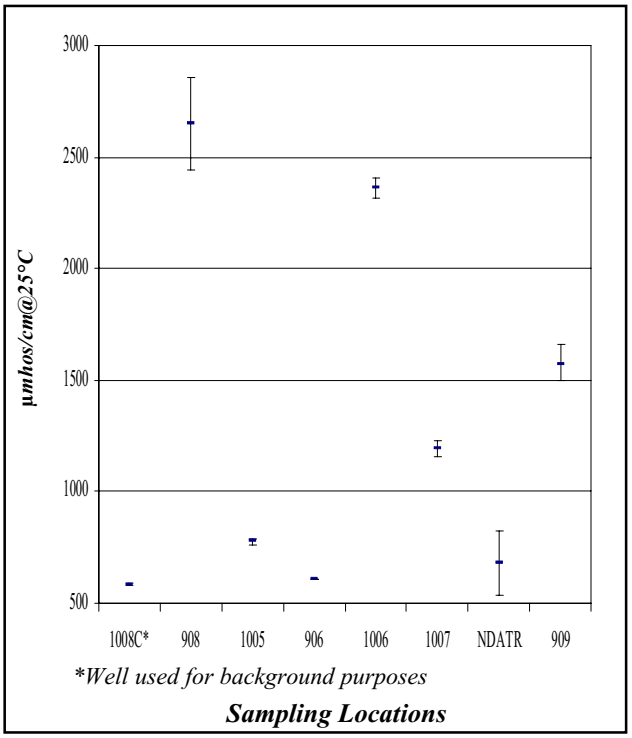

Figure E-12. Conductivity (µmhos/cm@25°C) of Groundwater Samples from the Weathered Lavery Till Unit

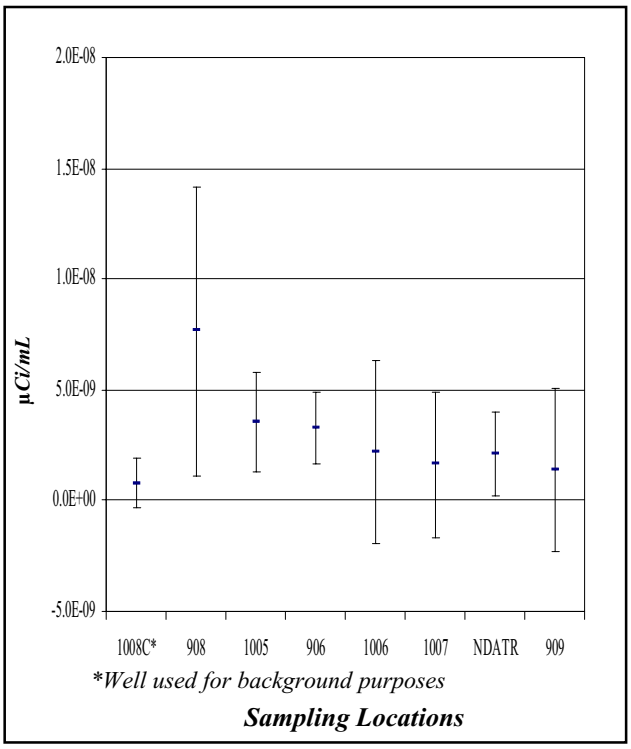

Figure E-13. Gross Alpha (µCi/mL) in Groundwater Samples from the Weathered Lavery Till Unit

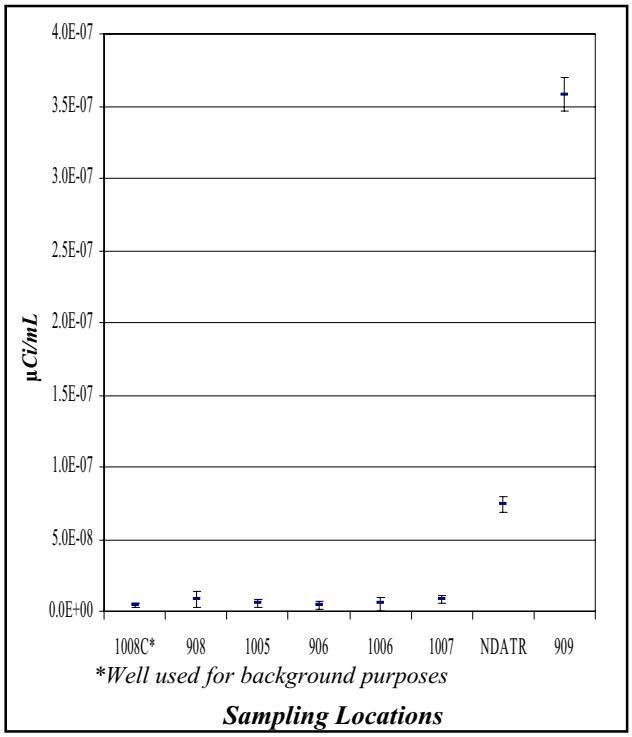

Figure E-14. Gross Beta (µCi/mL) in Groundwater Samples from the Weathered Lavery Till Unit (Fig. E-14a follows with magnified scale)

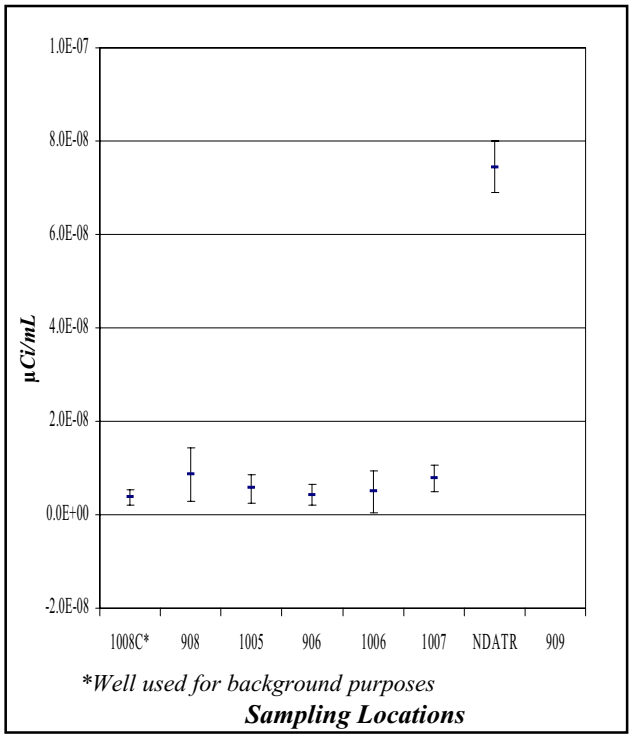

Figure E-14a. Gross Beta (µCi/mL) in Groundwater Samples from the Weathered Lavery Till Unit (magnified scale of Fig. E-14)

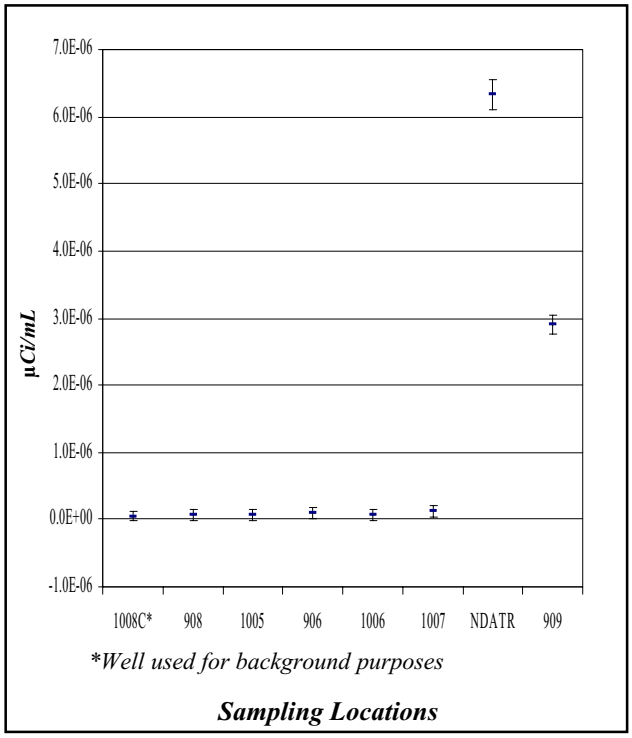

Figure E-15. Tritium Activity (µCi/mL) in Groundwater Samples from the Weathered Lavery Till Unit

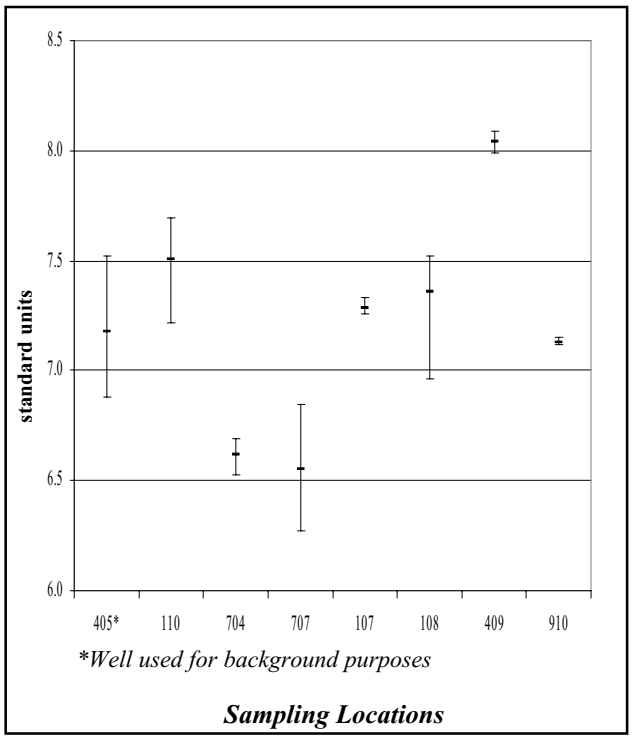

Figure E-16. pH of Groundwater Samples from the Unweathered Lavery Till Unit

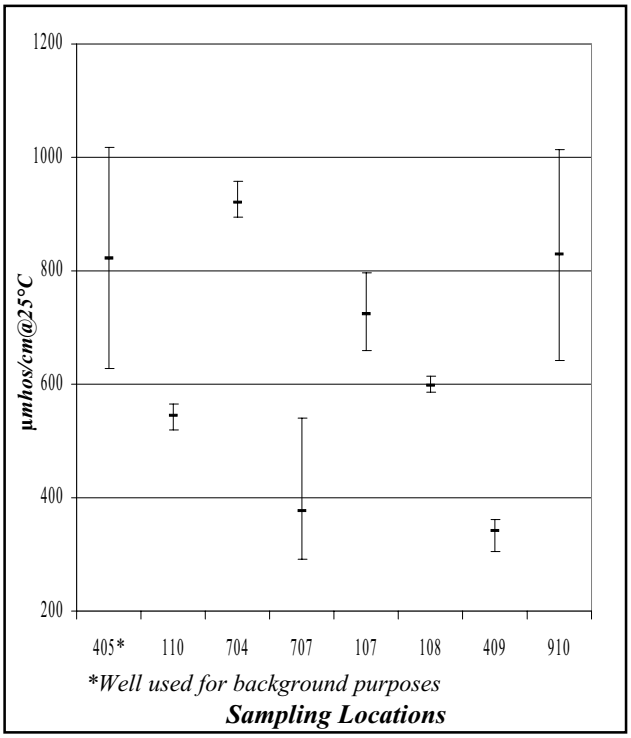

Figure E-17. Conductivity (µmhos/cm@25°C) of Groundwater Samples from the Unweathered Lavery Till Unit

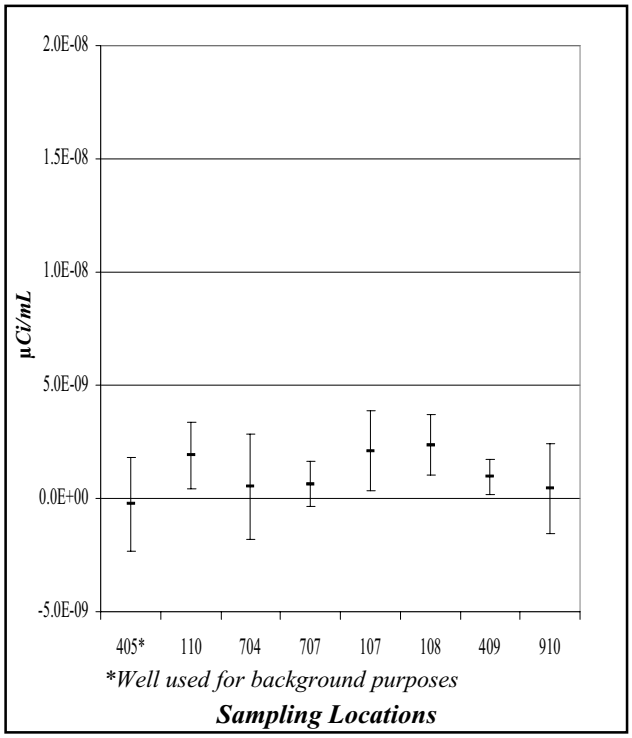

Figure E-18. Gross Alpha (µCi/mL) in Groundwater Samples from the Unweathered Lavery Till Unit

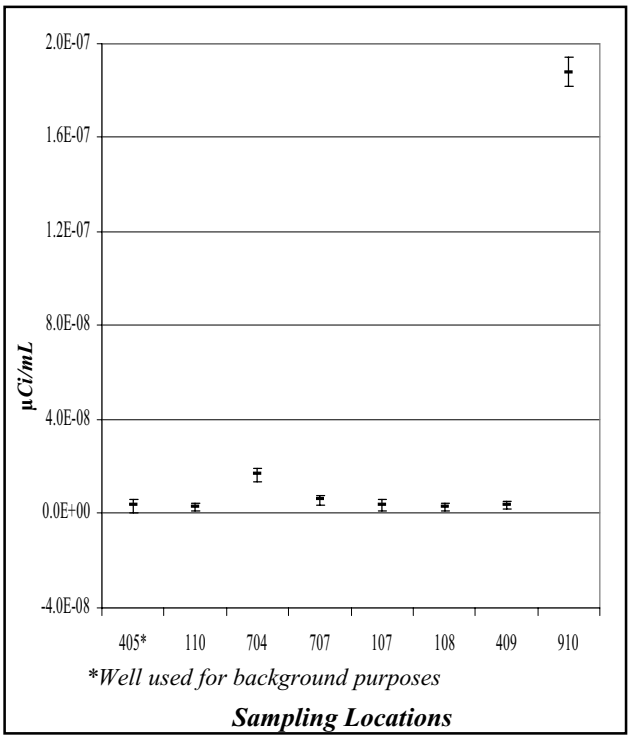

Figure E-19. Gross Beta (µCi/mL) in Groundwater Samples from the Unweathered Lavery Till Unit (Fig. E-19a follows with magnified scale)

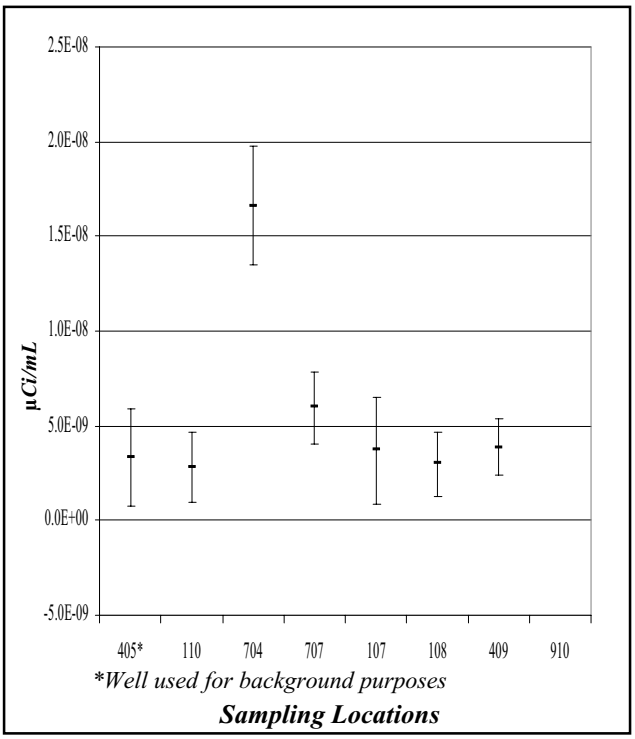

Figure E-19a. Gross Beta (µCi/mL) in Groundwater Samples from the Unweathered Lavery Till Unit (magnified scale of Fig. E-19)

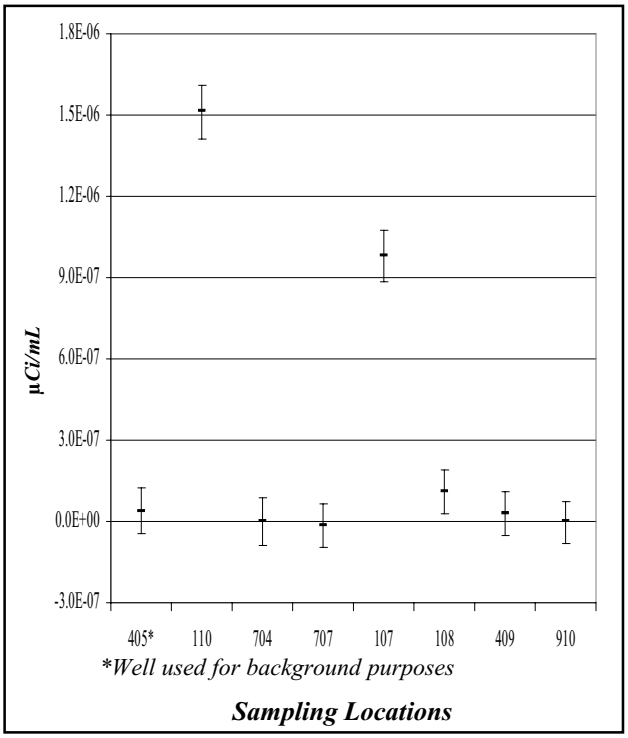

Figure E-20. Tritium Activity (µCi/mL) in Groundwater Samples from the Unweathered Lavery Till Unit

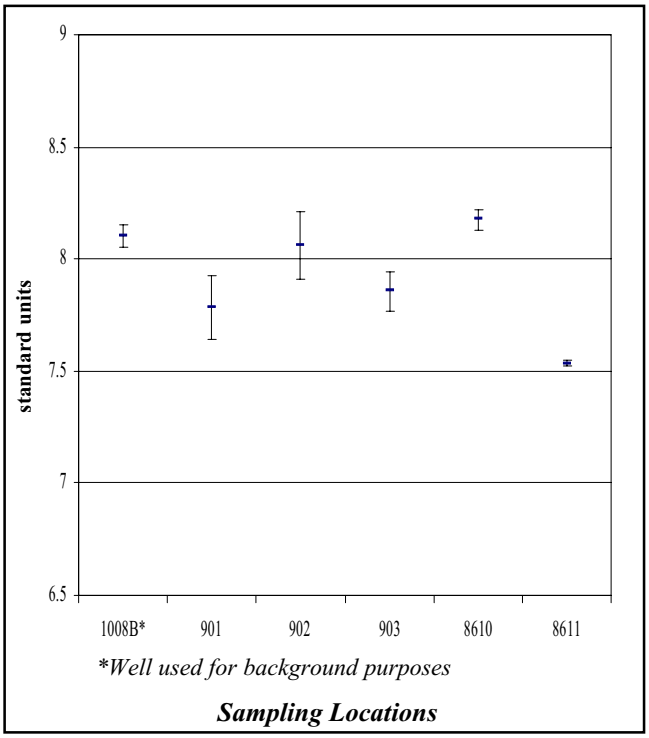

Figure E-21. pH of Groundwater Samples from the Kent Recessional Sequence

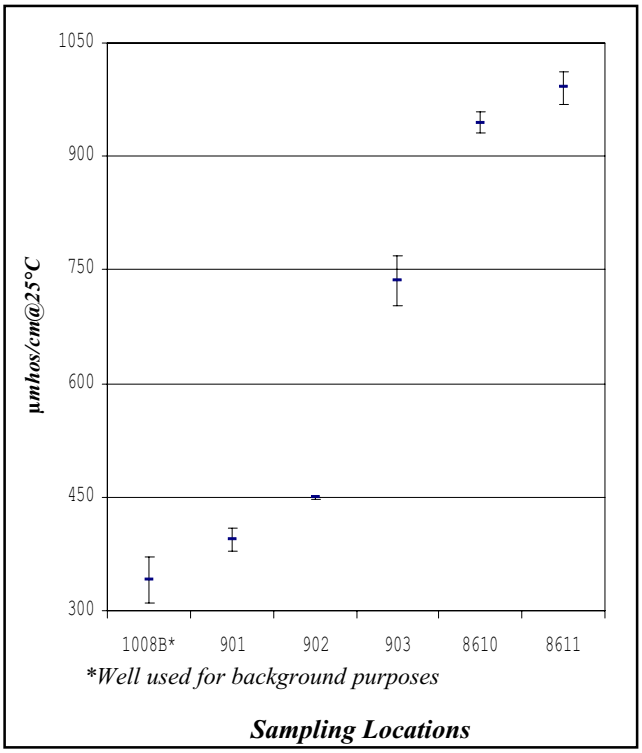

Figure E-22. Conductivity (µmhos/cm@25°C) of Groundwater Samples from the Kent Recessional Sequence

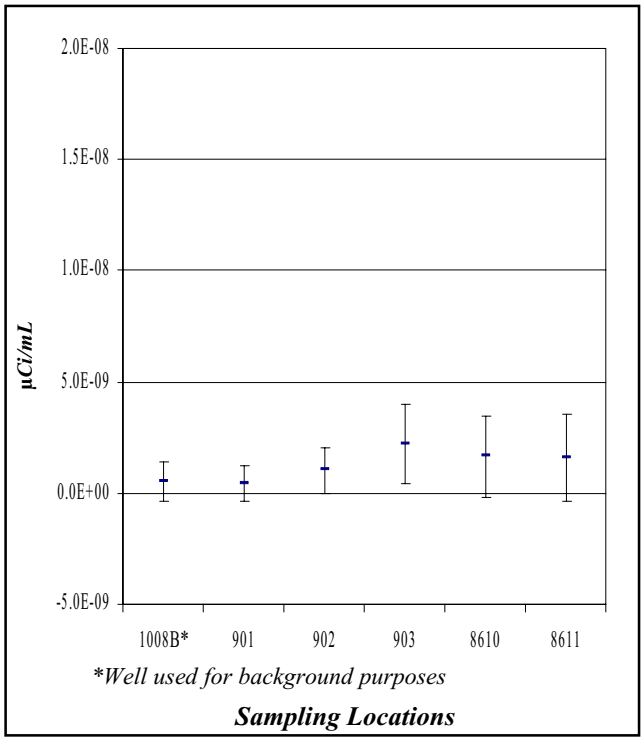

Figure E-23. Gross Alpha (µCi/mL) in Groundwater Samples from the Kent Recessional Sequence

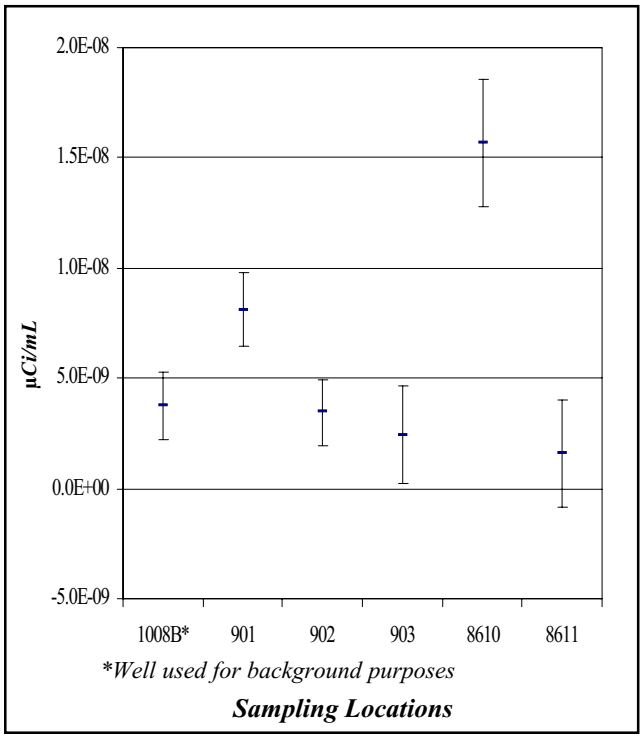

Figure E-24. Gross Beta (µCi/mL) in Groundwater Samples from the Kent Recessional Sequence

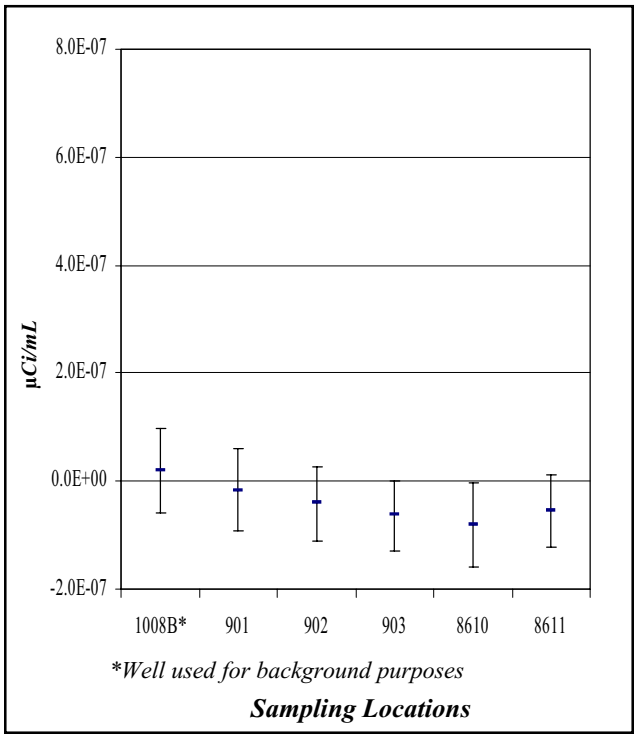

Figure E-25. Tritium Activity (µCi/mL) in Groundwater Samples from the Kent Recessional Sequence