Quality Assurance

Table Q-1. Severn Trent Laboratories (STL), Inc., Richland, WA, Performance Data on Surface Environmental Surveillance Project Blind Spikes, 2003

Media	Con Short Name	True Value	Units	Reported Value	Units	Reported/True	% Bias
Air Filter	Co-60	144	pCi/filter	136	pCi/filter	0.94	-5.6
Air Filter	Co-60	134	pCi/filter	95.1	pCi/filter	0.71	-29.0
Air Filter	Cs-137	546	pCi/filter	552	pCi/filter	1.01	1.1
Air Filter	Cs-137	164	pCi/filter	180	pCi/filter	1.10	9.8
Air Filter	Pu-238	12.0	pCi/filter	12.6	pCi/filter	1.05	5.0
Air Filter	Pu-238	7.35	pCi/filter	7.13	pCi/filter	0.97	-3.0
Air Filter	Pu-239/240	11.3	pCi/filter	12.1	pCi/filter	1.07	7
Air Filter	Pu-239/240	3.35	pCi/filter	3.31	pCi/filter	0.99	-1.2
Air Filter	SB-125	76.0	pCi/filter	77.4	pCi/filter	1.02	2
Air Filter	Sr-90	27.1	pCi/filter	26.9	pCi/filter	0.99	-1
Air Filter	Sr-90	17.4	pCi/filter	17.4	pCi/filter	1.00	0.0
Air Filter	U-238	1.65	pCi/filter	1.58	pCi/filter	0.96	-4.2
Soil	Co-60	0.0183	pCi/g	0.0307	pCi/g	1.68	68
Soil	Cs-137	23.2	pCi/g	27.1	pCi/g	1.17	17
Soil	Cs-137	16.90	pCi/g	18.8	pCi/g	1.11	11
Soil	K-40	8.48	pCi/g	9.49	pCi/g	1.12	12
Soil	K-40	9.79	pCi/g	10.5	pCi/g	1.07	7
Soil	Pu-238	0.0138	pCi/g	0.00865	pCi/g	0.63	-37
Soil	Pu-239/240	0.353	pCi/g	0.344	pCi/g	0.97	-2.5
Soil	Pu-239/240	0.22	pCi/g	0.208	pCi/g	0.95	-5
Soil	Sr-90	0.958	pCi/g	1.14	pCi/g	1.19	19
Soil	Sr-90	0.787	pCi/g	1.05	pCi/g	1.33	33
Soil	U-234	3.050	pCi/g	2.43	pCi/g	0.80	-20
Soil	U-238	3.240	pCi/g	2.62	pCi/g	0.81	-19
Soil	U-238	3.91	pCi/g	3.4	pCi/g	0.87	-13
Vegetation	Co-60	0.296	pCi/g	0.39	pCi/g	1.32	31.8
Vegetation	Co-60	0.324	pCi/g	0.462	pCi/g	1.43	43
Vegetation	Cs-137	9.48	pCi/g	11.4	pCi/g	1.20	20
Vegetation	Cs-137	11.40	pCi/g	13.9	pCi/g	1.22	22
Vegetation	K-40	12.4	pCi/g	14.2	pCi/g	1.15	15
Vegetation	K-40	17.7	pCi/g	21.5	pCi/g	1.21	21
Vegetation	Pu-239/240	0.100	pCi/g	0.104	pCi/g	1.04	4.0
Vegetation	Pu-239/240	0.1400	pCi/g	0.119	pCi/g	0.85	-15
Vegetation	Sr-90	17.90	pCi/g	20.7	pCi/g	1.16	16
Water	Co-60	731	pCi/L	699	pCi/L	0.96	-4.4
Water	Co-60	1381	pCi/L	929	pCi/L	0.67	-32.7
Water	Cs-137	1216	pCi/L	1230	pCi/L	1.01	1.2
Water	Cs-137	1064	pCi/L	1070	pCi/L	1.01	0.6
Water	Pu-238	28.7	pCi/L	30.4	pCi/L	1.06	5.9
Water	Pu-238	20.9	pCi/L	20.9	pCi/L	1.00	0.0
Water	Pu-239/240	38.1	pCi/L	41.1	pCi/L	1.08	0.0
Water	Pu-239/240	27.3	pCi/L	28.6	pCi/L	1.05	4.8
Water	TRITIUM	1588	pCi/L	1540	pCi/L	0.97	-3.0
Water	TRITIUM	3273	pCi/L	2810	pCi/L	0.86	-14
Water	U-234	7.27	pCi/L	8.25	pCi/L	1.13	13.48
Water	U-238	7.08	pCi/L	8.26	pCi/L	1.17	16.67

Table Q-2. Severn Trent Laboratories (STL) Inc., Richland WA, Performance Data on Environmental Resource Associates (ERA) Proficiency Testing Program Water Samples (pCi/L), 2003

		STL		ERA							
Con Short Name	Study No.	Value[a]	Experimental Deviation[b]	Known Value	Expected Deviation[b]	Mean Recovery	Number of Participants	Bias%	Performance Evaluation[c]	Report Issue Date	Comments
Ba-133	Rad-52	18.2	1.1	19.5	5.00	18.2	44	-6.67	Acceptable	16-Apr-03	
Ba-133	Rad-54	20.7	1.10	20.7	5.00	20.1	36	0.00	Acceptable	22-Oct-03	
Co-60	Rad-52	37.8	2.7	37.4	5.00	39.3	45	1.07	Acceptable	16-Apr-03	
Co-60	Rad-53	66.0	2.06	63.8	5.00	65.8	46	3.45	Acceptable	24-Jul-03	
Co-60	Rad-54	36.7	3.49	37.4	5.00	37.3	38	-1.87	Acceptable	22-Oct-03	
Co-60	Rad-55	28.2	4.74	27.7	5.00	28.4	38	1.81	Acceptable	23-Jan-04	
Cs-134	Rad-52	16.7	3.0	17.8	5.00	17.1	45	-6.18	Acceptable	16-Apr-03	
Cs-134	Rad-53	71.7	0.95	75.7	5.00	71.8	46	-5.28	Acceptable	24-Jul-03	
Cs-134	Rad-54	35.7	6.63	32.6	5.00	30.8	37	9.51	Acceptable	22-Oct-03	
Cs-134	Rad-55	22.6	3.24	23.4	5.00	21.9	37	-3.42	Acceptable	23-Jan-04	
Cs-137	Rad-52	49.9	6.1	44.2	5.00	47.0	45	12.90	Acceptable	16-Apr-03	
Cs-137	Rad-53	161	2.1	150	7.50	157.0	46	7.33	Acceptable	24-Jul-03	
Cs-137	Rad-54	52.5	3.33	44.3	5.00	47.9	38	18.51	Acceptable	22-Oct-03	
Cs-137	Rad-55	71	5.78	64.2	5.00	65.6	38	10.59	Acceptable	23-Jan-04	
Gross Alpha	Rad-52	29.8	1.94	37.6	9.40	30.6	71	-20.74	Acceptable	16-Apr-03	
Gross Alpha	Rad-53	57.1	1.77	70.3	17.60	76.5	57	-18.78	Acceptable	24-Jul-03	
Gross Alpha	Rad-54	54.7	2.1	65.1	16.30	56.2	61	-15.98	Acceptable	22-Oct-03	
Gross Alpha	Rad-55	26.6	2.75	29.5	7.38	28.2	39	-9.83	Acceptable	23-Jan-04	
Gross Alpha	Rad-55	59.4	5.6	54.2	13.6	62.7	50	9.59	Acceptable	23-Jan-04	
Gross Beta	Rad-52	7.20	1.77	8.55	5.00	10.7	60	-15.79	Acceptable	16-Apr-03	
Gross Beta	Rad-53	278	13.1	363	54.5	327	53	-23.42	Acceptable	24-Jul-03	
Gross Beta	Rad-54	33.7	2.95	31.6	5.00	33.2	54	6.65	Acceptable	22-Oct-03	
Gross Beta	Rad-55	26.3	0.56	26.3	5.00	26.4	34	0.00	Acceptable	23-Jan-04	
Gross Beta	Rad-55	138	1.53	168	25.20	167.0	46	-17.86	Acceptable	23-Jan-04	
H-3	Rad-53	1260	196.0	1250	331.00	1300.0	64	0.80	Acceptable	24-Jul-03	
I-131	Rad-53	15.5	1.4	20.8	3.0	22.0	43	-25.48	Not Acceptable	24-Jul-03	Corrective action dated 8/4/03.
I-131	Rad-55	31.8	4.77	28.2	3.00	26.7	27	12.77	Acceptable	23-Jan-04	
Ra-226	Rad-52	4.66	0.45	4.73	0.71	4.9	47	-1.48	Acceptable	16-Apr-03	
Ra-226	Rad-53	16.2	0.4	16.5	2.48	15.2	53	-1.82	Acceptable	24-Jul-03	
Ra-226	Rad-55	20.5	1.81	17.8	2.67	16.7	22	15.17	Acceptable	23-Jan-04	
Ra-226	Rad-55	17.7	3.70	16.1	2.42	15.5	42	9.94	Acceptable	23-Jan-04	
Ra-228	Rad-52	6.33	0.33	6.48	1.62	6.32	42	-2.31	Acceptable	16-Apr-03	
Ra-228	Rad-53	10.0	0.81	10.3	2.58	9.20	50	-2.91	Acceptable	24-Jul-03	
Ra-228	Rad-55	6.72	0.76	6.78	1.70	6.6	19	-0.88	Acceptable	23-Jan-04	
Ra-228	Rad-55	5.34	0.51	5.49	1.37	5.2	37	-2.73	Acceptable	23-Jan-04	
Sr-89	Rad-52	13.1	1.6	15.9	5.00	16.1	25	-17.61	Acceptable	16-Apr-03	
Sr-89	Rad-53	28.2	0.96	31.3	5.00	31.5	36	-9.90	Acceptable	24-Jul-03	
Sr-89	Rad-54	50.5	2.88	58.8	5.00	53.9	21	-14.12	Acceptable	22-Oct-03	
Sr-89	Rad-55	46.7	1.01	50.4	5.00	47.5	35	-7.34	Acceptable	23-Jan-04	
Sr-90	Rad-52	9.28	0.84	9.03	5.00	8.59	26	2.77	Acceptable	16-Apr-03	
Sr-90	Rad-53	25.8	0.58	27.4	5.00	25.8	38	-5.84	Acceptable	24-Jul-03	
Sr-90	Rad-54	19.1	0.32	20.6	5.00	19.2	23	-7.28	Acceptable	22-Oct-03	
Sr-90	Rad-55	10.1	0.47	10.2	5.00	10.2	31	-0.98	Acceptable	23-Jan-04	
Tritium	Rad-55	11900	5100	14300	1430	14500	44	-16.78	Acceptable	23-Jan-04	
U (Nat)	Rad-52	52.1	3.40	53.7	5.37	52.9	44	-2.98	Acceptable	16-Apr-03	
U (Nat)	Rad-53	14.2	0.4	15.1	3.00	14.2	50	-5.96	Acceptable	24-Jul-03	
U (Nat)	Rad-55	10.70	0.12	11.7	3.00	11.6	20	-8.55	Acceptable	23-Jan-04	
U (Nat)	Rad-55	8.58	0.19	9.30	3.00	9.47	42	-7.74	Acceptable	23-Jan-04	
Zn-65	Rad-52	57.5	12.6	60.3	6.03	61.60	44	-4.64	Acceptable	16-Apr-03	
Zn-65	Rad-54	61.8	9.14	60.2	6.02	64.5	37	2.66	Acceptable	22-Oct-03	

(a) Three results are reported to ERA, this represents the average of the three results ± 1 standard deviation of the mean.
(b) ERA known concentration ± 1 standard deviation.
(c) The Performance Evaluation criteria is:
Acceptable = Reported Value falls within the Control Limits.
Not Acceptable = Reported Value falls outside of the Control Limits.
The Control Limits, Warning Limits, and Outlier Criteria are established per the US-EPA guidelines contained in the National Standards for Water Proficiency Testing Studies Criteria Document, December, 1988.

Table Q-3. Severn Trent Laboratories (STL) Inc., Richland, WA, Performance Data on the DOE Environmental Measurements Laboratory (EML) Quality Assessment Program Studies, 2003

		EML		STL					
Media	Con Short Name	Bq/ Unit[a]	pCi/ Unit[a]	Bq/ Unit[a]	pCi/ Unit[a]	STL/EML	%Bias	Performance Evaluation[b]	Comments
Air Filter	Am-241	0.340	9.19E+00	0.326	8.81E+00	0.959	-4.12	Acceptable	
Air Filter	Am-241	0.435	1.18E+01	0.450	1.22E+01	1.034	3.45	Acceptable	
Air Filter	C-137	54.80	1.48E+03	53.6	1.45E+03	0.978	-2.19	Acceptable	
Air Filter	Co-60	33.50	9.05E+02	32.60	8.81E+02	0.973	-2.69	Acceptable	
Air Filter	Co-60	55.10	1.49E+03	53.1	1.44E+03	0.964	-3.63	Acceptable	
Air Filter	Cs-137	99.70	2.69E+03	99.90	2.70E+03	1.002	0.20	Acceptable	
Air Filter	Gross Alpha	1.170	3.16E+01	1.23	3.32E+01	1.051	5.13	Acceptable	
Air Filter	Gross Alpha	3.110	8.41E+01	2.740	7.41E+01	0.881	-11.90	Acceptable	
Air Filter	Gross Beta	1.50	4.05E+01	1.76	4.76E+01	1.173	17.33	Acceptable	
Air Filter	Gross Beta	3.890	1.05E+02	3.660	9.89E+01	0.941	-5.91	Acceptable	
Air Filter	Mn-54	43.80	1.18E+03	43.40	1.17E+03	0.991	-0.91	Acceptable	
Air Filter	Mn-54	58.00	1.57E+03	55.7	1.51E+03	0.960	-3.97	Acceptable	
Air Filter	Pu-238	0.520	1.41E+01	0.536	1.45E+01	1.031	3.08	Acceptable	
Air Filter	Pu-238	0.229	6.19E+00	0.230	6.22E+00	1.004	0.44	Acceptable	
Air Filter	Pu-239	0.330	8.92E+00	0.328	8.86E+00	0.994	-0.61	Acceptable	
Air Filter	Pu-239	0.401	1.08E+01	0.4	1.08E+01	0.998	-0.25	Acceptable	
Air Filter	Sr-90	2.80	7.57E+01	0.934	2.52E+01	0.334	-66.64	Not Acceptable	Corrective action dated 12/17/03
Air Filter	Sr-90	2.06	5.56E+01	0.94	2.54E+01	0.457	-54.32	Not Acceptable	
Air Filter	U-TOTAL (µg)	19.70	1.97E+01	19.10	1.91E+01	0.970	-3.05	Acceptable	
Air Filter	U-TOTAL (µg)	32.10	3.21E+01	16.80	1.68E+01	0.523	-47.66	Not Acceptable	
Air Filter	U-234	0.240	6.49E+00	0.208	5.62E+00	0.867	-13.33	Acceptable with Warning	
Air Filter	U-234	0.401	1.08E+01	0.410	1.11E+01	1.022	2.24	Acceptable	
Air Filter	U-238	0.54	1.46E+01	0.227	6.14E+00	0.420	-57.96	Acceptable	
Air Filter	U-238	0.397	1.07E+01	0.370	1.00E+01	0.932	-6.80	Acceptable	
Soil	Ac-228	57.6	1.56E+00	63.9	1.73E+00	1.109	10.94	Acceptable with Warning	
Soil	Ac-228	50.8	1.37E+00	54.1	1.46E+00	1.065	6.50	Acceptable	
Soil	Am-241	15.6	4.22E-01	23.2	6.27E-01	1.487	48.72	Acceptable with Warning	
Soil	Am-241	18.4	4.97E-01	13.4	3.62E-01	0.728	-27.17	Acceptable with Warning	
Soil	Bi-212	60.6	1.64E+00	88.0	2.38E+00	1.452	45.21	Not Acceptable	Corrective action dated 12/17/03
Soil	Bi-212	53.9	1.46E+00	58.7	1.59E+00	1.089	8.91	Acceptable	
Soil	Bi-214	67.0	1.81E+00	73.6	1.99E+00	1.099	9.85	Acceptable	
Soil	Bi-214	34.4	9.30E-01	28.2	7.62E-01	0.820	-18.02	Acceptable with Warning	
Soil	Cs-137	1450	3.92E+01	1733	4.68E+01	1.195	19.52	Acceptable with Warning	
Soil	Cs-137	1973	5.33E+01	2209	5.97E+01	1.120	11.96	Acceptable	
Soil	K-40	636.0	1.72E+01	709	1.92E+01	1.115	11.48	Acceptable	
Soil	K-40	488	1.32E+01	511	1.38E+01	1.047	4.71	Acceptable	
Soil	Pb-212	57.9	1.56E+00	67.0	1.81E+00	1.157	15.72	Acceptable	
Soil	Pb-212	50.7	1.37E+00	53.8	1.45E+00	1.061	6.11	Acceptable	
Soil	Pb-214	71.10	1.92E+00	83.8	2.26E+00	1.179	17.86	Acceptable	
Soil	Pb-214	35.2	9.51E-01	41.4	1.12E+00	1.176	17.61	Acceptable	
Soil	Pu-238	14.6	3.95E-01	15.6	4.22E-01	1.068	6.85	Acceptable	
Soil	Pu-239	23.40	6.32E-01	24.8	6.70E-01	1.060	5.98	Acceptable	
Soil	Pu-239	30.4	8.22E-01	33.5	9.05E-01	1.102	10.20	Acceptable	
Soil	Sr-90	64.40	1.74E+00	66.3	1.79E+00	1.030	2.95	Acceptable	
Soil	Sr-90	80.3	2.17E+00	81.9	2.21E+00	1.020	1.99	Acceptable	
Soil	Th-234	127	3.43E+00	262	7.08E+00	2.063	106.30	Acceptable with Warning	
Soil	Th-234	116	3.14E+00	119.3	3.22E+00	1.028	2.84	Acceptable	
Soil	U-TOTAL (µg)	10.1	1.01E+01	9.24	9.24E+00	0.915	-8.51	Acceptable	
Soil	U-TOTAL (µg)	10.27	1.03E+01	9.91	9.91E+00	0.965	-3.51	Acceptable	
Soil	U-234	120	3.24E+00	122	3.30E+00	1.017	1.67	Acceptable	
Soil	U-234	127.3	3.44E+00	102.6	2.77E+00	0.806	-19.40	Acceptable with Warning	
Soil	U-238	125	3.38E+00	123	3.32E+00	0.984	-1.60	Acceptable	
Soil	U-238	127.1	3.44E+00	113.3	3.06E+00	0.891	-10.86	Acceptable	
Vegetation	Am-241	3.51	9.49E+01	3.3	8.92E+01	0.940	-5.98	Acceptable	
Vegetation	Cm-244	2.01	5.43E+01	1.84	4.97E+01	0.915	-8.46	Acceptable	
Vegetation	Co-60	12.1	3.27E+02	14.6	3.95E+02	1.207	20.66	Acceptable	
Vegetation	Cs-137	444.0	1.20E+04	541	1.46E+04	1.218	21.85	Acceptable with Warning	
Vegetation	K-40	1120	3.03E+04	1387	3.75E+04	1.238	23.84	Acceptable with Warning	
Vegetation	Pu-239	5.17	1.40E+02	0.37	1.00E+01	0.072	-92.84	Not Acceptable	Corrective action dated 12/17/03. Reported Pu-238. Pu-239 is 4.93 Bq/L which is Acceptable
Water	Am-241	2.13	5.76E+01	2.34	6.32E+01	1.099	9.86	Acceptable	
Water	Am-241	8.76	2.37E+02	7.96	2.15E+02	0.909	-9.13	Acceptable	
Water	Co-60	234	6.32E+03	227	6.14E+03	0.970	-2.99	Acceptable	
Water	Co-60	513	1.39E+04	494.8	1.34E+04	0.965	-3.55	Acceptable	
Water	Cs-134	30.5	8.24E+02	27.3	7.38E+02	0.895	-10.49	Acceptable with Warning	
Water	Cs-134	63.0	1.70E+03	60.7	1.64E+03	0.963	-3.65	Acceptable	

Table Q-3. Severn Trent Laboratories (STL) Inc., Richland, WA, Performance Data on the DOE Environmental Measurements Laboratory (EML) Quality Assessment Program Studies, 2003

		EML		STL					
Media	Con Short Name	Bq/ Unit[a]	pCi/ Unit[a]	Bq/ Unit[a]	pCi/ Unit[a]	STL/EML	%Bias	Performance Evaluation[b]	Comments
Water	Cs-137	63.8	1.72E+03	63.2	1.71E+03	0.991	-0.94	Acceptable	
Water	Cs-137	80.3	2.17E+03	79.2	2.14E+03	0.986	-1.37	Acceptable	
Water	Gross Alpha	377.5	1.02E+04	336	9.08E+03	0.890	-10.99	Acceptable	
Water	Gross Beta	627.5	1.70E+04	554	1.50E+04	0.883	-11.71	Acceptable	
Water	H-3	390	1.05E+04	402	1.09E+04	1.031	3.08	Acceptable	
Water	H-3	446.3	1.21E+04	437.8	1.18E+04	0.981	-1.90	Acceptable	
Water	Pu-238	3.33	9.00E+01	3.680	9.95E+01	1.105	10.51	Acceptable with Warning	
Water	Pu-238	2.07	5.59E+01	2.03	5.49E+01	0.981	-1.93	Acceptable	
Water	Pu-239	3.92	1.06E+02	4.41	1.19E+02	1.125	12.50	Acceptable with Warning	
Water	Pu-239	4.99	1.35E+02	4.95	1.34E+02	0.992	-0.80	Acceptable	
Water	Sr-90	4.34	1.17E+02	5.03	1.36E+02	1.159	15.90	Acceptable with Warning	
Water	Sr-90	7.04	1.90E+02	14.03	3.79E+02	1.993	99.29	Not Acceptable	
Water	U-TOTAL (µg)	0.226	2.26E-01	0.200	2.00E-01	0.885	-11.50	Acceptable with Warning	
Water	U-TOTAL (µg)	0.17	1.70E-01	0.17	1.70E-01	1.000	0.00	Acceptable	
Water	U-234	2.05	5.54E+01	2.33	6.30E+01	1.137	13.66	Acceptable	
Water	U-234	2.79	7.54E+01	2.5	6.76E+01	0.896	-10.39	Acceptable with Warning	
Water	U-238	2.16	5.84E+01	2.28	6.16E+01	1.056	5.56	Acceptable	
Water	U-238	2.80	7.57E+01	2.61	7.05E+01	0.932	-6.79	Acceptable	

(a) Units:
- Air filter: Filter
- Soil: Kg
- Vegetation: Kg
- Water: L

(b) The Evaluation criteria is:
- Acceptable = Reported Value falls within the Control Limits.
- Not Acceptable = Reported Value falls outside of the Control Limits.
- Acceptable with Warning = Reported Value falls within the Control Limits and outside of the Warning Limits.

Table Q-4. Biota Sample Field Duplicate Results, 2003

												ASSOCIATED TO VALUE RPTD COLUMN			
OWNER ID	SAMP NUM	SAMP SITE NAME	SAMP FROM	SAMP ITEM	SAMP DATE	CON SHORT NAME	VALUE RPTD	ANAL UNITS RPTD	REPLICATE ID	REPLICATE VALUE	RELATIVE % DIFFERENCE	COUNTING ERROR	TOTAL ANAL ERROR	MIN DETECTABLE ACTIVITY	LAB QUALIFIER
SESPMNT	**B16WK1**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**9-May-03**	**BE-7**	**3.84**	**pCi/L**				**29**	**29**	**50.1**	**U**
SESPSPEC	B16WH9	FRANKLIN FARM A	COW	MILK	9-May-03	BE-7	28.5	pCi/L	**B16WK1**	**3.84**	152.5	31	31	55.7	U
SESPSPEC	B16WH8	FRANKLIN FARM B	COW	MILK	9-May-03	BE-7	-9.44	pCi/L	**B16WK1**	**3.84**	474.3	30	30	50.7	U
SESPMNT	**B16WK1**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**9-May-03**	**CO-60**	**1.46**	**pCi/L**				**3.5**	**3.5**	**6.37**	**U**
SESPSPEC	B16WH9	FRANKLIN FARM A	COW	MILK	9-May-03	CO-60	1.27	pCi/L	**B16WK1**	**1.46**	13.9	3.9	3.9	6.96	U
SESPSPEC	B16WH8	FRANKLIN FARM B	COW	MILK	9-May-03	CO-60	5.49	pCi/L	**B16WK1**	**1.46**	116.0	3.5	3.5	6.84	U
SESPMNT	**B16WK1**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**9-May-03**	**CS-134**	**-0.954**	**pCi/L**				**3.4**	**3.4**	**5.79**	**U**
SESPSPEC	B16WH9	FRANKLIN FARM A	COW	MILK	9-May-03	CS-134	1.5	pCi/L	**B16WK1**	**-0.954**	898.9	3.5	3.5	6.26	U
SESPSPEC	B16WH8	FRANKLIN FARM B	COW	MILK	9-May-03	CS-134	-0.765	pCi/L	**B16WK1**	**-0.954**	22.0	3.5	3.5	6.02	U
SESPMNT	**B16WK1**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**9-May-03**	**CS-137**	**-0.828**	**pCi/L**				**3.4**	**3.4**	**5.73**	**U**
SESPSPEC	B16WH9	FRANKLIN FARM A	COW	MILK	9-May-03	CS-137	-0.239	pCi/L	**B16WK1**	**-0.828**	110.4	3.2	3.2	5.61	U
SESPSPEC	B16WH8	FRANKLIN FARM B	COW	MILK	9-May-03	CS-137	0.775	pCi/L	**B16WK1**	**-0.828**	6049.1	3.1	3.1	5.4	U
SESPMNT	**B16WK1**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**9-May-03**	**EU-152**	**6.39**	**pCi/L**				**8.4**	**8.4**	**14.9**	**U**
SESPSPEC	B16WH9	FRANKLIN FARM A	COW	MILK	9-May-03	EU-152	-4.06	pCi/L	**B16WK1**	**6.39**	897.0	8.5	8.5	14.3	U
SESPSPEC	B16WH8	FRANKLIN FARM B	COW	MILK	9-May-03	EU-152	-3.04	pCi/L	**B16WK1**	**6.39**	563.0	7.9	7.9	13.4	U
SESPMNT	**B16WK1**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**9-May-03**	**EU-154**	**1.98**	**pCi/L**				**9.8**	**9.8**	**17.7**	**U**
SESPSPEC	B16WH9	FRANKLIN FARM A	COW	MILK	9-May-03	EU-154	-7.41	pCi/L	**B16WK1**	**1.98**	345.9	10	10	17.2	U
SESPSPEC	B16WH8	FRANKLIN FARM B	COW	MILK	9-May-03	EU-154	2.5	pCi/L	**B16WK1**	**1.98**	23.2	9.9	9.9	18	U
SESPMNT	**B16WK1**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**9-May-03**	**EU-155**	**-2.9**	**pCi/L**				**7.6**	**7.6**	**12.5**	**U**
SESPSPEC	B16WH9	FRANKLIN FARM A	COW	MILK	9-May-03	EU-155	1.09	pCi/L	**B16WK1**	**-2.9**	440.9	8.3	8.3	14.4	U
SESPSPEC	B16WH8	FRANKLIN FARM B	COW	MILK	9-May-03	EU-155	5.93	pCi/L	**B16WK1**	**-2.9**	582.8	7.4	7.4	12.6	U
SESPMNT	**B16WK1**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**9-May-03**	**K-40**	**1340**	**pCi/L**				**220**	**220**	**44.2**	
SESPSPEC	B16WH9	FRANKLIN FARM A	COW	MILK	9-May-03	K-40	1180	pCi/L	**B16WK1**	**1340**	12.7	210	210	48.4	
SESPSPEC	B16WH8	FRANKLIN FARM B	COW	MILK	9-May-03	K-40	1190	pCi/L	**B16WK1**	**1340**	11.9	200	200	47.6	
SESPMNT	**B16WK1**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**9-May-03**	**RU-106**	**12.9**	**pCi/L**				**28**	**28**	**49.9**	**U**
SESPSPEC	B16WH9	FRANKLIN FARM A	COW	MILK	9-May-03	RU-106	-15.9	pCi/L	**B16WK1**	**12.9**	1920.0	30	30	49.6	U
SESPSPEC	B16WH8	FRANKLIN FARM B	COW	MILK	9-May-03	RU-106	-9.14	pCi/L	**B16WK1**	**12.9**	1172.3	28	28	48.4	U
SESPMNT	**B16WK1**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**9-May-03**	**SB-125**	**-1.47**	**pCi/L**				**7.6**	**7.6**	**12.9**	**U**
SESPSPEC	B16WH9	FRANKLIN FARM A	COW	MILK	9-May-03	SB-125	-6.84	pCi/L	**B16WK1**	**-1.47**	129.2	8.1	8.1	13.1	U
SESPSPEC	B16WH8	FRANKLIN FARM B	COW	MILK	9-May-03	SB-125	6.31	pCi/L	**B16WK1**	**-1.47**	321.5	7.6	7.6	13.5	U
SESPMNT	**B16WK1**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**9-May-03**	**SR-90**	**0.446**	**pCi/L**				**0.51**	**0.53**	**0.906**	**U**
SESPSPEC	B16WH9	FRANKLIN FARM A	COW	MILK	9-May-03	SR-90	0.532	pCi/L	**B16WK1**	**0.446**	17.6	0.41	0.46	0.744	U
SESPSPEC	B16WH8	FRANKLIN FARM B	COW	MILK	9-May-03	SR-90	0.359	pCi/L	**B16WK1**	**0.446**	21.6	0.37	0.42	0.702	U
SESPMNT	**B17T66**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**23-Oct-03**	**BE-7**	**22.5**	**pCi/L**				**24**	**24**	**44.3**	**U**
SESPSPEC	B17T56	FRANKLIN FARM A	COW	MILK	23-Oct-03	BE-7	9.91	pCi/L	**B17T66**	**22.5**	77.7	21	21	37	U
SESPSPEC	B17T55	FRANKLIN FARM B	COW	MILK	23-Oct-03	BE-7	10.5	pCi/L	**B17T66**	**22.5**	72.7	22	22	39.5	U
SESPMNT	**B17T66**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**23-Oct-03**	**CO-60**	**1.79**	**pCi/L**				**3.7**	**3.7**	**6.67**	**U**
SESPSPEC	B17T56	FRANKLIN FARM A	COW	MILK	23-Oct-03	CO-60	4.58	pCi/L	**B17T66**	**1.79**	87.6	3.3	3.3	6.44	U
SESPSPEC	B17T55	FRANKLIN FARM B	COW	MILK	23-Oct-03	CO-60	2.91	pCi/L	**B17T66**	**1.79**	47.7	3.1	3.1	5.9	U

Table Q-4. Biota Sample Field Duplicate Results, 2003

												ASSOCIATED TO VALUE RPTD COLUMN			
OWNER ID	SAMP NUM	SAMP SITE NAME	SAMP FROM	SAMP ITEM	SAMP DATE	CON SHORT NAME	VALUE RPTD	ANAL UNITS RPTD	REPLICATE ID	REPLICATE VALUE	RELATIVE % DIFFERENCE	COUNTING ERROR	TOTAL ANAL ERROR	MIN DETECTABLE ACTIVITY	LAB QUALIFIER
SESPMNT	**B17T66**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**23-Oct-03**	**CS-134**	**2.22**	**pCi/L**				**3.7**	**3.7**	**6.65**	**U**
SESPSPEC	B17T56	FRANKLIN FARM A	COW	MILK	23-Oct-03	CS-134	0.145	pCi/L	**B17T66**	**2.22**	175.5	3	3	5.26	U
SESPSPEC	B17T55	FRANKLIN FARM B	COW	MILK	23-Oct-03	CS-134	-2.69	pCi/L	**B17T66**	**2.22**	2089.4	3.1	3.1	5.15	U
SESPMNT	**B17T66**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**23-Oct-03**	**CS-137**	**-2.84**	**pCi/L**				**3.2**	**3.2**	**5.21**	**U**
SESPSPEC	B17T56	FRANKLIN FARM A	COW	MILK	23-Oct-03	CS-137	-4.92	pCi/L	**B17T66**	**-2.84**	53.6	2.8	2.8	4.1	U
SESPSPEC	B17T55	FRANKLIN FARM B	COW	MILK	23-Oct-03	CS-137	-2.38	pCi/L	**B17T66**	**-2.84**	17.6	2.7	2.7	4.27	U
SESPMNT	**B17T66**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**23-Oct-03**	**EU-152**	**-2.27**	**pCi/L**				**8.1**	**8.1**	**13.8**	**U**
SESPSPEC	B17T56	FRANKLIN FARM A	COW	MILK	23-Oct-03	EU-152	2.45	pCi/L	**B17T66**	**-2.27**	5244.4	6.9	6.9	12	U
SESPSPEC	B17T55	FRANKLIN FARM B	COW	MILK	23-Oct-03	EU-152	1.52	pCi/L	**B17T66**	**-2.27**	1010.7	6.9	6.9	11.9	U
SESPMNT	**B17T66**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**23-Oct-03**	**EU-154**	**-7.04**	**pCi/L**				**11**	**11**	**18.8**	**U**
SESPSPEC	B17T56	FRANKLIN FARM A	COW	MILK	23-Oct-03	EU-154	4.76	pCi/L	**B17T66**	**-7.04**	1035.1	9.6	9.6	17.8	U
SESPSPEC	B17T55	FRANKLIN FARM B	COW	MILK	23-Oct-03	EU-154	3.39	pCi/L	**B17T66**	**-7.04**	571.5	8.9	8.9	16.4	U
SESPMNT	**B17T66**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**23-Oct-03**	**EU-155**	**-0.742**	**pCi/L**				**7.4**	**7.4**	**12.4**	**U**
SESPSPEC	B17T56	FRANKLIN FARM A	COW	MILK	23-Oct-03	EU-155	0.545	pCi/L	**B17T66**	**-0.742**	1306.6	6.6	6.6	11.1	U
SESPSPEC	B17T55	FRANKLIN FARM B	COW	MILK	23-Oct-03	EU-155	2.01	pCi/L	**B17T66**	**-0.742**	434.1	5.9	5.9	10.3	U
SESPMNT	**B17T66**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**23-Oct-03**	**K-40**	**1310**	**pCi/L**				**220**	**220**	**51.9**	
SESPSPEC	B17T56	FRANKLIN FARM A	COW	MILK	23-Oct-03	K-40	1390	pCi/L	**B17T66**	**1310**	5.9	210	210	44.3	
SESPSPEC	B17T55	FRANKLIN FARM B	COW	MILK	23-Oct-03	K-40	1310	pCi/L	**B17T66**	**1310**	0.0	200	200	47	
SESPMNT	**B17T66**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**23-Oct-03**	**RU-106**	**-15.1**	**pCi/L**				**28**	**28**	**46.7**	**U**
SESPSPEC	B17T56	FRANKLIN FARM A	COW	MILK	23-Oct-03	RU-106	13.9	pCi/L	**B17T66**	**-15.1**	4833.3	25	25	45.6	U
SESPSPEC	B17T55	FRANKLIN FARM B	COW	MILK	23-Oct-03	RU-106	-14.4	pCi/L	**B17T66**	**-15.1**	4.7	23	23	38.7	U
SESPMNT	**B17T66**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**23-Oct-03**	**SB-125**	**9.93**	**pCi/L**				**8**	**8**	**14.2**	**U**
SESPSPEC	B17T56	FRANKLIN FARM A	COW	MILK	23-Oct-03	SB-125	1.7	pCi/L	**B17T66**	**9.93**	141.5	6.5	6.5	11.5	U
SESPSPEC	B17T55	FRANKLIN FARM B	COW	MILK	23-Oct-03	SB-125	5.34	pCi/L	**B17T66**	**9.93**	60.1	6.9	6.9	12.2	U
SESPMNT	**B17T66**	**SAGEMOOR COMPOSITE**	**COW**	**MILK**	**23-Oct-03**	**SR-90**	**0.587**	**pCi/L**				**0.22**	**0.26**	**0.332**	
SESPSPEC	B17T56	FRANKLIN FARM A	COW	MILK	23-Oct-03	SR-90	0.335	pCi/L	**B17T66**	**0.587**	54.7	0.19	0.22	0.324	
SESPSPEC	B17T55	FRANKLIN FARM B	COW	MILK	23-Oct-03	SR-90	0.979	pCi/L	**B17T66**	**0.587**	50.1	0.3	0.36	0.468	

Table Q-5. Water Sample Field Duplicate Results, 2003

OWNER ID	SAMP NUM	SAMP SITE NAME	SAMP FROM	SAMP DATE	CON SHORT NAME	VALUE RPTD	ANAL UNITS RPTD	REPLICATE ID	REPLICATE VALUE	RELATIVE % DIFFERENCE	ASSOCIATED TO VALUE RPTD COLUMN COUNTING ERROR	TOTAL ANAL ERROR	MIN DETECTABLE ACTIVITY	LAB QUALIFIER
SESPMNT	**B16LB1**	**RICH.PMPHS-1 HRM46.4**	**RIVER**	**25-Mar-03**	**LO TRITIUM**	**64.3**	**pCi/L**				**4**	**11**	**3.39**	
SESPSPEC	B16L96	RICH.PMPHS-1 HRM46.4	RIVER	25-Mar-03	LO TRITIUM	75.6	pCi/L	**B16LB1**	**64.3**	16.2	4.4	13	3.53	
SESPMNT	**B16LB1**	**RICH.PMPHS-1 HRM46.4**	**RIVER**	**25-Mar-03**	**Sr-90**	**0.0815**	**pCi/L**				**0.032**	**0.037**	**0.0506**	
SESPSPEC	B16L96	RICH.PMPHS-1 HRM46.4	RIVER	25-Mar-03	Sr-90	0.0857	pCi/L	**B16LB1**	**0.0815**	5.0	0.029	0.035	0.0436	
SESPMNT	**B16LB1**	**RICH.PMPHS-1 HRM46.4**	**RIVER**	**25-Mar-03**	**U-234**	**0.278**	**pCi/L**				**0.039**	**0.06**	**0.00952**	
SESPSPEC	B16L96	RICH.PMPHS-1 HRM46.4	RIVER	25-Mar-03	U-234	0.292	pCi/L	**B16LB1**	**0.278**	4.9	0.04	0.062	0.00956	
SESPMNT	**B16LB1**	**RICH.PMPHS-1 HRM46.4**	**RIVER**	**25-Mar-03**	**U-235**	**0.0058**	**pCi/L**				**0.0068**	**0.0072**	**0.00351**	**U**
SESPSPEC	B16L96	RICH.PMPHS-1 HRM46.4	RIVER	25-Mar-03	U-235	0.00452	pCi/L	**B16LB1**	**0.0058**	24.8	0.0064	0.0067	0.00352	U
SESPMNT	**B16LB1**	**RICH.PMPHS-1 HRM46.4**	**RIVER**	**25-Mar-03**	**U-238**	**0.212**	**pCi/L**				**0.034**	**0.048**	**0.00351**	
SESPSPEC	B16L96	RICH.PMPHS-1 HRM46.4	RIVER	25-Mar-03	U-238	0.215	pCi/L	**B16LB1**	**0.212**	1.4	0.034	0.049	0.00352	
SESPMNT	**B16RR1**	**FFTF POND**	**SURFACE**	**7-Apr-03**	**ALPHA**	**208**	**pCi/L**				**28**	**52**	**14.4**	
SESPSPEC	B16RT1	FFTF POND	SURFACE	7-Apr-03	ALPHA	12.2	pCi/L	**B16RR1**	**208**	177.8	3.6	4.4	2.45	
SESPMNT	**B16RR1**	**FFTF POND**	**SURFACE**	**7-Apr-03**	**BE-7**	**0.463**	**pCi/L**				**24**	**24**	**42.4**	**U**
SESPSPEC	B16RT1	FFTF POND	SURFACE	7-Apr-03	BE-7	1.88	pCi/L	**B16RR1**	**0.463**	121.0	23	23	41.9	U
SESPMNT	**B16RR1**	**FFTF POND**	**SURFACE**	**7-Apr-03**	**BETA**	**273**	**pCi/L**				**18**	**42**	**17.1**	
SESPSPEC	B16RT1	FFTF POND	SURFACE	7-Apr-03	BETA	30.3	pCi/L	**B16RR1**	**273**	160.0	3.7	5.8	4.28	
SESPMNT	**B16RR1**	**FFTF POND**	**SURFACE**	**7-Apr-03**	**Co-60**	**1.16**	**pCi/L**				**3.1**	**3.1**	**6.2**	**U**
SESPSPEC	B16RT1	FFTF POND	SURFACE	7-Apr-03	Co-60	-0.0683	pCi/L	**B16RR1**	**1.16**	225.0	2.9	2.9	5.42	U
SESPMNT	**B16RR1**	**FFTF POND**	**SURFACE**	**7-Apr-03**	**Cs-134**	**0.53**	**pCi/L**				**2.9**	**2.9**	**5.54**	**U**
SESPSPEC	B16RT1	FFTF POND	SURFACE	7-Apr-03	Cs-134	-2.63	pCi/L	**B16RR1**	**0.53**	301.0	2.7	2.7	4.22	U
SESPMNT	**B16RR1**	**FFTF POND**	**SURFACE**	**7-Apr-03**	**Cs-137**	**0.938**	**pCi/L**				**2.6**	**2.6**	**4.99**	**U**
SESPSPEC	B16RT1	FFTF POND	SURFACE	7-Apr-03	Cs-137	-0.964	pCi/L	**B16RR1**	**0.938**	14630.8	2.6	2.6	4.55	U
SESPMNT	**B16RR1**	**FFTF POND**	**SURFACE**	**7-Apr-03**	**Eu-152**	**-0.349**	**pCi/L**				**5.9**	**5.9**	**10.7**	**U**
SESPSPEC	B16RT1	FFTF POND	SURFACE	7-Apr-03	Eu-152	-3.68	pCi/L	**B16RR1**	**-0.349**	165.4	6.3	6.3	10.5	U
SESPMNT	**B16RR1**	**FFTF POND**	**SURFACE**	**7-Apr-03**	**Eu-154**	**-3.2**	**pCi/L**				**6.5**	**6.5**	**11.4**	**U**
SESPSPEC	B16RT1	FFTF POND	SURFACE	7-Apr-03	Eu-154	-3.6	pCi/L	**B16RR1**	**-3.2**	11.8	6.9	6.9	12	U
SESPMNT	**B16RR1**	**FFTF POND**	**SURFACE**	**7-Apr-03**	**Eu-155**	**-1.93**	**pCi/L**				**5.6**	**5.6**	**9.62**	**U**
SESPSPEC	B16RT1	FFTF POND	SURFACE	7-Apr-03	Eu-155	3.88	pCi/L	**B16RR1**	**-1.93**	595.9	4.7	4.7	8.6	U
SESPMNT	**B16RR1**	**FFTF POND**	**SURFACE**	**7-Apr-03**	**K-40**	**53.5**	**pCi/L**				**67**	**67**	**8.17**	**U**
SESPSPEC	B16RT1	FFTF POND	SURFACE	7-Apr-03	K-40	-42.2	pCi/L	**B16RR1**	**53.5**	1693.8	55	55	119	U
SESPMNT	**B16RR1**	**FFTF POND**	**SURFACE**	**7-Apr-03**	**Ru-106**	**1.64**	**pCi/L**				**19**	**19**	**35.8**	**U**
SESPSPEC	B16RT1	FFTF POND	SURFACE	7-Apr-03	Ru-106	-0.177	pCi/L	**B16RR1**	**1.64**	248.4	23	23	42	U
SESPMNT	**B16RR1**	**FFTF POND**	**SURFACE**	**7-Apr-03**	**Sb-125**	**-1.35**	**pCi/L**				**5.8**	**5.8**	**10.2**	**U**
SESPSPEC	B16RT1	FFTF POND	SURFACE	7-Apr-03	Sb-125	-0.321	pCi/L	**B16RR1**	**-1.35**	123.2	5.9	5.9	10.5	U
SESPMNT	**B16RR1**	**FFTF POND**	**SURFACE**	**7-Apr-03**	**TRITIUM**	**3070**	**pCi/L**				**230**	**320**	**127**	
SESPSPEC	B16RT1	FFTF POND	SURFACE	7-Apr-03	TRITIUM	3230	pCi/L	**B16RR1**	**3070**	5.1	230	330	127	
SESPMNT	**B17CF2**	**100 N -1 HRM 9.5**	**RIVER**	**4-Sep-03**	**LO TRITIUM**	**138**	**pCi/L**				**5.5**	**24**	**3.53**	
SESPSPEC	B17CD7	100 N -1 HRM 9.5	RIVER	4-Sep-03	LO TRITIUM	149	pCi/L	**B17CF2**	**138**	7.7	5.7	26	3.47	
SESPMNT	**B17CF2**	**100 N -1 HRM 9.5**	**RIVER**	**4-Sep-03**	**U-234**	**0.234**	**pCi/L**				**0.044**	**0.057**	**0.0224**	
SESPSPEC	B17CD7	100 N -1 HRM 9.5	RIVER	4-Sep-03	U-234	0.266	pCi/L	**B17CF2**	**0.234**	12.8	0.044	0.061	0.00979	
SESPMNT	**B17CF2**	**100 N -1 HRM 9.5**	**RIVER**	**4-Sep-03**	**U-235**	**0.00266**	**pCi/L**				**0.0078**	**0.008**	**0.0128**	**U**
SESPSPEC	B17CD7	100 N -1 HRM 9.5	RIVER	4-Sep-03	U-235	0.00471	pCi/L	**B17CF2**	**0.00266**	55.6	0.0079	0.0081	0.00979	U
SESPMNT	**B17CF2**	**100 N -1 HRM 9.5**	**RIVER**	**4-Sep-03**	**U-238**	**0.184**	**pCi/L**				**0.038**	**0.048**	**0.0128**	
SESPSPEC	B17CD7	100 N -1 HRM 9.5	RIVER	4-Sep-03	U-238	0.153	pCi/L	**B17CF2**	**0.184**	18.4	0.034	0.042	0.0172	
SESPMNT	**B183T1**	**RICH.PMPHS-1 HRM46.4**	**RIVER**	**8-Dec-03**	**LO TRITIUM**	**60.9**	**pCi/L**				**3.8**	**11**	**3.48**	
SESPSPEC	B183R6	RICH.PMPHS-1 HRM46.4	RIVER	8-Dec-03	LO TRITIUM	51.8	pCi/L	**B183T1**	**60.9**	16.1	3.7	9.6	3.51	
SESPMNT	**B183T1**	**RICH.PMPHS-1 HRM46.4**	**RIVER**	**8-Dec-03**	**Sr-90**	**0.0869**	**pCi/L**				**0.022**	**0.026**	**0.0366**	
SESPSPEC	B183R6	RICH.PMPHS-1 HRM46.4	RIVER	8-Dec-03	Sr-90	0.0997	pCi/L	**B183T1**	**0.0869**	13.7	0.023	0.027	0.0367	
SESPMNT	**B183T1**	**RICH.PMPHS-1 HRM46.4**	**RIVER**	**8-Dec-03**	**U-234**	**0.221**	**pCi/L**				**0.045**	**0.058**	**0.0249**	
SESPSPEC	B183R6	RICH.PMPHS-1 HRM46.4	RIVER	8-Dec-03	U-234	0.246	pCi/L	**B183T1**	**0.221**	10.7	0.054	0.067	0.0202	
SESPMNT	**B183T1**	**RICH.PMPHS-1 HRM46.4**	**RIVER**	**8-Dec-03**	**U-235**	**0.0153**	**pCi/L**				**0.015**	**0.015**	**0.0193**	**U**
SESPSPEC	B183R6	RICH.PMPHS-1 HRM46.4	RIVER	8-Dec-03	U-235	-0.000594	pCi/L	**B183T1**	**0.0153**	216.2	0.015	0.015	0.0296	U
SESPMNT	**B183T1**	**RICH.PMPHS-1 HRM46.4**	**RIVER**	**8-Dec-03**	**U-238**	**0.202**	**pCi/L**				**0.043**	**0.054**	**0.0249**	
SESPSPEC	B183R6	RICH.PMPHS-1 HRM46.4	RIVER	8-Dec-03	**U-238**	0.231	pCi/L	**B183T1**	**0.202**	13.4	0.052	0.064	0.0255	