

**APPENDIX A1**  
**RADIOLOGICAL ANALYSIS**  
**AIR**



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-CBD 1.1 Air Sampling 1 <sup>st</sup> Quarter Carlsbad	Americium-241	3.59E-05	1.07E-05
	Beryllium-7	2.70E-04	1.50E-04
	Cesium-137	-5.80E-06	1.00E-05
	Cobalt-60	-4.90E-06	8.50E-06
	Lead-210	9.10E-04	2.10E-04
	Plutonium-238	-7.05E-07	4.15E-06
	Plutonium-241	1.15E-03	2.44E-04
	Plutonium-239/240	7.04E-07	2.39E-06
	Polonium-210	4.11E-04	1.21E-05
	Potassium-40	3.50E-04	1.20E-04
	Radium-228	2.90E-05	3.40E-05
	Radium-226	8.00E-04	2.70E-04
	Strontium-90	-1.40E-05	1.10E-05
	Thorium-228	6.37E-06	6.62E-06
	Thorium-230	2.52E-05	8.81E-06
	Thorium-232	5.75E-06	4.45E-06
	Uranium-233/234	1.62E-05	7.68E-06
	Uranium-238	9.88E-06	5.53E-06
Uranium-235/236	-8.70E-07	3.81E-06	



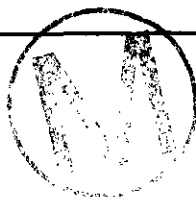
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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>-3</sup>	COUNTING ERROR
AC-CBD 2.1 Air Sampling 2 <sup>nd</sup> Quarter Carlsbad	Americium-241	4.43E-05	1.20E-05
	Beryllium-7	8.40E-04	2.10E-04
	Cesium-137	3.30E-06	1.10E-05
	Cobalt-60	5.60E-06	9.30E-06
	Lead-210	1.50E-04	1.70E-04
	Plutonium-238	2.35E-06	4.61E-06
	Plutonium-241	2.13E-03	2.45E-04
	Plutonium-239/240	-7.82E-07	2.66E-06
	Polonium-210	7.03E-05	5.78E-06
	Potassium-40	2.80E-04	1.10E-04
	Radium-228	5.00E-05	3.70E-05
	Radium-226	8.40E-04	2.90E-04
	Strontium-90	6.10E-06	1.40E-05
	Thorium-228	8.29E-06	7.44E-06
	Thorium-230	1.91E-05	9.08E-06
	Thorium-232	1.66E-06	3.26E-06
	Uranium-233/234	1.63E-05	7.34E-06
Uranium-238	1.31E-05	5.73E-06	
Uranium-235/236	4.03E-06	5.24E-06	



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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-CBD 3.1 Air Sampling 3 <sup>rd</sup> Quarter Carlsbad	Americium-241	3.20E-06	1.34E-06
	Beryllium-7	6.90E-04	1.80E-04
	Cesium-137	2.50E-07	8.70E-06
	Cobalt-60	1.90E-06	7.30E-06
	Lead-210	9.70E-04	2.10E-04
	Plutonium-239/240	3.24E-07	4.50E-07
	Plutonium-241	-7.17E-04	8.22E-05
	Plutonium-238	3.25E-07	1.19E-06
	Polonium-210	3.12E-04	8.01E-06
	Potassium-40	3.20E-05	1.70E-04
	Radium-226	1.10E-04	1.70E-04
	Radium-228	7.90E-05	3.20E-05
	Strontium-90	2.40E-06	1.10E-05
	Thorium-230	7.32E-06	1.93E-06
	Thorium-228	3.21E-06	1.48E-06
	Thorium-232	3.97E-06	1.44E-06
	Uranium-238	9.03E-06	2.19E-06
Uranium-233/234	7.67E-06	2.09E-06	
Uranium-235/236	9.98E-07	1.13E-06	



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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-CBD 4.1 Air Sampling 4 <sup>th</sup> Quarter Carlsbad	Americium-241	2.56E-06	1.15E-06
	Beryllium-7	2.90E-03	4.30E-04
	Cesium-137	4.20E-06	8.50E-06
	Cobalt-60	-1.40E-06	7.40E-06
	Lead-210	1.70E-03	2.70E-04
	Plutonium-238	0.00E+00	5.15E-07
	Plutonium-241	-5.73E-04	6.79E-05
	Plutonium-239/240	5.25E-07	6.30E-07
	Polonium-210	2.92E-04	6.49E-06
	Potassium-40	1.60E-04	1.70E-04
	Radium-226	1.70E-05	1.70E-04
	Radium-228	2.00E-05	3.00E-05
	Strontium-90	1.10E-05	1.10E-05
	Thorium-228	2.10E-06	1.11E-06
	Thorium-230	6.15E-06	1.85E-06
	Thorium-232	1.55E-06	9.07E-07
	Uranium-233/234	4.96E-06	1.80E-06
	Uranium-235/236	1.66E-07	5.63E-07
Uranium-238	2.55E-06	1.32E-06	



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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>-3</sup>	COUNTING ERROR
AC-SMR 1.1 Air Sampling 1 <sup>st</sup> Quarter Smith Ranch	Americium-241	3.95E-05	1.12E-05
	Beryllium-7	4.00E-04	1.60E-04
	Cesium-137	4.90E-06	8.10E-06
	Cobalt-60	2.80E-07	6.60E-06
	Lead-210	9.20E-04	2.20E-04
	Plutonium-238	6.32E-06	6.86E-06
	Plutonium-241	1.35E-03	2.73E-04
	Plutonium-239/240	3.61E-06	5.00E-06
	Polonium-210	4.09E-04	1.17E-05
	Potassium-40	7.30E-05	1.80E-04
	Radium-228	5.80E-05	3.00E-05
	Radium-226	3.60E-04	1.50E-04
	Strontium-90	1.40E-06	1.10E-05
	Thorium-228	1.14E-05	9.75E-05
	Thorium-230	1.78E-05	8.42E-06
	Thorium-232	7.48E-06	6.35E-06
	Uranium-233/234	1.34E-05	6.89E-06
	Uranium-238	4.23E-06	5.17E-06
Uranium-235/236	8.69E-07	2.95E-06	

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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>-3</sup>	COUNTING ERROR
AC-SMR 2.1 Air Sampling 2 <sup>nd</sup> Quarter Smith Ranch	Americium-241	4.04E-05	1.13E-05
	Beryllium-7	8.70E-04	2.10E-04
	Cesium-137	3.10E-06	8.30E-06
	Cobalt-60	-4.60E-06	7.80E-06
	Lead-210	1.90E-04	1.50E-04
	Plutonium-238	-8.45E-07	4.38E-06
	Plutonium-241	2.62E-03	2.87E-04
	Plutonium-239/240	8.44E-07	3.70E-06
	Polonium-210	9.54E-05	5.37E-06
	Potassium-40	1.00E-04	1.60E-04
	Radium-228	7.50E-05	6.00E-05
	Radium-226	7.00E-05	1.80E-04
	Strontium-90	1.90E-06	1.20E-05
	Thorium-228	1.28E-05	1.02E-05
	Thorium-230	3.23E-05	1.04E-05
	Thorium-232	1.90E-05	8.74E-06
	Uranium-233/234	2.35E-05	8.48E-06
Uranium-238	1.78E-05	7.26E-06	
Uranium-235/236	7.03E-06	4.87E-06	



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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>-3</sup>	COUNTING ERROR
AC-SMR 3.1 Air Sampling 3 <sup>rd</sup> Quarter Smith Ranch	Americium-241	9.29E-06	2.17E-06
	Beryllium-7	7.90E-04	1.70E-04
	Cesium-137	2.50E-06	7.60E-06
	Cobalt-60	4.80E-06	6.70E-06
	Lead-210	9.90E-04	1.90E-04
	Plutonium-239/240	1.53E-05	2.88E-06
	Plutonium-241	6.26E-04	6.76E-05
	Plutonium-238	5.56E-07	8.62E-07
	Polonium-210	1.98E-04	6.81E-06
	Potassium-40	1.60E-04	1.30E-04
	Radium-226	1.90E-04	1.60E-04
	Radium-228	5.60E-05	4.00E-05
	Strontium-90	3.50E-06	8.90E-06
	Thorium-230	2.13E-04	9.77E-06
	Thorium-228	4.85E-06	1.78E-06
	Thorium-232	4.18E-06	1.40E-06
	Uranium-238	3.08E-04	1.24E-05
	Uranium-233/234	5.24E-05	5.27E-06
Uranium-235/236	7.89E-06	2.30E-06	





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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-SMR 4.1 Air Sampling 4 <sup>th</sup> Quarter Smith Ranch	Americium-241	1.33E-06	1.13E-06
	Beryllium-7	2.40E-03	4.00E-04
	Cesium-137	-7.10E-07	7.80E-06
	Cobalt-60	-8.50E-07	5.90E-06
	Lead-210	1.60E-03	2.60E-04
	Plutonium-238	-4.17E-07	7.21E-07
	Plutonium-241	-4.53E-04	7.30E-05
	Plutonium-239/240	8.33E-07	8.61E-07
	Polonium-210	2.18E-04	6.60E-06
	Potassium-40	2.10E-04	1.60E-04
	Radium-226	1.10E-04	1.70E-04
	Radium-228	1.70E-05	4.70E-05
	Strontium-90	6.50E-06	9.20E-06
	Thorium-228	2.80E-06	1.21E-06
	Thorium-230	1.02E-05	2.25E-06
	Thorium-232	2.03E-06	1.08E-06
	Uranium-233/234	1.77E-06	1.36E-06
Uranium-235/236	0.00E+00	6.12E-07	
Uranium-238	3.29E-06	1.49E-06	



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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-WFF 1.1 Air Sampling 1 <sup>st</sup> Quarter WIPP Far Field	Americium-241	3.76E-05	9.84E-06
	Beryllium-7	3.80E-04	1.50E-04
	Cesium-137	-1.10E-05	9.40E-06
	Cobalt-60	5.20E-06	8.01E-06
	Lead-210	9.50E-04	2.20E-04
	Plutonium-238	2.13E-06	3.11E-06
	Plutonium-241	1.25E-03	2.35E-04
	Plutonium-239/240	1.42E-06	1.97E-06
	Polonium-210	3.86E-04	1.08E-05
	Potassium-40	2.30E-05	1.70E-04
	Radium-228	3.60E-05	3.30E-05
	Radium-226	7.70E-04	2.60E-04
	Strontium-90	1.60E-05	1.40E-05
	Thorium-228	1.26E-05	6.55E-06
	Thorium-230	2.85E-05	9.05E-06
	Thorium-232	4.27E-06	3.90E-06
	Uranium-233/234	2.83E-05	1.21E-05
	Uranium-238	-1.57E-06	6.90E-06
Uranium-235/236	0.00E+00	6.59E-06	



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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-WFF 1.2 1 <sup>st</sup> Quarter Air Sampling WIPP Far Field	Americium-241	5.64E-05	1.43E-05
	Beryllium-7	5.40E-04	2.30E-04
	Cesium-137	-8.40E-08	1.10E-05
	Cobalt-60	1.50E-05	9.30E-06
	LEad-210	9.90E-04	2.60E-04
	Plutonium-238	-1.79E-06	4.31E-06
	Plutonium-241	1.85E-03	3.01E-04
	Plutonium-239/240	1.79E-06	3.51E-06
	Polonium-210	3.54E-04	1.28E-05
	Potassium-40	6.40E-05	2.40E-04
	Radium-228	7.20E-05	3.80E-05
	Radium-226	5.30E-04	2.00E-04
	Strontium-90	-4.40E-05	1.60E-05
	Thorium-228	5.11E-06	9.17E-06
	Thorium-230	2.68E-05	1.07E-05
	Thorium-232	3.68E-06	4.42E-06
	Uranium-233/234	1.18E-05	9.63E-06
	Uranium-238	6.75E-06	6.19E-06
Uranium-235/236	-2.08E-06	5.77E-06	



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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-WFF 2.1 2 <sup>nd</sup> Quarter Air Sampling WIPP Far Field	Americium-241	3.51E-05	1.09E-05
	Beryllium-7	5.90E-04	2.00E-04
	Cesium-137	6.50E-06	1.10E-05
	Cobalt-60	4.90E-06	1.10E-05
	Lead-210	3.60E-04	2.00E-04
	Plutonium-238	2.90E-06	4.01E-06
	Plutonium-241	2.79E-03	2.54E-04
	Plutonium-239/240	2.17E-06	3.75E-06
	Polonium-210	1.13E-04	6.44E-06
	Potassium-40	4.60E-04	1.40E-04
	Radium-228	7.50E-05	5.30E-05
	Radium-226	9.00E-04	3.10E-04
	Strontium-90	1.40E-05	1.20E-05
	Thorium-228	9.42E-06	7.22E-06
	Thorium-230	5.75E-05	1.25E-05
	Thorium-232	6.38E-06	5.01E-06
	Uranium-233/234	3.33E-05	1.20E-05
	Uranium-238	1.51E-05	8.39E-06
Uranium-235/236	7.85E-06	6.08E-06	

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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-WFF 2.2 Air Sampling 2 <sup>nd</sup> Quarter WIPP Far Field -	Americium-241	1.22E-04	4.20E-05
	Beryllium-7	-3.40E-05	3.90E-04
	Cesium-137	8.80E-05	5.50E-05
	Cobalt-60	1.10E-05	3.10E-05
	Lead-210	3.20E-03	5.40E-04
	Plutonium-238	0.00E+00	1.76E-05
	Plutonium-241	1.11E-02	1.07E-03
	Plutonium-239/240	6.35E-06	1.52E-05
	Polonium-210	2.48E-05	6.26E-06
	Potassium-40	1.20E-05	7.30E-04
	Radium-228	3.60E-04	1.30E-04
	Radium-226	1.80E-03	6.80E-04
	Strontium-90	-1.30E-05	4.00E-05
	Thorium-228	1.88E-05	2.86E-05
	Thorium-230	1.94E-04	5.13E-05
	Thorium-232	2.04E-05	1.89E-05
	Uranium-233/234	1.12E-04	4.01E-05
	Uranium-238	9.48E-05	3.78E-05
Uranium-235/236	1.77E-05	2.08E-05	



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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>-3</sup>	COUNTING ERROR
AC-WFF 3.1 Air Sampling 3 <sup>rd</sup> Quarter WIPP Far Field	Americium-241	2.06E-06	1.24E-06
	Beryllium-7	8.10E-04	1.90E-04
	Cesium-137	-2.00E-06	7.70E-06
	Cobalt-60	-5.00E-07	6.70E-06
	Lead-210	3.40E-03	8.00E-04
	Plutonium-239/240	-1.39E-07	8.16E-07
	Plutonium-241	-5.99E-04	6.93E-05
	Plutonium-238	0.00E+00	6.67E-07
	Polonium-210	2.50E-04	8.00E-06
	Potassium-40	8.70E-05	1.30E-04
	Radium-226	1.30E-03	3.70E-04
	Radium-228	2.80E-05	2.80E-05
	Strontium-90	-4.40E-06	9.90E-06
	Thorium-230	8.49E-06	2.33E-06
	Thorium-228	3.81E-06	1.62E-06
	Thorium-232	5.18E-06	1.63E-06
	Uranium-238	3.57E-05	4.21E-06
	Uranium-233/234	2.19E-05	3.36E-06
Uranium-235/236	1.25E-06	9.72E-07	

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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-WFF 4.1 Air Sampling 4 <sup>th</sup> Quarter WIPP Far Field	Americium-241	1.48E-07	1.20E-06
	Beryllium-7	2.40E-03	3.80E-04
	Cesium-137	-1.60E-06	9.10E-06
	Cobalt-60	-2.90E-06	7.70E-06
	Lead-210	1.40E-03	2.50E-04
	Plutonium-238	-1.45E-07	6.35E-07
	Plutonium-241	-3.31E-04	7.86E-05
	Plutonium-239/240	7.23E-07	8.51E-07
	Polonium-210	2.40E-04	7.71E-06
	Potassium-40	1.80E-04	1.50E-04
	Radium-226	7.10E-04	2.30E-04
	Radium-228	3.40E-06	3.30E-05
	Strontium-90	2.60E-06	1.20E-05
	Thorium-228	3.07E-06	1.59E-06
	Thorium-230	6.38E-06	2.09E-06
	Thorium-232	3.49E-06	1.36E-06
	Uranium-233/234	6.29E-06	2.10E-06
	Uranium-235/236	1.24E-06	1.04E-06
Uranium-238	2.58E-06	1.43E-06	

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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-WEE 1.1 Air Sampling 1 <sup>st</sup> Quarter WIPP East	Americium-241	5.35E-05	1.25E-05
	Beryllium-7	4.50E-04	1.60E-04
	Cesium-137	-4.80E-06	8.10E-06
	Cobalt-60	4.40E-07	7.60E-06
	Lead-210	9.00E-04	2.00E-04
	Plutonium-238	0.00E+00	2.25E-06
	Plutonium-241	2.00E-03	2.86E-04
	Plutonium-239/240	8.11E-07	4.77E-06
	Polonium-210	3.68E-04	1.05E-05
	Potassium-40	1.30E-04	1.70E-04
	Radium-228	2.70E-05	3.10E-05
	Radium-226	3.90E-05	1.70E-04
	Strontium-90	8.60E-06	1.10E-05
	Thorium-228	9.09E-07	6.42E-06
	Thorium-230	3.04E-05	1.06E-05
	Thorium-232	4.10E-06	5.33E-06
	Uranium-233/234	1.47E-05	8.12E-06
Uranium-238	8.07E-06	6.59E-06	
Uranium-235/236	-5.43E-06	4.35E-06	



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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>-3</sup>	COUNTING ERROR
AC-WEE 1.2 Air Sampling 1 <sup>st</sup> Quarter WIPP East	Americium-241	6.46E-04	1.64E-04
	Beryllium-7	7.30E-04	1.20E-03
	Cesium-137	-5.40E-05	1.10E-04
	Cobalt-60	8.00E-05	8.20E-05
	Lead-210	1.70E-03	2.40E-03
	Plutonium-238	-1.83E-05	4.40E-05
	Plutonium-241	2.20E-02	3.06E-03
	Plutonium-239/240	4.57E-05	4.01E-05
	Polonium-210	4.37E-04	5.05E-05
	Potassium-40	1.20E-02	2.50E-03
	Radium-228	9.80E-04	3.90E-04
	Radium-226	5.40E-03	2.00E-03
	Strontium-90	-6.40E-05	1.50E-04
	Thorium-228	0.00E+00	4.63E-05
	Thorium-230	1.92E-04	9.04E-05
	Thorium-232	8.70E-06	3.81E-05
	Uranium-233/234	3.07E-04	1.18E-04
	Uranium-238	4.99E-05	6.91E-05
Uranium-235/236	3.08E-05	4.49E-05	



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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>-3</sup>	COUNTING ERROR
AC-WEE 2.1 Air Sampling 2 <sup>nd</sup> Quarter WIPP East	Americium-241	3.47E-05	1.10E-05
	Beryllium-7	2.60E-04	1.60E-04
	Cesium-137	3.20E-05	1.60E-05
	Cobalt-60	-3.40E-07	8.70E-06
	Lead-210	1.40E-04	1.50E-04
	Plutonium-238	-1.65E-06	3.95E-06
	Plutonium-241	2.45E-03	2.89E-04
	Plutonium-239/240	0.00E+00	3.94E-06
	Polonium-210	5.28E-05	4.83E-06
	Potassium-40	2.00E-04	1.10E-04
	Radium-226	6.30E-05	1.80E-04
	Radium-228	3.30E-05	3.70E-05
	Strontium-90	-4.00E-06	1.60E-05
	Thorium-230	4.55E-05	1.30E-05
	Thorium-228	8.39E-06	7.54E-06
	Thorium-232	5.05E-06	4.66E-06
	Uranium-233/234	2.92E-05	1.09E-05
	Uranium-238	2.25E-05	8.31E-06
Uranium-235/236	4.62E-06	4.05E-06	

## 1995 WIPP Site Environmental Report

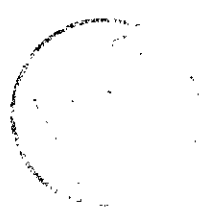
SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-WEE 2.2 Air Sample 2 <sup>nd</sup> Quarter WIPP East	Americium-241	4.11E-05	1.21E-05
	Beryllium-7	5.20E-04	1.70E-04
	Cesium-137	1.10E-05	1.00E-05
	Cobalt-60	-2.40E-06	9.10E-06
	Lead-210	5.90E-05	2.10E-04
	Plutonium-238	-2.27E-06	3.92E-06
	Plutonium-241	1.00E-03	2.55E-04
	Plutonium-239/240	1.51E-06	2.96E-06
	Polonium-210	7.08E-05	5.71E-06
	Potassium-40	2.20E-04	1.10E-04
	Radium-228	4.20E-06	3.60E-05
	Radium-226	8.90E-04	3.00E-04
	Strontium-90	-1.10E-05	1.30E-05
	Thorium-228	6.02E-06	7.72E-06
	Thorium-230	3.65E-05	1.13E-05
	Thorium-232	0.00E+00	3.04E-06
	Uranium-233/234	2.23E-05	9.83E-06
	Uranium-238	1.24E-05	8.41E-06
Uranium-235/236	1.02E-06	2.00E-06	

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>-3</sup>	COUNTING ERROR
AC-WEE 3.1 Air Sample 3 <sup>rd</sup> Quarter WIPP East	Americium-241	3.05E-06	1.42E-06
	Beryllium-7	8.20E-04	2.20E-04
	Cesium-137	-4.30E-06	9.60E-06
	Cobalt-60	-9.70E-06	8.70E-06
	Lead-210	8.30E-04	2.10E-04
	Plutonium-239/240	4.97E-07	1.08E-06
	Plutonium-241	-8.45E-04	8.52E-05
	Plutonium-238	0.00E+00	6.50E-07
	Polonium 210	2.81E-04	9.33E-06
	Potassium-40	5.20E-05	1.70E-04
	Radium-226	1.40E-06	1.80E-04
	Radium-228	3.40E-05	3.50E-05
	Strontium-90	-2.20E-06	1.40E-05
	Thorium-230	1.28E-05	2.58E-06
	Thorium-228	3.47E-06	1.51E-06
	Thorium-232	2.92E-06	1.38E-06
	Uranium-238	1.21E-04	8.25E-06
Uranium-233/234	7.83E-05	6.63E-06	
Uranium-235/236	6.44E-06	2.16E-06	

**1995 WIPP Site Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-WEE 3.2 Air Sample 3 <sup>rd</sup> Quarter WIPP East	Americium-241	1.11E-06	9.35E-07
	Beryllium-7	6.00E-04	1.80E-04
	Cesium-137	2.90E-07	1.00E-05
	Cobalt-60	2.00E-06	8.60E-06
	Lead-210	9.80E-04	2.50E-04
	Plutonium-239/240	3.68E-07	8.83E-07
	Plutonium-241	-9.98E-04	9.36E-05
	Plutonium-238	3.68E-07	7.21E-07
	Polonium 210	3.16E-04	8.97E-06
	Potassium-40	1.00E-04	2.10E-04
	Radium-226	8.50E-05	2.00E-04
	Radium-228	7.30E-05	5.50E-05
	Strontium-90	5.00E-06	1.30E-05
	Thorium-230	9.79E-06	2.48E-06
	Thorium-228	5.69E-06	1.87E-06
	Thorium-232	3.77E-06	1.42E-06
	Uranium-238	5.76E-05	6.13E-06
Uranium-233/234	4.69E-05	5.55E-06	
Uranium-235/236	3.75E-06	1.83E-06	



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>-3</sup>	COUNTING ERROR
AC-WEE 4.1 Air Sample 4 <sup>th</sup> Quarter WIPP East	Americium-241	5.39E-07	9.87E-07
	Beryllium-7	2.60E-03	4.40E-04
	Cesium-137	7.60E-06	8.00E-06
	Cobalt-60	1.10E-06	6.30E-06
	Lead-210	1.70E-03	2.70E-04
	Plutonium-238	3.89E-07	6.73E-07
	Plutonium-241	-3.15E-04	6.61E-05
	Plutonium-239/240	5.19E-07	6.23E-07
	Polonium 210	2.16E-04	5.30E-06
	Potassium-40	1.10E-04	1.50E-04
	Radium-226	6.30E-05	1.70E-04
	Radium-228	5.00E-05	2.90E-05
	Strontium-90	-5.30E-07	2.00E-06
	Thorium-228	2.75E-06	1.35E-06
	Thorium-230	6.55E-06	1.86E-06
	Thorium-232	2.67E-06	1.09E-06
	Uranium-233/234	3.50E-06	1.51E-06
	Uranium-235/236	0.00E+00	7.70E-07
Uranium-238	2.21E-06	1.27E-06	

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>-3</sup>	COUNTING ERROR
AC-WEE 4.2 Air Sample 4 <sup>th</sup> Quarter WIPP East	Americium-241	9.30E-07	1.13E-06
	Beryllium-7	2.40E-03	3.80E-04
	Cesium-137	-2.60E-06	8.10E-06
	Cobalt-60	-3.90E-06	7.50E-06
	Lead-210	1.50E-03	2.60E-04
	Plutonium-238	-2.63E-07	5.15E-07
	Plutonium-241	-4.20E-03	6.84E-04
	Plutonium-239/240	5.25E-07	6.31E-07
	Polonium 210	3.56E-04	7.22E-06
	Potassium-40	1.50E-04	1.60E-04
	Radium-226	9.50E-05	1.70E-04
	Radium-228	4.80E-05	3.10E-05
	Strontium-90	-4.40E-07	9.20E-06
	Thorium-228	2.87E-06	1.28E-06
	Thorium-230	4.91E-06	1.56E-06
	Thorium-232	2.90E-06	1.18E-06
	Uranium-233/234	3.81E-06	1.58E-06
	Uranium-235/236	-1.57E-07	1.11E-06
Uranium-238	4.58E-06	1.54E-06	



**1995 WIPP Site Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>-3</sup>	COUNTING ERROR
AC-WSS 1.1 Air Sampling 1 <sup>st</sup> Quarter WIPP South	Americium-241	4.96E-05	1.17E-05
	Beryllium-7	3.20E-04	1.60E-04
	Cesium-137	-6.90E-06	8.10E-06
	Cobalt-60	-5.50E-06	7.60E-06
	Lead-210	8.90E-04	2.00E-04
	Plutonium-238	1.49E-06	2.92E-06
	Plutonium-241	1.84E-03	2.56E-04
	Plutonium-239/240	0.00E+00	5.06E-06
	Polonium-210	4.03E-04	1.39E-05
	Potassium-40	1.40E-04	1.60E-04
	Radium-228	4.30E-05	3.10E-05
	Radium-226	5.40E-05	1.70E-04
	Strontium-90	-4.30E-06	1.30E-05
	Thorium-228	1.45E-05	8.67E-06
	Thorium-230	3.28E-05	1.04E-05
	Thorium-232	4.37E-06	4.04E-06
	Uranium-233/234	2.07E-05	9.36E-06
	Uranium-238	7.85E-06	6.10E-06
Uranium-235/236	2.64E-06	3.86E-06	



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-WSS 2.1 Air Sampling 2 <sup>nd</sup> Quarter WIPP South	Americium-241	3.33E-05	1.01E-05
	Beryllium-7	2.00E-04	1.60E-04
	Cesium-137	-2.60E-06	8.70E-06
	Cobalt-60	1.20E-05	8.30E-06
	Lead-210	6.80E-05	2.10E-04
	Plutonium-238	0.00E+00	3.37E-06
	Plutonium-241	7.28E-04	2.33E-04
	Plutonium-239/240	3.51E-06	3.07E-06
	Polonium-210	4.34E-05	4.72E-06
	Potassium-40	1.00E-03	2.20E-04
	Radium-228	7.60E-05	6.10E-05
	Radium-226	3.50E-04	1.50E-04
	Strontium-90	-6.80E-06	1.20E-05
	Thorium-228	5.77E-06	5.36E-06
	Thorium-230	3.36E-05	1.04E-05
	Thorium-232	5.95E-06	4.61E-06
	Uranium-233/234	1.87E-05	1.32E-05
	Uranium-238	7.89E-06	7.23E-06
Uranium-235/236	1.22E-06	5.33E-06	



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-WSS 3.1 Air Sampling 3 <sup>rd</sup> Quarter WIPP South	Americium-241	1.83E-06	1.46E-06
	Beryllium-7	8.20E-04	1.90E-04
	Cesium-137	4.30E-06	8.10E-06
	Cobalt-60	-9.10E-06	7.30E-06
	Lead-210	8.70E-04	1.80E-04
	Plutonium-239/240	6.59E-07	6.46E-07
	Plutonium-241	-9.01E-04	8.50E-05
	Plutonium-238	1.65E-07	5.60E-07
	Polonium 210	2.80E-04	1.01E-05
	Potassium-40	2.40E-04	1.60E-04
	Radium-226	7.00E-04	2.40E-04
	Radium-228	4.50E-05	2.90E-05
	Strontium-90	-5.70E-06	1.20E-05
	Thorium-230	1.07E-05	2.54E-06
	Thorium-228	5.34E-06	1.88E-06
	Thorium-232	4.40E-06	1.69E-06
	Uranium-238	8.28E-06	2.28E-06
Uranium-233/234	6.64E-06	2.07E-06	
Uranium-235/236	0.00E+00	8.76E-07	

**1995 WIPP Site Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>-3</sup>	COUNTING ERROR
AC-WSS 3.2 Air Sampling 3 <sup>rd</sup> Quarter WIPP South	Americium-241	1.88E-06	1.24E-06
	Beryllium-7	9.30E-05	8.80E-05
	Cesium-137	2.90E-06	7.70E-06
	Cobalt-60	1.70E-06	6.70E-06
	Lead-210	3.10E-03	8.50E-04
	Plutonium-239/240	1.07E-06	8.99E-07
	Plutonium-241	-8.18E-04	7.96E-05
	Plutonium-238	-4.59E-07	5.19E-07
	Polonium 210	2.78E-04	9.90E-06
	Potassium-40	-5.70E-05	5.60E-05
	Radium-226	6.10E-05	7.40E-04
	Radium-228	-2.40E-05	2.80E-05
	Strontium-90	2.70E-06	8.90E-06
	Thorium-230	1.06E-05	2.29E-06
	Thorium-228	5.02E-06	1.73E-06
	Thorium-232	4.80E-06	1.58E-06
	Uranium-238	5.99E-06	1.77E-06
	Uranium-233/234	7.61E-06	2.13E-06
Uranium-235/236	3.36E-07	9.32E-07	

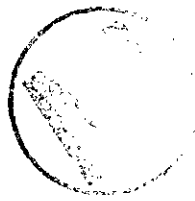


**1995 WIPP Site Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>-3</sup>	COUNTING ERROR
AC-WSS 4.1 Air Sampling 4 <sup>th</sup> Quarter WIPP South	Americium-241	1.40E-07	7.28E-07
	Beryllium-7	2.60E-03	4.40E-04
	Cesium-137	4.40E-06	7.90E-06
	Cobalt-60	1.80E-06	6.40E-06
	Lead-210	1.40E-03	2.40E-04
	Plutonium-238	3.70E-07	5.40E-07
	Plutonium-241	-6.95E-03	6.30E-04
	Plutonium-239/240	3.69E-07	6.39E-07
	Polonium 210	2.95E-04	7.27E-06
	Potassium-40	1.30E-04	1.80E-04
	Radium-226	8.50E-05	1.70E-04
	Radium-228	5.20E-05	3.00E-05
	Strontium-90	-5.80E-07	7.70E-06
	Thorium-228	2.90E-06	1.23E-06
	Thorium-230	6.24E-06	1.71E-06
	Thorium-232	2.14E-06	1.10E-06
	Uranium-233/234	2.08E-05	3.22E-06
	Uranium-235/236	1.66E-06	1.07E-06
Uranium-238	2.78E-05	3.67E-06	

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-MLR 1.1 Air Sampling 1 <sup>st</sup> Quarter Mills Ranch	Americium-241	3.57E-05	1.01E-05
	Beryllium-7	5.40E-04	2.10E-04
	Cesium-137	3.80E-07	1.10E-05
	Cobalt-60	-8.00E-06	1.10E-05
	Lead-210	1.00E-03	2.20E-04
	Plutonium-238	-7.63E-07	2.59E-06
	Plutonium-241	1.13E-03	2.48E-04
	Plutonium-239/240	7.62E-07	4.48E-06
	Polonium-210	3.47E-04	1.48E-05
	Potassium-40	3.80E-04	1.30E-04
	Radium-228	6.10E-05	3.50E-05
	Radium-226	8.20E-04	2.80E-04
	Strontium-90	-8.40E-06	1.10E-05
	Thorium-228	7.16E-06	7.15E-06
	Thorium-230	2.88E-05	9.35E-06
	Thorium-232	3.59E-06	3.15E-06
	Uranium-233/234	8.50E-05	2.04E-05
Uranium-238	1.06E-05	8.36E-06	
Uranium-235/236	5.84E-06	5.72E-06	



**1995 WIPP Site Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-MLR 2.1 Air Sampling 2 <sup>nd</sup> Quarter Mills Ranch	Americium-241	3.69E-05	1.09E-05
	Beryllium-7	4.40E-04	1.50E-04
	Cesium-137	1.10E-05	7.80E-06
	Cobalt-60	5.80E-07	7.00E-06
	Lead-210	9.00E-05	1.50E-04
	Plutonium-238	6.64E-07	3.44E-06
	Plutonium-241	1.01E-03	2.19E-04
	Plutonium-239/240	1.33E-06	2.60E-06
	Polonium-210	4.23E-05	3.86E-06
	Potassium-40	2.40E-05	1.40E-04
	Radium-228	3.10E-05	2.80E-05
	Radium-226	3.60E-05	1.90E-04
	Strontium-90	4.10E-05	1.40E-05
	Thorium-228	3.99E-06	5.19E-06
	Thorium-230	2.74E-05	9.80E-06
	Thorium-232	2.88E-06	3.46E-06
	Uranium-233/234	1.89E-05	8.76E-06
Uranium-238	8.50E-06	5.58E-06	
Uranium-235/236	1.61E-06	2.23E-06	

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-MLR 2.2 Air Sampling 2 <sup>nd</sup> Quarter Mills Ranch	Americium-241	2.88E-05	8.49E-06
	Beryllium-7	3.20E-04	1.90E-04
	Cesium-137	2.80E-06	9.70E-06
	Cobalt-60	-3.10E-06	8.20E-06
	Lead-210	1.00E-04	1.90E-04
	Plutonium-238	-1.31E-06	2.57E-06
	Plutonium-241	1.51E-03	2.21E-04
	Plutonium-239/240	-6.54E-07	1.28E-06
	Polonium-210	4.86E-05	7.57E-06
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	Potassium-40	2.30E-04	9.80E-05
	Radium-226	7.20E-04	2.50E-04
	Radium-228	5.60E-05	3.90E-05
	Strontium-90	-2.60E-06	1.10E-05
	Thorium-230	2.47E-05	1.01E-05
	Thorium-228	1.07E-05	7.89E-06
	Thorium-232	6.17E-06	5.73E-06
	Uranium-233/234	1.36E-05	7.82E-06
	Uranium-238	1.13E-05	7.10E-06
Uranium-235/236	9.32E-07	4.08E-06	



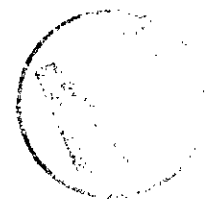
## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-MLR 3.1 Air Sampling 3 <sup>rd</sup> Quarter Mills Ranch	Americium-241	1.05E-06	7.31E-07
	Beryllium-7	9.60E-04	2.10E-04
	Cesium-137	-2.80E-06	8.60E-06
	Cobalt-60	-2.80E-06	7.80E-06
	Lead-210	9.50E-04	2.310E-04
	Plutonium-239/240	1.40E-07	7.28E-07
	Plutonium-241	-8.75E-04	7.09E-05
	Plutonium-238	0.00E+00	6.74E-07
	Polonium 210	3.72E-04	9.40E-06
	Potassium-40	4.00E-05	1.50E-04
	Radium-226	8.20E-05	1.60E-04
	Radium-228	6.30E-05	3.20E-05
	Strontium-90	7.80E-06	9.70E-06
	Thorium-230	7.67E-05	7.08E-06
	Thorium-228	6.47E-06	2.50E-06
	Thorium-232	7.70E-06	2.27E-06
	Uranium-238	4.93E-06	1.71E-06
Uranium-233/234	6.52E-06	1.97E-06	
Uranium-235/236	8.22E-07	9.67E-07	



**1995 WIPP Site Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-MLR 4.1 Air Sampling 4 <sup>th</sup> Quarter Mills Ranch	Americium-241	1.80E-06	1.23E-06
	Beryllium-7	2.50E-03	4.10E-04
	Cesium-137	1.40E-06	6.90E-06
	Cobalt-60	4.70E-07	6.40E-06
	Lead-210	1.50E-03	2.30E-04
	Plutonium-238	-6.64E-07	8.63E-07
	Plutonium-241	-7.85E-03	6.88E-04
	Plutonium-239/240	6.64E-07	1.96E-06
	Polonium 210	3.28E-04	7.76E-06
	Potassium-40	8.40E-05	1.10E-04
	Radium-226	3.60E-05	1.50E-04
	Radium-228	2.50E-05	2.70E-05
	Strontium-90	1.20E-05	9.20E-06
	Thorium-228	4.08E-06	1.35E-06
	Thorium-230	1.14E-05	2.30E-06
	Thorium-232	2.94E-06	1.25E-06
	Uranium-233/234	5.14E-06	1.76E-06
Uranium-235/236	-4.53E-07	6.62E-07	
Uranium-238	5.76E-06	1.75E-06	

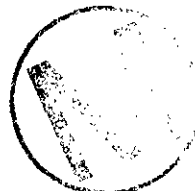


**1995 WIPP Site Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>-3</sup>	COUNTING ERROR
AC-SEC 1.1 Air Sampling 1 <sup>st</sup> Quarter South East Control	Americium-241	3.55E-05	1.06E-05
	Beryllium-7	4.00E-04	1.60E-04
	Cesium-137	1.70E-06	9.60E-06
	Cobalt-60	1.20E-05	8.40E-06
	Lead-210	9.60E-04	2.40E-04
	Plutonium-238	0.00E+00	3.57E-06
	Plutonium-241	2.32E-03	3.28E-04
	Plutonium-239/240	0.00E+00	2.65E-06
	Polonium-210	3.54E-04	1.45E-05
	Potassium-40	2.00E-04	2.20E-04
	Radium-228	7.40E-05	3.40E-05
	Radium-226	5.60E-04	2.00E-04
	Strontium-90	1.80E-06	1.30E-05
	Thorium-228	7.64E-06	4.99E-06
	Thorium-230	3.15E-05	1.01E-05
	Thorium-232	3.06E-06	4.75E-06
	Uranium-233/234	1.38E-05	7.93E-06
	Uranium-238	7.30E-06	6.16E-06
Uranium-235/236	-1.00E-06	1.96E-06	

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-SEC 1.2 Air Sampling 1 <sup>st</sup> Quarter South East Control	Americium-241	5.07E-05	1.20E-05
	Beryllium-7	4.30E-04	1.50E-04
	Cesium-137	4.90E-06	8.10E-06
	Cobalt-60	1.30E-06	7.80E-06
	Lead-210	9.60E-04	2.00E-04
	Plutonium-238	-1.51E-06	4.19E-06
	Plutonium-241	2.56E-03	2.71E-04
	Plutonium-239/240	0.00E+00	3.62E-06
	Polonium-210	3.95E-04	1.09E-05
	Potassium-40	1.50E-04	1.60E-04
	Radium-228	3.70E-05	3.10E-05
	Radium-226	3.70E-05	6.40E-04
	Strontium-90	1.90E-05	1.50E-05
	Thorium-228	7.79E-07	4.04E-06
	Thorium-230	2.18E-05	7.69E-06
	Thorium-232	2.11E-06	3.08E-06
	Uranium-233/234	1.74E-05	9.00E-06
Uranium-238	5.82E-06	6.37E-06	
Uranium-235/236	8.97E-07	4.65E-06	



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-SEC 2.1 Air Sampling 2 <sup>nd</sup> Quarter South East Control	Americium-241	2.56E-05	9.66E-06
	Beryllium-7	5.90E-04	2.10E-04
	Cesium-137	3.20E-06	1.00E-05
	Cobalt-60	4.20E-06	9.30E-06
	Lead-210	1.10E-04	2.30E-04
	Plutonium-238	-1.57E-06	3.78E-06
	Plutonium-241	2.81E-03	2.73E-04
	Plutonium-239/240	1.57E-06	3.77E-06
	Polonium-210	5.60E-05	3.95E-06
	Potassium-40	1.20E-03	2.50E-04
	Radium-228	7.90E-05	4.30E-05
	Radium-226	7.40E-05	2.50E-04
	Strontium-90	-1.30E-05	1.50E-05
	Thorium-228	7.98E-06	7.58E-06
	Thorium-230	2.89E-05	9.68E-06
	Thorium-232	2.40E-06	3.51E-06
	Uranium-233/234	3.05E-05	1.10E-05
	Uranium-238	1.80E-05	7.38E-06
Uranium-235/236	9.68E-07	3.29E-06	



**1995 WIPP Site Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>-3</sup>	COUNTING ERROR
AC-SEC 3.1 Air Sampling 3 <sup>rd</sup> Quarter South East Control	Americium-241	2.38E-06	1.37E-06
	Beryllium-7	8.50E-04	2.10E-04
	Cesium-137	9.70E-06	9.50E-06
	Cobalt-60	8.90E-06	7.80E-06
	Lead-210	9.70E-04	2.20E-04
	Plutonium-239/240	1.46E-06	9.07E-07
	Plutonium-241	-9.32E-04	7.09E-05
	Plutonium-238	-2.93E-07	7.03E-07
	Polonium 210	3.99E-04	9.92E-06
	Potassium-40	1.20E-04	1.90E-04
	Radium-226	9.10E-05	1.80E-04
	Radium-228	5.90E-05	5.90E-05
	Strontium-90	3.70E-06	9.50E-06
	Thorium-230	1.03E-05	2.40E-06
	Thorium-228	4.90E-06	2.04E-06
	Thorium-232	5.50E-06	1.88E-06
	Uranium-238	6.53E-06	2.16E-06
	Uranium-233/234	3.10E-06	1.97E-06
Uranium-235/236	7.67E-07	1.06E-06	



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-SEC 4.1 Air Sampling 4 <sup>th</sup> Quarter South East Control	Americium-241	2.72E-06	1.35E-06
	Beryllium-7	2.80E-03	4.10E-04
	Cesium-137	6.60E-06	7.90E-06
	Cobalt-60	5.90E-06	7.00E-06
	Lead-210	5.90E-03	1.10E-03
	Plutonium-238	4.09E-07	4.63E-07
	Plutonium-241	6.13E-03	7.29E-04
	Plutonium-239/240	8.18E-07	6.55E-07
	Polonium 210	3.26E-04	7.51E-06
	Potassium-40	2.10E-04	1.50E-04
	Radium-226	1.30E-03	3.70E-04
	Radium-228	4.00E-05	2.80E-05
	Strontium-90	2.70E-06	9.90E-06
	Thorium-228	2.93E-06	1.40E-06
	Thorium-230	7.55E-06	2.06E-06
	Thorium-232	3.06E-06	1.20E-06
	Uranium-233/234	1.06E-05	2.45E-06
Uranium-235/236	7.79E-07	6.83E-07	
Uranium-238	5.10E-05	4.99E-06	

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-WAB 1.1 Air Sampling 1" Quarter Blank Filter Analysis	Americium-241	5.58E-05	1.08E-01
	Beryllium-7	-1.48E-04	7.00E-01
	Cesium-137	1.48E-06	6.70E-02
	Cobalt-60	-1.75E-06	6.80E-02
	Lead-210	7.69E-05	1.10E+00
	Plutonium-238	6.70E-07	9.75E-03
	Plutonium-241	2.21E-03	1.78E+00
	Plutonium-239/240	4.02E-06	2.75E-02
	Polonium-210	6.77E-07	5.80E-03
	Potassium-40	2.56E-04	8.30E-01
	Radium-228	2.16E-05	2.80E-01
	Radium-226	7.86E-04	2.00E+00
	Strontium-90	1.08E-05	9.60E-02
	Thorium-228	2.16E-06	2.34E-02
	Thorium-230	6.50E-07	6.14E-02
	Thorium-232	2.35E-05	2.50E-02
	Uranium-233/234	6.50E-07	5.85E-02
	Uranium-238	1.55E-05	4.29E-02
Uranium-235/236	0.00	3.91E-02	



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-WAB 1.2 Air Sampling 1 <sup>st</sup> Quarter Blank Filter Analysis	Americium-241	3.61E-05	7.36E-02
	Beryllium-7	2.70E-05	6.80E-01
	Cesium-137	8.22E-07	5.80E-02
	Cobalt-60	6.88E-06	5.00E-02
	Lead-210	7.42E-04	9.00E-01
	Plutonium-238	0.00E-00	4.28E-02
	Plutonium-241	4.15E-03	3.19E-00
	Plutonium-239/240	2.40E-06	3.49E-02
	Polonium-210	2.70E-07	6.26E-03
	Potassium-40	9.71E-04	1.50E-00
	Radium-228	4.31E-05	2.00E-01
	Radium-226	3.64E-04	1.10E-00
	Strontium-90	2.16E-05	9.30E-02
	Thorium-228	2.98E-06	3.42E-02
	Thorium-230	1.82E-05	5.79E-02
	Thorium-232	2.01E-06	2.18E-02
	Uranium-233/234	1.02E-05	5.66E-02
	Uranium-238	4.76E-06	3.56E-02
Uranium-235/236	0.00E-00	2.99E-02	





## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-WAB 2.1 Air Sampling 2 <sup>nd</sup> Quarter Blank Filter Analysis	Americium-241	3.60E-05	7.34E-02
	Beryllium-7	2.97E-05	5.80E-01
	Cesium-137	-5.26E-07	5.40E-02
	Cobalt-60	2.70E-06	5.20E-02
	Lead-210	5.66E-05	1.00E+00
	Plutonium-238	-6.84E-07	2.22E-02
	Plutonium-241	4.26E-04	1.66E+00
	Plutonium-239/240	6.82E-07	2.22E-02
	Polonium-210	-2.72E-07	8.40E-03
	Potassium-40	1.19E-04	1.10E+00
	Radium-228	2.83E-05	2.10E-01
	Radium-226	6.61E-04	1.80E+00
	Strontium-90	-3.64E-06	7.10E-02
	Thorium-232	4.00E-06	4.20E-02
	Thorium-230	2.02E-05	5.76E-02
	Thorium-232	0.00E+00	2.97E-02
	Uranium-233/234	1.86E-05	5.78E-02
	Uranium-238	7.95E-06	4.09E-02
Uranium-235/236	-1.63E-06	2.91E-02	



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-WAB 2.2 Air Sampling WIPP 2 <sup>nd</sup> Quarter Blank Filter Analysis	Americium-241	4.41E-05	8.08E-02
	Beryllium-7	6.34E-05	7.30E-01
	Cesium-137	4.45E-06	6.30E-02
	Cobalt-60	1.89E-06	4.90E-02
	Lead-210	7.28E-04	8.70E-01
	Plutonium-238	-6.66E-07	2.17E-02
	Plutonium-239/240	3.99E-06	2.73E-02
	Plutonium-241	6.23E-04	1.66E+00
	Polonium-210	2.08E-06	9.15E-03
	Potassium-40	9.44E-04	1.50E+00
	Radium-228	6.88E-05	2.90E-01
	Radium-226	1.29E-04	1.50E+00
	Strontium-90	-3.64E-06	7.50E-02
	Thorium-228	-8.05E-07	3.10E-02
	Thorium-230	2.25E-05	6.43E-02
	Thorium-232	2.90E-06	2.59E-02
	Uranium-238	4.54E-06	3.89E-02
	Uranium-235/236	1.60E-06	2.33E-02
Uranium-233/234	1.43E-05	5.16E-02	



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/m <sup>3</sup>	COUNTING ERROR
AC-WAB 3.1 Air Sampling 3 <sup>rd</sup> Quarter Blank Filter Analysis	Americium-241	6.47E-07	8.20E-03
	Beryllium-7	2.83E-05	5.10E-01
	Cesium-137	-2.16E-06	5.60E-02
	Cobalt-60	-1.17E-06	5.80E-02
	Lead-210	2.97E-05	1.00E+00
	Plutonium-239/240	5.54E-07	4.03E-03
	Plutonium-241	-1.00E-03	5.20E-01
	Plutonium-238	-2.78E-07	5.71E-03
	Polonium 210	6.44E-07	2.39E-03
	Potassium-40	2.70E-05	5.30E-01
	Radium-226	1.89E-04	1.40E+00
	Radium-228	7.28E-06	2.20E-01
	Strontium-90	-3.64E-06	8.10E-02
	Thorium-230	5.62E-06	1.40E-02
	Thorium-228	1.58E-06	1.04E-02
	Thorium-232	2.74E-07	4.88E-03
	Uranium-238	3.06E-06	1.14E-02
Uranium-233/234	3.45E-06	1.44E-02	
Uranium-235/236	8.21E-07	1.19E-02	



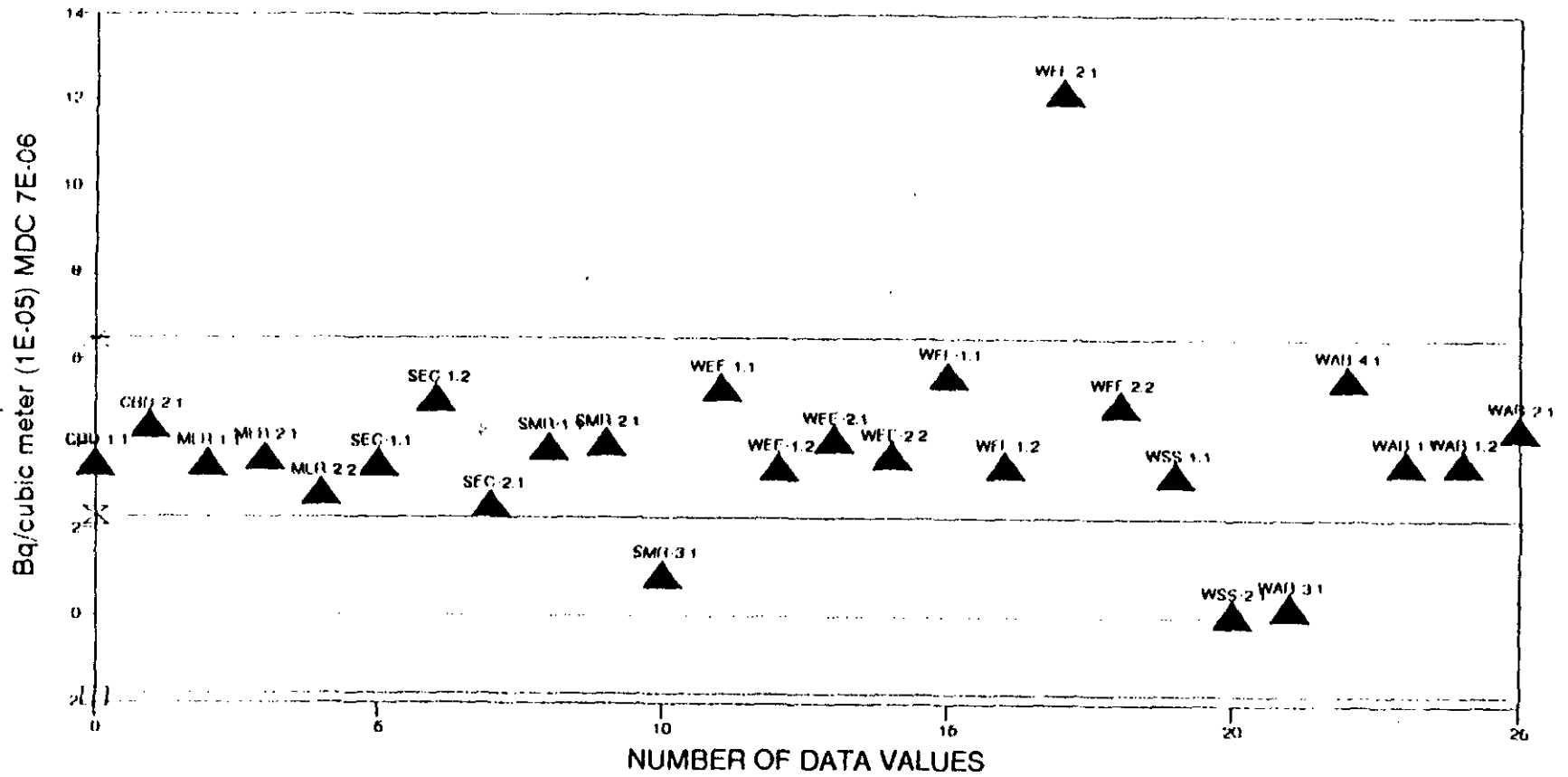
## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT UNIT Bq m <sup>-3</sup>	COUNTING ERROR
AC-WAB 4.1 Air Sampling WIPP 4 <sup>th</sup> Quarter Blank Filter Analysis	Americium-241	2.39E-06	8.91E-03
	Beryllium-7	2.02E-05	6.10E-01
	Cesium-137	6.34E-06	6.20E-02
	Cobalt-60	3.51E-06	5.60E-02
	Lead-210	8.67E-04	1.00E+00
	Plutonium-238	2.71E-07	4.83E-03
	Plutonium-241	4.77E-04	5.12E-01
	Plutonium-239/240	3.92E-06	1.16E-02
	Polonium-210	1.30E-06	2.07E-03
	Potassium-40	2.33E-04	1.20E+00
	Radium-226	3.24E-06	1.30E+00
	Radium-228	3.37E-05	2.20E-01
	Strontium-90	1.32E-05	3.90E-02
	Thorium-228	1.97E-06	9.47E-03
	Thorium-230	7.94E-06	1.49E-02
	Thorium-232	4.06E-06	1.07E-02
	Uranium-233/234	4.76E-06	1.49E-02
	Uranium-235/236	0.00E+00	4.75E-03
Uranium-238	8.47E-06	1.59E-02	



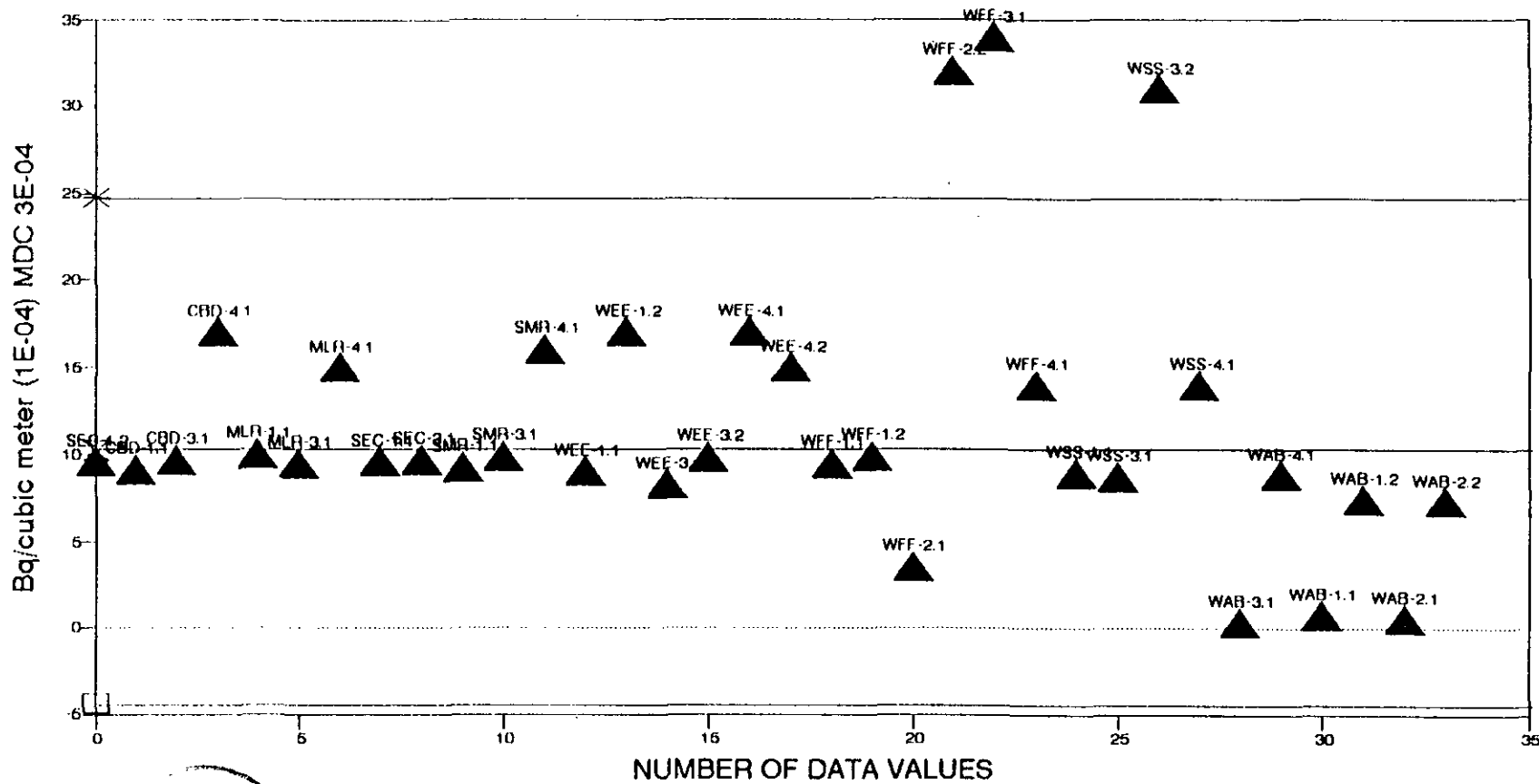
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A1-44



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# 1995 Pb-210 IN AIR

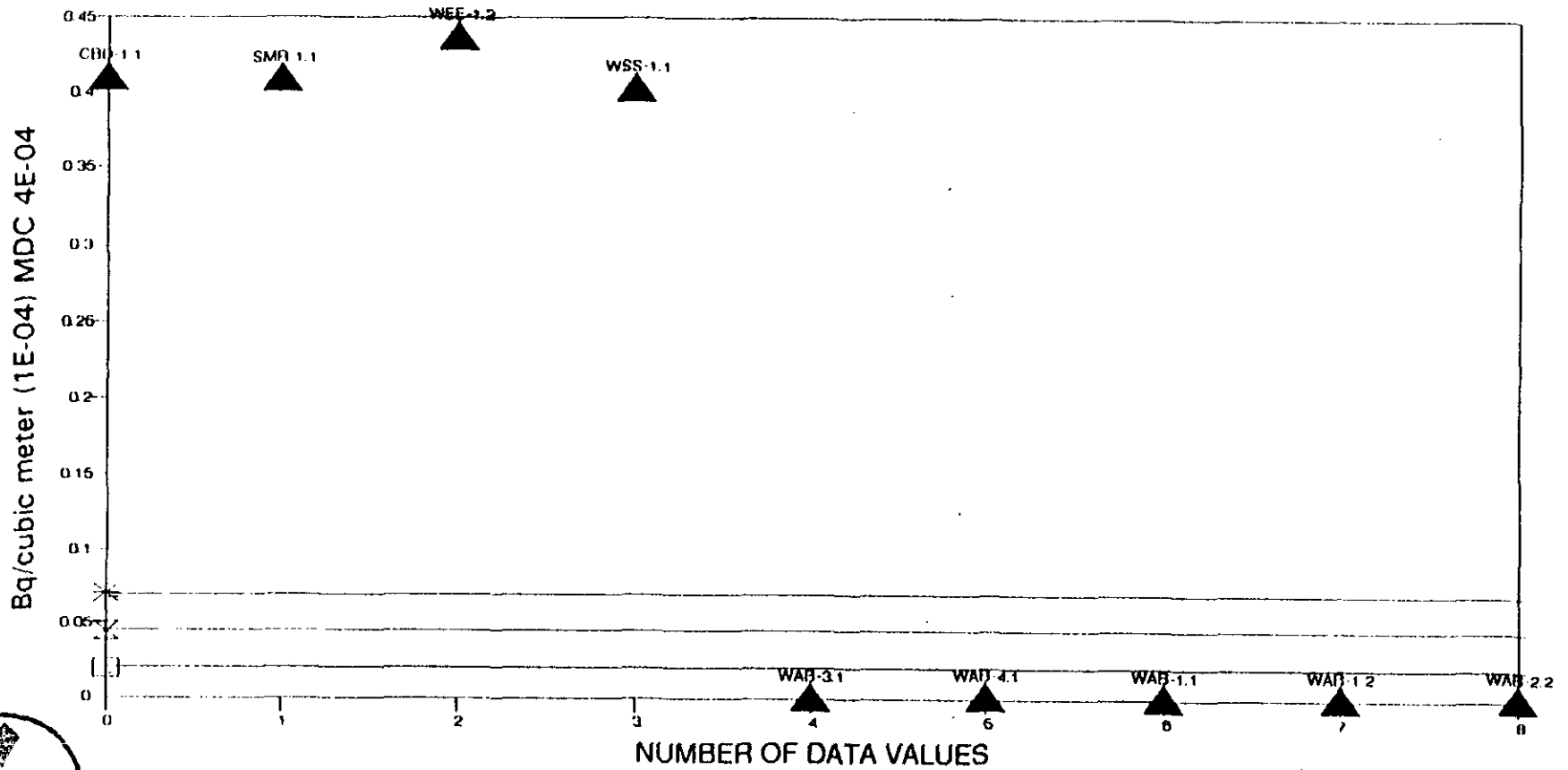


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415

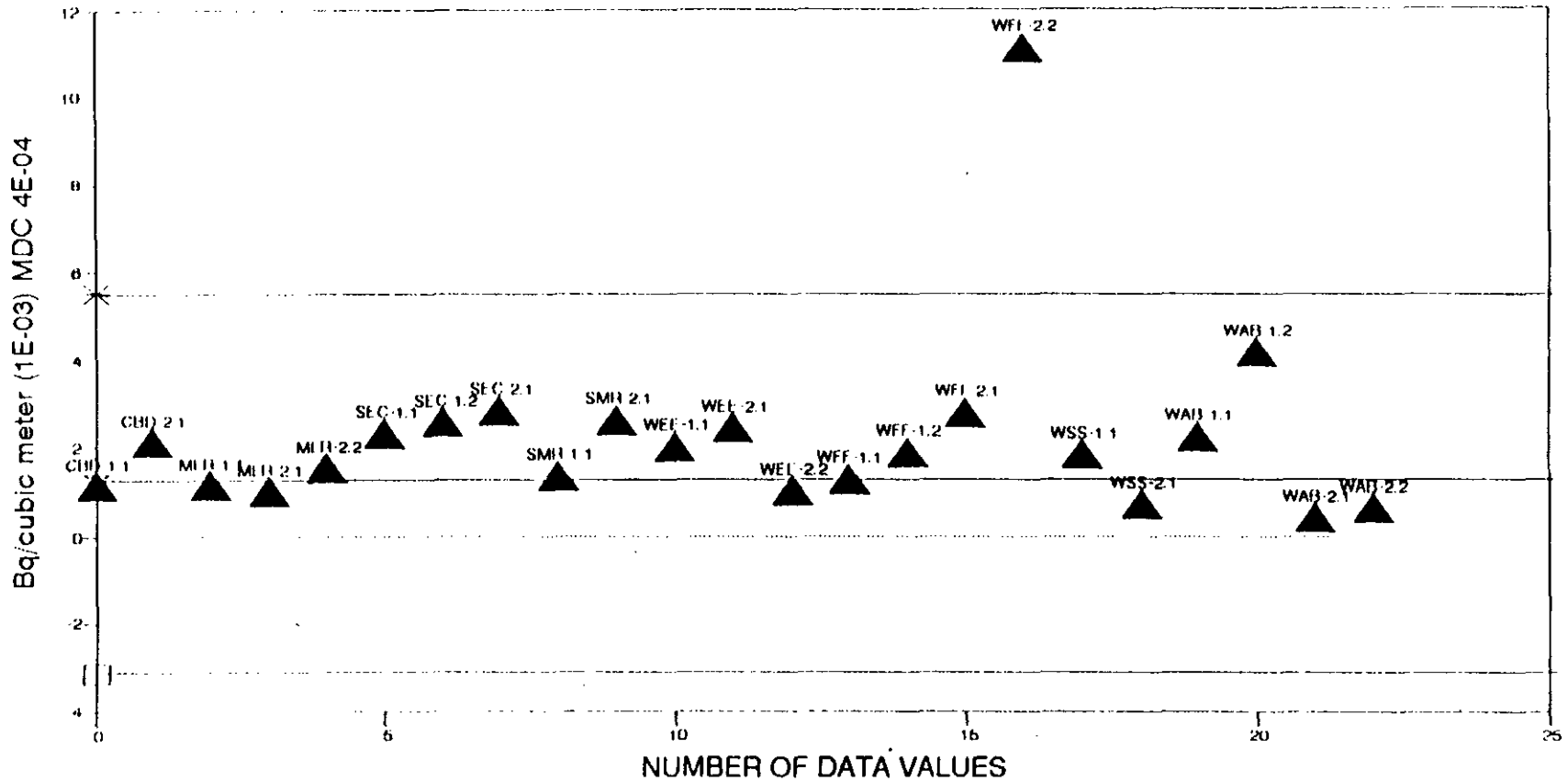
# 1995 Po-210 IN AIR

95-146



▲ ANALYTICAL VALUE    ⌘ MEAN    \* +2 STD. DEV.    □ -2 STD. DEV.

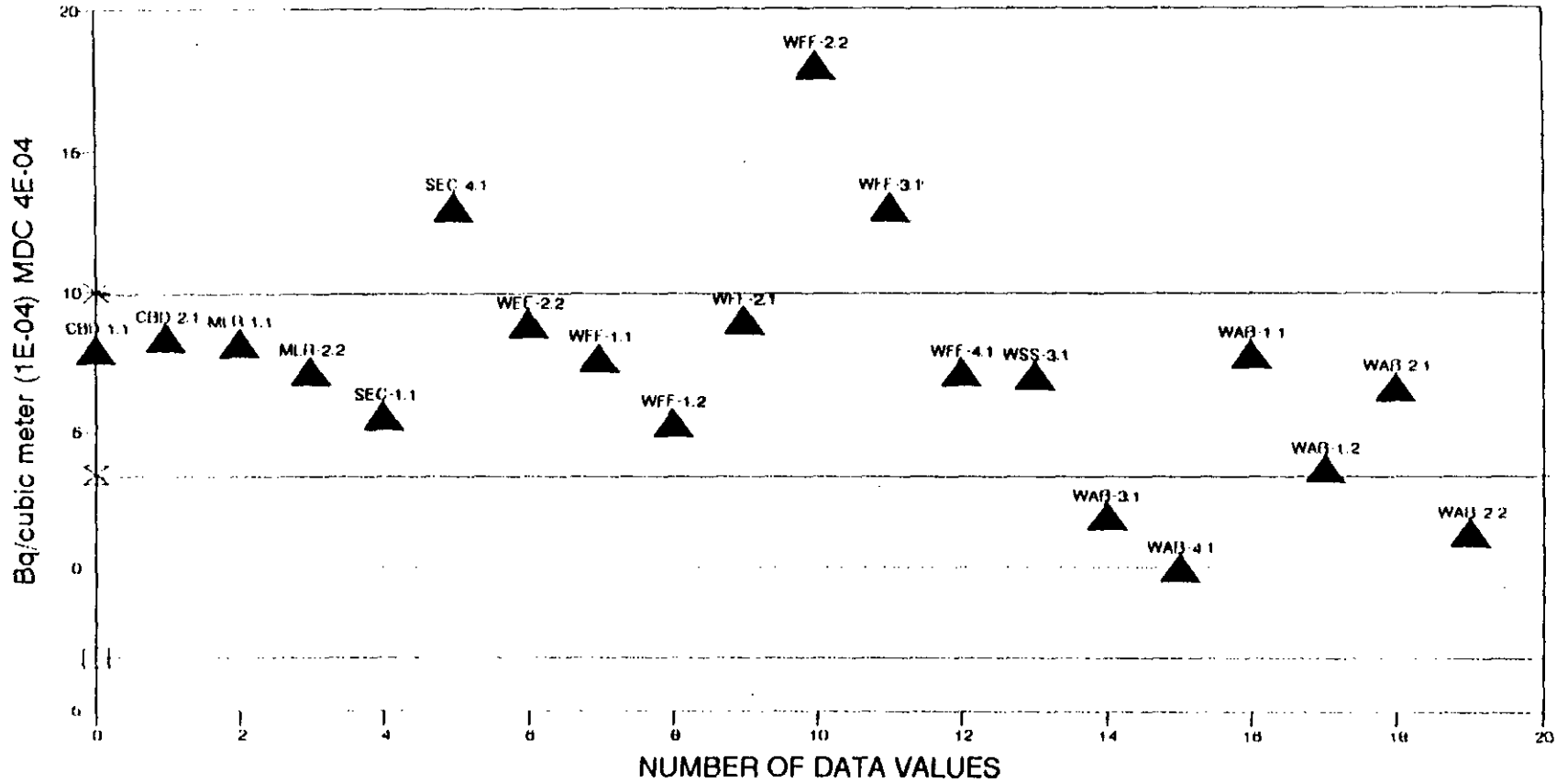
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▲ ANALYTICAL VALUE x MEAN \* +2 STD. DEV. □ -2 STD. DEV.



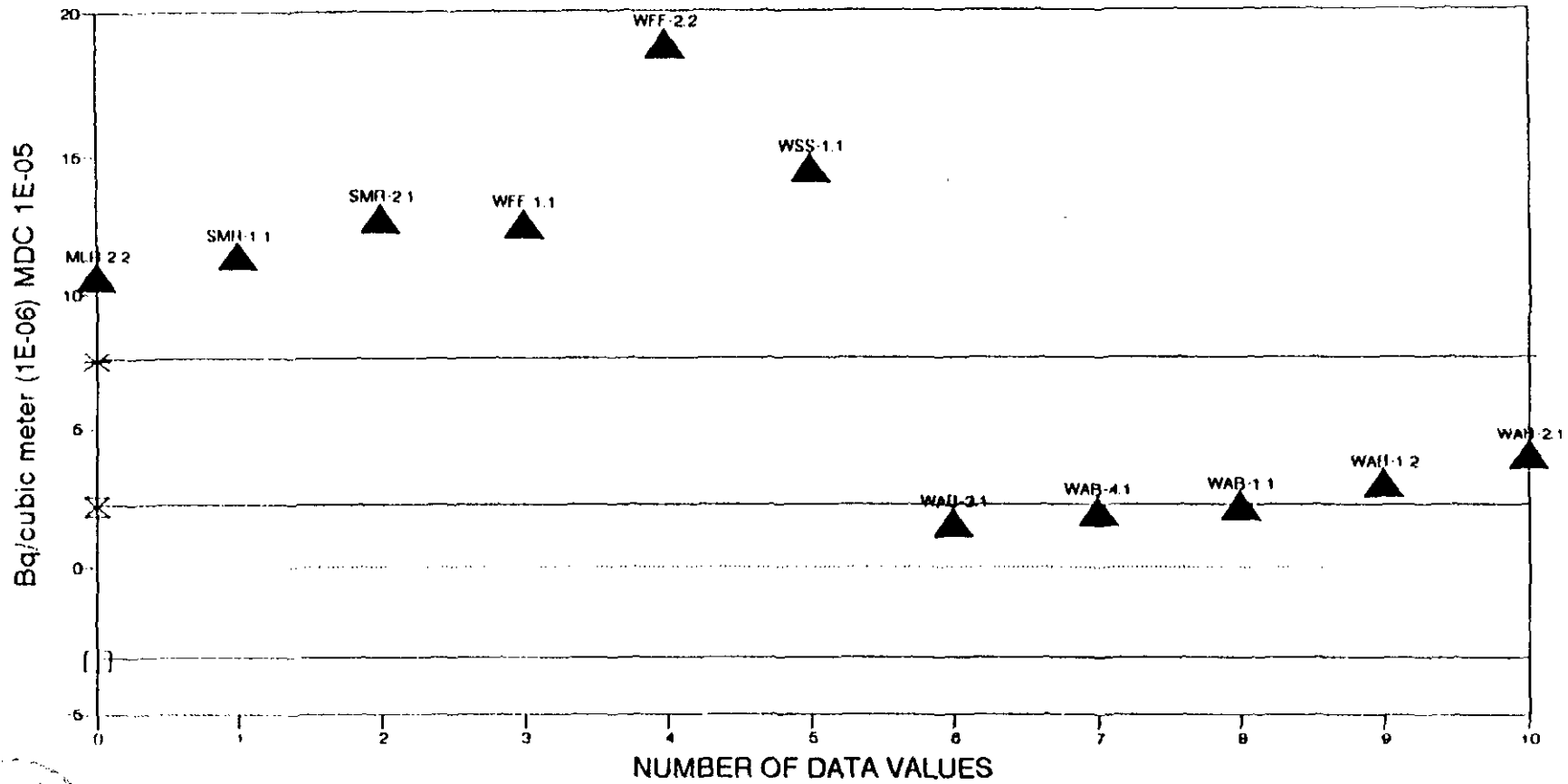
# 1995 Ra-226 IN AIR



AI-48

▲ ANALYTICAL VALUE    ✕ MEAN    \* +2 STD. DEV.    □ -2 STD. DEV.

# 1995 Th-228 IN AIR



64-IV

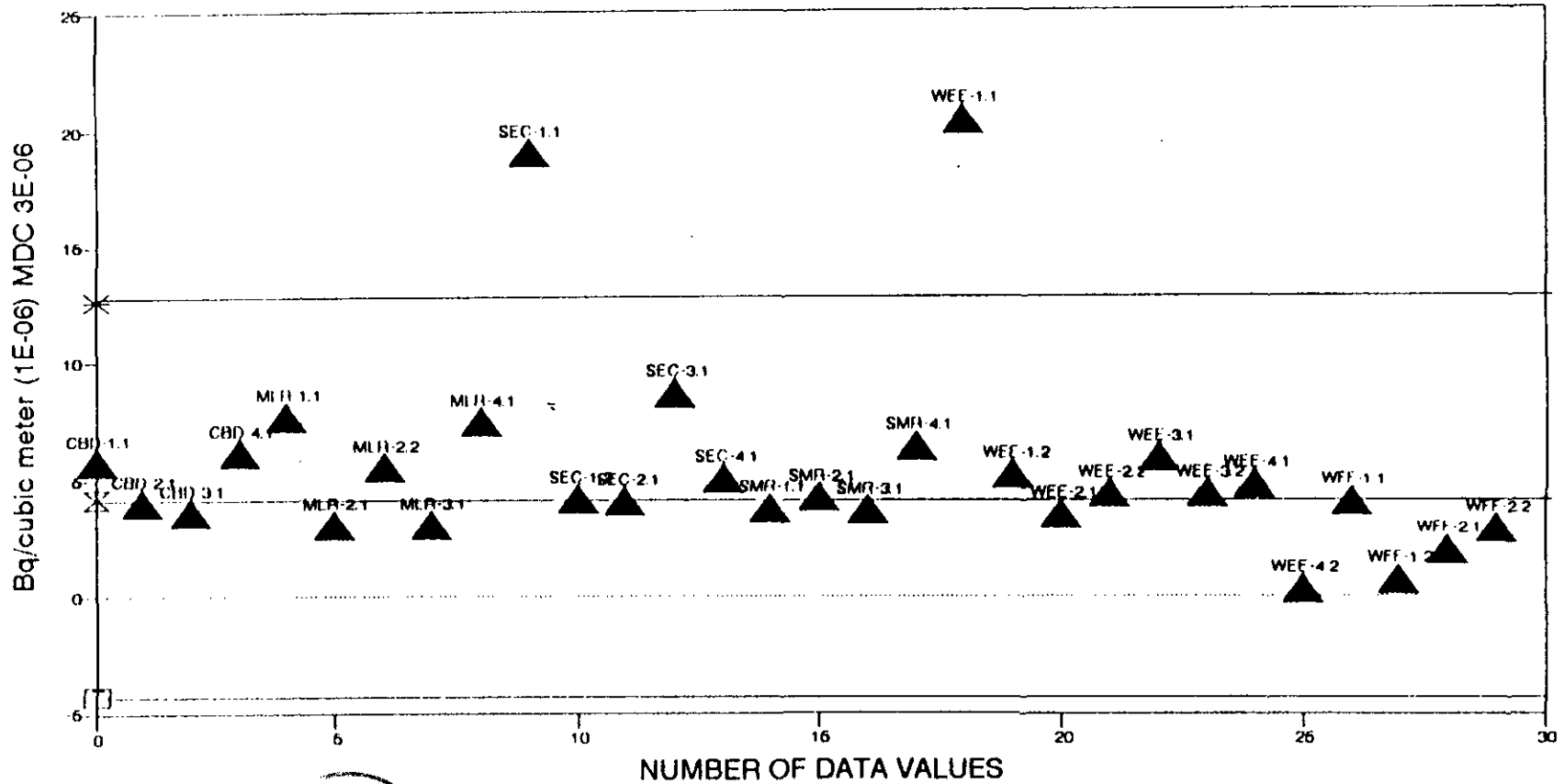


▲ ANALYTICAL VALUE ✕ MEAN \* +2 STD. DEV. □ -2 STD. DEV.



# 1995 Th-232 IN AIR

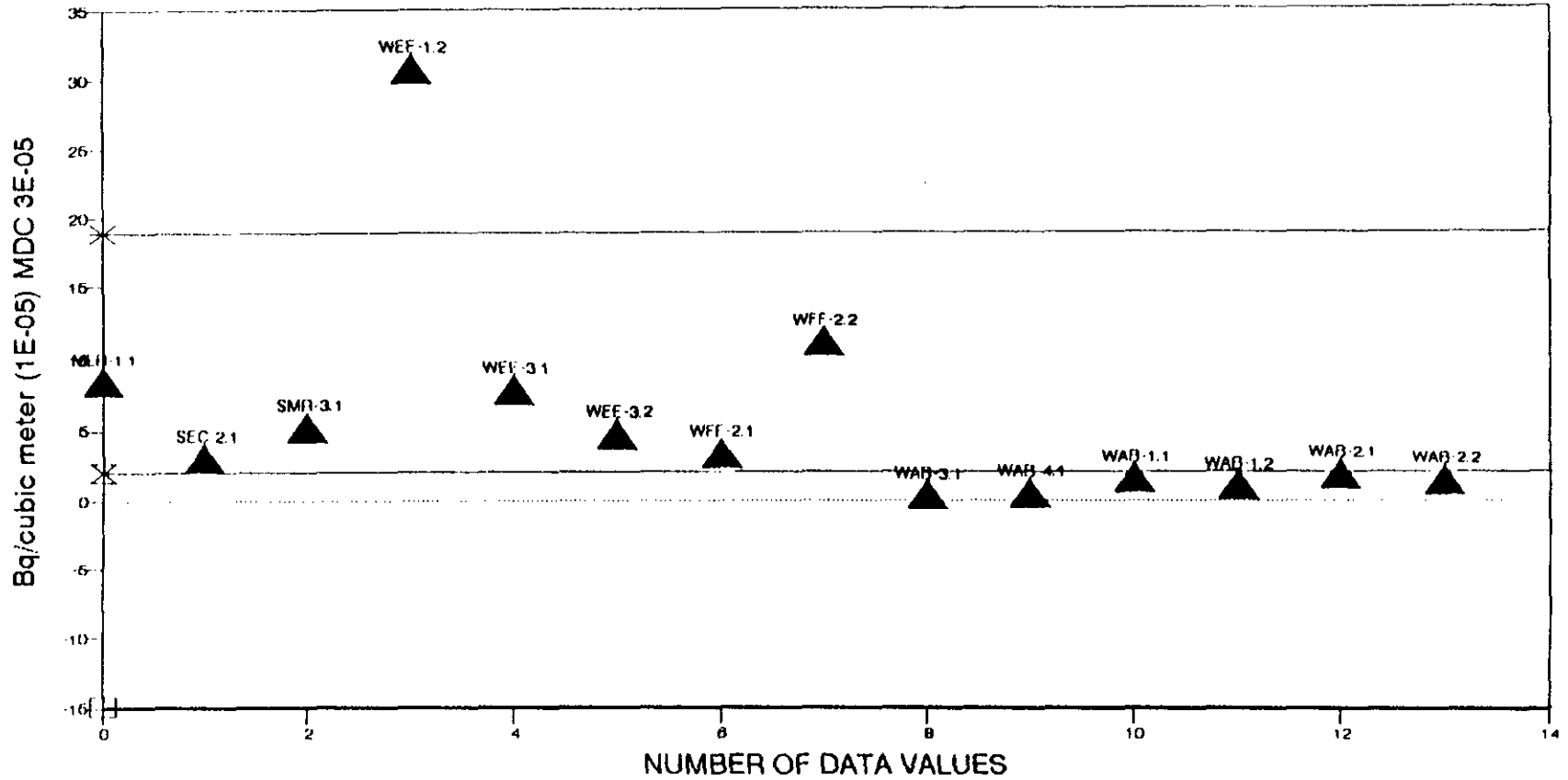
AI-S1



ANALYTICAL VALUE
  MEAN
  +2 STD. DEV.
  -2 STD. DEV.

# 1995 U-233/234 IN AIR

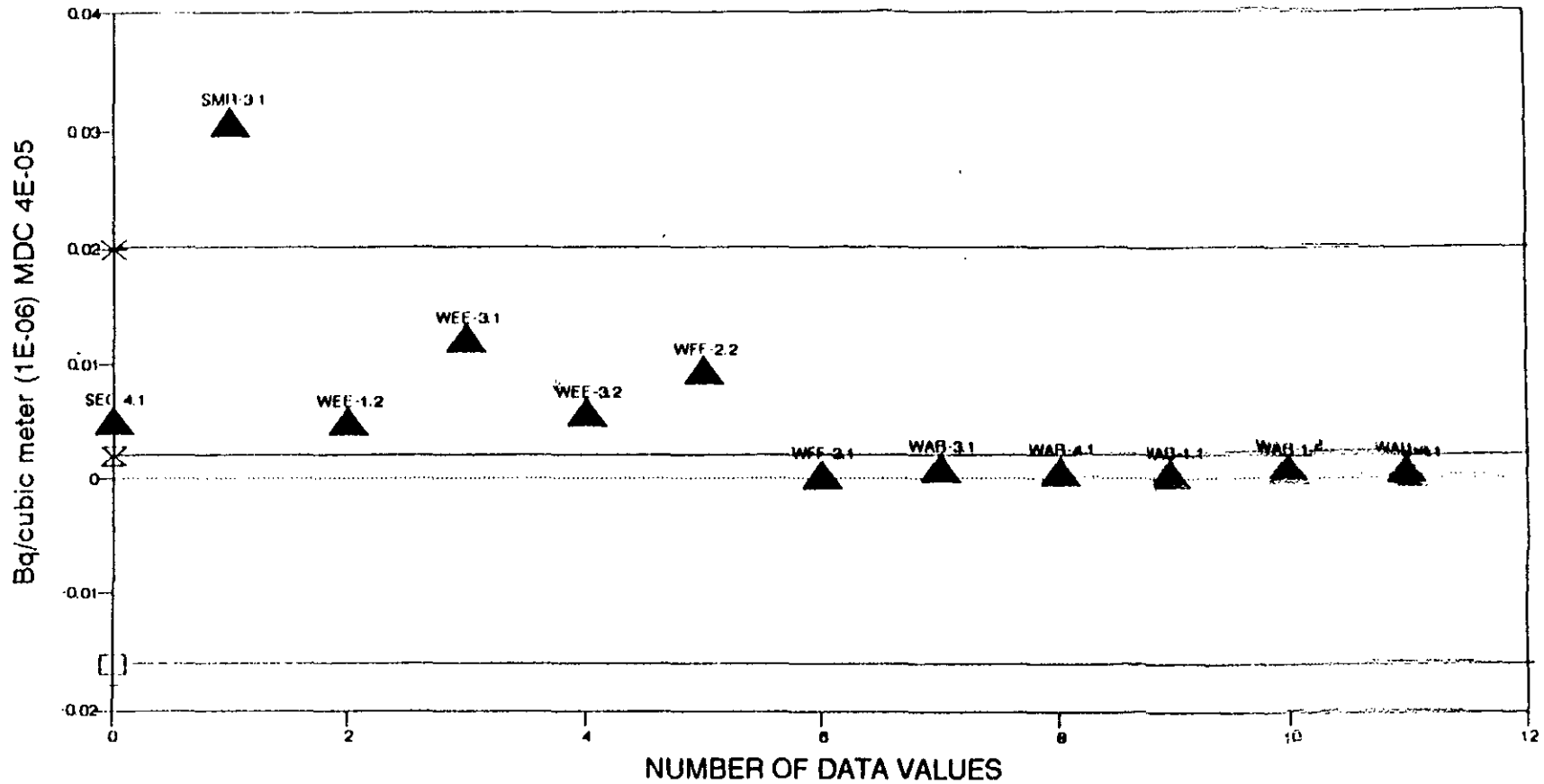
A1-52



▲ ANALYTICAL VALUE    ✕ MEAN    \* +2 STD. DEV.    □ -2 STD. DEV.



# 1995 U-238 IN AIR



▲ ANALYTICAL VALUE    ✕ MEAN    \* +2 STD. DEV.    □ -2 STD. DEV.

AI-53

**APPENDIX A2**  
**RADIOLOGICAL ANALYSIS**  
**SOILS**



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS/UNIT Bq/g	COUNTING ERROR
TS-MLR Terrestrial Surface Mills Ranch	Americium-241	6.36E-03	1.67E-03
	Cesium-137	1.10E-02	2.40E-03
	Cobalt-60	*-2.30E-05	3.60E-04
	Lead-210	5.20E-02	4.20E-02
	Plutonium-241	5.63E-02	3.22E-02
	Plutonium-238	1.09E-03	7.02E-04
	Plutonium-239/240	2.98E-04	5.15E-04
	Polonium-210	3.20E-02	1.20E-02
	Potassium-40	4.50E-01	6.40E-02
	Radium-226	1.10E-02	4.00E-02
	Radium-228	2.40E-02	4.50E-03
	Strontium-90	1.30E-03	1.40E-03
	Thorium-232	1.73E-02	2.50E-03
	Thorium-228	1.68E-01	7.76E-03
	Thorium-230	2.58E-02	3.04E-03
	Uranium-233/234	2.48E-02	5.71E-03
	Uranium-238	2.08E-02	5.09E-03
	Uranium-235/236	1.89E-03	1.66E-03
TI-MLR Terrestrial Intermediate Mills Ranch	Americium-241	5.55E-03	1.67E-03
	Cesium-137	5.40E-03	9.50E-04
	Cobalt-60	*-2.00E-04	3.20E-04
	Lead-210	2.90E-02	9.20E-03
	Plutonium-241	6.16E-02	3.18E-02
	Plutonium-238	7.86E-04	6.09E-04
	Plutonium-239/240	5.89E-04	6.09E-04
	Polonium-210	2.00E-02	1.20E-02
	Potassium-40	4.30E-01	9.60E-02
	Radium-226	3.40E-02	1.80E-02
	Radium-228	2.40E-02	4.40E-03



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS/UNIT Bq/g	COUNTING ERROR
TI-MLR Terrestrial Intermediate Mills Ranch (continued)	Strontium-90	1.10E-03	1.30E-03
	Thorium-232	1.41E-02	2.25E-03
	Thorium-228	1.69E-01	7.78E-03
	Thorium-230	2.34E-02	2.87E-03
	Uranium-233/234	1.22E-01	7.37E-03
	Uranium-238	9.25E-02	6.40E-03
	Uranium-235/236	1.59E-02	3.11E-03
TD-MLR Terrestrial Deep Mills Ranch	Americium-241	7.37E-03	1.73E-03
	Cesium-137	6.60E-03	1.80E-03
	Cobalt-60	*1.5E-04	3.80E-04
	Lead-210	*5.80E-02	4.90E-02
	Plutonium-241	2.48E-02	3.23E-02
	Plutonium-238	7.15E-04	7.22E-04
	Plutonium-239/240	9.19E-04	7.22E-04
	Polonium-210	1.70E-02	1.10E-02
	Potassium-40	4.80E-01	7.40E-02
	Radium-226	4.10E-02	1.10E-02
	Radium-228	2.60E-02	4.80E-03
	Strontium-90	1.90E-03	1.40E-03
	Thorium-232	1.96E-02	2.68E-03
	Thorium-228	1.67E-01	7.82E-03
	Thorium-230	2.32E-02	2.90E-03
	Uranium-233/234	1.71E-02	3.12E-03
	Uranium-238	1.76E-02	3.09E-03
	Uranium-235/236	1.55E-03	1.30E-03
	TS-SEC Terrestrial Surface South East Control	Americium-241	6.97E-03
Cesium-137		4.40E-03	1.20E-03
Cobalt-60		*4.30E-05	2.70E-04
Lead-210		1.50E-02	4.30E-02

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS/UNIT Bq/g	COUNTING ERROR
TS-SEC Terrestrial Surface South East Control (continued)	Plutonium-241	4.83E-02	3.43E-02
	Plutonium-238	3.00E-03	1.17E-03
	Plutonium-239/240	1.00E-03	7.23E-04
	Polonium-210	1.20E-02	1.30E-02
	Potassium-40	2.10E-01	3.40E-02
	Radium-226	1.90E-02	8.30E-03
	Radium-228	1.30E-02	2.90E-03
	Strontium-90	1.10E-04	1.30E-03
	Thorium-232	7.41E-03	1.68E-03
	Thorium-228	1.50E-01	7.48E-03
	Thorium-230	1.43E-02	2.34E-03
	Uranium-233/234	1.59E-02	3.39E-03
	Uranium-238	8.72E-03	2.34E-03
	Uranium-235/236	7.55E-04	9.06E-04
TI-SEC Terrestrial Intermediate South East Control	Americium-241	6.07E-03	1.63E-03
	Cesium-137	4.20E-03	1.10E-03
	Cobalt-60	*1.30E-04	2.90E-04
	Lead-210	*3.70E-02	3.50E-02
	Plutonium-241	6.99E-02	3.95E-02
	Plutonium-238	7.84E-04	1.20E-03
	Plutonium-239/240	-1.31E-04	6.77E-04
	Polonium-210	2.10E-02	1.10E-02
	Potassium-40	2.30E-01	3.30E-02
	Radium-226	2.10E-02	7.50E-03
	Radium-228	1.10E-02	2.60E-03
	Strontium-90	3.30E-03	1.80E-03
	Thorium-232	6.40E-03	1.96E-03
	Thorium-228	1.57E-01	7.90E-03
	Thorium-230	1.16E-02	2.34E-03

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS/UNIT Bq/g	COUNTING ERROR	
TI-SEC Terrestrial Intermediate South East Control (continued)	Uranium-233/234	9.40E-03	2.23E-03	
	Uranium-238	1.02E-02	2.32E-03	
	Uranium-235/236	6.46E-04	7.75E-04	
TD-SEC Terrestrial Deep South East Control	Americium-241	7.58E-03	1.71E-03	
	Cesium-137	4.70E-03	7.80E-04	
	Cobalt-60	*1.20E-05	2.80E-04	
	Lead-210	1.80E-02	6.70E-03	
	Plutonium-239/240	1.01E-04	4.42E-04	
	Plutonium-241	-8.53E-03	3.16E-02	
	Plutonium-238	9.08E-04	7.13E-04	
	Polonium-210	1.10E-02	1.00E-02	
	Potassium-40	2.10E-01	4.60E-02	
	Radium-226	2.20E-02	1.20E-02	
	Radium-228	1.20E-02	2.90E-03	
	Strontium-90	4.70E-04	1.40E-03	
	Thorium-230	1.29E-02	2.23E-03	
	Thorium-232	8.72E-03	1.85E-03	
	Thorium-228	1.61E-01	7.67E-03	
	Uranium-233/234	1.01E-02	2.36E-03	
	Uranium-238	6.12E-03	1.88E-03	
	Uranium-235/236	8.20E-04	7.19E-04	
	TS-SMR Terrestrial Surface Smuth Ranch	Americium-241	7.28E-03	1.77E-03
		Cesium-137	3.20E-03	1.10E-03
Cobalt-60		*2.20E-04	3.70E-04	
Lead-210		*1.20E-02	4.70E-02	
Plutonium-241		1.01E-01	3.55E-02	
Plutonium-238		1.07E-04	9.59E-04	
Plutonium-239/240		1.28E-03	7.83E-04	
Polonium-210		1.60E-02	1.20E-02	

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS/UNIT Bq/g	COUNTING ERROR
TS-SMR Terrestrial Surface Smith Ranch (continued)	Potassium-40	4.50E-01	7.00E-02
	Radium-226	4.30E-02	1.20E-02
	Radium-228	2.10E-02	4.10E-03
	Strontium-90	1.60E-04	1.60E-03
	Thorium-232	1.41E-02	2.28E-03
	Thorium-228	1.66E-01	7.72E-03
	Thorium-230	2.15E-02	2.80E-03
	Uranium-233/234	1.36E-02	2.65E-03
	Uranium-238	1.06E-02	2.38E-03
	Uranium-235/236	1.46E-03	9.54E-04
TI-SMR Terrestrial Intermediate Smith Ranch	Americium-241	6.25E-03	1.61E-03
	Cesium-137	2.90E-03	7.70E-04
	Cobalt-60	*5.80E-05	2.90E-04
	Lead-210	2.90E-02	8.00E-03
	Plutonium-241	-2.60E-03	3.37E-02
	Plutonium-238	1.27E-03	7.77E-04
	Plutonium-239/240	3.18E-04	6.22E-04
	Polonium-210	1.10E-02	1.40E-02
	Potassium-40	4.20E-01	7.90E-02
	Radium-226	7.30E-03	3.40E-02
	Radium-228	2.00E-02	4.00E-03
	Strontium-90	-9.60E-05	1.50E-03
	Thorium-232	1.31E-02	2.17E-03
	Thorium-228	1.60E-01	7.65E-03
	Thorium-230	2.06E-02	2.73E-03
	Uranium-233/234	1.29E-02	2.91E-03
	Uranium-238	1.36E-02	2.76E-03
	Uranium-235/236	4.90E-04	8.47E-04

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS/UNIT Bq/g	COUNTING ERROR
TD-SMR Terrestrial Deep Smith Ranch	Americium-241	8.38E-03	1.92E-03
	Cesium-137	4.90E-03	1.20E-03
	Cobalt-60	*-1.50E-04	3.80E-04
	Lead-210	*4.30E-02	4.20E-02
	Plutonium-241	3.39E-02	3.28E-02
	Plutonium-238	1.23E-03	1.06E-03
	Plutonium-239/240	5.11E-04	6.65E-04
	Polonium-210	1.30E-02	1.00E-02
	Potassium-40	4.90E-01	7.00E-02
	Radium-226	4.50E-02	1.20E-02
	Radium-228	2.40E-02	4.60E-03
	Strontium-90	9.60E-05	2.00E-03
	Thorium-232	1.81E-02	2.59E-03
	Thorium-228	1.62E-01	7.82E-03
	Thorium-230	2.16E-02	2.85E-03
	Uranium-233/234	5.17E-02	5.07E-03
	Uranium-238	3.89E-02	4.38E-03
Uranium-235/236	5.84E-03	2.12E-03	
TS-WEE Terrestrial Surface WIPP East	Americium-241	7.06E-03	1.68E-03
	Cesium-137	6.90E-03	1.50E-03
	Cobalt-60	*-2.60E-04	2.90E-04
	Lead-210	*2.80E-02	3.40E-02
	Plutonium-241	-9.79E-03	3.38E-02
	Plutonium-238	0.00E+00	4.21E-04
	Plutonium-239/240	1.07E-03	7.29E-04
	Polonium-210	2.70E-02	1.20E-02
	Potassium-40	2.90E-01	4.10E-02
	Radium-226	*2.50E-02	9.00E-03
	Radium-228	1.20E-02	3.00E-03



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS/UNIT Bq/g	COUNTING ERROR	
TS-WEE Terrestrial Surface WIPP East (continued)	Strontium-90	6.10E-04	1.40E-03	
	Thorium-232	7.13E-03	1.62E-03	
	Thorium-228	1.55E-01	7.61E-03	
	Thorium-230	1.16E-02	2.10E-03	
	Uranium-233/234	2.78E-02	3.70E-03	
	Uranium-238	1.45E-02	2.66E-03	
	Uranium-235/236	2.49E-03	1.30E-03	
TI-WEE Terrestrial Intermediate WIPP East	Americium-241	5.63E-03	1.42E-03	
	Cesium-137	6.60E-03	1.10E-03	
	Cobalt-60	*1.20E-04	2.90E-04	
	Lead-210	2.20E-02	6.90E-03	
	Plutonium-241	4.91E-02	3.35E-02	
	Plutonium-238	3.16E-04	3.58E-04	
	Plutonium-239/240	7.37E-04	5.46E-04	
	Polonium-210	1.70E-02	1.10E-02	
	Potassium-40	2.60E-01	5.80E-02	
	Radium-226	2.00E-02	1.20E-02	
	Radium-228	1.20E-02	2.70E-03	
	Strontium-90	2.60E-04	1.30E-03	
	Thorium-232	7.96E-03	1.70E-03	
	Thorium-228	1.57E-01	7.52E-03	
	Thorium-230	1.32E-02	2.26E-03	
	Uranium-233/234	2.12E-02	3.50E-03	
	Uranium-238	1.97E-02	3.25E-03	
	Uranium-235/236	4.31E-03	1.69E-03	
	TD-WEE Terrestrial Deep WIPP East	Americium-241	5.95E-03	1.60E-03
		Cesium-137	1.10E-02	2.10E-03
Cobalt-60		*3.50E-04	1.80E-03	
Lead-210		4.50E-02	1.40E-02	



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS/UNIT Bq/g	COUNTING ERROR
TD-WEE Terrestrial Deep WIPP East (continued)	Plutonium-241	4.17E-02	3.04E-02
	Plutonium-238	4.86E-04	6.87E-04
	Plutonium-239/240	4.86E-04	5.04E-04
	Polonium-210	1.50E-02	1.10E-02
	Potassium-40	3.70E-01	6.90E-02
	Radium-226	3.60E-02	1.90E-02
	Radium-228	1.80E-02	3.80E-03
	Strontium-90	1.40E-04	1.50E-03
	Thorium-232	9.42E-03	1.83E-03
	Thorium-228	1.58E-01	7.54E-03
	Thorium-230	1.43E-02	2.29E-03
	Uranium-233/234	2.33E-02	3.32E-03
	Uranium-238	1.65E-02	2.77E-03
	Uranium-235/236	1.00E-03	8.42E-04
TS-WFF Terrestrial Surface WIPP Far Field	Americium-241	7.60E-03	1.69E-03
	Cesium-137	5.60E-03	9.50E-04
	Cobalt-60	*7.80E-5	2.70E-04
	Lead-210	2.90E-02	7.40E-03
	Plutonium-241	1.91E-02	3.32E-02
	Plutonium-238	4.33E-04	8.49E-04
	Plutonium-239/240	9.74E-04	7.65E-04
	Polonium-210	1.50E-02	1.60E-02
	Potassium-40	2.10E-01	4.80E-02
	Radium-228	9.80E-03	2.50E-03
	Radium-226	*1.90E-02	1.10E-02
	Strontium-90	2.7E-04	1.40E-03
	Thorium-232	6.68E-03	1.72E-03
	Thorium-228	1.52E-01	8.08E-03
Thorium-230	1.20E-02	2.25E-03	



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS/UNIT Bq/g	COUNTING ERROR
TS-WFF Terrestrial Surface WIPP Far Field (continued)	Uranium-233/234	9.25E-03	2.29E-03
	Uranium-238	9.00E-03	2.24E-03
	Uranium-235/236	1.18E-03	9.89E-04
TI-WFF Terrestrial Intermediate WIPP Far Field	Americium-241	8.44E-03	1.80E-03
	Cesium-137	5.40E-03	1.10E-03
	Cobalt-60	*2.40E-05	2.40E-04
	Lead-210	1.80E-02	6.80E-03
	Plutonium-241	3.04E-02	3.18E-02
	Plutonium-238	4.15E-04	6.43E-04
	Plutonium-239/240	2.07E-04	6.42E-04
	Polonium-210	1.70E-02	1.40E-02
	Potassium-40	2.00E-01	3.90E-02
	Radium-226	5.20E-03	2.00E-02
	Radium-228	8.90E-03	2.20E-03
	Strontium-90	-2.20E-04	1.40E-03
	Thorium-232	5.96E-03	1.50E-03
	Thorium-228	1.52E-01	7.50E-03
	Thorium-230	1.22E-02	2.12E-03
	Uranium-233/234	6.63E-03	2.08E-03
	Uranium-238	9.13E-03	2.07E-03
	Uranium-235/236	1.02E-03	9.51E-04
TD-WFF Terrestrial Deep WIPP Far Field	Americium-241	5.72E-03	1.41E-03
	Cesium-137	5.80E-03	1.30E-03
	Cobalt-60	*2.50E-04	3.10E-04
	Lead-210	*1.20E-02	2.90E-02
	Plutonium-241	4.83E-02	3.29E-02
	Plutonium-238	1.47E-03	9.21E-04
	Plutonium-239/240	-1.05E-04	3.57E-04
	Polonium-210	1.10E-02	1.30E-02



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS/UNIT Bq/g	COUNTING ERROR
TD-WFF Terrestrial Deep WIPP Far Field (continued)	Potassium-40	2.50E-01	3.70E-02
	Radium-226	1.30E-02	8.30E-03
	Radium-228	9.90E-03	2.70E-03
	Strontium-90	1.00E-03	1.40E-03
	Thorium-232	6.37E-03	1.55E-03
	Thorium-228	1.62E-01	7.86E-03
	Thorium-230	1.09E-02	2.03E-03
	Uranium-233/234	1.37E-02	3.53E-03
	Uranium-238	7.06E-03	3.03E-03
	Uranium-235/236	-1.78E-04	1.67E-03
TS-WSS Terrestrial Surface WIPP South	Americium-241	4.63E-03	1.35E-03
	Cesium-137	4.00E-03	7.50E-04
	Cobalt-60	*-3.80E-05	2.80E-04
	Lead-210	2.50E-02	7.20E-03
	Plutonium-241	2.59E-02	3.08E-02
	Plutonium-238	1.07E-03	6.32E-04
	Plutonium-239/240	6.80E-04	5.71E-04
	Polonium-210	2.10E-02	9.40E-03
	Potassium-40	2.30E-01	5.20E-02
	Radium-226	1.40E-02	8.60E-03
	Radium-228	9.50E-03	2.60E-03
	Strontium-90	8.50E-04	1.40E-03
	Thorium-232	9.20E-03	1.87E-03
	Thorium-228	1.65E-01	7.76E-03
	Thorium-230	1.32E-02	2.20E-03
	Uranium-233/234	1.16E-02	2.66E-03
	Uranium-238	9.84E-03	2.45E-03
	Uranium-235/236	3.42E-04	1.06E-03

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS/UNIT Bq/g	COUNTING ERROR
TI-WSS Terrestrial Intermediate WIPP South	Americium-241	6.41E-03	1.74E-03
	Cesium-137	5.80E-03	1.60E-03
	Cobalt-60	*1.10E-04	3.00E-04
	Lead-210	7.60E-03	3.90E-02
	Plutonium-241	7.01E-02	3.27E-02
	Plutonium-238	4.01E-04	3.93E-04
	Plutonium-239/240	3.01E-04	4.40E-04
	Polonium-210	1.80E-02	1.10E-02
	Potassium-40	2.60E-01	4.10E-02
	Radium-226	2.50E-02	8.90E-03
	Radium-228	1.10E-02	2.50E-03
	Strontium-90	8.60E-04	1.50E-03
	Thorium-232	8.79E-03	1.77E-03
	Thorium-228	1.57E-01	7.60E-03
	Thorium-230	1.30E-02	2.18E-03
	Uranium-233/234	6.85E-03	2.13E-03
	Uranium-238	6.60E-03	2.04E-03
	Uranium-235/236	1.14E-03	8.44E-04
TD-WSS Terrestrial Deep WIPP South	Americium-241	6.22E-03	1.66E-03
	Cesium-137	4.80E-03	1.10E-03
	Cobalt-60	*2.70E-05	2.70E-04
	Lead-210	1.50E-02	6.70E-03
	Plutonium-241	2.48E-02	3.41E-02
	Plutonium-238	5.32E-04	7.52E-04
	Plutonium-239/240	-2.13E-04	5.10E-04
	Polonium-210	1.40E-02	9.80E-03
	Potassium-40	2.60E-01	4.90E-02
	Radium-226	2.70E-02	1.40E-02
Radium-228	1.30E-02	2.80E-03	

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS/UNIT Bq/g	COUNTING ERROR
TD-WSS Terrestrial Deep WIPP South (continued)	Strontium-90	7.10E-04	1.30E-03
	Thorium-232	1.05E-02	1.94E-03
	Thorium-228	1.65E-01	7.78E-03
	Thorium-230	1.10E-02	2.01E-03
	Uranium-233/234	3.94E-02	4.57E-03
	Uranium-238	3.01E-02	4.01E-03
	Uranium-235/236	2.84E-03	1.43E-03
TS-WNW Terrestrial Surface Note: Acronym WNW denotes duplicate sample collected at WIPP Far Field	Americium-241	7.82E-03	1.71E-03
	Cesium-137	6.20E-03	1.30E-03
	Cobalt-60	*1.80E-05	2.40E-04
	Lead-210	2.40E-02	7.30E-03
	Plutonium-241	2.47E-02	3.58E-02
	Plutonium-238	2.29E-04	7.76E-04
	Plutonium-239/240	3.43E-04	5.92E-04
	Polonium-210	1.70E-02	1.60E-02
	Potassium-40	2.30E-01	4.40E-02
	Radium-226	1.80E-02	1.10E-02
	Radium-228	1.10E-02	2.50E-03
	Strontium-90	-1.70E-03	1.40E-03
	Thorium-232	5.62E-03	1.55E-03
	Thorium-228	1.65E-01	7.92E-03
	Thorium-230	1.23E-02	2.17E-03
	Uranium-233/234	1.12E-02	2.67E-03
	Uranium-238	7.52E-03	2.27E-03
	Uranium-235/236	1.89E-04	9.82E-04
TI-WNW Terrestrial Intermediate Note: Acronym WNW denotes duplicate sample collected at WIPP Far Field	Americium-241	7.10E-03	1.61E-03
	Cesium-137	5.30E-03	1.20E-03
	Cobalt-60	*3.30E-05	2.70E-04



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS/UNIT Bq/g	COUNTING ERROR
TI-WNW Terrestrial Intermediate Note: Acronym WNW denotes duplicate sample collected at WIPP Far Field (continued)	Lead-210	2.50E-02	3.60E-02
	Plutonium-241	4.44E-02	3.47E-02
	Plutonium-238	8.07E-04	7.50E-04
	Plutonium-239/240	3.46E-04	5.05E-04
	Polonium-210	1.50E-02	1.20E-02
	Potassium-40	2.30E-01	3.30E-02
	Radium-226	2.10E-02	8.50E-03
	Radium-228	8.90E-03	2.30E-03
	Strontium-90	5.60E-04	1.40E-03
	Thorium-232	7.57E-03	1.67E-03
	Thorium-228	1.56E-01	7.40E-03
	Thorium-230	1.38E-02	2.20E-03
	Uranium-233/234	1.64E-02	3.18E-03
	Uranium-238	9.59E-03	2.38E-03
	Uranium-235/236	7.17E-04	1.11E-03
TD-WNW Terrestrial Deep Note: Acronym WNW denotes duplicate sample collected at WIPP Far Field	Americium-241	3.04E-01	9.90E-03
	Cesium-137	4.90E-03	7.90E-04
	Cobalt-60	*1.30E-04	2.60E-04
	Lead-210	1.60E-02	6.20E-03
	Plutonium-239/240	0.00E+00	5.89E-04
	Plutonium-241	-1.77E-02	3.67E-02
	Plutonium-238	3.68E-04	7.22E-04
	Polonium-210	8.30E-03	1.90E-02
	Potassium-40	1.90E-01	4.40E-02
	Radium-226	*1.40E-02	9.80E-03
	Radium-228	6.90E-03	2.10E-03
	Strontium-90	-4.90E-04	1.30E-03
	Thorium-232	5.08E-03	1.50E-03
	Thorium-228	1.53E-01	7.78E-03

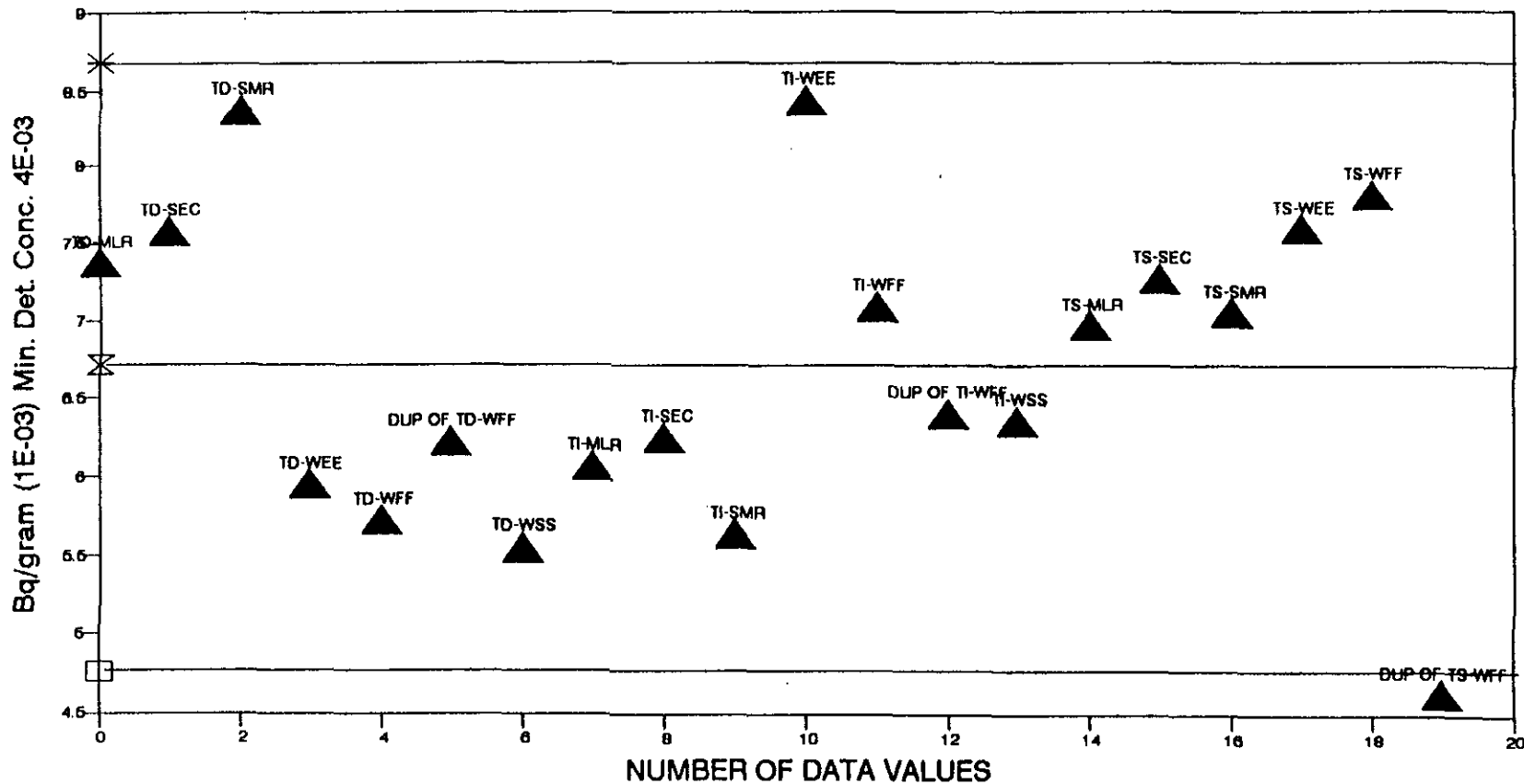


**1995 WIPP Site Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS/UNIT Bq/g	COUNTING ERROR
TD-WNW Terrestrial Deep Note: Acronym WNW denotes duplicate sample collected at WIPP Far Field (continued)	Thorium-230	8.49E-03	1.85E-03
	Uranium-233/234	6.62E-03	2.11E-03
	Uranium-238	6.11E-03	1.86E-03
	Uranium-235/236	1.44E-03	9.44E-04

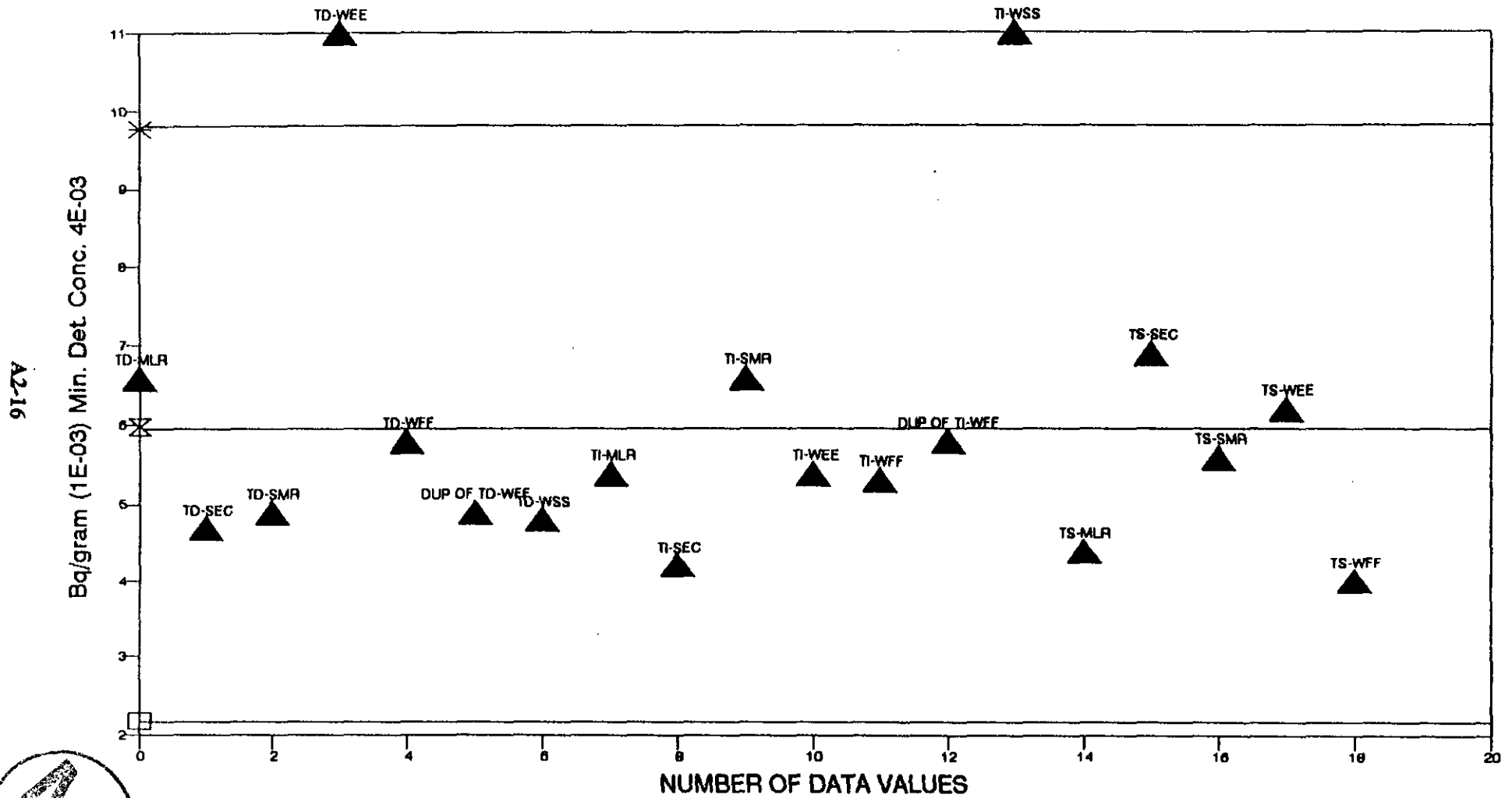


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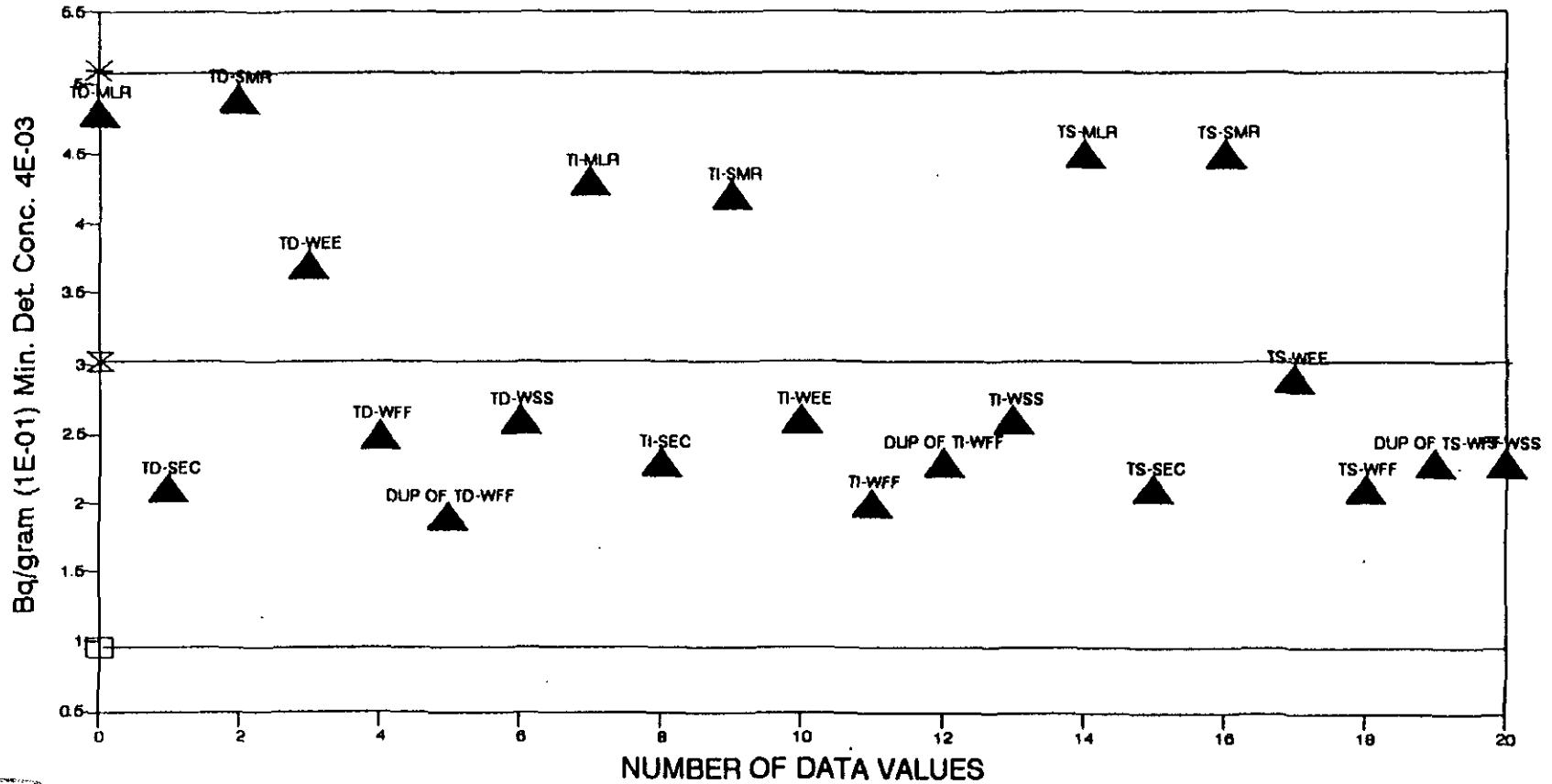
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# 1995 Cs-137 IN SOIL



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  -2 STD. DEV.

# 1995 K-40 IN SOIL



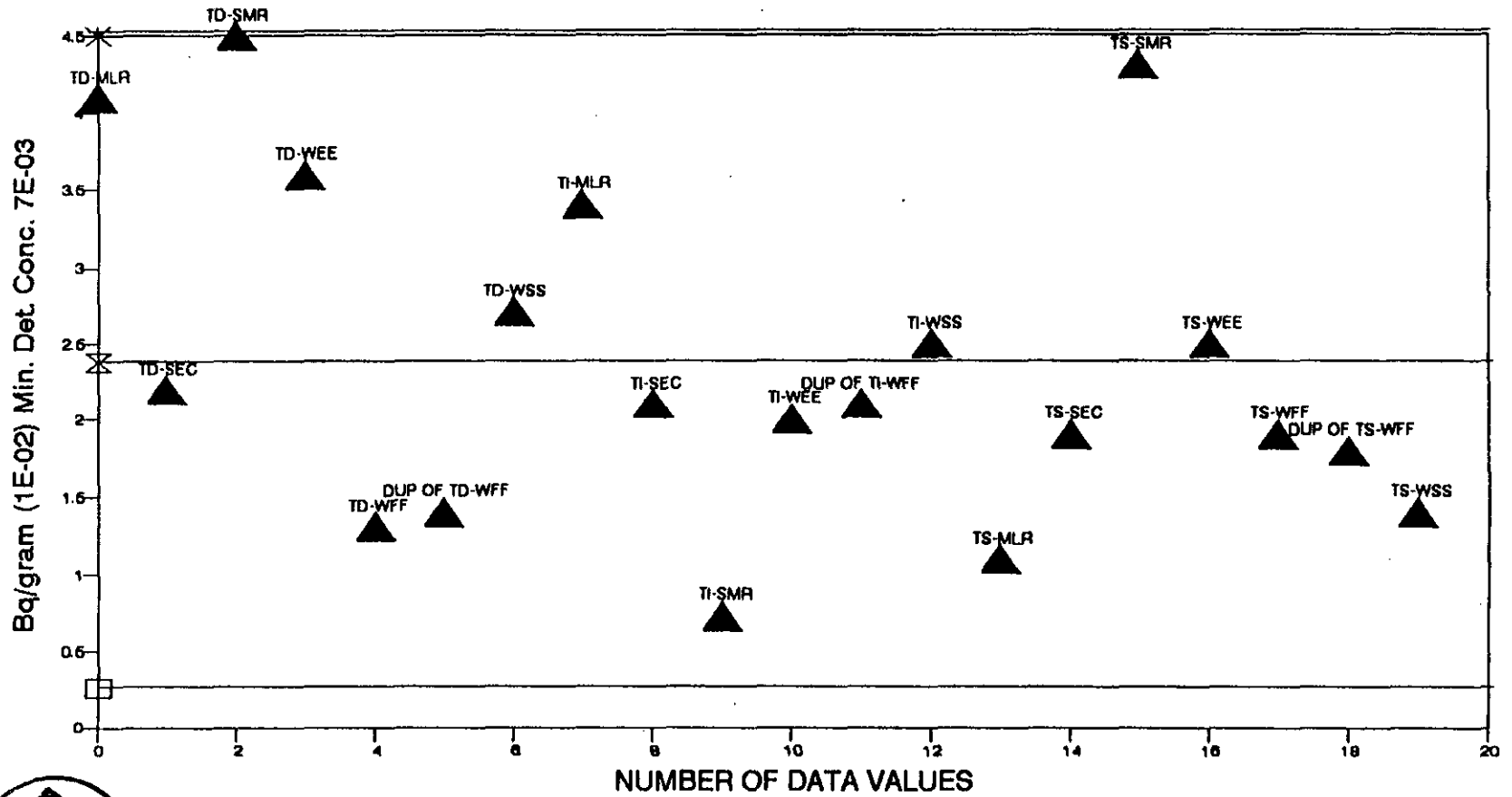
A2-17



ANALYTICAL VALUE
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  +2 STD. DEV.
  -2 STD. DEV.



# 1995 Ra-226 IN SOIL

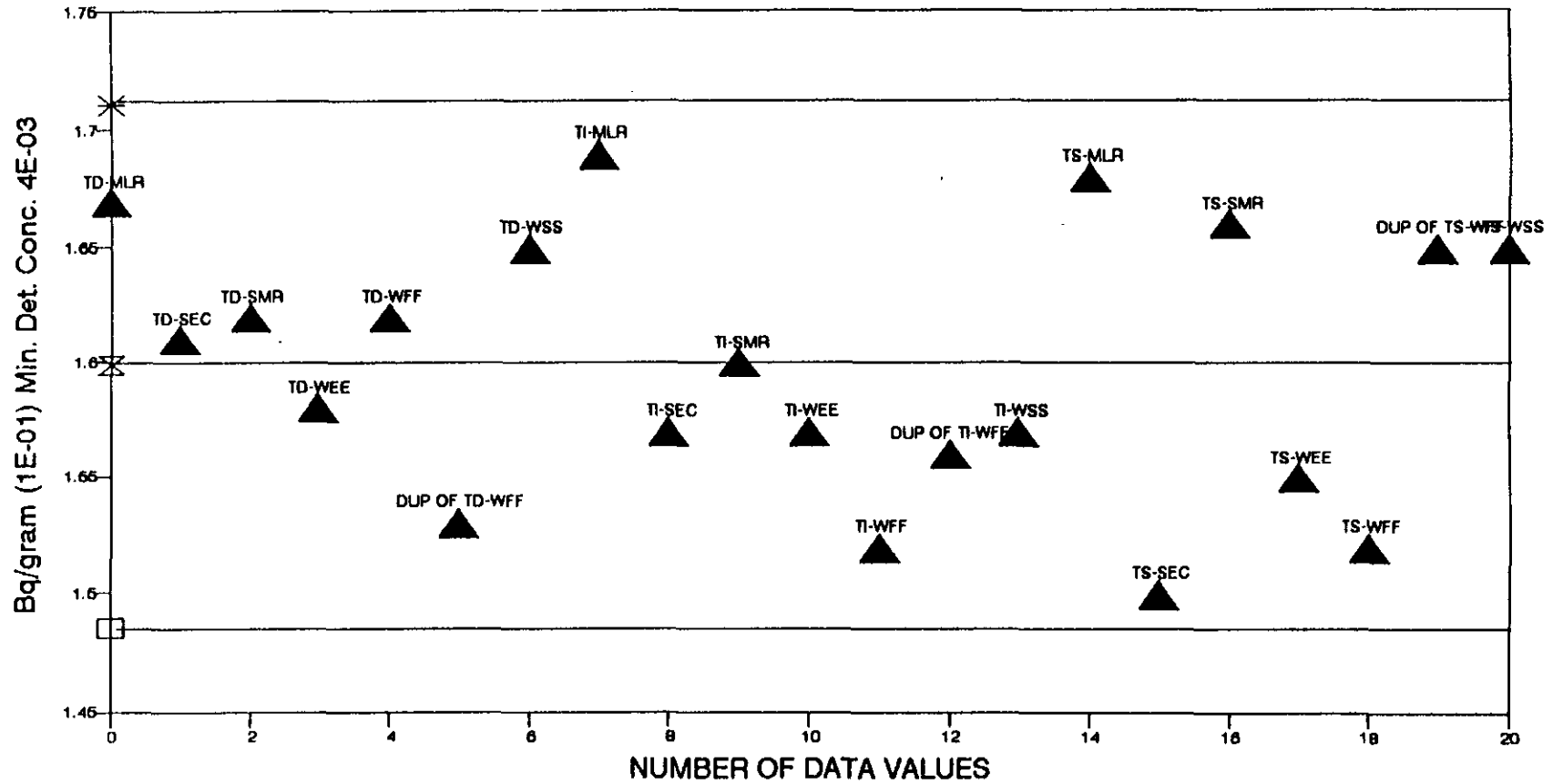


▲ ANALYTICAL VALUE    X MEAN    \* +2 STD. DEV.    □ -2 STD. DEV.

81-7V  
A2-18



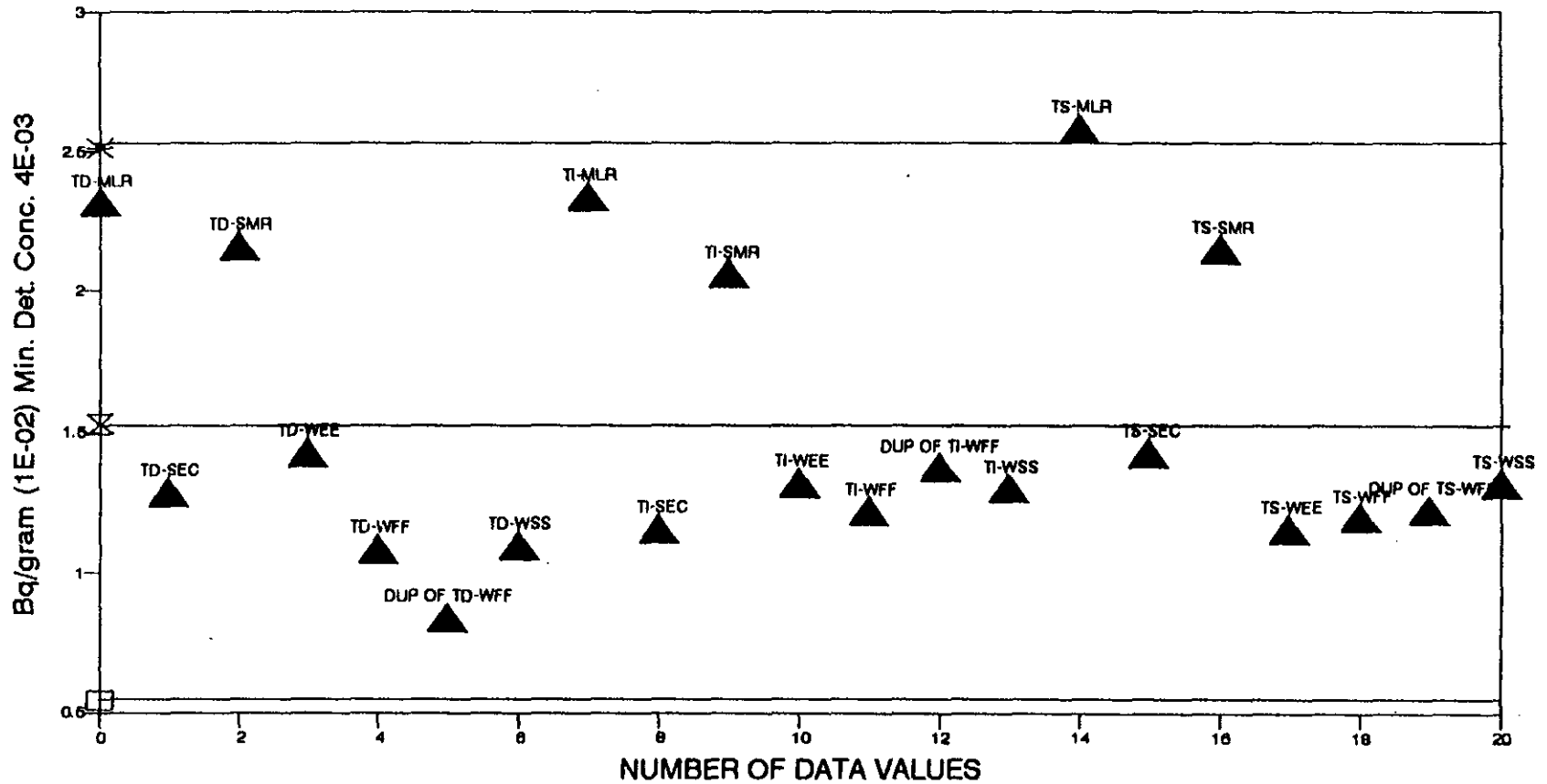
# 1995 Th-228 IN SOIL



A2-19

▲ ANALYTICAL VALUE ⊗ MEAN \* +2 STD. DEV. ⊖ -2 STD. DEV.

# 1995 Th-230 IN SOIL

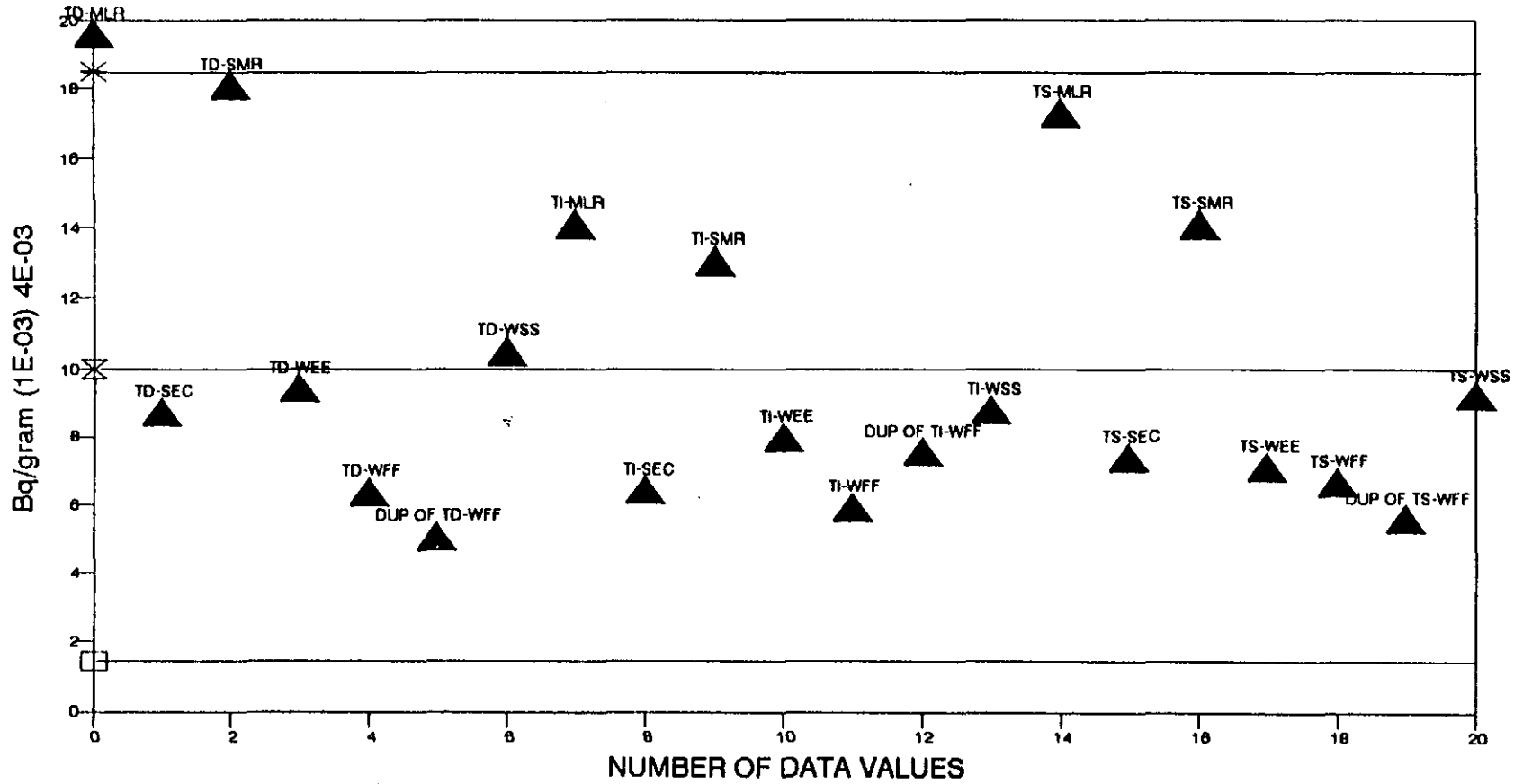


A2-20



ANALYTICAL VALUE
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  +2 STD. DEV.
  -2 STD. DEV.

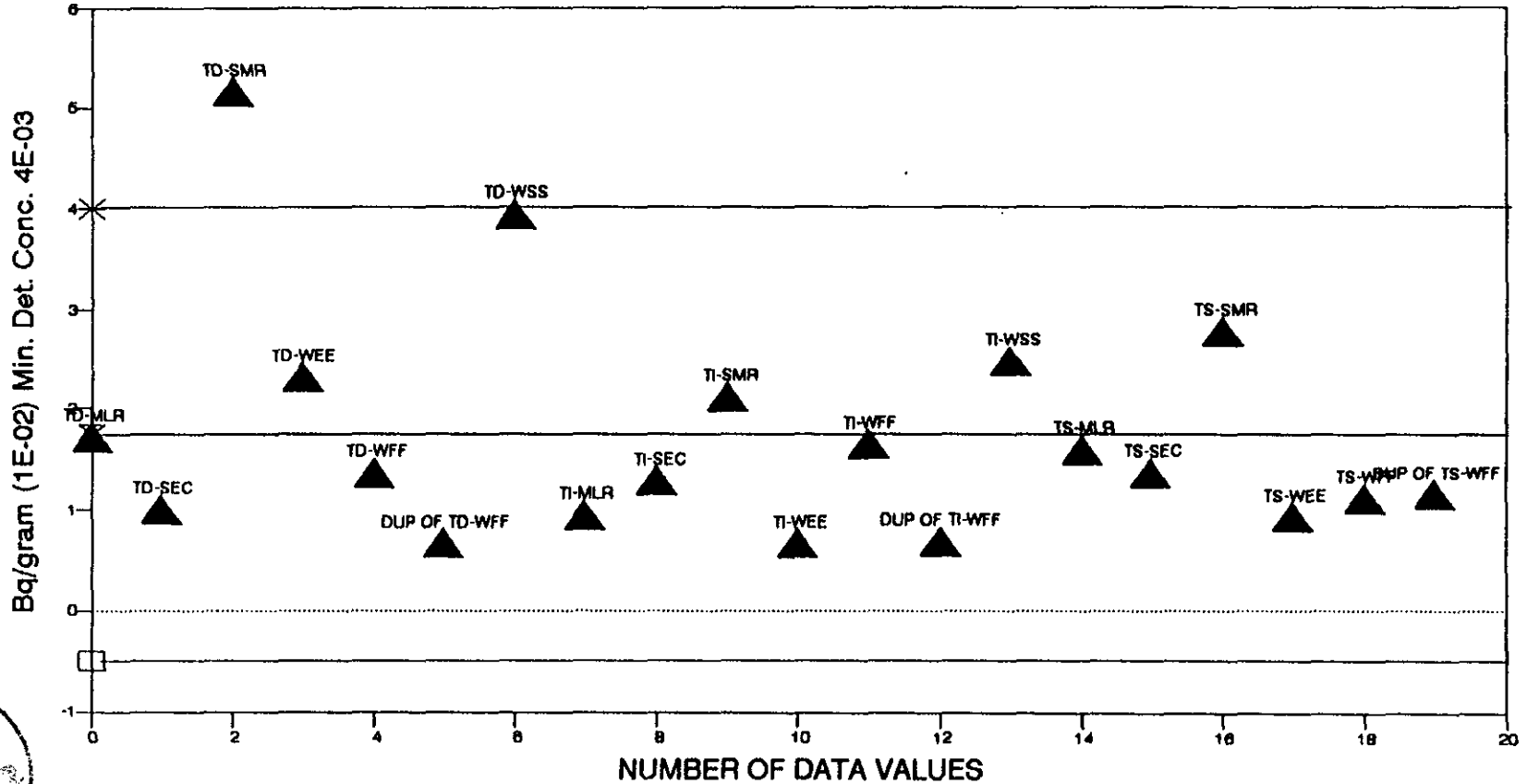
# 1995 Th-232 IN SOIL



▲ ANALYTICAL VALUE ⊗ MEAN \* +2 STD. DEV. ⊖ -2 STD. DEV.

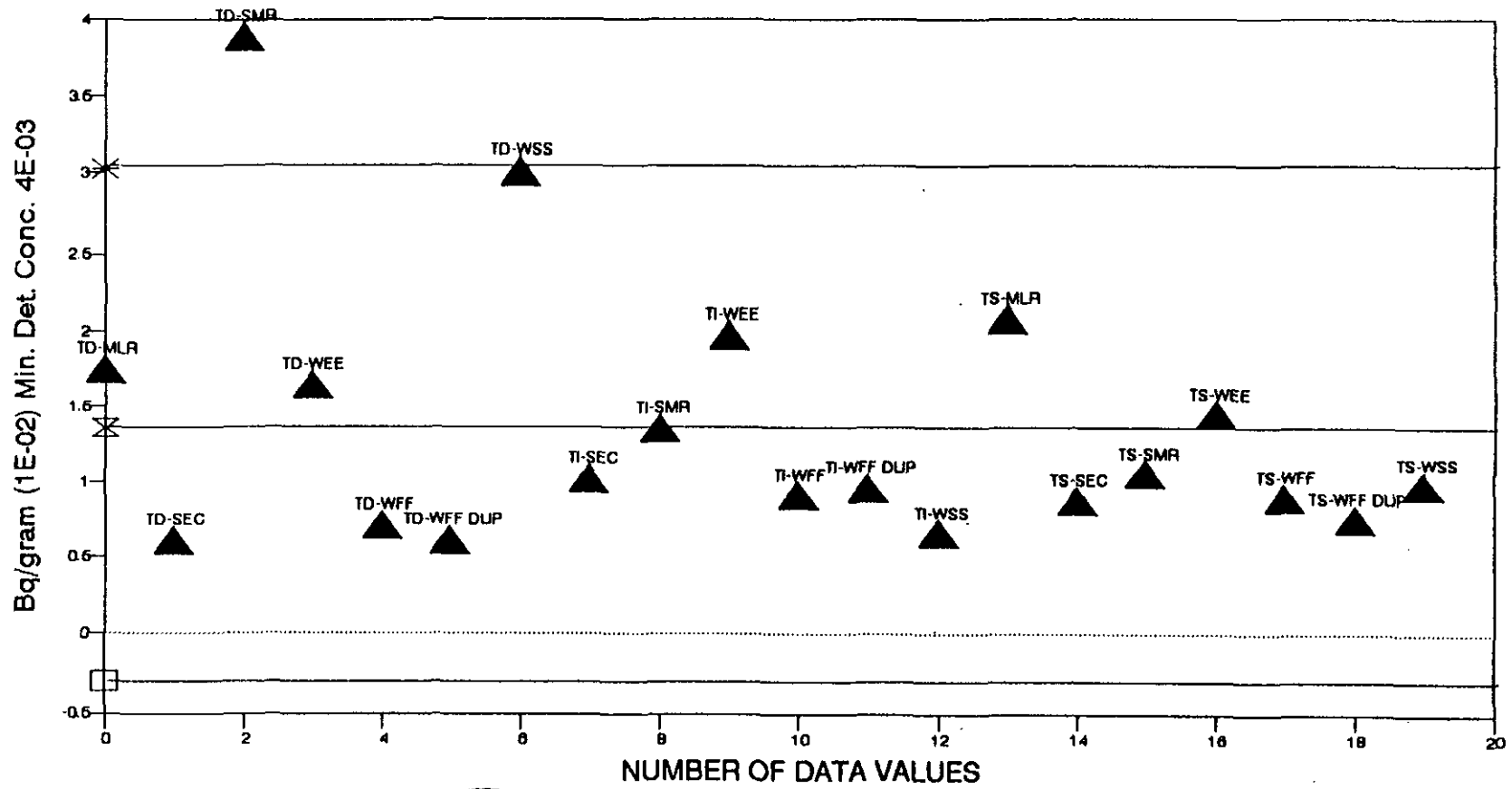
# 1995 U-233/234 IN SOIL

A2-22



▲ ANALYTICAL VALUE    ✕ MEAN    \* +2 STD. DEV.    □ -2 STD. DEV.

# 1995 U-238 IN SOIL



ANALYTICAL VALUE
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  +2 STD. DEV.
  -2 STD. DEV.

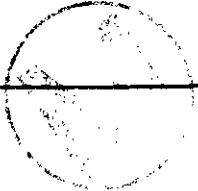
A2-23

**APPENDIX A3**  
**RADIOLOGICAL ANALYSIS**  
**SURFACE WATER**



**1995 WIPP Site Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
HS-UPR Surface Water Upper Pecos River	Americium-241	1.75E-02	5.82E-03
	Cesium-137	*9.30E-2	1.60E-01
	Cobalt-60	*7.40E-2	1.70E-01
	Lead-210	6.30E-01	3.10E+00
	Plutonium-239/240	2.66E-03	2.33E-03
	Plutonium-241	-7.90E-01	3.57E-01
	Plutonium-238	0.00E+00	1.48E-03
	Polonium-210	2.20E-03	7.50E-02
	Potassium-40	*3.60E0	1.90E+00
	Radium 228	8.60E-03	2.60E-02
	Radium 226	1.74E-02	3.10E-03
	Strontium-90	-2.10E-02	2.00E-02
	Thorium-230	3.63E-02	8.77E-03
	Thorium-232	1.98E-03	2.75E-03
	Thorium-228	6.71E-03	3.92E-03
	Uranium-238	3.25E-02	7.95E-03
	Uranium-235/236	4.86E-03	3.76E-03
Uranium-234	6.83E-02	1.15E-02	
Uranium-233	6.83E-02	1.15E-02	





## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
HS-PCN Surface Water Pierce Canyon	Americium-241	2.48E-02	7.25E-03
	Cesium-137	*3.30E-2	1.50E-01
	Cobalt-60	*1.70E-2	1.60E-01
	Lead-210	*5.10E0	2.20E+00
	Plutonium-239/240	3.94E-03	4.55E-03
	Plutonium-238	1.13E-03	2.21E-03
	Plutonium-241	-4.87E-01	3.76E-01
	Polonium-210	5.10E-03	8.30E-02
	Potassium-40	1.60E+00	3.40E+00
	Radium 228	-1.01E-02	2.70E-02
	Radium 226	8.67E-03	2.20E-03
	Strontium-90	-4.10E-03	2.20E-02
	Thorium-230	3.52E-02	8.41E-03
	Thorium-228	5.29E-04	3.44E-03
	Thorium-232	2.54E-03	2.64E-03
	Uranium-233	2.51E-01	2.20E-02
	Uranium-235/236	1.10E-02	5.89E-03
	Uranium-238	1.11E-01	1.47E-02
Uranium-234	2.51E-01	2.20E-02	



**1995 WIPP Site Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
HS-IDN Surface Water Indian Tank	Americium-241	2.59E-02	7.03E-03
	Cesium-137	*1.40E-1	1.70E-01
	Cobalt-60	*6.90E-2	1.50E-01
	Lead-210	*6.40E0	2.10E+00
	Plutonium-238	-7.10E-04	3.68E-03
	Plutonium-241	1.33E-02	5.00E-01
	Plutonium-239/240	2.13E-03	3.11E-03
	Polonium-210	2.00E-02	1.20E-01
	Potassium-40	*3.10E0	1.90E+00
	Radium 228	1.97E-03	2.50E-02
	Radium 226	1.69E-02	3.00E-03
	Strontium-90	2.50E-02	2.40E-02
	Thorium-228	4.94E-03	3.87E-03
	Thorium-230	1.81E-02	6.04E-03
	Thorium-232	9.49E-04	2.63E-03
	Uranium-238	1.35E-02	5.49E-03
	Uranium-235/236	5.93E-04	1.16E-03
	Uranium-234	1.97E-02	6.45E-03
Uranium-233	1.97E-02	6.45E-03	



**1995 WIPP Site Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
<p align="center">HS-HIL Surface Water Hill Tank</p>	Americium-241	2.15E-02	6.26E-03
	Cesium-137	*1.30E-1	1.40E-01
	Cobalt-60	*1.80E-2	1.60E-01
	Lead-210	2.50E+00	3.30E+00
	Plutonium-238	-9.33E-03	7.16E-03
	Plutonium-239/240	-6.66E-03	5.22E-03
	Plutonium-241	-4.07E-01	4.42E-01
	Polonium-210	2.80E-02	1.10E-01
	Potassium-40	*4.00E0	1.80E+00
	Radium 226	6.85E-03	2.40E-03
	Radium 228	2.18E-02	2.90E-02
	Strontium-90	3.40E-02	2.20E-02
	Thorium-230	2.73E-02	7.97E-03
	Thorium-228	6.30E-03	4.94E-03
	Thorium-232	1.21E-03	2.91E-03
	Uranium-234	2.02E-02	6.86E-03
	Uranium-233	2.02E-02	6.86E-03
Uranium-235/236	2.70E-03	2.65E-03	
Uranium-238	6.02E-03	3.87E-03	

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
HS-FWT Surface Water Fresh Water Tanks	Americium-241	2.13E-02	6.53E-03
	Cesium-137	*9.70E-03	1.70E-01
	Cobalt-60	*1.10E-02	1.60E-01
	Lead-210	1.30E+00	3.50E+00
	Plutonium-238	-1.28E-03	3.55E-03
	Plutonium-241	-7.29E-01	3.89E-01
	Plutonium-239/240	2.56E-03	3.55E-03
	Polonium-210	6.60E-03	8.90E-02
	Potassium-40	*2.00E0	2.00E+00
	Radium 228	3.03E-02	2.60E-02
	Radium 226	3.74E-03	1.70E-03
	Strontium-90	-2.20E-02	2.50E-02
	Thorium-228	3.39E-03	3.15E-03
	Thorium-230	2.38E-02	6.91E-03
	Thorium-232	9.32E-04	1.29E-03
	Uranium-238	2.42E-02	7.53E-03
	Uranium-235/236	2.49E-03	3.45E-03
	Uranium-234	6.24E-02	1.14E-02
Uranium-233	6.24E-02	1.14E-02	

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
HS-SEW Surface Water Sewage Lagoon	Americium-241	2.39E-02	7.92E-03
	Cesium-137	*2.90E-02	1.30E-01
	Cobalt-60	*8.90E-02	1.70E-01
	Lead-210	1.10E+00	3.10E+00
	Plutonium-238	5.16E-04	1.01E-03
	Plutonium-241	-5.45E-01	3.46E-01
	Plutonium-239/240	6.70E-03	4.17E-03
	Polonium-210	4.60E-03	9.50E-02
	Potassium-40	6.10E+00	3.30E+00
	Radium 228	1.44E-02	2.70E-02
	Radium 226	3.85E-02	4.70E-03
	Strontium-90	3.50E-02	2.30E-02
	Thorium-228	-1.47E-03	4.54E-03
	Thorium-230	1.00E-01	1.68E-02
	Thorium-232	-2.82E-03	2.76E-03
	Uranium-238	3.77E-03	3.80E-03
	Uranium-235/236	-1.33E-03	1.84E-03
	Uranium-234	3.22E-02	8.55E-03
Uranium-233	3.22E-02	8.55E-03	



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
HS-BRA Surface Water Brantley Lake	Americium-241	2.20E-02	6.72E-03
	Cesium-137	*2.30E-02	1.60E-01
	Cobalt-60	*6.20E-02	1.70E-01
	Lead-210	*6.09E00	2.10E+00
	Plutonium-238	5.99E-04	2.03E-03
	Plutonium-241	-8.59E-01	4.11E-01
	Plutonium-239/240	2.99E-03	3.10E-03
	Polonium-210	3.70E-03	8.90E-02
	Potassium-40	*2.20E00	2.10E+00
	Radium 228	2.88E-02	2.60E-02
	Radium 226	9.11E-03	2.50E-03
	Strontium-90	1.80E-02	2.50E-02
	Thorium-228	6.41E-03	3.79E-03
	Thorium-230	2.24E-02	6.95E-03
	Thorium-232	2.24E-03	3.10E-03
	Uranium-238	4.12E-02	8.97E-03
	Uranium-235/236	2.51E-03	3.01E-03
	Uranium-234	1.00E-01	1.43E-02
Uranium-233	1.00E-01	1.43E-02	

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
HS-NOY Noya Tank Surface Water	Americium-241	2.13E-02	7.38E-03
	Cesium-137	*5.80E-02	1.60E-01
	Cobalt-60	*9.50E-02	1.70E-01
	Lead-210	1.40E+00	3.20E+00
	Plutonium-238	5.26E-04	3.09E-03
	Plutonium-241	-6.23E-01	3.71E-01
	Plutonium-239/240	2.63E-03	3.09E-03
	Polonium-210	8.10E-03	8.70E-02
	Potassium-40	*2.70E00	2.00E+00
	Radium 226	9.07E-03	2.50E-03
	Radium 228	3.23E-02	2.60E-02
	Strontium-90	4.00E-02	2.20E-02
	Thorium-230	1.73E-02	7.31E-03
	Thorium-228	7.76E-03	4.83E-03
	Thorium-232	2.30E-03	2.76E-03
	Uranium-238	1.47E-02	5.43E-03
	Uranium-235/236	1.29E-03	3.10E-03
Uranium-234	2.77E-02	8.51E-03	
Uranium-233	2.77E-02	8.51E-03	



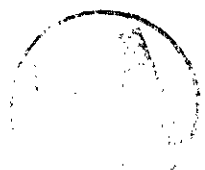
## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
HS-LGS Surface Water Laguna Grande de la Sol	Americium-241	7.42E-02	5.45E-02
	Cesium-137	*1.20E-01	2.70E-01
	Cobalt-60	*9.80E-02	3.80E-01
	Lead-210	*4.60E00	4.00E+00
	Plutonium-238	-5.94E-04	2.60E-03
	Plutonium-239/240	3.56E-03	3.29E-03
	Plutonium-241	-4.92E-01	3.94E-01
	Polonium-210	6.00E-02	1.40E-01
	Potassium-40	1.40E+03	1.60E+02
	Radium 228	1.51E-01	5.20E-02
	Radium 226	2.99E-01	1.50E-03
	Strontium-90	5.20E-02	2.60E-02
	Thonium-232	2.36E-03	3.44E-03
	Thonium-228	8.17E-03	6.79E-03
	Thonium-230	1.73E-02	8.16E-03
	Uranium-238	1.11E+00	5.40E-02
	Uranium-235/236	7.52E-02	1.58E-02
	Uranium-233	2.34E+00	7.86E-02
Uranium-234	2.34E+00	7.86E-02	



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
HS-COY Surface Water Note: Acronym COY denotes duplicate sample collected at Pierce Canyon	Americium-241	1.98E-02	6.64E-03
	Cesium-137	*4.30E-02	1.30E-01
	Cobalt-60	*3.10E-02	1.60E-01
	Lead-210	1.10E+00	2.70E+00
	Plutonium-238	1.99E-03	3.90E-03
	Plutonium-241	-3.87E-01	4.43E-01
	Plutonium-239/240	1.98E-03	2.25E-03
	Polonium-210	6.70E-03	9.00E-02
	Potassium-40	1.20E+00	3.20E+00
	Radium 228	2.19E-02	4.30E-02
	Radium 226	5.96E-03	2.60E-03
	Strontium-90	-1.20E-02	2.00E-02
	Thorium-228	1.64E-03	4.41E-03
	Thorium-230	4.26E-02	9.50E-03
	Thorium-232	-1.05E-03	1.46E-03
	Uranium-238	9.84E-02	1.38E-02
	Uranium-235/236	1.28E-02	5.73E-03
	Uranium-234	2.13E-01	2.04E-02
Uranium-233	2.13E-01	2.04E-02	



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
<p style="text-align: center;">HS-COW Surface Water</p> <p>Note: Acronym COW denotes sample blank</p>	Americium-241	5.22E-02	1.12E-02
	Cesium-137	*1.30E-02	1.40E-01
	Cobalt-60	*2.10E-02	1.70E-01
	Lead-210	*6.60E00	2.10E00
	Plutonium-238	-2.10E-03	2.51E-03
	Plutonium-241	-6.12E-01	3.44E-01
	Plutonium-239/240	1.10E-02	5.33E-03
	Polonium-210	3.30E-02	7.90E-02
	Potassium-40	*2.40E00	2.00E00
	Radium 228	-1.87E-02	2.50E-02
	Radium 226	6.85E-03	1.90E-03
	Strontium-90	2.20E-02	2.20E-02
	Thorium-228	1.06E-03	2.53E-03
	Thorium-230	3.35E-02	8.45E-03
	Thorium-232	-1.01E-03	1.41E-03
	Uranium-238	4.05E-03	3.14E-03
	Uranium-235/236	1.25E-03	1.73E-03
Uranium-234	1.01E-02	5.05E-03	
Uranium-233	1.01E-02	5.05E-03	

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
HS-CBD Surface Water Carlsbad	Americium-241	2.25E-02	6.43E-03
	Cesium-137	*1.10E-02	1.50E-01
	Cobalt-60	*1.0E-01	1.50E-01
	Lead-210	3.60E-01	3.20E00
	Plutonium-238	0.00E+00	1.66E-03
	Plutonium-241	-8.35E-01	4.15E-01
	Plutonium-239/240	-1.80E-03	2.03E-03
	Polonium-210	3.10E-03	7.80E-02
	Potassium-40	*2.40E00	1.90E00
	Radium 228	6.20E-03	2.50E-02
	Radium 226	4.48E-03	1.70E-03
	Strontium-90	-1.20E-02	2.20E-02
	Thorium-228	1.57E-03	3.40E-03
	Thorium-230	2.27E-02	7.19E-03
	Thorium-232	2.01E-03	1.97E-03
	Uranium-238	6.51E-02	1.17E-02
	Uranium-235/236	4.39E-03	4.08E-03
	Uranium-234	1.52E-01	1.75E-02
Uranium-233	1.52E-01	1.75E-02	



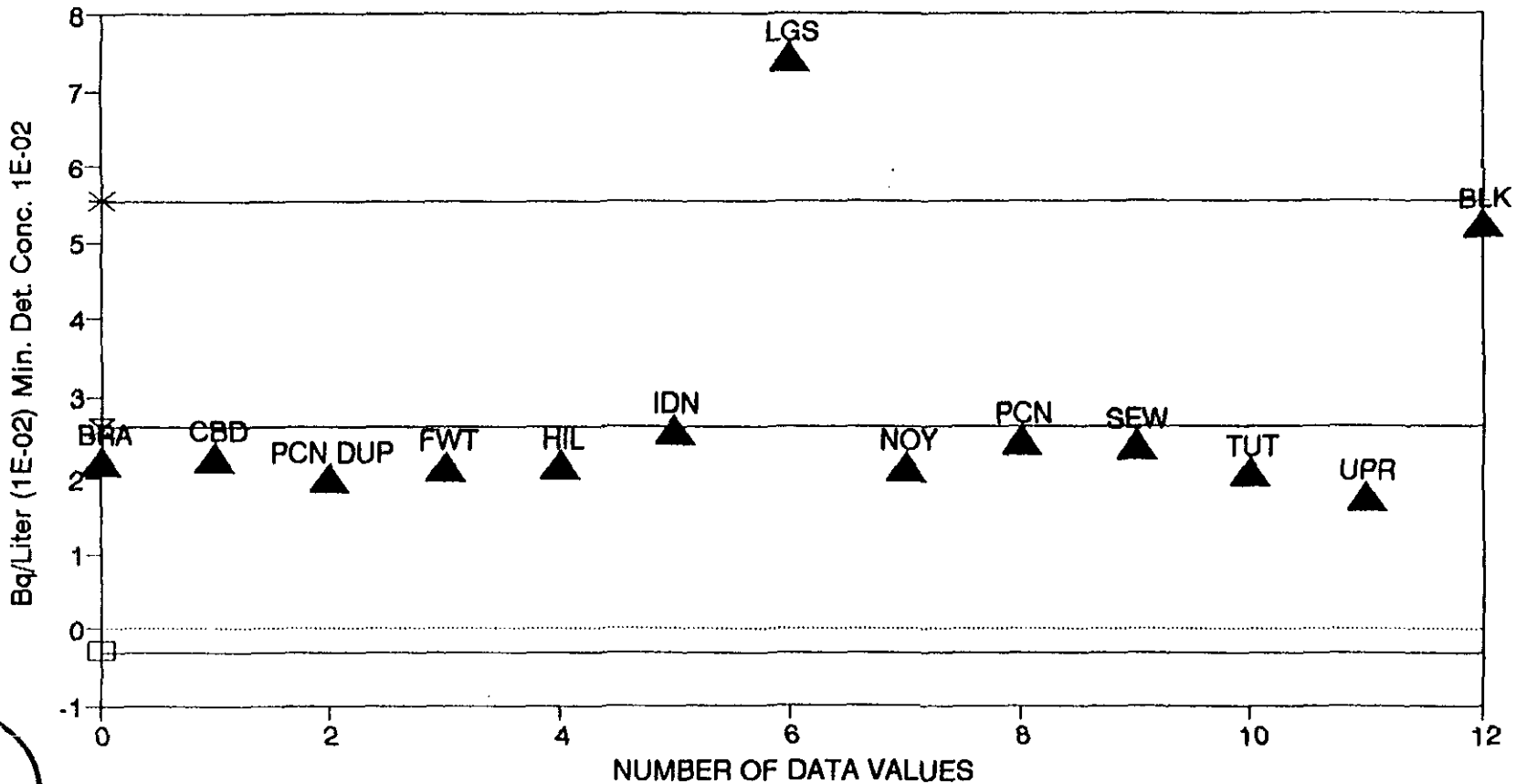
## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
HS-TUT Surface Water Tut Tank	Americium-241	2.07E-02	6.13E-03
	Cesium-137	*3.0E-2	1.6E-1
	Cobalt-60	*9.9E-2	1.4E-1
	Lead-210	9.2E-1	2.9E0
	Plutonium-238	-5.79E-4	3.40E-03
	Plutonium-241	-5.04E-1	3.98E-01
	Plutonium-239/240	-2.31E-3	2.27E-03
	Polonium-210	3.0E-2	1.5E-1
	Potassium-40	*3.5E0	2.0E0
	Radium 228	2.47E-2	2.9E-2
	Radium 226	4.67E-2	5.0E-3
	Strontium-90	4.2E-2	2.1E-2
	Thorium-232	3.21E-03	2.98E-03
	Thorium-230	3.27E-02	8.11E-03
	Thorium-228	1.10E-02	4.68E-03
	Uranium-235/236	2.49E-03	3.86E-03
	Uranium-234	1.36E-02	8.99E-03
	Uranium-238	1.41E-02	5.59E-03
Uranium-233	1.36E-02	8.99E-03	

# 1995

## Am-241 IN SURFACE WATER

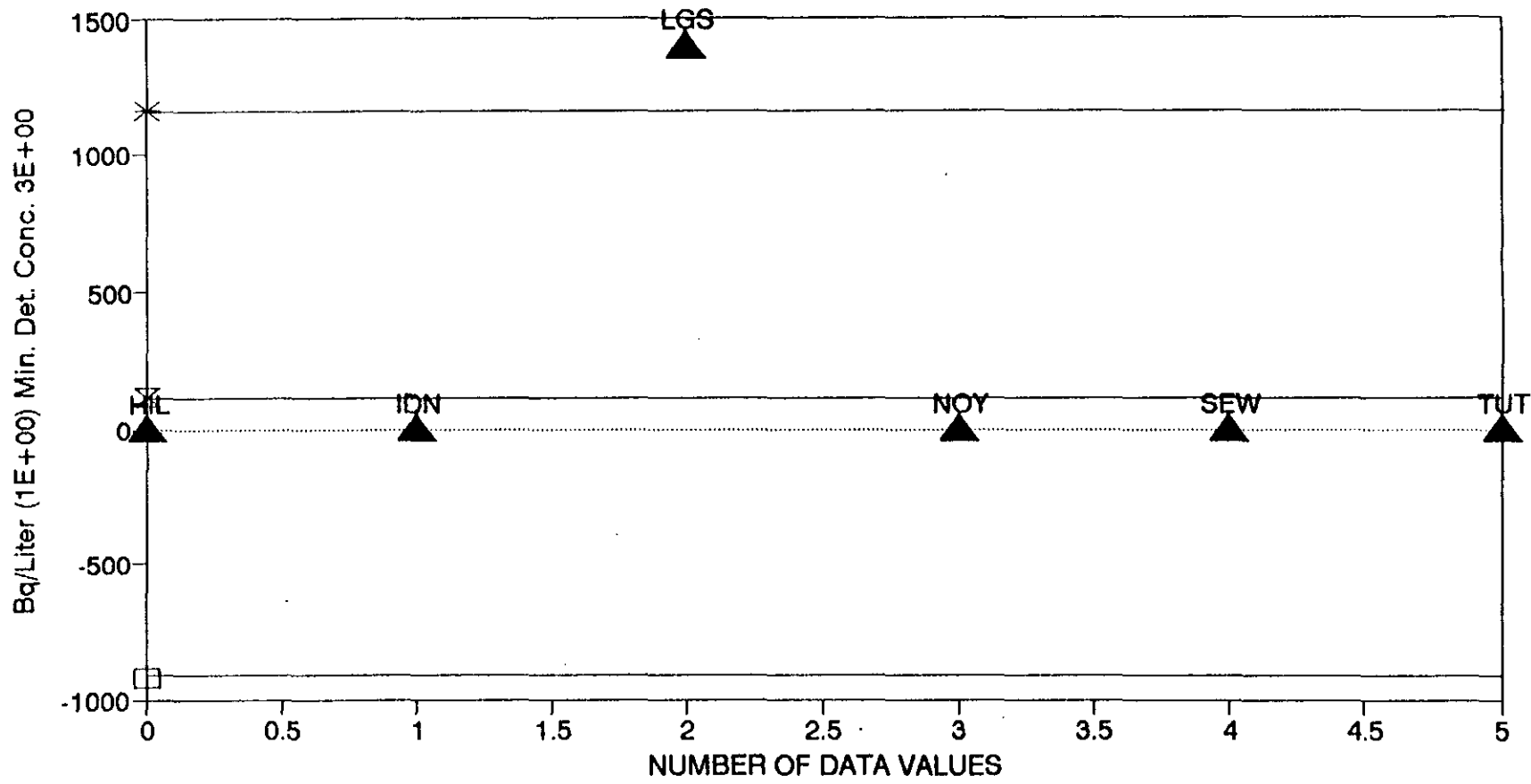
A3-14



ANALYTICAL VALUE
  MEAN
  +2 STD. DEV.
  -2 STD. DEV.

# 1995

## K-40 IN SURFACE WATER

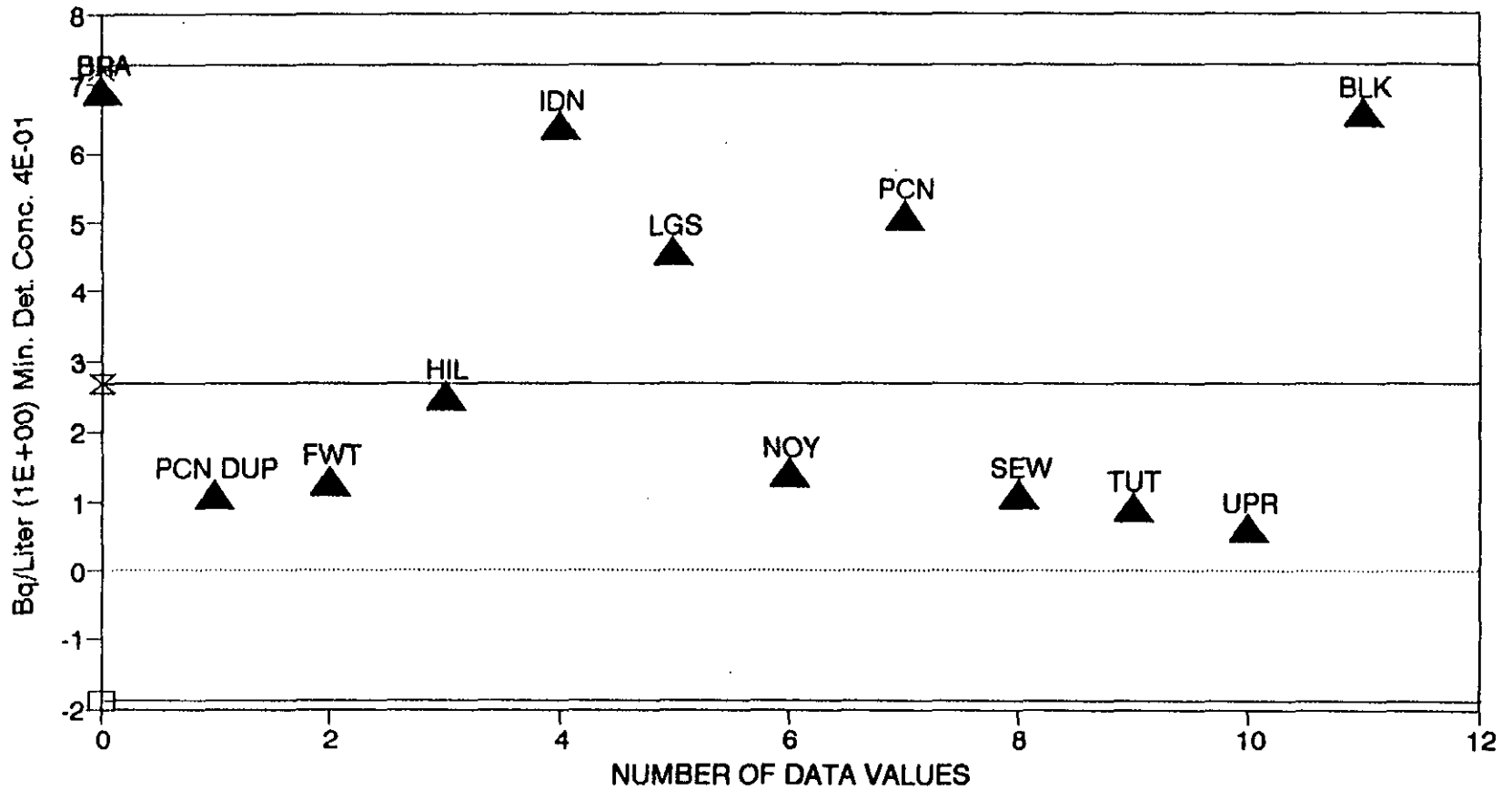


A3-15



▲ ANALYTICAL VALUE    ✕ MEAN    \* +2 STD. DEV.    □ -2 STD. DEV.

# 1995 Pb-210 IN SURFACE WATER



A3-16



ANALYTICAL VALUE
  MEAN
  +2 STD. DEV.
  -2 STD. DEV.

**APPENDIX A4**  
**RADIOLOGICAL ANALYSIS**  
**BOTTOM SEDIMENT**





## 1995 WIPP Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/g	COUNTING ERROR
HB-UPR Bottom Sediment Upper Pecos River	Americium-241	2.46E-02	3.12E-03
	Cesium-137	1.20E-03	1.20E-03
	Cobalt-60	*3.80E-04	6.40E-04
	Lead-210	2.60E-02	1.50E-02
	Plutonium-238	-1.22E-04	4.15E-04
	Plutonium-241	1.93E-01	6.91E-02
	Plutonium-239/240	6.11E-04	5.36E-04
	Polonium-210	1.55E-02	1.96E-03
	Potassium-40	3.60E-01	6.80E-02
	Radium-226	3.60E-02	1.80E-02
	Radium-228	2.30E-02	5.80E-03
	Strontium-90	3.40E-02	4.40E-03
	Thorium-228	3.28E-02	3.79E-03
	Thorium-232	2.95E-02	3.47E-03
	Thorium-230	6.62E-02	5.19E-03
	Uranium-238	3.33E-02	3.56E-03
	Uranium-235/236	2.82E-03	1.15E-03
	Uranium-234	4.53E-02	4.20E-03
	Uranium-233	4.53E-02	4.20E-03
HB-PCN Bottom Sediment Pierce Canyon	Americium-241	1.64E-02	2.64E-03
	Cesium-137	*-1.80E-04	6.80E-04
	Cobalt-60	*2.70E-04	5.90E-04
	Lead-210	1.50E-02	1.20E-02
	Plutonium-238	0.00E+00	3.89E-04
	Plutonium-241	-2.10E-02	8.85E-02
	Plutonium-239/240	4.20E-04	4.76E-04
	Polonium-210	1.07E-02	2.27E-03
	Potassium-40	1.90E-01	3.90E-02
	Radium-226	2.40E-02	1.50E-02

**1995 WIPP Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/g	COUNTING ERROR
HB-PCN Pierce Canyon Bottom Sediment (continued)	Radium-228	*1.30E-02	4.10E-03
	Strontium-90	4.80E-03	3.10E-03
	Thorium-228	2.05E-02	2.97E-03
	Thorium-232	1.67E-02	2.59E-03
	Thorium-230	5.39E-02	4.68E-03
	Uranium-238	2.96E-02	3.42E-03
	Uranium-235/236	3.35E-03	1.31E-03
	Uranium-234	3.62E-02	3.79E-03
	Uranium-233	3.62E-02	3.79E-03
HB_IDN Bottom Sediment Indian Tank	Americium-241	5.50E-02	5.41E-03
	Cesium-137	1.20E-02	2.30E-03
	Cobalt-60	*7.10E-04	7.70E-04
	Lead-210	6.20E-02	1.70E-02
	Plutonium-238	1.23E-04	4.18E-04
	Plutonium-241	6.41E-02	8.06E-02
	Plutonium-239/240	4.92E-04	6.82E-04
	Polonium-210	5.31E-02	3.90E-03
	Potassium-40	4.90E-01	9.30E-02
	Radium-226	3.30E-02	1.90E-02
	Radium-228	3.60E-02	8.80E-03
	Strontium-90	5.80E-03	2.90E-03
	Thorium-228	2.05E-02	2.91E-03
	Thorium-232	1.91E-02	2.72E-03
	Thorium-230	3.43E-02	3.63E-03
	Uranium-238	2.80E-02	3.16E-03
	Uranium-235/236	1.14E-03	9.48E-04
	Uranium-234	3.14E-02	3.39E-03
	Uranium-233	3.14E-02	3.39E-03



## 1995 WIPP Environmental Report


SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/g	COUNTING ERROR
<b>HB-HIL</b> Bottom Sediment Hill Tank	Americium-241	5.57E-02	6.45E-03
	Cesium-137	1.30E-02	2.80E-03
	Cobalt-60	*4.90E-05	7.60E-04
	Lead-210	5.90E-02	1.70E-02
	Plutonium-239/240	1.12E-03	6.93E-04
	Plutonium-241	9.44E-02	7.27E-02
	Plutonium-238	-1.12E-04	3.80E-04
	Polonium-210	5.00E-02	2.98E-03
	Potassium-40	7.20E-01	1.30E-01
	Radium-228	3.50E-02	7.80E-03
	Radium-226	4.80E-02	2.50E-02
	Sroutium-90	8.90E-03	2.70E-03
	Thorium-228	4.19E-02	4.50E-03
	Thorium-232	3.89E-02	4.20E-03
	Thorium-230	5.09E-02	4.85E-03
	Uranium-238	2.51E-02	3.04E-03
	Uranium-235/236	2.22E-03	1.14E-03
	Uranium-234	3.04E-02	3.37E-03
	Uranium-233	3.04E-02	3.37E-03
<b>HB-CBD</b> Bottom Sediment Carlsbad	Americium-241	1.56E-02	2.39E-03
	Cesium-137	4.20E-03	1.60E-03
	Cobalt-60	*2.70E-02	2.10E-02
	Lead-210	4.80E-02	2.00E-02
	Plutonium-238	2.37E-04	4.65E-04
	Plutonium-241	1.82E-02	7.44E-02
	Plutonium-239/240	4.73E-04	4.64E-04
	Polonium-210	2.97E-02	7.46E-03
	Potassium-40	2.90E-01	5.80E-02

**1995 WIPP Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/g	COUNTING ERROR
HB-CBD Bottom Sediment Carlsbad (continued)	Radium-226	2.90E-02	2.20E-02
	Radium-228	*2.50E-02	6.90E-03
	Strontium-90	2.30E-03	1.90E-03
	Thorium-228	1.81E-02	2.76E-03
	Thorium-232	1.80E-02	2.67E-03
	Thorium-230	5.50E-02	4.66E-03
	Uranium-238	2.86E-02	3.45E-03
	Uranium-235/236	2.08E-03	1.02E-03
	Uranium-234	3.74E-02	3.96E-03
	Uranium-233	3.74E-02	3.96E-03
HB-TUT Bottom Sediment Tut Tank	Americium-241	5.68E-02	7.24E-03
	Cesium-137	3.40E-03	1.50E-03
	Cobalt-60	*2.90E-03	2.30E-02
	Lead-210	5.70E-02	2.00E-02
	Plutonium-238	-4.10E-04	4.02E-04
	Plutonium-239/240	1.02E-04	3.48E-04
	Plutonium-241	2.56E-02	6.38E-02
	Polonium-210	3.40E-02	2.96E-03
	Potassium-40	7.00E-01	1.80E-01
	Radium-226	3.70E-02	2.10E-02
	Radium-228	3.90E-02	1.10E-02
	Strontium-90	3.30E-03	2.80E-03
	Thorium-230	3.43E-02	3.64E-03
	Thorium-232	2.43E-02	3.07E-03
	Thorium-228	2.51E-02	3.21E-03
	Uranium-235/236	5.23E-03	1.74E-03
	Uranium-234	5.14E-02	4.64E-03
	Uranium-238	4.88E-02	4.48E-03
Uranium-233	5.14E-02	4.64E-03	

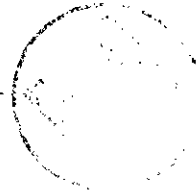


## 1995 WIPP Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/g	COUNTING ERROR
<b>HB -NOY</b> Bottom Sediment Noya Tank	Americium-241	1.65E-02	2.45E-03
	Cesium-137	1.00E-03	1.10E-03
	Cobalt-60	*4.50E-04	9.50E-04
	Lead-210	2.70E-02	1.30E-02
	Plutonium-238	4.43E-04	4.34E-04
	Plutonium-241	3.87E-02	6.97E-02
	Plutonium-239/240	5.53E-04	4.84E-04
	Polonium-210	1.13E-02	1.42E-03
	Potassium-40	3.20E-01	6.20E-02
	Radium-226	1.70E-02	1.40E-02
	Radium-228	1.80E-02	4.50E-03
	Strontium-90	4.90E-03	2.70E-03
	Thorium-228	1.33E-02	2.32E-03
	Thorium-232	1.42E-02	2.37E-03
	Thorium-230	4.20E-02	4.04E-03
	Uranium-238	1.30E-02	2.43E-03
	Uranium-235/236	1.72E-03	1.05E-03
	Uranium-234	1.31E-02	2.54E-03
	Uranium-233	1.31E-02	2.54E-03
<b>HB LGS</b> Bottom Sediment Laguna Grande de la Sol  	Americium-241	9.49E-03	2.48E-03
	Cesium-137	*8.20E-05	7.10E-04
	Cobalt-60	*7.10E-05	5.40E-04
	Lead-210	1.10E-02	1.00E-02
	Plutonium-238	2.27E-04	4.46E-04
	Plutonium-241	6.15E-02	7.37E-02
	Plutonium-239/240	4.54E-04	5.45E-04
	Polonium-210	1.95E-02	1.76E-03
	Potassium-40	2.70E-01	5.20E-02
	Radium-226	2.80E-02	1.80E-02

**1995 WIPP Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/g	COUNTING ERROR
HB_LGS Bottom Sediment Laguna Grande de la Sol (continued)	Radium-228	*5.90E-03	4.20E-03
	Strontium-90	2.70E-03	1.90E-03
	Thorium-228	1.45E-02	2.53E-03
	Thorium-232	4.08E-03	1.29E-03
	Thorium-230	4.86E-02	4.40E-03
	Uranium-238	3.66E-02	3.80E-03
	Uranium-235/236	5.14E-03	1.61E-03
	Uranium-234	6.06E-02	4.91E-03
	Uranium-233	6.06E-02	4.91E-03
HB-COY Note: Acronym COY denotes duplicate sample collected at Pierce Canyon	Americium-241	3.51E-02	3.75E-03
	Cesium-137	*2.10E-04	6.00E-04
	Cobalt-60	*1.40E-04	5.10E-04
	Lead-210	1.10E-02	9.80E-03
	Plutonium-238	3.51E-04	6.07E-04
	Plutonium-241	1.13E-01	7.53E-02
	Plutonium-239/240	5.84E-04	5.12E-04
	Polonium-210	1.48E-02	2.17E-03
	Potassium-40	2.00E-01	3.90E-02
	Radium-226	3.60E-02	1.40E-02
	Radium-228	*1.30E-02	7.70E-03
	Strontium-90	1.00E-02	2.90E-03
	Thorium-228	1.69E-02	2.76E-03
	Thorium-232	1.69E-02	2.68E-03
	Thorium-230	4.49E-02	4.38E-03
	Uranium-238	1.88E-02	2.84E-03
	Uranium-235/236	0.00E+00	1.18E-03
	Uranium-234	2.30E-02	3.22E-03
	Uranium-233	2.30E-02	3.22E-03



## 1995 WIPP Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/g	COUNTING ERROR
<b>HB-RED</b> Bottom Sediment Red Tank	Americium-241	1.68E-02	2.52E-03
	Cesium-137	5.30E-03	2.00E-03
	Cobalt-60	*4.50E-04	7.40E-04
	Lead-210	6.20E-02	1.80E-02
	Plutonium-238	0.00E+00	5.12E-04
	Plutonium-241	6.21E-02	6.82E-02
	Plutonium-239/240	7.46E-04	5.53E-04
	Polonium-210	3.59E-02	2.54E-03
	Potassium-40	3.90E-01	7.60E-02
	Radium-226	3.10E-02	1.90E-02
	Radium-228	3.00E-02	7.40E-03
	Strontium-90	6.90E-03	2.90E-03
	Thorium-228	3.82E-02	4.11E-03
	Thorium-232	3.26E-02	3.69E-03
	Thorium-230	5.50E-02	4.79E-03
	Uranium-238	2.47E-02	3.11E-03
	Uranium-235/236	1.08E-03	8.46E-04
	Uranium-234	2.81E-02	3.32E-03
Uranium-233	2.81E-02	3.32E-03	
<b>HB-BRA</b> Bottom Sediment Brantley Lake	Americium-241	1.82E-02	2.89E-03
	Cesium-137	*-1.20E-05	7.50E-04
	Cobalt-60	*5.30E-04	5.50E-04
	Lead-210	1.70E-02	1.30E-02
	Plutonium-238	2.22E-04	3.07E-04
	Plutonium-241	5.60E-02	6.96E-02
	Plutonium-239/240	6.64E-04	6.14E-04
	Polonium-210	6.84E-03	1.22E-03
	Potassium-40	2.90E-01	5.60E-02
	Radium-226	3.00E-02	1.70E-02

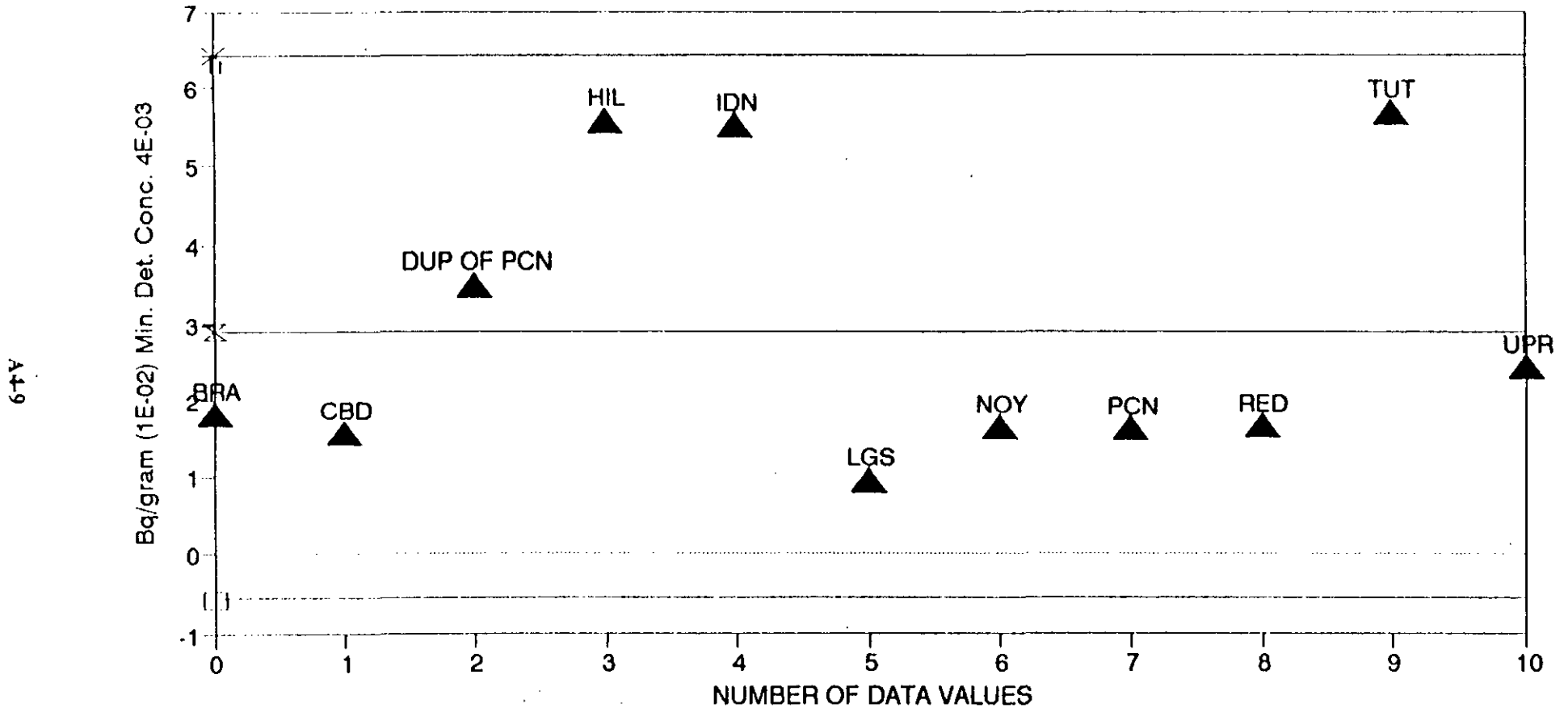
1995 WIPP Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/g	COUNTING ERROR
HB-BRA Bottom Sediment Brantley Lake	Radium-228	1.90E-02	5.40E-03
	Strontium-90	4.10E-03	2.50E-03
	Thorium-228	2.80E-02	3.61E-03
	Thorium-232	2.29E-02	3.16E-03
	Thorium-230	7.37E-02	5.61E-03
	Uranium-238	6.21E-02	4.77E-03
	Uranium-235/236	8.05E-03	1.95E-03
	Uranium-234	9.10E-02	5.78E-03
	Uranium-233	9.10E-02	5.78E-03





# 1995 Am-241 IN SEDIMENT

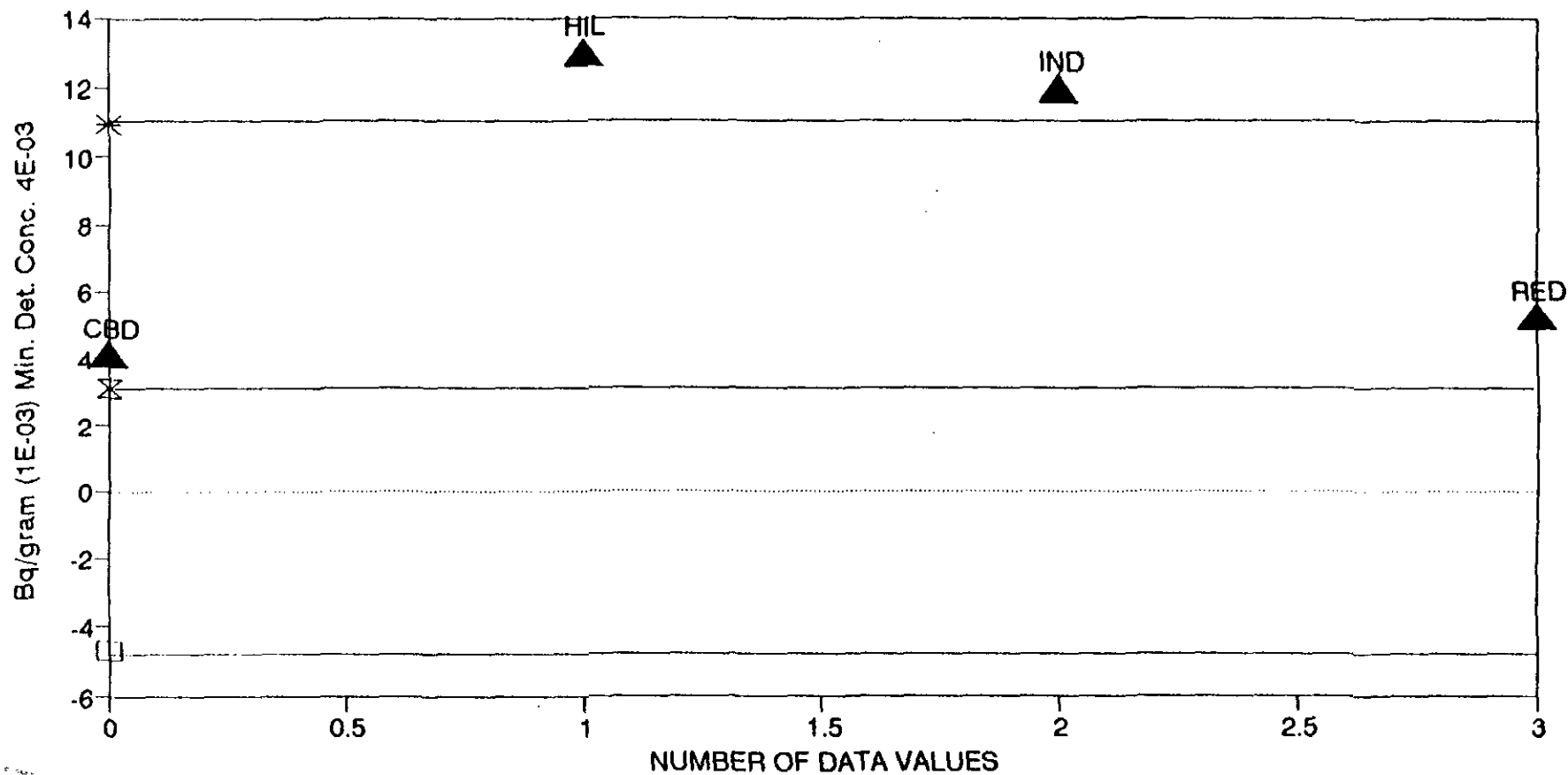


▲ ANALYTICAL VALUE ✕ MEAN

\* +2 STD. DEV.

□ -2 STD. DEV.

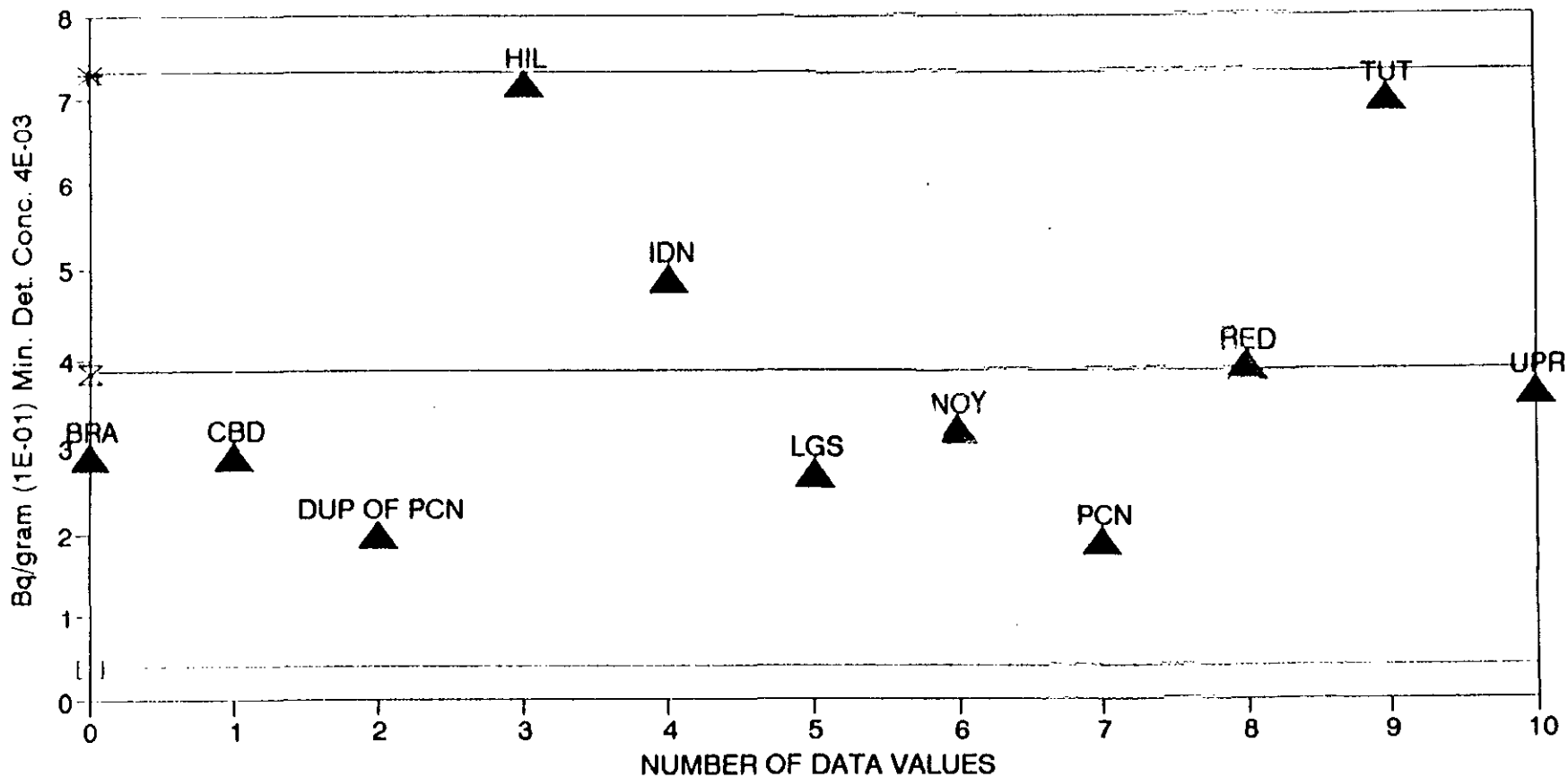
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A4-10



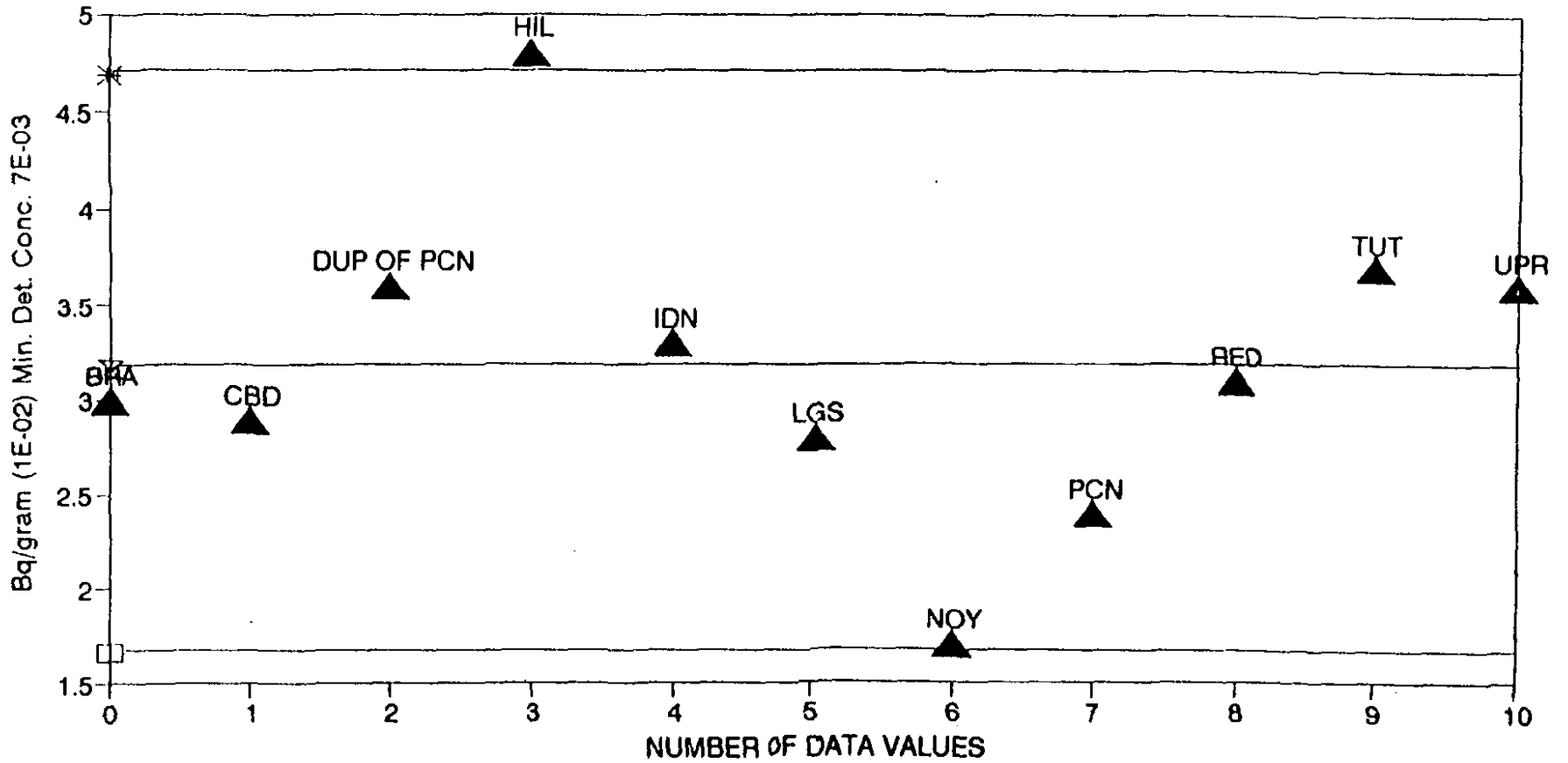
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▲ ANALYTICAL VALUE X MEAN \* +2 STD. DEV. □ -2 STD. DEV.

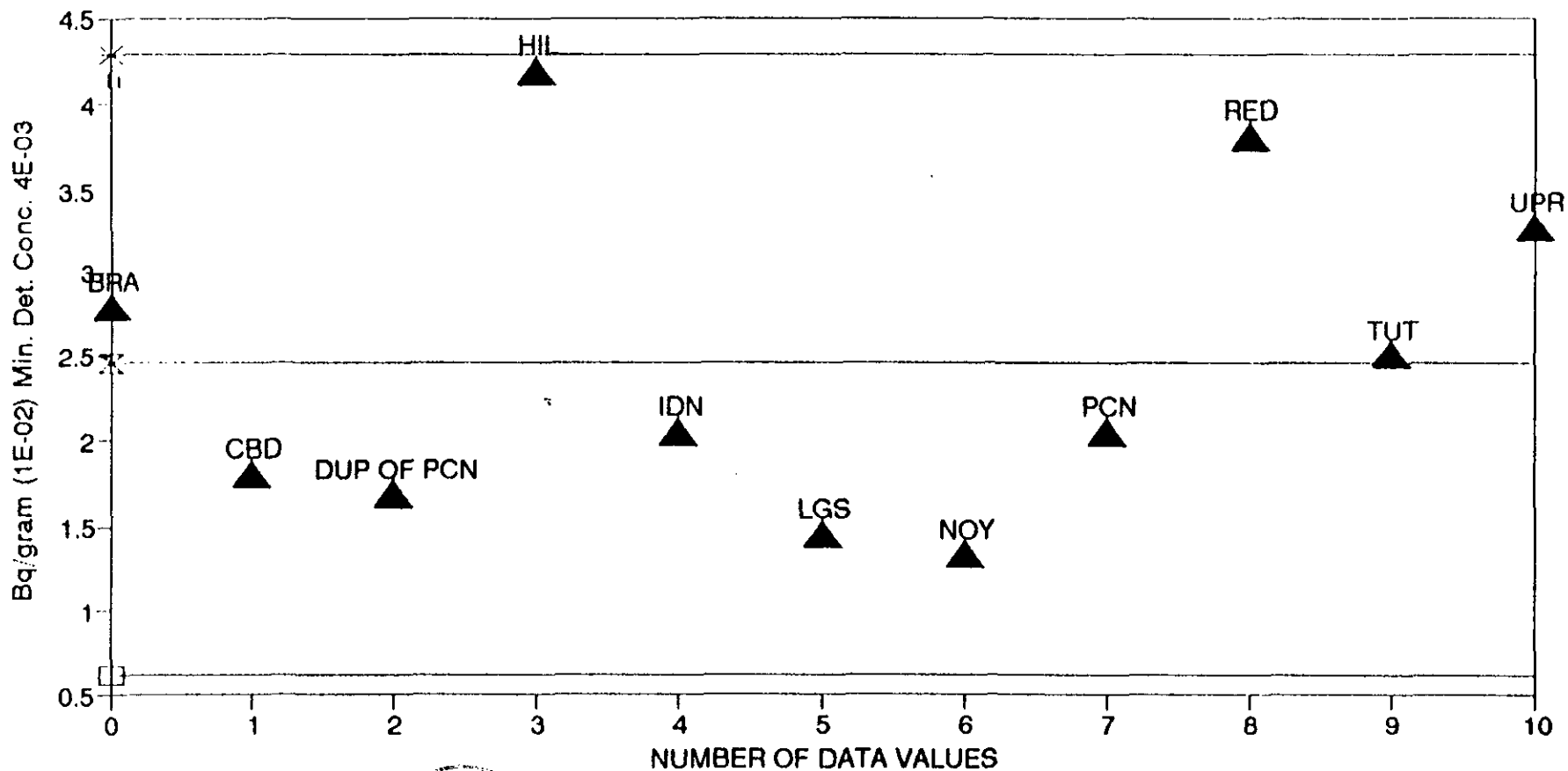
# 1995 Ra-226 IN SEDIMENT

A412



ANALYTICAL VALUE  
 MEAN  
 +2 STD. DEV.  
 -2 STD. DEV.

# 1995 Th-228 IN SEDIMENT



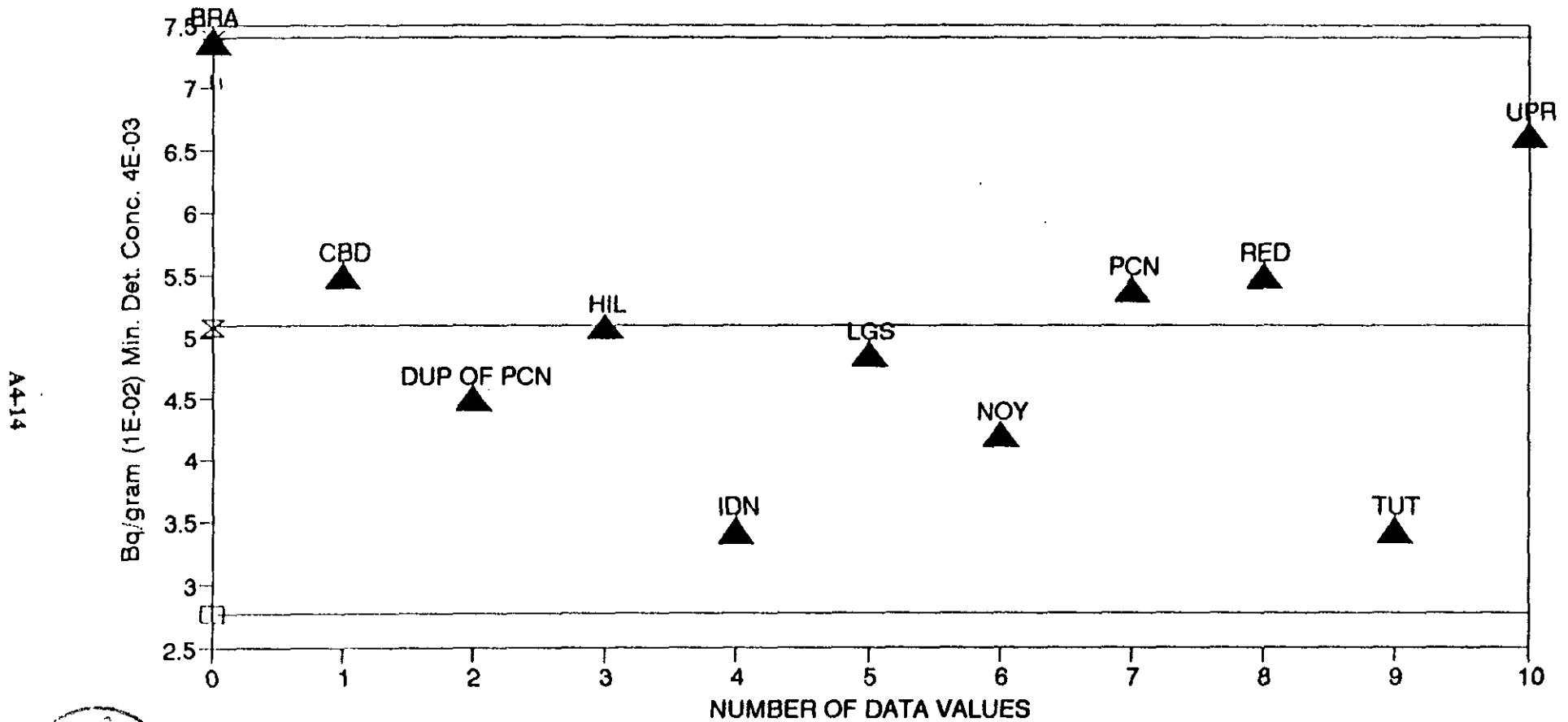
▲ ANALYTICAL VALUE ⌘ MEAN

\* +2 STD. DEV.

□ -2 STD. DEV.

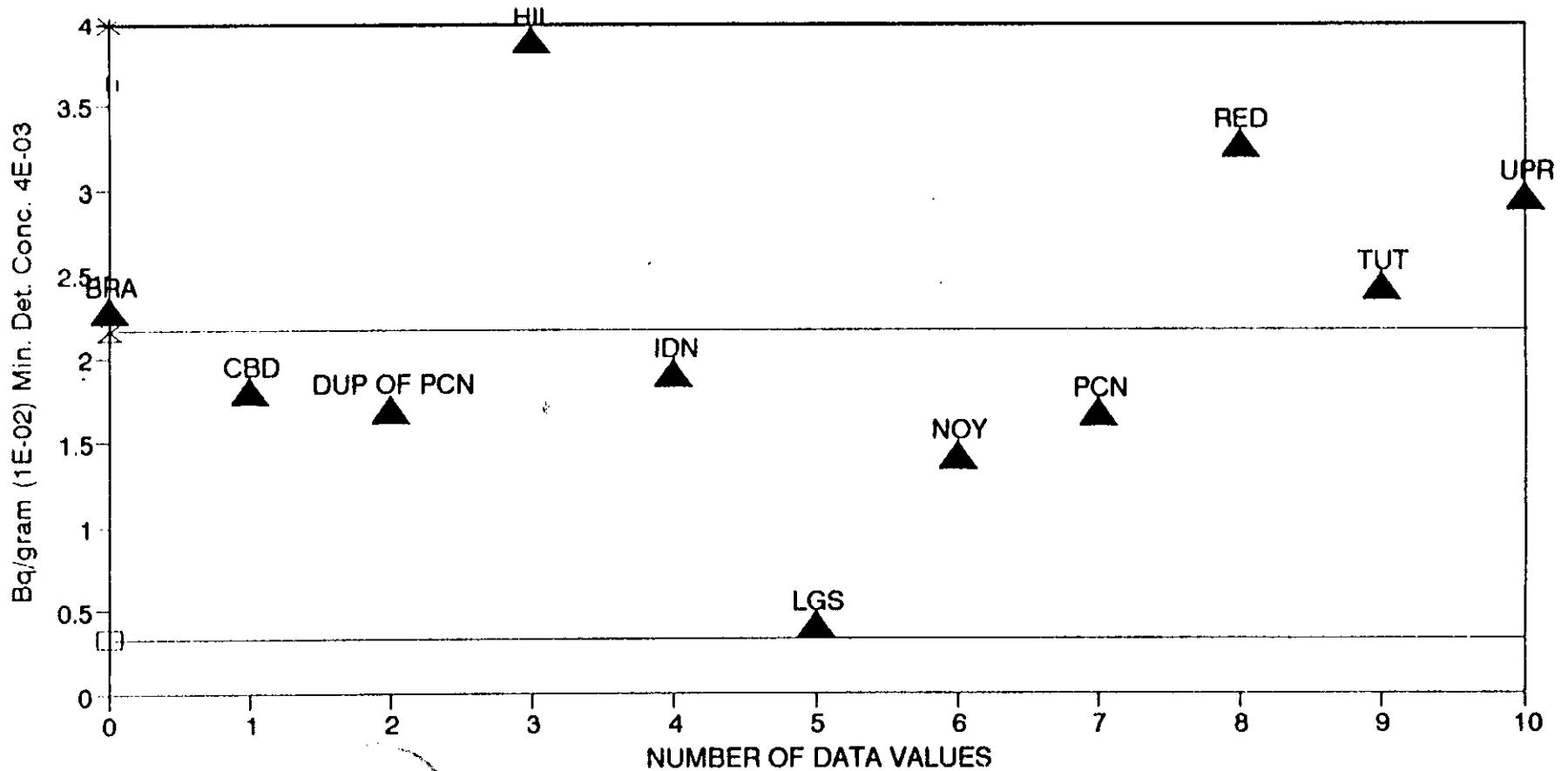
A4-13

# 1995 Th-230 IN SEDIMENT



▲ ANALYTICAL VALUE    ✕ MEAN    \* +2 STD. DEV.    □ -2 STD. DEV.

# 1995 Th-232 IN SEDIMENT



▲ ANALYTICAL VALUE    × MEAN

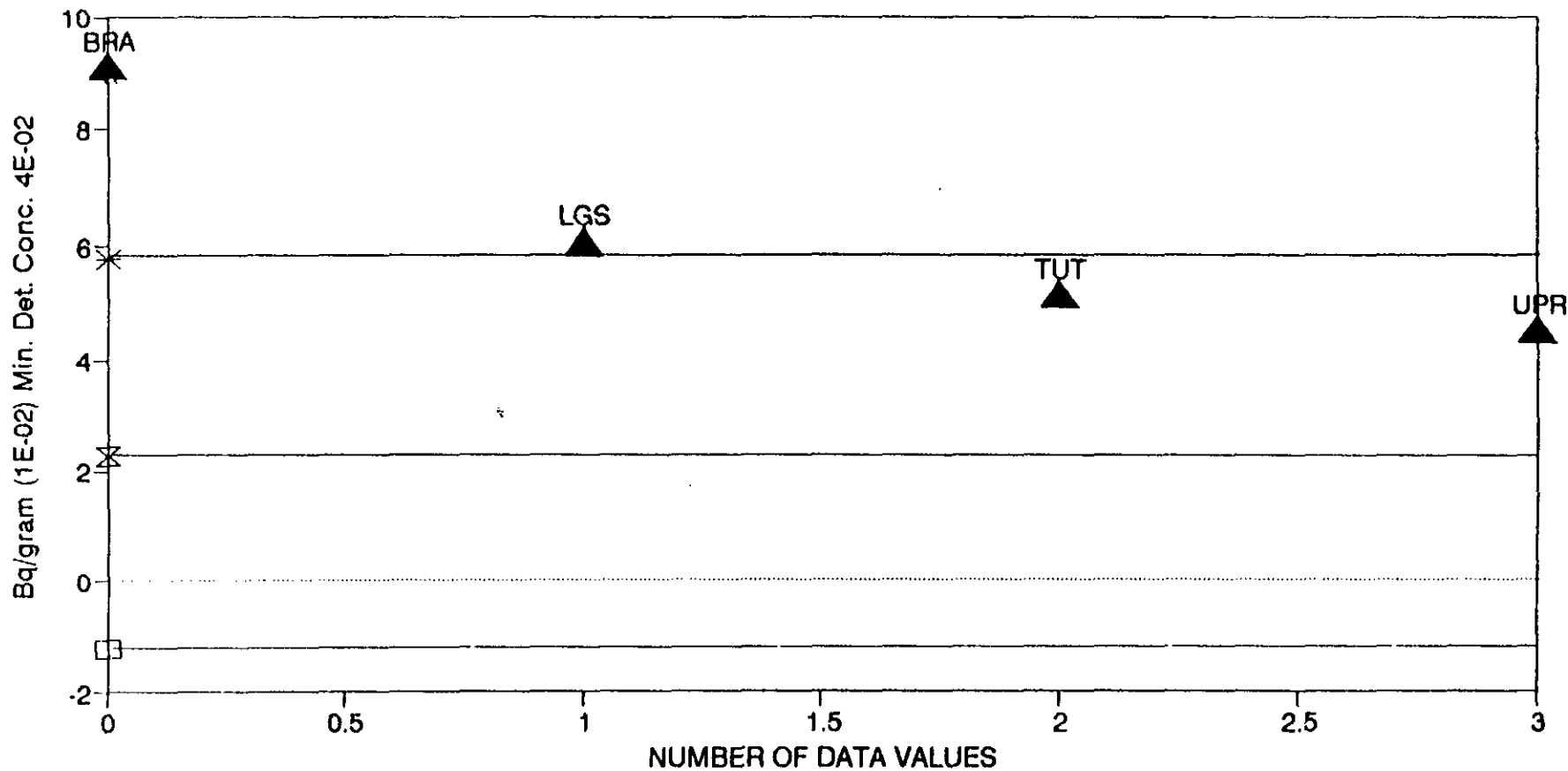
\* +2 STD. DEV.

□ -2 STD. DEV.

A4-15

# 1995

## U-233/234 IN SEDIMENT



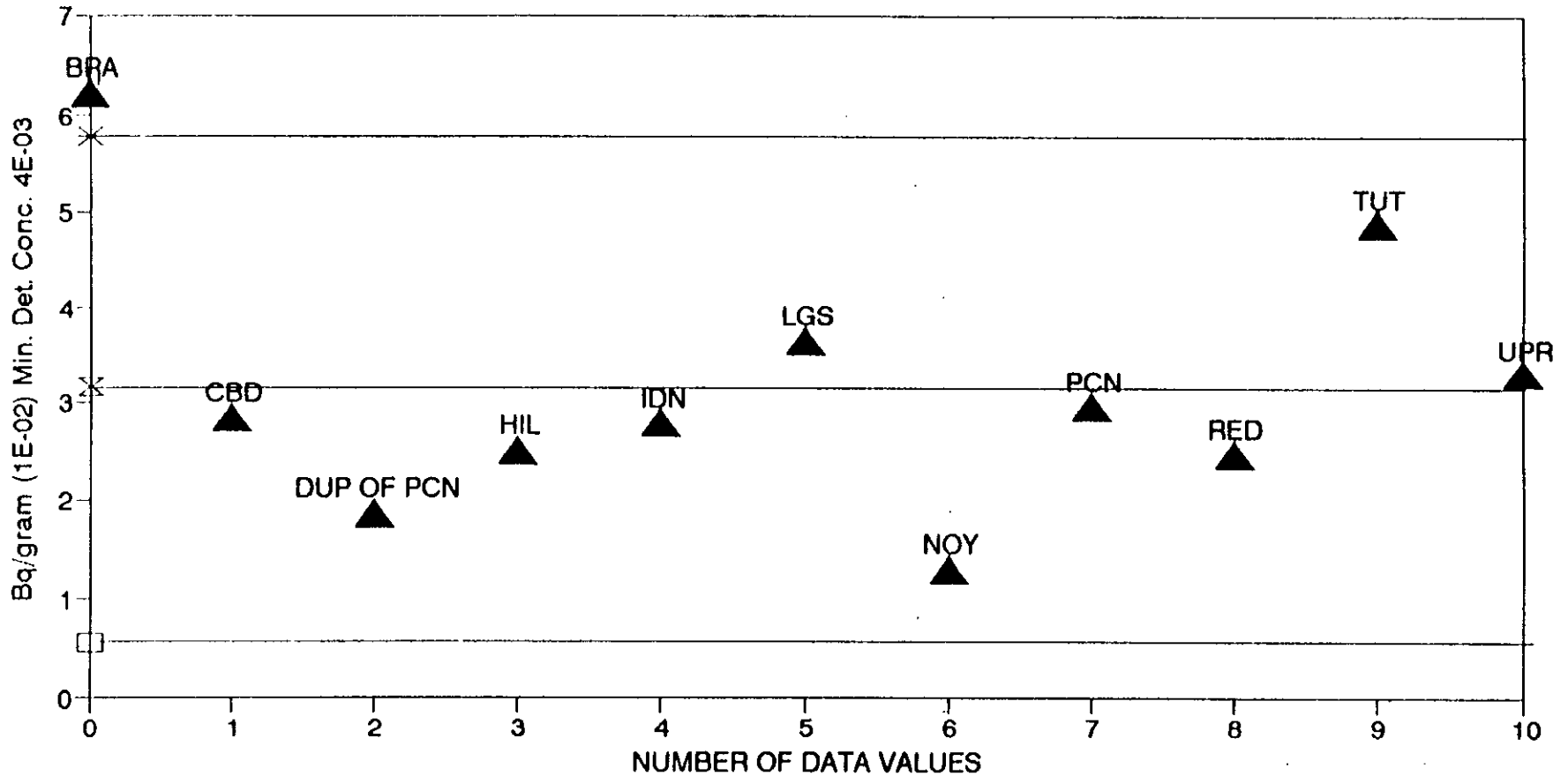
A4-16



▲ ANALYTICAL VALUE    ⋈ MEAN    \* +2 STD. DEV.    □ -2 STD. DEV.



# 1995 U-238 IN SEDIMENT



417



**APPENDIX A5**  
**RADIOLOGICAL ANALYSIS**  
**GROUND WATER**



## 1995 WIPP Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
H-03B3 Ground Water Round 10	Americium-241	3.51E-02	7.29E-31
	Cesium-137	-3.90E-03	7.10E-02
	Cobalt-60	-1.90E-02	8.10E-02
	Lead-210	5.60E+00	1.30E+00
	Plutonium-239/240	2.69E-03	2.28E-33
	Plutonium-241	-6.02E-02	1.16E-11
	Plutonium-238	2.03E-03	2.09E-33
	Polonium-210	1.63E-02	7.71E-36
	Potassium-40	1.50E+01	2.70E+00
	Radium-226	4.40E+00	4.70E-02
	Radium-228	5.67E-01	7.00E-02
	Strontium-90	-6.90E-03	3.10E-02
	Thorium-228	1.27E-01	1.44E-24
	Thorium-232	1.00E-03	2.17E-34
	Thorium-230	2.55E-02	5.95E-33
	Uranium-235/236	1.16E-02	4.82E-33
	Uranium-238	7.62E-02	1.10E-25
Uranium-233/234	4.82E-01	2.70E-25	
H14 Ground Water Round 8	Americium-241	1.30E-02	4.22E-33
	Cesium-137	-6.20E-02	7.00E-02
	Cobalt-60	5.90E-02	8.10E-02
	Lead-210	1.10E+00	1.80E+00
	Plutonium-241	-1.88E-01	1.38E-12
	Plutonium-238	-8.30E-04	1.99E-34
	Plutonium-239/240	1.24E-03	1.40E-31
	Polonium-210	8.63E-03	9.92E-31
	Potassium-40	7.80E+00	2.10E+00
	Radium-228	8.04E-01	7.80E-02
	Radium-226	3.10E+00	3.90E-02

**1995 WIPP Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
H14 Ground Water Round 8 (continued)	Strontium-90	-6.40E-04	1.70E-02
	Thorium-230	1.61E-02	4.87E-33
	Thorium-228	6.52E-02	1.02E-23
	Thorium-232	-9.85E-04	1.11E-33
	Uranium-233/234	3.27E-01	2.26E-25
	Uranium-238	3.88E-02	8.10E-35
	Uranium-235/236	3.94E-03	3.06E-33
H18 Ground Water Round 4	Americium-241	1.91E-02	5.31E-31
	Cesium-137	1.00E-02	7.00E-02
	Cobalt-60	4.20E-02	7.60E-02
	Lead-210	6.80E+00	1.40E+00
	Plutonium-241	-1.17E-01	1.17E-11
	Plutonium-238	0.00E+00	1.98E-34
	Plutonium-239/240	1.43E-03	1.40E-39
	Polonium-210	N/A	N/A
	Potassium-40	7.70E+00	2.10E+00
	Radium-228	5.07E-01	6.70E-02
	Radium-226	3.70E+00	4.30E-02
	Strontium-90	-2.10E-02	2.70E-02
	Thorium-230	2.18E-02	6.54E-34
	Thorium-228	1.18E-01	1.63E-27
	Thorium-232	1.81E-03	2.51E-34
	Uranium-233/234	6.20E-01	2.99E-27
	Uranium-238	9.97E-02	1.20E-23
	Uranium-235/236	1.32E-02	4.97E-33
WIPP19 Ground Water Round 10	Americium-241	2.00E-02	6.03E-33
	Cesium-137	-7.90E-02	7.60E-02
	Cobalt-60	9.40E-02	8.40E-02
	Lead-210	1.80E-01	1.90E+00



## 1995 WIPP Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
WIPP19 Ground Water Round 10 (continued)	Plutonium-241	-2.29E-01	1.24E-12
	Plutonium-238	0.00E+00	1.41E-33
	Plutonium-239/240	0.00E+00	9.94E-42
	Polonium-210	1.40E-02	1.09E-21
	Potassium-40	1.90E+01	3.30E+00
	Radium-228	1.59E+00	1.10E-01
	Radium-226	5.00E+00	5.00E-02
	Strontium-90	1.60E-03	1.80E-02
	Thorium-230	3.76E-02	1.16E-21
	Thorium-228	2.14E-01	2.88E-21
	Thorium-232	3.68E-03	3.81E-35
	Uranium-233/234	6.36E-01	4.57E-21
	Uranium-238	9.92E-02	1.85E-21
	Uranium-235/236	3.32E-02	1.19E-27
WQSP-1 Ground Water Round 1	Americium-241	1.98E-02	8.91E-32
	Cesium-137	-1.90E-02	7.30E-02
	Cobalt-60	1.70E-01	8.00E-02
	Lead-210	9.20E+00	1.60E+00
	Plutonium-241	-2.99E-01	1.55E-12
	Plutonium-238	1.44E-03	3.12E-35
	Plutonium-239/240	-9.55E-04	2.65E-36
	Polonium-210	-5.47E-03	1.47E-22
	Potassium-40	1.60E+01	2.80E+00
	Radium-228	1.46E+00	1.00E-01
	Radium-226	6.00E+00	5.50E-02
	Strontium-90	2.70E-02	2.70E-02
	Thorium-230	3.65E-02	7.80E-33
	Thorium-228	1.02E-01	1.45E-24
Thorium-232	8.47E-04	1.66E-33	

## 1995 WIPP Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
WQSP-1 Ground Water Round 1 (continued)	Uranium-233/234	1.42E+00	4.79E-25
	Uranium-238	2.36E-01	1.96E-23
	Uranium-235/236	2.60E-02	7.90E-36
WQSP-2 Ground Water Round 1	Americium-241	2.09E-02	5.46E-33
	Cesium-137	-1.10E-01	7.60E-02
	Cobalt-60	1.20E-01	8.20E-02
	Lead-210	4.10E-01	2.20E+00
	Plutonium-241	-2.73E-01	1.72E-12
	Plutonium-238	-5.71E-04	3.36E-37
	Plutonium-239/240	-5.68E-04	2.95E-36
	Polonium-210	8.79E-03	7.71E-31
	Potassium-40	1.70E+01	3.10E+00
	Radium-228	7.52E-01	9.30E-02
	Radium-226	3.70E+00	4.40E-02
	Strontium-90	-3.10E-02	2.40E-02
	Thorium-230	4.02E-02	7.74E-34
	Thorium-228	3.97E-02	8.38E-34
	Thorium-232	-3.20E-03	2.87E-36
	Uranium-233/234	1.21E+00	4.06E-23
	Uranium-238	1.91E-01	1.64E-25
	Uranium-235/236	3.24E-02	8.50E-38
	WQSP-3 Ground Water Round 1	Americium-241	4.40E-02
Cesium-137		-1.00E-01	7.90E-02
Cobalt-60		-1.60E-02	7.80E-02
Lead-210		1.50E-01	2.10E+00
Plutonium-241		-1.34E-01	1.26E-12
Plutonium-238		7.72E-04	2.62E-35
Plutonium-239/240		1.54E-03	1.84E-32
Polonium-210		9.56E-02	2.06E-28

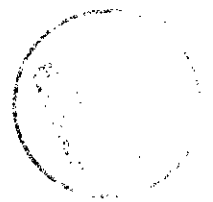


**1995 WIPP Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
<p align="center">WQSP-3 Ground Water Round 1 (continued)</p>	Potassium-40	4.90E+01	6.40E+00
	Radium-228	1.71E+00	1.10E-01
	Radium-226	7.80E+00	6.00E-02
	Strontium-90	2.40E-03	3.30E-02
	Thorium-230	1.85E-02	7.34E-36
	Thorium-228	6.47E-02	1.48E-28
	Thorium-232	6.60E-04	2.24E-34
	Uranium-233/234	3.21E-01	2.64E-26
	Uranium-238	3.75E-02	9.86E-38
	Uranium-235/236	6.90E-03	5.06E-36
<p align="center">WQSP-4 Ground Water Round 1</p>	Americium-241	2.47E-02	5.32E-32
	Cesium-137	-3.30E-02	7.80E-02
	Cobalt-60	8.60E-02	8.40E-02
	Lead-210	5.40E-01	2.10E+00
	Plutonium-241	-2.17E-01	1.29E-12
	Plutonium-238	0.00E+00	1.09E-32
	Plutonium-239/240	3.91E-04	2.03E-34
	Polonium-210	0.00E+00	4.72E-31
	Potassium-40	2.50E+01	4.00E+00
	Radium-228	2.03E+00	1.30E-01
	Radium-226	9.10E+00	7.00E-02
	Strontium-90	-1.20E-02	2.20E-02
	Thorium-230	2.14E-02	9.23E-31
	Thorium-228	5.96E-02	1.65E-21
	Thorium-232	3.05E-03	4.73E-38
	Uranium-233/234	6.83E-01	5.02E-21
	Uranium-238	1.07E-01	2.07E-21
	Uranium-235/236	1.77E-02	8.93E-33

## 1995 WIPP Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
WQSP-6A Ground Water Round 1	Americium-241	1.67E-02	5.36E-34
	Cesium-137	1.40E-02	7.00E-02
	Cobalt-60	6.50E-02	8.40E-02
	Lead-210	7.00E+00	1.30E+00
	Plutonium-241	-8.18E-03	1.11E-11
	Plutonium-238	-6.70E-04	2.63E-35
	Plutonium-239/240	1.33E-03	1.31E-39
	Polonium-210	N/A	N/A
	Potassium-40	2.70E+00	9.30E-01
	Radium-228	1.84E-02	3.30E-02
	Radium-226	9.00E-02	6.90E-03
	Srortium-90	-2.10E-02	3.20E-02
	Thorium-230	3.16E-02	6.59E-33
	Thorium-228	1.62E-02	5.59E-35
	Thorium-232	-3.35E-04	1.14E-33
	Uranium-233/234	2.32E-01	1.74E-22
	Uranium-238	1.28E-01	1.30E-23
	Uranium-235/236	1.46E-02	5.11E-33
B-2 Ground Water Note: Acronym B-2 denotes sample blank	Americium-241	2.00E-02	5.59E-33
	Cesium-137	-6.60E-02	8.00E-02
	Cobalt-60	-3.00E-03	7.60E-02
	Lead-210	7.10E+00	1.50E+00
	Plutonium-241	5.85E-02	1.18E-11
	Plutonium-238	-1.70E-03	1.49E-34
	Plutonium-239/240	1.02E-03	1.48E-32
	Polonium-210	-2.02E-03	5.59E-31
	Potassium-40	2.50E+01	3.80E+00
	Radium-228	1.89E+00	1.10E-01





**1995 WIPP Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
<p align="center">B-2 Ground Water Note: Acronym B-2 denotes sample blank (continued)</p>	Radium-226	8.60E+00	6.30E-02
	Strontium-90	-1.50E-02	2.00E-02
	Thorium-230	3.07E-02	8.11E-35
	Thorium-228	5.57E-02	1.21E-28
	Thorium-232	0.00E+00	1.94E-34
	Uranium-233/234	6.21E-01	4.86E-21
	Uranium-238	8.60E-02	1.88E-21
	Uranium-235/236	1.21E-02	8.19E-38
<p align="center">WQSP-5 Ground Water Round 1</p>	Americium-241	2.05E-02	6.44E-03
	Cesium-137	-6.20E-02	1.30E-01
	Cobalt-60	2.50E-02	1.50E-01
	Lead-210	8.00E+00	2.40E+00
	Plutonium-238	5.51E-04	1.87E-03
	Plutonium-241	-5.92E+00	2.78E-01
	Plutonium-239/240	3.84E-03	3.22E-03
	Polonium-210	4.54E-02	9.96E-03
	Potassium-40	1.20E+01	3.20E+00
	Radium-226	2.70E+00	4.00E-02
	Radium-228	2.90E-01	5.00E-02
	Strontium-90	2.50E-01	6.00E-02
	Thorium-228	7.22E-02	1.32E-02
	Thorium-232	4.94E-04	1.68E-03
	Thorium-230	1.53E-02	6.21E-03
	Uranium-233/234	5.64E-01	4.09E-02
	Uranium-235/236	1.04E-02	7.17E-03
	Uranium-238	8.57E-02	1.60E-02
<p align="center">WQSP-6 Ground Water Round 1</p>	Americium-241	1.59E-02	5.61E-03
	Cesium-137	1.40E-02	7.00E-02
	Cobalt-60	6.50E-02	8.40E-02

**1995 WIPP Environmental Report**

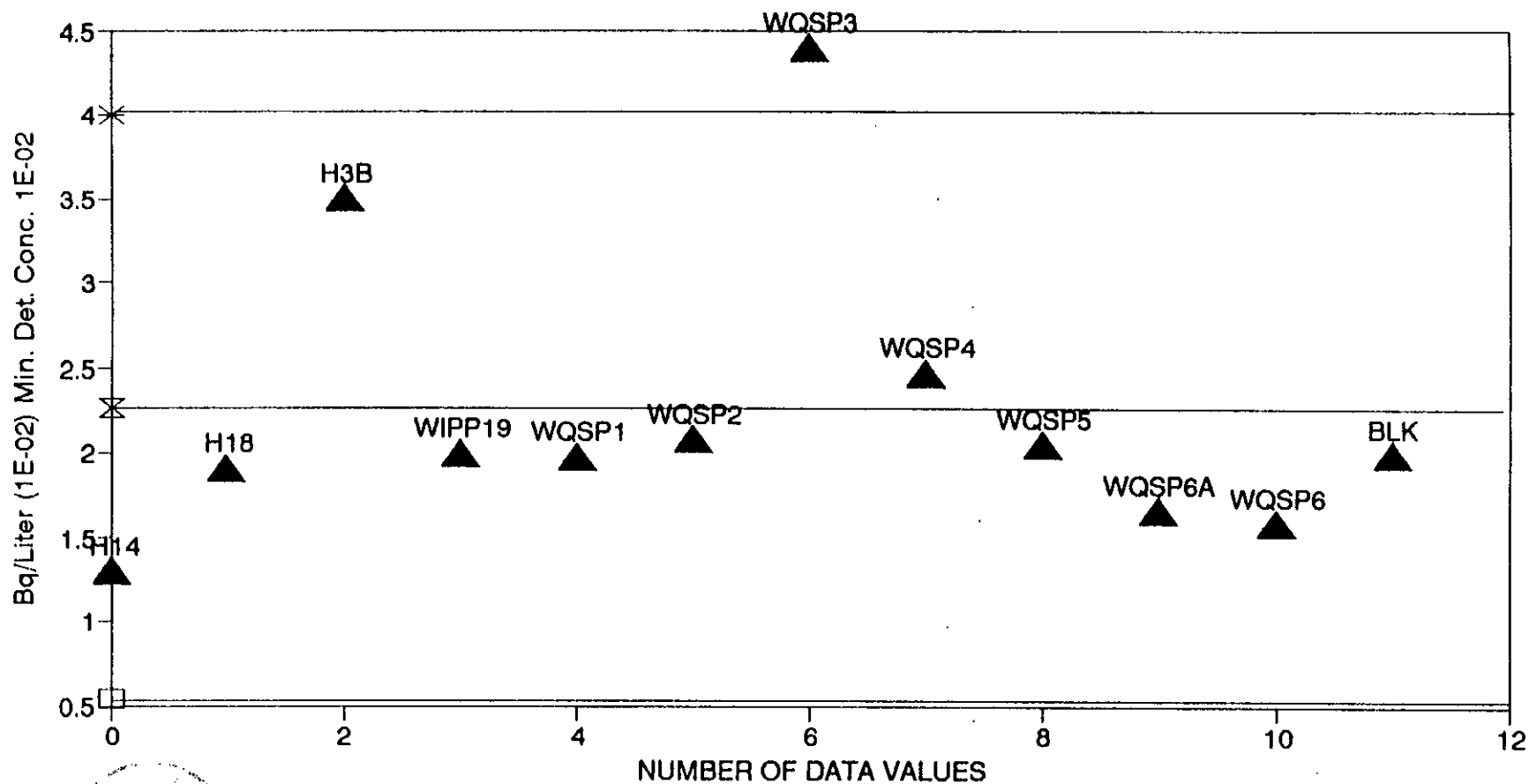
SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/L	COUNTING ERROR
WQSP-6 Ground Water Round 1 (continued)	Lead-210	7.00E+00	1.30E+00
	Plutonium-239/240	6.26E-03	4.85E-03
	Plutonium-238	7.86E-04	2.66E-03
	Plutonium-241	-6.90E+00	3.95E-01
	Polonium-210	N/A	N/A
	Potassium-40	2.70E+00	9.30E-01
	Radium-228	1.84E-02	3.30E-02
	Radium-226	9.00E-02	6.90E-03
	Strontium-90	1.80E-01	4.50E-02
	Thorium-228	3.24E-02	9.11E-03
	Thorium-232	0.00	2.22E-03
	Thorium-230	2.32E-02	7.15E-03
	Uranium-238	7.80E-02	1.44E-02
	Uranium-233/234	6.05E-01	4.04E-02
	Uranium-235/236	5.96E-03	6.02E-03



# 1995

## Am-241 IN GROUNDWATER

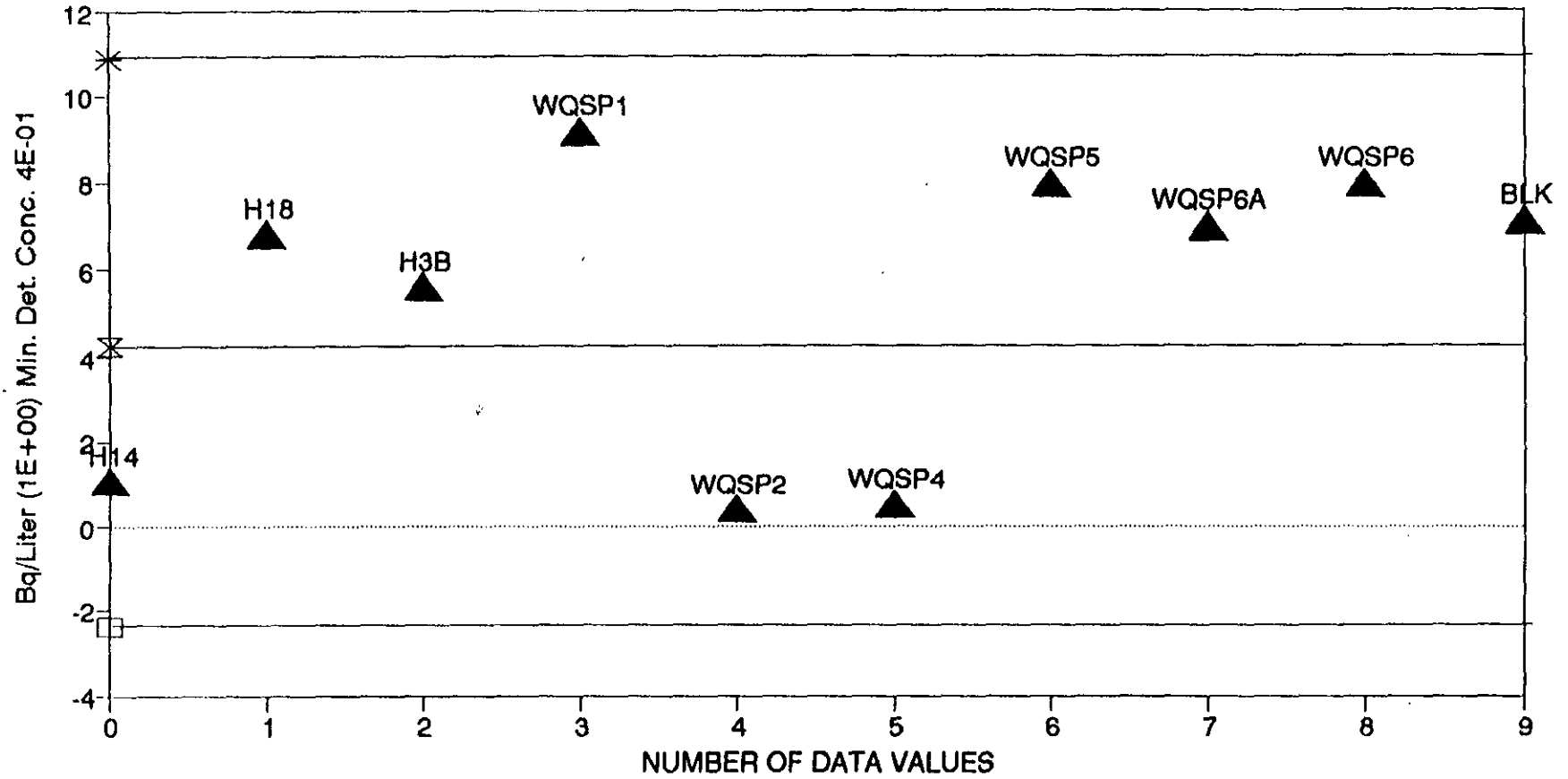
65-9



ANALYTICAL VALUE
  MEAN
  +2 STD. DEV.
  -2 STD. DEV.

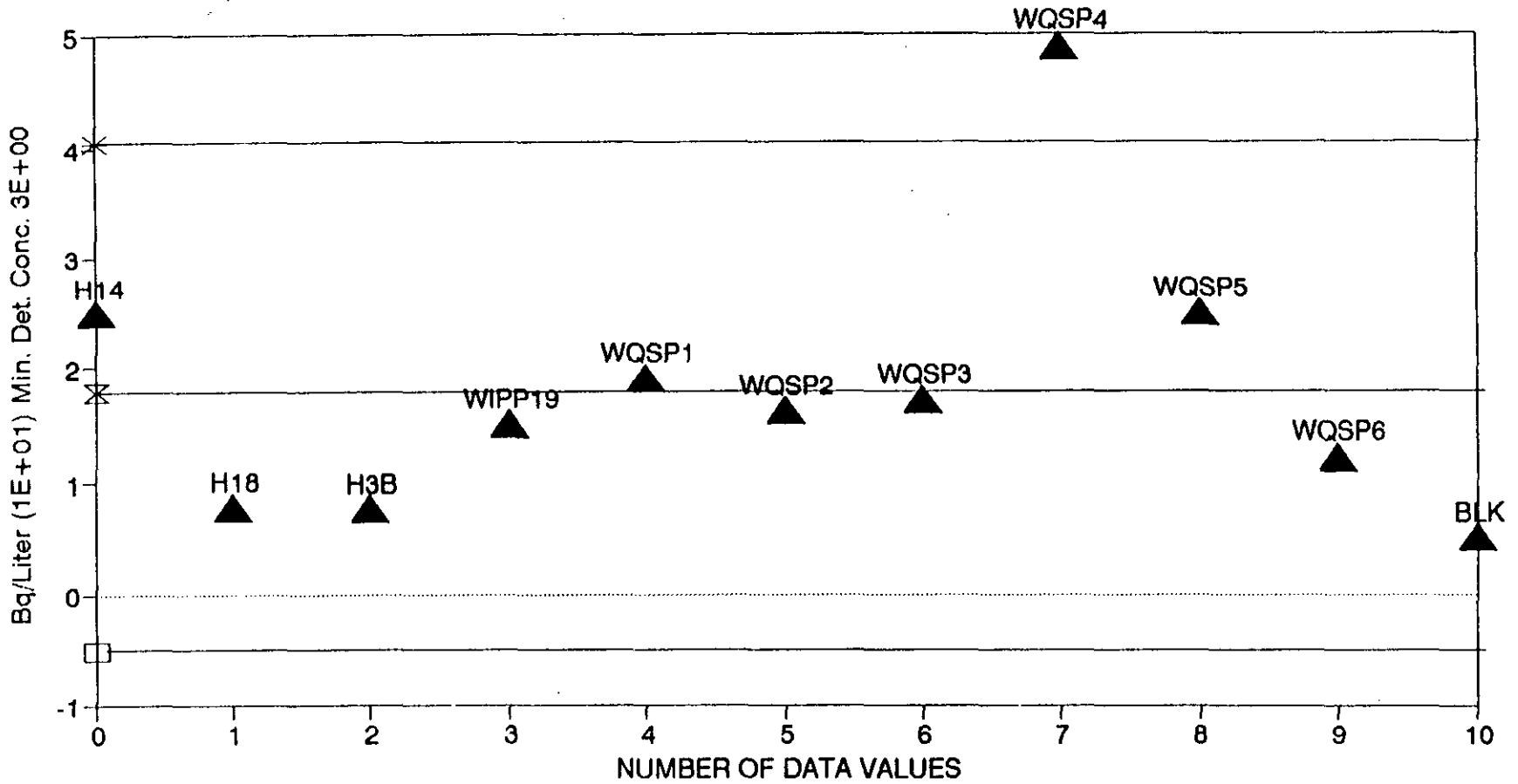
# 1995 Pb-210 IN GROUNDWATER

A5-10



▲ ANALYTICAL VALUE	⊗ MEAN	* +2 STD. DEV.	⊖ -2 STD. DEV.
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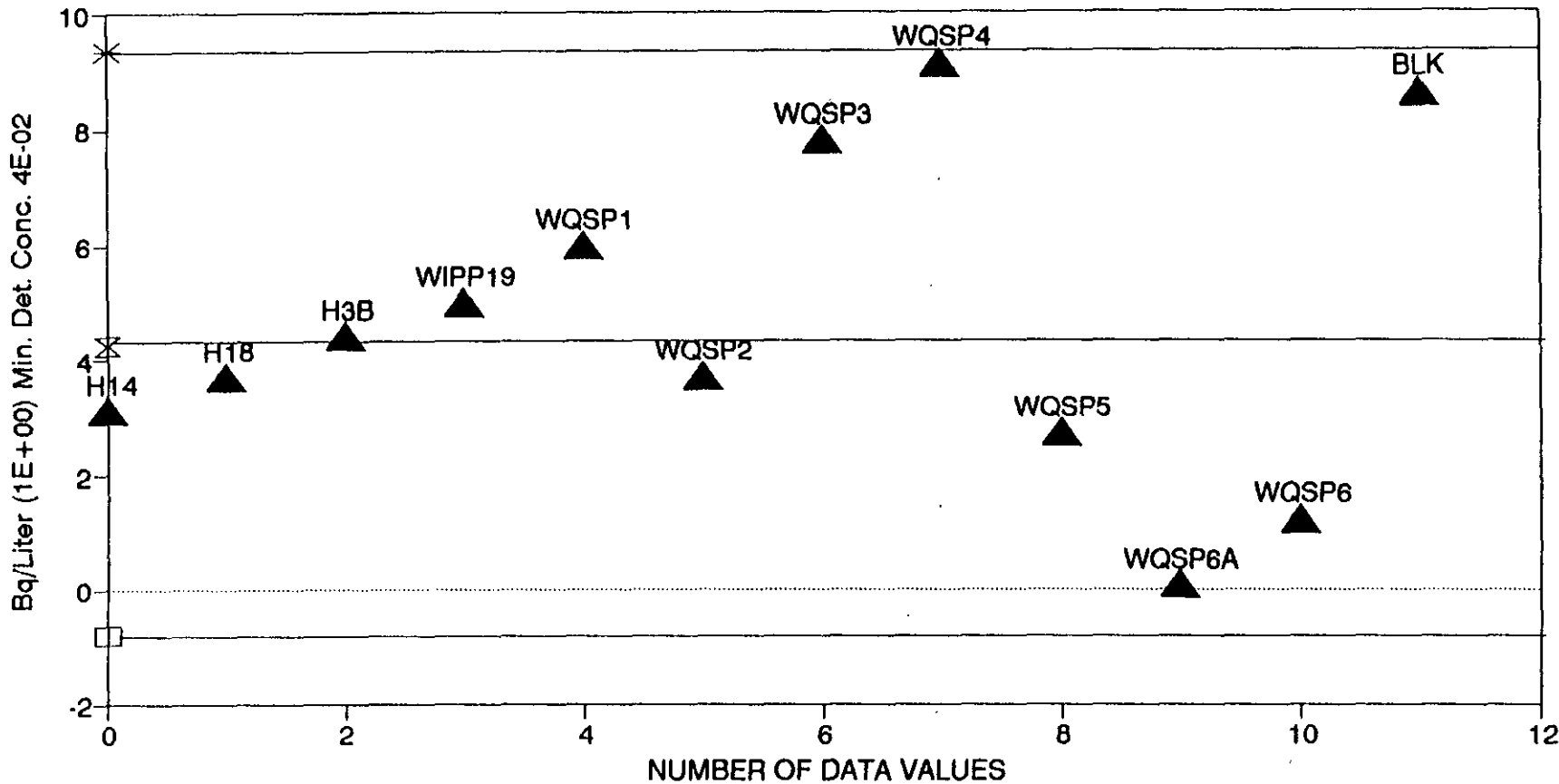
# 1995 K-40 IN GROUNDWATER



▲ ANALYTICAL VALUE    × MEAN    \* +2 STD. DEV    □ -2 STD. DEV.

AS-11

# 1995 Ra-226 IN GROUNDWATER



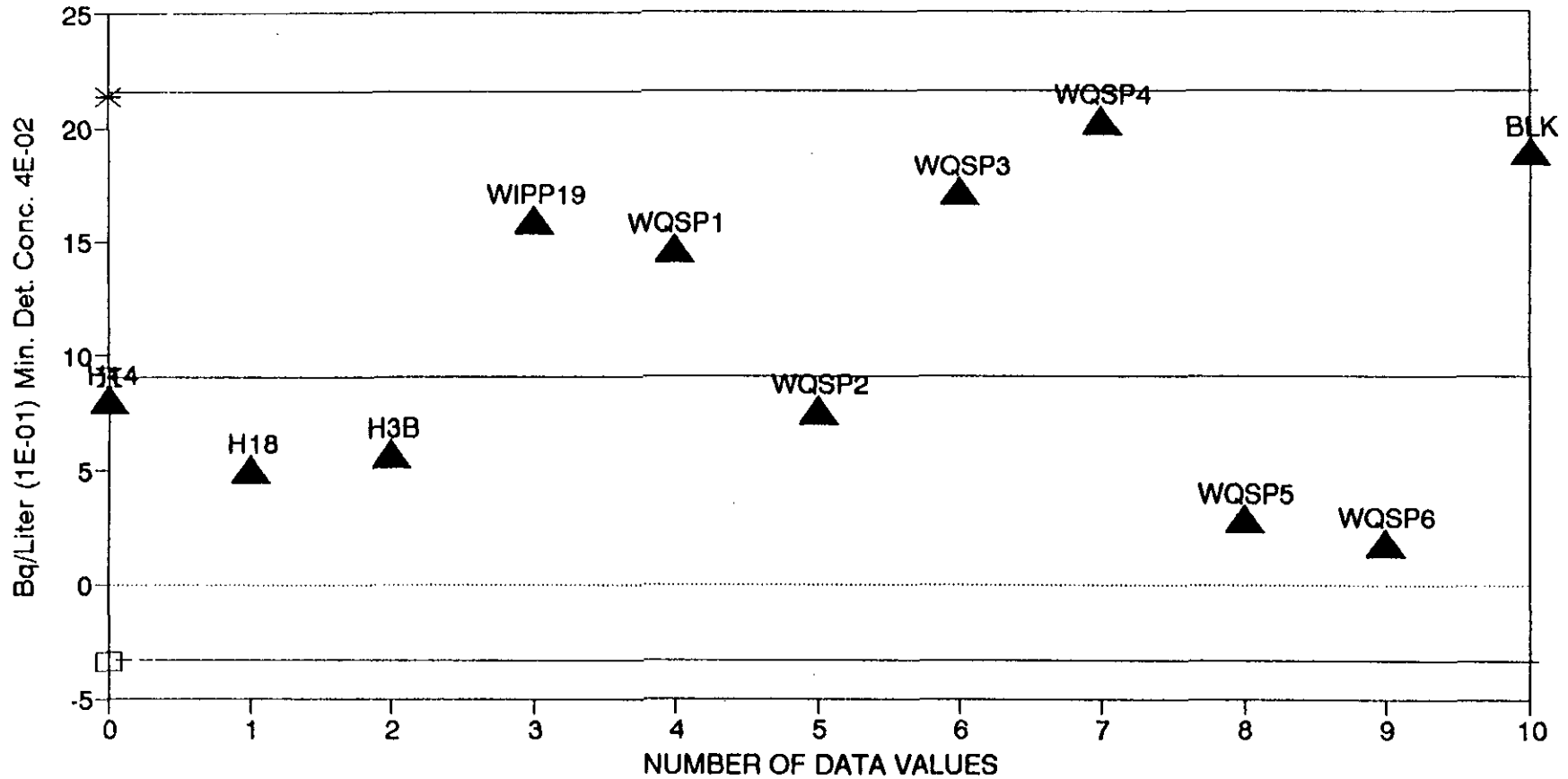
AS-12

ANALYTICAL VALUE
  MEAN
  +2 STD. DEV.
  -2 STD. DEV.



# 1995 Ra-228 IN GROUNDWATER

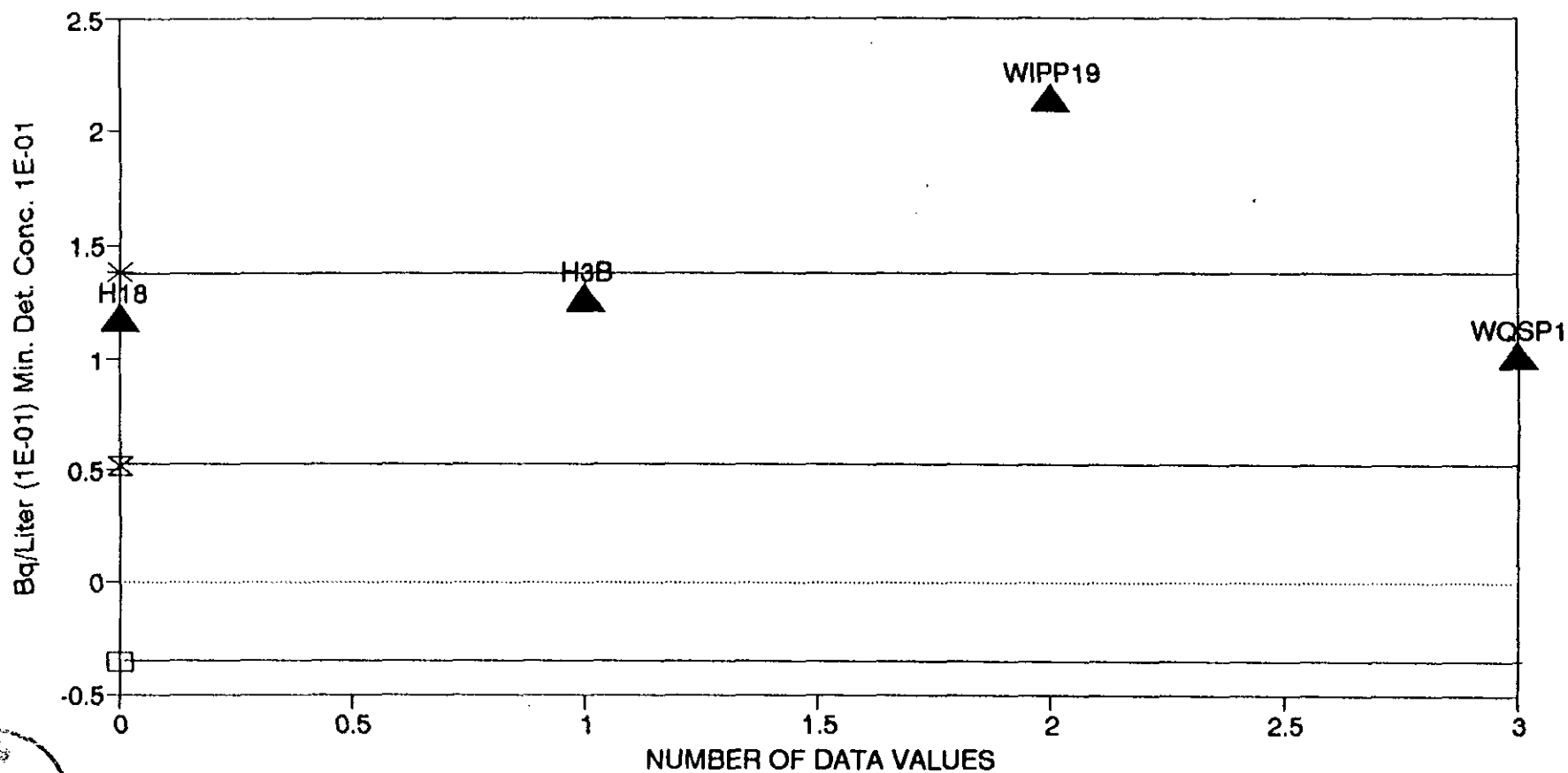
AS-13



▲ ANALYTICAL VALUE    ✕ MEAN    \* +2 STD. DEV.    □ -2 STD. DEV.

# 1995 WIPP Th-228 IN GROUNDWATER

AS-14



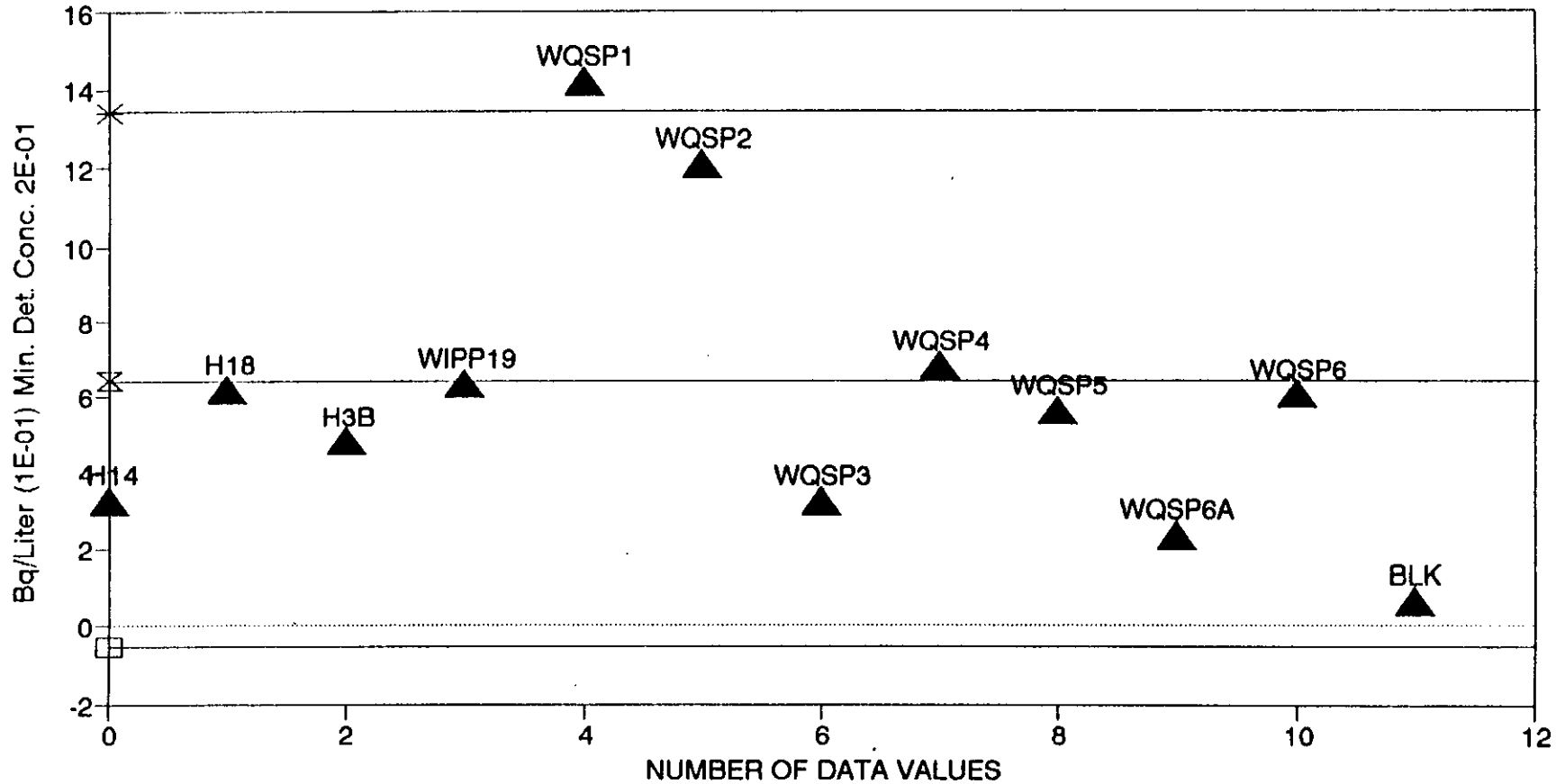
▲ ANALYTICAL VALUE    x MEAN    \* +2 STD. DEV.    □ -2 STD. DEV.





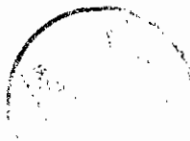
# 1995 U-233/234 IN GROUNDWATER

AS-15



▲ ANALYTICAL VALUE    ⊗ MEAN    \* +2 STD. DEV.    □ -2 STD. DEV.

**APPENDIX A6**  
**RADIOLOGICAL ANALYSIS**  
**BIOTICS**



## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/g	COUNTING ERROR
BV-WE1 Biotic Vegetation WIPP East	Americium-241	7.16E-03	1.81E-03
	Cesium-137	2.90E-04	5.10E-04
	Cobalt-60	3.10E-04	5.60E-04
	Lead-210	2.20E-02	1.20E-02
	Plutonium-241	-9.96E-02	3.89E-02
	Plutonium-238	2.26E-04	4.42E-04
	Plutonium-239/240	-2.25E-04	3.12E-04
	Polonium-210	7.90E-03	2.57E-03
	Potassium-40	3.80E-01	4.70E-02
	Radium-228	7.70E-03	2.80E-03
	Radium-226	1.90E-02	1.60E-02
	Strontium-90	8.86E-04	2.86E-03
	Thorium-232	2.89E-03	1.19E-03
	Thorium-228	1.16E-02	2.26E-03
	Thorium-230	8.38E-03	1.86E-03
	Uranium-233/234	4.60E-03	1.77E-03
	Uranium-238	3.64E-03	1.54E-03
	Uranium-235/236	5.98E-04	5.86E-04
BV-SE1 Biotic Vegetation South East 1	Americium-241	5.08E-03	1.48E-03
	Cesium-137	-1.70E-04	7.60E-04
	Cobalt-60	4.30E-04	1.40E-03
	Lead-210	2.10E-02	2.00E-02
	Plutonium-241	-1.74E-01	3.89E-02
	Plutonium-238	2.31E-04	4.53E-04
	Plutonium-239/240	5.76E-04	8.15E-04
	Polonium-210	1.17E-02	2.69E-03
	Potassium-40	5.40E-01	6.70E-02

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/g	COUNTING ERROR
BV-SE1 Biotic Vegetation South East 1 (continued)	Radium-228	6.30E-03	2.90E-03
	Radium-226	3.10E-03	2.40E-02
	Strontium-90	3.45E-03	2.64E-03
	Thorium-230	7.53E-03	1.71E-03
	Thorium-228	1.20E-02	2.16E-03
	Thorium-232	3.85E-03	1.21E-03
	Uranium-233/234	5.04E-03	1.65E-03
	Uranium-238	4.74E-03	1.41E-03
	Uranium-235/236	3.74E-04	4.23E-04
BV-SE2 Biotic Vegetation South East 2	Americium-241	1.10E-02	2.29E-03
	Cesium-137	2.00E-04	6.10E-04
	Cobalt-60	2.20E-04	6.90E-04
	Lead-210	2.60E-02	1.70E-02
	Plutonium-241	-1.59E-01	3.34E-02
	Plutonium-238	-9.94E-05	5.15E-04
	Plutonium-239/240	0.00E+00	3.89E-04
	Polonium-210	5.21E-03	2.15E-03
	Potassium-40	4.00E-01	5.20E-02
	Radium-228	5.80E-05	2.30E-03
	Radium-226	7.90E-02	1.40E-02
	Strontium-90	9.71E-04	2.02E-03
	Thorium-230	1.04E-02	2.09E-03
	Thorium-228	3.03E-02	3.57E-03
	Thorium-232	5.69E-03	1.48E-03
	Uranium-233/234	5.05E-03	1.83E-03
	Uranium-238	4.94E-03	1.63E-03
	Uranium-235/236	1.45E-04	7.52E-04
	BV-NW1 Biotic Vegetation North West 1	Americium-241	8.49E-03
Cesium-137		-3.80E-06	7.20E-04

**1995 WIPP Site Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/g	COUNTING ERROR
BV-NW1 Biotic Vegetation North West 1 (continued)	Cobalt-60	3.90E-05	7.60E-04
	Lead-210	4.60E-02	1.70E-02
	Plutonium-241	-1.49E-01	3.83E-02
	Plutonium-238	1.09E-04	3.69E-04
	Plutonium-239/240	-2.17E-04	4.25E-04
	Polonium-210	1.03E-02	2.54E-03
	Potassium-40	3.90E-01	5.00E-02
	Radium-228	3.10E-03	2.60E-03
	Radium-226	2.30E-02	2.10E-02
	Strontium-90	5.46E-03	2.65E-03
	Thorium-230	9.33E-03	2.10E-03
	Thorium-228	9.72E-03	2.43E-03
	Thorium-232	3.58E-03	1.56E-03
	Uranium-233/234	5.50E-03	1.63E-03
	Uranium-238	4.61E-03	1.42E-03
	Uranium-235/236	3.71E-04	4.19E-04
BV-NW2 Biotic Vegetation North West 2	Americium-241	6.82E-03	1.88E-03
	Cesium-137	-3.70E-05	1.10E-03
	Cobalt-60	-7.10E-04	1.20E-03
	Lead-210	2.20E-02	3.00E-02
	Plutonium-241	-7.12E-02	3.65E-02
	Plutonium-238	-5.30E-04	4.64E-04
	Plutonium-239/240	1.06E-04	4.64E-04
	Polonium-210	1.05E-02	2.85E-03
	Potassium-40	3.90E-01	5.70E-02
	Radium-228	5.40E-03	4.40E-03
	Radium-226	1.50E-01	2.60E-02
	Strontium-90	9.56E-04	2.55E-03
	Thorium-230	8.95E-03	2.01E-03

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/g	COUNTING ERROR
BV-NW2 Biotic Vegetation North West 2 (continued)	Thorium-228	1.75E-02	2.78E-03
	Thorium-232	2.58E-03	1.20E-03
	Uranium-233/234	7.25E-03	1.82E-03
	Uranium-238	3.99E-03	1.31E-03
BV-CT1 Biotic Vegetation Control 1	Uranium-235/236	1.01E-03	7.82E-04
	Americium-241	6.40E-03	1.93E-03
	Cesium-137	2.20E-04	6.60E-04
	Cobalt-60	-3.80E-04	7.70E-04
	Lead-210	2.80E-02	1.60E-02
	Plutonium-241	-1.84E-01	4.09E-02
	Plutonium-238	-5.88E-04	6.10E-04
	Plutonium-239/240	-1.17E-04	6.90E-04
	Polonium-210	1.83E-02	3.99E-03
	Potassium-40	5.90E-01	7.10E-02
	Radium-228	2.30E-03	3.10E-03
	Radium-226	6.60E-03	2.20E-02
	Strontium-90	4.85E-03	2.67E-03
	Thorium-230	1.04E-02	2.01E-03
	Thorium-228	6.68E-03	1.75E-03
	Thorium-232	3.35E-03	1.23E-03
	Uranium-233/234	8.97E-03	3.08E-03
	Uranium-238	9.63E-03	3.05E-03
	Uranium-235/236	1.85E-03	1.55E-03
	BV-CT2 Biotic Vegetation Control 2	Americium-241	2.04E-02
Cesium-137		-1.10E-05	7.80E-04
Cobalt-60		-1.80E-04	9.20E-04
Lead-210		2.10E-02	2.10E-02
Plutonium-241		-1.45E-01	3.17E-02
Plutonium-238		0.00E+00	2.69E-04

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/g	COUNTING ERROR
BV-CT2 Biotic Vegetation Control 2 (continued)	Plutonium-239/240	1.94E-04	3.81E-04
	Polonium-210	8.60E-03	2.01E-03
	Potassium-40	4.90E-01	6.50E-02
	Radium-228	2.60E-03	3.10E-03
	Radium-226	8.40E-03	2.60E-02
	Strontium-90	3.56E-03	2.94E-03
	Thorium-230	1.15E-02	2.47E-03
	Thorium-228	2.20E-03	1.75E-03
	Thorium-232	-1.43E-03	1.63E-03
	Uranium-233/234	5.65E-03	1.77E-03
	Uranium-238	3.20E-03	1.32E-03
	Uranium-235/236	6.07E-04	5.95E-04
	BR-NAR Biotic Rabbit North Access 12081.1	Americium-241	5.15E-05
Cesium-137		1.50E-04	3.90E-04
Cobalt-60		1.00E-04	3.60E-04
Lead-210		2.50E-02	4.80E-03
Plutonium-241		-1.77E-02	8.36E-03
Plutonium-238		1.00E-04	1.41E-04
Plutonium-239/240		1.60E-04	1.36E-04
Polonium-210		3.10E-03	4.75E-03
Potassium-40		1.10E-01	2.90E-02
Radium-228		1.60E-03	1.50E-03
Radium-226		1.40E-03	6.80E-03
Strontium-90		3.90E-03	4.40E-03
Thorium-230		5.31E-04	2.41E-04
Thorium-228		1.03E-04	1.35E-04
Thorium-232		-1.90E-05	8.30E-05
Uranium-233/234		2.44E-04	1.77E-04
Uranium-238		1.13E-04	1.04E-04

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/g	COUNTING ERROR
BR-NAR Biotic Rabbit North Access 12081.1 (continued)	Uranium-235/236	4.65E-05	1.12E-04
BR-NAR Biotic Rabbit North Access 11141.1	Americium-241	2.57E-04	1.30E-04
	Cesium-137	7.60E-05	3.80E-04
	Cobalt-60	-5.00E-04	3.30E-04
	Lead-210	6.20E-03	2.50E-02
	Plutonium-241	-2.46E-02	6.93E-03
	Plutonium-238	1.72E-05	3.37E-05
	Plutonium-239/240	1.72E-05	7.52E-05
	Polonium-210	2.50E-03	2.29E-03
	Potassium-40	9.60E-02	2.90E-02
	Radium-228	2.00E-03	1.30E-03
	Radium-226	5.60E-02	1.60E-02
	Strontium-90	5.30E-03	4.20E-03
	Thorium-230	5.52E-04	2.12E-04
	Thorium-228	1.95E-05	8.51E-05
	Thorium-232	5.33E-05	7.79E-05
	Uranium-233/234	3.19E-04	2.06E-04
	Uranium-238	-7.98E-05	1.11E-04
	Uranium-235/236	1.23E-04	1.28E-04
BR-LWA Biotic Rabbit Land Withdrawl Area 12121.2	Americium-241	1.92E-04	1.51E-04
	Cesium-137	-5.60E-04	1.40E-03
	Cobalt-60	-1.30E-04	1.20E-03
	Lead-210	1.50E-01	2.30E-02
	Plutonium-241	-2.74E-02	8.30E-03
	Plutonium-238	-2.19E-04	1.61E-04
	Plutonium-239/240	0.00E+00	9.52E-05
	Polonium-210	3.97E-03	2.87E-03

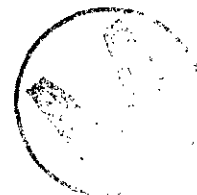


## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/g	COUNTING ERROR
BR-LWA Biotic Rabbit Land Withdrawl Area 12121.2 (continued)	Potassium-40	1.20E-01	4.10E-02
	Radium-228	2.80E-03	4.80E-03
	Radium-226	1.20E-01	3.80E-02
	Strontium-90	3.60E-04	3.60E-03
	Thorium-230	1.11E-03	2.90E-04
	Thorium-228	2.11E-05	2.20E-04
	Thorium-232	-3.79E-05	1.98E-04
	Uranium-233/234	4.36E-04	2.06E-04
	Uranium-238	-5.96E-05	1.17E-04
	Uranium-235/236	-7.35E-05	8.32E-05
BR-LWA Biotic Rabbit Land Withdrawl Area 12122.2	Americium-241	3.41E-04	1.77E-04
	Cesium-137	3.60E-04	5.60E-04
	Cobalt-60	4.30E-04	4.60E-04
	Lead-210	5.30E-02	8.70E-03
	Plutonium-241	-4.18E-02	7.51E-03
	Plutonium-238	3.73E-05	1.16E-04
	Plutonium-239/240	1.12E-04	1.03E-04
	Polonium-210	4.98E-03	3.82E-03
	Potassium-40	1.20E-01	3.70E-02
	Radium-228	1.30E-03	3.70E-03
	Radium-226	9.60E-03	1.30E-02
	Strontium-90	6.10E-03	4.10E-03
	Thorium-230	1.20E-03	3.26E-04
	Thorium-228	1.51E-04	1.74E-04
	Thorium-232	-1.98E-05	1.16E-04
	Uranium-233/234	2.85E-04	2.14E-04
	Uranium-238	5.72E-05	1.12E-04
	Uranium-235/236	7.06E-05	1.22E-04

## 1995 WIPP Site Environmental Report

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/g	COUNTING ERROR
BF-PEC Biotic Fish Pecos River	Americium-241	6.90E-05	8.29E-05
	Cesium-137	9.20E-05	4.20E-04
	Cobalt-60	1.30E-04	4.10E-04
	Lead-210	2.90E-02	5.10E-03
	Plutonium-241	-2.32E-02	3.31E-03
	Plutonium-238	1.97E-05	4.74E-05
	Plutonium-239/240	0.00E+00	3.86E-05
	Polonium-210	1.72E-03	9.37E-04
	Potassium-40	1.10E-01	3.30E-02
	Radium-228	1.40E-03	1.50E-03
	Radium-226	3.80E-03	8.00E-03
	Strontium-90	-1.72E-03	2.27E-03
	Thorium-230	7.37E-04	1.73E-04
	Thorium-228	2.20E-05	4.32E-05
	Thorium-232	-2.04E-05	2.83E-05
	Uranium-233/234	3.63E-04	1.30E-04
	Uranium-238	1.59E-04	9.50E-05
Uranium-235/236	1.15E-05	6.76E-05	
BF-BRA Biotic Fish Brantley Lake	Americium-241	0.00E+00	4.67E-05
	Cesium-137	-3.40E-04	4.30E-04
	Cobalt-60	7.90E-04	4.10E-04
	Lead-210	3.80E-02	6.30E-03
	Plutonium-241	-2.03E-02	3.15E-03
	Plutonium-238	0.00E+00	5.46E-05
	Plutonium-239/240	-9.84E-06	4.31E-05
	Polonium-210	5.34E-03	1.69E-03
	Potassium-40	8.80E-02	1.80E-02
	Radium-228	3.40E-04	2.90E-03
	Radium-226	8.80E-03	1.00E-02

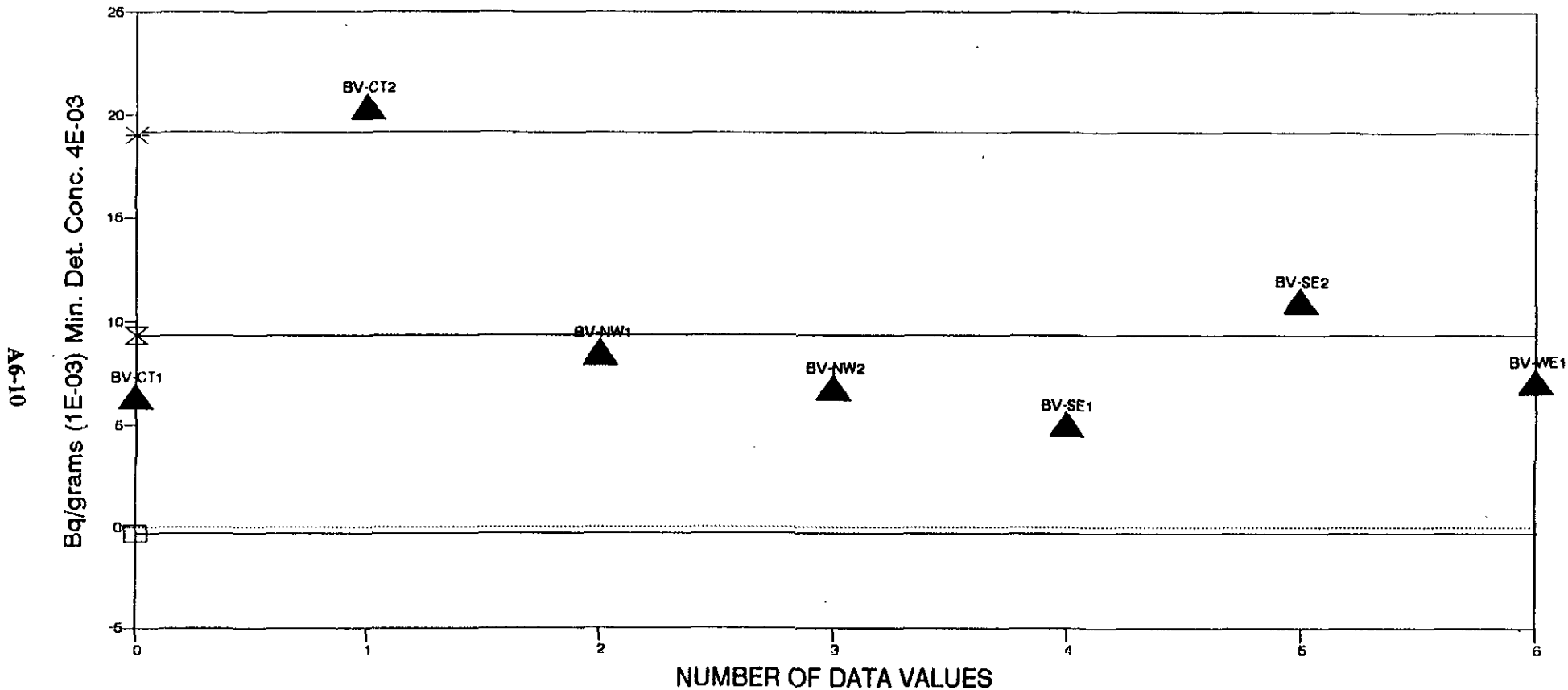


**1995 WIPP Site Environmental Report**

SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULT/UNIT Bq/g	COUNTING ERROR
BF-BRA Biotic Fish Brandley Lake (continued)	Strontium-90	1.19E-03	2.41E-03
	Thorium-230	7.31E-04	1.70E-04
	Thorium-228	4.19E-05	5.81E-05
	Thorium-232	2.92E-05	4.26E-05
	Uranium-234	8.04E-04	1.80E-04
	Uranium-238	9.33E-04	1.92E-04
	Uranium-235/236	6.06E-05	6.28E-05

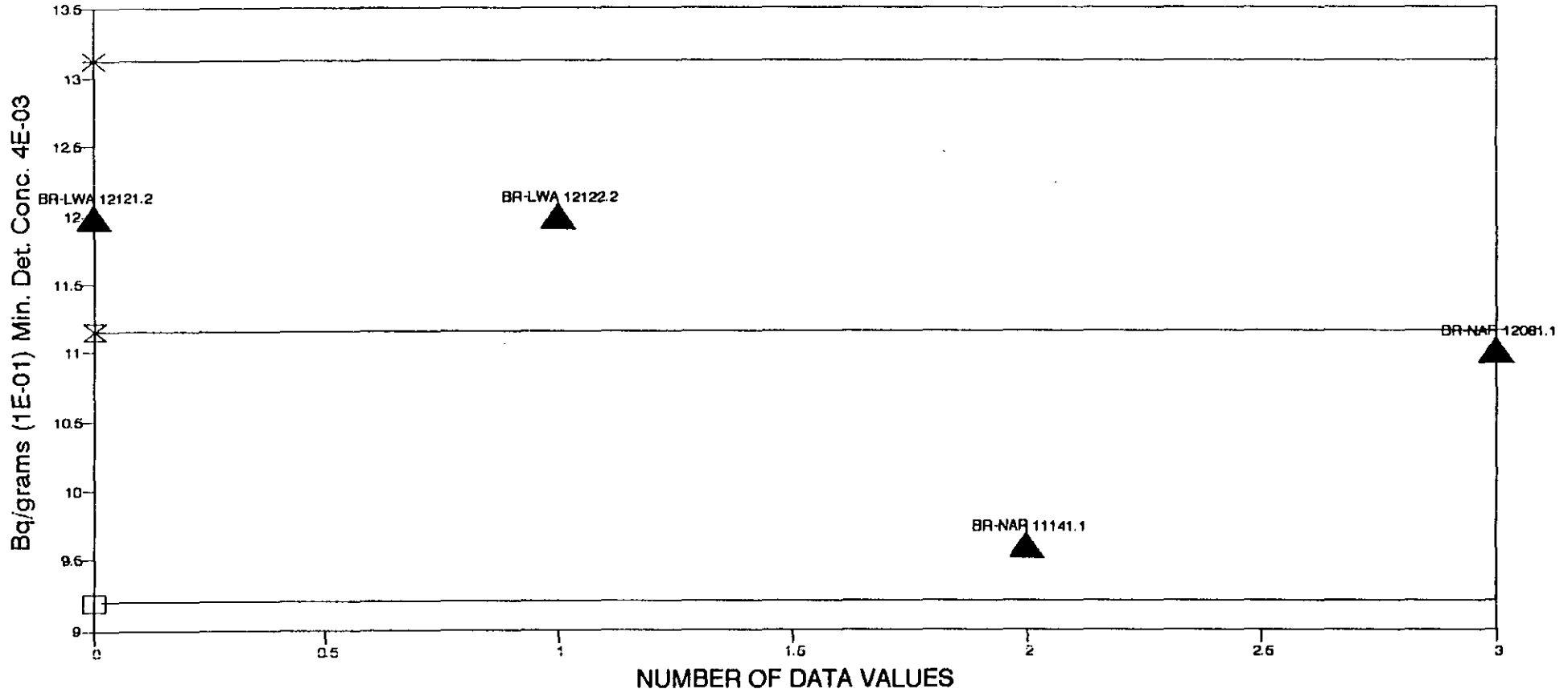






# 1995 Am-241 IN VEGETATION



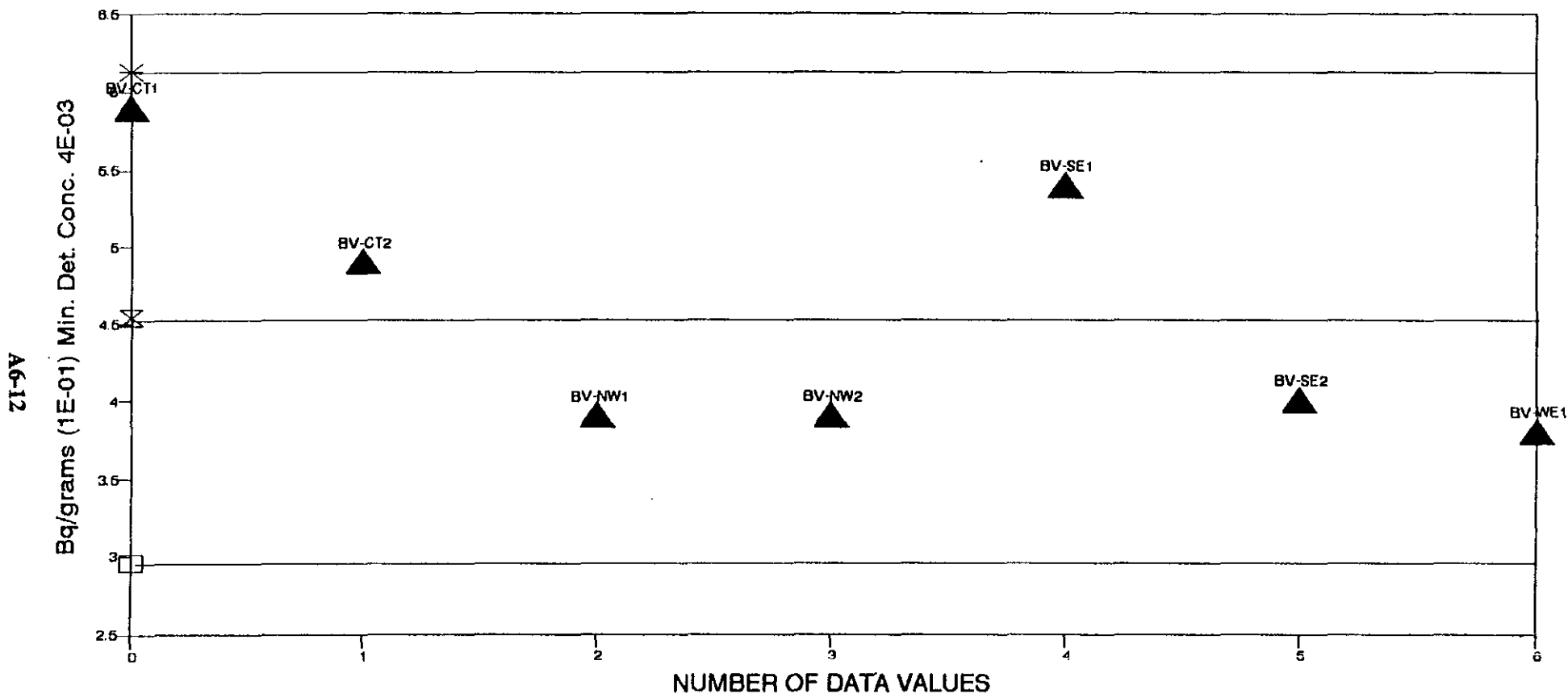
ANALYTICAL VALUE
  MEAN
  +2 STD. DEV.
  -2 STD. DEV.

# 1995 K-40 IN RABBIT



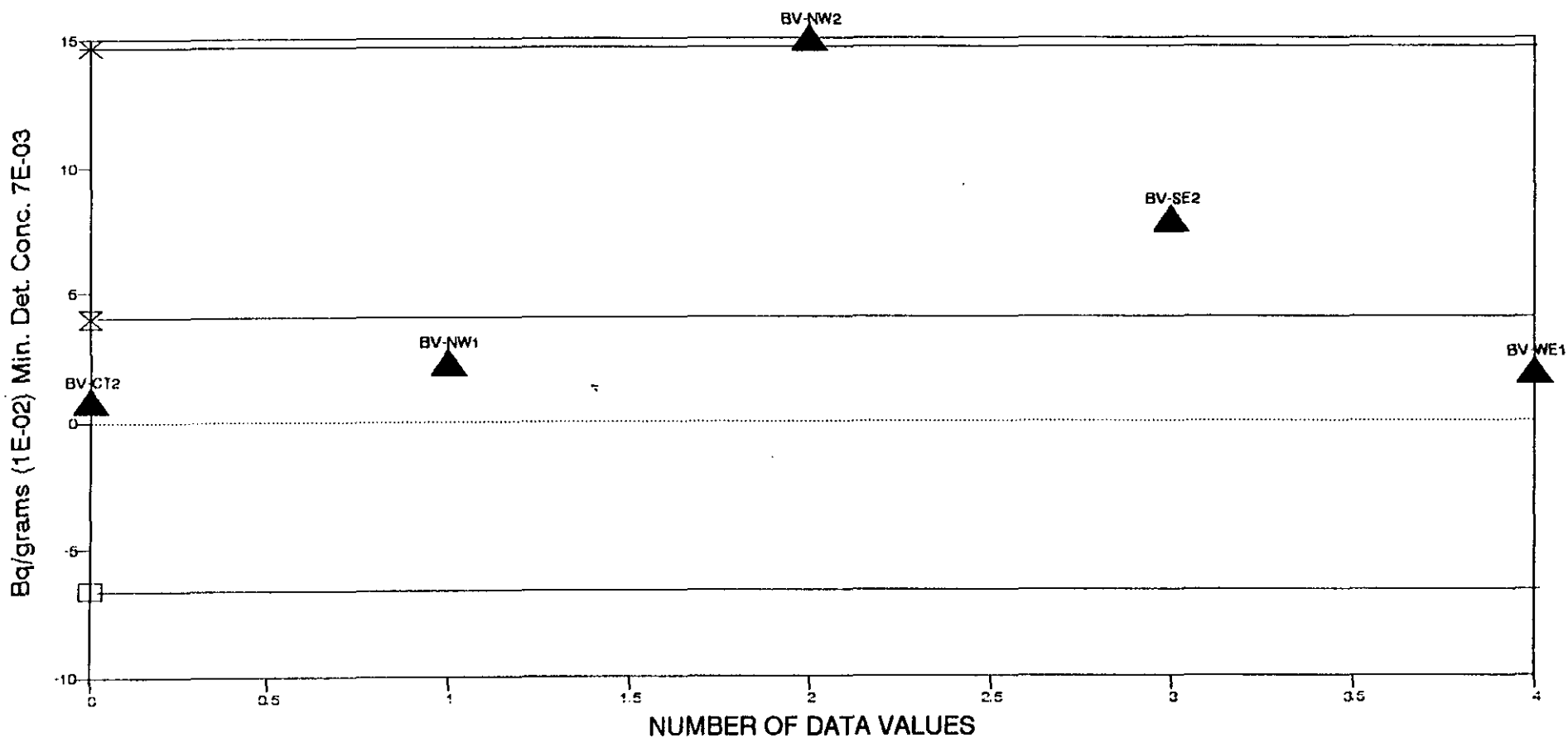
 ANALYTICAL VALUE 
  MEAN 
  +2 STD. DEV. 
  -2 STD. DEV.

# 1995 K-40 IN VEGETATION

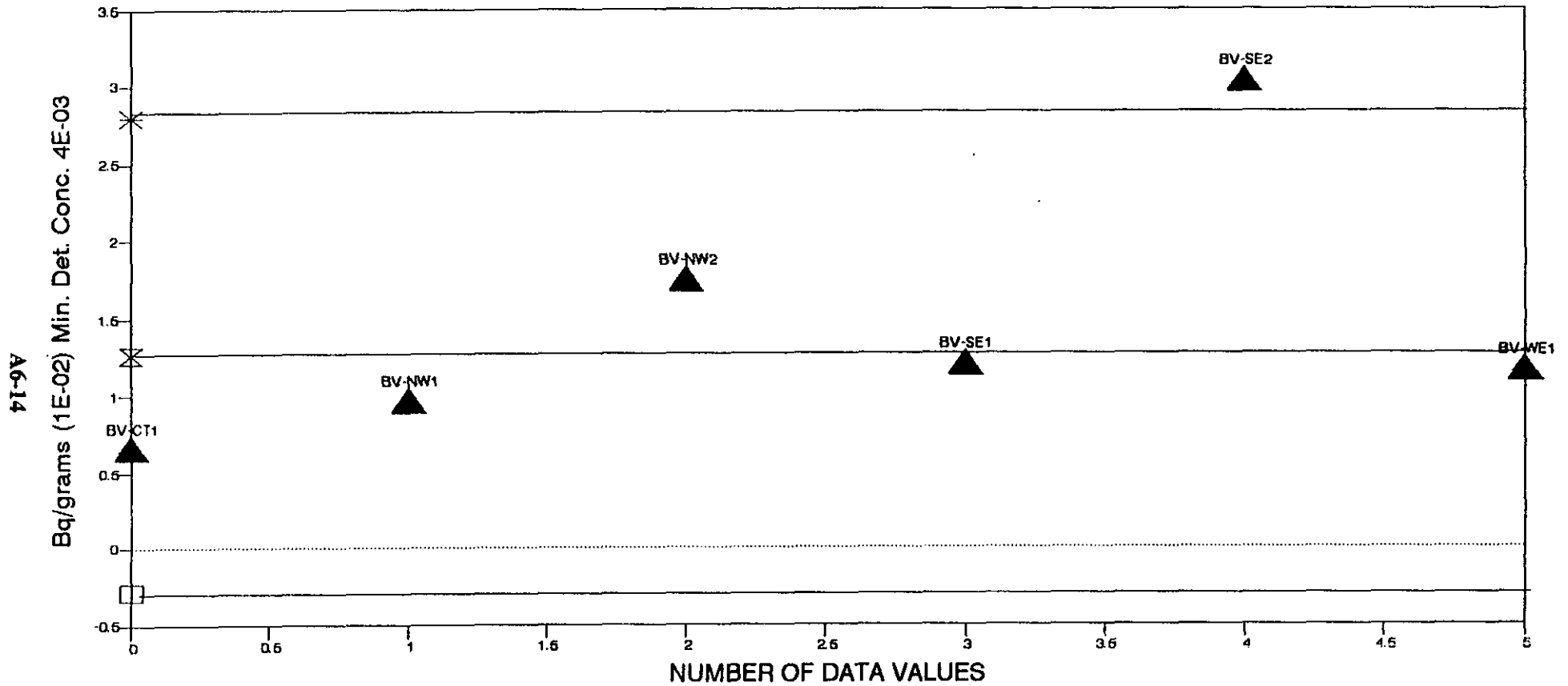


ANALYTICAL VALUE
  MEAN
  +2 STD. DEV.
  -2 STD. DEV.

# 1995 Ra-226 IN VEGETATION



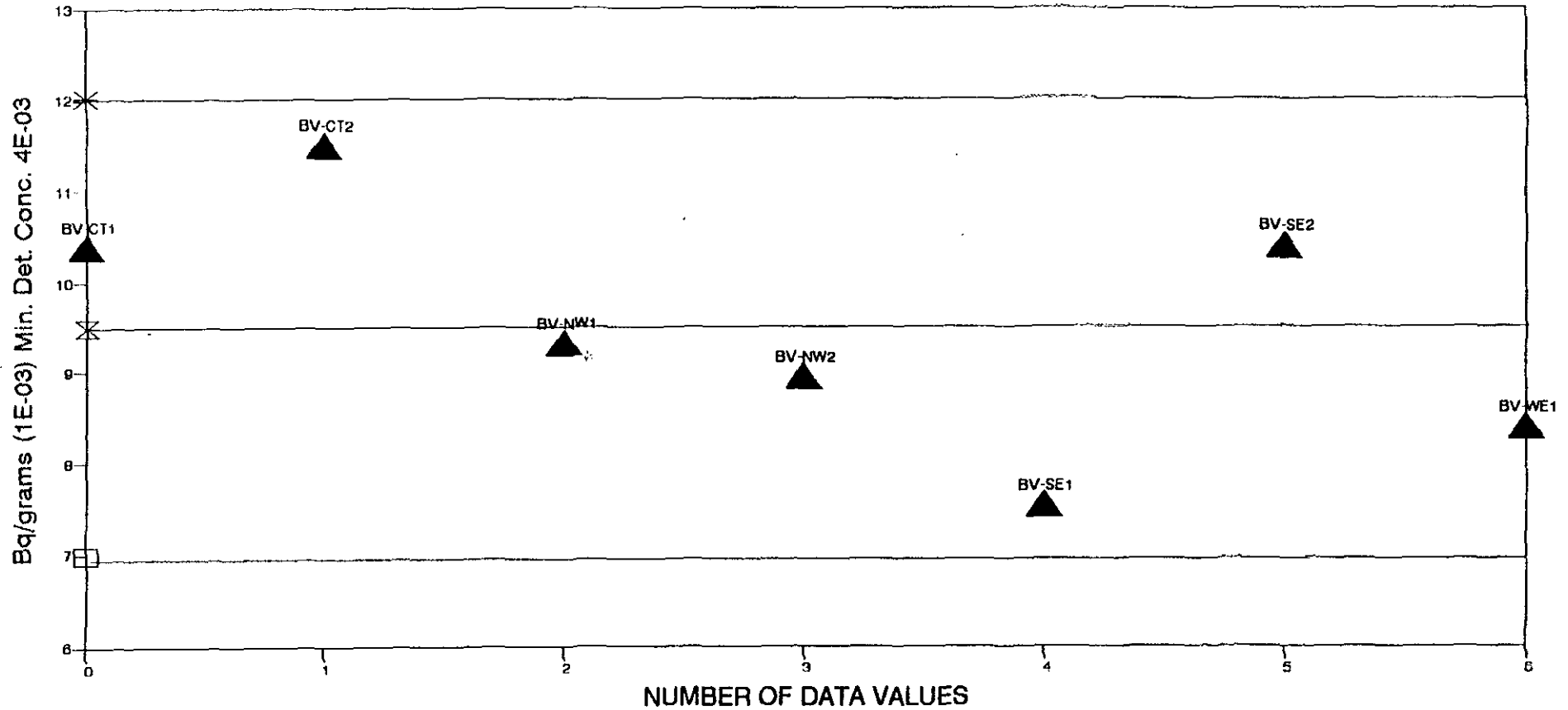
# 1995 Th-228 IN VEGETATION



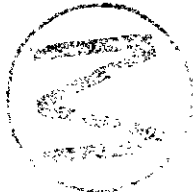
ANALYTICAL VALUE
  MEAN
  +2 STD. DEV.
  -2 STD. DEV.



# 1995 Th-230 IN VEGETATION



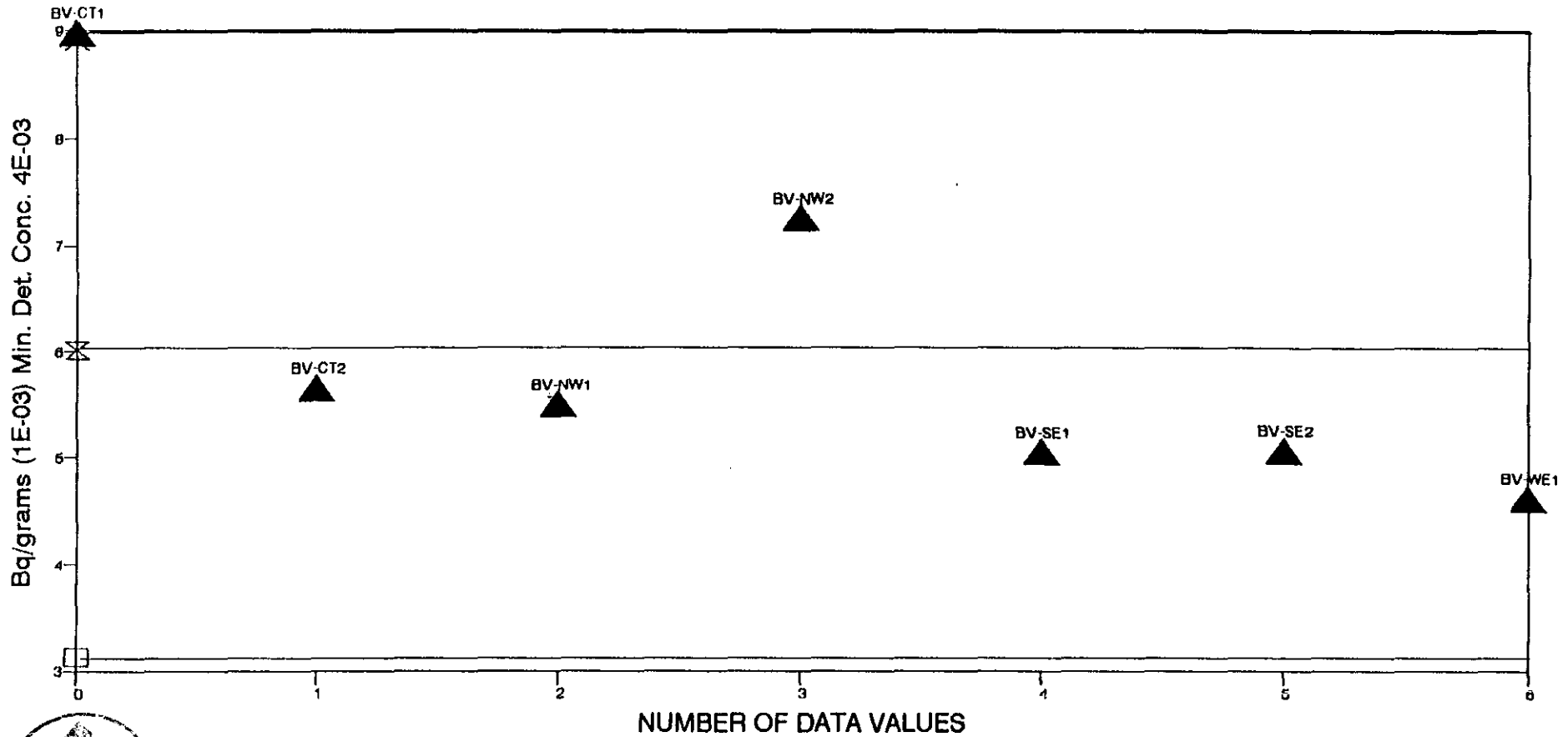
SI-95



▲ ANALYTICAL VALUE    × MEAN    \* +2 STD. DEV.    □ -2 STD. DEV.

# 1995 U-233/234 IN VEGETATION

A6-16



▲ ANALYTICAL VALUE	⊗ MEAN	✱ +2 STD. DEV.	⊞ -2 STD. DEV.
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