Data Results from EPA on Toxins Found in New Orleans Area

The following data and map summarizes the EPA Phase 1 data. It shows every location sampled (green). It shows every sample with one or more measure higher than Louisiana's RECAP (Risk Evaluation Corrective Action Program) screening standards for residential soil (yellow). These are the most protective of the Louisiana standards. It also shows the sites that are the most toxic based on being significantly above RECAP standards (red). These sites include all of those with concentrations higher than the following standards:

Characteristic	RECAP Screening Concentrations	Minimum Concentration At Most Toxic Sites	Factor
	mg/kg	mg/kg	
Arsenic	12	30	2.5
Barium	550	1550	2.8
Benzo[a]pyrene	0.33	10.1	31
Cadmium	3.9	31	7.9
Diesel range organics	65	6500	100
Hydrocarbons, Petroleum (Unspecified Mix)	65	6900	106
Lead	400	1160	2.9
Mercury	2.3	43.3	19<!--[if supportMisalignedColumns]-->

The fundamental point of the map is that virtually every point sampled exceeds Louisiana's toxic risk screening standards. I've generated a similar map with EPA's lower (0.39 mg/kg) standard for arsenic and there is one lonely green point on the map. At many of the sites scattered across the city, (the red dots) the exceedences are significant.

These are the chemicals found above the Louisiana standards, the number of sites where they are found higher than RECAP, and the concentration range above RECAP.

Characteristic	RECAP Screening Concentrations	Number of Observations Higher than RECAP	Minimum Concentration Above RECAP Screening Standard	Maximum Concentration Above RECAP Screening Standard
	mg/kg		mg/kg	mg/kg
2,4-Dinitrotoluene	9	3	11.6	23.9
Antimony	3	4	3.24	69
Arsenic	12	106	12.1	240
Barium	550	5	841	2490
Benzo (k) fluoranthene	0.62	15	0.67	20.3
Benzo[a]anthracene	0.62	26	0.672	35.1
Benzo[a]pyrene	0.33	66	0.333	35.5
Benzo[b]fluoranthene	0.62	76	0.621	47.4
bis(2-chloroethyl) ether	0.33	2	1.32	3.17
bis(2-ethylhexyl) phthalate (DEHP)	35	4	35.3	699
Cadmium	3.9	51	4.01	45.3
Chromium	23	54	23.1	358
Dibenzo[a,h]anthracene	0.33	10	0.406	6.43
Dieldrin	0.03	53	0.0311	2.1
Diesel range organics	65	268	65.2	240000
Heptachlor	0.02	2	0.0208	0.0321
Heptachlor epoxide	0.05	292	0.0006	1600
Hydrocarbons, Petroleum (Unspecified Mix)	65	145	76.5	1600000
Indeno[1,2,3-cd]pyrene	0.62	51	0.625	32.9
Lead	400	19	404	1160
Mercury	2.3	1	43.3	43.3
nitro-Benzene	2.2	1	2.81	2.81
n-Nitrosodipropylamine	90	1	3.32	3.32
Thallium	0.55	39	0.6	6.63
Zinc	2300	34	2340	14300

These results obligate EPA and Louisiana Department of Environmental Quality to communicate something other than the current "all clear" with respect to toxic contamination in New Orleans. They need to address both the geographical extent and the range of the types of chemicals found.

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