

HURRICANE

Katrina

IN THE GULF COAST

I. Description of Sampling and Analytical Methods

As discussed in Chapter 8, samples of materials were collected from a number of flood-damaged buildings. Due to the damage to the materials in most of the buildings from the standing water, a large number of the samples were collected by breaking off a piece of already damaged wall finish. In other cases, a razor knife or drywall saw was used to cut through the surfaces and extract suitably sized samples. All bulk samples were then double sealed in plastic bags for transport to the Wonder Makers office in Kalamazoo, Michigan. Samples were then divided as necessary or prepared for submission to a laboratory for the requested analytical tests.

I.1 Biological Bulk Samples

I.1.1 Fungal Bulk Samples

For each sample collected in the field, a laboratory procedure was necessary to prepare it for analysis for mold, and particulates. The bagged samples were carefully opened under controlled conditions and visually examined. Any visibly suspected biological contamination was captured for analysis by using a commercially available Air-O-Cell cassette connected to a high volume vacuum pump. The pump/cassette sampling apparatus was calibrated to 15 liters per minute (lpm) according to the manufacturer's specifications. The cassette was then carefully

hovered over the surface to collect particles from the visibly impacted areas. Sample analysis was conducted in conformance with Wonder Makers Environmental's written analytical standard operating procedures, using light microscopy techniques. A minimum of 15 percent of the sample trace area was analyzed for each category of particulate (fungal spores, fibers, and opaque particles) identified, with fungal types identified to genus level when possible. An additional 12 to 17 percent of the sample was qualified to improve the accuracy of the analysis, noting any bioaerosols that were not quantified. For sample preparation, the collection slide was removed from the cassette, mounted under a cover slip, media side up, with Calberlas staining solution, and analyzed by direct microscopic examination at 1,000 times (1,000x) magnification with immersion oil used to connect the microscope objective to the cover slip. Sample results were reported as identified fungal spore types and presented in order of preponderance. If no spores were detected or observed during analysis, the result was reported as below minimum detectable limits (BMDL).

1.1.2 Bacterial Surface Swab Samples

As noted in the previous section, the bagged samples had to be prepared for submission to the laboratory. Each bag was carefully opened under controlled conditions and visually examined. Any visibly-suspect biological contamination was captured for analysis by using a commercially available sterile swab. These biological swabs were collected from various surfaces to yield quantitative and qualitative amounts of viable bacterial organisms. Sterile biological swabs and collection ampules containing a general transport medium were provided by a commercial manufacturer. Samples were collected based on a 2-inch by 2-inch template yielding 4 square inches of sample area. Samples were collected by wetting the cotton end in the transport medium and then rolling the swab completely across a surface to bring the entire surface of the swab into contact with the measured surface area. Disposable templates with predetermined dimensions were used to define the sampled area, which was then recorded on the sample collection log. The inoculated swabs were then inserted into the ampules and placed into a cooler containing fresh ice packs for overnight shipment to Aerotech Laboratories, Inc., in Phoenix, Arizona, for sample analysis. Cultures were propagated on standard blood agar medium for enumeration. Aerotech Laboratories is a recognized Environmental Microbiology Proficiency Analytical Testing (EMPAT) and Environmental Microbiology Laboratory Accreditation Program (EMLAP) certified laboratory. Sample results were reported as colony forming units per square centimeter (cfu/cm²).

1.2 Chemical Samples

Following preparation of the biological bulk samples and biological surface swab samples, the remaining sample materials were forwarded to Clayton Group Services in Detroit, Michigan. If enough sample material was present, the samples were divided and prepped for numerous chemical analyses. As authorized by the Building Engineering Sciences and Technology Team (BESTT), samples were analyzed using EPA methods for organochlorine pesticides, PCBs, diesel range organics (DROs), and 13 common heavy metals. The information was recorded on the chain of custody and collection log and sent with the samples to Clayton Group Services.

I.3 Sampling and Laboratory Test Results

The results of the various laboratory tests conducted on the material samples collected in the field are provided on the pages that follow. Please refer to the legends and notes listed at the end of this appendix when reviewing the sample results.

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Fungal Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵
6379-01	Residence at Elysian Fields: Wall Materials Below Water Line (Downstairs living room-east wall/Two layers of plaster, paint, and cloth from below the water line)	GNB (cfu/cm ²):	Indicator Organisms: BMDL	Chlordane:	BMDL	18,000	Antimony: BMDL
		GPB (cfu/cm ²):	Common/Target Organisms: BMDL	alpha-Chlordane:			Arsenic: 1,200
		Other:	Hyphae: BMDL	gamma-Chlordane:			Beryllium: BMDL
		Total:	7,460	Other:			Cadmium: 670
				DDD:	6.7		Chromium: 3,300
				Heptachlor:	4.0		Copper: 1,000
							Lead: 64,000
							Mercury: 120
							Nickel: 8,600
							Selenium: 910
6379-02	Residence at Elysian Fields: Wall Materials Below Water Line (Downstairs living room – east wall/ Insulation from wall cavity below water line)	GNB (cfu/cm ²):	Indicator Organisms: No	Chlordane:	BMDL	150,000	Antimony: 650
		GPB (cfu/cm ²):	Common/Target Organisms: Chaetomium	alpha-Chlordane:			Arsenic: 17,000
		Other:	Hyphae: Yes	gamma-Chlordane:			Beryllium: 850
		Total:	19,200	Other:			Cadmium: 42,000
				Heptachlor:	7.5		Chromium: 25,000
				Methoxychlor:	44		Copper: 81,000
							Lead: 130,000
							Mercury: 260
							Nickel: 14,000
							Selenium: BMDL
					Silver: 350		
					Thallium: BMDL		
					Zinc: 4,800,000		

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Fungal Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵	
6379-03	Residence at Elysian Fields: Wet Sludge (Living room floor/ Sludge [wet])	GNB (cfu/cm ²):	Sample was wet and could not be microvacuumed	Chlordane:	BMDL	85,000	Antimony:	650
		GPB (cfu/cm ²):		alpha-Chlordane:			Arsenic:	17,000
		Other:		gamma-Chlordane:			Beryllium:	850
		Total:		Other:			Cadmium:	42,000
				DDT:	7.0		Chromium:	25,000
				Heptaclor:	13		Copper:	81,000
				Methoxychlor:	30		Lead:	130,000
							Mercury:	260
							Nickel:	130,000
							Selenium:	14,000
6379-04	Residence at Elysian Fields: Wall Materials Below Water Line (Sunroom, north wall/ Drywall below water line)	GNB (cfu/cm ²):	No	Chlordane:	BMDL	40,000	Antimony:	BMDL
		GPB (cfu/cm ²):	Cladosporium	Alpha-Chlordane:			Arsenic:	BMDL
		Other:	Epicoccum	Gamma-Chlordane:			Beryllium:	BMDL
		Total:	Yes	Other:			Cadmium:	150
				DDD:	5.7	Chromium:	2,900	
				DDT:	6.7	Copper:	550	
				Heptaclor:	16	Lead:	390	
						Mercury:	71	
						Nickel:	8,800	
						Selenium:	1,800	
				Silver:	BMDL			
				Thallium:	BMDL			
				Zinc:	9,300			

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵
6379-05	Residence at Elysian Fields: Wall Materials Above Water Line (Sunroom, north wall/ Drywall above water line)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Chlordane:	BMDL	77,000	Antimony: BMDL
		GPB (cfu/cm ²):	Common/Target Organisms: Chaetomium	Alpha-Chlordane:			Arsenic: 190
		Other:	Curvularia	Gamma-Chlordane:			Beryllium: BMDL
		Total:	Hyphae: Yes	Other:			Cadmium: 160
				DDD:	6.5		Chromium: 4,400
				DDT:	9.0		Copper: 840
				Endosulfan sulfate	5.0		Lead: 390
6379-06	Residence at Elysian Fields: Wall Materials Above Water Line (Sunroom, north wall/ Drywall above water line [mold])	GNB (cfu/cm ²):	Indicator Organisms: No	Chlordane:	BMDL	84,000	Mercury: 89
		GPB (cfu/cm ²):	Common/Target Organisms: Chaetomium	Alpha-Chlordane:			Nickel: 8,400
		Other:	Curvularia	Gamma-Chlordane:			Selenium: 1,800
		Total:	Hyphae: Yes	Other:			Silver: BMDL
				DDT:	19		Thallium: BMDL
				Endosulfan sulfate	19		Zinc: 9,000
				Heptachlor:	41		Antimony: BMDL
							Arsenic: 170
							Beryllium: BMDL
							Cadmium: 100
							Chromium: 3,200
							Copper: 780
							Lead: 380
					Mercury: 66		
					Nickel: 8,900		
					Selenium: 1,600		
					Silver: BMDL		
					Thallium: BMDL		
					Zinc: 9,000		

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵
6379-07	Residence at Elysian Fields: Dry Sludge (Exterior of house – Front sidewalk 15' east of main door/ Sludge residue [dry])	GNB (cfu/cm ²):	Indicator Organisms: No	Chlordane:	BMDL	760,000	Antimony: BMDL
		GPB (cfu/cm ²):	Common/Target Organisms: Epicoccum	Alpha-Chlordane:	BMDL		Arsenic: 9,700
		Other:		Gamma-Chlordane:	BMDL		Beryllium: 1,200
		Bacillus Species	Hyphae: Yes	Other:	BMDL		Cadmium: 2,400
		Total:					Chromium: 33,000
							Copper: 64,000
							Lead: 170,000
							Mercury: 63
							Nickel: 26,000
							Selenium: BMDL
6379-08	Residence at Elysian Fields: Wall Materials Above Water Line (Center of west wall upstairs SW bedroom/Skim coat plaster on drywall on top of plaster)	GNB (cfu/cm ²):	Indicator Organisms: No	Chlordane:	BMDL	650,000	Antimony: BMDL
		GPB (cfu/cm ²):	Common/Target Organisms: Chaetomium	Alpha-Chlordane:	16		Arsenic: 1,900
		Other:	Hyphae: No	Gamma-Chlordane:	28		Beryllium: 120
		Bacillus Species		Other:			Cadmium: BMDL
		Total:		beta-BHC:	11		Chromium: 3,400
				gamma-BHC:	9.5		Copper: 4,800
				DDD:	37		Lead: 3,400
				DDT:	78		Mercury: 79
				Dieldrin:	14		Nickel: 14,000
							Selenium: BMDL
					Silver: BMDL		
					Thallium: BMDL		
					Zinc: 11,000		

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵	
6379-09	Residence at General Diaz: Wall Materials Below Water Line (South wall of sunroom/Drywall from below water line)	GNB (cfu/cm ²):	Indicator Organisms: BMDL	Chlordane: 160	BMDL	110,000	Antimony: BMDL	
		GPB (cfu/cm ²):	Common/Target Organisms: BMDL	alpha-Chlordane: 13			Arsenic: 190	
		Other:	Hyphae: BMDL	gamma-Chlordane: 9.7			Beryllium: BMDL	
		Bacillus Species		Other: BMDL			Cadmium: BMDL	
		Total:	183,000	DDE: 3.3			Chromium: 1,400	
				DDT: 5.3			Copper: 610	
							Lead: 1,000	
							Mercury: BMDL	
							Nickel: 8,100	
							Selenium: BMDL	
					Silver: BMDL			
					Thallium: BMDL			
					Zinc: 6,100			
6379-10	Residence at General Diaz: Wall Materials Above Water Line (South wall of sunroom/Drywall from above water line)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Chlordane: 2,100	BMDL	1,200,000	Antimony: 300	
		GPB (cfu/cm ²):	Common/Target Organisms: Chaetomium	alpha-Chlordane: 130				Arsenic: 1,100
		Other:		gamma-Chlordane: 350				Beryllium: 1,400
		Total:	41,500	Epicoccum	Other: 35			Cadmium: BMDL
				Cladosporium	DDT: 150			Chromium: 1,400
				Helminthosporium/ Drechslera	Dieldrin: 45			Copper: 540
				Yes	Heptachlor: 750			Lead: 750
								Mercury: BMDL
								Nickel: 8,200
								Selenium: BMDL
						Silver: BMDL		
						Thallium: BMDL		
						Zinc: 4,000		

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵		
6379-11	Residence at General Diaz: Wet Sludge (Sunroom/ living room/Sludge from floor [wet])	GNB (cfu/cm ²):	Sample was wet and could not be microvacuumed	Chlordane:	BMDL	130,000	Antimony:	BMDL	
		GPB (cfu/cm ²):		alpha-Chlordane:			Arsenic:	23,000	
		Other:		gamma-Chlordane:			Beryllium:	430	
		Total:		Other:			Cadmium:	5,700	
				DDT:	40		Chromium:	14,000	
				Dieldrin:	19		Copper:	62,000	
				Endrin ketone	43		Lead:	120,000	
				Heptachlor:	4.0		Mercury:	BMDL	
				Methoxychlor:	3.7		Nickel:	130,000	
							Selenium:	BMDL	
6379-12	Residence at General Diaz: Wall Materials Below Water Line (South wall of sunroom/Wood from wall stud below water level)	GNB (cfu/cm ²):	Indicator Organisms: Common/Target Organisms: Hyphae:	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Antimony:	BMDL	
		GPB (cfu/cm ²):					Cladosporium	Arsenic:	560
		Other:					Basidiospore	Beryllium:	BMDL
		Total:					No	Cadmium:	BMDL
								Chromium:	1,200
								Copper:	BMDL
								Lead:	2,500
								Mercury:	Insufficient sample
								Nickel:	640
								Selenium:	BMDL
		Silver:	BMDL						
		Thallium:	BMDL						
			Zinc:	23,000					

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticicides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵
6379-13	Residence at Memphis Street: Wall Materials Below Water Line (Formal dining room/Drywall below water line)	GNB (cfu/cm ²):	Indicator Organisms: No	Chlordane: BMDL	BMDL	230,000	Antimony: BMDL
		GPB (cfu/cm ²):	Common/Target Organisms: Basidiospore	alpha-Chlordane: BMDL			Arsenic: 520
		Other:	Hyphae: Yes	gamma-Chlordane: BMDL			Beryllium: BMDL
		Total:		Other: BMDL			Cadmium: 76
							Chromium: 3,300
							Copper: 820
							Lead: 780
6379-14	Residence at Memphis Street: Wall Materials Above Water Line (Formal dining room/Drywall above water line)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Chlordane: BMDL	BMDL	210,000	Antimony: BMDL
		GPB (cfu/cm ²):	Common/Target Organisms: No	alpha-Chlordane: BMDL			Arsenic: 1,200
		Other:	Hyphae: No	gamma-Chlordane: BMDL			Beryllium: 150
		Total:		Other: BMDL			Cadmium: 220
							Chromium: 4,800
							Copper: 1,400
							Lead: 780
					Mercury: 180		
					Nickel: 13,000		
					Selenium: 3,300		
					Silver: BMDL		
					Thallium: BMDL		
					Zinc: 19,000		

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵
6379-15	Residence at Memphis Street: Dry Sludge (Kitchen/dining room/Sludge residue from floor)	GNB (cfu/cm ²):	Indicator Organisms:	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Antimony:
		GPB (cfu/cm ²):	Common/Target Organisms:				Arsenic:
		Other:					Beryllium:
		Bacillus Species					Cadmium:
		Total:	Hyphae:				Chromium:
							Copper:
							Lead:
							Mercury:
							Nickel:
							Selenium:
		Silver:					
			Thallium:				
			Zinc:				
6379-16	Residence at Memphis Street: Wall Materials Below Water Line (Dining room/Stud silver below water line)	GNB (cfu/cm ²):	Indicator Organisms:	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Antimony:
		GPB (cfu/cm ²):	Common/Target Organisms:				Arsenic:
		Other:	Hyphae:				Beryllium:
		Total:					Cadmium:
							Chromium:
							Copper:
							Lead:
							Mercury:
							Nickel:
							Selenium:
		Silver:					
			Thallium:				
			Zinc:				

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵
6379-17	Residence at Savoie Court: Wall Materials Below Water Line (Living room – east wall/Drywall and wallpaper below water line)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Chlordane:	BMDL	82,000	Antimony: BMDL
		GPB (cfu/cm ²):	Common/Target Organisms: Chaetomium	alpha-Chlordane:			Arsenic: 2,500
		Other:	Hyphae: Yes	gamma-Chlordane:			Beryllium: BMDL
		Total:		Other:	BMDL		Cadmium: BMDL
							Chromium: 3,800
							Copper: 2,200
							Lead: 830
6379-18	Residence at Savoie Court: Wall Materials Below Water Line (Living room – east wall/Drywall and wallpaper below water line)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Chlordane:	BMDL	200,000	Antimony: BMDL
		GPB (cfu/cm ²):	Common/Target Organisms: Chaetomium	alpha-Chlordane:			Arsenic: 870
		Other:	Hyphae: Yes	gamma-Chlordane:			Beryllium: 150
		Total:		Other:	BMDL		Cadmium: BMDL
							Chromium: 1,800
							Copper: 1,600
							Lead: 900
					Mercury: 70		
					Nickel: 13,000		
					Selenium: BMDL		
					Silver: BMDL		
					Thallium: BMDL		
					Zinc: 26,000		

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵
6379-19	Residence at Savoie Court: Miscellaneous Materials (Living room – east wall/ Carpet and pad under drywall sample)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Antimony:
		GPB (cfu/cm ²):	Common/Target Organisms: Chaetomium				Arsenic:
		Other:	Hyphae: Yes				Beryllium:
		Total:					Cadmium:
							Chromium:
							Copper:
							Lead:
							Mercury:
							Nickel:
							Selenium:
		Silver:					
			Thallium:				
			Zinc:				
6379-20	Residence at Savoie Court: Wall Materials Above Water Line (Living room – east wall/Wallpaper fold mold)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Chlordane:	BMDL	380,000	Antimony:
		GPB (cfu/cm ²):	Common/Target Organisms: No	Alpha-Chlordane:			Arsenic:
		Other:	Hyphae: No	Gamma-Chlordane:			Beryllium:
		Total:		Other:			Cadmium:
				Dieldrin:			Chromium:
				Methoxychlor			Copper:
							Lead:
							Mercury:
							Nickel:
							Selenium:
					Silver:		
					Thallium:		
					Zinc:		

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵	
6379-21	Residence at Savoie Court: Wall Materials Above Water Line (Living room – east wall/Stud silver)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Antimony:	
		GPB (cfu/cm ²):	Common/Target Organisms: Chaetomium				Arsenic:	
		Other:	Myxomycetes				Beryllium:	
		Total:	Hyphae: Yes				Cadmium:	
							Chromium:	
							Copper:	
							Lead:	
							Mercury:	
							Nickel:	
							Selenium:	
		Silver:						
		Thallium:						
		Zinc:						
6379-22	Residence at Savoie Court: Wall Materials Below Water Line (Living room – east wall/Wooden baseboard)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Chlordane:	BMDL	270,000	Antimony:	
		GPB (cfu/cm ²):	Common/Target Organisms: Chaetomium	Alpha-Chlordane:				Arsenic:
		Other:	Ascospore	Gamma-Chlordane:				Beryllium:
		Total:	Hyphae: Yes	Other:				Cadmium:
				Dieldrin:	10			Chromium:
				Methoxychlor	86			Copper:
								Lead:
								Mercury:
								Nickel:
								Selenium:
						Silver:		
						Thallium:		
						Zinc:		

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵
6379-23	Residence at Savoie Court: Miscellaneous Materials (SW bedroom/"Stalagmite" fungal growth)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Chlordane:	BMDL	760,000	Antimony: 22,000
		GPB (cfu/cm ²):	Common/Target Organisms: Basidiospore	Alpha-Chlordane:			Arsenic: 1,200
		Other:	Nigrospora	Gamma-Chlordane:			Beryllium: BMDL
		Total:	Hyphae: Yes	Other:			Cadmium: 54
				Endosulfan sulfate			Chromium: 4,600
							Copper: 21,000
							Lead: 3,200
							Mercury: BMDL
							Nickel: 4,900
							Selenium: BMDL
6379-24	Residence at Savoie Court: Miscellaneous Materials (SW bedroom/White powdery fungal growth on carpet by door frames)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity
		GPB (cfu/cm ²):	Common/Target Organisms: No				
		Other:	Hyphae: No				
		Total:	1				

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)		Biological Bulks ²		Pesticicides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵		
6379-25	Residence at Savoie Court: Miscellaneous Materials (SW bedroom/Fungal growth on dresser leg)	GNB (cfu/cm ²):	144	Indicator Organisms:	Aspergillus/ Penicillium	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity		
		GPB (cfu/cm ²):	BMDL	Common/Target Organisms:	Ascospore						
		Other:	BMDL	Hyphae:	Yes						
		Total:	144								
6379-26	Residence at Munster Boulevard: Dry Sludge (Dried sludge from driveway)	GNB (cfu/cm ²):	2,430	Indicator Organisms:	Aspergillus/ Penicillium	Chlordane:	BMDL	520,000	Antimony:	BMDL	
		GPB (cfu/cm ²):	486	Common/Target Organisms:	Basidiospore	alpha-Chlordane:	BMDL			Arsenic:	8,200
		Other:			Ascospore	gamma-Chlordane:	BMDL			Beryllium:	1,100
		Bacillus Species	1,940		Curvularia	Other:	BMDL			Cadmium:	840
		Total:	4,860		Nigrospora					Chromium:	16,000
					Stachybotrys					Copper:	30,000
					Periconia					Lead:	35,000
					Yes					Mercury:	BMDL
						Hyphae:				Nickel:	26,000
										Selenium:	1,800
								Silver:	330		
								Thallium:	BMDL		
								Zinc:	170,000		

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵	
6379-27	Residence at Munster Boulevard: Wet Sludge (Living room inside front door/Wet sludge from inside living room)	GNB (cfu/cm ²):	Sample was wet and could not be microvacuumed	Chlordane:	BMDL	BMDL	Antimony:	BMDL
		GPB (cfu/cm ²):		alpha-Chlordane:	BMDL		Arsenic:	3,200
		Other:		gamma-Chlordane:	BMDL		Beryllium:	320
		Bacillus Species		Other:	BMDL		Cadmium:	400
		Total:					Chromium:	5,600
							Copper:	10,000
							Lead:	12,000
							Mercury:	BMDL
							Nickel:	8,700
							Selenium:	590
6379-28	Residence at Munster Boulevard: Wall Materials Below Water Line (Living room inside front door/Drywall – east wall below water line)	GNB (cfu/cm ²):	Indicator Organisms:	Chlordane:	BMDL	170,000	Antimony:	BMDL
		GPB (cfu/cm ²):	Common/Target Organisms:	alpha-Chlordane:			Arsenic:	1,500
		Other:		gamma-Chlordane:			Beryllium:	BMDL
		Total:	Hyphae:	Other:			Cadmium:	BMDL
				DDD:	5.7		Chromium:	910
				DDE:	3.3		Copper:	590
				DDT:	6.0		Lead:	1,300
							Mercury:	120
							Nickel:	5,800
							Selenium:	BMDL
					Silver:	BMDL		
					Thallium:	BMDL		
					Zinc:	62,000		

DESCRIPTION OF SAMPLING AND ANALYTICAL METHODS

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵		
6379-29	Residence at Papania: Flood water from pot in living room	Flood water sample voided due to excess holding time	Flood water sample could not be microvacuumed	Flood water sample voided due to excess holding time	Flood water sample voided due to excess holding time	Flood water sample voided due to excess holding time	Flood water sample voided due to excess holding time		
6379-30	Residence at Munster Boulevard: Flood water from jar in sink	Flood water sample voided due to excess holding time	Flood water sample could not be microvacuumed	Flood water sample voided due to excess holding time	Flood water sample voided due to excess holding time	Flood water sample voided due to excess holding time	Flood water sample voided due to excess holding time		
6379-31	Residence at Munster Boulevard: Flood water from jar in sink	Flood water sample voided due to excess holding time	Flood water sample could not be microvacuumed	Flood water sample voided due to excess holding time	Flood water sample voided due to excess holding time	Flood water sample voided due to excess holding time	Flood water sample voided due to excess holding time		
6379-32	Residence at Cleary Avenue: Wall Materials Below Water Line (East wall of lower floor SE bedroom/Drywall below water line)	GNB (cfu/cm ²):	Indicator Organisms:	Chlordane:	BMDL	190,000	Antimony:		
		GPB (cfu/cm ²):	Common/Target Organisms:	alpha-Chlordane:			Arsenic:		
		Other:	Hyphae:	gamma-Chlordane:				Beryllium:	
		Bacillus Species		Other:	BMDL			Cadmium:	
		Total:						Chromium:	
									Copper:
									Lead:
							Mercury:		
							Nickel:		
							Selenium:		
							Silver:		
							Thallium:		
							Zinc:		

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵
6379-33	Residence at Cleary Avenue: Wall Materials Above Water Line (East wall of lower floor SE bedroom/Drywall above water line)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Chlordane:	BMDL	200,000	Antimony: BMDL
		GPB (cfu/cm ²):	Common/Target Organisms: Curvularia	alpha-Chlordane:	BMDL		Arsenic: 1,000
		Other:		gamma-Chlordane:	BMDL		Beryllium: BMDL
		Gram Positive Cocci	Observed	Other:	BMDL		Cadmium: BMDL
		Total:	BMDL	Yes			Chromium: 1,100
							Copper: 9,300
							Lead: 1,400
							Mercury: 66
							Nickel: 8,200
							Selenium: 1,600
6379-34	Residence at Cleary Avenue: Wall Materials Above Water Line (SE bedroom closet – east wall by entry/ Drywall above water line with mold on both sides)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Chlordane:	BMDL	130,000	Antimony: BMDL
		GPB (cfu/cm ²):	Common/Target Organisms: Chaetomium	alpha-Chlordane:	BMDL		Arsenic: 1,700
		Other:		gamma-Chlordane:	BMDL		Beryllium: BMDL
		Total:	3,330	Yes			Cadmium: BMDL
							Chromium: 1,700
							Copper: 12,000
							Lead: 1,300
							Mercury: 160
							Nickel: 8,700
							Selenium: 2,100
					Silver: 120		
					Thallium: BMDL		
					Zinc: 9,600		

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticicides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵
6379-35	Residence at Cleary Avenue: Miscellaneous Materials (SE bedroom/Carpet below samples 32 and 33)	GNB (cfu/cm ²):	Indicator Organisms: No	Chlordane:	BMDL	920,000	Antimony: 170,000
		GPB (cfu/cm ²):	Common/Target Organisms: Myxomycete	Alpha-Chlordane:	BMDL		Arsenic: 550
		Other:		Gamma-Chlordane:	BMDL		Beryllium: BMDL
		Bacillus Species	Hyphae: Yes	Other:			Cadmium: 130
		Gram Positive Cocci		DDD:	50		Chromium: 3,800
		Total:		Endosulfan II:	100		Copper: 6,000
				Endosulfan sulfate:	700		Lead: 4,200
				Methoxychlor:	700		Mercury: BMDL
							Nickel: 6,300
							Selenium: 650
6379-36	Residence at Cleary Avenue: Wall Materials Above Water Line (Second floor hall ceiling/ Drywall with mold)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Chlordane:	BMDL	120,000	Antimony: BMDL
		GPB (cfu/cm ²):	Common/Target Organisms: Stachybotrys	alpha-Chlordane:	BMDL		Arsenic: 390
		Other:		gamma-Chlordane:	BMDL		Beryllium: BMDL
		Total:	Hyphae: Yes	Other:	BMDL		Cadmium: 83
							Chromium: 1,800
							Copper: 9,000
							Lead: 2,000
							Mercury: BMDL
							Nickel: 8,200
							Selenium: 1,500
					Silver: BMDL		
					Thallium: BMDL		
					Zinc: 11,000		

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵
6379-37	Residence at Cleary Avenue: Wall Materials Above Water Line (Second floor hall ceiling/Stud silver)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Antimony:
		GPB (cfu/cm ²):	Common/Target Organisms: Stachybotrys				Arsenic:
		Other:	Basidiospore				Beryllium:
		Total:	Epicoccum				Cadmium:
			No				Chromium:
							Copper:
							Lead:
							Mercury:
							Nickel:
							Selenium:
6379-38	Residence at Cleary Avenue: Wall Materials Below Water Line (SE lower bedroom/Stud silver from east wall)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Antimony:
		GPB (cfu/cm ²):	Common/Target Organisms: Stachybotrys				Arsenic:
		Other:	Hyphae: Yes				Beryllium:
		Bacillus Species					Cadmium:
		Total:					Chromium:
							Copper:
							Lead:
							Mercury:
							Nickel:
							Selenium:

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)		Biological Bulks ²		Pesticides (µg/kg) ³		PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵
6379-39	Residence at Cleary Avenue: Wall Materials Below Water Line (North wall of sunken family room/Masonite paneling)	GNB (cfu/cm ²):	404,000	Indicator Organisms:	Aspergillus/ Penicillium	Chlordane:	BMDL	BMDL	450,000	Antimony: BMDL
		GPB (cfu/cm ²):	BMDL	Common/Target Organisms:	No	alpha-Chlordane:	BMDL			Arsenic: 310
		Other:	BMDL	Hyphae:	Yes	gamma-Chlordane:	BMDL			Beryllium: BMDL
		Total:	404,000			Other:				Cadmium: BMDL
						Methoxychlor:	81			Chromium: 13,000
										Copper: 5,800
6379-40	Residence at Cleary Avenue: Dry Sludge (West kitchen floor/ Flood residue)	GNB (cfu/cm ²):	BMDL	Indicator Organisms:	No					Lead: 47,000
		GPB (cfu/cm ²):	BMDL	Common/Target Organisms:	Basidiospore					Mercury: BMDL
		Other:			Curvularia					Nickel: BMDL
		Bacillus Species	5,800		Myxomycete					Selenium: BMDL
		Gram Positive Cocci	2,490		Nigrospora					Silver: BMDL
		Total:	8,280	Hyphae:	No					Thallium: BMDL
										Zinc: 31,000
										Analysis voided due to insufficient sample quantity
										Analysis voided due to insufficient sample quantity
										Analysis voided due to insufficient sample quantity

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵	
6379-41	Fire Station at Louisiana Avenue: Dry Sludge (Sludge from floor)	GNB (cfu/cm ²):	Indicator Organisms: No	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Analysis voided due to insufficient sample quantity	Antimony:	
		GPB (cfu/cm ²):	Common/Target Organisms: Basidiospore				Arsenic:	
		Other:	Myxomycete				Beryllium:	
		Bacillus Species	Nigrospora				Cadmium:	
		Gram Positive Cocci	Hyphae: Yes				Chromium:	
		Total:					Copper:	
							Lead:	
							Mercury:	
							Nickel:	
							Selenium:	
		Silver:						
			Thallium:					
			Zinc:					
6379-42	Fire Station at Louisiana Avenue: Wall Materials Below Water Line (Drywall from below water line at kitchen stains)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Chlordane:	BMDL	580,000	Antimony:	
		GPB (cfu/cm ²):	Common/Target Organisms: Chaetomium	alpha-Chlordane:				Arsenic:
		Other:	Smut	gamma-Chlordane:				Beryllium:
		Total:	Hyphae: Yes	Other:				Cadmium:
				Methoxychlor:				Chromium:
								Copper:
								Lead:
								Mercury:
								Nickel:
								Selenium:
						Silver:		
						Thallium:		
						Zinc:		

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵
6379-43	Fire Station at Louisiana Avenue: Wall Material Above Water Line (Drywall above water line at kitchen)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Chlordane:	BMDL	220,000	Antimony: BMDL
		GPB (cfu/cm ²):	Common/Target Organisms: Chaetomium	alpha-Chlordane:			Arsenic: 2,100
		Other:		gamma-Chlordane:			Beryllium: 110
		Bacillus Species		Other:			Cadmium: 53
		Total:	Hyphae: Yes				Chromium: 1,900
							Copper: 1,300
							Lead: 2,300
6379-44	Residence at Octavia: Wall Materials Above Water Line (Main hall to sunken family room – east wall/Wallpaper with fuzzy white growth)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Chlordane:	BMDL	1,500,000	Antimony: BMDL
		GPB (cfu/cm ²):	Common/Target Organisms: Basidiospore	alpha-Chlordane:			Arsenic: 930
		Other:		gamma-Chlordane:			Beryllium: 140
		Total:	Hyphae: No	Other: DDD:			Cadmium: BMDL
							Chromium: 1,200
							Copper: 1,100
							Lead: 1,700
					Mercury: 310		
					Nickel: 5,800		
					Selenium: BMDL		
					Silver: BMDL		
					Thallium: BMDL		
					Zinc: 5,600		

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵		
6379-45	Residence at Octavia: Wall Materials Below Water Line (Main hall to sunken family room – west wall/Wallpaper below water line)	GNB (cfu/cm ²):	Indicator Organisms:	No	Chlordane:	2,200	BMDL	Antimony:	BMDL
		GPB (cfu/cm ²):	Common/Target Organisms:	Chaetomium	alpha-Chlordane:	220		Arsenic:	290
		Other:	Hyphae:	Yes	gamma- Chlordane:	380		Beryllium:	BMDL
		Total:			Other:	BMDL		Cadmium:	54
								Chromium:	5,600
						Copper:	1,300		
						Lead:	25,000		
						Mercury:	10,000		
						Nickel:	BMDL		
						Selenium:	BMDL		
						Silver:	BMDL		
						Thallium:	BMDL		
						Zinc:	74,000		
6379-46	Residence at Octavia: Wall Materials Above Water Line (Main hall to sunken family room – west wall/Wallpaper above water line)	GNB (cfu/cm ²):	Indicator Organisms:	Aspergillus/ Penicillium	Chlordane:	1,600	BMDL	Antimony:	BMDL
		GPB (cfu/cm ²):	Common/Target Organisms:	Chaetomium	alpha-Chlordane:	200		Arsenic:	360
		Other:	Hyphae:	No	gamma- Chlordane:	240		Beryllium:	BMDL
		Total:			Other:	BMDL		Cadmium:	BMDL
								Chromium:	7,700
						Copper:	1,200		
						Lead:	34,000		
						Mercury:	230		
						Nickel:	BMDL		
						Selenium:	BMDL		
						Silver:	BMDL		
						Thallium:	BMDL		
						Zinc:	19,000		

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticicides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵	
6379-47	Residence at Octavia: Wall Materials Above Water Line (First floor office – east wall/ Released wallpaper)	GNB (cfu/cm ²):	Indicator Organisms: Aspergillus/ Penicillium	Chlordane: 880	BMDL	3,100,000	Antimony: BMDL	
		GPB (cfu/cm ²):	Common/Target Organisms: Chaetomium	Alpha-Chlordane: 130			Arsenic: 1,400	
		Other:	Ascospore	Gamma-Chlordane: 150			Beryllium: 180	
		Total:	Hyphae: Yes	Other: 250			Cadmium: 670	
				DDT: 250			Chromium: 16,000	
							Copper: 8,800	
6379-48	Fire Station at South Carrollton Avenue: Dry Sludge (Kitchen in back/Sludge from floor)	GNB (cfu/cm ²):	Indicator Organisms: No	Analysis voided due to insufficient sample quantity	Analysis voided due to in- sufficient sample quantity	Analysis voided due to insufficient sample quantity	Lead: 4,800	
		GPB (cfu/cm ²):	Common/Target Organisms: Stachybotrys					Mercury: 32,000
		Other:	Memmoniella					Nickel: 7,300
		Bacillus Species	Basidiospore					Selenium: BMDL
		Total:	Hyphae: Yes					Silver: 100
								Thallium: BMDL
								Zinc: 210,000
								Antimony: 330,000
								Arsenic: 81,000
								Beryllium: 310
								Cadmium: 24,000
								Chromium: 100,000
						Copper: 490,000		
						Lead: 390,000		
						Mercury: 1,600		
						Nickel: 44,000		
						Selenium: BMDL		
						Silver: 740		
						Thallium: BMDL		
						Zinc: 8,500,000		

Sample Number	Sample Location (Description)	Culturable Bacterial Swabs ¹ (GNB=Gram Negative Bacilli GPB=Gram Positive Bacilli)	Biological Bulks ²	Pesticides (µg/kg) ³	PCBs	Diesel Range Organics ⁴	Heavy Metals (µg/kg) ⁵
6379-49	Fire Station at South Carrollton Avenue: Wall Materials Below Water Line (Kitchen in back – south wall/ Drywall below water line)	GNB (cfu/cm ²):	Indicator Organisms: No	Chlordane:	BMDL	130,000	Antimony: BMDL
		GPB (cfu/cm ²):	Common/Target Organisms: Stachybotrys	alpha-Chlordane:			Arsenic: 730
		Other:	Cladosporium	gamma-Chlordane:			Beryllium: 140
		Total:	Hyphae: Yes	Other:			Cadmium: 60
							Chromium: 3,300
							Copper: 1,600
							Lead: 2,400
6379-50	Fire Station at South Carrollton Ave: Wall Materials Above Water Line (Kitchen in back – south wall/ Drywall above water line)	GNB (cfu/cm ²):	Indicator Organisms: BMDL	Chlordane:	BMDL	190,000	Antimony: BMDL
		GPB (cfu/cm ²):	Common/Target Organisms: BMDL	alpha-Chlordane:			Arsenic: 1,000
		Other:	Hyphae: BMDL	gamma-Chlordane:			Beryllium: BMDL
		Total:	Other: BMDL	Other:			Cadmium: BMDL
							Chromium: 2,500
							Copper: 930
							Lead: 3,600
							Mercury: 65
							Nickel: 8,400
							Selenium: BMDL
							Silver: BMDL
							Thallium: BMDL
							Zinc: 6,000

1. For culturable bacterial swab sample results:

	Below the method detection limit (BMDL) is less than 18 cfu/cm ² .
	Moderate is between 18 cfu/cm ² and 1,000 cfu/cm ² .
	Extensive is between 1,100 cfu/cm ² and 20,000 cfu/cm ² .
	Extremely high is greater than 20,000 cfu/cm ² .

2. For fungal bulk sample results:

	No Organism Detected
	Indicator Organisms associated with potentially significant health problems detected = Aspergillus/Penicillium
	Common Organisms associated with minor health problems/ allergies, including Ascospore, Basidiospore, Cladosporium, Culvaria, Epicoccum, Fusarium, Myxmycete, Nigospora, Periconia, and Smut
	Target organisms associated with potentially serious health problems detected; which include Chaetomium, Fusarium, Memnomiella, Stachybotrys, and Trichoderma
	Hyphae: growth structures in addition to spores detected

3. For pesticide sample results:

Below the minimum detectable limit (BDML) is <17 µg/kg for Chlordane and <3.3µg/kg for other pesticides.

	Minimal: Values are less than 10% of the RECAP* screening standard.
	Low: Values are greater than 10% but less than 50% of the RECAP screening standard.
	Moderate: Values are greater than 50% but less than 100% of the RECAP screening standard.
	High: Values are greater than 100% of the RECAP screening standard.

4. For diesel range organics (DROs) sample results:

Below the minimum detectable limit (BDML) is <18,000 µg/kg.

	Minimal: Values are less than 10% of the RECAP* screening standard.
	Low: Values are greater than 10% but less than 50% of the RECAP screening standard.
	Moderate: Values are greater than 50% but less than 100% of the RECAP screening standard.
	High: Values are greater than 100% of the RECAP screening standard.

5. For heavy metals sample results:

Below the minimum detectable limit (BDML) is <50 µg/kg for Cadmium; <60 µg/kg for Mercury; <100 µg/kg for Arsenic, Beryllium, and Silver; <200 µg/kg for Lead; <300 µg/kg for Antimony, Chromium, Copper, Nickel, Thallium, and Zinc; <500 µg/kg for Selenium.

	Minimal: Values are less than 10% of the RECAP* screening standard.
	Low: Values are greater than 10% but less than 50% of the RECAP screening standard.
	Moderate: Values are greater than 50% but less than 100% of the RECAP screening standard.
	High: Values are greater than 100% of the RECAP screening standard.

* RECAP – Risk Evaluation/Corrective Action Program. This Louisiana Department of Environmental Quality (LDEQ) program is designed to provide guidance for contaminant levels in non-industrial soils based on values from the U.S. Environmental Protection Agency (USEPA) or estimated from other sources such as the LDEQ and health professionals. The RECAP screening standards are intended to be protective of children and adults in typical residential settings with long-term exposure (i.e., 30 years) and identify areas of concern. In addition to the screening standards, the following RECAP Management Option 1 (MO-1) standards are available for soils to determine if the contaminant levels require further evaluation.

Contaminant	RECAP MO-1 Standard µg/kg
Chlordane	1,600
alpha-Chlordane	1,600
gamma-Chlordane	1,600
DDT	1,700
Dieldrin	30
Heptachlor	16
DRO	650,000
Antimony	31,000
Arsenic	12,000
Beryllium	160,000
Cadmium	39,000
Chromium	230,000
Copper	3,100,000
Lead	400,000
Mercury	23,000
Nickel	1,600,000
Selenium	390,000
Silver	390,000
Thallium	5,500
Silver	390,000
Thallium	5,500
Zinc	23,000,000

6. Additional Details and Limitations Regarding Chemical Sample Results: According to Clayton Group Services, the quality control results associated with the samples were within acceptable limits and do not adversely affect the reported results, except as noted in the following bullets.
- Some samples and/or analyses had to be voided due to insufficient sample quantity. The entire sample had to be voided on Wonder Makers' samples 6379-24, -25 and -40. Mercury, pesticides/PCBs and DROs were voided on Wonder Makers' samples 6379-12, -21, -37 and -38. Pesticides/PCBs and DRO were voided on Wonder Makers' samples 6379-15, -16, -19 and -48.
 - For Wonder Makers' samples 6379-01 to -11, -13 and -14, the holding time for sample preparation for DRO and pesticide/PCB analyses was 15 days after sample collection; which exceeded the EPA's recommended holding time by 1 day.
 - For Wonder Makers' sample 6379-04, the spike recovery for zinc on the matrix spike duplicate (MSD) was 300%, above the statistical limit of 190%, due to matrix interference. The matrix spike (MS) recovery on this sample was within limits, at 107%. The MS/MSD recoveries on samples 6379-34 and -44 were all within acceptable limits for zinc.
 - For Wonder Makers' sample 6379-44, the matrix spike/matrix spike duplicate (MS/MSD) recoveries for mercury were 640% and 880%, above the statistical limit of 144%, due to matrix interference. However, the MS/MSD recoveries on samples 6379-04 and -34 were all within acceptable limits for mercury.
 - For Wonder Makers' samples 6379-01, -04, -05 and -08, the results reported for the organochlorine pesticide DDD are estimated and could be high, due to a high recovery of the continuing calibration verification (CCV) standard. The high CCV recovery was likely caused by the sample matrices.
 - For Wonder Makers' Samples 6379-07, -10, -20, -23, -26, -35, -36, and -42 through -47, the recoveries of the two surrogates (TCMX and DCB) for analysis of pesticides/PCBs were below statistical limits and lower reporting limits could not be achieved, due to matrix interference.
 - For Wonder Makers' Samples 6379-02, -03, -05, -06, -08, -18, -20, -22, -23, -32, -35, -39, -45 through -47, -49 and -50, the lower reporting limit for pesticides/PCBs could not be achieved, due to limited sample quantity.