Barton Springs Pool and Barton Creek Area Investigation

May 29, 2003

Executive Summary

Concerns over environmental contaminants found in Barton Springs Pool sediments and Barton Creek sediments as a part of routine monitoring conducted by the City of Austin prompted the Texas Commission on Environmental Quality (TCEQ) to conduct additional soil, sediment, and water sampling in the area in order to help define the issue. Elevated levels of polycyclic aromatic hydrocarbons (PAHs) were found in sediment and soil samples, most likely resulting from runoff from coal-tar based parking lot sealants. Based on the close proximity of these contaminated sediments to Barton Springs Pool, which could serve as a continuing source of contamination to the pool and potentially impact aquatic life, the TCEQ has recommended out of an abundance of caution that: 1) engineering controls be put in place at the Barton Hills Park Place Apartments to prevent future contamination, 2) the possibility of contaminated soil and sediment removal from the unnamed tributary leading from Barton Hills Park Place Apartments to Barton Creek be assessed, 3) monitoring of the area continue, and 4) potential aquatic impacts in Barton Creek and Barton Springs Pool be assessed. The TCEQ has initiated sediment toxicity testing to assess potential impacts to aquatic life in Barton Springs Pool and Barton Creek.

Background

The City of Austin has historically conducted routine monitoring of sediment, water, and soil from the Barton Creek area and has found elevated levels of PAHs in sediments. In response to these findings, the TCEQ collected additional soil, sediment, and water samples from Barton Creek, Barton Springs Pool, and the surrounding area for chemical analysis. The sampling was conducted for several purposes:

1) to confirm results from sampling conducted by the City of Austin in the area,
2) to assess human health and ecological risks associated with potential exposures in Barton Springs Pool,
3) to assess human health and ecological risks associated with potential exposures in Barton Creek,
4) to assess human health and ecological risks associated with potential exposures along the unnamed dry tributary leading from Barton Hills Park Place Apartments to Barton Creek (apartment tributary), and
5) to try to determine a source of contamination in the area.

Also, the City of Austin has collected additional data to identify a potential source of contamination in the area. This report will evaluate data collected by both TCEQ and the City of Austin.

Approach

Staff from the Toxicology & Risk Assessment Section (TARA), Monitoring Operations Division, the Surface Water Quality Monitoring Program, Field Operations (Region 11), and the Site Discovery and Assessment Team developed a sampling plan dated January 15, 2003. The sampling plan outlines sampling and analytical methods used for the project. Samples were collected January 16, 17, and 22 and analyzed for metals, pesticides, herbicides and semivolatiles (which include PAHs) according to the sampling plan. PAHs were the primary concern raised by the interested parties, but TCEQ expanded the analysis to include a broad suite of chemicals to more fully address any potential concerns. The maps in Appendix 1 illustrate sampling locations.

Results

Barton Springs Pool

Water

Table 1 in Appendix 2 contains results from water samples collected from Barton Springs Pool. The results were compared to drinking water Maximum Contaminant Levels (MCLs) or Texas Risk Reduction Program (TRRP) Tier I residential groundwater Protective Concentration Levels (PCLs) where available. In an effort to be health-protective, MCLs and PCLs were used as comparison values even though neither Barton Springs Pool nor Barton Creek are drinking water sources. No chemicals were detected above their respective MCL or TRRP PCL in the water samples collected from Barton Springs Pool. In a few instances, practical quantitation limits were not adequate for comparison to MCLs or PCLs; that is, the reported detection limits for the chemicals were above the chemical's comparison value. In most of these cases, the method detection limits (the level at which a chemical can be detected, but not reliably quantified) were below the comparison values and no J-flagged values were reported. (A J-flagged value is a detection of a chemical below the value at which it can be reliably quantified. J-flagged data are usable, but the quantification of the chemical in question is uncertain.) The remaining chemicals for which the method detection limits were above the chemical's comparison value [3-methylcholanthrene, 4-aminobiphenyl, 4-bromophenyl phenyl ether, 4-chlorophenyl phenyl ether, 7,12-dimethylbenz(a)anthracene, benzidine, bis(2-chloroethoxy)methane, N-nitrosodiethylamine, N-nitrosodimethylamine, N-nitroso-di-n-butylamine, N-nitrosodi-n-propylamine, and N-nitrosopiperidine] are not typical environmental contaminants and therefore are unlikely to be present. Based on these findings, we have concluded that the water in Barton Springs Pool does not pose a human health threat.

Sediment

TARA staff evaluated the potential of human exposure to sediment-associated contaminants in Barton Springs Pool. The upstream (or western) third of the pool is four feet deep or less and has a limestone

bottom. This shallow area of the pool is an area where people, especially children, would most likely be exposed to sediments. However, the City of Austin routinely cleans this portion of the pool to remove algae from the limestone bottom in an effort to prevent people from slipping and falling on the slick bottom. Once a week, City staff close the pool and clean the bottom with underwater high-pressure cleaners. At least once a year, City staff lower the pool level to expose this entire area and clean the bottom with power brushes and high-pressure cleaners.

City staff indicated to TARA staff that sediments are sometimes washed into the pool during flood events. However, it is our understanding that these sediments in the shallow parts of the pool are either flushed out of the pool by the water current or cleaned by city staff.

Since the shallow area of the pool contains only very small amounts of sediment in cracks and crevices, the exposure pathway from bedded sediments to humans is not complete. Therefore, dermal exposure and incidental ingestion of bedded sediments in this area are not a human health concern.

There is, however, bedded sediment amongst the gravel, cobble, and boulders on the bottom of the deeper end of the pool. This bedded sediment can be stirred up from swimming activity on high-use days and the suspended sediments can be incidentally ingested while swimming. TARA staff evaluated the potential risk of swimmers who incidentally ingest these suspended sediments. Table 2 in Appendix 2 contains results from a composite sediment sample collected from the "beach area" of Barton Springs Pool. The "beach area" of Barton Springs Pool is located on the northern edge of the pool in 5 to 6 feet of water.

For the evaluation of risk to swimmers from swimming in Barton Springs Pool, TARA staff used suspended sediment samples collected by City of Austin staff (City of Austin Memorandum, January 8, 2003). City staff collected suspended sediment data from Barton Springs Pool on Labor Day of 2002, when the pool was being heavily used by swimmers. The suspended sediment level on that day was 4.95 mg/L. Assuming that this worst-case suspended sediment level remains constant, and assuming a person swims 3 hours per day, 6 days per week, 50 weeks per year for 70 years, the safe level of benzo[a]pyrene, the PAH with the greatest carcinogenic potential of those measured in Barton Springs Pool, would be 110 mg/kg (or part per million, ppm) in the bedded sediment. This exposure scenario represents a worst-case scenario and is extremely conservative. The highest level of benzo[a]pyrene that has ever been found in Barton Springs Pool bedded sediment is 6.5 mg/kg, which occurred after a significant flooding event.

Other PAHs [benzo(a)anthracene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, and phenanthrene] as well as some metals (aluminum, arsenic, cadmium, chromium, copper, mercury, lead and nickel) were detected in the sediment sample, but below levels of concern for human health.

Based on these findings, the TCEQ has concluded that chemical contaminants associated with sediments in Barton Springs Pool do not present a human health risk to swimmers who frequent the pool.

Aquatic Life

Questions have also arisen concerning impacts to the ecology of Barton Springs Pool. In the 2002 Water Quality Inventory the TCEQ noted that the aquatic life use for segment 1430A (Barton Springs Pool) is met, but noted concerns about dissolved oxygen in the surface water and about arsenic and copper in the sediment and their potential impact on aquatic life in the pool (http://www.tnrcc.state.tx.us/water/quality/02_twqmar/02_305b/1430A_fact.pdf). In an effort to address these concerns, the TCEQ collected additional sediment samples from Barton Springs Pool on February 15th, 18th, and 19th of this year. During this time, the City of Austin had lowered the water level of Barton Springs Pool for a thorough cleaning as described above. This presented a unique opportunity to collect sediment samples from the pool. The sediment samples underwent sediment toxicity testing using sensitive aquatic species (*Hyalella azteca* and *Chironomus tentans*) for assessment of potential impacts to aquatic life. Results of these tests will be discussed in a separate report.

Barton Creek

Surface Water

Surface water samples were collected from two locations on Barton Creek. One sampling location (Duplicate Samples B6-1 and B6-2) was just upstream of Barton Springs Pool on the upstream side of the "gravel catcher" on the south side of the creek bank. The other sampling location (Sample B7) was upstream from the confluence of the apartment tributary and Barton Creek. The sampling results are presented in Table 3 in Appendix 2.

The results were compared to drinking water MCLs or TRRP Tier I residential groundwater PCLs where available. No chemicals were detected above their respective MCL or TRRP PCL. In a few instances, practical quantitation limits were not adequate for comparison to MCLs or PCLs. In most of these cases, the method detection limits were below the comparison values and no J-flagged values were reported. The remaining chemicals [3-methylcholanthrene, 4-aminobiphenyl, 4-bromophenyl phenyl ether, 4-chlorophenyl phenyl ether, 7,12-dimethylbenz(a)anthracene, benzidine, bis(2-chloroethoxy)methane, N-nitrosodiethylamine, N-nitrosodimethylamine, N-nitroso-di-n-butylamine, N-nitrosodi-n-propylamine, and N-nitrosopiperidine] are not typical environmental contaminants and therefore are unlikely to be present. Based on these findings, the TCEQ has concluded that the water in Barton Creek does not pose a human health threat.

Sediment - Barton Creek proper

TCEQ staff collected sediment samples from five locations in Barton Creek upstream from Barton Springs Pool. Barton Creek samples were collected upstream (Sample B7) and downstream (Samples B6-1 and B6-2, duplicates) of the confluence of Barton Creek and the apartment tributary; upstream (Sample B12) and at the confluence (Sample B11) of the unnamed dry tributary leading from Spyglass Drive to Barton Creek (Spyglass tributary); and at Lost Creek Boulevard (Sample B13).

Results of the sediment analyses are presented in Table 4 in Appendix 2. Of note in Table 4 is the detections of polycyclic aromatic hydrocarbons (PAHs) in sediment samples collected downstream of the apartment tributary, but not in the sediment sample immediately upstream of the apartment tributary. While the detected levels do not present a human health concern, they are of interest from an aquatic life viewpoint. These findings reinforce the TCEQ's noting in the 2002 Water Quality Inventory that aquatic life use in Barton Creek is generally supported, but listing of an unusually large number of chemicals (PAHs and metals) in the sediment as a concern for potential impacts to aquatic life (http://www.tnrcc.state.tx.us/water/quality/02_twqmar/02_305b/1430_fact.pdf). To assess potential aquatic life impacts, the TCEQ is initiating sampling of sediments from Barton Creek for sediment toxicity testing using sensitive aquatic species (*Hyalella azteca* and *Chironomus tentans*).

Although there were detections of some metals (arsenic, cadmium, chromium, copper, lead, nickel, zinc, aluminum, and mercury) in the samples of sediment from Barton Creek, these metals are not at levels that would be a concern for human health.

Sediment - Spyglass Tributary

Also of note are the elevated detections of PAHs in Sample B11 collected at the confluence of the Spyglass tributary and Barton Creek. PAH levels in these samples were higher than those collected in Barton Creek downstream from the confluence of the apartment tributary and Barton Creek. Sample results from sediments collected from the Spyglass tributary itself are presented in Table 5 in Appendix 2. It is important to note that this tributary is normally dry.

Samples B8 and B9, which contain elevated levels of PAHs, were collected from the Spyglass tributary downstream of a point where an asphalt parking lot drains into the tributary. Sample B10, which contains much lower levels of PAHs, was collected from the Spyglass tributary upstream of the point where the asphalt parking lot drains into the tributary. This would indicate that the asphalt parking lot could be the source of PAHs in the Spyglass tributary.

Again, some metals (arsenic, cadmium, chromium, copper, lead, nickel, zinc, aluminum, and mercury) were detected in the samples, but not at levels that are a concern for human health.

Sediment and Soil - Lost Creek Boulevard and adjacent to Barton Creek

TCEQ staff also collected a sediment sample from Barton Creek at Lost Creek Boulevard (Sample B13) and soil samples adjacent to Barton Creek at locations directly across the creek from the apartment tributary (Samples A6 and A7). Additional soil samples were collected adjacent to another small tributary just upstream from the apartment tributary (Samples A1 and A2). Also, a sediment sample was collected from a small spring just upstream from the confluence of the apartment tributary and Barton Creek. These sampling results are presented in Table 6 in Appendix 2.

The soil samples collected adjacent to Barton Creek and the sediment sample collected at Lost Creek Boulevard had low-level PAH detections, in the range of what would be expected in urban environments. There were also detections of metals as was the case in samples mentioned earlier, but not at levels that are of concern for human health. Also, some low-level pesticide (alpha-chlordane and dieldrin) detections were noted, but not at levels of concern. Exposure to these soils and sediments would not pose an unacceptable human health risk.

Apartment Tributary

The apartment tributary, or the unnamed tributary leading from Barton Hills Park Place Apartments to Barton Creek, is a relatively narrow channel with steep sides and is normally dry. Typically, the tributary only contains water during rain events. The tributary drains a major portion of the apartment complex's asphalt parking lot. Duplicate soil Samples (Samples A10A and A10B) were collected within several feet of the parking lot near the head of the tributary. Surficial sediment samples were also collected at four locations along the length of the channel. One sampling location was at the head of the tributary (Samples B4A and [duplicates] B4B1 and B4B2). Another sampling location was approximately one-third of the way down the tributary (Samples B1A and B1B). The third sampling location was approximately two-thirds of the way down the tributary (Samples B2A and B2B). The fourth sampling location was just upstream of the confluence of the apartment tributary and Barton Creek. Also, a soil sample (Sample A11) was taken from another parking lot drainage point that drains another portion of the apartment parking lot into the apartment tributary. Results for these samples are presented in Table 7 in Appendix 2, arranged from left to right in order of their location (arranged upstream to downstream).

Elevated levels of PAHs were found in the soil samples at the head of the apartment tributary, as well as in the sediment samples collected from the tributary itself. The levels generally declined the further downstream the samples were collected. While the detected levels of PAHs are high, the potential for human exposure in the apartment tributary channel is very low. Although people apparently walk from the apartment complex to Barton Creek, they likely walk down footpaths to the creek, not in the apartment tributary channel. Also, the head of the apartment tributary is filled with construction material (chunks of concrete and asphalt), probably in an effort to stabilize the parking lot. The uneven terrain and numerous pieces of broken glass in the immediate area make it unattractive for young children. As

already stated, the tributary itself is narrow with very steep sides, making frequenting the area difficult. Further, the tributary head area and the tributary itself contain numerous rocks and construction debris, actually limiting the amount of surficial sediment and soil in the area available for contact.

One sample (Sample A10A) contained 658 mg/kg lead, while its duplicate sample (Sample A10B) contained only 46 mg/kg lead. The remaining samples collected in the area were all less than 56 mg/kg, with the exception of Sample A11, which contained 376 mg/kg lead. Sample A10A could have been an analytical anomaly. As with other samples, low levels of metals and pesticides were detected in some of these samples, but at levels that would be expected to be found in an urban environment, and are not cause for concern.

Source Determination Sampling

To test the hypothesis that the parking lot itself is the potential source of PAHs measured in the area, TCEQ and City of Austin staff conducted additional soil and source sampling. This included collecting not only cross-gradient and subsurface samples, but also analyzing samples from the suspected source.

TCEQ staff collected soil samples from two sampling locations on the south side of Barton Hills Park Place Apartments. One sample (Sample A5) was collected from the grass buffer strip adjacent to the entrance of the apartments. Duplicate samples (Samples A4 and A4-Dup) were collected from a landscaping bed that receives a significant amount of runoff from the apartment's front parking lot. Also, a piece of asphalt rubble from the apartment tributary was sampled (Sample B4-Asp). The results of these analyses are presented in Table 8 in Appendix 2. Once again, some samples had detections of background-level metals and pesticides. PAH levels in the grass buffer strip and landscaping bed were elevated, higher than levels expected in urban areas. As would be expected, elevated PAH levels were also found in the asphalt rubble sample.

TCEQ staff also collected duplicate soil samples representative of runoff from a nearby non-asphalted parking lot (Samples A8A and A8B) and a soil sample from a retention pond that receives runoff from the non-asphalted parking lot (Sample A9). These results are presented in Table 9 in Appendix 2.

As with other samples, metal detections were at background levels. PAH levels in these samples collected adjacent to a nearby non-asphalt parking lot are in line with what would be expected due to urban runoff. These data indicate that the PAH contamination in the apartment tributary could be associated with the seal coat of the asphalt parking lot. A visual inspection of the apartment tributary and surrounding area did not reveal any other potential sources of surficial contamination (e.g. seeping tar). However, the surficial soil samples collected both in the head of the apartment tributary and in the landscaping bed contained large amounts of a fine black powdery substance, visibly different from the soil and sediment samples which contained lower PAH levels.

As there was some speculation that buried waste materials may have been the source of elevated PAH levels in the area, the City of Austin drilled ten soil borings through the apartment parking lot and in the area surrounding the apartment tributary. Visual inspection of the borings did not uncover any suspect areas (e.g. buried waste, seeping tar). Chemical analysis of various regions of the soil borings found low levels of PAHs that would be expected in urban areas, but these findings do not explain the surficial sediment contamination of the apartment tributary (Geomatrix Consultants, 2003).

The City of Austin also collected scraping samples of the parking lot's sealant for chemical analysis. BaP levels in the two sealant samples were 1030 and 1830 mg/kg. This data corresponds well with other data that the City of Austin has amassed on PAH levels in coal-tar based parking lot sealants. Specifically, the City of Austin has also collected soil and debris samples from areas representing worst-case runoff samples from parking lots around the city, both non-asphalted and asphalted using coal-tar based sealants. The correlation between high PAH levels and asphalted parking lots using coal-tar based sealants was remarkable. This is not surprising given that coal tar is known to contain high levels of PAHs (IARC, 1985).

Based on the above data, the TCEQ has concluded that the contamination in the apartment tributary is most likely due to the coal-tar based sealant used on the parking lot. These sealants are known to wear relatively quickly, often requiring replacement every two to three years. It is apparent that the worn sealant runs off of the parking lot over time, impacting surficial soils and sediments in nearby drainage areas.

Conclusion

In conclusion, the surficial sediments in the apartment tributary do not pose an imminent human health risk. In reviewing the soil and sediment data collectively, it appears the extent of PAH contamination is relatively limited, i.e. the PAHs are not carried far downstream or are quickly diluted. In the head of the apartment tributary, PAH levels in sediments and soils are elevated, but decline sharply the farther downstream the sediment samples were collected. PAH levels in sediment samples from Barton Creek declined even more.

However, becaue of the close proximity of the apartment parking lot to Barton Creek and Barton Springs Pool, the surficial sediments in the tributary can serve as a continuing source of PAH contamination for these water bodies. Over time, PAH levels in sediments could conceivably increase to levels of human health and/or aquatic life concern. As such, in an abundance of caution it would be prudent to install an engineering control to capture runoff from the apartment complex or to change the parking lot material (i.e. concrete) and assess the feasability/environmental impact of removing the contaminated sediments from the apartment tributary.

Recommendations

The following are recommended actions that should be evaluated by the City of Austin:

1) Construct an engineering control to capture runoff from the Barton Hills Apartment Complex parking lot, preventing future contamination of the apartment tributary or change the parking lot material (i.e. concrete).

2) Consider removal action of contaminated surficial sediments in the apartment tributary to prevent future contamination of Barton Creek.

3) Consider removal action of contaminated surface soils adjacent to parking lot.

3) Continued monitoring to evaluate the effectiveness of engineering control and removal action.

4) Work with TCEQ to conduct sediment toxicity testing of sediments in Barton Creek and Barton Springs Pool to assess impacts on aquatic life. (Note: the TCEQ has initiated these tests.)

References

City of Austin. January 8, 2003. Memorandum from David A. Johns to Nancy L. McClintock. Concentrations of Suspended Solids in Barton Springs Pool.

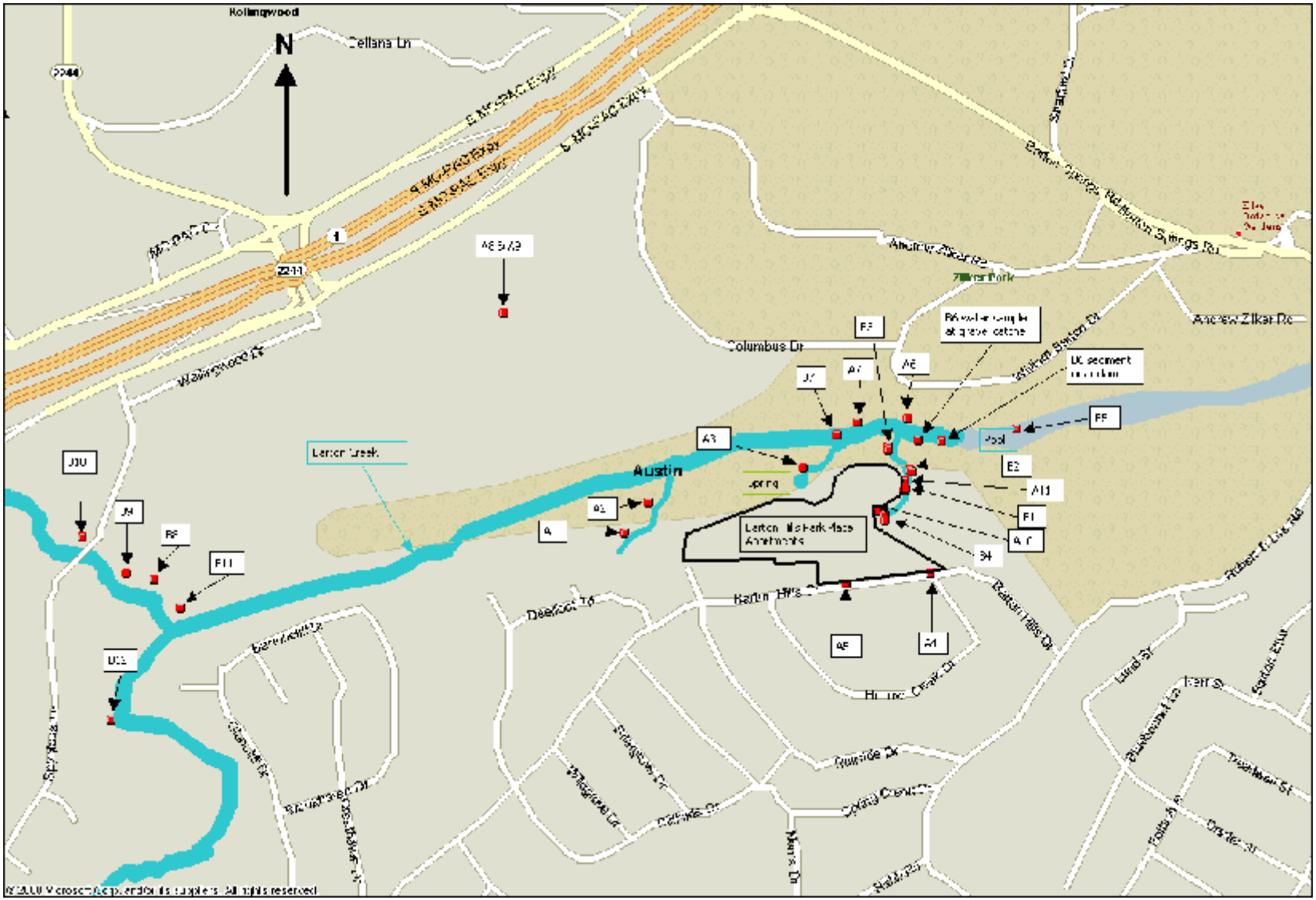
International Agency for Research on Cancer. 1985. IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans. Polynuclear Aromatic Compounds, Part 4, Bitumens, Coal-tars and Derived Products, Shale-oils and Soots. Volume 35.

Geomatrix Consultants. March 2003. Report of Barton Springs Area Site Investigation. Environmental Services Rotation List Contract, Request No. 03-008G.

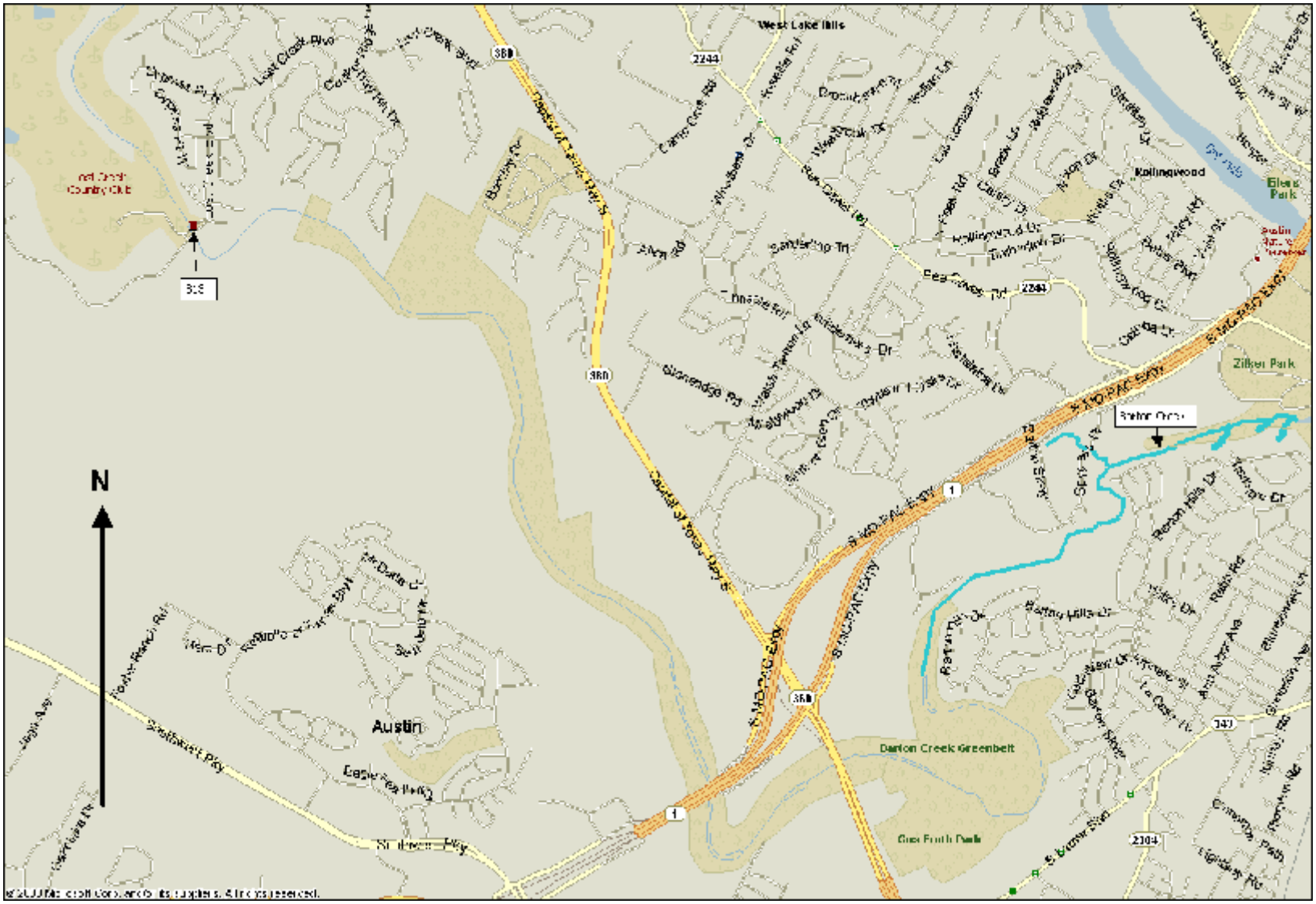
Appendix 1

Maps of Sampling Locations

Barton Springs Area Sampling Site Map - Zilker Park Vicinity



Barton Springs Area Sampling Site Map - Lost Creek Site



Appendix 2

Data Tables

Table 1. Analytical results of surface water samples taken from Barton Springs Pool.

Analyte	Value	Qualifier	Units
1&2-Chloronaphthalene	<10		Fg/L
1,2,4,5-Tetrachlorobenzene	<10		Fg/L
1,2,4-Trichlorobenzene	<5.0		Fg/L
1,2-Dichlorobenzene	<5.0		Fg/L
1,2-Diphenylhydrazine	<5.0		Fg/L
1,3-Dichlorobenzene	<5.0		Fg/L
1,4-Dichlorobenzene	<5.0		Fg/L
1-Naphthylamine	<10		Fg/L
2,3,4,6-Tetrachlorophenol	<10		Fg/L
2,4,5-T	<0.50		Fg/L
2,4,5-TP (Silvex)	<0.50		Fg/L
2,4,5-Trichlorophenol	<6.0		Fg/L
2,4,6-Trichlorophenol	<5.0		Fg/L
2,4-D	<0.50		Fg/L
2,4-Dichlorophenol	<5.0		Fg/L
2,4-Dimethylphenol	<5.0		Fg/L
2,4-Dinitrophenol	<50.0		Fg/L
2,4-Dinitrotoluene	<10		Fg/L
2,6-Dichlorophenol	<5.0		Fg/L
2,6-Dinitrotoluene	<5.0		Fg/L
2-Chlorophenol	<5.0		Fg/L
2-Methylnaphthalene	<5.0		Fg/L
2-Methylphenol	<5.0		Fg/L
2-Naphthylamine	<5.0		Fg/L
2-Nitroaniline	<5.0		Fg/L
2-Nitrophenol	<5.0		Fg/L
2-Picoline	<5.0		Fg/L
3,3´-Dichlorobenzidine	<5.0		Fg/L
3-Methylcholanthrene	<5.0		Fg/L
3-Nitroaniline	<5.0		Fg/L
4,4´-DDD	<0.050		Fg/L
4,4´-DDE	<0.050		Fg/L
4,4´-DDT	<0.050		Fg/L
4,6-Dinitro-2-methylphenol	<50.0		Fg/L
4-Aminobiphenyl	<5.0		Fg/L
4-Bromophenyl phenyl ether	<5.0		Fg/L
4-Chloro-3-methylphenol	<5.0		Fg/L
4-Chloroaniline	<5.0		Fg/L
4-Chlorophenyl phenyl ether	<5.0		Fg/L
4-Nitroaniline	<15.0		Fg/L
4-Nitrophenol	<10		Fg/L
7,12-Dimethylbenz(a)anthracene	<5.0		Fg/L

Analyte	Value	Qualifier	Units
Acenaphthene	<0.1		Fg/L
Acenaphthylene	<0.1		Fg/L
Acetophenone	<5.0		Fg/L
Aldrin	<0.050		Fg/L
alpha-BHC	<0.050		Fg/L
alpha-Chlordane	<0.050		Fg/L
Aluminum	0.0464		g/L
Aniline	<5.0		Fg/L
Anthracene	<0.1		Fg/L
Arsenic	0.0005	J	mg/L
Atrazine	<5.0		Fg/L
Benzidine	<5.0		Fg/L
Benzo(a)anthracene	<0.1		Fg/L
Benzo(a)pyrene	<0.1		Fg/L
Benzo(b)fluoranthene	<0.1		Fg/L
Benzo(g,h,i)perylene	<0.1		Fg/L
Benzo(k)fluoranthene	<0.1		Fg/L
Benzoic acid	<50.0		Fg/L
Benzyl alcohol	<10		Fg/L
beta-BHC	<0.050		Fg/L
Bis(2-chloroethoxy)methane	<5.0		Fg/L
Bis(2-chloroethyl)ether	<5.0		Fg/L
Bis(2-chloroisopropyl)ether	<5.0		Fg/L
Bis(2-ethylhexyl)phthalate	<5.0		Fg/L
Butyl benzyl phthalate	<5.0		Fg/L
Cadmium	<0.0010		mg/L
Calcium	93.0		mg/L
Carbaryl	<5.0		Fg/L
Carbazole	<5.0		Fg/L
Chlordane	<1.00		Fg/L
Chromium	0.0002	J	mg/L
Chrysene	<5.0		Fg/L
Chrysene	<0.1		Fg/L
Copper	<0.0020		mg/L
Cresols, Total	<10		Fg/L
delta-BHC	<0.050		Fg/L
Dibenz(a,h)anthracene	<0.1		Fg/L
Dibenz(a,j)acridine	<10		Fg/L
Dibenzofuran	<5.0		Fg/L
Dicofol	<1.00		Fg/L
Dieldrin	<0.050		Fg/L
Diethyl phthalate	<5.0		Fg/L
Dimethyl phthalate	<5.0		Fg/L
Di-n-butyl phthalate	<5.0		Fg/L
Di-n-octyl phthalate	<5.0		Fg/L

Analyte	Value	Qualifier	Units
Endosulfan I	<0.050		Fg/L
Endosulfan II	<0.050		Fg/L
Endosulfan sulfate	<0.050		Fg/L
Endrin	<0.050		Fg/L
Endrin aldehyde	<0.050		Fg/L
Endrin ketone	<0.050		Fg/L
Ethyl methanesulfonate	<5.0		Fg/L
Fluoranthene	<0.1		Fg/L
Fluorene	<0.1		Fg/L
gamma-BHC	<0.050		Fg/L
gamma-Chlordane	<0.050		Fg/L
Hardness, Calcium/Magnesium (As CaCO3)	314		mg/L
Heptachlor	<0.050		Fg/L
Heptachlor epoxide	<0.050		Fg/L
Hexachlorobenzene	<0.050		Fg/L
Hexachlorobutadiene	<5.0		Fg/L
Hexachlorocyclopentadiene	<10		Fg/L
Hexachloroethane	<5.0		Fg/L
Hexachlorophene	<1.00		Fg/L
Indeno(1,2,3-cd)pyrene	<0.1		Fg/L
Isophorone	<5.0		Fg/L
Lead	<0.0010		mg/L
m,p-Cresol	<10		Fg/L
Magnesium	19.9		mg/L
Methoxychlor	<0.050		Fg/L
Methyl methanesulfonate	<5.0		Fg/L
Mirex	<0.050		Fg/L
Naphthalene	<0.1		Fg/L
Nickel	0.0049		mg/L
Nitrobenzene	<5.0		Fg/L
N-Nitrosodiethylamine	<20.0		Fg/L
N-Nitrosodimethylamine	<5.0		Fg/L
N-Nitroso-di-n-butylamine	<5.0		Fg/L
N-Nitroso-di-n-propylamine	<5.0		Fg/L
N-Nitrosodiphenylamine	<5.0		Fg/L
N-Nitrosopiperidine	<5.0		Fg/L
p-Dimethylaminoazobenzene	<10		Fg/L
Pentachlorobenzene	<5.0		Fg/L
Pentachloronitrobenzene	<5.0		Fg/L
Pentachlorophenol	<0.50		Fg/L
Phenacetin	<5.0		Fg/L
Phenanthrene	<0.1		Fg/L
Phenol	<8.0		Fg/L
Pronamide	<5.0		Fg/L
Pyrene	<0.1		Fg/L

Analyte	Value	Qualifier	Units
Pyridine	<5.0		Fg/L
Selenium	<0.0050		mg/L
Silver	<0.0010		mg/L
Toxaphene	<1.00		Fg/L
Zinc	0.0044	J	mg/L

Note: Analytical values in this table and in the tables throughout this report with a “J” qualifier indicates that the analyte was detected below quantitation limits.

Table 2. Analytical results of sediment sample taken from Barton Springs Pool.

Analyte	Value	Qualifier	Units
Aluminum	2380		mg/Kg-dry
Arsenic	4.22	J	mg/Kg-dry
Cadmium	<678		mg/Kg-dry
Chromium	4.82	J	mg/Kg-dry
Copper	3.78	J	mg/Kg-dry
Lead	5.50	J	mg/Kg-dry
Nickel	15.2		mg/Kg-dry
Selenium	<2710		mg/Kg-dry
Silver	<1360		mg/Kg-dry
Zinc	<13600		mg/Kg-dry
4,4´-DDD	<6.84		Fg/Kg-dry
4,4´-DDE	<6.84		Fg/Kg-dry
4,4´-DDT	<6.84		Fg/Kg-dry
Aldrin	<6.84		Fg/Kg-dry
alpha-BHC	<6.84		Fg/Kg-dry
alpha-Chlordane	<6.84		Fg/Kg-dry
beta-BHC	<6.84		Fg/Kg-dry
Chlordane	<68.4		Fg/Kg-dry
delta-BHC	<6.84		Fg/Kg-dry
Dieldrin	<6.84		Fg/Kg-dry
Endosulfan I	<6.84		Fg/Kg-dry
Endosulfan II	<6.84		Fg/Kg-dry
Endosulfan sulfate	<6.84		Fg/Kg-dry
Endrin	<6.84		Fg/Kg-dry
Endrin aldehyde	<6.84		Fg/Kg-dry
Endrin ketone	<6.84		Fg/Kg-dry
gamma-BHC	<6.84		Fg/Kg-dry
gamma-Chlordane	<6.84		Fg/Kg-dry
Heptachlor	<6.84		Fg/Kg-dry
Heptachlor epoxide	<6.84		Fg/Kg-dry
Hexachlorobenzene	<6.84		Fg/Kg-dry
Methoxychlor	<6.84		Fg/Kg-dry
Toxaphene	<68.4		Fg/Kg-dry
2,4,5-T	<6.8		Fg/Kg-dry
2,4,5-TP (Silvex)	<6.8		Fg/Kg-dry
2,4-D	<6.8		Fg/Kg-dry
Pentachlorophenol	<6.8		Fg/Kg-dry
1&2-Chloronaphthalene	<1370		Fg/Kg-dry
1,2,4,5-Tetrachlorobenzene	<684		Fg/Kg-dry
1,2,4-Trichlorobenzene	<684		Fg/Kg-dry
1,2-Dichlorobenzene	<684		Fg/Kg-dry
1,2-Diphenylhydrazine	<684		Fg/Kg-dry

Analyte	Value	Qualifier	Units
1,3-Dichlorobenzene	<684		Fg/Kg-dry
1,4-Dichlorobenzene	<684		Fg/Kg-dry
1-Naphthylamine	<684		Fg/Kg-dry
2,3,4,6-Tetrachlorophenol	<684		Fg/Kg-dry
2,4,5-Trichlorophenol	<684		Fg/Kg-dry
2,4,6-Trichlorophenol	<684		Fg/Kg-dry
2,4-Dichlorophenol	<684		Fg/Kg-dry
2,4-Dimethylphenol	<684		Fg/Kg-dry
2,4-Dinitrophenol	<2730		Fg/Kg-dry
2,4-Dinitrotoluene	<684		Fg/Kg-dry
2,6-Dichlorophenol	<684		Fg/Kg-dry
2,6-Dinitrotoluene	<684		Fg/Kg-dry
2-Chlorophenol	<684		Fg/Kg-dry
2-Methylnaphthalene	<684		Fg/Kg-dry
2-Naphthylamine	<684		Fg/Kg-dry
2-Nitroaniline	<684		Fg/Kg-dry
2-Nitrophenol	<684		Fg/Kg-dry
2-Picoline	<684		Fg/Kg-dry
3,3´-Dichlorobenzidine	<684		Fg/Kg-dry
3-Methylcholanthrene	<684		Fg/Kg-dry
3-Nitroaniline	<684		Fg/Kg-dry
4,6-Dinitro-2-methylphenol	<684		Fg/Kg-dry
4-Aminobiphenyl	<684		Fg/Kg-dry
4-Bromophenyl phenyl ether	<684		Fg/Kg-dry
4-Chloro-3-methylphenol	<684		Fg/Kg-dry
4-Chloroaniline	<684		Fg/Kg-dry
4-Chlorophenyl phenyl ether	<684		Fg/Kg-dry
4-Nitroaniline	<684		Fg/Kg-dry
4-Nitrophenol	<684		Fg/Kg-dry
7,12-Dimethylbenz(a)anthracene	<684		Fg/Kg-dry
Acenaphthene	<684		Fg/Kg-dry
Acenaphthylene	<684		Fg/Kg-dry
Acetophenone	<684		Fg/Kg-dry
Aniline	<684		Fg/Kg-dry
Anthracene	<684		Fg/Kg-dry
Atrazine	<684		Fg/Kg-dry
Benzidine	<2730		Fg/Kg-dry
Benzo(a)anthracene	468	J	Fg/Kg-dry
Benzo(a)pyrene	752		Fg/Kg-dry
Benzo(b)fluoranthene	1150		Fg/Kg-dry
Benzo(g,h,i)perylene	368	J	Fg/Kg-dry
Benzo(k)fluoranthene	328	J	Fg/Kg-dry
Benzoic acid	<2730		Fg/Kg-dry
Benzyl alcohol	<684		Fg/Kg-dry
Bis(2-chloroethoxy)methane	<684		Fg/Kg-dry

Analyte	Value	Qualifier	Units
Bis(2-chloroethyl)ether	<684		Fg/Kg-dry
Bis(2-chloroisopropyl)ether	<684		Fg/Kg-dry
Bis(2-ethylhexyl)phthalate	515	J	Fg/Kg-dry
Butyl benzyl phthalate	<684		Fg/Kg-dry
Carbaryl	<684		Fg/Kg-dry
Carbazole	<684		Fg/Kg-dry
Chrysene	744		Fg/Kg-dry
Cresols, Total	<684		Fg/Kg-dry
Di-n-butyl phthalate	<684		Fg/Kg-dry
Di-n-octyl phthalate	<684		Fg/Kg-dry
Dibenz(a,h)anthracene	663	J	Fg/Kg-dry
Dibenz(a,j)acridine	<684		Fg/Kg-dry
Dibenzofuran	<684		Fg/Kg-dry
Diethyl phthalate	<684		Fg/Kg-dry
Dimethyl phthalate	<684		Fg/Kg-dry
Ethyl methanesulfonate	<684		Fg/Kg-dry
Fluoranthene	1180		Fg/Kg-dry
Fluorene	<684		Fg/Kg-dry
Hexachlorobenzene	<684		Fg/Kg-dry
Hexachlorobutadiene	<684		Fg/Kg-dry
Hexachlorocyclopentadiene	<684		Fg/Kg-dry
Hexachloroethane	<684		Fg/Kg-dry
Indeno(1,2,3-cd)pyrene	636	J	Fg/Kg-dry
Isophorone	<684		Fg/Kg-dry
m,p-Cresol	<684		Fg/Kg-dry
Methyl methanesulfonate	<684		Fg/Kg-dry
N-Nitroso-di-n-butylamine	<684		Fg/Kg-dry
N-Nitrosodi-n-propylamine	<684		Fg/Kg-dry
N-Nitrosodiethylamine	<2730		Fg/Kg-dry
N-Nitrosodimethylamine	<684		Fg/Kg-dry
N-Nitrosodiphenylamine	<684		Fg/Kg-dry
N-Nitrosopiperidine	<684		Fg/Kg-dry
Naphthalene	<684		Fg/Kg-dry
Nitrobenzene	<684		Fg/Kg-dry
o-Cresol	<684		Fg/Kg-dry
p-Dimethylaminoazobenzene	<684		Fg/Kg-dry
Pentachlorobenzene	<684		Fg/Kg-dry
Pentachloronitrobenzene	<684		Fg/Kg-dry
Pentachlorophenol	<684		Fg/Kg-dry
Phenacetin	<684		Fg/Kg-dry
Phenanthrene	391	J	Fg/Kg-dry
Phenol	<684		Fg/Kg-dry
Pronamide	<684		Fg/Kg-dry
Pyrene	1120		Fg/Kg-dry
Pyridine	<684		Fg/Kg-dry
Mercury	28.6	J	Fg/Kg-dry

Table 3. Analytical results of surface water samples taken from Barton Creek.

Analyte	B6-1	B6-2	B7	Units
1&2-Chloronaphthalene	<10	<10	<10	Fg/L
1,2,4,5-Tetrachlorobenzene	<10	<10	<10	Fg/L
1,2,4-Trichlorobenzene	<5.0	<5.0	<5.0	Fg/L
1,2-Dichlorobenzene	<5.0	<5.0	<5.0	Fg/L
1,2-Diphenylhydrazine	<5.0	<5.0	<5.0	Fg/L
1,3-Dichlorobenzene	<5.0	<5.0	<5.0	Fg/L
1,4-Dichlorobenzene	<5.0	<5.0	<5.0	Fg/L
1-Naphthylamine	<10	<10	<10	Fg/L
2,3,4,6-Tetrachlorophenol	<10	<10	<10	Fg/L
2,4,5-T	<0.50	<0.50	<0.50	Fg/L
2,4,5-TP (Silvex)	<0.50	<0.50	<0.50	Fg/L
2,4,5-Trichlorophenol	<6.0	<6.0	<6.0	Fg/L
2,4,6-Trichlorophenol	<5.0	<5.0	<5.0	Fg/L
2,4-D	<0.50	<0.50	<0.50	Fg/L
2,4-Dichlorophenol	<5.0	<5.0	<5.0	Fg/L
2,4-Dimethylphenol	<5.0	<5.0	<5.0	Fg/L
2,4-Dinitrophenol	<50.0	<50.0	<50.0	Fg/L
2,4-Dinitrotoluene	<10	<10	<10	Fg/L
2,6-Dichlorophenol	<5.0	<5.0	<5.0	Fg/L
2,6-Dinitrotoluene	<5.0	<5.0	<5.0	Fg/L
2-Chlorophenol	<5.0	<5.0	<5.0	Fg/L
2-Methylnaphthalene	<5.0	<5.0	<5.0	Fg/L
2-Methylphenol	<5.0	<5.0	<5.0	Fg/L
2-Naphthylamine	<5.0	<5.0	<5.0	Fg/L
2-Nitroaniline	<5.0	<5.0	<5.0	Fg/L
2-Nitrophenol	<5.0	<5.0	<5.0	Fg/L
2-Picoline	<5.0	<5.0	<5.0	Fg/L
3,3 ´-Dichlorobenzidine	<5.0	<5.0	<5.0	Fg/L
3-Methylcholanthrene	<5.0	<5.0	<5.0	Fg/L
3-Nitroaniline	<5.0	<5.0	<5.0	Fg/L
4,4 ´-DDD	<0.050	<0.050	<0.050	Fg/L
4,4 ´-DDE	<0.050	<0.050	<0.050	Fg/L
4,4 ´-DDT	<0.050	<0.050	<0.050	Fg/L
4,6-Dinitro-2-methylphenol	<50.0	<50.0	<50.0	Fg/L
4-Aminobiphenyl	<5.0	<5.0	<5.0	Fg/L
4-Bromophenyl phenyl ether	<5.0	<5.0	<5.0	Fg/L
4-Chloro-3-methylphenol	<5.0	<5.0	<5.0	Fg/L
4-Chloroaniline	<5.0	<5.0	<5.0	Fg/L
4-Chlorophenyl phenyl ether	<5.0	<5.0	<5.0	Fg/L
4-Nitroaniline	<15.0	<15.0	<15.0	Fg/L
4-Nitrophenol	<10	<10	<10	Fg/L
7,12-Dimethylbenz(a)anthracene	<5.0	<5.0	<5.0	Fg/L
Acenaphthene	<0.1	<0.1	<0.1	Fg/L
Acenaphthylene	<0.1	<0.1	<0.1	Fg/L
Acetophenone	<5.0	<5.0	<5.0	Fg/L

Analyte	B6-1	B6-2	B7	Units
Aldrin	<0.050	<0.050	<0.050	Fg/L
alpha-BHC	<0.050	<0.050	<0.050	Fg/L
alpha-Chlordane	<0.050	<0.050	<0.050	Fg/L
Aluminum	0.0125	0.0124	0.0120	mg/L
Aniline	<5.0	<5.0	<5.0	Fg/L
Anthracene	<0.1	<0.1	<0.1	Fg/L
Arsenic	0.0005 J	0.0004 J	0.0004 J	mg/L
Atrazine	<5.0	<5.0	<5.0	Fg/L
Benzidine	<5.0	<5.0	<5.0	Fg/L
Benzo(a)anthracene	<0.1	<0.1	<0.1	Fg/L
Benzo(a)pyrene	<0.1	<0.1	<0.1	Fg/L
Benzo(b)fluoranthene	<0.1	<0.1	<0.1	Fg/L
Benzo(g,h,i)perylene	<0.1	<0.1	<0.1	Fg/L
Benzo(k)fluoranthene	<0.1	<0.1	<0.1	Fg/L
Benzoic acid	<50.0	<50.0	<50.0	Fg/L
Benzyl alcohol	<10	<10	<10	Fg/L
beta-BHC	<0.050	<0.050	<0.050	Fg/L
Bis(2-chloroethoxy)methane	<5.0	<5.0	<5.0	Fg/L
Bis(2-chloroethyl)ether	<5.0	<5.0	<5.0	Fg/L
Bis(2-chloroisopropyl)ether	<5.0	<5.0	<5.0	Fg/L
Bis(2-ethylhexyl)phthalate	<5.0	<5.0	<5.0	Fg/L
Butyl benzyl phthalate	<5.0	<5.0	<5.0	Fg/L
Cadmium	<0.0010	<0.0010	<0.0010	mg/L
Calcium	79.1	78.5	77.3	mg/L
Carbaryl	<5.0	<5.0	<5.0	Fg/L
Carbazole	<5.0	<5.0	<5.0	Fg/L
Chlordane	<1.00	<1.00	<1.00	Fg/L
Chromium	<0.0010	<0.0010	<0.0010	mg/L
Chrysene	<0.1	<0.1	<0.1	Fg/L
Copper	<0.0020	<0.0020	<0.0020	mg/L
Cresols, Total	<10	<10	<10	Fg/L
delta-BHC	<0.050	<0.050	<0.050	Fg/L
Dibenz(a,h)anthracene	<0.1	<0.1	<0.1	Fg/L
Dibenz(a,j)acridine	<10	<10	<10	Fg/L
Dibenzofuran	<5.0	<5.0	<5.0	Fg/L
Dicofol	<1.00	<1.00	<1.00	Fg/L
Dieldrin	<0.050	<0.050	<0.050	Fg/L
Diethyl phthalate	<5.0	<5.0	<5.0	Fg/L
Dimethyl phthalate	<5.0	<5.0	<5.0	Fg/L
Di-n-butyl phthalate	<5.0	<5.0	<5.0	Fg/L
Di-n-octyl phthalate	<5.0	<5.0	<5.0	Fg/L
Endosulfan I	<0.050	<0.050	<0.050	Fg/L
Endosulfan II	<0.050	<0.050	<0.050	Fg/L
Endosulfan sulfate	<0.050	<0.050	<0.050	Fg/L
Endrin	<0.050	<0.050	<0.050	Fg/L
Endrin aldehyde	<0.050	<0.050	<0.050	Fg/L
Endrin ketone	<0.050	<0.050	<0.050	Fg/L

Analyte	B6-1	B6-2	B7	Units
Ethyl methanesulfonate	<5.0	<5.0	<5.0	Fg/L
Fluoranthene	<0.1	<0.1	<0.1	Fg/L
Fluorene	<0.1	<0.1	<0.1	Fg/L
gamma-BHC	<0.050	<0.050	<0.050	Fg/L
gamma-Chlordane	<0.050	<0.050	<0.050	Fg/L
Hardness, Calcium/Magnesium (As CaCO3)	286	283	279	mg/L
Heptachlor	<0.050	<0.050	<0.050	Fg/L
Heptachlor epoxide	<0.050	<0.050	<0.050	Fg/L
Hexachlorobenzene	<0.050	<0.050	<0.050	Fg/L
Hexachlorobenzene	<5.0	<5.0	<5.0	Fg/L
Hexachlorobutadiene	<5.0	<5.0	<5.0	Fg/L
Hexachlorocyclopentadiene	<10	<10	<10	Fg/L
Hexachloroethane	<5.0	<5.0	<5.0	Fg/L
Hexachlorophene	<1.00	<1.00	<1.00	Fg/L
Indeno(1,2,3-cd)pyrene	<0.1	<0.1	<0.1	Fg/L
Isophorone	<5.0	<5.0	<5.0	Fg/L
Lead	<0.0010	<0.0010	<0.0010	mg/L
m,p-Cresol	<10	<10	<10	Fg/L
Magnesium	21.4	21.1	20.8	mg/L
Methoxychlor	<0.050	<0.050	<0.050	Fg/L
Methyl methanesulfonate	<5.0	<5.0	<5.0	Fg/L
Mirex	<0.050	<0.050	<0.050	Fg/L
Naphthalene	<0.1	<0.1	<0.1	Fg/L
Nickel	0.0045	0.0044	0.0043	mg/L
Nitrobenzene	<5.0	<5.0	<5.0	Fg/L
N-Nitrosodiethylamine	<20.0	<20.0	<20.0	Fg/L
N-Nitrosodimethylamine	<5.0	<5.0	<5.0	Fg/L
N-Nitroso-di-n-butylamine	<5.0	<5.0	<5.0	Fg/L
N-Nitrosodi-n-propylamine	<5.0	<5.0	<5.0	Fg/L
N-Nitrosodiphenylamine	<5.0	<5.0	<5.0	Fg/L
N-Nitrosopiperidine	<5.0	<5.0	<5.0	Fg/L
p-Dimethylaminoazobenzene	<10	<10	<10	Fg/L
Pentachlorobenzene	<5.0	<5.0	<5.0	Fg/L
Pentachloronitrobenzene	<5.0	<5.0	<5.0	Fg/L
Pentachlorophenol	<0.50	<0.50	<0.50	Fg/L
Phenacetin	<5.0	<5.0	<5.0	Fg/L
Phenanthrene	<0.1	<0.1	<0.1	Fg/L
Phenol	<8.0	<8.0	<8.0	Fg/L
Pronamide	<5.0	<5.0	<5.0	Fg/L
Pyrene	<0.1	<0.1	<0.1	Fg/L
Pyridine	<5.0	<5.0	<5.0	Fg/L
Selenium	<0.0050	<0.0050	<0.0050	mg/L
Silver	<0.0010	<0.0010	<0.0010	mg/L
Toxaphene	<1.00	<1.00	<1.00	Fg/L
Zinc	<0.0150	<0.0150	<0.0150	mg/L

Table 4. Analytical results of sediment samples taken from Barton Creek.

Analyte	B6-1	B6-2	B7	B11	B12	B13	Units
Arsenic	8.03	5.56 J	9.55	7.59	8.10	3.29 J	mg/Kg-dry
Cadmium	0.40 J	<678	0.36 J	<744	<651	<607	mg/Kg-dry
Chromium	6.00 J	3.99 J	5.11 J	11.7	8.53	3.80 J	mg/Kg-dry
Copper	4.75 J	3.36 J	2.90 J	8.86	3.42 J	2.33 J	mg/Kg-dry
Lead	13.4	7.64	9.51	22.4	7.50	4.50 J	mg/Kg-dry
Nickel	18.7	14.9	18.2	17.0	12.8 J	14.4	mg/Kg-dry
Selenium	<2680	<2710	<2340	<2980	<2610	<2430	mg/Kg-dry
Silver	<1340	<1360	<1170	<1490	<1300	<1210	mg/Kg-dry
Zinc	55.1 J	32.5 J	22.5 J	77.7 J	<13000	<12100	mg/Kg-dry
Aluminum	2360	2040	1400	6410	1510	1530	mg/Kg-dry
4,4´-DDD	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
4,4´-DDE	<6.75	<6.84	<5.99	39.0	<6.57	<6.23	Fg/Kg-dry
4,4´-DDT	<6.75	<6.84	<5.99	35.9	<6.57	<6.23	Fg/Kg-dry
Aldrin	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
alpha-BHC	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
alpha-Chlordane	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
beta-BHC	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
Chlordane	<67.5	<68.4	<59.9	<78.0	<65.7	<62.3	Fg/Kg-dry
delta-BHC	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
Dieldrin	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
Endosulfan I	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
Endosulfan II	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
Endosulfan sulfate	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
Endrin	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
Endrin aldehyde	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
Endrin ketone	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
gamma-BHC	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
gamma-Chlordane	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
Heptachlor	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
Heptachlor epoxide	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
Hexachlorobenzene	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
Methoxychlor	<6.75	<6.84	<5.99	<7.80	<6.57	<6.23	Fg/Kg-dry
Toxaphene	<67.5	<68.4	<59.9	<78.0	<65.7	<62.3	Fg/Kg-dry
2,4,5-T	<6.8	<6.8	<6.0	<7.8	<6.6	<6.2	Fg/Kg-dry
2,4,5-TP (Silvex)	<6.8	<6.8	<6.0	<7.8	<6.6	<6.2	Fg/Kg-dry
2,4-D	<6.8	<6.8	<6.0	<7.8	<6.6	<6.2	Fg/Kg-dry
Pentachlorophenol	<6.8	<6.8	<6.0	<7.8	<6.6	<6.2	Fg/Kg-dry
1&2-Chloronaphthalene	<1350	<1370	<1200	<1560	<657	<1250	Fg/Kg-dry
1,2,4,5-Tetrachlorobenzene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
1,2,4-Trichlorobenzene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
1,2-Dichlorobenzene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
1,2-Diphenylhydrazine	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
1,3-Dichlorobenzene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
1,4-Dichlorobenzene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
1-Naphthylamine	<674	<684	<601	<780	<329	<623	Fg/Kg-dry

Analyte	B6-1	B6-2	B7	B11	B12	B13	Units
2,3,4,6-Tetrachlorophenol	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
2,4,5-Trichlorophenol	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
2,4,6-Trichlorophenol	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
2,4-Dichlorophenol	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
2,4-Dimethylphenol	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
2,4-Dinitrophenol	<2690	<2730	<2400	<3120	<1310	<2490	Fg/Kg-dry
2,4-Dinitrotoluene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
2,6-Dichlorophenol	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
2,6-Dinitrotoluene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
2-Chlorophenol	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
2-Methylnaphthalene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
2-Naphthylamine	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
2-Nitroaniline	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
2-Nitrophenol	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
2-Picoline	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
3,3´-Dichlorobenzidine	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
3-Methylcholanthrene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
3-Nitroaniline	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
4,6-Dinitro-2-methylphenol	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
4-Aminobiphenyl	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
4-Bromophenyl phenyl ether	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
4-Chloro-3-methylphenol	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
4-Chloroaniline	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
4-Chlorophenyl phenyl ether	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
4-Nitroaniline	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
4-Nitrophenol	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
7,12-Dimethylbenz(a)anthracene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Acenaphthene	<674	<684	<601	198 J	<329	<623	Fg/Kg-dry
Acenaphthylene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Acetophenone	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Aniline	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Anthracene	<674	<684	<601	827	<329	<623	Fg/Kg-dry
Atrazine	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Benzidine	<2690	<2730	<2400	<3120	<1310	<2490	Fg/Kg-dry
Benzo(a)anthracene	625 J	820	<601	8420	105 J	722	Fg/Kg-dry
Benzo(a)pyrene	981	1180	<601	8420	392	857	Fg/Kg-dry
Benzo(b)fluoranthene	1500	1820	<601	9950	598	1230	Fg/Kg-dry
Benzo(g,h,i)perylene	640 J	775	<601	6400	116 J	471 J	Fg/Kg-dry
Benzo(k)fluoranthene	419 J	580 J	<601	3670	142 J	336 J	Fg/Kg-dry
Benzoic acid	<2690	<2730	<2400	<3120	<1310	<2490	Fg/Kg-dry
Benzyl alcohol	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Bis(2-chloroethoxy)methane	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Bis(2-chloroethyl)ether	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Bis(2-chloroisopropyl)ether	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Bis(2-ethylhexyl)phthalate	393 J	416 J	285 J	<780	352	<623	Fg/Kg-dry
Butyl benzyl phthalate	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Carbaryl	<674	<684	<601	<780	<329	<623	Fg/Kg-dry

Analyte	B6-1	B6-2	B7	B11	B12	B13	Units
Carbazole	168 J	217 J	<601	3410	<329	236 J	Fg/Kg-dry
Chrysene	1030	1360	<601	10400	180 J	947	Fg/Kg-dry
Cresols, Total	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Di-n-butyl phthalate	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Di-n-octyl phthalate	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Dibenz(a,h)anthracene	662 J	671 J	<601	1600	<329	<623	Fg/Kg-dry
Dibenz(a,j)acridine	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Dibenzofuran	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Diethyl phthalate	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Dimethyl phthalate	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Ethyl methanesulfonate	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Fluoranthene	1380	1700	<601	16800	231 J	1680	Fg/Kg-dry
Fluorene	<674	<684	<601	293 J	<329	<623	Fg/Kg-dry
Hexachlorobenzene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Hexachlorobutadiene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Hexachlorocyclopentadiene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Hexachloroethane	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Indeno(1,2,3-cd)pyrene	823	935	<601	5250	405	693	Fg/Kg-dry
Isophorone	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
m,p-Cresol	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Methyl methanesulfonate	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
N-Nitroso-di-n-butylamine	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
N-Nitrosodi-n-propylamine	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
N-Nitrosodiethylamine	<2690	<2730	<2400	<3120	<1310	<2490	Fg/Kg-dry
N-Nitrosodimethylamine	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
N-Nitrosodiphenylamine	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
N-Nitrosopiperidine	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Naphthalene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Nitrobenzene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
o-Cresol	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
p-Dimethylaminoazobenzene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Pentachlorobenzene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Pentachloronitrobenzene	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Pentachlorophenol	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Phenacetin	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Phenanthrene	468 J	433 J	<601	7000	<329	937	Fg/Kg-dry
Phenol	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Pronamide	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Pyrene	1350	1790	<601	14700	226 J	1390	Fg/Kg-dry
Pyridine	<674	<684	<601	<780	<329	<623	Fg/Kg-dry
Mercury	32.9 J	30.7 J	24.5 J	49.2 J	25.6 J	20.6 J	Fg/Kg-dry

Table 5. Analytical results of sediment samples taken from the Spyglass tributary.

Analyte	B8	B9	B10	Units
Arsenic	7.70	14.5	14.0	mg/Kg-dry
Cadmium	<662	0.69 J	1.04 J	mg/Kg-dry
Chromium	11.4	19.0	22.4	mg/Kg-dry
Copper	5.07 J	9.89	11.6	mg/Kg-dry
Lead	8.77	25.1	24.2	mg/Kg-dry
Nickel	16.5	19.8	25.1	mg/Kg-dry
Selenium	<2650	<2200	<2160	mg/Kg-dry
Silver	<1320	<1100	<1080	mg/Kg-dry
Zinc	42.4 J	93.5 J	113	mg/Kg-dry
Aluminum	3010	6660	9820	mg/Kg-dry
4,4´-DDD	<6.75	<5.60	<5.61	Fg/Kg-dry
4,4´-DDE	<6.75	<5.60	<5.61	Fg/Kg-dry
4,4´-DDT	<6.75	<5.60	<5.61	Fg/Kg-dry
Aldrin	<6.75	<5.60	<5.61	Fg/Kg-dry
alpha-BHC	<6.75	<5.60	<5.61	Fg/Kg-dry
alpha-Chlordane	<6.75	<5.60	<5.61	Fg/Kg-dry
beta-BHC	<6.75	<5.60	<5.61	Fg/Kg-dry
Chlordane	<67.5	<56.0	<56.1	Fg/Kg-dry
delta-BHC	<6.75	<5.60	<5.61	Fg/Kg-dry
Dieldrin	<6.75	<5.60	<5.61	Fg/Kg-dry
Endosulfan I	<6.75	<5.60	<5.61	Fg/Kg-dry
Endosulfan II	<6.75	<5.60	<5.61	Fg/Kg-dry
Endosulfan sulfate	<6.75	<5.60	<5.61	Fg/Kg-dry
Endrin	<6.75	<5.60	<5.61	Fg/Kg-dry
Endrin aldehyde	<6.75	<5.60	<5.61	Fg/Kg-dry
Endrin ketone	<6.75	<5.60	<5.61	Fg/Kg-dry
gamma-BHC	<6.75	<5.60	<5.61	Fg/Kg-dry
gamma-Chlordane	<6.75	<5.60	<5.61	Fg/Kg-dry
Heptachlor	<6.75	<5.60	<5.61	Fg/Kg-dry
Heptachlor epoxide	<6.75	<5.60	<5.61	Fg/Kg-dry
Hexachlorobenzene	<6.75	<5.60	<5.61	Fg/Kg-dry
Methoxychlor	<6.75	<5.60	<5.61	Fg/Kg-dry
Toxaphene	<67.5	<56.0	<56.1	Fg/Kg-dry
2,4,5-T	<6.7	<5.6	<5.6	Fg/Kg-dry
2,4,5-TP (Silvex)	<6.7	<5.6	<5.6	Fg/Kg-dry
2,4-D	<6.7	<5.6	<5.6	Fg/Kg-dry
Pentachlorophenol	<6.7	<5.6	<5.6	Fg/Kg-dry
1&2-Chloronaphthalene	<1350	<1120	<561	Fg/Kg-dry
1,2,4,5-Tetrachlorobenzene	<674	<561	<281	Fg/Kg-dry
1,2,4-Trichlorobenzene	<674	<561	<281	Fg/Kg-dry
1,2-Dichlorobenzene	<674	<561	<281	Fg/Kg-dry
1,2-Diphenylhydrazine	<674	<561	<281	Fg/Kg-dry
1,3-Dichlorobenzene	<674	<561	<281	Fg/Kg-dry
1,4-Dichlorobenzene	<674	<561	<281	Fg/Kg-dry
1-Naphthylamine	<674	<561	<281	Fg/Kg-dry

Analyte	B8	B9	B10	Units
2,3,4,6-Tetrachlorophenol	<674	<561	<281	Fg/Kg-dry
2,4,5-Trichlorophenol	<674	<561	<281	Fg/Kg-dry
2,4,6-Trichlorophenol	<674	<561	<281	Fg/Kg-dry
2,4-Dichlorophenol	<674	<561	<281	Fg/Kg-dry
2,4-Dimethylphenol	<674	<561	<281	Fg/Kg-dry
2,4-Dinitrophenol	<2700	<2240	<1120	Fg/Kg-dry
2,4-Dinitrotoluene	<674	<561	<281	Fg/Kg-dry
2,6-Dichlorophenol	<674	<561	<281	Fg/Kg-dry
2,6-Dinitrotoluene	<674	<561	<281	Fg/Kg-dry
2-Chlorophenol	<674	<561	<281	Fg/Kg-dry
2-Methylnaphthalene	<674	<561	<281	Fg/Kg-dry
2-Naphthylamine	<674	<561	<281	Fg/Kg-dry
2-Nitroaniline	<674	<561	<281	Fg/Kg-dry
2-Nitrophenol	<674	<561	<281	Fg/Kg-dry
2-Picoline	<674	<561	<281	Fg/Kg-dry
3,3´-Dichlorobenzidine	<674	<561	<281	Fg/Kg-dry
3-Methylcholanthrene	<674	<561	<281	Fg/Kg-dry
3-Nitroaniline	<674	<561	<281	Fg/Kg-dry
4,6-Dinitro-2-methylphenol	<674	<561	<281	Fg/Kg-dry
4-Aminobiphenyl	<674	<561	<281	Fg/Kg-dry
4-Bromophenyl phenyl ether	<674	<561	<281	Fg/Kg-dry
4-Chloro-3-methylphenol	<674	<561	<281	Fg/Kg-dry
4-Chloroaniline	<674	<561	<281	Fg/Kg-dry
4-Chlorophenyl phenyl ether	<674	<561	<281	Fg/Kg-dry
4-Nitroaniline	<674	<561	<281	Fg/Kg-dry
4-Nitrophenol	<674	<561	<281	Fg/Kg-dry
7,12-Dimethylbenz(a)anthracene	<674	<561	<281	Fg/Kg-dry
Acenaphthene	<674	81.9 J	<281	Fg/Kg-dry
Acenaphthylene	<674	<561	<281	Fg/Kg-dry
Acetophenone	<674	<561	<281	Fg/Kg-dry
Aniline	<674	<561	<281	Fg/Kg-dry
Anthracene	232 J	422 J	<281	Fg/Kg-dry
Atrazine	<674	<561	<281	Fg/Kg-dry
Benzidine	<2700	<2240	<1120	Fg/Kg-dry
Benzo(a)anthracene	3550	6580	191 J	Fg/Kg-dry
Benzo(a)pyrene	4150	6980	471	Fg/Kg-dry
Benzo(b)fluoranthene	4970	11000	689	Fg/Kg-dry
Benzo(g,h,i)perylene	3160	4000	216 J	Fg/Kg-dry
Benzo(k)fluoranthene	1980	3540	173 J	Fg/Kg-dry
Benzoic acid	<2700	<2240	<1120	Fg/Kg-dry
Benzyl alcohol	<674	<561	<281	Fg/Kg-dry
Bis(2-chloroethoxy)methane	<674	<561	<281	Fg/Kg-dry
Bis(2-chloroethyl)ether	<674	<561	<281	Fg/Kg-dry
Bis(2-chloroisopropyl)ether	<674	<561	<281	Fg/Kg-dry
Bis(2-ethylhexyl)phthalate	<674	556 J	421	Fg/Kg-dry
Butyl benzyl phthalate	<674	<561	<281	Fg/Kg-dry
Carbaryl	<674	<561	<281	Fg/Kg-dry

Analyte	B8	B9	B10	Units
Carbazole	1180	2500	<281	Fg/Kg-dry
Chrysene	4780	8930	293	Fg/Kg-dry
Cresols, Total	<674	<561	<281	Fg/Kg-dry
Di-n-butyl phthalate	<674	<561	<281	Fg/Kg-dry
Di-n-octyl phthalate	<674	<561	<281	Fg/Kg-dry
Dibenz(a,h)anthracene	914	1150	<281	Fg/Kg-dry
Dibenz(a,j)acridine	<674	<561	<281	Fg/Kg-dry
Dibenzofuran	<674	<561	<281	Fg/Kg-dry
Diethyl phthalate	<674	<561	<281	Fg/Kg-dry
Dimethyl phthalate	<674	<561	<281	Fg/Kg-dry
Ethyl methanesulfonate	<674	<561	<281	Fg/Kg-dry
Fluoranthene	6730	12500	368	Fg/Kg-dry
Fluorene	<674	<561	<281	Fg/Kg-dry
Hexachlorobenzene	<674	<561	<281	Fg/Kg-dry
Hexachlorobutadiene	<674	<561	<281	Fg/Kg-dry
Hexachlorocyclopentadiene	<674	<561	<281	Fg/Kg-dry
Hexachloroethane	<674	<561	<281	Fg/Kg-dry
Indeno(1,2,3-cd)pyrene	2750	3570	419	Fg/Kg-dry
Isophorone	<674	<561	<281	Fg/Kg-dry
m,p-Cresol	<674	<561	<281	Fg/Kg-dry
Methyl methanesulfonate	<674	<561	<281	Fg/Kg-dry
N-Nitroso-di-n-butylamine	<674	<561	<281	Fg/Kg-dry
N-Nitrosodi-n-propylamine	<674	<561	<281	Fg/Kg-dry
N-Nitrosodiethylamine	<2700	<2240	<1120	Fg/Kg-dry
N-Nitrosodimethylamine	<674	<561	<281	Fg/Kg-dry
N-Nitrosodiphenylamine	<674	<561	<281	Fg/Kg-dry
N-Nitrosopiperidine	<674	<561	<281	Fg/Kg-dry
Naphthalene	<674	<561	<281	Fg/Kg-dry
Nitrobenzene	<674	<561	<281	Fg/Kg-dry
o-Cresol	<674	<561	<281	Fg/Kg-dry
p-Dimethylaminoazobenzene	<674	<561	<281	Fg/Kg-dry
Pentachlorobenzene	<674	<561	<281	Fg/Kg-dry
Pentachloronitrobenzene	<674	<561	<281	Fg/Kg-dry
Pentachlorophenol	<674	<561	<281	Fg/Kg-dry
Phenacetin	<674	<561	<281	Fg/Kg-dry
Phenanthrene	1920	4200	93.2 J	Fg/Kg-dry
Phenol	<674	<561	<281	Fg/Kg-dry
Pronamide	<674	<561	<281	Fg/Kg-dry
Pyrene	6190	13400	434	Fg/Kg-dry
Pyridine	<674	<561	<281	Fg/Kg-dry
Mercury	28.9 J	27.8 J	31.2 J	Fg/Kg-dry

Table 6. Analytical results of soil and sediment samples taken from adjacent to Barton Creek.

Analyte	B13	A6	A7	A1	A2	A3	Units
Arsenic	3.29 J	4.07 J	4.69 J	5.74 J	4.11 J	3.84 J	mg/Kg-dry
Cadmium	<607	<672	0.49 J	<697	0.39 J	<866	mg/Kg-dry
Chromium	3.80 J	11.5	11.3	12.9	8.44	7.66 J	mg/Kg-dry
Copper	2.33 J	9.22	7.47	12.1	6.86	6.11 J	mg/Kg-dry
Lead	4.50 J	21.3	22.5	44.5	28.5	6.42 J	mg/Kg-dry
Nickel	14.4	16.1	16.7	22.2	15.5	14.3 J	mg/Kg-dry
Selenium	<2430	<2690	<2590	<2790	<2240	<3460	mg/Kg-dry
Silver	<1210	<1340	<1290	<1390	<1120	<1730	mg/Kg-dry
Zinc	<12100	47.1 J	35.7 J	61.3 J	49.8 J	<17300	mg/Kg-dry
Aluminum	1530	10300	10600	5990	4570	5080	mg/Kg-dry
4,4´-DDD	<6.23	<6.83	<6.65	<7.03	<5.86	<9.08	Fg/Kg-dry
4,4´-DDE	<6.23	<6.83	<6.65	<7.03	<5.86	<9.08	Fg/Kg-dry
4,4´-DDT	<6.23	<6.83	<6.65	<7.03	<5.86	<9.08	Fg/Kg-dry
Aldrin	<6.23	<6.83	<6.65	<7.03	<5.86	<9.08	Fg/Kg-dry
alpha-BHC	<6.23	<6.83	<6.65	<7.03	<5.86	<9.08	Fg/Kg-dry
alpha-Chlordane	<6.23	<6.83	<6.65	8.43	14.1	<9.08	Fg/Kg-dry
beta-BHC	<6.23	<6.83	<6.65	<7.03	<5.86	<9.08	Fg/Kg-dry
Chlordane	<62.3	<68.3	<66.5	<70.3	<58.6	<90.8	Fg/Kg-dry
delta-BHC	<6.23	<6.83	<6.65	<7.03	<5.86	<9.08	Fg/Kg-dry
Dieldrin	<6.23	<6.83	<6.65	<7.03	7.04	<9.08	Fg/Kg-dry
Endosulfan I	<6.23	<6.83	<6.65	<7.03	<5.86	<9.08	Fg/Kg-dry
Endosulfan II	<6.23	<6.83	<6.65	<7.03	<5.86	<9.08	Fg/Kg-dry
Endosulfan sulfate	<6.23	<6.83	<6.65	<7.03	<5.86	<9.08	Fg/Kg-dry
Endrin	<6.23	<6.83	<6.65	<7.03	<5.86	<9.08	Fg/Kg-dry
Endrin aldehyde	<6.23	<6.83	<6.65	<7.03	<5.86	<9.08	Fg/Kg-dry
Endrin ketone	<6.23	<6.83	<6.65	<7.03	<5.86	<9.08	Fg/Kg-dry
gamma-BHC	<6.23	<6.83	<6.65	<7.03	<5.86	<9.08	Fg/Kg-dry
gamma-Chlordane	<6.23	<6.83	<6.65	<7.03	5.86	<9.08	Fg/Kg-dry
Heptachlor	<6.23	<6.83	<6.65	<7.03	<5.86	<9.08	Fg/Kg-dry
Heptachlor epoxide	<6.23	<6.83	<6.65	<7.03	<5.86	<9.08	Fg/Kg-dry
Hexachlorobenzene	<6.23	<6.83	<6.65	<7.03	<5.86	<9.08	Fg/Kg-dry
Methoxychlor	<6.23	<6.83	<6.65	<7.03	<5.86	<9.08	Fg/Kg-dry
Toxaphene	<62.3	<68.3	<66.5	<70.3	<58.6	<90.8	Fg/Kg-dry
2,4,5-T	<6.2	<6.8	<6.7	<7.0	<5.9	<9.1	Fg/Kg-dry
2,4,5-TP (Silvex)	<6.2	<6.8	<6.7	<7.0	<5.9	<9.1	Fg/Kg-dry
2,4-D	<6.2	<6.8	<6.7	<7.0	<5.9	<9.1	Fg/Kg-dry
Pentachlorophenol	<6.2	<6.8	<6.7	<7.0	<5.9	<9.1	Fg/Kg-dry
1&2-Chloronaphthalene	<1250	<1370	<664	<704	<587	<1810	Fg/Kg-dry
1,2,4,5-Tetrachlorobenzene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
1,2,4-Trichlorobenzene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
1,2-Dichlorobenzene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
1,2-Diphenylhydrazine	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
1,3-Dichlorobenzene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
1,4-Dichlorobenzene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
1-Naphthylamine	<623	<684	<332	<352	<294	<907	Fg/Kg-dry

Analyte	B13	A6	A7	A1	A2	A3	Units
2,3,4,6-Tetrachlorophenol	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
2,4,5-Trichlorophenol	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
2,4,6-Trichlorophenol	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
2,4-Dichlorophenol	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
2,4-Dimethylphenol	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
2,4-Dinitrophenol	<2490	<2730	<1330	<1410	<1170	<3630	Fg/Kg-dry
2,4-Dinitrotoluene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
2,6-Dichlorophenol	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
2,6-Dinitrotoluene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
2-Chlorophenol	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
2-Methylnaphthalene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
2-Naphthylamine	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
2-Nitroaniline	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
2-Nitrophenol	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
2-Picoline	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
3,3´-Dichlorobenzidine	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
3-Methylcholanthrene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
3-Nitroaniline	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
4,6-Dinitro-2-methylphenol	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
4-Aminobiphenyl	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
4-Bromophenyl phenyl ether	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
4-Chloro-3-methylphenol	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
4-Chloroaniline	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
4-Chlorophenyl phenyl ether	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
4-Nitroaniline	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
4-Nitrophenol	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
7,12-Dimethylbenz(a)anthracene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Acenaphthene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Acenaphthylene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Acetophenone	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Aniline	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Anthracene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Atrazine	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Benzidine	<2490	<2730	<1330	<1410	<1170	<3630	Fg/Kg-dry
Benzo(a)anthracene	722	569 J	75.7 J	120 J	98.6 J	<907	Fg/Kg-dry
Benzo(a)pyrene	857	1030	344	364	336	<907	Fg/Kg-dry
Benzo(b)fluoranthene	1230	752	514	575	559	637 J	Fg/Kg-dry
Benzo(g,h,i)perylene	471 J	465 J	<332	114 J	72.8 J	<907	Fg/Kg-dry
Benzo(k)fluoranthene	336 J	<2730	96.9 J	106 J	107 J	<907	Fg/Kg-dry
Benzoic acid	<2490	<684	<1330	<1410	<1170	<3630	Fg/Kg-dry
Benzyl alcohol	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Bis(2-chloroethoxy)methane	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Bis(2-chloroethyl)ether	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Bis(2-chloroisopropyl)ether	<623	504 J	<332	<352	<294	<907	Fg/Kg-dry
Bis(2-ethylhexyl)phthalate	<623	<684	226 J	1300	606	452 J	Fg/Kg-dry
Butyl benzyl phthalate	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Carbaryl	<623	<684	<332	<352	<294	<907	Fg/Kg-dry

Analyte	B13	A6	A7	A1	A2	A3	Units
Carbazole	236 J	930	<332	<352	<294	<907	Fg/Kg-dry
Chrysene	947	<684	105 J	194 J	157 J	<907	Fg/Kg-dry
Cresols, Total	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Di-n-butyl phthalate	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Di-n-octyl phthalate	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Dibenz(a,h)anthracene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Dibenz(a,j)acridine	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Dibenzofuran	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Diethyl phthalate	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Dimethyl phthalate	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Ethyl methanesulfonate	<623	987	<332	<352	<294	<907	Fg/Kg-dry
Fluoranthene	1680	<684	124 J	238 J	194 J	<907	Fg/Kg-dry
Fluorene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Hexachlorobenzene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Hexachlorobutadiene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Hexachlorocyclopentadiene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Hexachloroethane	<623	928	<332	<352	<294	<907	Fg/Kg-dry
Indeno(1,2,3-cd)pyrene	693	<684	372	405	345	<907	Fg/Kg-dry
Isophorone	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
m,p-Cresol	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Methyl methanesulfonate	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
N-Nitroso-di-n-butylamine	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
N-Nitrosodi-n-propylamine	<623	<2730	<332	<352	<294	<907	Fg/Kg-dry
N-Nitrosodiethylamine	<2490	<684	<1330	<1410	<1170	<3630	Fg/Kg-dry
N-Nitrosodimethylamine	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
N-Nitrosodiphenylamine	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
N-Nitrosopiperidine	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Naphthalene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Nitrobenzene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
o-Cresol	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
p-Dimethylaminoazobenzene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Pentachlorobenzene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Pentachloronitrobenzene	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Pentachlorophenol	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Phenacetin	<623	234 J	<332	<352	<294	<907	Fg/Kg-dry
Phenanthrene	937	<684	<332	<352	72.8 J	<907	Fg/Kg-dry
Phenol	<623	<684	<332	<352	<294	<907	Fg/Kg-dry
Pronamide	<623	1120	<332	<352	<294	<907	Fg/Kg-dry
Pyrene	1390	<684	127 J	288 J	190 J	<907	Fg/Kg-dry
Pyridine	<623	807	<332	<352	<294	<907	Fg/Kg-dry
Mercury	20.6 J	57.9 J	49.0 J	44.0 J	36.0 J	71.1 J	Fg/Kg-dry

Table 7. Analytical results of soil and sediment samples taken from the apartment tributary.

Analyte	A10A	A10B	B4A	B4B-1	B4B-2	B1A	B1B	A11	B2A	B2B	B3A	B3B-1	B3B-2	Units
Arsenic	4.19 J	7.15	3.82	5.13	4.98	6.48	3.87	3.27 J	3.55	2.54	3.24	3.43	3.55	mg/Kg-dry
Chromium	159	21.6	16.2	15.0	16.5	6.54	8.90	35.2	5.05	3.87	5.09	10.4	4.63	mg/Kg-dry
Copper	165	340	26.0	23.4	26.2	8.67	8.31	56.8	4.28	3.46	3.78	3.55	3.41	mg/Kg-dry
Nickel	11.1 J	12.6 J	11.6	12.6	12.6	11.6	12.4	20.8	11.4	11.1	10.9	10.7	10.5	mg/Kg-dry
Aluminum	2940	4400	6750	9240	9410	4880	6740	5460	2490	2490	3110	3080	2900	mg/Kg-dry
Cadmium	0.93 J	1.32 J	0.74 J	0.78 J	1.47 J	<592	0.41 J	1.82 J	<519	<533	0.87 J	<545	<556	mg/Kg-dry
Lead	658	46.3	55.5	40.7	50.8	29.7	33.7	376	16.6	14.2	12.3	39.8	10.7	mg/Kg-dry
Selenium	<2500	<2740	<2600	<3230	<3170	<2370	<2210	<2560	<2080	<2130	<2400	<2180	<2220	mg/Kg-dry
Silver	<1250	<1370	<1300	<1610	<1590	<1180	<1110	<1280	<1040	<1070	<1200	<1090	<1110	mg/Kg-dry
Zinc	247	378	214	205	197	85.1 J	67.4 J	263	32.3 J	30.9 J	33.1 J	26.2 J	27.9 J	mg/Kg-dry
4,4´-DDD	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	<6.39	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
4,4´-DDE	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	<6.39	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
4,4´-DDT	53.0	1800	<6.76	<8.06	<7.90	<6.10	<5.80	<6.39	<5.35	<5.43	<6.17	10.1	<5.60	Fg/Kg-dry
Aldrin	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	<6.39	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
alpha-BHC	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	<6.39	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
alpha-Chlordane	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	48.6	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
beta-BHC	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	<6.39	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
Chlordane	<64.7	<68.5	<67.6	<80.6	<79.0	<61.0	<58.0	<63.9	<53.5	<54.3	<61.7	<56.2	<56.0	Fg/Kg-dry
delta-BHC	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	<6.39	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
Dieldrin	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	<6.39	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
Endosulfan I	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	<6.39	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
Endosulfan II	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	<6.39	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
Endosulfan sulfate	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	<6.39	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
Endrin	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	<6.39	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
Endrin aldehyde	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	<6.39	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
Endrin ketone	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	<6.39	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
gamma-BHC	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	<6.39	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
gamma-Chlordane	45.3	56.2	<6.76	<8.06	<7.90	<6.10	<5.80	63.9	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
Heptachlor	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	24.3	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
Heptachlor epoxide	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	<6.39	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
Hexachlorobenzene	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	<6.39	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry
Methoxychlor	<6.47	<6.85	<6.76	<8.06	<7.90	<6.10	<5.80	<6.39	<5.35	<5.43	<6.17	<5.62	<5.60	Fg/Kg-dry

Analyte	A10A	A10B	B4A	B4B-1	B4B-2	B1A	B1B	A11	B2A	B2B	B3A	B3B-1	B3B-2	Units
Toxaphene	<64.7	<68.5	<67.6	<80.6	<79.0	<61.0	<58.0	<63.9	<53.5	<54.3	<61.7	<56.2	<56.0	Fg/Kg-dry
2,4,5-T	160	<6.8	<6.8	<8.0	<7.9	28	<5.8	<6.4	36	<5.4	31	38	<5.6	Fg/Kg-dry
2,4,5-TP (Silvex)	<6.5	<6.8	<6.8	<8.0	<7.9	<6.1	<5.8	<6.4	<5.3	<5.4	<6.2	<5.6	<5.6	Fg/Kg-dry
2,4-D	<6.5	<6.8	<6.8	<8.0	<7.9	<6.1	<5.8	<6.4	<5.3	<5.4	<6.2	<5.6	<5.6	Fg/Kg-dry
Pentachlorophenol	150	140	39	25	29	<6.1	<5.8	35	<5.3	<5.4	<6.2	<5.6	<5.6	Fg/Kg-dry
1&2-Chloronaphthalene	<1290	<1370	<1350	<1610	<1580	<1220	<1160	<1280	<1070	<1090	<1240	<1120	<1120	Fg/Kg-dry
1,2,4,5-Tetrachlorobenzene	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
1,2,4-Trichlorobenzene	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
1,2-Dichlorobenzene	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
1,2-Diphenylhydrazine	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
1,3-Dichlorobenzene	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
1,4-Dichlorobenzene	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
1-Naphthylamine	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
2,3,4,6-Tetrachlorophenol	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
2,4,5-Trichlorophenol	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
2,4,6-Trichlorophenol	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
2,4-Dichlorophenol	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
2,4-Dimethylphenol	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
2,4-Dinitrophenol	<2590	<2730	<2700	<3220	<3160	<2430	<2320	<2560	<2130	<2170	<2470	<2240	<2240	Fg/Kg-dry
2,4-Dinitrotoluene	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
2,6-Dichlorophenol	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
2,6-Dinitrotoluene	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
2-Chlorophenol	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
2-Methylnaphthalene	744	579 J	406 J	<805	193 J	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
2-Naphthylamine	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
2-Nitroaniline	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
2-Nitrophenol	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
2-Picoline	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
3,3´-Dichlorobenzidine	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
3-Methylcholanthrene	<647	<683	<675	<805	<790	<608	<580	659	<533	<543	<618	<559	<560	Fg/Kg-dry
3-Nitroaniline	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
4,6-Dinitro-2-methylpheno	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
4-Aminobiphenyl	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
4-Bromophenyl phenyl ether	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry

Analyte	A10A	A10B	B4A	B4B-1	B4B-2	B1A	B1B	A11	B2A	B2B	B3A	B3B-1	B3B-2	Units
4-Chloro-3-methylphenol	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
4-Chloroaniline	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
4-Chlorophenylphenylether	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
4-Nitroaniline	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
4-Nitrophenol	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
7,12-Dimethylbenz(a)anthracene	<647	<683	<675	<805	<790	<608	<580	<641	<533	558	<618	<559	<560	Fg/Kg-dry
Acenaphthene	6970	6380	2660	1130	1240	213 J	203 J	249 J	387 J	253 J	174 J	74.9 J	77.3 J	Fg/Kg-dry
Acenaphthylene	1990	1530	788	513 J	526 J	<608	<580	136 J	128 J	<543	<618	<559	<560	Fg/Kg-dry
Acetophenone	124 J	102 J	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
Aniline	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
Anthracene	24100	23800	9230	5070	4960	1060	996	1220	2100	1270	875	597	435 J	Fg/Kg-dry
Atrazine	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
Benzidine	<2590	<2730	<2700	<3220	<3160	<2430	<2320	<2560	<2130	<2170	<2470	<2240	<2240	Fg/Kg-dry
Benzoic acid	1650 J	<2730	<2700	29200	29200	12500	8360	<2560	12700	14500	9480	6740	5640	Fg/Kg-dry
Benzyl alcohol	<647	<683	<675	<3220	<3160	18000	<2320	<641	<2130	19800	12600	7730	7100	Fg/Kg-dry
Bis(2-chloroethoxy)methane	<647	<683	<675	<805	<790	15400	<580	<641	<533	17400	19200	14100	12300	Fg/Kg-dry
Bis(2-chloroethyl)ether	<647	<683	<675	<805	<790	11100	<580	<641	<533	11400	11000	7220	7310	Fg/Kg-dry
Bis(2-chloroisopropyl)ether	<647	<683	<675	<805	<790	<2430	<580	<641	<533	<2170	7390	6190	4640	Fg/Kg-dry
Bis(2-ethylhexyl)phthalate	<647	<683	2380	<805	<790	<608	<580	2290	<533	<543	<2470	<2240	<2240	Fg/Kg-dry
Butyl benzyl phthalate	<647	<683	<675	1660	2360	<608	410 J	1010	566	<543	<618	<559	<560	Fg/Kg-dry
Carbaryl	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
Cresols, Total	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
Di-n-butyl phthalate	<647	<683	<675	<805	<790	569 J	7850	<641	17200	1200	<618	<559	<560	Fg/Kg-dry
Di-n-octyl phthalate	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	932	855	<560	Fg/Kg-dry
Dibenz(a,j)acridine	10500	8160	14100	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
Dibenzofuran	5820	4950	5210	12200	14500	10000	<580	231 J	<533	12800	<618	<559	<560	Fg/Kg-dry
Diethyl phthalate	<647	<683	2090	<805	<790	18900	2660	<641	4680	21700	6590	3430	3170	Fg/Kg-dry
Dimethyl phthalate	<647	<683	<675	951	1000	<608	<580	<641	<533	<543	13100	10100	8680	Fg/Kg-dry
Ethyl methanesulfonate	<647	<683	<675	<805	<790	<608	165 J	<641	336 J	<543	<618	<559	<560	Fg/Kg-dry
Fluorene	9610	8930	<675	<805	<790	<608	<580	378 J	<533	<543	<618	<559	<560	Fg/Kg-dry
Hexachlorobenzene	<647	<683	3520	<805	<790	3320	<580	<641	<533	3160	<618	<559	<560	Fg/Kg-dry
Hexachlorobutadiene	<647	<683	<675	1510	1630	<608	<580	<641	<533	<543	2060	1390	1080	Fg/Kg-dry
Hexachlorocyclopentadiene	<647	<683	<675	<805	<790	196 J	279 J	<641	580	239 J	<618	<559	<560	Fg/Kg-dry

Analyte	A10A	A10B	B4A	B4B-1	B4B-2	B1A	B1B	A11	B2A	B2B	B3A	B3B-1	B3B-2	Units
Hexachloroethane	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	147 J	<559	<560	Fg/Kg-dry
Isophorone	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
m,p-Cresol	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
Methyl methanesulfonate	<647	<683	<675	<805	<790	306 J	<580	<641	<533	376 J	<618	<559	<560	Fg/Kg-dry
N-Nitroso-di-n-butylamine	<647	<683	<675	<805	<790	<608	10300	<641	18600	<543	24100	17900	14700	Fg/Kg-dry
N-Nitrosodi-n-propylamine	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	264 J	<559	<560	Fg/Kg-dry
N-Nitrosodiethylamine	<2590	<2730	<675	<805	<790	<608	<580	<2560	<533	<543	<618	<559	<560	Fg/Kg-dry
N-Nitrosodimethylamine	<647	<683	<2700	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
N-Nitrosodiphenylamine	<647	<683	<675	<3220	<3160	12700	<580	<641	<533	13700	<618	<559	<560	Fg/Kg-dry
N-Nitrosopiperidine	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
Naphthalene	1740	1440	<675	<805	<790	<608	<2320	<641	<2130	<543	9030	6260	5740	Fg/Kg-dry
Nitrobenzene	<647	<683	413 J	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
o-Cresol	<647	<683	<675	229 J	224 J	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
p - Dimethylaminoazobenzene	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
Pentachlorobenzene	<647	<683	<675	<805	<790	<2430	<580	<641	<533	<2170	<618	<559	<560	Fg/Kg-dry
Pentachloronitrobenzene	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
Pentachlorophenol	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<2470	<2240	<2240	Fg/Kg-dry
Phenacetin	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
Phenol	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
Pronamide	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
Pyridine	<647	<683	<675	<805	<790	<608	<580	<641	<533	<543	<618	<559	<560	Fg/Kg-dry
Benzo(a)anthracene	387000	227000	<675	<805	<790	<608	<580	31600	<533	<543	<618	<559	<560	Fg/Kg-dry
Benzo(a)pyrene	429000	154000	144000	<805	<790	<608	9610	12800	19100	<543	<618	<559	<560	Fg/Kg-dry
Benzo(b)fluoranthene	677000	206000	160000	91000	91900	<608	<580	10500	<533	<543	<618	<559	<560	Fg/Kg-dry
Benzo(g,h,i)perylene	288000	52600	235000	108000	108000	<608	<580	8180	<533	<543	<618	<559	<560	Fg/Kg-dry
Chrysene	607000	195000	153000	167000	172000	<608	<580	20700	<533	<543	<618	<559	<560	Fg/Kg-dry
Fluoranthene	926000	227000	87200	115000	104000	11000	12000	3620	30700	13000	<618	<559	<560	Fg/Kg-dry
Phenanthrene	336000	287000	36800	26300	29800	<608	15700	11500	33700	<543	<618	<559	<560	Fg/Kg-dry
Pyrene	841000	343000	214000	143000	141000	<608	24000	11000	53200	<543	8310	5170	4830	Fg/Kg-dry
Benzo(k)fluoranthene	166000	478000	297000	195000	196000	<608	15200	12700	33700	<543	<618	<559	<560	Fg/Kg-dry
Carbazole	253000	471000	126000	92900	85100	30700	18800	18400	43800	39500	<618	<559	<560	Fg/Kg-dry
Dibenz(a,h)anthracene	63300	763000	105000	61500	62800	37400	31200	33900	69900	51200	17300	11800	11800	Fg/Kg-dry
Indeno(1,2,3-cd)pyrene	231000	655000	284000	179000	172000	29800	23800	26100	59500	40600	<618	<559	<560	Fg/Kg-dry
Mercury	331	563	236	457	386	107 J	114 J	381	67.0 J	99.0 J	47.9 J	45.7 J	50.7 J	Fg/Kg-dry

Table 8. Analytical results of soil and asphalt samples taken from Barton Hills Park Place Apartments.

Analyte	A5	A4	A4-Dup	B4-Asp	Units
Arsenic	5.55 J	5.40 J	4.16 J	1.39 J	mg/Kg-dry
Cadmium	<854	1.69 J	1.64 J	<507	mg/Kg-dry
Chromium	26.7	28.5	25.9	4.81 J	mg/Kg-dry
Copper	25.7	40.6	41.7	6.69	mg/Kg-dry
Lead	84.8	117	109	44.0	mg/Kg-dry
Nickel	16.2 J	15.7	14.7	11.7	mg/Kg-dry
Selenium	<3410	<2870	<2670	<2030	mg/Kg-dry
Silver	<1710	<1430	0.76 J	<1010	mg/Kg-dry
Zinc	156 J	404	353	59.1 J	mg/Kg-dry
Aluminum	8710	5350	4420	1850	mg/Kg-dry
4,4´-DDD	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
4,4´-DDE	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
4,4´-DDT	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
Aldrin	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
alpha-BHC	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
alpha-Chlordane	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
beta-BHC	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
Chlordane	<85.9	<72.4	<66.5	<50.4	Fg/Kg-dry
delta-BHC	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
Dieldrin	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
Endosulfan I	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
Endosulfan II	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
Endosulfan sulfate	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
Endrin	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
Endrin aldehyde	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
Endrin ketone	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
gamma-BHC	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
gamma-Chlordane	<8.59	49.2	51.9	<5.04	Fg/Kg-dry
Heptachlor	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
Heptachlor epoxide	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
Hexachlorobenzene	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
Methoxychlor	<8.59	<7.24	<6.65	<5.04	Fg/Kg-dry
Toxaphene	<85.9	<72.4	<66.5	<50.4	Fg/Kg-dry
2,4,5-T	<8.6	<7.2	<6.6	<5.1	Fg/Kg-dry
2,4,5-TP (Silvex)	<8.6	<7.2	<6.6	<5.1	Fg/Kg-dry
2,4-D	<8.6	<7.2	<6.6	<5.1	Fg/Kg-dry
Pentachlorophenol	<8.6	380	310	<5.1	Fg/Kg-dry
1&2-Chloronaphthalene	<1720	<7220	<6650	<10000	Fg/Kg-dry
1,2,4,5-Tetrachlorobenzene	<859	<3610	<3320	<5020	Fg/Kg-dry
1,2,4-Trichlorobenzene	<859	<3610	<3320	<5020	Fg/Kg-dry
1,2-Dichlorobenzene	<859	<3610	<3320	<5020	Fg/Kg-dry
1,2-Diphenylhydrazine	<859	<3610	<3320	<5020	Fg/Kg-dry
1,3-Dichlorobenzene	<859	<3610	<3320	<5020	Fg/Kg-dry
1,4-Dichlorobenzene	<859	<3610	<3320	<5020	Fg/Kg-dry
1-Naphthylamine	<859	<3610	<3320	<5020	Fg/Kg-dry
2,3,4,6-Tetrachlorophenol	<859	<3610	<3320	<5020	Fg/Kg-dry

Analyte	A5	A4	A4-Dup	B4-Asp	Units
2,4,5-Trichlorophenol	<859	<3610	<3320	<5020	Fg/Kg-dry
2,4,6-Trichlorophenol	<859	<3610	<3320	<5020	Fg/Kg-dry
2,4-Dichlorophenol	<859	<3610	<3320	<5020	Fg/Kg-dry
2,4-Dimethylphenol	<859	<3610	<3320	<5020	Fg/Kg-dry
2,4-Dinitrophenol	<3440	<14400	<13300	<20100	Fg/Kg-dry
2,4-Dinitrotoluene	<859	<3610	<3320	<5020	Fg/Kg-dry
2,6-Dichlorophenol	<859	<3610	<3320	<5020	Fg/Kg-dry
2,6-Dinitrotoluene	<859	<3610	<3320	<5020	F/Kg-dry
2-Chlorophenol	<859	<3610	<3320	<5020	Fg/Kg-dry
2-Methylnaphthalene	<859	1890 J	1620 J	<5020	Fg/Kg-dry
2-Naphthylamine	<859	<3610	<3320	<5020	Fg/Kg-dry
2-Nitroaniline	<859	<3610	<3320	<5020	Fg/Kg-dry
2-Nitrophenol	<859	<3610	<3320	<5020	Fg/Kg-dry
2-Picoline	<859	<3610	<3320	<5020	Fg/Kg-dry
3,3´-Dichlorobenzidine	<859	<3610	<3320	<5020	Fg/Kg-dry
3-Methylcholanthrene	<859	<3610	<3320	<5020	Fg/Kg-dry
3-Nitroaniline	<859	<3610	<3320	<5020	Fg/Kg-dry
4,6-Dinitro-2-methylphenol	<859	<3610	<3320	<5020	Fg/Kg-dry
4-Aminobiphenyl	<859	<3610	<3320	<5020	Fg/Kg-dry
4-Bromophenyl phenyl ether	<859	<3610	<3320	<5020	Fg/Kg-dry
4-Chloro-3-methylphenol	<859	<3610	<3320	<5020	Fg/Kg-dry
4-Chloroaniline	<859	<3610	<3320	<5020	Fg/Kg-dry
4-Chlorophenyl phenyl ether	<859	<3610	<3320	<5020	Fg/Kg-dry
4-Nitroaniline	<859	<3610	<3320	<5020	Fg/Kg-dry
4-Nitrophenol	<859	<3610	<3320	<5020	Fg/Kg-dry
7,12-Dimethylbenz(a)anthracene	<859	<3610	<3320	<5020	Fg/Kg-dry
Acenaphthene	132 J	13000	9550	<5020	Fg/Kg-dry
Acenaphthylene	<859	6830	5640	<5020	Fg/Kg-dry
Acetophenone	<859	<3610	<3320	<5020	Fg/Kg-dry
Aniline	<859	<3610	<3320	<5020	Fg/Kg-dry
Anthracene	698 J	40000	29200	1370 J	Fg/Kg-dry
Atrazine	<859	<3610	<3320	<5020	Fg/Kg-dry
Benzoic acid	<3440	<14400	<13300	<20100	Fg/Kg-dry
Benzyl alcohol	<859	<3610	<3320	<20100	Fg/Kg-dry
Bis(2-chloroethoxy)methane	<859	<3610	<3320	<5020	Fg/Kg-dry
Bis(2-chloroethyl)ether	<859	<3610	<3320	<5020	Fg/Kg-dry
Bis(2-chloroisopropyl)ether	<859	<3610	<3320	<5020	Fg/Kg-dry
Bis(2-ethylhexyl)phthalate	7020	59600	48100	<5020	Fg/Kg-dry
Butyl benzyl phthalate	<859	<3610	<3320	2650 J	Fg/Kg-dry
Carbaryl	<859	<3610	<3320	<5020	Fg/Kg-dry
Cresols, Total	<859	<3610	<3320	<5020	Fg/Kg-dry
Di-n-butyl phthalate	<859	<3610	<3320	<5020	Fg/Kg-dry
Di-n-octyl phthalate	<859	<3610	<3320	<5020	Fg/Kg-dry
Dibenz(a,h)anthracene	3670	123000	92500	<5020	Fg/Kg-dry
Dibenz(a,j)acridine	<859	43500	11900	6740	Fg/Kg-dry
Dibenzofuran	<859	11300	8930	<5020	Fg/Kg-dry
Diethyl phthalate	<859	<3610	<3320	<5020	Fg/Kg-dry
Dimethyl phthalate	<859	<3610	<3320	<5020	Fg/Kg-dry

Analyte	A5	A4	A4-Dup	B4-Asp	Units
Ethyl methanesulfonate	<859	<3610	<3320	<5020	Fg/Kg-dry
Fluorene	<859	15800	10900	<5020	Fg/Kg-dry
Hexachlorobenzene	<859	<3610	<3320	<5020	Fg/Kg-dry
Hexachlorobutadiene	<859	<3610	<3320	<5020	Fg/Kg-dry
Hexachlorocyclopentadiene	<859	<3610	<3320	<5020	Fg/Kg-dry
Hexachloroethane	<859	<3610	<3320	<5020	Fg/Kg-dry
Isophorone	<859	<3610	<3320	<5020	Fg/Kg-dry
m,p-Cresol	<859	<3610	<3320	<5020	Fg/Kg-dry
Methyl methanesulfonate	<859	<3610	<3320	<5020	Fg/Kg-dry
N-Nitroso-di-n-butylamine	<859	<3610	<3320	<5020	Fg/Kg-dry
N-Nitrosodi-n-propylamine	<859	<3610	<3320	<5020	Fg/Kg-dry
N-Nitrosodiethylamine	<3440	<14400	<13300	<5020	Fg/Kg-dry
N-Nitrosodimethylamine	<859	<3610	<3320	<20100	Fg/Kg-dry
N-Nitrosodiphenylamine	<859	<3610	<3320	<5020	Fg/Kg-dry
N-Nitrosopiperidine	<859	<3610	<3320	<5020	Fg/Kg-dry
Naphthalene	<859	2100 J	1820 J	<5020	Fg/Kg-dry
Nitrobenzene	<859	<3610	<3320	<5020	Fg/Kg-dry
o-Cresol	<859	<3610	<3320	<5020	Fg/Kg-dry
p-Dimethylaminoazobenzene	<859	<3610	<3320	<5020	Fg/Kg-dry
Pentachlorobenzene	<859	<3610	<3320	<5020	Fg/Kg-dry
Pentachloronitrobenzene	<859	<3610	<3320	<5020	Fg/Kg-dry
Pentachlorophenol	<859	<3610	<3320	<5020	Fg/Kg-dry
Phenacetin	<859	<3610	<3320	<5020	Fg/Kg-dry
Phenol	<859	<3610	<3320	<5020	Fg/Kg-dry
Pronamide	<859	<3610	<3320	<5020	Fg/Kg-dry
Pyridine	<859	<3610	<3320	<5020	Fg/Kg-dry
Benzidine	<3440	181000	163000	<5020	Fg/Kg-dry
Benzo(a)anthracene	17000	572000	562000	13000	Fg/Kg-dry
Benzo(a)pyrene	23200	722000	745000	21000	Fg/Kg-dry
Benzo(b)fluoranthene	32100	1150000	1100000	31800	Fg/Kg-dry
Benzo(g,h,i)perylene	20900	682000	717000	15700	Fg/Kg-dry
Benzo(k)fluoranthene	12000	481000	408000	12100	Fg/Kg-dry
Carbazole	2800	219000	188000	<5020	Fg/Kg-dry
Chrysene	28200	1190000	1090000	20200	Fg/Kg-dry
Fluoranthene	26700	1480000	1340000	39400	Fg/Kg-dry
Indeno(1,2,3-cd)pyrene	16300	568000	595000	15200	Fg/Kg-dry
Phenanthrene	6490	477000	401000	12900	Fg/Kg-dry
Pyrene	28100	1390000	1240000	26700	Fg/Kg-dry
Mercury	115 J	756	724	46.9 J	Fg/Kg-dry

Table 9. Analytical results of soil samples taken from sites adjacent to a non-asphalted parking lot.

Analyte	A8A	A8B	A9	Units
Aluminum	5780	6580	10100	mg/Kg-dry
Arsenic	3.70 J	6.28 J	4.10 J	mg/Kg-dry
Cadmium	0.80 J	0.50 J	<1600	mg/Kg-dry
Chromium	23.5	33.8	37.5	mg/Kg-dry
Copper	99.3	35.2	65.4	mg/Kg-dry
Lead	52.0	96.8	78.1	mg/Kg-dry
Nickel	13.6	13.0 J	18.4 J	mg/Kg-dry
Selenium	<2680	<2630	<6390	mg/Kg-dry
Silver	0.77 J	1.71 J	1.56 J	mg/Kg-dry
Zinc	252	246	571	mg/Kg-dry
4,4´-DDD	<7.04	<6.81	<16.1	Fg/Kg-dry
4,4´-DDE	<7.04	<6.81	<16.1	Fg/Kg-dry
4,4´-DDT	<7.04	<6.81	<16.1	Fg/Kg-dry
Aldrin	<7.04	<6.81	<16.1	Fg/Kg-dry
alpha-BHC	<7.04	<6.81	<16.1	Fg/Kg-dry
alpha-Chlordane	<7.04	<6.81	<16.1	Fg/Kg-dry
beta-BHC	<7.04	<6.81	<16.1	Fg/Kg-dry
Chlordane	<70.4	<68.1	<161	Fg/Kg-dry
delta-BHC	<7.04	<6.81	<16.1	Fg/Kg-dry
Dieldrin	<7.04	<6.81	<16.1	Fg/Kg-dry
Endosulfan I	<7.04	<6.81	<16.1	Fg/Kg-dry
Endosulfan II	<7.04	<6.81	<16.1	Fg/Kg-dry
Endosulfan sulfate	<7.04	<6.81	<16.1	Fg/Kg-dry
Endrin	<7.04	<6.81	<16.1	Fg/Kg-dry
Endrin aldehyde	<7.04	<6.81	<16.1	Fg/Kg-dry
Endrin ketone	<7.04	<6.81	<16.1	Fg/Kg-dry
gamma-BHC	<7.04	<6.81	<16.1	Fg/Kg-dry
gamma-Chlordane	<7.04	<6.81	<16.1	Fg/Kg-dry
Heptachlor	<7.04	<6.81	<16.1	Fg/Kg-dry
Heptachlor epoxide	<7.04	<6.81	<16.1	Fg/Kg-dry
Hexachlorobenzene	<7.04	<6.81	<16.1	Fg/Kg-dry
Methoxychlor	<7.04	<6.81	<16.1	Fg/Kg-dry
Toxaphene	<70.4	<68.1	<161	Fg/Kg-dry
2,4,5-T	<7.0	<6.8	<16	Fg/Kg-dry
2,4,5-TP (Silvex)	<7.0	<6.8	<16	Fg/Kg-dry
2,4-D	<7.0	<6.8	<16	Fg/Kg-dry
Pentachlorophenol	<7.0	<6.8	<16	Fg/Kg-dry
1&2-Chloronaphthalene	<1410	<1370	<1610	Fg/Kg-dry
1,2,4,5-Tetrachlorobenzene	<703	<683	<806	Fg/Kg-dry
1,2,4-Trichlorobenzene	<703	<683	<806	Fg/Kg-dry
1,2-Dichlorobenzene	<703	<683	<806	Fg/Kg-dry
1,2-Diphenylhydrazine	<703	<683	<806	Fg/Kg-dry
1,3-Dichlorobenzene	<703	<683	<806	Fg/Kg-dry
1,4-Dichlorobenzene	<703	<683	<806	Fg/Kg-dry

Analyte	A8A	A8B	A9	Units
1-Naphthylamine	<703	<683	<806	Fg/Kg-dry
2,3,4,6-Tetrachlorophenol	<703	<683	<806	Fg/Kg-dry
2,4,5-Trichlorophenol	<703	<683	<806	Fg/Kg-dry
2,4,6-Trichlorophenol	<703	<683	<806	Fg/Kg-dry
2,4-Dichlorophenol	<703	<683	<806	Fg/Kg-dry
2,4-Dimethylphenol	<703	<683	<806	Fg/Kg-dry
2,4-Dinitrophenol	<2810	<2730	<3220	Fg/Kg-dry
2,4-Dinitrotoluene	<703	<683	<806	Fg/Kg-dry
2,6-Dichlorophenol	<703	<683	<806	Fg/Kg-dry
2,6-Dinitrotoluene	<703	<683	<806	Fg/Kg-dry
2-Chlorophenol	<703	<683	<806	Fg/Kg-dry
2-Methylnaphthalene	<703	<683	<806	Fg/Kg-dry
2-Naphthylamine	<703	<683	<806	Fg/Kg-dry
2-Nitroaniline	<703	<683	<806	Fg/Kg-dry
2-Nitrophenol	<703	<683	<806	Fg/Kg-dry
2-Picoline	<703	<683	<806	Fg/Kg-dry
3,3´-Dichlorobenzidine	<703	<683	<806	Fg/Kg-dry
3-Methylcholanthrene	<703	<683	<806	Fg/Kg-dry
3-Nitroaniline	<703	<683	<806	Fg/Kg-dry
4,6-Dinitro-2-methylphenol	<703	<683	<806	Fg/Kg-dry
4-Aminobiphenyl	<703	<683	<806	Fg/Kg-dry
4-Bromophenyl phenyl ether	<703	<683	<806	Fg/Kg-dry
4-Chloro-3-methylphenol	<703	<683	<806	Fg/Kg-dry
4-Chloroaniline	<703	<683	<806	Fg/Kg-dry
4-Chlorophenyl phenyl ether	<703	<683	<806	Fg/Kg-dry
4-Nitroaniline	<703	<683	<806	Fg/Kg-dry
4-Nitrophenol	848	<683	<806	Fg/Kg-dry
7,12-Dimethylbenz(a)anthracene	<703	<683	<806	Fg/Kg-dry
Acenaphthene	<703	<683	<806	Fg/Kg-dry
Acenaphthylene	<703	<683	<806	Fg/Kg-dry
Acetophenone	<703	<683	222 J	Fg/Kg-dry
Aniline	<703	<683	<806	Fg/Kg-dry
Anthracene	<703	<683	<806	Fg/Kg-dry
Atrazine	<703	<683	<806	Fg/Kg-dry
Benzidine	<2810	<2730	<3220	Fg/Kg-dry
Benzo(a)anthracene	364 J	350 J	860	Fg/Kg-dry
Benzo(a)pyrene	822	804	1770	Fg/Kg-dry
Benzo(b)fluoranthene	1400	1550	3140	Fg/Kg-dry
Benzo(g,h,i)perylene	597 J	590 J	1380	Fg/Kg-dry
Benzo(k)fluoranthene	371 J	422 J	709 J	Fg/Kg-dry
Benzoic acid	<2810	<2730	<3220	Fg/Kg-dry
Benzyl alcohol	<703	<683	<806	Fg/Kg-dry
Bis(2-chloroethoxy)methane	<703	<683	<806	Fg/Kg-dry
Bis(2-chloroethyl)ether	<703	<683	<806	Fg/Kg-dry
Bis(2-chloroisopropyl)ether	<703	<683	<806	Fg/Kg-dry
Bis(2-ethylhexyl)phthalate	2420	1780	8310	Fg/Kg-dry

Analyte	A8A	A8B	A9	Units
Butyl benzyl phthalate	<703	<683	<806	Fg/Kg-dry
Carbaryl	<703	<683	<806	Fg/Kg-dry
Carbazole	<703	<683	<806	Fg/Kg-dry
Chrysene	588 J	639 J	1610	Fg/Kg-dry
Cresols, Total	<703	<683	<806	Fg/Kg-dry
Di-n-butyl phthalate	759	1170	<806	Fg/Kg-dry
Di-n-octyl phthalate	<703	<683	<806	Fg/Kg-dry
Dibenz(a,h)anthracene	<703	661 J	1580	Fg/Kg-dry
Dibenz(a,j)acridine	<703	<683	<806	Fg/Kg-dry
Dibenzofuran	<703	<683	<806	Fg/Kg-dry
Diethyl phthalate	<703	<683	<806	Fg/Kg-dry
Dimethyl phthalate	<703	<683	<806	Fg/Kg-dry
Ethyl methanesulfonate	<703	<683	<806	Fg/Kg-dry
Fluoranthene	1010	1000	1840	Fg/Kg-dry
Fluorene	<703	<683	<806	Fg/Kg-dry
Hexachlorobenzene	<703	<683	<806	Fg/Kg-dry
Hexachlorobutadiene	<703	<683	<806	Fg/Kg-dry
Hexachlorocyclopentadiene	<703	<683	<806	Fg/Kg-dry
Hexachloroethane	<703	<683	<806	Fg/Kg-dry
Indeno(1,2,3-cd)pyrene	814	789	1720	Fg/Kg-dry
Isophorone	<703	<683	<806	Fg/Kg-dry
m,p-Cresol	<703	<683	<806	Fg/Kg-dry
Methyl methanesulfonate	<703	<683	<806	Fg/Kg-dry
N-Nitroso-di-n-butylamine	<703	<683	<806	Fg/Kg-dry
N-Nitrosodi-n-propylamine	<703	<683	<806	Fg/Kg-dry
N-Nitrosodiethylamine	<2810	<2730	<3220	Fg/Kg-dry
N-Nitrosodimethylamine	<703	<683	<806	Fg/Kg-dry
N-Nitrosodiphenylamine	<703	<683	<806	Fg/Kg-dry
N-Nitrosopiperidine	<703	<683	<806	Fg/Kg-dry
Naphthalene	<703	<683	<806	Fg/Kg-dry
Nitrobenzene	<703	<683	<806	Fg/Kg-dry
o-Cresol	<703	<683	<806	Fg/Kg-dry
p-Dimethylaminoazobenzene	<703	<683	<806	Fg/Kg-dry
Pentachlorobenzene	<703	<683	<806	Fg/Kg-dry
Pentachloronitrobenzene	<703	<683	<806	Fg/Kg-dry
Pentachlorophenol	<703	<683	<806	Fg/Kg-dry
Phenacetin	<703	<683	<806	Fg/Kg-dry
Phenanthrene	337 J	307 J	538 J	Fg/Kg-dry
Phenol	<703	<683	<806	Fg/Kg-dry
Pronamide	<703	<683	<806	Fg/Kg-dry
Pyrene	839	890	1630	Fg/Kg-dry
Pyridine	<703	<683	<806	Fg/Kg-dry
Mercury	64.1 J	68.2 J	137 J	Fg/Kg-dry