Polycyclic Aromatic Hydrocarbons (PAHs) - ToxFAQs™

This fact sheet answers the most frequently asked health questions (FAQs) about polycyclic aromatic hydrocarbons (PAHs). For more information, call the CDC Information Center at 1-800-232-4636. This fact sheet is one in a series of summaries about hazardous substances and their health effects. This information is important because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Exposure to polycyclic aromatic hydrocarbons usually occurs by breathing air contaminated by wild fires or coal tar, or by eating foods that have been grilled. PAHs have been found in at least 600 of the 1,430 National Priorities List (NPL) sites identified by the Environmental Protection Agency (EPA).

What are polycyclic aromatic hydrocarbons?

(Pronounced pŏl′ĭ-sī′klĭk ăr′ə-măt′ĭk hī′drə-kar′bənz)

Polycyclic aromatic hydrocarbons (PAHs) are a group of over 100 different chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances like tobacco or charbroiled meat. PAHs are usually found as a mixture containing two or more of these compounds, such as soot.

Some PAHs are manufactured. These pure PAHs usually exist as colorless, white, or pale yellow-green solids. PAHs are found in coal tar, crude oil, creosote, and roofing tar, but a few are used in medicines or to make dyes, plastics, and pesticides.

What happens to PAHs when they enter the environment?

- PAHs enter the air mostly as releases from volcanoes, forest fires, burning coal, and automobile exhaust.
- PAHs can occur in air attached to dust particles.
- Some PAH particles can readily evaporate into the air from soil or surface waters.
- PAHs can break down by reacting with sunlight and other chemicals in the air, over a period of days to weeks.
- PAHs enter water through discharges from industrial and wastewater treatment plants.
- Most PAHs do not dissolve easily in water. They stick to solid particles and settle to the bottoms of lakes or rivers.
- Microorganisms can break down PAHs in soil or water after a period of weeks to months.
- In soils, PAHs are most likely to stick tightly to particles; certain PAHs move through soil to contaminate underground water.
- PAH contents of plants and animals may be much higher than PAH contents of soil or water in which they live.

How might I be exposed to PAHs?

- Breathing air containing PAHs in the workplace of coking, coal-tar, and asphalt production plants; smokehouses; and municipal trash incineration facilities.
- Breathing air containing PAHs from cigarette smoke, wood smoke, vehicle exhausts, asphalt roads, or agricultural burn smoke.
- Coming in contact with air, water, or soil near hazardous waste sites.
- Eating grilled or charred meats; contaminated cereals, flour, bread, vegetables, fruits, meats; and processed or pickled foods.
- Drinking contaminated water or cow's milk.
- Nursing infants of mothers living near hazardous waste sites may be exposed to PAHs through their mother's milk.

Polycyclic Aromatic Hydrocarbons

How can PAHs affect my health?

Mice that were fed high levels of one PAH during pregnancy had difficulty reproducing and so did their offspring. These offspring also had higher rates of birth defects and lower body weights. It is not known whether these effects occur in people.

Animal studies have also shown that PAHs can cause harmful effects on the skin, body fluids, and ability to fight disease after both short- and long-term exposure. But these effects have not been seen in people.

How likely are PAHs to cause cancer?

The Department of Health and Human Services (DHHS) has determined that some PAHs may reasonably be expected to be carcinogens.

Some people who have breathed or touched mixtures of PAHs and other chemicals for long periods of time have developed cancer. Some PAHs have caused cancer in laboratory animals when they breathed air containing them (lung cancer), ingested them in food (stomach cancer), or had them applied to their skin (skin cancer).

Is there a medical test to show whether I've been exposed to PAHs?

In the body, PAHs are changed into chemicals that can attach to substances within the body. There are special tests that can detect PAHs attached to these substances in body tissues or blood. However, these tests cannot tell whether any health effects will occur or find out the extent or source of your exposure to the PAHs. The tests aren't usually available in your doctor's office because special equipment is needed to conduct them.

Has the federal government made recommendations to protect human health?

The Occupational Safety and Health Administration (OSHA) has set a limit of 0.2 milligrams of PAHs per cubic meter of air (0.2 mg/m^3). The OSHA Permissible Exposure Limit (PEL) for mineral oil mist that contains PAHs is 5 mg/m^3 averaged over an 8-hour exposure period.

The National Institute for Occupational Safety and Health (NIOSH) recommends that the average workplace air levels for coal tar products not exceed 0.1 mg/m^3 for a 10-hour workday, within a 40-hour workweek. There are other limits for workplace exposure for things that contain PAHs, such as coal, coal tar, and mineral oil.

Glossary

Carcinogen: A substance that can cause cancer.

Ingest: Take food or drink into your body.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 1995. Toxicological profile for polycyclic aromatic hydrocarbons. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information?

For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology and Human Health Sciences, 1600 Clifton Road NE, Mailstop F-57, Atlanta, GA 30329-4027.

Phone: 1-800-232-4636.

ToxFAQs™ Internet address via WWW is http://www.atsdr.cdc.gov/toxfaqs/index.asp.

ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

Polychlorinated Biphenyls - ToxFAQs™

This fact sheet answers the most frequently asked health questions (FAQs) about polychlorinated biphenyls. For more information, call the CDC Information Center at 1-800-232-4636. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Polychlorinated biphenyls (PCBs) are a mixture of individual chemicals which are no longer produced in the United States, but are still found in the environment. Health effects that have been associated with exposure to PCBs include acne-like skin conditions in adults and neurobehavioral and immunological changes in children. PCBs are known to cause cancer in animals. PCBs have been found in at least 500 of the 1,598 National Priorities List (NPL) sites identified by the Environmental Protection Agency (EPA).

What are polychlorinated biphenyls?

Polychlorinated biphenyls are mixtures of up to 209 individual chlorinated compounds (known as congeners). There are no known natural sources of PCBs. PCBs are either oily liquids or solids that are colorless to light yellow. Some PCBs can exist as a vapor in air. PCBs have no known smell or taste. Many commercial PCB mixtures are known in the U.S. by the trade name Aroclor.

PCBs have been used as coolants and lubricants in transformers, capacitors, and other electrical equipment because they don't burn easily and are good insulators. The manufacture of PCBs was stopped in the U.S. in 1977 because of evidence they build up in the environment and can cause harmful health effects. Products made before 1977 that may contain PCBs include old fluorescent lighting fixtures and electrical devices containing PCB capacitors, and old microscope and hydraulic oils.

What happens to PCBs when they enter the environment?

- PCBs entered the air, water, and soil during their manufacture, use, and disposal; from accidental spills and leaks during their transport; and from leaks or fires in products containing PCBs.
- PCBs can still be released to the environment from hazardous waste sites; illegal or improper disposal of industrial wastes and consumer products; leaks from old electrical transformers containing PCBs; and burning of some wastes in incinerators.
- PCBs do not readily break down in the environment and thus may remain there for very long periods of time. PCBs can travel long distances in the air and be deposited in areas far away from where they were released. In water, a small amount of PCBs may remain dissolved, but most stick to organic particles and bottom sediments. PCBs also bind strongly to soil.
- PCBs are taken up by small organisms and fish in water. They are also taken up by other animals that eat these aquatic animals as food. PCBs accumulate in fish and marine mammals, reaching levels that may be many thousands of times higher than in water.

How might I be exposed to PCBs?

- Using old fluorescent lighting fixtures and electrical devices and appliances, such as television sets and refrigerators, that were made 30 or more years ago. These items may leak small amounts of PCBs into the air when they get hot during operation, and could be a source of skin exposure.
- Eating contaminated food. The main dietary sources of PCBs are fish (especially sportfish caught in contaminated lakes or rivers), meat, and dairy products.
- Breathing air near hazardous waste sites and drinking contaminated well water.
- In the workplace during repair and maintenance of PCB transformers; accidents, fires or spills involving transformers, fluorescent lights, and other old electrical devices; and disposal of PCB materials.

How can PCBs affect my health?

The most commonly observed health effects in people exposed to large amounts of PCBs are skin conditions such as acne and rashes. Studies in exposed workers have shown changes in blood and urine that may indicate liver damage. PCB exposures in the general population are not likely to result in skin and liver effects. Most of the studies of health effects of PCBs in the general population examined children of mothers who were exposed to PCBs.

Animals that ate food containing large amounts of PCBs for short periods of time had mild liver damage and some died. Animals that ate smaller amounts of PCBs in food over

several weeks or months developed various kinds of health effects, including anemia; acne-like skin conditions; and liver, stomach, and thyroid gland injuries. Other effects of PCBs in animals include changes in the immune system, behavioral alterations, and impaired reproduction. PCBs are not known to cause birth defects.

How likely are PCBs to cause cancer?

Few studies of workers indicate that PCBs were associated with certain kinds of cancer in humans, such as cancer of the liver and biliary tract. Rats that ate food containing high levels of PCBs for two years developed liver cancer. The Department of Health and Human Services (DHHS) has concluded that PCBs may reasonably be anticipated to be carcinogens. PCBs have been classified as probably carcinogenic, and carcinogenic to humans (group 1) by the Environmental Protection Agency (EPA) and International Agency for Research on Cancer (IARC), respectively.

How can PCBs affect children?

Women who were exposed to relatively high levels of PCBs in the workplace or ate large amounts of fish contaminated with PCBs had babies that weighed slightly less than babies from women who did not have these exposures. Babies born to women who ate PCB-contaminated fish also showed abnormal responses in tests of infant behavior. Some of these behaviors, such as problems with motor skills and a decrease in short-term memory, lasted for several years. Other studies suggest that the immune system was affected in children born to and nursed by mothers exposed to increased levels of PCBs. There are no reports of structural birth defects caused by exposure to PCBs or of health effects of PCBs in older children. The most likely way infants will be exposed to PCBs is from breast milk. Transplacental transfers of PCBs were also reported In most cases, the benefits of breast-feeding outweigh any risks from exposure to PCBs in mother's milk.

How can families reduce the risks of exposure to PCBs?

- You and your children may be exposed to PCBs by eating fish or wildlife caught from contaminated locations. Certain states, Native American tribes, and U.S. territories have issued advisories to warn people about PCB-contaminated fish and fish-eating wildlife. You can reduce your family's exposure to PCBs by obeying these advisories.
- Children should be told not play with old appliances, electrical equipment, or transformers, since they may contain PCBs.
- Children should be discouraged from playing in the dirt near hazardous waste sites and in areas where there was a transformer fire. Children should also be discouraged from eating dirt and putting dirty hands, toys or other objects in their mouths, and should wash hands frequently.
- If you are exposed to PCBs in the workplace it is possible to carry them home on your clothes, body, or tools. If this is the case, you should shower and change clothing before leaving work, and your work clothes should be kept separate from other clothes and laundered separately.

Is there a medical test to show whether I've been exposed to PCBs?

Tests exist to measure levels of PCBs in your blood, body fat, and breast milk, but these are not routinely conducted. Most people normally have low levels of PCBs in their body because nearly everyone has been environmentally exposed to PCBs. The tests can show if your PCB levels are elevated, which would indicate past exposure to above-normal levels of PCBs, but cannot determine when or how long you were exposed or whether you will develop health effects.

Has the federal government made recommendations to protect human health?

The EPA has set a limit of 0.0005 milligrams of PCBs per liter of drinking water (0.0005 mg/L). Discharges, spills or accidental releases of 1 pound or more of PCBs into the environment must be reported to the EPA. The Food and Drug Administration (FDA) requires that infant foods, eggs, milk and other dairy products, fish and shellfish, poultry and red meat contain no more than 0.2-3 parts of PCBs per million parts (0.2-3 ppm) of food. Many states have established fish and wildlife consumption advisories for PCBs.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 2000. Toxicological profile for polychlorinated biphenyls (PCBs). Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information?

For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology and Human Health Sciences, 1600 Clifton Road NE, Mailstop F-57, Atlanta, GA 30329-4027.

Phone: 1-800-232-4636.

ToxFAQs™ Internet address via WWW is http://www.atsdr.cdc.gov/toxfaqs/index.asp.

ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

Arsenic - ToxFAQs™

CAS # 7440-38-2

This fact sheet answers the most frequently asked health questions (FAQs) about arsenic. For more information, call the CDC Information Center at 1-800-232-4636. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It is important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Exposure to higher than average levels of arsenic occur mostly in the workplace, near hazardous waste sites, or in areas with high natural levels. At high levels, inorganic arsenic can cause death. Exposure to lower levels for a long time can cause a discoloration of the skin and the appearance of small corns or warts. Arsenic has been found in at least 1,149 of the 1,684 National Priority List (NPL) sites identified by the Environmental Protection Agency (EPA).

What is arsenic?

Arsenic is a naturally occurring element widely distributed in the earth's crust. In the environment, arsenic is combined with oxygen, chlorine, and sulfur to form inorganic arsenic compounds. Arsenic in animals and plants combines with carbon and hydrogen to form organic arsenic compounds.

Inorganic arsenic compounds are mainly used to preserve wood. Copper chromated arsenate (CCA) is used to make "pressure-treated" lumber. CCA is no longer used in the U.S. for residential uses; it is still used in industrial applications. Organic arsenic compounds are used as pesticides, primarily on cotton fields and orchards.

What happens to arsenic when it enters the environment?

- Arsenic occurs naturally in soil and minerals and may enter the air, water, and land from wind-blown dust and may get into water from runoff and leaching.
- Arsenic cannot be destroyed in the environment. It can only change its form.
- Rain and snow remove arsenic dust particles from the air.
- Many common arsenic compounds can dissolve in water. Most of the arsenic in water will ultimately end up in soil or sediment.
- Fish and shellfish can accumulate arsenic; most of this arsenic is in an organic form called arsenobetaine that is much less harmful.

How might I be exposed to arsenic?

- Ingesting small amounts present in your food and water or breathing air containing arsenic.
- Breathing sawdust or burning smoke from wood treated with arsenic.
- Living in areas with unusually high natural levels of arsenic in rock.
- Working in a job that involves arsenic production or use, such as copper or lead smelting, wood treating, or pesticide application.

How can arsenic affect my health?

Breathing high levels of inorganic arsenic can give you a sore throat or irritated lungs.

Ingesting very high levels of arsenic can result in death. Exposure to lower levels can cause nausea and vomiting, decreased production of red and white blood cells, abnormal heart rhythm, damage to blood vessels, and a sensation of "pins and needles" in hands and feet.

Ingesting or breathing low levels of inorganic arsenic for a long time can cause a darkening of the skin and the appearance of small "corns" or "warts" on the palms, soles, and torso.

Skin contact with inorganic arsenic may cause redness and swelling.

Almost nothing is known regarding health effects of organic arsenic compounds in humans. Studies in animals show that some simple organic arsenic

Arsenic

CAS # 7440-38-2

compounds are less toxic than inorganic forms. Ingestion of methyl and dimethyl compounds can cause diarrhea and damage to the kidneys.

How likely is arsenic to cause cancer?

Several studies have shown that ingestion of inorganic arsenic can increase the risk of skin cancer and cancer in the liver, bladder, and lungs. Inhalation of inorganic arsenic can cause increased risk of lung cancer. The Department of Health and Human Services (DHHS) and the EPA have determined that inorganic arsenic is a known human carcinogen. The International Agency for Research on Cancer (IARC) has determined that inorganic arsenic is carcinogenic to humans.

How can arsenic affect children?

There is some evidence that long-term exposure to arsenic in children may result in lower IQ scores. There is also some evidence that exposure to arsenic in the womb and early childhood may increase mortality in young adults.

There is some evidence that inhaled or ingested arsenic can injure pregnant women or their unborn babies, although the studies are not definitive. Studies in animals show that large doses of arsenic that cause illness in pregnant females, can also cause low birth weight, fetal malformations, and even fetal death. Arsenic can cross the placenta and has been found in fetal tissues. Arsenic is found at low levels in breast milk.

How can families reduce the risks of exposure to arsenic?

- If you use arsenic-treated wood in home projects, you should wear dust masks, gloves, and protective clothing to decrease exposure to sawdust.
- If you live in an area with high levels of arsenic in water or soil, you should use cleaner sources of water and limit contact with soil.
- If you work in a job that may expose you to arsenic, be aware that you may carry arsenic home on your clothing, skin, hair, or tools. Be sure to shower and change clothes before going home.

Is there a medical test to determine whether I've been exposed to arsenic?

There are tests available to measure arsenic in your blood, urine, hair, and fingernails. The urine test is the most reliable test for arsenic exposure within the last few days. Tests on hair and fingernails can measure exposure to high levels of arsenic over the past 6-12 months. These tests can determine if you have been exposed to above-average levels of arsenic. They cannot predict whether the arsenic levels in your body will affect your health.

Has the federal government made recommendations to protect human health?

The EPA has set limits on the amount of arsenic that industrial sources can release to the environment and has restricted or cancelled many of the uses of arsenic in pesticides. EPA has set a limit of 0.01 parts per million (ppm) for arsenic in drinking water.

The Occupational Safety and Health Administration (OSHA) has set a permissible exposure limit (PEL) of 10 micrograms of arsenic per cubic meter of workplace air (10 $\mu g/m^3$) for 8 hour shifts and 40 hour work weeks.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 2007. Toxicological Profile for Arsenic (Update). Atlanta, GA: U.S. Department of Health and Human Services. Public Health Service.

Where can I get more information?

For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology and Human Health Sciences, 1600 Clifton Road NE, Mailstop F-57, Atlanta, GA 30329-4027.

Phone: 1-800-232-4636

ToxFAQs™ Internet address via WWW is http://www.atsdr.cdc.gov/toxfaqs/index.asp.

ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

November 2023 Soil and Groundwater Sampling

Data Tables & Figure

TABLE 2 - SOIL SAMPLE RESULTS
KIWANIS COMMUNITY POOL, 165 DOUGLASS STREET, PORTLAND, MAINE

CLIENT SAMPLE ID							B-01 (0-2')		B-01 (5-6')		B-02 (0-2')		B-02 (4-5')		B-03 (0-2')		B-03 (4-5')		B-04 (0-2')		B-04 (4-5')	
SAMPLING DATE							20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23	
LAB SAMPLE ID							L2369403-01		L2369403-02		L2369403-03		L2369403-04		L2369403-05		L2369403-06		L2369403-07		L2369403-08	
	RES	PARK	COMM	CONST	TSCA	Units		Qual		Qual		Qual		Qual		Qual		Qual		Qual		Qual
General Chemistry																						
Solids, Total						%	86.9		80.2		75.7		77.8		83.9		84.3		70.6		85.5	
Chromium, Hexavalent	4.2	12	89	46		mg/kg	0.92	U	0.998	U	1.06	U	1.03	U	0.954	U	0.949	U	1.13	U	0.936	U
Total Metals																						
Arsenic, Total	9.3	26	41	54		mg/kg	**17**		**15.6**		**18.9**		**12.1**		**9.46**		**17.8**		5.82		**13.9**	
Cadmium, Total	9.8	28	140	42		mg/kg	0.434	U	0.472	U	0.512	U	0.651		0.459	U	0.462	U	0.532	U	0.449	U
Chromium, Total	100000	100000	100000	27000		mg/kg	26.7		46.8		24.3		31		25.8		44.9		22.9		28.6	
Lead, Total	200	420	440	460		mg/kg	189		14.5		38.8		**321**		17.1		18.1		50.2		91.7	
Volatile Organics by EPA 5035																						
1,1,1,2-Tetrachloroethane	30	410	130	480		mg/kg	0.001	U	0.00087	U	0.00093	U	0.0016	U	0.0025	U	0.00092	U	0.0021	U	0.0013	U
1,1,1-Trichloroethane	640	640	640	640		mg/kg	0.001	U	0.00087	U	0.00093	U	0.0016	U	0.0025	U	0.00092	U	0.0021	U	0.0013	U
1,1,2,2-Tetrachloroethane	8.9	88	39	150		mg/kg	0.001	U	0.00087	U	0.00093	U	0.0016	U	0.0025	U	0.00092	U	0.0021	U	0.0013	U
1,1,2-Trichloroethane	2.2	49	9.4	13		mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
1,1-Dichloroethane	53	980	230	850		mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
1,1-Dichloroethene	340	1100	1200	200		mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
1,1-Dichloropropene						mg/kg	0.001	U	0.00087	U	0.00093	U	0.0016	U	0.0025	U	0.00092	U	0.0021	U	0.0013	U
1,2,3-Trichlorobenzene	86	240	1300	2700		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
1,2,3-Trichloropropane	0.07	0.2	1.5	4.3		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
1,2,4-Trichlorobenzene	86	360	380	400		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
1,2,4-Trimethylbenzene	180	200	220	220		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
1,2-Dibromo-3-chloropropane	0.078	1.5	0.96	3.5		mg/kg	0.0062	U	0.0052	U	0.0056	U	0.0095	U	0.015	U	0.0055	U	0.013	U	0.008	U
1,2-Dibromoethane	0.54	6.8	2.4	8.9		mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
1,2-Dichlorobenzene	360	370	380	380		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
1,2-Dichloroethane	6.9	110	30	110		mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
1,2-Dichloroethene, Total						mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
1,2-Dichloropropane	23	420	99	14		mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
1,3,5-Trimethylbenzene	160	170	180	180		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
1,3-Dichlorobenzene	290	290	300	300		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
1,3-Dichloropropane	2100	6100	32000	68000		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
1,3-Dichloropropene, Total	27	210	120	120		mg/kg	0.001	U	0.00087	U	0.00093	U	0.0016	U	0.0025	U	0.00092	U	0.0021	U	0.0013	U
1,4-Dichlorobenzene	39	770	170	620		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
1,4-Dichlorobutane						mg/kg	0.021	U	0.017	U	0.019	U	0.032	U	0.049	U	0.018	U	0.043	U	0.026	U
2,2-Dichloropropane						mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
2-Butanone	20000	25000	28000	11000		mg/kg	0.021	U	0.017	U	0.019	U	0.032	U	0.049	U	0.018	U	0.043	U	0.04	
2-Hexanone	290	1000	2000	300		mg/kg	0.021	U	0.017	U	0.019	U	0.032	U	0.049	U	0.018	U	0.043	U	0.026	U
4-Methyl-2-pentanone	3400	3400	3400	3300		mg/kg	0.021	U	0.017	U	0.019	U	0.032	U	0.049	U	0.018	U	0.043	U	0.026	U
Acetone	96000	81000	100000	100000		mg/kg	0.052	U	0.044	U	0.046	U	0.17		0.12	U	0.046	U	0.11	U	0.26	
Acrylonitrile	3.7	34	17	14		mg/kg	0.0083	U	0.007	U	0.0074	U	0.013	U	0.02	U	0.0073	U	0.017	U	0.011	U
Benzene	17	230	75	240		mg/kg	0.001	U	0.00087	U	0.00093	U	0.0016	U	0.0025	U	0.00092	U	0.0021	U	0.0021	
Bromobenzene	380	530	650	620		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
Bromochloromethane	220	4000	940	330		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
Bromodichloromethane	4.4	83	19	70		mg/kg	0.001	U	0.00087	U	0.00093	U	0.0016	U	0.0025	U	0.00092	U	0.0021	U	0.0013	U
Bromoform	280	720	790	890		mg/kg	0.0083	U	0.007	U	0.0074	U	0.013	U	0.02	U	0.0073	U	0.017	U	0.011	U
Bromomethane	10	160	45	120		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
Carbon disulfide	690	720	740	720		mg/kg	0.021	U	0.017	U	0.019	U	0.032	U	0.049	U	0.018	U	0.043	U	0.026	U
Carbon tetrachloride	9.7	150	43	160		mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
Chlorobenzene	410	680	740	740		mg/kg	0.001	U	0.00087	U	0.00093	U	0.0016	U	0.0025	U	0.00092	U	0.0021	U	0.0013	U
Chloroethane	2100	2100	2100	2000		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U

TABLE 2 - SOIL SAMPLE RESULTS
KIWANIS COMMUNITY POOL, 165 DOUGLASS STREET, PORTLAND, MAINE

CLIENT SAMPLE ID							B-01 (0-2')		B-01 (5-6')		B-02 (0-2')		B-02 (4-5')		B-03 (0-2')		B-03 (4-5')		B-04 (0-2')		B-04 (4-5')	
SAMPLING DATE							20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23	
LAB SAMPLE ID							L2369403-01		L2369403-02		L2369403-03		L2369403-04		L2369403-05		L2369403-06		L2369403-07		L2369403-08	
	RES	PARK	COMM	CONST	TSCA	Units		Qual		Qual		Qual		Qual		Qual		Qual		Qual		Qual
Chloroform	4.7	97	21	75		mg/kg	0.0031	U	0.0026	U	0.0028	U	0.0048	U	0.0074	U	0.0027	U	0.0064	U	0.004	U
Chloromethane	160	1300	690	1300		mg/kg	0.0083	U	0.007	U	0.0074	U	0.013	U	0.02	U	0.0073	U	0.017	U	0.011	U
cis-1,2-Dichloroethene	200	480	1400	1400		mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
cis-1,3-Dichloropropene						mg/kg	0.001	U	0.00087	U	0.00093	U	0.0016	U	0.0025	U	0.00092	U	0.0021	U	0.0013	U
Dibromochloromethane	110	320	530	3000		mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
Dibromomethane	35	800	150	190		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
Dichlorodifluoromethane	130	830	550	730		mg/kg	0.021	U	0.017	U	0.019	U	0.032	U	0.049	U	0.018	U	0.043	U	0.026	U
Ethyl ether	21000	61000	100000	8100		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
Ethyl methacrylate	1100	1100	1100	830		mg/kg	0.021	U	0.017	U	0.019	U	0.032	U	0.049	U	0.018	U	0.043	U	0.026	U
Ethylbenzene	86	400	380	470		mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
Hexachlorobutadiene	15	16	16	17		mg/kg	0.0083	U	0.007	U	0.0074	U	0.013	U	0.02	U	0.0073	U	0.017	U	0.011	U
Isopropylbenzene	260	270	270	270		mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
Methyl tert butyl ether	690	5600	3000	8200		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
Methylene chloride	490	1200	2500	1900		mg/kg	0.01	U	0.0087	U	0.0093	U	0.016	U	0.025	U	0.0092	U	0.021	U	0.013	U
n-Butylbenzene	5400	15000	80000	34000		mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
n-Propylbenzene	260	260	260	260		mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
Naphthalene	29	150	120	130		mg/kg	0.0083	U	0.007	U	0.0074	U	0.018		0.02	U	0.0073	U	0.017	U	0.011	U
o-Chlorotoluene	2100	6100	32000	800		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
p-Chlorotoluene	2100	6100	32000	68000		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
p-Isopropyltoluene						mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
sec-Butylbenzene	11000	30000	100000	34000		mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
Styrene	830	860	870	860		mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
tert-Butylbenzene	11000	30000	100000	34000		mg/kg	0.0042	U	0.0035	U	0.0037	U	0.0064	U	0.0098	U	0.0037	U	0.0086	U	0.0053	U
Tetrachloroethene	120	150	160	84		mg/kg	0.001	U	0.00087	U	0.00093	U	0.0016	U	0.0025	U	0.0015		0.0021	U	0.0013	U
Tetrahydrofuran	27000	100000	100000	20000		mg/kg	0.0083	U	0.007	U	0.0074	U	0.013	U	0.02	U	0.0073	U	0.017	U	0.011	U
Toluene	750	790	810	820		mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
trans-1,2-Dichloroethene	100	1400	450	1200		mg/kg	0.0031	U	0.0026	U	0.0028	U	0.0048	U	0.0074	U	0.0027	U	0.0064	U	0.004	U
trans-1,3-Dichloropropene						mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
trans-1,4-Dichloro-2-butene	0.11	2.5	0.48	1.8		mg/kg	0.01	U	0.0087	U	0.0093	U	0.016	U	0.025	U	0.0092	U	0.021	U	0.013	U
Trichloroethene	6.1	77	28	4.2		mg/kg	0.001	U	0.00087	U	0.00093	U	0.0016	U	0.0025	U	0.00092	U	0.0021	U	0.0013	U
Trichlorofluoromethane	32000	91000	100000	940		mg/kg	0.0083	U	0.007	U	0.0074	U	0.013	U	0.02	U	0.0073	U	0.017	U	0.011	U
Vinyl acetate	1400	2700	2700	140		mg/kg	0.021	U	0.017	U	0.019	U	0.032	U	0.049	U	0.018	U	0.043	U	0.026	U
Vinyl chloride	0.64	0.71	24	63		mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
Xylenes, Total	260	260	260	260		mg/kg	0.0021	U	0.0017	U	0.0019	U	0.0032	U	0.0049	U	0.0018	U	0.0043	U	0.0026	U
Semivolatile Organics by GC/MS																						
1,2,4-Trichlorobenzene	86	360	380	400		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
1,2-Dichlorobenzene	360	370	380	380		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
1,3-Dichlorobenzene	290	290	300	300		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
1,4-Dichlorobenzene	39	770	170	620		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
1-Methylnaphthalene	240	680	990	6000		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
2,4,5-Trichlorophenol	8600	25000	100000	77000		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
2,4,6-Trichlorophenol	86	250	1100	260		mg/kg	0.11	U	0.12	U	0.13	U	0.12	U	0.12	U	0.12	U	0.14	U	0.11	U
2,4-Dichlorophenol	260	740	3400	5100		mg/kg	0.17	U	0.18	U	0.19	U	0.19	U	0.17	U	0.18	U	0.21	U	0.17	U
2,4-Dimethylphenol	1700	4900	22000	13000		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
2,4-Dinitrophenol	170	490	2200	5100		mg/kg	0.91	U	0.98	U	1	U	1	U	0.93	U	0.93	U	1.1	U	0.92	U
2,4-Dinitrotoluene	24	68	100	600		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
2,6-Dinitrotoluene	5	14	21	130		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
2-Chloronaphthalene	6500	19000	82000	48000		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U

TABLE 2 - SOIL SAMPLE RESULTS
KIWANIS COMMUNITY POOL, 165 DOUGLASS STREET, PORTLAND, MAINE

CLIENT SAMPLE ID							B-01 (0-2')		B-01 (5-6')		B-02 (0-2')		B-02 (4-5')		B-03 (0-2')		B-03 (4-5')		B-04 (0-2')		B-04 (4-5')	
SAMPLING DATE							20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23	
LAB SAMPLE ID							L2369403-01		L2369403-02		L2369403-03		L2369403-04		L2369403-05		L2369403-06		L2369403-07		L2369403-08	
	RES	PARK	COMM	CONST	TSCA	Units		Qual		Qual		Qual		Qual		Qual		Qual		Qual		Qual
2-Chlorophenol	540	1500	8000	2700		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
2-Methylnaphthalene	330	930	4100	960		mg/kg	0.23	U	0.25	U	0.26	U	0.25	U	0.23	U	0.23	U	0.28	U	0.23	U
2-Methylphenol	4300	12000	56000	51000		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
2-Nitroaniline						mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
2-Nitrophenol						mg/kg	0.41	U	0.44	U	0.46	U	0.45	U	0.42	U	0.42	U	0.5	U	0.41	U
3,3'-Dichlorobenzidine	17	47	70	400		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
3-Methylphenol/4-Methylphenol						mg/kg	0.27	U	0.3	U	0.31	U	0.3	U	0.28	U	0.28	U	0.33	U	0.28	U
3-Nitroaniline						mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
4,6-Dinitro-o-cresol						mg/kg	0.49	U	0.53	U	0.56	U	0.54	U	0.5	U	0.5	U	0.6	U	0.5	U
4-Bromophenyl phenyl ether						mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
4-Chloroaniline	37	110	160	130		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
4-Chlorophenyl phenyl ether						mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
4-Nitroaniline	350	980	1600	2500		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
4-Nitrophenol						mg/kg	0.26	U	0.29	U	0.3	U	0.29	U	0.27	U	0.27	U	0.32	U	0.27	U
Acenaphthene	4900	14000	62000	48000		mg/kg	0.19		0.16	U	0.17	U	0.17	U	0.16	U	0.16	U	0.18	U	0.15	U
Acenaphthylene	4900	14000	45000	48000		mg/kg	0.15	U	0.16	U	0.17	U	0.38		0.16	U	0.16	U	0.18	U	0.2	
Aniline	610	1700	5500	1700		mg/kg	0.23	U	0.25	U	0.26	U	0.25	U	0.23	U	0.23	U	0.28	U	0.23	U
Anthracene	25000	70000	100000	100000		mg/kg	0.56		0.12	U	0.13	U	0.8		0.12	U	0.12		0.14	U	0.6	
Azobenzene						mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
Benzidine						mg/kg	0.63	U	0.68	U	0.71	U	0.69	U	0.64	U	0.64	U	0.76	U	0.63	U
Benzo(a)anthracene	16	45	280	1700		mg/kg	1.3		0.12	U	0.46		2.6		0.12	U	0.38		0.29		1.6	
Benzo(a)pyrene	1.6	4.5	29	9.9		mg/kg	1.4		0.16	U	0.45		**2.8**		0.16	U	0.38		0.31		**1.6**	
Benzo(b)fluoranthene	16	45	290	1700		mg/kg	1.7		0.12	U	0.57		3.4		0.12	U	0.48		0.38		2	
Benzo(ghi)perylene	2500	7000	23000	72000		mg/kg	0.77		0.16	U	0.25		1.5		0.16	U	0.2		0.18	U	0.84	
Benzo(k)fluoranthene	160	450	2900	17000		mg/kg	0.58		0.12	U	0.2		1.1		0.12	U	0.17		0.14		0.54	
Benzoic Acid	100000	100000	100000	11000		mg/kg	0.61	U	0.66	U	0.7	U	0.68	U	0.63	U	0.63	U	0.75	U	0.62	U
Benzyl Alcohol	8600	25000	100000	77000		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
Biphenyl						mg/kg	0.43	U	0.47	U	0.49	U	0.48	U	0.44	U	0.44	U	0.52	U	0.44	U
Bis(2-chloroethoxy)methane						mg/kg	0.2	U	0.22	U	0.23	U	0.22	U	0.21	U	0.21	U	0.25	U	0.21	U
Bis(2-chloroethyl)ether	3.3	21	15	62		mg/kg	0.17	U	0.18	U	0.19	U	0.19	U	0.17	U	0.18	U	0.21	U	0.17	U
Bis(2-chloroisopropyl)ether						mg/kg	0.23	U	0.25	U	0.26	U	0.25	U	0.23	U	0.23	U	0.28	U	0.23	U
Bis(2-ethylhexyl)phthalate	530	1500	2200	5100		mg/kg	0.23		0.2	U	0.7		0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
Butyl benzyl phthalate	3900	11000	17000	99000		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
Carbazole	270	750	110	6700		mg/kg	0.26		0.2	U	0.21	U	0.31		0.19	U	0.19	U	0.23	U	0.33	
Chrysene	1600	4500	29000	100000		mg/kg	1.4		0.12	U	0.47		2.9		0.12	U	0.41		0.32		1.6	
Di-n-butylphthalate	8600	25000	100000	100000		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
Di-n-octylphthalate	860	2500	11000	26000		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
Dibenzo(a,h)anthracene	1.6	4.5	29	170		mg/kg	0.19		0.12	U	0.13	U	0.37		0.12	U	0.12	U	0.14	U	0.21	
Dibenzofuran	110	300	1600	1400		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.22	
Diethyl phthalate	69000	100000	100000	100000		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
Dimethyl phthalate						mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
Fluoranthene	3300	9300	41000	24000		mg/kg	3		0.12	U	1.2		5.8		0.12	U	0.99		0.69		3.9	
Fluorene	3300	9300	41000	96000		mg/kg	0.31		0.2	U	0.21	U	0.39		0.19	U	0.19	U	0.23	U	0.57	
Hexachlorobenzene	3	15	14	3.4		mg/kg	0.11	U	0.12	U	0.13	U	0.12	U	0.12	U	0.12	U	0.14	U	0.11	U
Hexachlorobutadiene	15	16	16	17		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
Hexachlorocyclopentadiene						mg/kg	0.54	U	0.59	U	0.61	U	0.6	U	0.56	U	0.56	U	0.66	U	0.55	U
Hexachloroethane	27	210	120	450		mg/kg	0.15	U	0.16	U	0.17	U	0.17	U	0.16	U	0.16	U	0.18	U	0.15	U
Indeno(1,2,3-cd)pyrene	16	45	290	1700		mg/kg	0.85		0.16	U	0.27		1.7		0.16	U	0.22		0.19		0.95	

TABLE 2 - SOIL SAMPLE RESULTS
KIWANIS COMMUNITY POOL, 165 DOUGLASS STREET, PORTLAND, MAINE

CLIENT SAMPLE ID							B-01 (0-2')		B-01 (5-6')		B-02 (0-2')		B-02 (4-5')		B-03 (0-2')		B-03 (4-5')		B-04 (0-2')		B-04 (4-5')	
SAMPLING DATE							20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23	
LAB SAMPLE ID							L2369403-01		L2369403-02		L2369403-03		L2369403-04		L2369403-05		L2369403-06		L2369403-07		L2369403-08	
	RES	PARK	COMM	CONST	TSCA	Units		Qual		Qual		Qual		Qual		Qual		Qual		Qual		Qual
Isophorone	7800	22000	33000	100000		mg/kg	0.17	U	0.18	U	0.19	U	0.19	U	0.17	U	0.18	U	0.21	U	0.17	U
n-Nitrosodi-n-propylamine						mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
n-Nitrosodimethylamine						mg/kg	0.38	U	0.41	U	0.43	U	0.42	U	0.39	U	0.39	U	0.46	U	0.38	U
Naphthalene	29	150	120	130		mg/kg	0.3		0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
NDPA/DPA	1500	4300	6400	37000		mg/kg	0.15	U	0.16	U	0.17	U	0.17	U	0.16	U	0.16	U	0.18	U	0.15	U
Nitrobenzene						mg/kg	0.17	U	0.18	U	0.19	U	0.19	U	0.17	U	0.18	U	0.21	U	0.17	U
p-Chloro-m-cresol	8600	25000	100000	26000		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
Pentachlorophenol	14	40	54	190		mg/kg	0.15	U	0.16	U	0.17	U	0.17	U	0.16	U	0.16	U	0.18	U	0.15	U
Phenanthrene	2500	7000	23000	72000		mg/kg	2.2		0.12	U	0.68		3.6		0.12	U	0.61		0.37		3.4	
Phenol	26000	74000	100000	100000		mg/kg	0.19	U	0.2	U	0.21	U	0.21	U	0.19	U	0.19	U	0.23	U	0.19	U
Pyrene	2500	7000	31000	72000		mg/kg	2.3		0.12	U	0.88		4.6		0.12	U	0.74		0.57		2.9	
Pyridine						mg/kg	0.2	U	0.22	U	0.23	U	0.22	U	0.21	U	0.21	U	0.25	U	0.21	U
Polychlorinated Biphenyls by GC																						
Aroclor 1016	5.6	16	70	16		mg/kg	0.276	U	0.0591	U	0.0604	U	0.0602	U	0.0548	U	0.0555	U	0.0659	U	0.0569	U
Aroclor 1221						mg/kg	0.276	U	0.0591	U	0.0604	U	0.0602	U	0.0548	U	0.0555	U	0.0659	U	0.0569	U
Aroclor 1232						mg/kg	0.276	U	0.0591	U	0.0604	U	0.0602	U	0.0548	U	0.0555	U	0.0659	U	0.0569	U
Aroclor 1242						mg/kg	0.276	U	0.0591	U	0.0604	U	0.0602	U	0.0548	U	0.0555	U	0.0659	U	0.0569	U
Aroclor 1248						mg/kg	0.276	U	0.0591	U	0.0604	U	0.0602	U	0.0548	U	0.0555	U	0.0659	U	0.0569	U
Aroclor 1254						mg/kg	5.17		0.0591	U	1.28		0.0602	U	0.0548	U	0.0555	U	0.0659	U	0.0569	U
Aroclor 1260						mg/kg	0.276	U	0.0591	U	0.0604	U	0.079		0.0548	U	0.0555	U	0.0659	U	0.0569	U
Aroclor 1262						mg/kg	0.276	U	0.0591	U	0.0604	U	0.0602	U	0.0548	U	0.0555	U	0.0659	U	0.0569	U
Aroclor 1268						mg/kg	0.276	U	0.0591	U	0.0604	U	0.0602	U	0.0548	U	0.0555	U	0.0659	U	0.0569	U
PCBs, Total	3.1	9.6	13	74	1	mg/kg	***5.17***		0.0591	U	**1.28**		0.079		0.0548	U	0.0555	U	0.0659	U	0.0569	U

Notes:
Samples results compared with MEDEP Residential (RES), Park User (Park), Commercial (COMM), and Construction Worker (CONST) scenarios.
mg/kg = milligrans per kilogram
U = Not detected above the laboratory detection limit

17	= Sample result above the RES RAG
1.28	= Sample result above the TSCA Guideline
5.17	= Sample result above the RES RAG and TSCA Guideline

TABLE 2 - SOIL SAMPLE RESULTS
KIWANIS COMMUNITY POOL, 165 DOUGLASS STREET, PORTLAND, MAINE

CLIENT SAMPLE ID							B-05 (5-6')		TRIP BLANK	
SAMPLING DATE							20-NOV-23		20-NOV-23	
LAB SAMPLE ID							L2369403-09		L2369403-10	
	RES	PARK	COMM	CONST	TSCA	Units		Qual		Qual
General Chemistry										
Solids, Total						%	79.6			
Chromium, Hexavalent	4.2	12	89	46		mg/kg	1	U		
Total Metals										
Arsenic, Total	9.3	26	41	54		mg/kg	**13.8**			
Cadmium, Total	9.8	28	140	42		mg/kg	0.488	U		
Chromium, Total	100000	100000	100000	27000		mg/kg	48.6			
Lead, Total	200	420	440	460		mg/kg	15.6			
Volatile Organics by EPA 5035										
1,1,1,2-Tetrachloroethane	30	410	130	480		mg/kg	0.0016	U	0.0005	U
1,1,1-Trichloroethane	640	640	640	640		mg/kg	0.0016	U	0.0005	U
1,1,2,2-Tetrachloroethane	8.9	88	39	150		mg/kg	0.0016	U	0.0005	U
1,1,2-Trichloroethane	2.2	49	9.4	13		mg/kg	0.0031	U	0.001	U
1,1-Dichloroethane	53	980	230	850		mg/kg	0.0031	U	0.001	U
1,1-Dichloroethene	340	1100	1200	200		mg/kg	0.0031	U	0.001	U
1,1-Dichloropropene						mg/kg	0.0016	U	0.0005	U
1,2,3-Trichlorobenzene	86	240	1300	2700		mg/kg	0.0063	U	0.002	U
1,2,3-Trichloropropane	0.07	0.2	1.5	4.3		mg/kg	0.0063	U	0.002	U
1,2,4-Trichlorobenzene	86	360	380	400		mg/kg	0.0063	U	0.002	U
1,2,4-Trimethylbenzene	180	200	220	220		mg/kg	0.0063	U	0.002	U
1,2-Dibromo-3-chloropropane	0.078	1.5	0.96	3.5		mg/kg	0.0094	U	0.003	U
1,2-Dibromoethane	0.54	6.8	2.4	8.9		mg/kg	0.0031	U	0.001	U
1,2-Dichlorobenzene	360	370	380	380		mg/kg	0.0063	U	0.002	U
1,2-Dichloroethane	6.9	110	30	110		mg/kg	0.0031	U	0.001	U
1,2-Dichloroethene, Total						mg/kg	0.0031	U	0.001	U
1,2-Dichloropropane	23	420	99	14		mg/kg	0.0031	U	0.001	U
1,3,5-Trimethylbenzene	160	170	180	180		mg/kg	0.0063	U	0.002	U
1,3-Dichlorobenzene	290	290	300	300		mg/kg	0.0063	U	0.002	U
1,3-Dichloropropane	2100	6100	32000	68000		mg/kg	0.0063	U	0.002	U
1,3-Dichloropropene, Total	27	210	120	120		mg/kg	0.0016	U	0.0005	U
1,4-Dichlorobenzene	39	770	170	620		mg/kg	0.0063	U	0.002	U
1,4-Dichlorobutane						mg/kg	0.031	U	0.01	U
2,2-Dichloropropane						mg/kg	0.0063	U	0.002	U
2-Butanone	20000	25000	28000	11000		mg/kg	0.031	U	0.01	U
2-Hexanone	290	1000	2000	300		mg/kg	0.031	U	0.01	U
4-Methyl-2-pentanone	3400	3400	3400	3300		mg/kg	0.031	U	0.01	U
Acetone	96000	81000	100000	100000		mg/kg	0.078	U	0.025	U
Acrylonitrile	3.7	34	17	14		mg/kg	0.012	U	0.004	U
Benzene	17	230	75	240		mg/kg	0.0016	U	0.0005	U
Bromobenzene	380	530	650	620		mg/kg	0.0063	U	0.002	U
Bromochloromethane	220	4000	940	330		mg/kg	0.0063	U	0.002	U
Bromodichloromethane	4.4	83	19	70		mg/kg	0.0016	U	0.0005	U
Bromoform	280	720	790	890		mg/kg	0.012	U	0.004	U
Bromomethane	10	160	45	120		mg/kg	0.0063	U	0.002	U
Carbon disulfide	690	720	740	720		mg/kg	0.031	U	0.01	U
Carbon tetrachloride	9.7	150	43	160		mg/kg	0.0031	U	0.001	U
Chlorobenzene	410	680	740	740		mg/kg	0.0016	U	0.0005	U
Chloroethane	2100	2100	2100	2000		mg/kg	0.0063	U	0.002	U

TABLE 2 - SOIL SAMPLE RESULTS
KIWANIS COMMUNITY POOL, 165 DOUGLASS STREET, PORTLAND, MAINE

CLIENT SAMPLE ID							B-05 (5-6')		TRIP BLANK	
SAMPLING DATE							20-NOV-23		20-NOV-23	
LAB SAMPLE ID							L2369403-09		L2369403-10	
	RES	PARK	COMM	CONST	TSCA	Units		Qual		Qual
Chloroform	4.7	97	21	75		mg/kg	0.0047	U	0.0015	U
Chloromethane	160	1300	690	1300		mg/kg	0.012	U	0.004	U
cis-1,2-Dichloroethene	200	480	1400	1400		mg/kg	0.0031	U	0.001	U
cis-1,3-Dichloropropene						mg/kg	0.0016	U	0.0005	U
Dibromochloromethane	110	320	530	3000		mg/kg	0.0031	U	0.001	U
Dibromomethane	35	800	150	190		mg/kg	0.0063	U	0.002	U
Dichlorodifluoromethane	130	830	550	730		mg/kg	0.031	U	0.01	U
Ethyl ether	21000	61000	100000	8100		mg/kg	0.0063	U	0.002	U
Ethyl methacrylate	1100	1100	1100	830		mg/kg	0.031	U	0.01	U
Ethylbenzene	86	400	380	470		mg/kg	0.0031	U	0.001	U
Hexachlorobutadiene	15	16	16	17		mg/kg	0.012	U	0.004	U
Isopropylbenzene	260	270	270	270		mg/kg	0.0031	U	0.001	U
Methyl tert butyl ether	690	5600	3000	8200		mg/kg	0.0063	U	0.002	U
Methylene chloride	490	1200	2500	1900		mg/kg	0.016	U	0.005	U
n-Butylbenzene	5400	15000	80000	34000		mg/kg	0.0031	U	0.001	U
n-Propylbenzene	260	260	260	260		mg/kg	0.0031	U	0.001	U
Naphthalene	29	150	120	130		mg/kg	0.012	U	0.004	U
o-Chlorotoluene	2100	6100	32000	800		mg/kg	0.0063	U	0.002	U
p-Chlorotoluene	2100	6100	32000	68000		mg/kg	0.0063	U	0.002	U
p-Isopropyltoluene						mg/kg	0.0031	U	0.001	U
sec-Butylbenzene	11000	30000	100000	34000		mg/kg	0.0031	U	0.001	U
Styrene	830	860	870	860		mg/kg	0.0031	U	0.001	U
tert-Butylbenzene	11000	30000	100000	34000		mg/kg	0.0063	U	0.002	U
Tetrachloroethene	120	150	160	84		mg/kg	0.0016	U	0.0005	U
Tetrahydrofuran	27000	100000	100000	20000		mg/kg	0.012	U	0.004	U
Toluene	750	790	810	820		mg/kg	0.0031	U	0.001	U
trans-1,2-Dichloroethene	100	1400	450	1200		mg/kg	0.0047	U	0.0015	U
trans-1,3-Dichloropropene						mg/kg	0.0031	U	0.001	U
trans-1,4-Dichloro-2-butene	0.11	2.5	0.48	1.8		mg/kg	0.016	U	0.005	U
Trichloroethene	6.1	77	28	4.2		mg/kg	0.0016	U	0.0005	U
Trichlorofluoromethane	32000	91000	100000	940		mg/kg	0.012	U	0.004	U
Vinyl acetate	1400	2700	2700	140		mg/kg	0.031	U	0.01	U
Vinyl chloride	0.64	0.71	24	63		mg/kg	0.0031	U	0.001	U
Xylenes, Total	260	260	260	260		mg/kg	0.0031	U	0.001	U
Semivolatile Organics by GC/MS										
1,2,4-Trichlorobenzene	86	360	380	400		mg/kg	0.2	U		
1,2-Dichlorobenzene	360	370	380	380		mg/kg	0.2	U		
1,3-Dichlorobenzene	290	290	300	300		mg/kg	0.2	U		
1,4-Dichlorobenzene	39	770	170	620		mg/kg	0.2	U		
1-Methylnaphthalene	240	680	990	6000		mg/kg	0.2	U		
2,4,5-Trichlorophenol	8600	25000	100000	77000		mg/kg	0.2	U		
2,4,6-Trichlorophenol	86	250	1100	260		mg/kg	0.12	U		
2,4-Dichlorophenol	260	740	3400	5100		mg/kg	0.18	U		
2,4-Dimethylphenol	1700	4900	22000	13000		mg/kg	0.2	U		
2,4-Dinitrophenol	170	490	2200	5100		mg/kg	0.99	U		
2,4-Dinitrotoluene	24	68	100	600		mg/kg	0.2	U		
2,6-Dinitrotoluene	5	14	21	130		mg/kg	0.2	U		
2-Chloronaphthalene	6500	19000	82000	48000		mg/kg	0.2	U		

TABLE 2 - SOIL SAMPLE RESULTS
KIWANIS COMMUNITY POOL, 165 DOUGLASS STREET, PORTLAND, MAINE

CLIENT SAMPLE ID							B-05 (5-6')		TRIP BLANK	
SAMPLING DATE							20-NOV-23		20-NOV-23	
LAB SAMPLE ID							L2369403-09		L2369403-10	
	RES	PARK	COMM	CONST	TSCA	Units		Qual		Qual
2-Chlorophenol	540	1500	8000	2700		mg/kg	0.2	U		
2-Methylnaphthalene	330	930	4100	960		mg/kg	0.25	U		
2-Methylphenol	4300	12000	56000	51000		mg/kg	0.2	U		
2-Nitroaniline						mg/kg	0.2	U		
2-Nitrophenol						mg/kg	0.44	U		
3,3'-Dichlorobenzidine	17	47	70	400		mg/kg	0.2	U		
3-Methylphenol/4-Methylphenol						mg/kg	0.3	U		
3-Nitroaniline						mg/kg	0.2	U		
4,6-Dinitro-o-cresol						mg/kg	0.53	U		
4-Bromophenyl phenyl ether						mg/kg	0.2	U		
4-Chloroaniline	37	110	160	130		mg/kg	0.2	U		
4-Chlorophenyl phenyl ether						mg/kg	0.2	U		
4-Nitroaniline	350	980	1600	2500		mg/kg	0.2	U		
4-Nitrophenol						mg/kg	0.29	U		
Acenaphthene	4900	14000	62000	48000		mg/kg	0.16	U		
Acenaphthylene	4900	14000	45000	48000		mg/kg	0.16	U		
Aniline	610	1700	5500	1700		mg/kg	0.25	U		
Anthracene	25000	70000	100000	100000		mg/kg	0.12	U		
Azobenzene						mg/kg	0.2	U		
Benzidine						mg/kg	0.68	U		
Benzo(a)anthracene	16	45	280	1700		mg/kg	0.12	U		
Benzo(a)pyrene	1.6	4.5	29	9.9		mg/kg	0.16	U		
Benzo(b)fluoranthene	16	45	290	1700		mg/kg	0.12	U		
Benzo(ghi)perylene	2500	7000	23000	72000		mg/kg	0.16	U		
Benzo(k)fluoranthene	160	450	2900	17000		mg/kg	0.12	U		
Benzoic Acid	100000	100000	100000	11000		mg/kg	0.67	U		
Benzyl Alcohol	8600	25000	100000	77000		mg/kg	0.2	U		
Biphenyl						mg/kg	0.47	U		
Bis(2-chloroethoxy)methane						mg/kg	0.22	U		
Bis(2-chloroethyl)ether	3.3	21	15	62		mg/kg	0.18	U		
Bis(2-chloroisopropyl)ether						mg/kg	0.25	U		
Bis(2-ethylhexyl)phthalate	530	1500	2200	5100		mg/kg	0.2	U		
Butyl benzyl phthalate	3900	11000	17000	99000		mg/kg	0.2	U		
Carbazole	270	750	110	6700		mg/kg	0.2	U		
Chrysene	1600	4500	29000	100000		mg/kg	0.12	U		
Di-n-butylphthalate	8600	25000	100000	100000		mg/kg	0.2	U		
Di-n-octylphthalate	860	2500	11000	26000		mg/kg	0.2	U		
Dibenzo(a,h)anthracene	1.6	4.5	29	170		mg/kg	0.12	U		
Dibenzofuran	110	300	1600	1400		mg/kg	0.2	U		
Diethyl phthalate	69000	100000	100000	100000		mg/kg	0.2	U		
Dimethyl phthalate						mg/kg	0.2	U		
Fluoranthene	3300	9300	41000	24000		mg/kg	0.12	U		
Fluorene	3300	9300	41000	96000		mg/kg	0.2	U		
Hexachlorobenzene	3	15	14	3.4		mg/kg	0.12	U		
Hexachlorobutadiene	15	16	16	17		mg/kg	0.2	U		
Hexachlorocyclopentadiene						mg/kg	0.59	U		
Hexachloroethane	27	210	120	450		mg/kg	0.16	U		
Indeno(1,2,3-cd)pyrene	16	45	290	1700		mg/kg	0.16	U		

TABLE 2 - SOIL SAMPLE RESULTS
KIWANIS COMMUNITY POOL, 165 DOUGLASS STREET, PORTLAND, MAINE

CLIENT SAMPLE ID							B-05 (5-6')		TRIP BLANK	
SAMPLING DATE							20-NOV-23		20-NOV-23	
LAB SAMPLE ID							L2369403-09		L2369403-10	
	RES	PARK	COMM	CONST	TSCA	Units		Qual		Qual
Isophorone	7800	22000	33000	100000		mg/kg	0.18	U		
n-Nitrosodi-n-propylamine						mg/kg	0.2	U		
n-Nitrosodimethylamine						mg/kg	0.41	U		
Naphthalene	29	150	120	130		mg/kg	0.2	U		
NDPA/DPA	1500	4300	6400	37000		mg/kg	0.16	U		
Nitrobenzene						mg/kg	0.18	U		
p-Chloro-m-cresol	8600	25000	100000	26000		mg/kg	0.2	U		
Pentachlorophenol	14	40	54	190		mg/kg	0.16	U		
Phenanthrene	2500	7000	23000	72000		mg/kg	0.12	U		
Phenol	26000	74000	100000	100000		mg/kg	0.2	U		
Pyrene	2500	7000	31000	72000		mg/kg	0.12	U		
Pyridine						mg/kg	0.22	U		
Polychlorinated Biphenyls by GC										
Aroclor 1016	5.6	16	70	16		mg/kg	0.0584	U		
Aroclor 1221						mg/kg	0.0584	U		
Aroclor 1232						mg/kg	0.0584	U		
Aroclor 1242						mg/kg	0.0584	U		
Aroclor 1248						mg/kg	0.0584	U		
Aroclor 1254						mg/kg	0.0584	U		
Aroclor 1260						mg/kg	0.0584	U		
Aroclor 1262						mg/kg	0.0584	U		
Aroclor 1268						mg/kg	0.0584	U		
PCBs, Total	3.1	9.6	13	74	1	mg/kg	0.0584	U		

Notes:
Samples results compared with MEDEP Residential (RES), Park User (Park), Commercial (COMM), and Const
mg/kg = milligrans per kilogram
U = Not detected above the laboratory detection limit

17	= Sample result above the RES RAG
1.28	= Sample result above the TSCA Guideline
5.17	= Sample result above the RES RAG and TSCA Guideline

TABLE 3 - GROUNDWATER SAMPLE RESULTS
KIWANIS COMMUNITY POOL, 165 DOUGLASS STREET, PORTLAND, MAINE

CLIENT SAMPLE ID				MW-01		MW-02		MW-03		MW-04		MW-05		TRIP BLANK	
SAMPLING DATE				20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23	
LAB SAMPLE ID				L2369403-11		L2369403-12		L2369403-13		L2369403-14		L2369403-15		L2369403-16	
	RES	CONST	Units		Qual		Qual		Qual		Qual		Qual		Qual
General Chemistry															
Chromium, Hexavalent	0.35	690	ug/l	10	U	10	U	10	U	10	U	10	U		
Total Metals															
Arsenic, Total	0.52	5800	ug/l	**6.8**		**5.23**		**14.13**		**8.01**		**7.24**			
Cadmium, Total	9.2	940	ug/l	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Chromium, Total	23000	100000	ug/l	1.54		1	U	1	U	2		1.83			
Lead, Total	5		ug/l	2.66		1	U	1	U	1	U	3.33			
Volatile Organics by GC/MS															
1,1,1,2-Tetrachloroethane	5.7	620	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	8000	29000	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.76	90	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.42	12	ug/l	0.75	U	0.75	U	0.75	U	0.75	U	0.75	U	0.75	U
1,1-Dichloroethane	28	2200	ug/l	0.75	U	0.75	U	0.75	U	0.75	U	0.75	U	0.75	U
1,1-Dichloroethene	290	390	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene			ug/l	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	7	2900	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	0.0075	2.1	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	4	140	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	56	1000	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-chloropropane	0.0033	1.2	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromoethane	0.075	8.7	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	300	12000	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	1.7	140	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethene, Total			ug/l	0.5	U	0.5	U	3.6		0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	8.3	22	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	60	1100	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	300	6200	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	370	100000	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropene, Total	4.7	200	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	4.8	400	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobutane			ug/l	5	U	5	U	5	U	5	U	5	U	5	U
2,2-Dichloropropane			ug/l	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	5600	9000	ug/l	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	38	240	ug/l	5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-pentanone	6300	5800	ug/l	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	14000	100000	ug/l	5	U	5	U	5	U	5	U	5	U	5	U
Acrylonitrile	0.52	11	ug/l	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	4.6	350	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	62	1200	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	83	600	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	1.3	130	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	33	5500	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	7.6	490	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	810	3100	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
Carbon tetrachloride	4.6	700	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	78	2600	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	21000	16000	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
Chloroform	2.2	170	ug/l	0.75	U	0.75	U	0.75	U	0.75	U	0.75	U	0.75	U

TABLE 3 - GROUNDWATER SAMPLE RESULTS
KIWANIS COMMUNITY POOL, 165 DOUGLASS STREET, PORTLAND, MAINE

CLIENT SAMPLE ID				MW-01		MW-02		MW-03		MW-04		MW-05		TRIP BLANK	
SAMPLING DATE				20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23	
LAB SAMPLE ID				L2369403-11		L2369403-12		L2369403-13		L2369403-14		L2369403-15		L2369403-16	
	RES	CONST	Units		Qual		Qual		Qual		Qual		Qual		Qual
Chloromethane	190	11000	ug/l	2	U	2	U	2	U	2	U	2	U	2	U
cis-1,2-Dichloroethene	35	3700	ug/l	0.5	U	0.5	U	3.6		0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene			ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	8.7	53000	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	8.3	280	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	200	5400	ug/l	2	U	2	U	2	U	2	U	2	U	2	U
Ethyl ether	3900	14000	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
Ethyl methacrylate	630	12000	ug/l	5	U	5	U	5	U	5	U	5	U	5	U
Ethylbenzene	15	1400	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	1.4	230	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropylbenzene	450	500	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert butyl ether	140	13000	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
Methylene chloride	110	4900	ug/l	3	U	3	U	3	U	3	U	3	U	3	U
n-Butylbenzene	1000	100000	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	660	4900	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	1.2	19	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
o-Chlorotoluene	240	3300	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
p-Chlorotoluene	250	100000	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene			ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	2000	100000	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	1200	15000	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
tert-Butylbenzene	690	25000	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	41	250	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrahydrofuran	3400	16000	ug/l	2	U	2	U	2	U	2	U	2	U	2	U
Toluene	1100	24000	ug/l	0.75	U	0.75	U	0.75	U	0.75	U	0.75	U	0.75	U
trans-1,2-Dichloroethene	68	3900	ug/l	0.75	U	0.75	U	0.75	U	0.75	U	0.75	U	0.75	U
trans-1,3-Dichloropropene			ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,4-Dichloro-2-butene	0.013	1	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Trichloroethene	2.8	12	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	5200	5900	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl acetate	410	180	ug/l	5	U	5	U	5	U	5	U	5	U	5	U
Vinyl chloride	0.19	0.22	ug/l	0.2	U	0.2	U	***3.4***		0.2	U	0.2	U	0.2	U
Xylenes, Total	190	2100	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
Semivolatile Organics by GC/MS															
1,2,4-Trichlorobenzene	4	140	ug/l	5	U	5	U	5	U	5	U	5	U		
1,2-Dichlorobenzene	300	12000	ug/l	2	U	2	U	2	U	2	U	2	U		
1,3-Dichlorobenzene	300	6200	ug/l	2	U	2	U	2	U	2	U	2	U		
1,4-Dichlorobenzene	4.8	400	ug/l	2	U	2	U	2	U	2	U	2	U		
2,4,5-Trichlorophenol	1200	100000	ug/l	5	U	5	U	5	U	5	U	5	U		
2,4,6-Trichlorophenol	12	690	ug/l	5	U	5	U	5	U	5	U	5	U		
2,4-Dichlorophenol	46	27000	ug/l	5	U	5	U	5	U	5	U	5	U		
2,4-Dimethylphenol	360	100000	ug/l	5	U	5	U	5	U	5	U	5	U		
2,4-Dinitrophenol	39	100000	ug/l	20	U	20	U	20	U	20	U	20	U		
2,4-Dinitrotoluene	2.4	15000	ug/l	5	U	5	U	5	U	5	U	5	U		
2,6-Dinitrotoluene	0.49	2700	ug/l	5	U	5	U	5	U	5	U	5	U		
2-Chlorophenol	91	29000	ug/l	2	U	2	U	2	U	2	U	2	U		
2-Methylphenol	930	100000	ug/l	5	U	5	U	5	U	5	U	5	U		
2-Nitroaniline			ug/l	5	U	5	U	5	U	5	U	5	U		

TABLE 3 - GROUNDWATER SAMPLE RESULTS
KIWANIS COMMUNITY POOL, 165 DOUGLASS STREET, PORTLAND, MAINE

CLIENT SAMPLE ID				MW-01		MW-02		MW-03		MW-04		MW-05		TRIP BLANK	
SAMPLING DATE				20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23	
LAB SAMPLE ID				L2369403-11		L2369403-12		L2369403-13		L2369403-14		L2369403-15		L2369403-16	
	RES	CONST	Units		Qual		Qual		Qual		Qual		Qual		Qual
2-Nitrophenol			ug/l	10	U	10	U	10	U	10	U	10	U		
3,3'-Dichlorobenzidine	1.3	2000	ug/l	5	U	5	U	5	U	5	U	5	U		
3-Methylphenol/4-Methylphenol			ug/l	5	U	5	U	5	U	5	U	5	U		
3-Nitroaniline			ug/l	5	U	5	U	5	U	5	U	5	U		
4,6-Dinitro-o-cresol			ug/l	10	U	10	U	10	U	10	U	10	U		
4-Bromophenyl phenyl ether			ug/l	2	U	2	U	2	U	2	U	2	U		
4-Chloroaniline	3.7	2700	ug/l	5	U	5	U	5	U	5	U	5	U		
4-Chlorophenyl phenyl ether			ug/l	2	U	2	U	2	U	2	U	2	U		
4-Nitroaniline	38	100000	ug/l	5	U	5	U	5	U	5	U	5	U		
4-Nitrophenol			ug/l	10	U	10	U	10	U	10	U	10	U		
Aniline	130	86000	ug/l	2	U	2	U	2	U	2	U	2	U		
Azobenzene			ug/l	2	U	2	U	2	U	2	U	2	U		
Benzidine			ug/l	20	U	20	U	20	U	20	U	20	U		
Benzoic Acid	75000	100000	ug/l	50	U	50	U	50	U	50	U	50	U		
Benzyl Alcohol	2000	100000	ug/l	2	U	2	U	2	U	2	U	2	U		
Biphenyl			ug/l	2	U	2	U	2	U	2	U	2	U		
Bis(2-chloroethoxy)methane			ug/l	5	U	5	U	5	U	5	U	5	U		
Bis(2-chloroethyl)ether	0.14	54	ug/l	2	U	2	U	2	U	2	U	2	U		
Bis(2-chloroisopropyl)ether			ug/l	2	U	2	U	2	U	2	U	2	U		
Bis(2-ethylhexyl)phthalate	56	100000	ug/l	3	U	3	U	3	U	3	U	3	U		
Butyl benzyl phthalate	160	100000	ug/l	5	U	5	U	5	U	5	U	5	U		
Carbazole	15	13000	ug/l	2	U	2	U	2	U	2	U	2	U		
Di-n-butylphthalate	900	100000	ug/l	5	U	5	U	5	U	5	U	5	U		
Di-n-octylphthalate	200	100000	ug/l	5	U	5	U	5	U	5	U	5	U		
Dibenzofuran	7.9	1200	ug/l	2	U	2	U	2	U	2	U	2	U		
Diethyl phthalate	15000	100000	ug/l	5	U	5	U	5	U	5	U	5	U		
Dimethyl phthalate			ug/l	5	U	5	U	5	U	5	U	5	U		
Hexachlorocyclopentadiene			ug/l	20	U	20	U	20	U	20	U	20	U		
Isophorone	780	100000	ug/l	5	U	5	U	5	U	5	U	5	U		
n-Nitrosodi-n-propylamine			ug/l	5	U	5	U	5	U	5	U	5	U		
n-Nitrosodimethylamine			ug/l	2	U	2	U	2	U	2	U	2	U		
NDPA/DPA	120	100000	ug/l	2	U	2	U	2	U	2	U	2	U		
Nitrobenzene			ug/l	2	U	2	U	2	U	2	U	2	U		
p-Chloro-m-cresol	1500	100000	ug/l	2	U	2	U	2	U	2	U	2	U		
Phenol	5800	100000	ug/l	5	U	5	U	5	U	5	U	5	U		
Pyridine			ug/l	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U		
Semivolatile Organics by GC/MS-SIM															
1-Methylnaphthalene	11	8800	ug/l	0.11		0.1	U	0.17		0.15		0.2			
2-Chloronaphthalene	750	81000	ug/l	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
2-Methylnaphthalene	36	1500	ug/l	0.1	U	0.1	U	0.34		0.12		0.11			
Acenaphthene	540	74000	ug/l	0.1		0.17		0.1	U	0.13		0.16			
Acenaphthylene	520	71000	ug/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U		
Anthracene	1800	100000	ug/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U		
Benzo(a)anthracene	0.3	470	ug/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1			
Benzo(a)pyrene	0.25	11000	ug/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U		
Benzo(b)fluoranthene	2.5	100000	ug/l	0.1	U	0.1	U	0.1	U	0.1	U	0.14	B		
Benzo(ghi)perylene	600	100000	ug/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U		
Benzo(k)fluoranthene	25	100000	ug/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U		

TABLE 3 - GROUNDWATER SAMPLE RESULTS
KIWANIS COMMUNITY POOL, 165 DOUGLASS STREET, PORTLAND, MAINE

CLIENT SAMPLE ID				MW-01		MW-02		MW-03		MW-04		MW-05		TRIP BLANK	
SAMPLING DATE				20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23		20-NOV-23	
LAB SAMPLE ID				L2369403-11		L2369403-12		L2369403-13		L2369403-14		L2369403-15		L2369403-16	
	RES	CONST	Units		Qual		Qual		Qual		Qual		Qual		Qual
Chrysene	250	100000	ug/l	0.1	U	0.1	U	0.1	U	0.1	U	0.12	B		
Dibenzo(a,h)anthracene	0.25	26000	ug/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U		
Fluoranthene	800	100000	ug/l	0.13		0.16		0.1	U	0.1	U	0.26			
Fluorene	290	100000	ug/l	0.1	U	0.51		0.1	U	0.1	U	0.11			
Hexachlorobenzene	0.098	13	ug/l	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U		
Hexachlorobutadiene	1.4	230	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Hexachloroethane	3.3	470	ug/l	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U		
Indeno(1,2,3-cd)pyrene	2.5	100000	ug/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U		
Indeno(1,2,3-cd)pyrene	2.5	100000	ug/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U		
Naphthalene	1.2	19	ug/l	0.12		0.1	U	0.17		0.12		0.34			
Pentachlorophenol	0.41	140	ug/l	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U		
Phenanthrene	180	58000	ug/l	0.17		0.65		0.1	U	0.1	U	0.32			
Pyrene	120	36000	ug/l	0.1		0.1		0.1	U	0.1	U	0.21			

Notes:
Sample results compared to the MEDEP Residential (RES) and Construction Worker (CONST) RAGs
ug/l = micrograms per liter
U = Not detected above laboratory detection limit
B = The analyte was detected above the reporting limit in the associated method blank. The

10	= Laboratory detection limit above the RES RAG
2.5	= Laboratory detection limit above the RES and CONST RAGs
6.8	= Sample result above the RES RAG
3.4	= Sample result above the RES and CONST RAGs

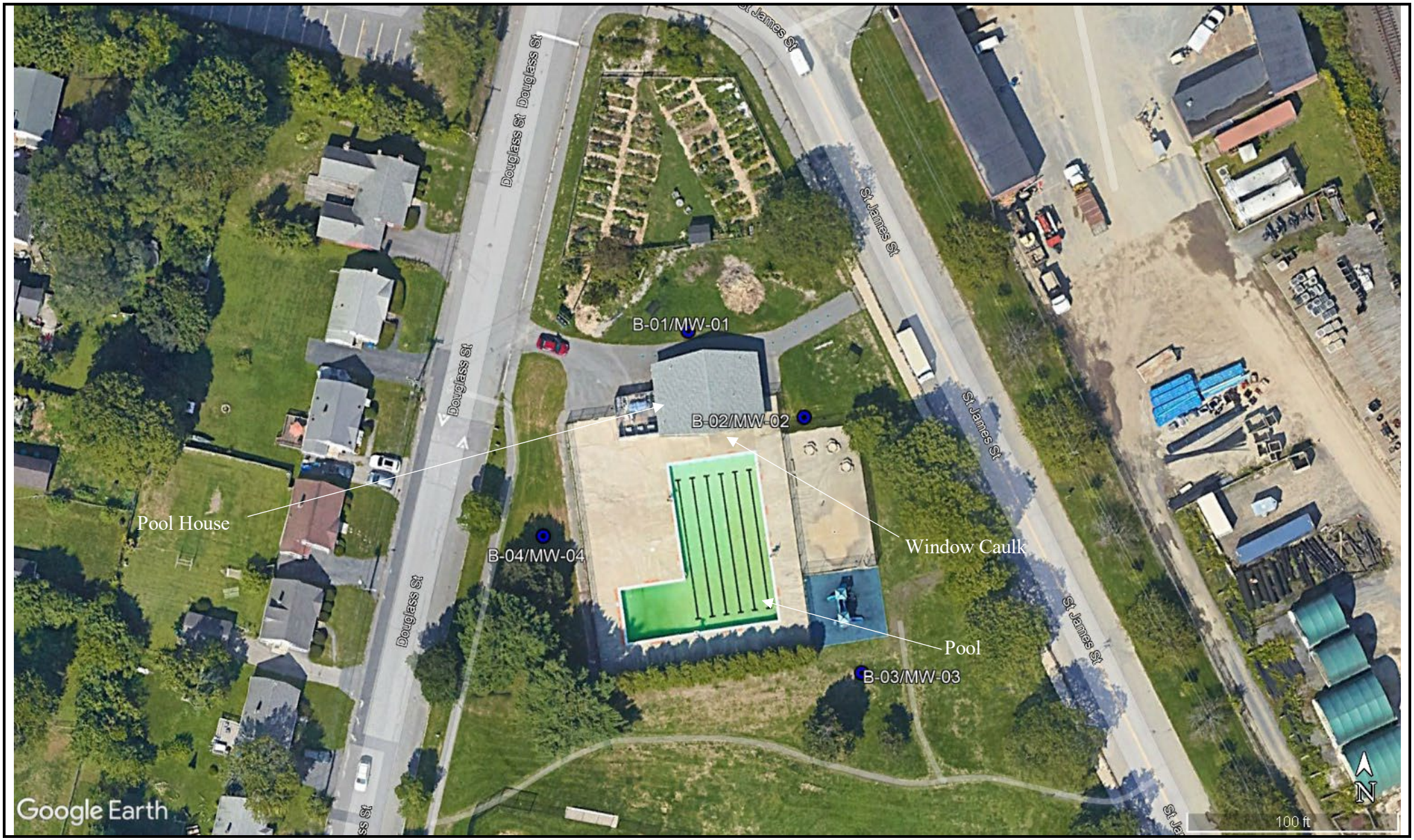


FIGURE 2: SAMPLE LOCATION PLAN
KIWANIS COMMUNITY POOL, 165 DOUGLASS ST., PORTLAND, MAINE
Project No.: BE-666

BEACON
Environmental Consultants, LLC

February 2024 Soil Sampling

Data Tables & Figure

TABLE 1 - SOIL SAMPLE RESULTS
KIWANIS COMMUNITY POOL, 165 DOUGLASS STREET, PORTLAND, MAINE

CLIENT SAMPLE ID						B-101 (0-6")		B-101 (6-12")		B-102 (0-6")		B-102 (6-12")		B-103 (0-6")		B-103 (6-12")		B-104 (0-6")		B-104 (6-12")		B-105 (0-6")	
SAMPLING DATE						23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24	
LAB SAMPLE ID						L2409990-01		L2409990-02		L2409990-03		L2409990-04		L2409990-05		L2409990-06		L2409990-07		L2409990-08		L2409990-09	
	RES	PARK	COMM	CONST	Units		Qual		Qual		Qual		Qual		Qual		Qual		Qual		Qual		Qual
General Chemistry																							
Solids, Total					%	61.8		68.3		57.2		66.3		56.4		65.6		62.2		81.9		61.8	
Polychlorinated Biphenyls by GC																							
Aroclor 1016	5.6	16	70	16	mg/kg	0.0737	U	0.0696	U	0.0842	U	0.356	U	0.172	U	0.35	U	0.385	U	0.298	U	7.83	U
Aroclor 1221					mg/kg	0.0737	U	0.0696	U	0.0842	U	0.356	U	0.172	U	0.35	U	0.385	U	0.298	U	7.83	U
Aroclor 1232					mg/kg	0.0737	U	0.0696	U	0.0842	U	0.356	U	0.172	U	0.35	U	0.385	U	0.298	U	7.83	U
Aroclor 1242					mg/kg	0.106		0.125		0.201		0.356	U	0.265		0.35	U	0.385	U	0.298	U	7.83	U
Aroclor 1248					mg/kg	0.0737	U	0.0696	U	0.0842	U	0.356	U	0.172	U	0.35	U	0.385	U	0.298	U	7.83	U
Aroclor 1254					mg/kg	1.07		1.4		2.65		5.31		4.7		3.12		3.54		2.86		31.8	
Aroclor 1260					mg/kg	0.219		0.278		0.543		1.02		0.172	U	0.616		0.637		0.576		7.83	U
Aroclor 1262					mg/kg	0.0737	U	0.0696	U	0.0842	U	0.356	U	0.172	U	0.35	U	0.385	U	0.298	U	7.83	U
Aroclor 1268					mg/kg	0.0737	U	0.0696	U	0.0842	U	0.356	U	0.172	U	0.35	U	0.385	U	0.298	U	7.83	U
PCBs, Total	3.1	9.6	13	7	mg/kg	1.4		1.8		**3.39**		**6.33**		**4.97**		**3.74**		**4.18**		**3.44**		***31.8***	

CLIENT SAMPLE ID						B-105 (6-12")		B-106 (0-6")		B-106 (6-12")		B-107 (0-6")		B-107 (6-12")		B-108 (0-6")		B-108 (6-12")		B-117 (0-6")	
SAMPLING DATE						23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24	
LAB SAMPLE ID						L2409990-10		L2409990-11		L2409990-12		L2409990-13		L2409990-14		L2409990-15		L2409990-16		L2409990-33	
	RES	PARK	COMM	CONST	Units		Qual		Qual		Qual		Qual		Qual		Qual		Qual		Qual
General Chemistry																					
Solids, Total					%	85.9		81		89.5		88.8		91.6		86.4		89.6		82.3	
Polychlorinated Biphenyls by GC																					
Aroclor 1016	5.6	16	70	16	mg/kg	1.07	U	0.0582	U	0.0535	U	0.0529	U	0.0538	U	0.0528	U	0.0522	U	0.0579	U
Aroclor 1221					mg/kg	1.07	U	0.0582	U	0.0535	U	0.0529	U	0.0538	U	0.0528	U	0.0522	U	0.0579	U
Aroclor 1232					mg/kg	1.07	U	0.0582	U	0.0535	U	0.0529	U	0.0538	U	0.0528	U	0.0522	U	0.0579	U
Aroclor 1242					mg/kg	1.07	U	0.0582	U	0.0535	U	0.0529	U	0.0538	U	0.0528	U	0.0522	U	0.0579	U
Aroclor 1248					mg/kg	1.07	U	0.0582	U	0.0535	U	0.0529	U	0.0538	U	0.0528	U	0.0522	U	0.0579	U
Aroclor 1254					mg/kg	10.5		0.0582	U	0.0535	U	0.686		0.0538	U	0.0766		0.0522	U	0.0579	U
Aroclor 1260					mg/kg	1.07	U	0.0582	U	0.0535	U	0.0529	U	0.0538	U	0.0528	U	0.0522	U	0.0579	U
Aroclor 1262					mg/kg	1.07	U	0.0582	U	0.0535	U	0.0529	U	0.0538	U	0.0528	U	0.0522	U	0.0579	U
Aroclor 1268					mg/kg	1.07	U	0.0582	U	0.0535	U	0.0529	U	0.0538	U	0.0528	U	0.0522	U	0.0579	U
PCBs, Total	3.1	9.6	13	7	mg/kg	**10.5**		0.0582	U	0.0535	U	0.686		0.0538	U	0.0766		0.0522	U	0.0579	U

Notes:
Sample results compared to MEDEP Residential (RES), Park User (PARK), Commercial (COMM), and Construction Worker (CONST) Remedial Action Guidelines.
mg/kg = milligrams per kilogram
U = Not detected above the laboratory detection limit

7.83	= Detection limit elevated above the RES and CONST guidelines
4.18	= Reported concentration above the RES guidelines
10.5	= Reported concetration above the RES, PARK, and CONST guidelines
31.8	= Reported concentration above the RES, PARK, COMM, and CONST guidelines

B-118 (6-12") is a duplicate of B-115 (6-12")
B-117 (0-6") is a duplicate of B-108 (0-6")

TABLE 1 - SOIL SAMPLE RESULTS
KIWANIS COMMUNITY POOL, 165 DOUGLASS STREET, PORTLAND, MAINE

CLIENT SAMPLE ID						B-109 (0-6")		B-109 (6-12")		B-110 (0-6")		B-110 (6-12")		B-111 (0-6")		B-111 (6-12")		B-112 (0-6")		B-112 (6-12")		B-113 (0-6")	
SAMPLING DATE						23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24	
LAB SAMPLE ID						L2409990-17		L2409990-18		L2409990-19		L2409990-20		L2409990-21		L2409990-22		L2409990-23		L2409990-24		L2409990-25	
	RES	PARK	COMM	CONST	Units		Qual		Qual		Qual		Qual		Qual		Qual		Qual		Qual		Qual
General Chemistry																							
Solids, Total					%	67		94.6		70.9		95		75.5		86.3		57.2		82.2		57.3	
Polychlorinated Biphenyls by GC																							
Aroclor 1016	5.6	16	70	16	mg/kg	0.0699	U	0.0485	U	0.068	U	0.05	U	0.0609	U	0.0558	U	0.0815	U	0.0592	U	0.0823	U
Aroclor 1221					mg/kg	0.0699	U	0.0485	U	0.068	U	0.05	U	0.0609	U	0.0558	U	0.0815	U	0.0592	U	0.0823	U
Aroclor 1232					mg/kg	0.0699	U	0.0485	U	0.068	U	0.05	U	0.0609	U	0.0558	U	0.0815	U	0.0592	U	0.0823	U
Aroclor 1242					mg/kg	0.0833		0.0485	U	0.068	U	0.0628		0.0609	U	0.0558	U	0.0815	U	0.0592	U	0.0823	U
Aroclor 1248					mg/kg	0.0699	U	0.0485	U	0.068	U	0.05	U	0.0609	U	0.0558	U	0.0815	U	0.0592	U	0.0823	U
Aroclor 1254					mg/kg	0.734		0.154		0.438		0.617		0.17		0.189		0.162		0.589		1.34	
Aroclor 1260					mg/kg	0.125		0.0485	U	0.118		0.106		0.0609	U	0.0558	U	0.0815	U	0.0592	U	0.0823	U
Aroclor 1262					mg/kg	0.0699	U	0.0485	U	0.068	U	0.05	U	0.0609	U	0.0558	U	0.0815	U	0.0592	U	0.0823	U
Aroclor 1268					mg/kg	0.0699	U	0.0485	U	0.068	U	0.05	U	0.0609	U	0.0558	U	0.0815	U	0.0592	U	0.0823	U
PCBs, Total	3.1	9.6	13	74	mg/kg	0.942		0.154		0.556		0.786		0.17		0.189		0.162		0.589		1.34	

CLIENT SAMPLE ID						B-113 (6-12")		B-114 (0-6")		B-114 (6-12")		B-115 (0-6")		B-115 (6-12")		B-116 (0-6")		B-116 (6-12")		B-118 (6-12")	
SAMPLING DATE						23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24		23-FEB-24	
LAB SAMPLE ID						L2409990-26		L2409990-27		L2409990-28		L2409990-29		L2409990-30		L2409990-31		L2409990-32		L2409990-34	
	RES	PARK	COMM	CONST	Units		Qual		Qual		Qual		Qual		Qual		Qual		Qual		Qual
General Chemistry																					
Solids, Total					%	77		72.4		89.3		74.6		91.9		62		91.9		93.4	
Polychlorinated Biphenyls by GC																					
Aroclor 1016	5.6	16	70	16	mg/kg	0.0644	U	0.0664	U	0.0531	U	0.0649	U	0.0522	U	0.0741	U	0.0497	U	0.0521	U
Aroclor 1221					mg/kg	0.0644	U	0.0664	U	0.0531	U	0.0649	U	0.0522	U	0.0741	U	0.0497	U	0.0521	U
Aroclor 1232					mg/kg	0.0644	U	0.0664	U	0.0531	U	0.0649	U	0.0522	U	0.0741	U	0.0497	U	0.0521	U
Aroclor 1242					mg/kg	0.0644	U	0.0664	U	0.0531	U	0.0649	U	0.0522	U	0.0741	U	0.0497	U	0.0521	U
Aroclor 1248					mg/kg	0.0644	U	0.0664	U	0.0531	U	0.0649	U	0.0522	U	0.0741	U	0.0497	U	0.0521	U
Aroclor 1254					mg/kg	1.03		0.165		0.0744		0.148		0.0522	U	0.155		0.0506		0.161	
Aroclor 1260					mg/kg	0.0644	U	0.0664	U	0.0531	U	0.0649	U	0.0522	U	0.0741	U	0.0497	U	0.0521	U
Aroclor 1262					mg/kg	0.0644	U	0.0664	U	0.0531	U	0.0649	U	0.0522	U	0.0741	U	0.0497	U	0.0521	U
Aroclor 1268					mg/kg	0.0644	U	0.0664	U	0.0531	U	0.0649	U	0.0522	U	0.0741	U	0.0497	U	0.0521	U
PCBs, Total	3.1	9.6	13	74	mg/kg	1.03		0.165		0.0744		0.148		0.0522	U	0.155		0.0506		0.161	

Notes:
Sample results compared to MEDEP Residential (RES), Park User (PARK), Commercial (COMM), and Construction Worker (CONST) Remedial Action Guidelines.
mg/kg = milligrams per kilogram
U = Not detected above the laboratory detection limit

7.83	= Detection limit elevated above the RES and CONST guidelines
4.18	= Reported concentration above the RES guidelines
10.5	= Reported concetration above the RES, PARK, and CONST guidelines
31.8	= Reported concentration above the RES, PARK, COMM, and CONST guidelines

B-118 (6-12") is a duplicate of B-115 (6-12")
B-117 (0-6") is a duplicate of B-108 (0-6")



PCB Result above 1 mg/kg

FIGURE 2: SAMPLE LOCATION PLAN
KIWANIS COMMUNITY POOL, 165 DOUGLASS ST., PORTLAND, MAINE
Project No.: BE-666

BEACON Environmental Consultants, LLC

December 2024 Soil Sampling

Data Tables & Figure

Table 1: Soil Analytical Results- Detections Only
Dougherty Field - Portland, ME

Location	Maine DEP Excavation / Construction Worker RAG	Maine DEP Park User RAG	WC24-A-D1	WC24-A-D2	WC24-A-D3	WC24-A-D4	WC24-A-C1	WC24-B-D1	WC24-B-D2	WC24-B-D3	WC24-B-D4	WC24-B-C1
Sample Date			12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024
Sample Depth (ft)			0-2	0-2	0-2	0-2	Composite (0-2)	0-2	0-2	0-2	0-2	Composite (0-2)
Sample Type			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Extracable Petroleum Hydrocarbons (mg/Kg)												
C19-C36 Aliphatics	1200000	100000	**8.2**	<7.96	**29.9**	<7.33	<7.86	<7.83	**14.6**	**10.8**	<7.75	**10.8**
C11-C22 Aromatics, Adjusted	74000	7300	**52.2**	**13**	**69.1**	<7.33	**17.5**	**30.8**	**29.7**	**29.5**	**8.89**	**41.9**
Naphthalene	130	150	<0.38	<0.398	<0.393	<0.366	<0.393	<0.392	<0.387	<0.392	<0.388	<0.388
Acenaphthylene	48000	14000	<0.38	<0.398	<0.393	<0.366	<0.393	<0.392	<0.387	<0.392	<0.388	<0.388
Acenaphthene	48000	14000	<0.38	<0.398	<0.393	<0.366	<0.393	<0.392	<0.387	<0.392	<0.388	<0.388
Fluorene	96000	9300	<0.38	<0.398	<0.393	<0.366	<0.393	<0.392	<0.387	<0.392	<0.388	<0.388
Phenanthrene	72000	7000	**3.5**	<0.398	**3.07**	<0.366	**0.97**	**0.742**	<0.387	**1.15**	<0.388	**1.49**
Anthracene	100000	70000	**0.685**	<0.398	**0.595**	<0.366	<0.393	<0.392	<0.387	<0.392	<0.388	<0.388
Fluoranthene	24000	9300	**6.04**	**0.488**	**5.67**	<0.366	**1.81**	**1.85**	**0.845**	**2.03**	<0.388	**2.91**
Pyrene	72000	7000	**4.86**	<0.398	**4.42**	<0.366	**1.26**	**1.62**	**0.6**	**1.52**	<0.388	**2.31**
Benzo(a)anthracene	1700	45	**2.74**	<0.398	**2.46**	<0.366	**0.698**	**0.863**	<0.387	**0.804**	<0.388	**1.29**
Chrysene	100000	4500	**3.16**	<0.398	**2.92**	<0.366	**0.859**	**1.19**	**0.63**	**1.03**	<0.388	**1.65**
Benzo(b)fluoranthene	1700	45	**3.39**	<0.398	**3.17**	<0.366	**0.831**	**1.02**	**0.496**	**1.09**	<0.388	**1.64**
Benzo(k)fluoranthene	17000	450	**1.34**	<0.398	**1.25**	<0.366	<0.393	<0.392	<0.387	**0.408**	<0.388	**0.606**
Benzo(a)pyrene	9.9	4.5	**2.75**	<0.398	**2.54**	<0.366	**0.738**	**0.787**	**0.395**	**0.895**	<0.388	**1.41**
Indeno(1,2,3-cd)Pyrene	1700	45	**1.67**	<0.398	**1.58**	<0.366	**0.436**	**0.433**	<0.387	**0.526**	<0.388	**0.88**
Dibenzo(a,h)anthracene	170	4.5	**0.486**	<0.398	**0.419**	<0.366	<0.393	<0.392	<0.387	<0.392	<0.388	<0.388
Benzo(ghi)perylene	72000	7000	**1.5**	**0.488**	**1.77**	<0.366	**0.599**	**0.85**	**0.909**	**0.89**	<0.388	**1.35**
Polychlorinated Biphenyls by GC (mg/Kg)												
PCBs, Total	74	9.6	<0.0543	<0.0589	<0.0573	<0.0545	<0.0564	**0.142**	<0.0573	<0.0588	<0.0554	<0.057
Total Metals												
Arsenic, Total	54	26	**14.4**	**27.3**	**12.6**	**9.96**	**22.6**	**15.8**	**15.7**	**16**	**5.95**	**11.6**
Barium, Total	20000	61000	**44.5**	**52.8**	**48**	**39.8**	**57.6**	**82.8**	**36**	**93.4**	**28.7**	**73.8**
Cadmium, Total	42	28	<0.896	<0.929	<0.934	<0.877	<0.922	<0.948	<0.949	<0.956	<0.898	<0.948
Chromium, Total*	27000	100000	**14.8**	**30.6**	**18**	**29.3**	**25.1**	**21.3**	**19.2**	**22**	**14.5**	**26.7**
Lead, Total	460	420	**30.8**	**46.9**	**100**	**24**	**69.3**	**212**	**79.8**	**171**	**19.9**	**72.8**
Mercury, Total	3.1	3.1	<0.085	<0.091	**0.132**	<0.075	<0.088	**0.148**	**0.117**	**0.258**	<0.095	**0.14**

Notes:

< = not detected above indicated reporting limit

Detected results shown in bold

Bold, shaded results exceed applicable risk guideline

-- = Constituent not analyzed or regulatory standard not specified for listed analyte.

Regarding sample IDs, the second identifier in the Location name represents the Decision Unit (i.e., A through D). The third identifier in the Location name identifies the sample as a composite (C) or discrete (D) sample, and the final integer represents the sequential sample number.

* Trivalent chromium RAGs are presented for comparison.

Table 1: Soil Analytical Results- Detections Only
Dougherty Field - Portland, ME

Location	Maine DEP Excavation / Construction Worker RAG	Maine DEP Park User RAG	WC24-C-D1	WC24-C-D2	WC24-C-D3	WC24-C-D4	WC24-C-C1	WC24-D-D1	WC24-D-D2	WC24-D-D3	WC24-D-D4	WC24-D-C1
Sample Date			12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024	12/18/2024
Sample Depth (ft)			0-2	0-2	0-2	0-2	Composite (0-2)	0-2	0-2	0-2	0-2	Composite (0-2)
Sample Type			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Extracable Petroleum Hydrocarbons (mg/Kg)												
C19-C36 Aliphatics	1200000	100000	<7.46	<7.62	<7.99	**9.68**	**11.5**	**9.63**	<6.95	**34.4**	**22.1**	**28.9**
C11-C22 Aromatics, Adjusted	74000	7300	**16.3**	**9.99**	**44.6**	**38.5**	**42**	**16.9**	**10.2**	**36.1**	**26.5**	**30.4**
Naphthalene	130	150	<0.373	<0.381	**0.699**	<0.39	<0.368	<0.365	<0.347	<0.348	<0.34	<0.364
Acenaphthylene	48000	14000	<0.373	<0.381	<0.4	**0.398**	<0.368	<0.365	<0.347	<0.348	<0.34	<0.364
Acenaphthene	48000	14000	<0.373	<0.381	**0.51**	<0.39	<0.368	<0.365	<0.347	<0.348	<0.34	<0.364
Fluorene	96000	9300	<0.373	<0.381	**0.688**	<0.39	<0.368	<0.365	<0.347	<0.348	<0.34	<0.364
Phenanthrene	72000	7000	**0.816**	<0.381	**4.02**	**1.21**	**1.42**	<0.365	<0.347	<0.348	<0.34	<0.364
Anthracene	100000	70000	<0.373	<0.381	**1.16**	<0.39	<0.368	<0.365	<0.347	<0.348	<0.34	<0.364
Fluoranthene	24000	9300	**1.09**	<0.381	**4.5**	**2.71**	**2.77**	**0.444**	<0.347	**0.874**	<0.34	**0.44**
Pyrene	72000	7000	**0.761**	<0.381	**3.68**	**2.15**	**2.2**	<0.365	<0.347	**0.579**	<0.34	<0.364
Benzo(a)anthracene	1700	45	**0.436**	<0.381	**2.14**	**1.18**	**1.2**	<0.365	<0.347	**0.388**	<0.34	<0.364
Chrysene	100000	4500	**0.548**	<0.381	**2.31**	**1.4**	**1.49**	<0.365	<0.347	**0.428**	<0.34	<0.364
Benzo(b)fluoranthene	1700	45	**0.511**	<0.381	**2.41**	**1.6**	**1.66**	<0.365	<0.347	**0.474**	<0.34	<0.364
Benzo(k)fluoranthene	17000	450	<0.373	<0.381	**0.942**	**0.615**	**0.627**	<0.365	<0.347	<0.348	<0.34	<0.364
Benzo(a)pyrene	9.9	4.5	**0.449**	<0.381	**2.18**	**1.4**	**1.41**	<0.365	<0.347	**0.473**	<0.34	<0.364
Indeno(1,2,3-cd)Pyrene	1700	45	<0.373	<0.381	**1.28**	**0.874**	**0.871**	<0.365	<0.347	<0.348	<0.34	<0.364
Dibenzo(a,h)anthracene	170	4.5	<0.373	<0.381	<0.4	<0.39	<0.368	<0.365	<0.347	<0.348	<0.34	<0.364
Benzo(ghi)perylene	72000	7000	**0.588**	<0.381	**1.44**	**1.08**	**1.07**	<0.365	<0.347	**0.406**	<0.34	<0.364
Polychlorinated Biphenyls by GC (mg/Kg)												
PCBs, Total	74	9.6	<0.0559	<0.0581	<0.0572	**4.11**	<0.0521	<0.0546	<0.0534	<0.054	<0.0497	<0.0514
Total Metals												
Arsenic, Total	54	26	**15.2**	**8.31**	**7.87**	**22**	**10.7**	**12.4**	**14.5**	**14.7**	**13.8**	**9.12**
Barium, Total	20000	61000	**36.1**	**41.3**	**47.8**	**114**	**94.6**	**33.2**	**12.7**	**52.7**	**21.3**	**27.3**
Cadmium, Total	42	28	<0.925	<0.95	<0.939	<0.962	<0.91	<0.878	<0.85	<0.851	<0.857	<0.872
Chromium, Total*	27000	100000	**17.9**	**20.2**	**23.2**	**37.9**	**22.4**	**17.6**	**8.94**	**29.4**	**16.2**	**17.1**
Lead, Total	460	420	**53.1**	**27.5**	**40.9**	**160**	**62.5**	**13**	**9.64**	**19.8**	**12.6**	**14**
Mercury, Total	3.1	3.1	<0.093	<0.08	<0.079	**0.242**	**0.425**	<0.081	<0.082	<0.074	<0.068	<0.075

Notes:

< = not detected above indicated reporting limit

Detected results shown in bold

Bold, shaded results exceed applicable risk guideline

-- = Constituent not analyzed or regulatory standard not specified for listed analyte.

Regarding sample IDs, the second identifier in the Location name represents the Decision Unit (i.e., A through D). The third identifier in the Location name identifies the sample as a composite (C) or discrete (D) sample, and the final integer represents the sequential sample number.

* Trivalent chromium RAGs are presented for comparison.



Figure 1 - Sample Locations

Dougherty Field
Portland, Maine

Legend

- Composite Sample Location
- Discrete Sample Location
- Decision Unit
- Investigation Area

0 75 150 Feet

N

Woodard & Curran

Project #: 0235774
Map Created: November 2024

Figure Exported: 1/17/2025 By: RHSullivan Using: \\woodardcurran.net\shared\Projects\ME Portland\0235774.00 Dougherty Field Soil Testing\wip\GIS\SamplingGrid\SamplingGrid.aprx Layout: Proposed Sample Locations - UPDATED SAMPLE PLAN

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources:**