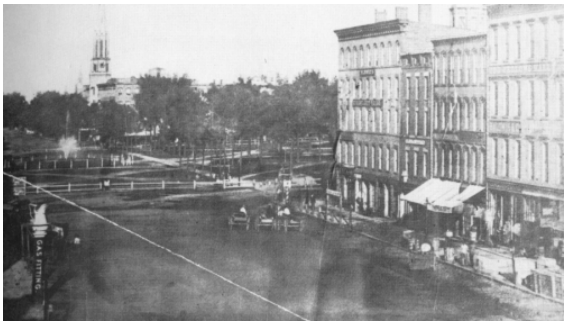
Huntington Beach—Sanitary Survey Report

Fall 2011

Cuyahoga County Board of Health • 5550 Venture Drive • Parma, Ohio 44130 • (216) 201-2000 • www.ccbh.net • estaff@ccbh.net

Background



It is no secret that the Great Lakes are one of the nation's most precious natural resources. Local economies have flourished around these bodies of water since the time of the Civil War. Manufacturing and shipping, staples of the Cleveland area, have provided employment opportunities and growth in the region for well over a century. In turn, homes were built and families were raised, creating a demand for fresh water and waste removal systems. In addition to Lake Erie's role as a key resource for industry and infrastructure, it continues to thrive as a recreation destination. Anyone who has experienced a Northeast Ohio winter knows how to enjoy every last bit of summertime. From Toledo to Ashtabula, the shoreline is dotted with boat launches, marinas, bathing beaches, and parks just inviting you to the water and the beautiful views exclusive to Lake Erie.

As the demand on Lake Erie and the other Great Lakes increased, managing the water quality became imperative. The health and well-being of humans and wildlife are dependent on good water quality. Realizing this fact, then-President Nixon and the federal government decided to take action in 1970 with the creation of the Environmental Protection Agency (EPA), which drafted the Clean Water Act in 1972 to protect surface waters from contamination.

To augment the efforts of the EPA, Congress amended the Clean Water Act with the passage of the Beaches Environmental Assessment and Coastal Health (BEACH) Act in 2000. The Act established uniform criteria for testing, monitoring, and notifying public users of possible coastal recreational water problems. For almost two decades, the Cuyahoga County Board of Health has maintained a beach monitoring program involving sampling and analysis for potential bacterial contamination in near shore waters.

In addition to routine beach monitoring, the Cuyahoga County Board of Health was awarded a grant to conduct Annual Sanitary Surveys at beaches along the Lake Erie coast. A sanitary survey is a method of identifying and investigating the sources of contamination in a body of water and assessing the magnitude of pollution through water sample analysis.

Beach sanitary surveys involve collecting information at the beach, as well as in the surrounding watershed. Information collected at the beach may include: number of birds at the beach, slope of the beach, location and condition of bathrooms, and amount of algae on the beach. Information collected in the watershed may include: land use, location of storm water outfalls, surface water quality, and residential septic tank information.

The following report contains all of the information obtained while conducting the sanitary survey, including the Annual Sanitary Survey field form, photos and GPS coordinates of sampling locations (if applicable), and sample results. Please contact Barry Grisez at (216) 201-2001 ext. 1232 or bgrisez@ccbh.net with any questions or concerns about this project.

Sample Results

As a result of the sanitary survey, four outfalls were identified as potential sources of water pollution. An "outfall" is defined as the point where a storm water conveyance system discharges into a natural body of water such as a lake, river, stream, or wetland. As part of this project, water samples were taken during both dry weather and after rain events. They were then analyzed for bacterial contamination. This analysis was used as an indication of whether these outfalls were contributing to the higher bacteria counts occasionally observed in the Lake. Sampling was conducted weekly, beginning August 17th and concluding on October 12th. The table below provides the *E.coli* concentrations found as a result of sample analysis.

BEACH NAME	OUTFALL LOCATION	GPS (N)	GPS (W)	COLLECTION DATE	E COLI CFU/100mL	RECENT RAINFALL	RAINFALL AMOUNT (INCHES)
Huntington	29800 Lake Road - East	41.49350	-81.94778	8/17/2011	86	<72 hours	0.35
Huntington	29800 Lake Road - East	41.49350	-81.94778	8/24/2011	1367	<24 hours	0.46
Huntington	29800 Lake Road - East	41.49350	-81.94778	8/31/2011	933	>72 hours	0.22
Huntington	29800 Lake Road - East	41.49350	-81.94778	9/6/2011	13	<72 hours	1.75
Huntington	29800 Lake Road - East	41.49350	-81.94778	9/13/2011	16	<72 hours	0.28
Huntington	29800 Lake Road - East	41.49350	-81.94778	9/20/2011	6400	<48 hours	1.06
Huntington	29800 Lake Road - East	41.49350	-81.94778	9/26/2011	5200	<24 hours	1.48
Huntington	29800 Lake Road - East	41.49350	-81.94778	10/3/2011	6200	<24 hours	0.36
Huntington	29800 Lake Road - East	41.49350	-81.94778	10/12/2011	96800	<24 hours	0.38
Huntington	29800 Lake Road - West	41.49350	-81.94778	8/17/2011	17	<72 hours	0.35
Huntington	29800 Lake Road - West	41.49350	-81.94778	8/24/2011	37	<24 hours	0.46
Huntington	29800 Lake Road - West	41.49350	-81.94778	8/31/2011	1	>72 hours	0.22
Huntington	29800 Lake Road - West	41.49350	-81.94778	9/6/2011	8727	<72 hours	1.75
Huntington	29800 Lake Road - West	41.49350	-81.94778	9/13/2011	2100	<72 hours	0.28
Huntington	29800 Lake Road - West	41.49350	-81.94778	9/20/2011	20	<48 hours	1.06
Huntington	29800 Lake Road - West	41.49350	-81.94778	9/26/2011	10	<24 hours	1.48
Huntington	29800 Lake Road - West	41.49350	-81.94778	10/3/2011	33	<24 hours	0.36
Huntington	29800 Lake Road - West	41.49350	-81.94778	10/12/2011	2150	<24 hours	0.38
Huntington	Mouth of Porter Creek	41.49037	-81.93051	8/17/2011	843	<72 hours	0.35
Huntington	Mouth of Porter Creek	41.49037	-81.93051	8/24/2011	6400	<24 hours	0.46
Huntington	Mouth of Porter Creek	41.49037	-81.93051	8/31/2011	1233	>72 hours	0.22
Huntington	Mouth of Porter Creek	41.49037	-81.93051	9/6/2011	1020	<72 hours	1.75
Huntington	Mouth of Porter Creek	41.49037	-81.93051	9/13/2011	650	<72 hours	0.28
Huntington	Mouth of Porter Creek	41.49037	-81.93051	9/20/2011	3680	<48 hours	1.06
Huntington	Mouth of Porter Creek	41.49037	-81.93051	9/26/2011	1000	<24 hours	1.48
Huntington	Mouth of Porter Creek	41.49037	-81.93051	10/3/2011	3480	<24 hours	0.36
Huntington	Mouth of Porter Creek	41.49037	-81.93051	10/12/2011	2700	<24 hours	0.38
Huntington	Mouth of Cahoon Creek	41.48997	-81.92493	8/17/2011	767	<72 hours	0.35
Huntington	Mouth of Cahoon Creek	41.48997	-81.92493	8/24/2011	7400	<24 hours	0.46
Huntington	Mouth of Cahoon Creek	41.48997	-81.92493	8/31/2011	700	>72 hours	0.22
Huntington	Mouth of Cahoon Creek	41.48997	-81.92493	9/6/2011	800	<72 hours	1.75
Huntington	Mouth of Cahoon Creek	41.48997	-81.92493	9/13/2011	1140	<72 hours	0.28
Huntington	Mouth of Cahoon Creek	41.48997	-81.92493	9/20/2011	13400	<48 hours	1.06
Huntington	Mouth of Cahoon Creek	41.48997	-81.92493	9/26/2011	470	<24 hours	1.48
Huntington	Mouth of Cahoon Creek	41.48997	-81.92493	10/3/2011	3250	<24 hours	0.36
Huntington	Mouth of Cahoon Creek	41.48997	-81.92493	10/12/2011	44200	<24 hours	0.38

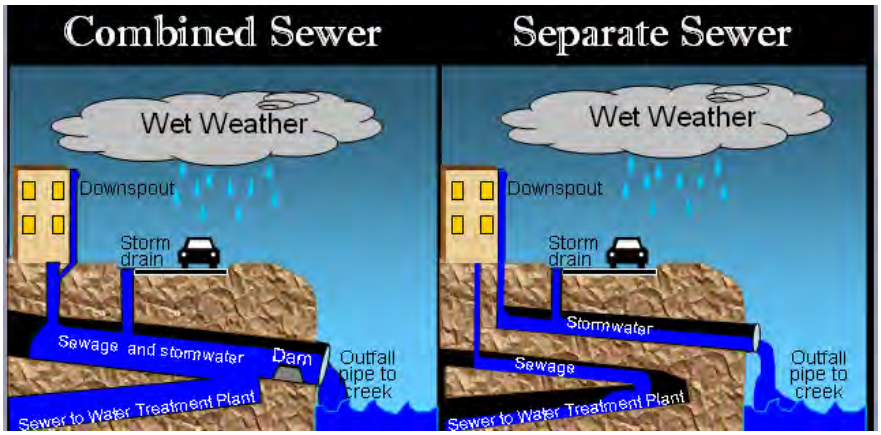
Parking Lot Outfalls

The two parking lot outfalls that discharge onto the beach were also sampled as part of this project. The samples were analyzed for Volatile Organic Compounds (VOCs) and Semi-VOCs. There were no contaminants detected in the samples. The laboratory results form is included with this report.

Discussion of Sample Results

To interpret the results, the *E.coli* concentration listed in the previous table is compared to a water quality standard of 576 CFU/100 mL. The threshold of 576 was created by the USEPA for storm water analysis. Results exceeding 576 are an indication of a high bacteria load and will most likely affect the water quality at the beach. The results show that the outfalls located near the beach are primarily influenced by rain. This is common among beaches in Cuyahoga County and other areas where older infrastructure is still present. There are a number of options available to help effectively reduce the amount of pathogenic bacteria such as *E. coli* flowing into Lake Erie from these outfalls, including:

Modifying the existing sewer system and separating sanitary waste lines from storm water lines. On average, this is the most expensive and time-consuming solution. However, completely separate conveyance systems ensure that only storm water runoff enters the outfalls and eventually Lake Erie. Keep in mind that storm water runoff can still contain bacteria from other sources; local wildlife (geese), pet waste, agricultural waste, and discharge from impervious surfaces like streets and parking lots.



Creating an overflow tank to capture excess storm water - As opposed to revamping the entire sewer system, these tanks or "tunnels" act as a retention basin by capturing the excess flow and slowly return the water back to the wastewater treatment plant. The Northeast Ohio Regional Sewer District has completed projects such as these throughout the area. Currently, they are working on the Euclid Creek Tunnel Project. When completed, it will have the capacity to hold 70 million gallons of combined storm water and wastewater which would otherwise have ended up in Lake Erie.

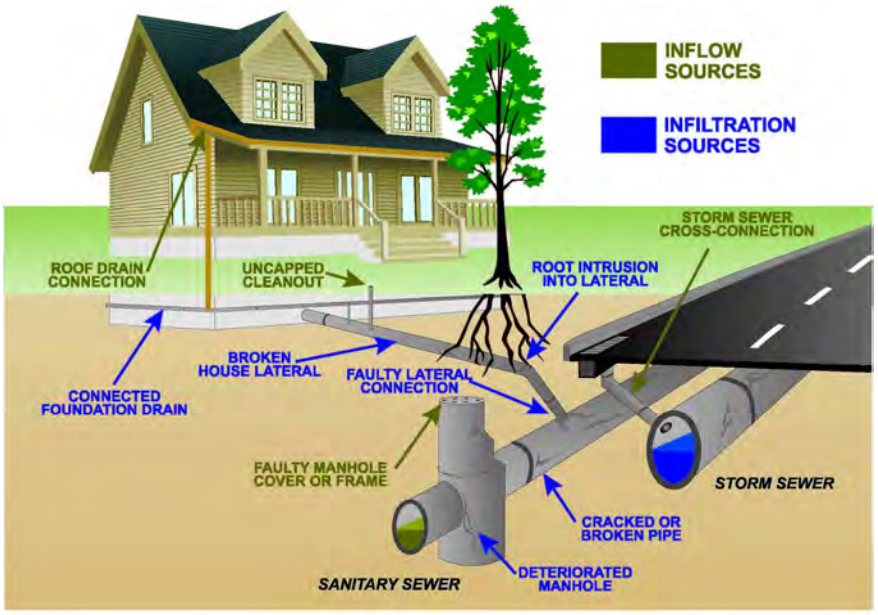
Green Infrastructure – A relatively new concept, green infrastructure involves creating wetlands, large rain gardens, and other natural "speed bumps" that help slow down the flow of water to Lake Erie by diverting it and allowing for treatment. Similar to the "tunnels" mentioned above, these types of projects create a holding area for excess storm water runoff. The only difference is that these green solutions call for natural treatment of the water through soil absorption as opposed to piping the water back to a treatment plant.

All of these solutions are viable ways to deal with bacteria-laden storm water. By conducting sanitary survey projects such as this, information is obtained on where the bacteria concentrations are of greatest concern allowing for a strategic approach to eliminating these problem areas.

Tips for Homeowners

The management of large quantities of excess rainwater discussed above is rather complex and normally taken on by municipal or regional entities, such as streets/sewer departments and regional sewer districts. However, homeowners can also take a few small steps to help keep Lake Erie clean. Here are a few tips for around the home:

Prevent rain water from infiltrating sanitary sewers. Just like any other structural component of a house, storm water drain lines periodically need to be repaired or replaced. Rain water from gutters, downspouts, footer drains and lateral lines can infiltrate the sanitary sewer system if cracks or leaks are present. Too much rainwater in sanitary sewers often results in overflows at the sewage treatment plants which spill into area waterways and eventually Lake Erie. Homeowners interested in an evaluation of their drainage system can contact local storm water consulting/engineering firms or their municipal sewer department.



Make sure all household waste goes to the right place. Some houses, especially older homes, were built or remodeled without much consideration given to waste water management. Over the years, homeowners added plumbing fixtures (bathrooms, laundry/utility sinks, etc.) to their basements or garages. The waste water from these fixtures was connected to the storm water drains since those lines are generally much more accessible than sanitary lines. As a result, untreated sanitary waste ends up in Lake Erie contributing to the buildup of bacterial contamination.

On that note, another consideration for homeowners is the storage and disposal of hazardous household waste. Items such as cooking oil, automobile fluids, lawn products, and unused medications are just a few of the hazardous materials that require special attention when handling.

Maintain septic systems as needed. Believe it or not, there are still approximately 10,000 households in Cuyahoga County that require an individual household sewage treatment system in place of sanitary sewers. Routine maintenance of these systems will not only ensure that the resulting waste water is properly treated but will also extend the life of the system and allow for optimal operation.

Discover your green thumb. If the yard could use a little attention, consider creating rain gardens to help buffer runoff from storm water. Rain gardens are very attractive beds of native vegetation that also serve as a way to prevent excess water from entering the drainage system. Also, though native wildflowers, plants, and shrubs are hardy and drought –resistant, adding a rain barrel to your downspout is a great way to keep your flower beds watered during those dry spells. For those looking to take their projects to the extreme, there are ways to replace a standard, shingled roof with a thatched or vegetative green plants designed to retain a significant amount of rainfall. Other small projects, such as replacing impervious concrete surfaces with pavers or decorative stone, can also reduce the amount of rainwater entering the sewers.

Clean up after pets. It seems like common sense, but cleaning up pet waste is the simplest way to prevent bacterial contamination of storm water runoff.

Summary

This Sanitary Survey Project was made possible through grant funding obtained by the Ohio Department of Health from the USEPA Great Lakes Restoration Initiative (GLRI). As a result of the survey, it was concluded that rainfall plays a significant role in determining water quality. The sewer systems installed years ago were designed to overflow into Lake Erie during periods of heavy rain. Although this was a great way to help out homeowners and prevent basement floods, these types of systems created a pollution problem in Lake Erie that has been a challenge to resolve. The Clean Water Act, implemented by the USEPA, requires that municipalities correct these sewer overflows within a specified timeframe and there are a number of possible solutions to address this issue that range in cost and effectiveness. A copy of this report will be shared with municipal sewer departments and other interested parties to discuss the results of this project and begin exploring ways to address the sources of pollution.

Useful Links

Cuyahoga County Board of Health 5550 Venture Drive Parma, OH 44130 Phone: (216) 201-2000 Fax: (216) 676-1317 E-mail: estaff@ccbh.net Website: www.ccbh.net	Northeast Ohio Regional Sewer District 3900 Euclid Ave. Cleveland, OH 44115 Phone: 216-881-6600 Website: www.neorsd.org	Cuyahoga County Solid Waste District 4750 East 131 Street Garfield Heights, OH 44105 Phone: (216) 443-3749 Fax: (216) 478-0014 E-mail: swdinfo@cuyahogacounty.us Website: www.cuyahogaswd.org

United States Department of Agriculture Natural Resources Conservation Service - State Office 200 North High Street, Room 522 Columbus, OH 43215 Phone: (614) 255-2472 Website: www.nrcs.usda.gov	United States Environmental Protection Agency (USEPA) Region 5 (IL, IN, MI, MN, OH, WI) 77 West Jackson Boulevard Chicago, IL 60604-3507 Phone: (312) 353-2000 Fax: (312) 353-4135 Toll free within Region 5: (800) 621-8431 Website: www.epa.gov

GREAT LAKES BEACH ANNUAL SANITARY SURVEY

1. BASIC INFORMATION

Name of Beach: HUNTINGTON BEACH	Date(s) of Survey: 8/22/2011
Beach ID:	Name of Waterbody: LAKE ERIE
Town/City/County/State: BAY VILLAGE, OH	Number of Routine Surveys Used: 105
Sampling Station(s)/ID:	Name(s) of Surveyor(s): TIM GOURLEY, HEATHER GRISEZ
STORET Organizational ID:	Surveyor Affiliation: C.C.B.H.

2. DESCRIPTION OF LAND USE IN WATERSHED

Current Land Use in Watershed

Type	Residential	Industrial	Commercial	Agricultural	Other (specify): PARK
Percentage	80		10		10

Development	Describe
% undeveloped	10
% developed	90

How was land use measured:

Waterbody Uses: ☒ Boating ☒ Fishing ☐ Surfing ☒ Windsurfing ☐ Diving ☐ Other (specify)

Are maps of the beach area attached? ☒ yes ☐ no Are maps of the watershed attached? ☒ yes ☐ no

List maps and their sources:

Does the detailed map include locations of:

Sample Points	☒ yes	☐ no	(explain):
Hydrometric Network	☐ yes	☒ no	(explain):
Pollutant Sources	☒ yes	☐ no	(explain):
Boat Traffic	☐ yes	☐ no	(explain): N/A
Marinas	☐ yes	☐ no	(explain): N/A
Boat dockage	☐ yes	☐ no	(explain): N/A
Fishing	☐ yes	☐ no	(explain):
Bathing/Swimming	☒ yes	☐ no(	explain):
Bounding Structures:			
Jetty	☐ yes	☒ no(	explain): N/A
Groin	☒ yes	☐ no(	explain):
Seawall	☐ yes	☒ no(	explain): N/A
Other	☐ yes	☒ no(	explain): N/A
Sanitary Facilities	☐ yes	☒ no(	explain): NOT VISIBLE ON MAP
Restaurants/Bars	☐ yes	☒ no(	explain): " " " "
Playground	☐ yes	☒ no(	explain): N/A
Parking Lot(s)	☒ yes	☐ no(	explain):
Other	☐ yes	☒ no(	explain):

Erosion/Accretion Measurements

High Watermark Location Identification	Fixed Object Description (e.g., tree, building)	Distance from Fixed Object to High Watermark	Feet or Meters?	Distance between High Watermark Locations	Feet or Meters?
A	STAIRS	120	FT.	A↔B: 268	FT.
B	STORM SPILLWAY	59	"	B↔C:	
C	STORM DRAIN	48	"	C↔D: 149	FT.
D (optional)	REFUSE AREA	28	"	D↔E:	
E (optional)	PUMP HOUSE	47	"	E↔F: 77	FT.
F	STAIRS	67	"		

Bounding Structures

Bounding Structure	Number	Description or Comment
Jetty		
Groin	4	
Seawall		
Natural formation		
Other (specify):		
Other (specify):		

Beach Materials/Sediments:

☒ Sandy ☐ Mucky ☒ Rocky ☐ Other:

Or, Beach Materials/Sediments Lab Analysis (attach diagram or photographs of plot locations) N/A

Name of Lab Used:	
Date of Sample Collection:	

Plot ID	Mean Grain Size Diameter	Uniformity Coefficient	Description of Plot Location:
Average			

Describe the results and conclusion of the sediment analysis and potential effects of the sediment distribution at this beach:

Photos Taken in the Beach Area or Surrounding Watershed (SEE ATTACHED)

Image Number	Date/Time	File Name	Description of Photo (Include Pictures of High Watermark Locations and Corresponding Fixed Objects)

Habitat around beach:

☐ Dunes ☐ Wetlands ☒ River/stream ☐ Forest ☒ Park ☐ Protected Habitat or Reserve

☐ Other:

3. WEATHER CONDITIONS

Examine the weather data collected over the prior beach season(s) along with bacteria sampling results.
Do the bacteria concentrations at this beach appear to correlate with any of the following?

Rainfall	☒ yes	☐ no	(explain): RUNOFF
Air Temperature	☐ yes	☒ no	(explain):
Water Temperature	☐ yes	☒ no	(explain):
Cloud Cover	☐ yes	☒ no	(explain):
Wind Speed	☒ yes	☐ no	(explain): PORTER CREEK - INFLUENCE ON BEACH AREA
Wind Direction	☒ yes	☐ no	(explain): " " " " " "
Longshore Current	☐ yes	☒ no	(explain):
Wave Height or Intensity	☒ yes	☐ no	(explain): TURBIDITY
Other Weather	☐ yes	☒ no	(explain):

Have any statistical analyses been done to calculate the degree of correlation? ☐ yes ☒ no

Describe any analyses done, and any trends or correlations found (add lines if needed to describe in detail):

N/A

Average air temperature during beach season: 68.7 ° C or (° F) | Average water temperature during beach season: 73.0 ° C or (°F)

Average wind speed and direction during beach season (e.g., E or 90° at 15 mph): S at 6 mph

Typical weather conditions: ☐ Sunny ☒ Mostly Sunny ☐ Partly Cloudy ☐ Mostly Cloudy ☐ Overcast ☐ Rainy

Rainfall total for the beach season (in): 83.69 | Average rainfall for all beach seasons (in): 57.9

Does rainfall intensity correlate with bacteria sample results? ☒ yes ☐ no Describe:

Number of significant rain events: 25 | What constitutes "significant?" (e.g., 1 inch or more rain) 0.75 in (PER CSO/SSO INFO)

Additional Comments/Observations:

RAINFALL DATA OBTAINED FROM USGS RADAR RAIN

4. PHYSICAL BEACH CONDITIONS

Beach length or dimensions (indicate Z1, Z2, and Z3 on a map)

Length (m): 1913 FT, 583 M | Width (average, in m): 24.67

Width Z1 (m): 31.0 | Width Z2 (m): 11.5 | Width Z3 (m): 31.5

Local water level variation: feet inches | Hydrographic influences (e.g., seiches):

Characterize any longshore or nearshore currents and their potential effects based on bacteria sampling results

Approximate beach slope at swim area: 4 %

Description and date of last beach rehabilitation (example: new sand, nourishment, dredging, etc., physical structures will be described in Sections 12 and 13):

N/A

Comments/Observations:

5. BATHER LOAD (# OF BEACH USERS)

Is bather load measured? ☐ yes ☒ no

If yes, describe how beachgoer numbers are calculated (i.e., turnstile, counting at noon, photographs):

Beach Use

Beachgoer Category	Number of People Per Day Using the Beach					
	Peak Use for the Season (Daily Use)	Seasonal Average (Daily Use)	Holiday Average (Daily Use)	Weekend Average (Daily Use)	Weekday Average (Daily Use)	Off-Season Average if applicable (Daily Use)
Total people in the water		1				
Total people out of the water		<1				
Total people at the beach		1				
Breakdown of Activities (if activities were broken down on the Routine-Onsite Sanitary Survey, summarize them here)						
Activity 1:						
Activity 2:						
Activity 3:						
Activity 4:						
Activity 5:						
Activity 6:						
Frequency of measurements (e.g., daily, weekly, monthly)	DAILY IN A.M. AFTERNOON, WEEKEND, & HOLIDAY USAGE IS MUCH GREATER.					

Examine bather load data along with sampling results for the past beach season(s). Look at each sampling point. Does bather load appear to correlate with bacteria concentrations at any of these sampling points? Does the amount of people in the water or out of the water correlate with bacteria concentrations? Has a statistical analysis been done? Describe:

NO CORRELATION, NO STATISTICAL ANALYSIS

Comments/Observations:

6. BEACH CLEANING

Beach cleaning frequency during season: DAILY

Description of cleanup activities SURF RAKE EVERY MORNING, BY HAND AS NEEDED.

	Leveling of Sand	Trimming or Removing Vegetation	Removing Debris	Removing Trash	Construction and Maintenance of a Temporary Pathway Directly to Open Water	Other (specify):
Check activities that were done	✓	✓	✓	✓		
Equipment used (if applicable)						

How often are floatables found at the beach? ☒ Never ☐ Sometimes ☐ Frequently ☐ Very frequently

Known sources of floatables:

Types of floatables found ☐ Street litter ☐ Food-related litter ☐ Medical items ☐ Sewage-related ☐ Building materials ☐ Fishing related ☐ Household waste ☐ Other:

How often is beach debris/litter found on the beach? ☐ Never ☒ Sometimes ☐ Frequently ☐ Very frequently

Known sources of debris:

Type of Debris/Litter Found

☐ Street litter ☐ Food-related litter ☐ Medical items ☐ Sewage-related ☐ Building materials
☐ Fishing related ☐ Household waste ☐ Tar ☐ Oil/ Grease ☐ Other:

Comments/Observations:
TYPES of DEBRIS NOT DOCUMENTED ON FIELD FORMS

7. INFORMATION ON SAMPLING LOCATION

Description of Sample Points (include beach water and potential pollution sources)

Sample Point Name/ID	Location	Description	Sample Frequency	Time of Day of Sample Collection
HUNT-CENTRAL	(SEE SUMMARY)	BEACH MONITORING PT.	DAILY	A.M.
HUNT-WEST	"	" " "	"	"
CAHOON CREEK	"	MOUTH of CREEK	WEEKLY - 8/17 - 10/10	"
PORTER CREEK	"	" " "	"	"
29800 LAKE RD-E	"		"	"
29800 LAKE RD-W	"		"	"
			"	"

Description of hydrometric network [note that this is a network of monitoring stations that collect data such as rainfall and stream flow]
RADAR RAIN - RAINFALL DATA
HOPKINS AIRPORT / NWS - WIND SPEED, WIND DIRECTION, AIR TEMP.

Comments/Observations:

8. WATER QUALITY SAMPLING

Name of laboratory: NE OHIO REGIONAL SEWER DIST Distance to laboratory: 19.3 miles
Is there a sampling and analysis plan? ☒ yes ☐ no Is it adequate? ☒ yes ☐ no (explain):

Are the sampling staff properly trained on sampling techniques, equipment maintenance, and calibration procedures? ☒ yes ☐ no

Biological Survey Results:
Were invasive/nonnative species present? ☐ yes ☒ no (describe):

Have algae blooms been observed during the beach season? (If so, specify duration and algae species) YES. SPORADICALLY THROUGHOUT THE SEASON, MORE COMMON TOWARD END of SEASON, NO SPECIES ID.
Percent of beach season where algae was present in significant amounts in the nearshore water: ☐ None ☒ Low (1–20%)
☐ Moderate (21–50%) ☐ High (> 50%)
Percent of beach season where algae was present in significant amounts on the beach: ☒ None ☐ Low (1–20%)
☐ Moderate (21–50%) ☐ High (> 50%)
List types of algae found: NO ID ON ROUTINE SANITARY SURVEY FORMS
Colors of algae most commonly found: N/A
List any infectious snails that were found: NONE.
List any dangerous aquatic organisms that were found: NONE.

Presence of Wildlife and Domestic Animals

Type	Degree of Presence (Low, Mod, High)	Does the Presence Appear to Correlate with Bacteria Results? (Yes, No, Don't Know)	Describe Further (include whether fecal droppings are seen and are a problem)
Geese	L	NO	
Gulls	M	NO	
Dogs	L	NO	
Other (specify):			
Other (specify):			
Other (specify):			

Was a significant number of dead birds found on the beach during beach season? ☐ yes ☒ no
Describe types and numbers found and possible causes: _____

Was a significant number of dead fish found on the beach during the beach season? ☐ yes ☒ no
Describe numbers found and possible causes: _____

Bacteria Samples Collected

Do you test for *Escherichia coli*? ☒ yes ☐ no Analytical Method Used: MTEC
Do you test for *Enterococcus*? ☐ yes ☒ no Analytical Method Used: _____
Do you test for fecal coliform? ☐ yes ☒ no Analytical Method Used: _____
List any additional bacteria tested and associated analytical methods: NONE
Do you composite any bacteria samples? ☐ yes ☒ no If yes, explain: _____

How do this past season's bacteria results compare to that of previous years'? THERE WERE 4 MORE EXCEEDENCES IN 2011 COMPARED TO 2010, HOWEVER THE HIGHEST NUMBER OF EXCEEDENCES WAS IN 2006 & '23.

Do the bacteria results correlate to other parameters, such as water quality, weather, flow, bather load, algae, or wildlife? ☒ yes ☐ no Describe in detail analyses that were performed on the data (add additional lines as needed).
WATER QUALITY / RAINFALL. NO STATISTICAL ANALYSIS PERFORMED.

Water Quality (check all that are measured regularly)

Temperature	pH	Rainfall	Turbidity	Conductivity	Other
X		X	X		

How does the water quality data compare to data from previous years? TEMP. RANGE - 68-75°F; 73°F IN 2011
RAINFALL - AMOUNT NOT DOCUMENTED BY CCBH UNTIL 2011
TURBIDITY - RANGE 13.0-21.0; 14.1 IN 2011
Do any data correlate with bacteria sample results? ☒ yes ☐ no If yes, explain: RAINFALL AND, TO A LESSER EXTENT, TURBIDITY

Were there any unusual results, such as extremely high or low values detected, or unusual trends? ☐ yes ☒ no If yes, explain what was found and any potential causes: _____

Are water quality annual trend data attached? ☐ yes ☒ no

Comments/Observations:

9. MODELING

Are models being used? ☒ yes ☐ no

If yes, list types of models being used and a brief description of the models:

NOWCAST SYSTEM - DEVELOPED & MAINTAINED BY USGS. MODEL USES VARIABLES SUCH AS RAINFALL, TURBIDITY, WAVE HT., WIND SPEED, AND WIND DIRECTION TO PREDICT POOR OR GOOD WATER QUALITY. THE MODEL WAS 85% ACCURATE IN 2011.

Comments/Observations:

10. ADVISORIES/CLOSINGS

List any advisories and closings that occurred, whether bacteria levels were high, and any possible reasons for advisory or closing or high bacteria level, such as stormwater runoff, sewage spill, or wildlife on the beach.

Advisory or Closing (specify one)	Start and End Dates	Length of Advisory or Closing (Days)	Did Bacteria Concentrations Exceed GM or SSM Criteria?	Reason for Advisory or Closing or Possible Contributing Factors
ADVISORY	5/26 - 5/28	2	MODEL	RAINFALL
	6/2 - 6/3	1	"	"
	6/12 - 6/13	1	"	"
	6/14 - 6/15	1	"	"
	6/20 - 6/21	1	"	"
	6/29 - 6/30	1	"	"
	7/3 - 7/4	1	"	"
	7/13 - 7/14	1	"	"
	7/19 - 7/21	2	"	"
	7/23 - 7/24	1	"	"
	7/29 - 7/30	1	"	"
	8/15 - 8/17	2	"	"

Total number of closings issued: 0

Total number of advisories issued: 14

Total number of days under an advisory: 17

Total number of days beach was closed: 0

Comments/Observations:

ADDITIONAL ADVISORIES / 8/22 - 8/23 - 1 DAY
8/28 - 8/29 - 1 DAY
9/5 1 DAY (END OF SEASON)

11. POTENTIAL POLLUTION SOURCES

Type of Source	Level of Concern (H, M, L, or NA)	Latitude*	Longitude*	Describe how this source might contribute to beach pollution and frequency of contribution
Wastewater discharges	N/A			
Sewage overflows	N/A			
Septic systems	N/A			
Subsurface sewage disposal	N/A			
Stormwater outfalls	L			RUNOFF, POTENTIAL CROSS-CONNECTIONS
Natural outfalls	N/A			
CAFOs or AFOs	N/A			
Wildlife	L			GEESE, GULLS
Agriculture runoff	N/A			
Urban runoff, industrial waste	N/A			
Marinas, harbors	N/A			
Mooring boats	N/A			
Domestic animals	L			DOGS
Unsewered areas	N/A			
Erosion-prone areas	L			SLOPE LEADING TO BEACH
Landfills, open dumps	N/A			
Groundwater seepage	N/A			
Bathhouse leakage	N/A			
Drains and pipes nearby	L			PARKING LOT OUTFALLS
Stream or wetland drainage	M			PORTER CREEK - HIGH FREQUENCY)
Vacant areas	L			RUNOFF - PARK AREA / PARKING LOTS
Other (specify):				
Other (specify):				
Other (specify):				

*If latitude and longitude are unknown, show the location on the detailed map and describe in the Comments/Observations section below.

Have potential pollution sources identified above been included on the detailed map? ☐ yes ☐ no (explain):

Did you collect bacteria samples from any potential pollution sources, such as streams or outfalls? ☒ yes ☐ no (explain):

If yes, describe any analyses performed and a summary of the results: 26 of 36 SAMPLES EXCEEDED THE 576 CFU/100 mL STORM WATER STANDARD FOR NUISANCE CONDITIONS. PORTER & CAHOON CREEKS CONSISTENTLY OVER THE STANDARD, HOWEVER 29800 LAKE NOT AS CONSISTENT W/RAIN

Are there any discharge reports available for dischargers in the watershed? ☐ yes ☒ no If yes, attach report or pertinent sections and summarize here:

Have any sources been remediated, or have steps been taken to remediate sources? ☒ yes ☐ no (explain):

SOURCE TRACKING IS CURRENTLY BEING CONDUCTED AT PORTER CREEK - CCBH GLRI PROJECT 2011 - 2013

Comments/Observations:

SAMPLING CONDUCTED AT PARKING LOT OUTFALLS AS PART OF THE ANNUAL SANITARY SURVEY - ANALYZED FOR VOC's

12. DESCRIPTION OF SANITARY FACILITIES

Bathhouses: Total number of bathhouses at the beach: 2, 4 OUTHOUSES

Number or ID	Location	Condition (Good, Fair, or Poor)	Distance from Waterline (feet)	Frequency of Cleaning (Daily, Weekly, Monthly)
2	PARK AREA	GOOD	N/A	DAILY
4	"	GOOD	"	"

Describe further. Include number of toilets, showers, sinks, etc., and whether these facilities are adequate to support beach use.

Litterbins: Total number of litterbins at the beach: 30

Number or ID	Location	Condition (Good, Fair, or Poor)	Distance from Waterline (feet)	Frequency of Emptying (Daily, Weekly, Monthly)
30	ON BEACH	GOOD	30	DAILY

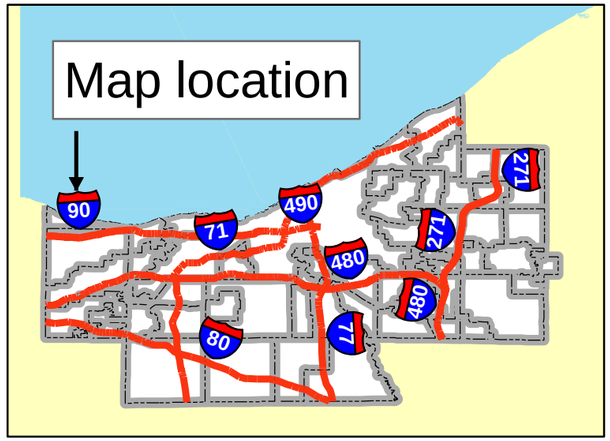
Describe further. Include whether number and location of litterbins is adequate to support beach use.

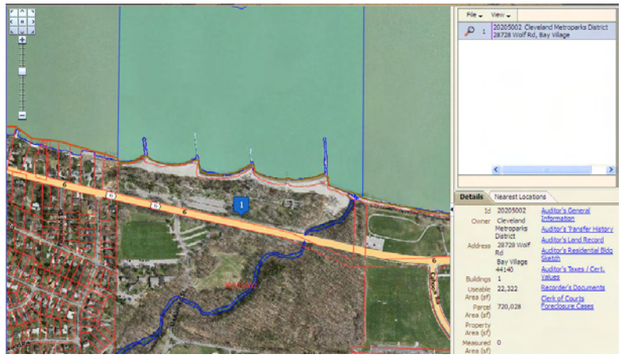
13. DESCRIPTION OF OTHER FACILITIES

List facilities in the beach area, such as restaurants, bars, playgrounds, parking lots, and dog parks.

Facility Name/Type	Location	Condition (Good, Fair, or Poor)	Distance from Beach (feet)	How might this facility contribute to water quality problems?
CONCESSION STAND		GOOD		
PLAYGROUND		"		
PARKING LOTS		"		RUNOFF, OUTFALL DISCHARGE
BBQ PITS		"		

Comments/Observations:





Legend

- CSO SSO Locations
- Sampling Locations 2011
- Stream
- Streets
- Municipal Borders

N W E S

Huntington Beach Area

Public Health
Prevent. Promote. Protect.
Northeast Ohio Public Health Partnership

Cuyahoga County Board of Health
PREVENT • PROMOTE • PROVIDE

By Timothy A. Gourley, R.S., M.P.H.
Coordinate System: GCS North American 1983
Datum: North American 1983
Units: Degree
Path: C:\Documents and Settings\tgourley\My Documents\beach survey 2011\Huntington.mxd

Precision Analytical, Inc.
4450 Johnston Parkway Unit B
Cleveland, OH 44128
TEL: 216 663 0808 FAX: 216 663 0656
Website: www.precisionanalytical.com

October 20, 2011

Carol Turner
North East Ohio Regional Sewer District
4747 E. 49th St.
Cuyahoga Heights, Ohio 44125
TEL: (216) 641-6000
FAX: (216) 641-8118

RE: Sanitary Survey Order No.: 1110325

Dear Carol Turner:

Precision Analytical, Inc. received 3 sample(s) on 10/12/2011 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in an attached Case Narrative. Quality control data is within laboratory defined or method specified acceptance limits except if noted. Note that sample results reported relate only the samples as received at the laboratory.

Solid samples are reported in ug/Kg or mg/Kg as received, unless specified in the units as dry weight. Unless otherwise noted, results have not been background or blank corrected.

If you have any questions regarding these tests results, please feel free to call.

Certifications: Ohio EPA - 4041; NELAC NY - 11167; NELAC PA - 68-00434;
W.Va DEP - 245; KY UST - 69

Sincerely,

Scott Bolam

Scott Bolam
QA/QC Manager

Precision Analytical, Inc.
4450 Johnston Parkway Unit B
Cleveland, OH 44128
TEL: 216 663 0808 FAX: 216 663 0656
Website: www.precisionanalytical.com

Analytical Report

(consolidated)

WO#: **1110325**

Date Reported: **10/20/2011**

CLIENT: North East Ohio Regional Sewer District **Collection Date:** 10/12/2011 10:15:00 AM

Project: Sanitary Survey

Lab ID: 1110325-001 **Matrix:** AQUEOUS

Client Sample ID Huntington Beach, East Parking Lot Outfall

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SEMI-VOLATILES, PRIORITY POLLUTANT SEMI-VOLATILE ORGANIC COMPOUNDS				**E625**		Analyst: **MIM**
1,2,4-Trichlorobenzene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
1,2-Dichlorobenzene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
1,2-Diphenylhydrazine	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
1,3-Dichlorobenzene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
1,4-Dichlorobenzene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
2,4,5-Trichlorophenol	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
2,4-Dichlorophenol	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
2,4-Dimethylphenol	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
2,4-Dinitrophenol	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
2,4-Dinitrotoluene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
2,6-Dinitrotoluene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
2-Chloronaphthalene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
2-Chlorophenol	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
2-Nitrophenol	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
3,3´-Dichlorobenzidine	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
4,6-Dinitro-2-methylphenol	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
4-Bromophenyl phenyl ether	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
4-Chloro-3-methylphenol	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
4-Chlorophenyl phenyl ether	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
4-Nitrophenol	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Acenaphthene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Acenaphthylene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Anthracene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Benz(a)anthracene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Benzidine	ND	50.0		µg/L	1	10/18/2011 3:18:00 PM
Benzo(a)pyrene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Benzo(b)fluoranthene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Benzo(g,h,i)perylene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Benzo(k)fluoranthene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Bis(2-chloroethoxy)methane	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Bis(2-chloroethyl) ether	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Bis(2-chloroisopropyl) ether	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Bis(2-ethylhexyl) phthalate	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Butyl benzyl phthalate	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
DF	Dilution Factor	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
MDL	Method Detection Limit	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Detection Limit (PQL)	S	Spike outside acceptance limits

Precision Analytical, Inc.
4450 Johnston Parkway Unit B
Cleveland, OH 44128
TEL: 216 663 0808 FAX: 216 663 0656
Website: www.precisionanalytical.com

Analytical Report

(consolidated)

WO#: **1110325**

Date Reported: **10/20/2011**

CLIENT: North East Ohio Regional Sewer District **Collection Date:** 10/12/2011 10:15:00 AM

Project: Sanitary Survey

Lab ID: 1110325-001 **Matrix:** AQUEOUS

Client Sample ID Huntington Beach, East Parking Lot Outfall

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SEMI-VOLATILES, PRIORITY POLLUTANT SEMI-VOLATILE ORGANIC COMPOUNDS				**E625**		Analyst: **MIM**
Chrysene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Dibenz(a,h)anthracene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Diethyl phthalate	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Dimethyl phthalate	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Di-n-butyl phthalate	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Di-n-octyl phthalate	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Dioxin Screen	ND	0		µg/L	1	10/18/2011 3:18:00 PM
Fluoranthene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Fluorene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Hexachlorobenzene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Hexachlorobutadiene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Hexachlorocyclopentadiene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Hexachloroethane	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Indeno(1,2,3-cd)pyrene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Isophorone	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Naphthalene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Nitrobenzene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
N-Nitrosodimethylamine	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
N-Nitrosodi-n-propylamine	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
N-Nitrosodiphenylamine	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Pentachlorophenol	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Phenanthrene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Phenol	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Pyrene	ND	10.0		µg/L	1	10/18/2011 3:18:00 PM
Surr: 2,4,6-Tribromophenol	97.8	10-123		%REC	1	10/18/2011 3:18:00 PM
Surr: 2-Fluorobiphenyl	53.8	43-116		%REC	1	10/18/2011 3:18:00 PM
Surr: 2-Fluorophenol	30.3	21-100		%REC	1	10/18/2011 3:18:00 PM
Surr: Nitrobenzene-d5	70.4	35-114		%REC	1	10/18/2011 3:18:00 PM
Surr: Phenol-d6	30.1	10-100		%REC	1	10/18/2011 3:18:00 PM
Surr: Terphenyl-d14	105	33-141		%REC	1	10/18/2011 3:18:00 PM
VOLATILES, PRIORITY POLLUTANT VOLATILE ORGANIC COMPOUNDS				**E624**		Analyst: **AC**
1,1,1-Trichloroethane	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
DF	Dilution Factor	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
MDL	Method Detection Limit	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Detection Limit (PQL)	S	Spike outside acceptance limits

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Cleveland, OH 44128
TEL: 216 663 0808 FAX: 216 663 0656
Website: www.precisionanalytical.com

Analytical Report

(consolidated)

WO#: **1110325**

Date Reported: **10/20/2011**

CLIENT: North East Ohio Regional Sewer District **Collection Date:** 10/12/2011 10:15:00 AM

Project: Sanitary Survey

Lab ID: 1110325-001 **Matrix:** AQUEOUS

Client Sample ID Huntington Beach, East Parking Lot Outfall

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILES, PRIORITY POLLUTANT VOLATILE ORGANIC COMPOUNDS				**E624**		Analyst: **AC**
1,1,2,2-Tetrachloroethane	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	50.0		µg/L	1	10/17/2011 3:22:00 PM
1,1,2-Trichloroethane	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
1,1-Dichloroethane	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
1,1-Dichloroethene	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
1,2,3-Trichloropropane	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
1,2,4-Trichlorobenzene	ND	20.0		µg/L	1	10/17/2011 3:22:00 PM
1,2,4-Trimethylbenzene	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
1,2-Dichloroethane	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
1,2-Dichloropropane	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
2-Chloroethyl vinyl ether	ND	50.0		µg/L	1	10/17/2011 3:22:00 PM
2-Hexanone	ND	10.0		µg/L	1	10/17/2011 3:22:00 PM
2-Nitropropane	ND	50.0		µg/L	1	10/17/2011 3:22:00 PM
4-Methyl-2-pentanone	ND	20.0		µg/L	1	10/17/2011 3:22:00 PM
Acetone	ND	50.0		µg/L	1	10/17/2011 3:22:00 PM
Acrolein	ND	100		µg/L	1	10/17/2011 3:22:00 PM
Acrylonitrile	ND	100		µg/L	1	10/17/2011 3:22:00 PM
Benzene	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
Bromochloromethane	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
Bromodichloromethane	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
Bromoform	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
Bromomethane	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
Carbon disulfide	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
Carbon tetrachloride	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
Chlorobenzene	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
Chloroethane	ND	10.0		µg/L	1	10/17/2011 3:22:00 PM
Chloroform	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
Chloromethane	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
cis-1,2-Dichloroethene	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
cis-1,3-Dichloropropene	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
Dibromochloromethane	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
Ethylbenzene	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
Methyl ethyl ketone	ND	50.0		µg/L	1	10/17/2011 3:22:00 PM
Methyl methacrylate	ND	25.0		µg/L	1	10/17/2011 3:22:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
DF	Dilution Factor	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
MDL	Method Detection Limit	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Detection Limit (PQL)	S	Spike outside acceptance limits

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TEL: 216 663 0808 FAX: 216 663 0656
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Analytical Report

(consolidated)

WO#: **1110325**

Date Reported: **10/20/2011**

CLIENT: North East Ohio Regional Sewer District **Collection Date:** 10/12/2011 10:15:00 AM

Project: Sanitary Survey

Lab ID: 1110325-001 **Matrix:** AQUEOUS

Client Sample ID Huntington Beach, East Parking Lot Outfall

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILES, PRIORITY POLLUTANT VOLATILE ORGANIC COMPOUNDS				**E624**		Analyst: **AC**
Methylene chloride	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
Pentachloroethane	ND	25.0		µg/L	1	10/17/2011 3:22:00 PM
Propionitrile	ND	25.0		µg/L	1	10/17/2011 3:22:00 PM
Styrene	ND	20.0		µg/L	1	10/17/2011 3:22:00 PM
Tetrachloroethylene	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
Toluene	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
trans-1,2-Dichloroethene	ND	10.0		µg/L	1	10/17/2011 3:22:00 PM
trans-1,3-Dichloropropene	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
Trichloroethylene	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
Trichlorofluoromethane	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
Vinyl acetate	ND	10.0		µg/L	1	10/17/2011 3:22:00 PM
Vinyl chloride	ND	5.00		µg/L	1	10/17/2011 3:22:00 PM
Xylenes, Total	ND	10.0		µg/L	1	10/17/2011 3:22:00 PM
Surr: 4-Bromofluorobenzene	97.1	86-115		%REC	1	10/17/2011 3:22:00 PM
Surr: Dibromofluoromethane	95.0	86-118		%REC	1	10/17/2011 3:22:00 PM
Surr: Toluene-d8	101	88-110		%REC	1	10/17/2011 3:22:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
DF	Dilution Factor	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
MDL	Method Detection Limit	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Detection Limit (PQL)	S	Spike outside acceptance limits

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Analytical Report

(consolidated)

WO#: **1110325**

Date Reported: **10/20/2011**

CLIENT: North East Ohio Regional Sewer District **Collection Date:** 10/12/2011 10:20:00 AM

Project: Sanitary Survey

Lab ID: 1110325-002 **Matrix:** AQUEOUS

Client Sample ID Huntington Beach,West Parking Lot Outfall

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SEMI-VOLATILES, PRIORITY POLLUTANT SEMI-VOLATILE ORGANIC COMPOUNDS				**E625**		Analyst: **MIM**
1,2,4-Trichlorobenzene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
1,2-Dichlorobenzene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
1,2-Diphenylhydrazine	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
1,3-Dichlorobenzene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
1,4-Dichlorobenzene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
2,4,5-Trichlorophenol	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
2,4-Dichlorophenol	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
2,4-Dimethylphenol	11.3	10.0		µg/L	1	10/18/2011 4:00:00 PM
2,4-Dinitrophenol	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
2,4-Dinitrotoluene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
2,6-Dinitrotoluene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
2-Chloronaphthalene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
2-Chlorophenol	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
2-Nitrophenol	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
3,3´-Dichlorobenzidine	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
4,6-Dinitro-2-methylphenol	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
4-Bromophenyl phenyl ether	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
4-Chloro-3-methylphenol	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
4-Chlorophenyl phenyl ether	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
4-Nitrophenol	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Acenaphthene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Acenaphthylene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Anthracene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Benz(a)anthracene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Benzidine	ND	50.0		µg/L	1	10/18/2011 4:00:00 PM
Benzo(a)pyrene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Benzo(b)fluoranthene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Benzo(g,h,i)perylene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Benzo(k)fluoranthene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Bis(2-chloroethoxy)methane	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Bis(2-chloroethyl) ether	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Bis(2-chloroisopropyl) ether	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Bis(2-ethylhexyl) phthalate	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Butyl benzyl phthalate	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
DF	Dilution Factor	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
MDL	Method Detection Limit	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Detection Limit (PQL)	S	Spike outside acceptance limits

Precision Analytical, Inc.
4450 Johnston Parkway Unit B
Cleveland, OH 44128
TEL: 216 663 0808 FAX: 216 663 0656
Website: www.precisionanalytical.com

Analytical Report

(consolidated)

WO#: **1110325**

Date Reported: **10/20/2011**

CLIENT: North East Ohio Regional Sewer District **Collection Date:** 10/12/2011 10:20:00 AM

Project: Sanitary Survey

Lab ID: 1110325-002 **Matrix:** AQUEOUS

Client Sample ID Huntington Beach,West Parking Lot Outfall

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SEMI-VOLATILES, PRIORITY POLLUTANT SEMI-VOLATILE ORGANIC COMPOUNDS				**E625**		Analyst: **MIM**
Chrysene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Dibenz(a,h)anthracene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Diethyl phthalate	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Dimethyl phthalate	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Di-n-butyl phthalate	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Di-n-octyl phthalate	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Dioxin Screen	ND	0		µg/L	1	10/18/2011 4:00:00 PM
Fluoranthene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Fluorene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Hexachlorobenzene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Hexachlorobutadiene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Hexachlorocyclopentadiene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Hexachloroethane	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Indeno(1,2,3-cd)pyrene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Isophorone	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Naphthalene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Nitrobenzene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
N-Nitrosodimethylamine	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
N-Nitrosodi-n-propylamine	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
N-Nitrosodiphenylamine	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Pentachlorophenol	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Phenanthrene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Phenol	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Pyrene	ND	10.0		µg/L	1	10/18/2011 4:00:00 PM
Surr: 2,4,6-Tribromophenol	96.8	10-123		%REC	1	10/18/2011 4:00:00 PM
Surr: 2-Fluorobiphenyl	53.9	43-116		%REC	1	10/18/2011 4:00:00 PM
Surr: 2-Fluorophenol	45.8	21-100		%REC	1	10/18/2011 4:00:00 PM
Surr: Nitrobenzene-d5	73.8	35-114		%REC	1	10/18/2011 4:00:00 PM
Surr: Phenol-d6	29.6	10-100		%REC	1	10/18/2011 4:00:00 PM
Surr: Terphenyl-d14	104	33-141		%REC	1	10/18/2011 4:00:00 PM
VOLATILES, PRIORITY POLLUTANT VOLATILE ORGANIC COMPOUNDS				**E624**		Analyst: **AC**
1,1,1-Trichloroethane	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
DF	Dilution Factor	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
MDL	Method Detection Limit	N	Tentatively identified compounds
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RL	Reporting Detection Limit (PQL)	S	Spike outside acceptance limits

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Website: www.precisionanalytical.com

Analytical Report

(consolidated)

WO#: **1110325**

Date Reported: **10/20/2011**

CLIENT: North East Ohio Regional Sewer District **Collection Date:** 10/12/2011 10:20:00 AM

Project: Sanitary Survey

Lab ID: 1110325-002 **Matrix:** AQUEOUS

Client Sample ID Huntington Beach,West Parking Lot Outfall

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILES, PRIORITY POLLUTANT VOLATILE ORGANIC COMPOUNDS				**E624**		Analyst: **AC**
1,1,2,2-Tetrachloroethane	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	50.0		µg/L	1	10/17/2011 2:57:00 PM
1,1,2-Trichloroethane	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
1,1-Dichloroethane	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
1,1-Dichloroethene	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
1,2,3-Trichloropropane	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
1,2,4-Trichlorobenzene	ND	20.0		µg/L	1	10/17/2011 2:57:00 PM
1,2,4-Trimethylbenzene	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
1,2-Dichloroethane	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
1,2-Dichloropropane	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
2-Chloroethyl vinyl ether	ND	50.0		µg/L	1	10/17/2011 2:57:00 PM
2-Hexanone	ND	10.0		µg/L	1	10/17/2011 2:57:00 PM
2-Nitropropane	ND	50.0		µg/L	1	10/17/2011 2:57:00 PM
4-Methyl-2-pentanone	ND	20.0		µg/L	1	10/17/2011 2:57:00 PM
Acetone	ND	50.0		µg/L	1	10/17/2011 2:57:00 PM
Acrolein	ND	100		µg/L	1	10/17/2011 2:57:00 PM
Acrylonitrile	ND	100		µg/L	1	10/17/2011 2:57:00 PM
Benzene	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
Bromochloromethane	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
Bromodichloromethane	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
Bromoform	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
Bromomethane	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
Carbon disulfide	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
Carbon tetrachloride	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
Chlorobenzene	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
Chloroethane	ND	10.0		µg/L	1	10/17/2011 2:57:00 PM
Chloroform	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
Chloromethane	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
cis-1,2-Dichloroethene	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
cis-1,3-Dichloropropene	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
Dibromochloromethane	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
Ethylbenzene	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
Methyl ethyl ketone	ND	50.0		µg/L	1	10/17/2011 2:57:00 PM
Methyl methacrylate	ND	25.0		µg/L	1	10/17/2011 2:57:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
DF	Dilution Factor	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
MDL	Method Detection Limit	N	Tentatively identified compounds
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Analytical Report

(consolidated)

WO#: **1110325**

Date Reported: **10/20/2011**

CLIENT: North East Ohio Regional Sewer District **Collection Date:** 10/12/2011 10:20:00 AM

Project: Sanitary Survey

Lab ID: 1110325-002 **Matrix:** AQUEOUS

Client Sample ID Huntington Beach,West Parking Lot Outfall

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILES, PRIORITY POLLUTANT VOLATILE ORGANIC COMPOUNDS				**E624**		Analyst: **AC**
Methylene chloride	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
Pentachloroethane	ND	25.0		µg/L	1	10/17/2011 2:57:00 PM
Propionitrile	ND	25.0		µg/L	1	10/17/2011 2:57:00 PM
Styrene	ND	20.0		µg/L	1	10/17/2011 2:57:00 PM
Tetrachloroethylene	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
Toluene	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
trans-1,2-Dichloroethene	ND	10.0		µg/L	1	10/17/2011 2:57:00 PM
trans-1,3-Dichloropropene	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
Trichloroethylene	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
Trichlorofluoromethane	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
Vinyl acetate	ND	10.0		µg/L	1	10/17/2011 2:57:00 PM
Vinyl chloride	ND	5.00		µg/L	1	10/17/2011 2:57:00 PM
Xylenes, Total	ND	10.0		µg/L	1	10/17/2011 2:57:00 PM
Surr: 4-Bromofluorobenzene	99.4	86-115		%REC	1	10/17/2011 2:57:00 PM
Surr: Dibromofluoromethane	96.7	86-118		%REC	1	10/17/2011 2:57:00 PM
Surr: Toluene-d8	100	88-110		%REC	1	10/17/2011 2:57:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
DF	Dilution Factor	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
MDL	Method Detection Limit	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Detection Limit (PQL)	S	Spike outside acceptance limits

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Analytical Report

(consolidated)

WO#: **1110325**

Date Reported: **10/20/2011**

CLIENT: North East Ohio Regional Sewer District **Collection Date:** 10/12/2011

Project: Sanitary Survey

Lab ID: 1110325-003 **Matrix:** AQUEOUS

Client Sample ID Trip Blank

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILES, PRIORITY POLLUTANT VOLATILE ORGANIC COMPOUNDS				**E624**		Analyst: **AC**
1,1,1-Trichloroethane	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
1,1,2,2-Tetrachloroethane	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	50.0		µg/L	1	10/17/2011 2:33:00 PM
1,1,2-Trichloroethane	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
1,1-Dichloroethane	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
1,1-Dichloroethene	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
1,2,3-Trichloropropane	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
1,2,4-Trichlorobenzene	ND	20.0		µg/L	1	10/17/2011 2:33:00 PM
1,2,4-Trimethylbenzene	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
1,2-Dichloroethane	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
1,2-Dichloropropane	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
2-Chloroethyl vinyl ether	ND	50.0		µg/L	1	10/17/2011 2:33:00 PM
2-Hexanone	ND	10.0		µg/L	1	10/17/2011 2:33:00 PM
2-Nitropropane	ND	50.0		µg/L	1	10/17/2011 2:33:00 PM
4-Methyl-2-pentanone	ND	20.0		µg/L	1	10/17/2011 2:33:00 PM
Acetone	ND	50.0		µg/L	1	10/17/2011 2:33:00 PM
Acrolein	ND	100		µg/L	1	10/17/2011 2:33:00 PM
Acrylonitrile	ND	100		µg/L	1	10/17/2011 2:33:00 PM
Benzene	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
Bromochloromethane	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
Bromodichloromethane	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
Bromoform	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
Bromomethane	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
Carbon disulfide	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
Carbon tetrachloride	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
Chlorobenzene	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
Chloroethane	ND	10.0		µg/L	1	10/17/2011 2:33:00 PM
Chloroform	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
Chloromethane	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
cis-1,2-Dichloroethene	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
cis-1,3-Dichloropropene	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
Dibromochloromethane	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
Ethylbenzene	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
Methyl ethyl ketone	ND	50.0		µg/L	1	10/17/2011 2:33:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
DF	Dilution Factor	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
MDL	Method Detection Limit	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Detection Limit (PQL)	S	Spike outside acceptance limits

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Analytical Report

(consolidated)

WO#: **1110325**

Date Reported: **10/20/2011**

CLIENT: North East Ohio Regional Sewer District **Collection Date:** 10/12/2011

Project: Sanitary Survey

Lab ID: 1110325-003 **Matrix:** AQUEOUS

Client Sample ID Trip Blank

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILES, PRIORITY POLLUTANT VOLATILE ORGANIC COMPOUNDS				**E624**		Analyst: **AC**
Methyl methacrylate	ND	25.0		µg/L	1	10/17/2011 2:33:00 PM
Methylene chloride	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
Pentachloroethane	ND	25.0		µg/L	1	10/17/2011 2:33:00 PM
Propionitrile	ND	25.0		µg/L	1	10/17/2011 2:33:00 PM
Styrene	ND	20.0		µg/L	1	10/17/2011 2:33:00 PM
Tetrachloroethylene	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
Toluene	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
trans-1,2-Dichloroethene	ND	10.0		µg/L	1	10/17/2011 2:33:00 PM
trans-1,3-Dichloropropene	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
Trichloroethylene	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
Trichlorofluoromethane	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
Vinyl acetate	ND	10.0		µg/L	1	10/17/2011 2:33:00 PM
Vinyl chloride	ND	5.00		µg/L	1	10/17/2011 2:33:00 PM
Xylenes, Total	ND	10.0		µg/L	1	10/17/2011 2:33:00 PM
Surr: 4-Bromofluorobenzene	98.5	86-115		%REC	1	10/17/2011 2:33:00 PM
Surr: Dibromofluoromethane	96.6	86-118		%REC	1	10/17/2011 2:33:00 PM
Surr: Toluene-d8	100	88-110		%REC	1	10/17/2011 2:33:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
DF	Dilution Factor	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
MDL	Method Detection Limit	N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Detection Limit (PQL)	S	Spike outside acceptance limits

PRECISION ANALYTICAL, INC.

4450 JOHNSTON PARKWAY, UNIT B • CLEVELAND, OH 44128
(216) 663-0808 • FAX (216) 663-0656

LABORATORY WORK ORDER #: 1110325

☐ Check if same as Report To

REPORT TO: CONTACT & COMPANY: Carol Turner, NEORSD	INVOICE TO: NAME: NEORSD
ADDRESS: 4747 E. 49th Street	ADDRESS: 3800 Euclid Avenue
CITY: Cuyahoga Heights, OH 44125 STATE: OH ZIP CODE: 44125	CITY: Cleveland STATE: OH ZIP CODE:
PHONE NO: 216-641-6200 FAX NO: 216-641-8118	PHONE NO: FAX NO:
EMAIL: Turnerc@neorsd.org PROJECT NAME/NUMBER: Sanitary Survey	PO#: QUOTE #: 1080

Turnaround Time: ☒ Std. Rush: ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. Authorizing signature _____

Special Instructions & QC Requirements (additional charge for QC):

TEMP (°C) 10

VISIBLE ICE (circle) (YES) NO

Sample Disposal (A fee will be assessed if samples are retained longer than 1 month & disposed of by lab)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

ANALYSIS REQUESTED

NO.	CUSTOMER SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	Comp	Grab	NO. OF CONT.	MATRIX	VOAs	SVOAs															
1	Huntington Beach, East Parking Lot Outfall	10/12/11	10:15		✓	2	W	✓	✓		-1													
2	Huntington Beach, West Parking Lot Outfall	10/12/11	10:20		✓	2	W	✓	✓		-2													
3	Trip Blank	10/12/11			✓	1	W	✓			-3													
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								

Samplers: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time
	[signature]	10/12/11	1505	[signature]	[signature]	10/12/11	1530
Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received in laboratory by: (Signature)		Date	Time
				[signature]		10/12/11	1530

Form 244
Rev#: 1
5/21/10

PRECISION ANALYTICAL INC.

Sample Receipt Checklist

Work Order No. 1110325

RUSH: ☐ Yes ☑ No ☐ NA

Date & Time Received: 10/12/11 1530 Received By: JLG

Date & Time Logged In: 10/13/11 10:23 Logged In By: [illegible]

Date & Time Reviewed: 10/13/11 1031 Reviewed By: [illegible]

Carrier Name: ☑ PAI ☐ UPS ☐ FedEx ☐ Client ☐ Other/Tracking # _____

Samples Analyzed In House? ☑ Yes ☐ No Subbed To _____

Is Chain Of Custody Present?	☑ Yes	☐ No	
Is Chain Of Custody Properly Filled Out?	☑ Yes	☐ No	
Does Chain Of Custody Match Sample Labels?	☑ Yes	☐ No	
Are Samples Past Hold Time?	☐ Yes	☑ No	☐ NA
Are Samples In Proper Containers?	☑ Yes	☐ No	Intact? ☑ Yes ☐ No

No. Of Containers? 5 ☑ Glass ☐ Plastic ☐ Baggie ☑ VOA ☐ Micro ☐ Tedlar ☐ Other _____

When Applicable, Is Headspace Present? ☑ Yes ☑ ~~No~~ MSDS Provided ☐ Yes ☐ No

Matrix: ☑ Aqueous ☐ Liquid ☐ Sludge ☐ Solid ☐ Oil ☐ Drinking Water ☐ Soil ☐ Gas ☐ Other _____

On Ice? 10 °C	☑ Yes	☐ No	☐ NA
Are Samples Preserved?	☐ Yes	☐ No	☑ NA

pH Results:

Metals____ Hardness____ ☐ HN03	CN____ ☐NaOH
COD____ NH3____ Phenol____ TOC____ TKN/TON____ Phos____ No2No3____ ☐H2S04	
Sulfide____ ☐ NaOH & ZnAcetate	Other _____

Field Data: ☐ pH ☐ Temp ☐ Flow ☐ TRC ☐ TRC Low ☐ Color ☐ Odor ☐Turbidity ☐ Other _____

Explanation of Comments & Problems:

VOA's contain large headspace


11/02/2011


11/02/2011

Huntington Reservation

This reservation is one of the oldest reservations in the Park District. It still contains many unusual botanical specimens brought there from Europe by John Huntington, the previous land owner and reservation namesake.


BLUE WAVE
BEACHES
The Blue Wave Program is the first national, environmental certification for beaches. The Blue Wave certification process is designed to help maintain robust, healthy, and vibrant beaches. Huntington Beach is the first beach in Ohio, and on Lake Erie, to receive this designation from Clean Beaches Coalition.
Proud to recognize this designation and sponsor Huntington Beach
Huntington
Cleveland Metroparks


EMERGENCY


Cleveland
Metroparks


11/02/2011


11/02/2011


11/02/2011


HUNTINGTON
Pump House
11/02/2011


11/02/2011