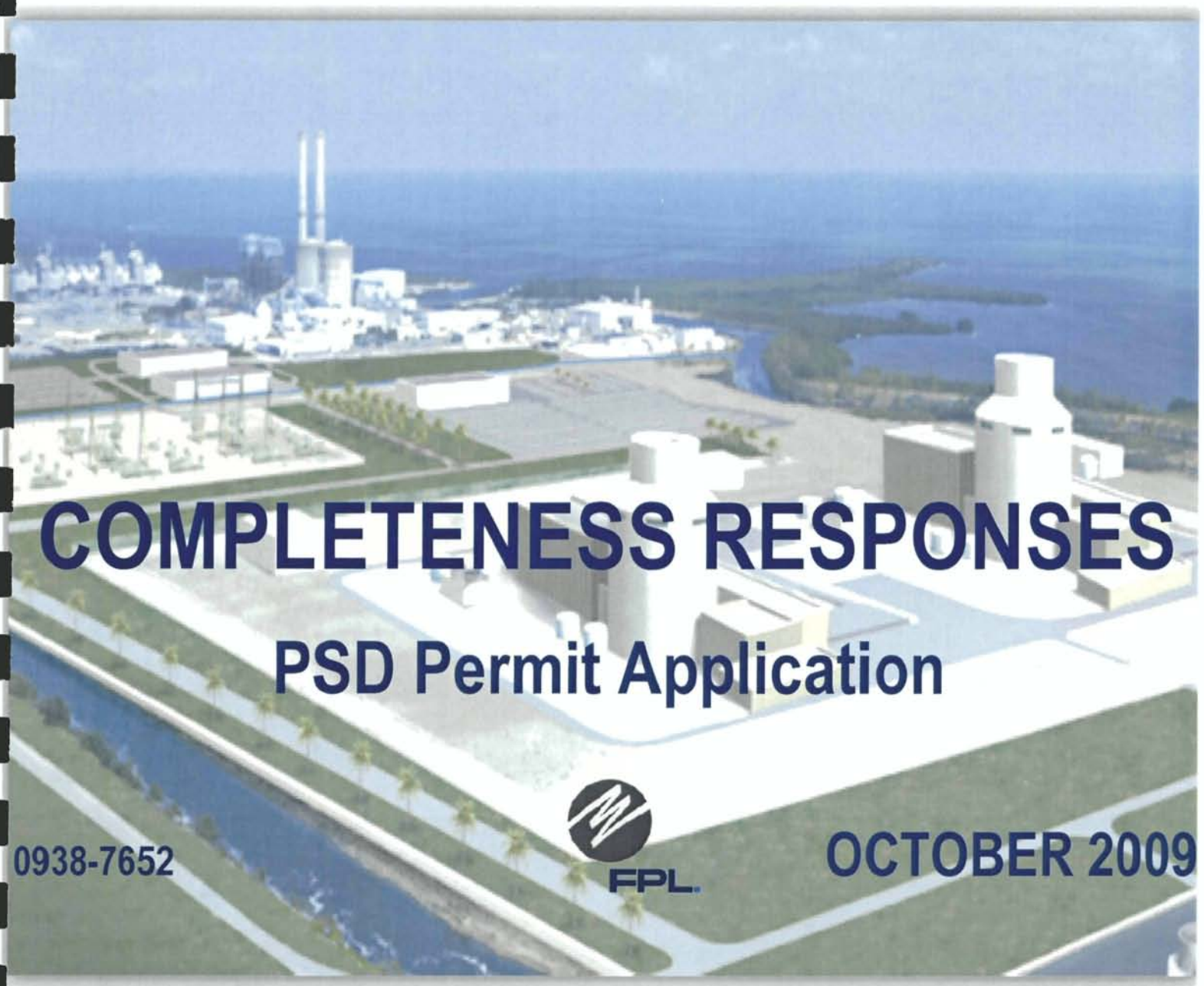
Turkey Point Units 6 & 7



COMPLETENESS RESPONSES

PSD Permit Application

0938-7652

FPL

OCTOBER 2009

FPL

October 9, 2009

FPLNNP-09-0635

Ms. Jeffrey F. Koerner, Administrator, New Source Review Section
Florida Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia St.
Tallahassee, FL 32399

Re: FPL Turkey Point Units 6 & 7 Project
Request for Additional Information
Air Permit Application and Prevention of Significant Deterioration Analysis
Project No. 0250003-013-AC (PSD-FL-409)

Dear Mr. Koerner:

Florida Power & Light Company (FPL) is pleased to submit six (6) copies of its responses to the Air Permit Application and Prevention of Significant Deterioration Analysis Request for Additional Information issued by the Department on July 20, 2009 and July 30, 2009. The additional information is presented in the same order as requested from the Department. In addition, a Professional Engineer Certification is attached because additional information of an engineering nature is provided. A new certification statement by the authorized representative is not needed as no material changes are being made to the application by this submittal.

If you have any comments or questions regarding the attached, please feel free to contact me at (561) 691-7518 or Matt Raffenberg at (561) 691-2808.

Sincerely,
FLORIDA POWER & LIGHT COMPANY

Barbara P. Linkiewicz
Director of Environmental Licensing

Attachment

cc: Timothy Gray, FDEP Southeast District Office
Michael Halpin, FDEP Siting Office
Trina Vielhauer, FDEP Bureau of Air Regulation
Peter Cunningham, Esq., Hopping Green & Sams P.A.
Kennard Kosky, Golder Associates Inc.
Lennon Anderson, FDEP Southeast District Office

cc: Patrick Wong, Miami-Dade DERM
Mallika Muthias, Miami-Dade DERM
Dee Morris, National Park Service, Air Resources Division
Kathleen Forney, EPA Region 4
Heather Abrams, EPA Region 4
Ana M. Oquendo, EPA Region 4
Vickie Gibson, FDEP BAR Reading File
Randall R. Labauve, FPL
Matthew J. Raffenberg, FPL
Michael S. Tammaro, Esq., FPL

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: **Kennard F. Kosky**
   Registration Number: **14996**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Golder Associates Inc.****
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4. Professional Engineer E-mail Address: **kkosky@golder.com**
5. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

(3) If the purpose of this application is to obtain a Title V air operation permit (check here ☐, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☒, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☐, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature — Date: 10/10/09

(seal)

* Attach any exception to certification statement.
**Board of Professional Engineers Certificate of Authorization #00001670.

RESPONSES

FDEP-PSD-1. Based on information provided in the application, the Department understands the project proposes to install cooling towers to support proposed Nuclear Units 6 and 7 at the existing Turkey Point Plant. Each proposed nuclear unit will have three cooling towers. Each cooling tower will have the following specifications.

Air Flow Specifications

Number of Cells: 12 cells with cooling fans
Discharge Height: 67 feet
Diameter: 33.67
Exit Temperature: 104.7° F
Volumetric Flow Rate: 1,764,500 acfm

Circulating Water Flow Specifications

Total Circulating Water Flow: 210,366.7 gpm
PM Drift Rate: 0.0005%
PM Emissions: 157.2 tons/year at 65,000 ppmw TDS
PM 10 Emissions: 3.5 tons/year based on 4000 ppmw TDS
("TDS" means total dissolved solids in proposed cooling water.)

"PM" means particulate matter. "PM10" means particulate matter with a mean particle diameter of 10 microns or less.

1-a. Is the above an accurate description of the cooling towers proposed to support Nuclear Units 6 and 7?

RESPONSE: The information in the application concerning the description of the circulating water cooling towers is accurate, based on the available engineering design and the cooling requirements for the Westinghouse AP1000. FPL has selected the AP1000 as the plant design for the Project, a design certified by the NRC under 10 CFR 52. Table 2-1 shows the stack height at 67 feet and Figure 2-2 shows the elevation of the cooling tower stacks. The air flow specifications are per cell; there are 12 cells per tower. As noted in the Air Construction Permit Application and Prevention of Significant Deterioration (PSD) Analysis, the information presented in Table 2-1 is based on an SPX Cooling Technologies F41010A-6.6-12 Plus design (or an equivalent design).

1-b. The application indicates the cooling tower exhaust will be controlled by mist eliminators (3-pass Marley type). Do the estimated PM and PM10 emissions include control by this equipment?

RESPONSE: Yes, the estimated PM and PM_{10} cooling tower emissions are based on a mist eliminator design that will achieve a drift rate of 0.0005 percent. The mist eliminators will be 3-pass Marley cellular type (Model TU12C) constructed of PVC (or an equivalent design) that will be designed to limit drift to 0.0005 percent of the circulating water rate of the cooling towers.

1-c. One source of cooling water is reclaimed water from the Miami-Dade South District Wastewater Treatment Plant (WWTP), which will be further treated at FPL's reclaimed water treatment facility at the Turkey Point Plant. The maximum TDS concentration was estimated at 4000 ppmw for purposes of estimating maximum PM10 emissions in the application.

(1-c-1) Provide the estimated PM emissions for a TDS concentration of 4000 ppmw.

RESPONSE: The PM emission rate for a TDS concentration of 4,000 ppmw is 6.315 lb/hr for three circulating water cooling towers and was provided in Table A-1 of Appendix A of the construction air permit application. Table FDEP-PSD-1-c-1 presents the calculation in the same format as Table 2-1 of the application.

(1-c-2) Provide a chemical analysis of the organic and inorganic contaminants in the reclaimed water from the WWTP.

RESPONSE: Water quality data and analyses for reclaimed water are presented in Attachment FDEP-PSD-1-c-2. These analyses provide the major and trace constituents in the treated water obtained from Miami-Dade County Water and Sewer Department's (MDWASD's) South District Waste Water Treatment Plant. The reclaimed water used by Units 6 & 7 will meet all of the relevant requirements of Chapter 62-610, F.A.C., including the requirements for cooling water applications found in Rule 62-610.668, F.A.C. These rules allow the use of reclaimed water specifically in cooling towers. The reclaimed water will be further treated as described below.

(1-c-3) Provide the treatment criteria that FPL will use to treat the reclaimed water for use in the cooling towers.

RESPONSE: The FPL reclaimed water treatment facility will provide nutrient removal, continuous water quality monitoring, flow equalization and metering, de-chlorination, disinfection, and pumping facilities. FPL reclaimed water treatment facility will include pumps, trickling filters, clarifiers, deep bed filters, and solids-handling equipment to reduce the levels of iron, magnesium, oil and grease, total suspended solids, nutrients, and silica. The effluent design criteria are listed below:

- Nitrogen: <1 milligram/liter (mg/L) (assumes influent nitrogen is all biodegradable)
- Phosphorus as P, Total: <1 mg/L
- Temperature: 25 to 31 °C
- Total Organic Carbon (TOC): 4.6 to 25.5 mg/L
- pH: 6.3 to 7.3 SU
- Total Dissolved Solids (TDS): 336 to 580 mg/L
- Total Suspended Solids (TDS): <5 mg/L
- Fecal Coliform (FC): <25 Single Sample coliforms/100ml
- Total Free Residual Chlorine (TFRC): 0.5 to 1.0 mg/L

(1-c-4) Identify the organic and inorganic contaminants in the treated water supplied to the cooling towers.

RESPONSE: The response to Comment FDEP-PSD-1-c-2 presents the available data regarding the constituents in the reclaimed water. The response to comment FDEP-PSD-1-c-3 identifies additional treatment for certain parameters provided by the FPL reclaimed water treatment facility.

(1-c-5) What air quality impacts will result?

RESPONSE: The air quality impacts were presented in Section 6.0 of the PSD Report. The applicable pollutant for which the Department has ambient air quality standards and that is emitted when using treated reclaimed water is PM_{10}. Treated reclaimed water with a TDS of 4,000 parts per

million by weight (ppmw) in the circulating water has the highest PM_{10} emissions rate and was used in the modeling analysis. The maximum predicted air quality impacts for treated reclaimed water are 0.119 micrograms per cubic meter (ug/m^3) and 4.934 ug/m^3 for the annual and 24-hour averaging times. These impacts are less than the significant impact levels used by the Florida Department of Environmental Protection (FDEP) as a threshold for further air quality analysis.

(1-c-6) The Department understands that the information presented in Tables A-1 through A-5 for estimating PM/PM10 emissions from cooling towers was based on the use of salt water. Provide information to support the contention that PM/PM10 emissions relationships will be similar with the use of treated reclaimed water.

RESPONSE: Tables A-1 through A-5 present information for the circulating water cooling towers (Tables A-1 through A-3) and the service water cooling towers (Tables A-4 and A-5). Tables A-1 through A-3 present PM/PM_{10} emissions and particle distributions for treated reclaimed water and saltwater used in the circulating water cooling towers. Tables A-4 and A-5 present similar information for the service water cooling towers.

Table A-1 presents the range of PM and PM_{10} emissions for TDS concentrations in the circulating water from 1,000 ppmw to 65,000 ppmw using the method of Riesman and Frisbie (2001) that was attached. Table A-1 also presents the PM_{10} as a percent of total PM and charts showing PM_{10} emissions rate as a function of TDS concentration. Similar information is presented in the Riesman and Frisbie article that was included in Appendix A of the air construction permit application. Table A-2 presents the PM/PM_{10} emissions and particle distribution for treated reclaimed water while Table A-3 presents the PM/PM_{10} emissions and particle distribution for saltwater.

The method of Riesman and Frisbie (2001) applies to a wide range of TDS as evidenced by the wide range of TDS concentrations in the analysis (e.g., 1,000 to 12,000 ppmw). The TDS for treated reclaimed water in the circulating water is within the range evaluated by Riesman and Frisbie (2001). While for different TDS concentrations the PM/PM_{10} emissions relationships are different, the initial drift aerosol is similar. The reason the initial drift aerosol is similar is that ultimate solid particle volume is a small percentage of the initial drift particle. For a TDS of 4,000 ppmw the volume of the solid particle is 0.18 percent, while at the maximum TDS of 65,000 ppmw, the solid particle volume is 2.95 percent. This relationship is shown in Tables A-2 and A-3 of the appendix. As a result, differences in TDS will have a minor influence on the size of the initial drift particles, and the ultimate PM/PM_{10} particle sizes are directly dependent on the TDS concentration.

1-d. The second source of water will be from radial collector wells, which will pull water from Biscayne Bay. The maximum TDS concentration of the saltwater was estimated at 65,000 ppmw for purposes of estimating maximum PM emissions in the application. Provide the estimated PM_{10} emissions for a TDS concentration of 65,000 ppmw. Provide a representative analysis of the actual TDS for this source of water.

RESPONSE: The radial collector well laterals will be located approximately 40 feet below Biscayne Bay and will recharge primarily from Biscayne Bay. The PM_{10} emission rate for a TDS concentration of 65,000 ppmw is 0.312 pounds per hour (lb/hr) and was provided in Table A-1 of Appendix A of the air construction permit application. Table A-3 presents the particle size distribution used to calculate the emission rate. PM_{10} emission rates are calculated by interpolation of the Solid Particulate Diameter (second column from left on chart) and the Electric Power Research Institute (EPRI) % Mass Smaller than the stated diameter (first column on the left). Recent analyses of

saltwater obtained from an aquifer pump test on the Turkey Point peninsula (i.e., the proposed location of the radial collector wells), presented as Attachment FDEP-PSD-1-d, support the range of TDS concentrations provided for saltwater.

1-e. Is it possible that the cooling water would be made up from a combination of these water sources?

RESPONSE: Yes, the circulating water cooling towers would be operated within the cycles of concentration indicated for the two sources of water, based on the TDS concentrations in the makeup water. Separately, the two sources of makeup water proposed as makeup to the circulating water cooling towers cover the range of TDS concentrations for the maximum potential PM and PM_{10} emissions for the circulating water cooling towers.

1-f. The review for Best Available Control Technology (BACT) in the application indicates that air-cooled condensers (ACC) are not technically feasible. However, the application also indicates that ACC are available and in use in cooler and arid climates where water is not available. Therefore, ACC are technically feasible and will result in much lower PM and PM_{10} emissions. Please revise the BACT review to include ACC with a cost analysis.

RESPONSE: The Best Available Control Technology (BACT) evaluation identified air-cooled condensers (ACC) as an available cooling technology, but they were not discussed as an alternative control technology for particulate matter in the context of the proposed source. The evaluation of an applicant's BACT analysis should recognize how the applicant defines the proposed source, including its fundamental purpose or basic design. In this instance, FPL defined the proposed source - the cooling towers for Turkey Point Units 6 & 7 - as mechanical draft cooling towers to be used for main steam cycle condenser cooling and service water cooling.

BACT is an emissions limitation based on the maximum degree of reduction of each pollutant emitted, which the Department determines is achievable through application of production processes, available methods, systems and techniques for control of each pollutant. Historically, the U.S. Environmental Protection Agency has not considered BACT as a means to redefine the design of the source when it considers available control alternatives. (See Draft New Source Review Workshop Manual, October 1990). As such, consideration of alternative control technologies that would result in a redesign of the source is typically not within the scope of a BACT analysis. EPA's NSR manual states that a technology is applicable if it can be "installed and operated on the source type under consideration."

The source under consideration in this instance is a mechanical draft cooling tower. The NRC certified Westinghouse AP1000 design is based on wet cooling towers so the use of air cooled condensers would redefine the source. The control technology is a high-efficiency drift eliminator with a design drift rate of 0.0005 percent - the top level particulate control for this type of cooling tower. Air cooled condensers cannot be "installed and operated" on the source type under consideration – mechanical draft cooling towers – and consequently a requirement to use air cooled condensers would redefine the source and change the design of Turkey Point Units 6 & 7.

Nevertheless, information related to ACCs was provided in the PSD permit application and additional information is presented below to demonstrate that ACC is not feasible at this Project location based on the energy, economic and environmental impacts associated with its use. Additional information related to ACCs presented below is from EPA's Technical Development Document for the Proposed Section 316(b) Phase II Existing Facilities Rule (April 2002; EPA 821-R-02-003; www.epa.gov/ttn/nsr/gen/wkshpman.pdf) which was also used in the BACT analysis to show that this technology was not feasible.

Energy, Environmental, and Economic Impacts

As demonstrated below, the energy, environmental, and economic impacts associated with ACC preclude their use by FPL for this Project.

Energy and Economic Impacts

In the EPA Technical Development Document, technology and economic comparisons of once-through cooling, wet cooling towers and dry cooling towers are compared in detail for four locations (Boston, Jacksonville, Chicago and Seattle) and three types of generating technologies (nuclear, combined cycle and fossil steam), using standard power plants for the comparison. For a nuclear unit located in Jacksonville, the total energy penalty at 100 percent load is 10.7 percent for dry cooling while the total energy penalty for wet cooling is only 1.6 percent; a difference of 9.1 percent (refer to Table 5-4) as presented in the BACT evaluation. This would equate, for the AP1000, an energy penalty of 100.1 MW (0.091 × 1,100 MW).

In the economic comparisons of technologies involving dry cooling, EPA used a value of $30/MW-hr (see page D-4). Using EPA's energy costs, the energy penalty would be $26,306,280 per year per unit (100.1 M × 8,760 hour/year x $30/MW-hour). The economic penalty of energy alone would be $55,780.9 per ton of PM removed ($26,306,280 × 1/471.6 tons/year/unit) and $2,481,724.5 per ton of PM_{10} removed ($26,306,280 × 1/10.6 tons/year/unit). As noted in the BACT evaluation, the capital costs for ACCs are also much greater than for mechanical draft cooling towers.

Environmental Impacts

Moreover, Turkey Point Units 6 & 7 would avoid the emission of at least 6.6 million tons per year of CO_2, 532.3 tons per year of NO_x, 355 tons per year of SO_2 across FPL's generating system (Florida Public Service Commission, Final Order Granting Petition for Determination of Need for Proposed Nuclear Power Plants, Order No. PSC-08-0237-FOF-EI, April 11, 2008). The high energy penalty, coupled with the high capacity factors for nuclear units would result in additional emissions of at least 600,000 tons per year of CO_2, 48 tons per year of NO_x, and 32 tons per year of SO_2 due to replacement electrical generation if ACCs were used. This comparison assumes replacement from FPL's latest natural gas combined cycle unit (West County Energy Center). Actual emissions increases would be higher, since replacement energy would not be exclusively from the most efficient units. In contrast, there are no ambient air quality standards for PM. Further, predicted air quality impacts from the Units 6 & 7 circulating water system cooling towers were determined to be less than the significant emission impact levels for PM_{10}.

It is clear from this information that ACCs are not feasible and are rejected as BACT for Turkey Point Units 6 & 7 based on energy, economic and environmental impacts.

1-g. Add natural draft cooling towers to the BACT review and include a cost analysis.

RESPONSE: The design drift rate for natural draft cooling towers is the same as the mechanical draft cooling towers proposed for Turkey Point Units 6 & 7. This drift rate of 0.0005 percent would not result in any change in PM or PM_{10} emissions. As a result, a cost analysis is not necessary. Moreover, the natural draft cooling towers are estimated to be over 300 feet high and would result in other potential environmental impacts (visual, space limitations, etc).

FDEP-PSD-2. The project also proposes to construct two service water cooling towers (one per nuclear unit) with the following specifications per tower.

Air Flow Specifications	Circulating Water Flow Specifications
Number of Cells: 2	**Total Circulating Water Flow: 21,000 gpm**
Discharge Height: 63 feet	**PM Drift Rate: 0.0005%**
Diameter: 35 feet	**PM Emissions: 1.84 tons/year**
Exit Temperature: 96.9° F	**PM 10 Emissions: 0.35 tons/year**
Volumetric Flow Rate: 1,358,000 acfm	**(Emission based on high range of TDS in proposed cooling water.)**

2-a. Is the above an accurate description of the proposed service water cooling towers?

RESPONSE: The information in the application concerning the description of the service water cooling towers is accurate based on the available engineering design and the cooling requirements for the Westinghouse AP1000. FPL has selected the AP100 as the plant design for the Project, a design certified by the NRC under 10 CFR 52. The stack height is 63 feet as shown in Table 2-2. Also, note that the air flow specifications above are for one cell, while the circulating water flow is for two cells. The PM emission rate of 1.84 tons/year listed above is for two units and the PM_{10} emission rate listed above is for one unit, based on the circulating water flow rate of 21,000 gpm. During normal operation, only one cell is operating and the circulating water flow rate is only 10,500 gpm.

2-b. The source of water for these cooling towers is potable water from Miami-Dade County. For purposes of estimating PM/PM_{10} emissions, the TDS concentration was estimated at 4000 ppmw. What is the actual average TDS concentration for potable water from Miami-Dade County?

RESPONSE: The TDS concentration for potable water is approximately 318 ppmw which, when concentrated, would be 1,272 ppmw in the service water cooling tower circulating water at 4 cycles of concentration. A TDS of 4,000 ppmw was assumed to maximize the amount of PM_{10} emissions for the purpose of determining potential emissions. As shown in Table A-4, the maximum PM_{10} emissions occur at a TDS of 4,000 ppmw.

FDEP-PSD-3. See Table 3-3 in the application (Maximum Emissions Due to the Project

Compared to the PSD Significant Emissions Rates). Although the table indicates emissions of volatile organic compounds (VOC) will be less than the PSD significant emissions rate, the last column identifies the project as being subject to PSD review for VOC emissions. Please correct as necessary.

RESPONSE: Comment acknowledged, volatile organic compounds (VOC) emissions will be less than the PSD significant emissions rate. Please find attached a corrected Table 3-3.

FDEP-PSD-4. Please identify and quantify any hazardous air pollutants that will be emitted from the cooling tower project.

RESPONSE: Hazardous air pollutants (HAPs), as defined in Rule 62-210.200 Florida Administrative Code (F.A.C.), were estimated for the cooling towers using recent data on the constituents in the reclaimed water from MDWASD's South District Waste Water Treatment Plant (see the response to FDEP-PSD-1-c-2) and recent data on the constituents in saltwater obtained from an aquifer pump test located in the area where the radial collector well caissons will be located (see the response to FDEP-PSD-1-d). The concentrations in the makeup treated reclaimed water and saltwater are increased in the circulating water in the cooling tower by the cycles of concentration. The maximum values from the samples were used in the calculations. Where all the results were below the detection limit, the detection limit was used to bound the emission estimate.

Table FDEP-PSD-4-1 presents a summary of the HAP emissions from the circulating water cooling towers. As shown, the HAP emissions are 0.0644 tons/year when using treated reclaimed water and 0.0085 tons/year when using saltwater. These estimates are higher than expected since the detection limits were used to determine emissions and actual concentrations would be lower. As shown in the table, only 2 of 107 were above the detection limit for the saltwater sample analysis and 5 of 54 analyses were above the detection limit for reclaimed water.

HAPs were also estimated from the standby diesel generators, ancillary diesel generators, fire pump engines and general purpose engines. The estimated HAP emissions were based on AP-42 emission factors. Table FDEP-PSD-4-2 presents the estimated HAP emissions. As shown in the table, the maximum HAP emissions are 0.0476 tons/year.

The total emissions of HAPs from the Project are estimated to be 0.11 tons/year. This is far less than the generic exemptions in FDEP's Rule 62-210.300(3)(b)1.(III) for total hazardous air pollutants, i.e. 1.25 tons/year and this level of HAP emissions are considered insignificant [Rule 62-213.430(6)(b)].

FDEP-PSD-5. Will the temporary boilers be rental boilers? Will the temporary boilers be subject to New Source Performance Standards in Subpart Db of 40 CFR 60 or will this be determined when they are needed for service?

RESPONSE: The temporary boilers will likely be rented and will only be operated during construction of the Project. Any applicability of the New Source Performance Standards (NSPS) or other applicable regulations will be determined when the boilers are obtained. These temporary construction boilers were included as emission units in the application so that they would be authorized under the air construction permit issued for the Project.

FDEP-PSD-6. Will FPL own and operate the temporary concrete batch plant or will it be an existing concrete batch plant authorized by a previous Air General Permit?

RESPONSE: At this time, FPL plans to sub-contract one, three-unit, fully-automatic, 250 cubic yard/hour (maximum) per each unit (2 operating, 1 stand-by) capacity concrete batch plant. The sub-contractor will be responsible for erecting and operating the unit during construction of Turkey Point Units 6 & 7. It is unknown if this concrete batch plant will have an Air General Permit. As a result, the concrete batch plant was included in the application so that this temporary facility would be authorized under an air construction permit issued for the Project.

FDEP-PSD-7. Provide a discussion of the PM emissions impacts to soils, vegetation and wildlife.

RESPONSE: Section 7.3.1 of the PSD Report provides a description of and impacts on the vegetation and soils in the vicinity of the Project. Potential impacts to wildlife due to air emissions are discussed in PSD Section 7.3.2. Additional information on this topic is provided below.

Particulate matter (PM), as defined in Rule 62-210.200(234) F.A.C., means any airborne finely-divided solid or liquid material. In the case of Turkey Point Units 6 & 7, the largest amount of PM is emitted as drift when saltwater is used in the circulating water cooling towers.

Potential impacts to vegetation may occur from deposition of particulate matter from cooling tower drift. Vegetation may be affected by absorption of salts that accumulate in the soil as well as foliar deposition. Accumulation in soil will occur if the annual deposition rate of salt exceeds the rate at which salt is leached from the soil by rainfall. However, the vegetation surrounding the Site is dominated by coastal mangroves, specifically the salt-tolerant red mangrove (*Rhizophora mangle*), which has developed physiological characteristics to allow the plants to survive in highly saline soils and areas of salt spray. *Rhizophora* plants can sustain salinities up to two times concentrated seawater (Mallery and Teas, 1984). The area closest to the Site borders Biscayne Bay and is tidally influenced. The average salinity in Biscayne Bay near the Turkey Point peninsula is approximately 34 parts per thousand (ppt), which is close to the salinity of seawater. During wet periods, the salinity in the Bay is typically below average; during dry periods, the salinity in the Bay is typically above average.

The area where the potential impact of deposition to freshwater vegetation is greatest is the area west of the L-31E Canal. However, the vegetation in the area west of the L-31E Canal is salt tolerant. This area is comprised of sawgrass marsh with strands of forested wetlands classified as mixed wetland hardwoods that are comprised of a variety of native and exotic canopy species, including buttonwood, Australian pine, cocoplum, red mangrove, Brazilian pepper, and cabbage palm. As these species are salt tolerant, no adverse impacts will occur.

There will be no adverse potential impact of salt drift on wildlife in the vicinity of Turkey Point Units 6 & 7 since the wildlife in the area is adapted to a saline environment.

It should be emphasized that the maximum drift occurs with the use of saltwater in the circulating water cooling towers. The use of reclaimed water results in particulate emissions that are 17 times lower than using saltwater.

Reference

Mallery, C.H. and H.J Teas, 1984. "The mineral ion relations of mangroves. I. Root cell compartments in a salt excluder and salt secreter species at low salinities." *Plant and Cell Physiology* 25, 1123-1131.

FDEP-PSD-8. The National Park Service commented on the modeled visibility impacts in the Biscayne National Park. Discuss the methods available to the FPL treatment facility that can be used to maintain the TDS content of the treated wastewater below 4000 ppmw to mitigate visibility impacts caused by PM10 emissions.

July 9, 2009 e-mail from Dee Morse of the National Park Service to Cleve Holladay of FDEP.

NPS Comment: We reviewed the Turkey Point Units 6 & 7 PSD permit application. Based on the information in the application, Florida Power & Light (FPL) proposes to construct and operate two 1,100 MW nuclear units at the existing Turkey Point facility. The emissions from the operation of Units 6 & 7 will come from the circulating water cooling towers, standby diesel generators, ancillary diesel generators, diesel fire pump engines, diesel storage tanks, and general purpose diesel engines. The emissions from the associated equipment will trigger PSD review for particulate matter only. The total emission increases are reported to be 947 tons per year (TPY) of particulate matter, 35 TPY of nitrogen oxides, 4 TPY of volatile organic compounds and 0.02 TPY of sulfur dioxide. Upon review of the air quality modeling analyses, we find that the proposed emissions from the proposed operation of Turkey Point Units 6 & 7 will not cause significant impacts at Everglades NP. However, the emissions may impact visibility at Biscayne NP. Results from the plume impact analysis (VISCREEN modeling) shows impacts exceed a delta E of 2.0 and contrast values of 0.05 outside of the Class I area. Given the close proximity of the Turkey Point facility to Biscayne NP and potential plume impacts at Biscayne NP we ask that FPL look at mitigating measures to reduce emissions and the corresponding impacts.

RESPONSE: Based on the National Park Service (NPS) comment, a visibility analysis was conducted for Biscayne National Park (BNP). The paragraphs that follow present the methodology, results of the Level 1 Analysis, and results of the Level 2 Analysis. Also presented are the mitigation measures taken to reduce visibility impacts.

Methodology – The analysis to determine the potential adverse plume visibility effects in BNP was based on the screening approach suggested in the *Workbook for Plume Visual Impact Screening and Analysis* (EPA, 1992). EPA has computerized this approach in a program called the VISCREEN model. The VISCREEN model is currently recommended for use by the EPA to assess visual plume impacts in regulatory applications. The model can be used to calculate potential plume impacts of specific pollutant emissions for specific transport and meteorological dispersion conditions. The model can be applied in two successive levels of screening (referred to as Levels 1 and 2) without the need for extensive source, meteorological, or pollutant input. If the screening calculations demonstrate that during "worst-case" meteorological conditions, a plume is imperceptible or, if perceptible, is not likely to be considered objectionable ("adverse" or "significant" in the language of the EPA PSD and visibility regulations), further analysis of plume visual impact would not be required as part of the air quality review of the source. However, if the screening analyses demonstrate that the criteria are exceeded, plume visual impacts cannot be ruled out, and more

detailed analyses to ascertain the magnitude, frequency, location, and timing of plume visual impacts would be required.

The Level 1 screening analysis is designed to provide a conservative estimate of plume visual impacts (i.e., impacts that would be larger than those calculated with more realistic input and modeling assumptions). This analysis assumes worst-case meteorological conditions of stable stability (Pasquill-Gifford stability Class F) and a one meter per second (m/s) wind speed persisting for 12 hours in one direction towards BNP. The input required for the Level 1 analysis is limited to the following parameters:

- Emission rates of PM_{10} and NO_x;
- Distance between the emission source and (a) the observer; (b) the closest NP boundary; and (c) the most distant NP boundary;
- Background visual range appropriate for the region in which the NP is located; and
- If available, emission rates of NO_2, soot, and primary sulfate (SO_4).

Visibility impacts are then determined for two parameters:

- Contrast of a plume against a viewing background such as the sky or a terrain feature; and
- Perceptibility of a plume on the basis of the color difference between the plume and the viewing background (Delta E).

Results are provided by the model for several scenarios based on the background view, the viewing angle, visibility improvement due to plumes located both inside and outside the Class I area, and the sun angle. The critical values for contrast and Delta E are 0.05 and 2.00, respectively. If these levels are not exceeded by the proposed source, the source is considered to pass the Level 1 visibility analysis, and the source will not have a significant impact on the Class I area.

Results of Level 1 Analysis – The input parameters and results of the Level 1 analysis for the Project are presented in Figure FDEP-PSD-8-1. As shown, the Project will primarily emit PM_{10} and NO_x. The maximum short-term average emission rates used in the analysis are based on all generators and engines operating at least one hour on a given day, simultaneously. Although the pollutant determination modeling in the PSD application assumed 4 hours on a given day operation, the assumption that the engines operate 1 hour a day is still extremely conservative because these machines will actually operate only 4 hours per month. Using this assumption, total facility short term emission rates of PM_{10} and NO_x, for the VISCREEN analysis, are 15.32 and 5.89 lb/hr, respectively. Primary NO_2, soot, and sulfates are not emitted in significant quantities by the generators and engines. Therefore, these emissions were set to zero.

The terrain between the Turkey Point plant area and BNP and within BNP, is totally flat. With no terrain feature that can be used as a viewing background, the visibility impacts were determined using the sky as the only viewing background. It should also be noted that these critical visual impacts are estimated for locations inside of BNP. Since no integral vistas have been identified for BNP, this evaluation did not evaluate vistas located outside the BNP area.

Because BNP is not a Class I area, the background visual range was not estimated using the FLAG report, and a background visual of 40 km was considered appropriate for the area. Other parameters input to the model were based upon default values given in the Workbook and incorporated into the computer model.

As shown in Figure FDEP-PSD-8-1, the Project's emissions are calculated to exceed the Level 1 visibility screening criteria at the NP. Because results from the Level 1 screening analysis exceed the visibility criteria, a Level 2 screening analysis was performed. The only difference in input between the Level 1 and Level 2 analyses is the meteorology assumed for plume transport and dispersion.

Results of Level 2 Analysis – The Level 2 screening analysis is designed to account for more realistic occurrences of meteorological conditions that would transport the plumes of the proposed units towards the NP. In this analysis, an assessment of the frequency of the wind direction, wind speed, and atmospheric stability classes is made to determine the frequency of conditions that are most likely to cause a potentially adverse plume visual impact. If the Level 1 default parameters are selected for addressing visual plume impacts, the VISCREEN model assigns an appropriate estimate of particle size and density for the emitted and background atmosphere particulate and worst-case plume dispersion conditions. For this analysis, the particle size and density for the emission sources were not changed.

The first step in the analysis is to construct a table that shows worst-case dispersion conditions ranked in order of decreasing severity and the frequency of occurrence of these conditions associated with the wind direction that could transport emissions toward BNP. Dispersion conditions are ranked by evaluating the product of the horizontal dispersion parameter (called sigma y) times the vertical dispersion parameter (called sigma z) times the wind speed. Sigma y and sigma z account for the amount of plume spreading or dispersion that will occur as a plume travels away from a source for a given stability class. The dispersion conditions are then ranked in ascending order of the value of the dispersion product term (i.e., sigma y times sigma z times the wind speed).

For the Level 2 analysis, it is assumed that steady-state plume conditions are unlikely to persist for more than 12 hours. Thus, if a transit time of more than 12 hours is required to transport a plume parcel from the emission source to a Class I area for a given dispersion condition, it is assumed that the plume material is more dispersed than a standard Gaussian plume model would predict. This enhanced dilution would result from daytime convective mixing and wind direction and speed changes.

To obtain the worst-case meteorological conditions, it is necessary to determine the dispersion conditions (i.e., a given wind speed and stability class associated with the wind direction that would transport emissions toward BNP) that have a dispersion product term with a cumulative probability of 1 percent. Thus, the dispersion condition is selected to address potential plume visual impacts such that the sum of all frequencies of occurrence worse than this condition totals 1 percent (i.e., about 4 days per year). The 1-percentile meteorology is assumed to be worst-case plume visual impacts when the probability of worst-case meteorology conditions is coupled with the probability of other factors being ideal for maximizing plume visual impacts. Dispersion conditions associated with transport times of more than 12 hours are not considered in this cumulative frequency.

For this study, the surface meteorological data from the NWS station in Miami from 2001 to 2005 were used to generate a frequency distribution of wind direction, wind speed, and stability occurrences based on the standardized stability array (STAR) program used for many air dispersion

model applications. An annual average wind rose for Miami, 2001 to 2005, is presented in Figure 2. The STAR program generates frequencies using 16 wind direction classes with each class covering a 22.5-degree sector, 6 wind speed classes, and 6 stability classes. It should be noted that these data were used to address air quality impacts from the Project as presented in Section 6.0 of the PSD report.

Areas of BNP are located to the south-southeast counter-clockwise to the north-northwest of the Turkey Point Project Site, with the closest distances of approximately 0.5 km to the south-southeast. Therefore, the frequencies associated with winds that would blow from the Project to BNP were included in the analysis (i.e., south-southeast counter-clockwise through north-northwest). The highest frequency for any wind sector was used to determine the worst-case meteorology for impacts at the closest distance of 0.5 km, which was assumed for all wind direction sectors.

Since the approach is based on viewing the plume during the day when the sun is either in front or back of the observer, the frequencies are presented only for two 7-hour periods during the daytime from 7 a.m. to 1 p.m. and 1 p.m. to 7 p.m. In effect, the criteria of 1 percent are applied to each 7-hour period.

This analysis is presented in Table FDEP-PSD-8-1, which shows the dispersion product term, transport time to the nearest part of BNP (i.e., distance of 0.5 km), and the frequency associated with each wind direction. As indicated in Table FDEP-PSD-8-1, all of the meteorological conditions considered in the analysis could be transported to BNP in less than 12 hours. As a result, these conditions were all included in determining the worst-case meteorology using the cumulative probability of 1 percent.

During the daytime period, winds out of the south-southeast wind direction sector produced a cumulative frequency of at least 1 percent during slightly stable stability with a wind speed of 3.0 m/s. Slightly stable stability (Pasquill class E) and a wind speed of 3.0 m/s was the critical meteorological condition. This weather condition was used to assess the potential visual plume impacts from the Project at the closest distance of 0.5 km.

The results of the visual plume impact analysis using the Level 2 meteorological condition for the Project are shown in Figure FDEP-PSD-8-3. As shown, the Project's values of Delta E and contrast are predicted to be less than the screening criteria.

Therefore, the pollutant emissions due to the project are highly unlikely to cause adverse visibility impairment in BNP.

Mitigation Measures -- As described in the PSD Report, PM and PM_{10} emissions from the circulating cooling towers will be designed to limit the drift rate to 0.0005 percent of the circulating water rate. This drift rate has been accepted as BACT for many projects involving wet cooling towers. Ultra low sulfur diesel fuel will be used in the standby and ancillary generators and fire pump engines that will primarily operate for maintenance testing. Testing is scheduled for 4 hours per month.

FDEP-PSD-9. The Department is still reviewing the air quality impact analysis and may later submit additional questions regarding this modeling analysis.

RESPONSE: Comment acknowledged. The response for FDEP-PSD-11 is provided to address the Department's separate request of July 30, 2009 for additional information related to modeling.

FDEP-PSD-10. Please address the following questions from Air Facilities Section of the Miami-Dade County Environmental Resources Management (DERM).

a. **DERM expressed concerns that non-metallic mineral rock mining equipment and operations may be included in the scope of the proposed project; however, no such information is provided with the PSD application. Provide information related to site-preparation and construction operations addressing any limestone excavation, grading and fill activities to be conducted. Include technical and design specifications on equipment and processes for crushing, conveying and screening operations.**

RESPONSE: Crushing and screening are not anticipated to be done on the Turkey Point plant property. Construction activities such as limestone excavation, conveying, grading and backfilling will be conducted on the plant property, but these construction activities are not subject to regulation under the non-metallic mineral processing plant NSPS rules (Subpart OOO) or otherwise under FDEP's air rules.

The Project for which certification is being sought under the Florida Electrical Power Plant Siting Act (PPSA) includes a fill-source/water management feature approximately 4 miles northwest of the Turkey Point plant property where limestone will be excavated for use as fill for the Project. It is possible that crushing and/or grinding of limestone will also occur at the off-site fill source. Review of the off-site fill source is being performed as part of the Site Certification process.

b. **The information in the PSD application regarding the use of "general purpose diesel engines" is limited in detail as to the number and type of engines, equipment the engines are to service, fuel tanks and day tanks to be associated with the engines, etc. Provide details including the design and technical specifications for the general purpose diesel engines similar to the information provided for the generator and fire pump engines.**

RESPONSE: As described in the application, general purpose engines were included during operation and refueling/maintenance cycles to account for various general purpose diesel engines used in equipment such as cranes, compressors, etc. At this time, the design and technical specification of these engines have not been determined, and such information is unnecessary for these minor sources. Since these types of sources are classified as an "emission unit" under FDEP rules (Rule 62-210.200, F.A.C), emissions were included in the total emissions for the Turkey Point Units 6 & 7 Project to account for the Project's "potential to emit." The precedent for accounting for these emissions in the manner used in the application was based on the FPL St. Lucie Nuclear Plant Federally Enforceable State Operating Permit (FESOP) that included fuel use restrictions on general purpose diesel engines to limit emission to less than 100 tons/year (Permit No. 1110071-005-AF). The emissions associated with Turkey Point Units 6 & 7 were estimated based on the Annual Operating Reports (AORs) submitted to FDEP for the FPL St. Lucie Plant. To be conservative, the U.S. EPA emission factors contained in EPA publication AP-42, Compilation of Air Pollutant Emission Factors, were used to estimate emissions for these general purpose engines that were developed in the mid-1990s. It should be noted that EPA has established emission standards for these

engines as non-road diesel engine limits in 40 CFR 89, which will become more stringent for engines manufactured in the future. EPA's non-road regulations require lower emission limits than the emission rates in EPA's emission factors. Since by the time Unit 6 begins operation in 2018, many of the diesel engines in equipment used on the plant area will meet EPA's non-road diesel engine limits in 40 CFR 89, the emission estimates are conservative using EPA's AP-42 emission factors.

c. DERM expressed concerns that constituents in the cooling water will be emitted as particulates in the aerosol/drift exhaust from the cooling towers. Provide additional information regarding the chemical makeup of the proposed cooling water (both reclaimed and subsurface water) as well as a characterization of emissions from the cooling towers.

c-1) Provide water quality/chemical analysis reports for the reclaimed water to be received from the Miami-Dade Water and Sewer Department (WASD). Provide a process flow diagram with description of the proposed FPL reclaim treatment plant including characterization of plant effluent. Provide a technical discussion and analysis of the effect that the cooling tower (heat transfer) process has on the reclaim water constituents and the related air emissions (both criteria and hazardous air pollutants). Source water analysis constituents to be addressed include: TDS, total suspended solids, chlorides, organics and metals. In addition to PM and PM10, provide emissions calculations for other criteria pollutants and hazardous air pollutants.

RESPONSE: Water quality data for reclaimed water obtained from MDWASD's South District Waste Water Treatment Plant are presented as Table FDEP-PSD-1-c-1. The information includes data on TDS, total suspended solids, chlorides, organics and metals. The response to FDEP-PSD-4 contains information on HAPs emissions when using treated reclaimed water. Information on VOC emissions that may be emitted when using treated reclaimed water is presented in Table FDEP-PSD-10 and is estimated to be 0.0008 tons/year when using treated reclaimed water. The VOC emissions were determined by assuming that all the volatiles and semi-volatiles from priority pollutant analyses were VOCs and the maximum values were used. Where all values for a particular parameter were below the detection limits, the detection limit was used to bound the emission estimate. As shown in Table FDEP-PSD-10, only 6 out of 39 analyses were above the detection limit for VOCs.

c-2. Provide water quality/chemical analysis reports of cooling water to be used from radial collection wells. Provide evaluation on the effect that the cooling tower (heat transfer) process has on the radial collection well water constituents and the related air emissions (both criteria and hazardous air pollutants). Radial collection well water constituents to be addressed include: TDS, total suspended solids, chlorides, organics and metals. In addition to PM and PM_{10}, provide emissions calculations for other criteria pollutants and hazardous air pollutants.

RESPONSE: Water quality data for saltwater is attached to the responses as part of FDEP-PSD-1d. These data are recent analyses of saltwater obtained from Biscayne Bay and an aquifer pump test located in the area where the radial collector well caissons will be located (i.e., the Turkey Point peninsula). The information includes data on TDS, total suspended solids, chlorides, organics and metals. The response to FDEP-PSD-4 contains information on HAPs emission when using saltwater. Table FDEP-PSD-10-1 presents emissions of VOCs when using saltwater, estimated to be 0.0019

tons/year. For the estimated VOC emissions from saltwater, the detection limits were used because none of the 138 analyses were above the detection limits of the analytical method.

d. DERM expressed concerns over the significant PM/PM_{10} emissions that would result from the proposed wet circulating water cooling towers. Provide a comprehensive evaluation of alternative cooling technologies instead of the proposed mechanical draft cooling towers.

RESPONSE: Refer to the responses for FDEP-PSD-1-f and FDEP-PSD-1-g that present information related to BACT and alternative cooling systems.

e. Although not related directly to the PSD application, the DERM advises FPL of the following:

e-1. If any demolition activities or renovation of existing buildings is to occur during the proposed project, either on-site or off-site, all applicable asbestos notifications and surveys shall be submitted.

RESPONSE: Comments acknowledged.

e-2. If site-preparation and construction activities include open burning, Chapter 24 requires Open Burning Permits for Land Clearing be obtained from the Miami Dade County Fire Department.

RESPONSE: Land clearing debris associated with site preparation activities will be disposed of using open burning as necessary. Open burning will only be conducted for the purpose of non-recurrent clearing of debris from land clearing. Open burning will also only be conducted after notification of Miami-Dade County Department of Environmental Management (DERM), Miami-Dade County Fire Rescue Department (Fire Protection Division) and the Florida Division of Forestry. All open burning will be conducted in accordance with the requirements of Rule 62-256.700(3), F.A.C. Land clearing materials not disposed of using open burning will be disposed of in accordance with the requirements of Chapter 62-701, F.A.C.

FDEP-PSD-11: Provide the potential emissions of particulate matter with a mean aerodynamic diameter of 2.5 microns or less ($PM_{2.5}$) for the project.

Note: This comment was provided in a separate letter from FDEP Bureau of Air Regulation dated July 30, 2009.

RESPONSE: The $PM_{2.5}$ emissions can be directly calculated from the information in Table A-1 and A-2 of the application appendix. The use of treated reclaimed water with a TDS of 4,000 ppmw would have the maximum $PM_{2.5}$ emissions since the lower TDS results in smaller drift particles. The total PM emissions for 4,000 ppmw TDS is 6.315 lb/hr per set of 3 towers as shown in Table A-1. The final particle size distribution is provided in the last two far right columns of Table A-2. As shown the final particle size closest to 2.5 microns is 2.441 microns which makes up 0.196% (i.e., 0.00196 as a fraction). Interpolating for 2.5 microns, the percentage is 0.2, or 0.002 as a fraction. The $PM_{2.5}$ emissions are therefore: 0.002×6.315 lb/hr per tower $\times$ 2 (for 3 cooling towers) = 0.0253 lb/hr. The annual emissions are 0.11 tons/year for the circulating water cooling towers.

For the service water cooling towers, the total PM emissions for 4,000 ppmw TDS is 0.021 lb/hr per towers as shown in Table A-4. The final particle size distribution is provided in the last two far right columns on Table A-5. As shown the final particle size closest to 2.5 microns is 2.441 microns which makes up 0.196 % (or 0.00196 as a fraction). Interpolating for 2.5 microns the percentage is 0.2 or 0.002 as a fraction. The $PM_{2.5}$ emissions are therefore: 0.002 × 0.021lb/hr per tower × 2 (for 2 cooling towers) = 0.0004 lb/hr. The annual emissions are 0.0002 tons/year for the circulating water cooling towers.

$PM_{2.5}$ emissions were also estimated from the standby diesel generators, ancillary diesel generators, fire pump engines and general purpose engines using AP-42 emission factors. Table FDEP-PSD-11 presents the $PM_{2.5}$ emissions as 1.26 tons/year.

The total estimated $PM_{2.5}$ emissions for the Project are 1.27 tons/year.

ATTACHMENTS

Attachment FDEP-PSD-1-c-2 (a)

Genapure

RU

Genapure Analytical Services, Inc.
3231 NW 7th Avenue
Boca Raton, FL 33431
Phone: (561) 447-7373
Fax: (561) 447-7374

March 19, 2009

CLIVE POWELL
MIAMI DADE WATER & SEWER
SOUTH DISTRICT LABORATORY
8950 SW 232 ST.
Miami, FL 33170

RE:
Workorder: 901840
Project: ANNUAL SAMPLING

Dear CLIVE POWELL:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, February 19, 2009. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mike Kimmel
mkimmel@genapure.com

FL-NELAC E86240

Statement of uncertainty is available upon request.
FL Qualifiers: I=value between MDL and PQL; V=value was positive in Blank; J=estimated value.See comment;
U=undetected; Q=out of hold
EPA Qualifiers: B=value was positive in Blank; J=estimated value. May be between MDL and PQL;
U=undetected; Q=out of hold
Enclosures

CERTIFICATE OF ANALYSIS

Genapure Analytical Services, Inc.
3231 NW 7th Avenue
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Phone: (561) 447-7373
Fax: (561) 447-7374

SAMPLE SUMMARY

Lab ID	Sample ID	Collector	Matrix	Date Collected	Date Received
901840001	REUSE EFFLUENT	CL	Drinking Water	2/19/2009 00:00	2/19/2009
901840002	TRIP BLANK	CL	DI Water	2/14/2009 00:00	2/19/2009

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ANALYTICAL RESULTS

Lab ID: **901840001** Date Received: 2/19/2009 Matrix: Drinking Water

Sample ID: **REUSE EFFLUENT/** Date Collected: 2/19/2009

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Wet Chemistry									
Analytical Method: SM 2540 C									
Total Dissolved Solids(TDS)	392		mg/L	7.00	10.0	1		2/23/2009 13:10	AR
Preparation Method: EPA 351.2 / Analytical Method: EPA 351.2									
Total Kjeldahl Nitrogen	26.9	V	mg/L-N	2.2	4.0	10	3/2/2009 18:00	3/3/2009 11:50	IG
Preparation Method: EPA 335.2 / Analytical Method: EPA 335.4 Cyanide									
Total Cyanide	0.0176		mg/L	0.0040	0.0100	1	2/24/2009 10:22	2/24/2009 13:57	IG
Analytical Method: SM 2120B Color									
Color (True/Apparent)	30.0		pcu	5.0	5.0	1		2/20/2009 07:45	ZE
Analytical Method: EPA 350.1									
Ammonia	30.4	V	mg/L-N	0.087	0.25	5		2/20/2009 12:52	IG
Analytical Method: EPA 300.0									
Chloride	121		mg/L	1.33	10.0	20		2/23/2009 16:12	AD
Fluoride	0.300U		mg/L	0.300	2.00	10		2/20/2009 19:09	AD
Nitrate	0.074U		mg/L-N	0.074	0.500	10		2/20/2009 19:09	AD
Nitrite	0.053U		mg/L-N	0.053	0.500	10		2/20/2009 19:09	AD
Sulfate	34.2		mg/L	0.755	5.00	10		2/20/2009 19:09	AD
Preparation Method: BOD PREP / Analytical Method: SM 5210B BOD									
BOD	2.0U	J	mg/L	2.0	2.0	1	2/20/2009 19:30	2/25/2009 09:45	LG
Analytical Method: SM 2150 B									
Odor	16.0		TON	1	1	1		2/20/2009 07:10	ZE
Preparation Method: SM 5540 C / Analytical Method: SM 5540 C									
Surfactants	0.124I		mg/L-LAS	0.040	0.200	1	2/20/2009 10:40	2/20/2009 10:40	AR
Analytical Method: ERA 365.1									
Ortho Phosphate - P	2.82		mg/L-P	0.027	0.075	5		2/20/2009 13:33	TA
Total Phosphorus	2.72		mg/L	0.022	0.075	5	2/24/2009 08:30	2/24/2009 12:28	ZE
Analytical Method: SM4500H-B									
pH	7.21		pH unit	0.100	0.100	1		2/24/2009 12:55	AD
EDB Analysis									
Preparation Method: EPA 504.1 / Analytical Method: EPA 504.1									
1,2-Dibromo-3-chloropropane	0.00310U		ug/L	0.00310	0.020	1	2/23/2009 17:00	2/23/2009 23:14	LR
1,2-Dibromoethane	0.00640U		ug/L	0.00640	0.010	1	2/23/2009 17:00	2/23/2009 23:14	LR
4-Bromofluorobenzene (S)	80		%	70-130		1	2/23/2009 17:00	2/23/2009 23:14	LR

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ANALYTICAL RESULTS

Lab ID: **901840001** Date Received: 2/19/2009 Matrix: Drinking Water

Sample ID: **REUSE EFFLUENT/** Date Collected: 2/19/2009

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
INORGANICS									
Preparation Method: EPA 245.1	Analytical Method: EPA 245.1								
Mercury	0.000056U		mg/L	0.000056	0.00020	1	2/23/2009 11:30	2/23/2009 15:54	IT
Preparation Method: EPA 200.7	Analytical Method: EPA 200.7								
Aluminum	0.046U		mg/L	0.046	0.20	1	2/20/2009 11:00	2/23/2009 22:20	TB
Chromium	0.00363I		mg/L	0.0011	0.0050	1	2/20/2009 11:00	2/24/2009 14:28	TB
Copper	0.0096U		mg/L	0.0096	0.020	1	2/20/2009 11:00	2/24/2009 14:28	TB
Iron	0.172		mg/L	0.045	0.10	1	2/20/2009 11:00	2/23/2009 22:20	TB
Nickel	0.0052U		mg/L	0.0052	0.010	1	2/20/2009 11:00	2/23/2009 22:20	TB
Silver	0.0016U		mg/L	0.0016	0.020	1	2/20/2009 11:00	2/24/2009 14:28	TB
Sodium	78.0		mg/L	0.074	0.25	1	2/20/2009 11:00	2/24/2009 14:28	TB
Zinc	0.0285		mg/L	0.0053	0.025	1	2/20/2009 11:00	2/24/2009 14:28	TB
Preparation Method: EPA 200.8	Analytical Method: EPA 200.8								
Antimony	0.0010U		mg/L	0.0010	0.0020	1	2/20/2009 11:00	2/24/2009 00:16	DF
Arsenic	0.0016U		mg/L	0.0016	0.0040	1	2/20/2009 11:00	2/24/2009 00:16	DF
Barium	0.00645		mg/L	0.0015	0.0040	1	2/20/2009 11:00	2/24/2009 00:16	DF
Beryllium	0.00085U		mg/L	0.00085	0.0020	1	2/20/2009 11:00	2/24/2009 00:16	DF
Cadmium	0.00011U		mg/L	0.00011	0.0020	1	2/20/2009 11:00	2/24/2009 00:16	DF
Lead	0.00075U		mg/L	0.00075	0.0020	1	2/20/2009 11:00	2/24/2009 00:16	DF
Manganese	0.0123		mg/L	0.0011	0.0020	1	2/20/2009 11:00	2/24/2009 00:16	DF
Selenium	0.00082U		mg/L	0.00082	0.0020	1	2/20/2009 11:00	2/24/2009 00:16	DF
Thallium	0.00027U		mg/L	0.00027	0.0020	1	2/20/2009 11:00	2/24/2009 00:16	DF
Wet Chemistry - Subcontract									
Analytical Method: EPA 100.2									
Asbestos	0.18U	1	MFL	0.18	0.18	1		2/28/2009 12:00	SU
Semivolatiles									
Preparation Method: EPA 625	Analytical Method: EPA 625								
2,4,6-Trichlorophenol	0.27U		ug/L	0.27	1.0	1	2/20/2009 09:00	2/23/2009 15:18	TB
2-Chlorophenol	0.22U		ug/L	0.22	4.0	1	2/20/2009 09:00	2/23/2009 15:18	TB
Anthracene	0.25U		ug/L	0.25	1.0	1	2/20/2009 09:00	2/23/2009 15:18	TB
Butyl benzyl phthalate	0.36U		ug/L	0.36	1.0	1	2/20/2009 09:00	2/23/2009 15:18	TB
Dimethyl phthalate	0.31U		ug/L	0.31	1.0	1	2/20/2009 09:00	2/23/2009 15:18	TB
Naphthalene	0.34U		ug/L	0.34	1.0	1	2/20/2009 09:00	2/23/2009 15:18	TB
Phenanthrene	0.29U		ug/L	0.29	1.0	1	2/20/2009 09:00	2/23/2009 15:18	TB
Phenol	0.41U		ug/L	0.41	1.0	1	2/20/2009 09:00	2/23/2009 15:18	TB
Preparation Method: EPA 625	Analytical Method: Semi-volatile Mass Spec Scan								
2,3,7,8-TCDD	ND	2	ug/L			1	2/20/2009 09:00	2/24/2009 15:29	TB
Preparation Method: EPA 625	Analytical Method: EPA 625								
Nitrobenzene-d5 (S)	84		%	10-117		1	2/20/2009 09:00	2/23/2009 15:18	TB

CERTIFICATE OF ANALYSIS

Genapure Analytical Services, Inc.
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ANALYTICAL RESULTS

Lab ID: 901840001 Date Received: 2/19/2009 Matrix: Drinking Water
Sample ID: REUSE EFFLUENT/ Date Collected: 2/19/2009

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
2-Fluorobiphenyl (S)	81		%	10-112		1	2/20/2009 09:00	2/23/2009 15:18	TB
Terphenyl-d14 (S)	106		%	20-146		1	2/20/2009 09:00	2/23/2009 15:18	TB
Phenol-d6 (S)	31		%	10-59		1	2/20/2009 09:00	2/23/2009 15:18	TB
2-Fluorophenol (S)	53		%	24-64		1	2/20/2009 09:00	2/23/2009 15:18	TB
2,4,6-Tribromophenol (S)	104		%	52-121		1	2/20/2009 09:00	2/23/2009 15:18	TB
Pesticides									
Preparation Method: EPA 608			Analytical Method: EPA 608						
Aldrin	0.00139U		ug/L	0.00139	0.050	1	2/23/2009 15:30	2/25/2009 04:17	SB
Dieldrin	0.00170U	4	ug/L	0.00170	0.050	1	2/23/2009 15:30	2/25/2009 04:17	SB
Tetrachloro-m-xylene (S)	48		%	32-137		1	2/23/2009 15:30	2/25/2009 04:17	SB
Decachlorobiphenyl (S)	39		%	25-165		1	2/23/2009 15:30	2/25/2009 04:17	SB
Synthetic Organics									
Preparation Method: EPA 531.1			Analytical Method: EPA 531.1						
Carbofuran	0.25U	3	ug/L	0.25	2.0	1	2/25/2009 15:30	2/28/2009 09:58	SU
Oxamyl	0.18U		ug/L	0.18	2.0	1	2/25/2009 15:30	2/28/2009 09:58	SU
Preparation Method: EPA 508.1			Analytical Method: EPA 508.1						
Alachlor	0.058U	3	ug/L	0.058	0.21	1	2/26/2009 10:00	2/26/2009 22:34	SU
Atrazine (Aatrex)	0.027U		ug/L	0.027	0.11	1	2/26/2009 10:00	2/26/2009 22:34	SU
gamma-BHC (Lindane)	0.0053U		ug/L	0.0053	0.021	1	2/26/2009 10:00	2/26/2009 22:34	SU
Chlordane(Technical)	0.037U		ug/L	0.037	0.21	1	2/26/2009 10:00	2/26/2009 22:34	SU
Endrin	0.0021U		ug/L	0.0021	0.011	1	2/26/2009 10:00	2/26/2009 22:34	SU
Heptachlor	0.0084U		ug/L	0.0084	0.042	1	2/26/2009 10:00	2/26/2009 22:34	SU
Heptachlor epoxide	0.0042U		ug/L	0.0042	0.021	1	2/26/2009 10:00	2/26/2009 22:34	SU
Hexachlorobenzene	0.026U		ug/L	0.026	0.11	1	2/26/2009 10:00	2/26/2009 22:34	SU
Hexachlorocyclopentadiene	0.022U		ug/L	0.022	0.11	1	2/26/2009 10:00	2/26/2009 22:34	SU
Methoxychlor	0.022U		ug/L	0.022	0.11	1	2/26/2009 10:00	2/26/2009 22:34	SU
Simazine (Princep)	0.026U		ug/L	0.026	0.074	1	2/26/2009 10:00	2/26/2009 22:34	SU
Toxaphene	0.23U		ug/L	0.23	1.1	1	2/26/2009 10:00	2/26/2009 22:34	SU
Polychlorinated Biphenyls-PCBS	0.11U		ug/L	0.11	0.11	1	2/26/2009 10:00	2/26/2009 22:34	SU
Preparation Method: EPA 515.3			Analytical Method: EPA 515.3						
2,4-D	0.030U	3	ug/L	0.030	0.10	1	2/26/2009 09:00	2/27/2009 16:18	SU
Dalapon	0.66U		ug/L	0.66	1.0	1	2/26/2009 09:00	2/27/2009 16:18	SU
Dinoseb	0.090U		ug/L	0.090	0.20	1	2/26/2009 09:00	2/27/2009 16:18	SU
Pentachlorophenol	0.010U		ug/L	0.010	0.040	1	2/26/2009 09:00	2/27/2009 16:18	SU
Picloram	0.010U		ug/L	0.010	0.10	1	2/26/2009 09:00	2/27/2009 16:18	SU
2,4,5-TP (Silvex)	0.080U		ug/L	0.080	0.20	1	2/26/2009 09:00	2/27/2009 16:18	SU
Analytical Method: EPA 547									
Glyphosate	2.4U	3	ug/L	2.4	6.0	1		2/24/2009 03:55	SU
Preparation Method: EPA 548.1			Analytical Method: EPA 548.1						

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ANALYTICAL RESULTS

Lab ID: **901840001** Date Received: 2/19/2009 Matrix: Drinking Water

Sample ID: **REUSE EFFLUENT/** Date Collected: 2/19/2009

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Endothall	0.28U	3	ug/L	0.28	9.0	1	2/28/2009 09:00	2/28/2009 18:06	SU
Preparation Method: EPA 549.2 Analytical Method: EPA 549.2									
Diquat	0.22U	3	ug/L	0.22	0.40	1	2/25/2009 15:20	2/26/2009 19:46	SU
Preparation Method: EPA 525.2 Analytical Method: EPA 525.2									
Benzo(a)pyrene	0.020U	3	ug/L	0.020	0.10	1	2/26/2009 13:00	2/27/2009 05:15	SU
Di(2-ethylhexyl)adipate	0.40U	3	ug/L	0.40	1.7	1	2/26/2009 13:00	2/27/2009 05:15	SU
Bis(2-Ethylhexyl)phthalate	1.60I	V,3,I	ug/L	0.52	2.1	1	2/26/2009 13:00	2/27/2009 05:15	SU
Volatiles									
Analytical Method: EPA 624									
1,2-Dichlorobenzene	0.584U		ug/L	0.584	1.00	1		2/21/2009 14:19	LN
Chloroethane	0.710U		ug/L	0.710	1.00	1		2/21/2009 14:19	LN
Chloroform	18.0		ug/L	0.572	1.00	1		2/21/2009 14:19	LN
cis-1,2-Dichloroethene	0.442U		ug/L	0.442	1.00	1		2/21/2009 14:19	LN
trans-1,2-Dichloroethene	0.410U		ug/L	0.410	1.00	1		2/21/2009 14:19	LN
Analytical Method: EPA 524.2									
1,1,1-Trichloroethane	0.132U		ug/L	0.132	0.500	1		2/21/2009 06:12	LN
1,1,2-Trichloroethane	0.088U		ug/L	0.088	0.500	1		2/21/2009 06:12	LN
1,1-Dichloroethane	0.075U		ug/L	0.075	0.500	1		2/21/2009 06:12	LN
1,1-Dichloroethene	0.086U		ug/L	0.086	0.500	1		2/21/2009 06:12	LN
1,2,4-Trichlorobenzene	0.117U		ug/L	0.117	0.500	1		2/21/2009 06:12	LN
1,2-Dichlorobenzene	0.076U		ug/L	0.076	0.500	1		2/21/2009 06:12	LN
1,2-Dichloroethane	0.070U		ug/L	0.070	0.500	1		2/21/2009 06:12	LN
1,2-Dichloropropane	0.093U		ug/L	0.093	0.500	1		2/21/2009 06:12	LN
1,4-Dichlorobenzene	0.970		ug/L	0.150	0.500	1		2/21/2009 06:12	LN
Benzene	0.077U		ug/L	0.077	0.500	1		2/21/2009 06:12	LN
Bromodichloromethane	4.88		ug/L	0.091	0.50	1		2/21/2009 06:12	LN
Bromoform	0.15U		ug/L	0.15	0.50	1		2/21/2009 06:12	LN
Carbon tetrachloride	0.134U		ug/L	0.134	0.500	1		2/21/2009 06:12	LN
Chlorobenzene	0.113U		ug/L	0.113	0.500	1		2/21/2009 06:12	LN
Chloroform	16.2		ug/L	0.077	0.50	1		2/21/2009 06:12	LN
Dibromochloromethane	1.62		ug/L	0.15	0.50	1		2/21/2009 06:12	LN
Ethylbenzene	0.070U		ug/L	0.070	0.500	1		2/21/2009 06:12	LN
Methylene chloride	0.117U		ug/L	0.117	0.500	1		2/21/2009 06:12	LN
Styrene	0.040U		ug/L	0.040	0.500	1		2/21/2009 06:12	LN
Tetrachloroethene	0.390I		ug/L	0.148	0.500	1		2/21/2009 06:12	LN
Toluene	0.140U		ug/L	0.140	0.500	1		2/21/2009 06:12	LN
Trichloroethene	0.121U		ug/L	0.121	0.500	1		2/21/2009 06:12	LN
Total Trihalomethanes	22.7		ug/L	0.47	2.0	1		2/21/2009 06:12	LN
Vinyl chloride	0.120U		ug/L	0.120	0.500	1		2/21/2009 06:12	LN
Xylene, m,p-	0.134U		ug/L	0.134	0.500	1		2/21/2009 06:12	LN
Xylene, o-	0.083U		ug/L	0.083	0.500	1		2/21/2009 06:12	LN
Xylenes (total)	0.210U		ug/L	0.210	0.500	1		2/21/2009 06:12	LN

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ANALYTICAL RESULTS

Lab ID: **901840001** Date Received: 2/19/2009 Matrix: Drinking Water

Sample ID: **REUSE EFFLUENT/** Date Collected: 2/19/2009

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
cis-1,2-Dichloroethene	0.085U		ug/L	0.085	0.500	1		2/21/2009 06:12	LN
trans-1,2-Dichloroethene	0.087U		ug/L	0.087	0.500	1		2/21/2009 06:12	LN
Analytical Method: EPA 624									
4-Bromofluorobenzene (S)	95		%	64-130		1		2/21/2009 14:19	LN
Dibromofluoromethane (S)	117		%	69-134		1		2/21/2009 14:19	LN
Toluene d8 (S)	100		%	63-127		1		2/21/2009 14:19	LN
Analytical Method: EPA 5242									
4-Bromofluorobenzene (S)	88		%	70-130		1		2/21/2009 06:12	LN
1,2-Dichlorobenzene-d4 (S)	95		%	70-130		1		2/21/2009 06:12	LN

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ANALYTICAL RESULTS

Lab ID: **901840002** Date Received: 2/19/2009 Matrix: DI Water
Sample ID: **TRIP BLANK/** Date Collected: 2/14/2009

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Volatiles									
Analytical Method: EPA 524.2									
1,1,1-Trichloroethane	0.132U		ug/L	0.132	0.500	1		2/21/2009 01:59	LN
1,1,2-Trichloroethane	0.088U		ug/L	0.088	0.500	1		2/21/2009 01:59	LN
1,1-Dichloroethane	0.075U		ug/L	0.075	0.500	1		2/21/2009 01:59	LN
1,1-Dichloroethene	0.086U		ug/L	0.086	0.500	1		2/21/2009 01:59	LN
1,2,4-Trichlorobenzene	0.117U		ug/L	0.117	0.500	1		2/21/2009 01:59	LN
1,2-Dichlorobenzene	0.076U		ug/L	0.076	0.500	1		2/21/2009 01:59	LN
1,2-Dichloroethane	0.070U		ug/L	0.070	0.500	1		2/21/2009 01:59	LN
1,2-Dichloropropane	0.093U		ug/L	0.093	0.500	1		2/21/2009 01:59	LN
1,4-Dichlorobenzene	0.150U		ug/L	0.150	0.500	1		2/21/2009 01:59	LN
Benzene	0.077U		ug/L	0.077	0.500	1		2/21/2009 01:59	LN
Bromodichloromethane	0.091U		ug/L	0.091	0.50	1		2/21/2009 01:59	LN
Bromoform	0.15U		ug/L	0.15	0.50	1		2/21/2009 01:59	LN
Carbon tetrachloride	0.134U		ug/L	0.134	0.500	1		2/21/2009 01:59	LN
Chlorobenzene	0.113U		ug/L	0.113	0.500	1		2/21/2009 01:59	LN
Chloroform	0.077U		ug/L	0.077	0.50	1		2/21/2009 01:59	LN
Dibromochloromethane	0.15U		ug/L	0.15	0.50	1		2/21/2009 01:59	LN
Ethylbenzene	0.070U		ug/L	0.070	0.500	1		2/21/2009 01:59	LN
Methylene chloride	0.117U		ug/L	0.117	0.500	1		2/21/2009 01:59	LN
Styrene	0.040U		ug/L	0.040	0.500	1		2/21/2009 01:59	LN
Tetrachloroethene	0.148U		ug/L	0.148	0.500	1		2/21/2009 01:59	LN
Toluene	0.140U		ug/L	0.140	0.500	1		2/21/2009 01:59	LN
Trichloroethene	0.121U		ug/L	0.121	0.500	1		2/21/2009 01:59	LN
Total Trihalomethanes	0.47U		ug/L	0.47	2.0	1		2/21/2009 01:59	LN
Vinyl chloride	0.120U		ug/L	0.120	0.500	1		2/21/2009 01:59	LN
Xylene, m,p-	0.134U		ug/L	0.134	0.500	1		2/21/2009 01:59	LN
Xylene, o-	0.083U		ug/L	0.083	0.500	1		2/21/2009 01:59	LN
Xylenes (total)	0.210U		ug/L	0.210	0.500	1		2/21/2009 01:59	LN
cis-1,2-Dichloroethene	0.085U		ug/L	0.085	0.500	1		2/21/2009 01:59	LN
trans-1,2-Dichloroethene	0.087U		ug/L	0.087	0.500	1		2/21/2009 01:59	LN
4-Bromofluorobenzene (S)	86		%	70-130		1		2/21/2009 01:59	LN
1,2-Dichlorobenzene-d4 (S)	95		%	70-130		1		2/21/2009 01:59	LN
EDB Analysis									
Preparation Method: EPA 504 Analytical Method: EPA 504									
1,2-Dibromo-3-chloropropane	0.00310U		ug/L	0.00310	0.020	1	2/23/2009 17:00	2/23/2009 23:37	LR
1,2-Dibromoethane	0.00640U		ug/L	0.00640	0.010	1	2/23/2009 17:00	2/23/2009 23:37	LR
4-Bromofluorobenzene (S)	81		%	70-130		1	2/23/2009 17:00	2/23/2009 23:37	LR

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ANALYTICAL RESULTS QUALIFIERS

PARAMETER QUALIFIERS

I	Estimated value; between MDL and PQL
J	Estimated value.
V	Present in blank.
[1]	E86772
[2]	The reported analyte is not NELAC certified
[3]	E83079
[4]	NCR-% difference of results from primary and secondary columns is >40%, possible due to matrix interference. Detection limit elevated above lowest concentration.

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CASE NARRATIVE

Sample Analysis Comments

Lab ID 901840001 Client ID REUSE EFFLUENT

Analyte/2,3,7,8-TCDD

The reported analyte is not NELAC certified

Analyte/2,4-D

[3] E83079

Analyte/Alachlor

[3] E83079

Analyte/Asbestos

[1] E86772

Analyte/Benzo(a)pyrene

[3] E83079

Analyte/Bis(2-Ethylhexyl)phthalate

[3] E83079

I = Estimated value; between MDL and PQL

V = Present in blank.

Analyte/Carbofuran

[3] E83079

Analyte/Di(2-ethylhexyl)adipate

[3] E83079

Analyte/Dieldrin

NCR-% difference of results from primary and secondary columns is >40%, possible due to matrix interference. Detection limit elevated above lowest concentration.

Analyte/Diquat

[3] E83079

Analyte/Endothall

[3] E83079

Analyte/Glyphosate

[3] E83079

Genapure

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QUALITY CONTROL DATA

QC Batch: EXTO/1744 Analysis Method: EPA 625

QC Batch Method: EPA 625

Associated Lab Samples: 901780001 901839001 901840001 901842001 901843002 901850001 901850002 901850003

METHOD BLANK: 17506

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Semivolatiles				
Anthracene	ug/L	0.25U	0.25	
Benzo(a)pyrene	ug/L	0.31U	0.31	
Bis(2-Ethylhexyl)phthalate	ug/L	0.20U	0.20	
Butyl benzyl phthalate	ug/L	0.36U	0.36	
1,2-Dichlorobenzene	ug/L	0.34U	0.34	
1,4-Dichlorobenzene	ug/L	0.28U	0.28	
Dimethyl phthalate	ug/L	0.31U	0.31	
Hexachlorobenzene	ug/L	0.32U	0.32	
Hexachlorocyclopentadiene	ug/L	0.74U	0.74	
Naphthalene	ug/L	0.34U	0.34	
Phenanthrene	ug/L	0.29U	0.29	
1,2,4-Trichlorobenzene	ug/L	0.23U	0.23	
2-Chlorophenol	ug/L	0.22U	0.22	
Pentachlorophenol	ug/L	0.67U	0.67	
Phenol	ug/L	0.41U	0.41	
2,4,6-Trichlorophenol	ug/L	0.27U	0.27	
Nitrobenzene-d5 (S)	%	83	10-117	
2-Fluorobiphenyl (S)	%	83	10-112	
Terphenyl-d14 (S)	%	111	20-146	
Phenol-d6 (S)	%	33	10-59	
2-Fluorophenol (S)	%	46	24-64	
2,4,6-Tribromophenol (S)	%	95	52-121	

LABORATORY CONTROL SAMPLE: 17507

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Semivolatiles						
Anthracene	ug/L	50	45.4	91	27-133	
Benzo(a)pyrene	ug/L	50	44.4	89	17-163	
Butyl benzyl phthalate	ug/L	50	52.7	105	0-152	
Bis(2-Ethylhexyl)phthalate	ug/L	50	57.9	116	8-158	
1,2-Dichlorobenzene	ug/L	50	33.9	68	32-129	
Dimethyl phthalate	ug/L	50	44.9	90	0-112	
Hexachlorobenzene	ug/L	50	42.6	85	0-152	
Hexachlorocyclopentadiene	ug/L	50	22.2	44	10-115	
Naphthalene	ug/L	50	37.3	75	21-133	
Phenanthrene	ug/L	50	43.9	88	54-120	
2,4,6-Trichlorophenol	ug/L	50	40.6	81	37-144	

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE: 17507

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenol	ug/L	50	18.3	37	5-112	
2-Chlorophenol	ug/L	50	34.5	69	23-134	
1,4-Dichlorobenzene	ug/L	50	33.9	68	20-124	
1,2,4-Trichlorobenzene	ug/L	50	35.1	70	44-142	
Pentachlorophenol	ug/L	50	48.4	97	14-176	
Nitrobenzene-d5 (S)	%			82	39-117	
2-Fluorobiphenyl (S)	%			83	40-112	
Terphenyl-d14 (S)	%			112	31-146	
Phenol-d6 (S)	%			39	10-59	
2-Fluorophenol (S)	%			49	24-64	
2,4,6-Tribromophenol (S)	%			102	52-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17508 17509 Original: 901791008

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Semivolatiles											
Anthracene	ug/L	0.0575	50	42.2	43.2	84	86	27-133	2	20	
Benzo(a)pyrene	ug/L	0.0785	50	42.2	43.7	84	87	17-163	4	20	
Butyl benzyl phthalate	ug/L	0	50	51.0	50.9	102	102	0-152	0	20	
Bis(2-Ethylhexyl)phthalate	ug/L	0	50	55.1	54.6	110	109	8-158	0.9	20	
1,2-Dichlorobenzene	ug/L	0	50	31.4	32.1	63	64	32-129	2	20	
Dimethyl phthalate	ug/L	0.0703	50	41.5	42.9	83	86	0-112	4	20	
Hexachlorobenzene	ug/L	0	50	39.1	39.4	78	79	0-152	1	20	
Hexachlorocyclopentadiene	ug/L	0	50	18.4	19.9	37	40	10-115	8	20	
Naphthalene	ug/L	0	50	33.7	33.9	67	68	21-133	1	20	
Phenanthrene	ug/L	0.0608	50	41.5	41.9	83	84	54-120	1	20	
2,4,6-Trichlorophenol	ug/L	0	50	37.5	38.8	75	78	37-144	4	20	
Phenol	ug/L	0	50	16.9	16.9	34	34	5-112	0	20	
2-Chlorophenol	ug/L	0	50	31.3	32.9	63	66	23-134	5	20	
1,4-Dichlorobenzene	ug/L	0	50	30.4	31.5	61	63	20-124	3	20	
1,2,4-Trichlorobenzene	ug/L	0	50	31.4	32.6	63	65	44-142	3	20	
Pentachlorophenol	ug/L	0	50	46.9	46.3	94	93	14-176	1	20	
Nitrobenzene-d5 (S)	%					74	74	39-117	0		
2-Fluorobiphenyl (S)	%					76	80	40-112	5		
Terphenyl-d14 (S)	%					106	105	31-146	0.9		
Phenol-d6 (S)	%					36	36	10-59	0		
2-Fluorophenol (S)	%					46	47	24-64	2		
2,4,6-Tribromophenol (S)	%					97	93	52-121	4		

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QUALITY CONTROL DATA

QC Batch: EXTO/1746 Analysis Method: EPA 504

QC Batch Method: EPA 504

Associated Lab Samples: 901742001 901742002 901780001 901780002 901835001 901835003 901838001 901838002 901840001 901840002 901842001 901852001 901852002 901852003 901872001 901872002 901873001 901873002

METHOD BLANK: 17514

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDB Analysis				
1,2-Dibromo-3-chloropropane	ug/L	0.00310U	0.00310	
1,2-Dibromoethane	ug/L	0.00640U	0.00640	
4-Bromofluorobenzene (S)	%	78	70-130	

LABORATORY CONTROL SAMPLE & LCSD: 17515 17516

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
EDB Analysis										
1,2-Dibromo-3-chloropropane	ug/L	0.252	0.278	0.287	110	114	72-150	4	20	
1,2-Dibromoethane	ug/L	0.252	0.288	0.288	114	114	78-142	0	20	
4-Bromofluorobenzene (S)	%				78	77	70-130	1	20	

MATRIX SPIKE SAMPLE: 17517 Original: 901791009

Parameter	Units	Original Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
EDB Analysis							
1,2-Dibromo-3-chloropropane	ug/L	0	0.252	0.287	114	70-130	
1,2-Dibromoethane	ug/L	0	0.252	0.288	114	70-130	
4-Bromofluorobenzene (S)	%				76	70-130	

SAMPLE DUPLICATE: 17518 Original: 901742001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
EDB Analysis						
1,2-Dibromo-3-chloropropane	ug/L	0.00310U	0.00310U	0		
1,2-Dibromoethane	ug/L	0.00640U	0.00640U	0		
4-Bromofluorobenzene (S)	%	76	72	6		

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QUALITY CONTROL DATA

QC Batch: MISC/1114 Analysis Method: SM 2150 B

QC Batch Method: SM 2150 B

Associated Lab Samples: 901835002 901840001 901842001 901852001 901852002

METHOD BLANK: 17677

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Odor	TON	1U	1	

SAMPLE DUPLICATE: 17678 Original: 901840001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Odor	TON	16.0	16.0	0	20	

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QUALITY CONTROL DATA

QC Batch: LACH/1768 Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Associated Lab Samples: 901818001 901822001 901840001 901842001

METHOD BLANK: 17679

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Ortho Phosphate - P	mg/L-P	0.005U	0.005	

LABORATORY CONTROL SAMPLE & LCSD: 17680 17681

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Ortho Phosphate - P	mg/L-P	0.5	0.520	0.521	104	104	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17682 17683 Original: 901818001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Ortho Phosphate - P	mg/L-P	0.247	0.5	0.768	0.770	104	105	90-110	1	20	

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QUALITY CONTROL DATA

QC Batch: HACH/1120 Analysis Method: SM 2120B Color

QC Batch Method: SM 2120B Color

Associated Lab Samples: 901780001 901835001 901840001 901842001

METHOD BLANK: 17684

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Color (True/Apparent)	pcu	5.0U	5.0	

SAMPLE DUPLICATE: 17685 Original: 901780001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Color (True/Apparent)	pcu	300	300	0	20	

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QUALITY CONTROL DATA

QC Batch: DIGM/1602 Analysis Method: EPA 200.7

QC Batch Method: EPA 200.7

Associated Lab Samples: 901823001 901826001 901827001 901828002 901828004 901829001 901835001 901838001 901840001 901842001 901850001 901850002 901850003

METHOD BLANK: 17690

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Aluminum	mg/L	0.046U	0.046	
Chromium	mg/L	0.0011U	0.0011	
Copper	mg/L	0.0096U	0.0096	
Iron	mg/L	0.045U	0.045	
Nickel	mg/L	0.0052U	0.0052	
Silver	mg/L	0.0016U	0.0016	
Sodium	mg/L	0.074U	0.074	
Zinc	mg/L	0.0053U	0.0053	

LABORATORY CONTROL SAMPLE: 17691

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	mg/L	5	5.16	103	70-130	
Chromium	mg/L	1	1.05	105	70-130	
Copper	mg/L	1	1.06	106	70-130	
Iron	mg/L	5	5.34	107	70-130	
Nickel	mg/L	1	1.05	105	70-130	
Silver	mg/L	0.5	0.577	115	70-130	
Sodium	mg/L	25	27.4	109	70-130	
Zinc	mg/L	1	1.06	106	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17692 17693 Original: 901838001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Aluminum	mg/L	0.112	5	5.42	5.45	106	107	70-130	0.9	20	
Chromium	mg/L	0.00445	1	1.06	1.08	105	107	70-130	2	20	
Copper	mg/L	0.00733	1	1.07	1.08	107	108	70-130	0.9	20	
Iron	mg/L	0.193	5	5.50	5.38	106	104	70-130	2	20	
Nickel	mg/L	0.00367	1	1.04	1.05	104	105	70-130	1	20	
Silver	mg/L	-0.00322	0.5	0.605	0.580	121	116	70-130	4	20	
Sodium	mg/L	238	25	257	252	80	58	70-130	32	20	
Zinc	mg/L	0.0633	1	1.14	1.16	107	109	70-130	2	20	

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QUALITY CONTROL DATA

QC Batch: DIGM/1603 Analysis Method: EPA 200.8

QC Batch Method: EPA 200.8

Associated Lab Samples: 901738001 901738002 901742001 901742002 901802001 901835001
901838001 901839001 901840001 901842001 901843002 901850001
901850002 901850003

METHOD BLANK: 17694

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Antimony	mg/L	0.0010U	0.0010	
Arsenic	mg/L	0.0016U	0.0016	
Barium	mg/L	0.0015U	0.0015	
Beryllium	mg/L	0.00085U	0.00085	
Cadmium	mg/L	0.00011U	0.00011	
Lead	mg/L	0.00075U	0.00075	
Manganese	mg/L	0.0011U	0.0011	
Selenium	mg/L	0.00082U	0.00082	
Thallium	mg/L	0.00027U	0.00027	

LABORATORY CONTROL SAMPLE: 17695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.2	0.216	108	85-115	
Arsenic	mg/L	0.2	0.207	104	85-115	
Barium	mg/L	0.2	0.204	102	85-115	
Beryllium	mg/L	0.2	0.208	104	85-115	
Cadmium	mg/L	0.2	0.202	101	85-115	
Lead	mg/L	0.2	0.214	107	85-115	
Manganese	mg/L	0.2	0.210	105	85-115	
Selenium	mg/L	0.2	0.199	100	85-115	
Thallium	mg/L	0.2	0.211	106	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17696 17697 Original: 901838001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Antimony	mg/L			0.214	0.222						Q
Arsenic	mg/L			0.200	0.205						Q
Barium	mg/L	0.00704	0.2	0.201	0.208	97	101	70-130	4	20	Q
Beryllium	mg/L			0.202	0.207						Q
Cadmium	mg/L			0.188	0.198						Q
Lead	mg/L			0.212	0.215						Q
Manganese	mg/L	0.0177	0.2	0.207	0.208	95	95	70-130	0	20	Q
Selenium	mg/L			0.187	0.195						Q

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17696 17697 Original: 901838001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Thallium	mg/L			0.209	0.210						Q

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QUALITY CONTROL DATA

QC Batch: MSV/1447 Analysis Method: EPA 624

QC Batch Method: EPA 624

Associated Lab Samples: 901840001 901843001 901850001 901850004 901852001 901853005

METHOD BLANK: 17702

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Volatiles				
Acrolein	ug/L	2.47U	2.47	
Dichlorodifluoromethane	ug/L	0.525U	0.525	
Chloromethane	ug/L	0.524U	0.524	
Vinyl chloride	ug/L	0.506U	0.506	
Bromomethane	ug/L	0.427U	0.427	
Chloroethane	ug/L	0.710U	0.710	
Trichlorofluoromethane	ug/L	0.493U	0.493	
1,1-Dichloroethene	ug/L	0.640U	0.640	
Acetone	ug/L	5.92I	1.43	J
Methylene chloride	ug/L	0.240U	0.240	
trans-1,2-Dichloroethene	ug/L	0.410U	0.410	
Acrylonitrile	ug/L	0.955U	0.955	
1,1-Dichloroethane	ug/L	0.410U	0.410	
cis-1,2-Dichloroethene	ug/L	0.442U	0.442	
2-Butanone	ug/L	4.28U	4.28	
Chloroform	ug/L	0.572U	0.572	
1,1,1-Trichloroethane	ug/L	0.680U	0.680	
Carbon tetrachloride	ug/L	0.468U	0.468	
Benzene	ug/L	0.621U	0.621	
1,2-Dichloroethane	ug/L	0.897U	0.897	
Trichloroethene	ug/L	0.821U	0.821	
1,2-Dichloropropane	ug/L	0.725U	0.725	
2-Chloroethylvinyl ether	ug/L	0.466U	0.466	
Bromodichloromethane	ug/L	0.140U	0.140	
cis-1,3-Dichloropropene	ug/L	0.664U	0.664	
4-Methyl-2-pentanone	ug/L	0.220U	0.220	
Toluene	ug/L	0.389U	0.389	
trans-1,3-Dichloropropene	ug/L	0.522U	0.522	
1,1,2-Trichloroethane	ug/L	0.840U	0.840	
Tetrachloroethene	ug/L	0.312U	0.312	
Dibromochloromethane	ug/L	0.378U	0.378	
Chlorobenzene	ug/L	0.316U	0.316	
1,1,1,2-Tetrachloroethane	ug/L	0.120U	0.120	
Ethylbenzene	ug/L	0.323U	0.323	
Bromoform	ug/L	0.486U	0.486	
1,1,2,2-Tetrachloroethane	ug/L	0.570U	0.570	
1,4-Dichlorobenzene	ug/L	0.537U	0.537	
n-Butylbenzene	ug/L	0Y		
1,2-Dichlorobenzene	ug/L	0.584U	0.584	
Naphthalene	ug/L	0.417U	0.417	
Methyl-t-butyl ether	ug/L	0.650U	0.650	
Xylene, m,p-	ug/L	0.639U	0.639	
Xylene, o-	ug/L	0.341U	0.341	

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QUALITY CONTROL DATA

METHOD BLANK: 17702

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2,4-Trimethylbenzene	ug/L	0.272U	0.272	
1,3,5-Trimethylbenzene	ug/L	0.202U	0.202	
1,3-Dichloropropane	ug/L	0Y		
cis-1,4-Dichloro-2-Butene	ug/L	0Y		
1,1-Dichloropropene	ug/L	0.630U	0.630	
2-Hexanone	ug/L	0Y		
2,2-Dichloropropane	ug/L	0Y		
Ethyl tert-butyl ether (ETBE)	ug/L	0Y		
n-Butyl alcohol	ug/L	8.50U	8.50	
Methyl iodide	ug/L	0Y		
Dibromomethane	ug/L	0.739U	0.739	
Bromochloromethane	ug/L	0Y		
Carbon disulfide	ug/L	0Y		
t-Butanol (TBA)	ug/L	0Y		
Trichlorotrifluoroethane	ug/L	0Y		
1,2,3-Trichlorobenzene	ug/L	0Y		
sec-Butylbenzene	ug/L	0Y		
1,4 Dioxane	ug/L	0Y		
1,2,4-Trichlorobenzene	ug/L	0.538U	0.538	
trans-1,4-Dichloro-2-butene	ug/L	0Y		
Bromobenzene	ug/L	0Y		
diisopropyl Ether (DIPE)	ug/L	0Y		
Vinyl acetate	ug/L	0Y		
1,2-Dibromoethane	ug/L	0Y		
4-Chlorotoluene	ug/L	0Y		
t-amyl methyl ether (TAME)	ug/L	0Y		
Styrene	ug/L	0.458U	0.458	
n-Propylbenzene	ug/L	0Y		
4-Isopropyltoluene	ug/L	0Y		
Isopropylbenzene (Cumene)	ug/L	0.209U	0.209	
2-Chlorotoluene	ug/L	0Y		
1,2-Dibromo-3-chloropropane	ug/L	0.933U	0.933	
1,2,3-Trichloropropane	ug/L	0Y		
tert-Butylbenzene	ug/L	0Y		
4-Bromofluorobenzene (S)	%	93	64-130	
Dibromofluoromethane (S)	%	111	69-134	
Toluene d8 (S)	%	97	63-127	

LABORATORY CONTROL SAMPLE: 17703

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Volatiles						
Acrolein	ug/L	100	63.2	63	2-93	
Dichlorodifluoromethane	ug/L	20	23.0	115	46-174	
Chloromethane	ug/L	20	22.2	111	46-173	

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE: 17703

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Vinyl chloride	ug/L	20	23.6	118	60-162	
Bromomethane	ug/L	20	18.0	90	33-170	
Chloroethane	ug/L	20	28.1	141	50-163	
Trichlorofluoromethane	ug/L	20	23.7	118	52-173	
1,1-Dichloroethene	ug/L	20	21.7	109	54-157	
Acetone	ug/L	50	57.6	115	70-130	
Methylene chloride	ug/L	20	23.0	115	42-182	
trans-1,2-Dichloroethene	ug/L	20	23.0	115	49-164	
Acrylonitrile	ug/L	100	111	111	3-107	5,J
1,1-Dichloroethane	ug/L	20	22.1	111	60-167	
cis-1,2-Dichloroethene	ug/L	20	20.8	104	51-157	
2-Butanone	ug/L	50	48.4	97	49-145	
Chloroform	ug/L	20	20.5	102	60-164	
1,1,1-Trichloroethane	ug/L	20	20.2	101	45-154	
Carbon tetrachloride	ug/L	20	21.0	105	45-154	
Benzene	ug/L	20	20.0	100	59-158	
1,2-Dichloroethane	ug/L	20	22.1	110	45-166	
Trichloroethene	ug/L	20	20.3	101	59-152	
1,2-Dichloropropane	ug/L	20	21.0	105	65-155	
2-Chloroethylvinyl ether	ug/L	20	19.8	99	2-176	
Bromodichloromethane	ug/L	20	20.3	101	64-146	
cis-1,3-Dichloropropene	ug/L	20	20.9	105	53-146	
4-Methyl-2-pentanone	ug/L	50	50.4	101	70-130	
Toluene	ug/L	20	21.4	107	62-149	
trans-1,3-Dichloropropene	ug/L	20	20.0	100	51-150	
1,1,2-Trichloroethane	ug/L	20	22.7	113	62-159	
Tetrachloroethene	ug/L	20	19.1	96	50-150	
Dibromochloromethane	ug/L	20	20.2	101	51-139	
Chlorobenzene	ug/L	20	20.4	102	64-144	
1,1,1,2-Tetrachloroethane	ug/L	20	20.8	104	70-130	
Ethylbenzene	ug/L	20	21.3	106	59-149	
Bromoform	ug/L	20	15.3	76	16-166	
1,1,2,2-Tetrachloroethane	ug/L	20	18.7	94	52-177	
1,4-Dichlorobenzene	ug/L	20	18.6	93	60-142	
n-Butylbenzene	ug/L	20	19.4	97		
1,2-Dichlorobenzene	ug/L	20	18.8	94	63-139	
Naphthalene	ug/L	20	19.1	96		
Methyl-t-butyl ether	ug/L	20	20.9	105	48-172	
Xylene, m,p-	ug/L	40	43.2	108	57-153	
Xylene, o-	ug/L	20	20.3	101	69-144	
1,2,4-Trimethylbenzene	ug/L	20	20.3	102	70-130	
1,3,5-Trimethylbenzene	ug/L	20	21.1	105	70-130	
1,3-Dichloropropane	ug/L	20	20.3	101		
cis-1,4-Dichloro-2-Butene	ug/L	20	14.2	71		
1,1-Dichloropropene	ug/L	20	20.9	105		
2-Hexanone	ug/L	50	49.7	99		
2,2-Dichloropropane	ug/L	20	19.4	97		
Ethyl tert-butyl ether (ETBE)	ug/L	20	22.5	112		

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE: 17703

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
n-Butyl alcohol	ug/L	50	42.5	85	70-130	
Methyl iodide	ug/L	20	11.8	59		
Dibromomethane	ug/L	20	20.5	103		
Bromochloromethane	ug/L	20	20.4	102		
Carbon disulfide	ug/L	20	24.2	121		
t-Butanol (TBA)	ug/L	500	501	100		
Trichlorotrifluoroethane	ug/L	20	20.7	104		
1,2,3-Trichlorobenzene	ug/L	20	19.1	96		
sec-Butylbenzene	ug/L	20	19.6	98		
1,4 Dioxane	ug/L	500	465	93		
1,2,4-Trichlorobenzene	ug/L	20	16.7	84		
trans-1,4-Dichloro-2-butene	ug/L	20	15.8	79		
Bromobenzene	ug/L	20	18.4	92		
diisopropyl Ether (DIPE)	ug/L	20	21.7	109		
Vinyl acetate	ug/L	20	19.5	98		
1,2-Dibromoethane	ug/L	20	20.1	100		
4-Chlorotoluene	ug/L	20	19.6	98		
t-amyl methyl ether (TAME)	ug/L	20	20.2	101		
Styrene	ug/L	20	17.9	89	70-130	
n-Propylbenzene	ug/L	20	19.6	98		
4-Isopropyltoluene	ug/L	20	17.9	90		
Isopropylbenzene (Cumene)	ug/L	20	18.6	93	70-130	
2-Chlorotoluene	ug/L	20	19.5	97		
1,2-Dibromo-3-chloropropane	ug/L	20	16.9	84	70-130	
1,2,3-Trichloropropane	ug/L	20	18.1	90		
tert-Butylbenzene	ug/L	20	20.3	102		
4-Bromofluorobenzene (S)	%			95	64-130	
Dibromofluoromethane (S)	%			105	69-134	
Toluene d8 (S)	%			103	63-127	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17704 17705 Original: 901850001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Volatiles											
Acrolein	ug/L	0	100	54.2	55.4	54	55	2-93	2	20	
Dichlorodifluoromethane	ug/L	0	20	18.6	18.6	93	93	46-174	0	20	
Chloromethane	ug/L	0	20	21.8	23.2	109	116	46-173	6	20	
Vinyl chloride	ug/L	0	20	21.3	21.1	106	106	60-162	0	20	
Bromomethane	ug/L	0	20	21.0	26.6	105	133	33-170	24	20	J,7
Chloroethane	ug/L	0	20	25.5	25.5	127	127	50-163	0	20	
Trichlorofluoromethane	ug/L	0	20	21.5	20.4	108	102	52-173	6	20	
1,1-Dichloroethene	ug/L	0	20	17.5	17.8	87	89	54-157	2	20	

CERTIFICATE OF ANALYSIS

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17704 17705 Original: 901850001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Acetone	ug/L	15.6	50	59.3	56.7	87	82	24-225	6	20	
Methylene chloride	ug/L	0	20	22.5	20.4	112	102	42-182	9	20	
trans-1,2-Dichloroethene	ug/L	0	20	18.8	19.4	94	97	49-164	3	20	
Acrylonitrile	ug/L	0	100	104	104	104	104	3-107	0	20	
1,1-Dichloroethane	ug/L	0	20	19.4	19.1	97	95	60-167	2	20	
cis-1,2-Dichloroethene	ug/L	0	20	17.9	17.8	89	89	51-157	0	20	
2-Butanone	ug/L	0	50	41.3	40.4	83	81	49-145	2		
Chloroform	ug/L	2.93	20	21.1	20.8	91	89	60-164	2	20	
1,1,1-Trichloroethane	ug/L	0	20	16.6	16.5	83	83	45-154	0	20	
Carbon tetrachloride	ug/L	0	20	16.9	16.6	85	83	45-154	2	20	
Benzene	ug/L	0	20	16.9	17.0	85	85	59-158	0	20	
1,2-Dichloroethane	ug/L	0	20	20.0	19.3	100	97	45-166	3	20	
Trichloroethene	ug/L	0	20	16.4	16.8	82	84	59-152	2	20	
1,2-Dichloropropane	ug/L	0	20	18.7	18.2	93	91	65-155	2	20	
2-Chloroethylvinyl ether	ug/L	0	20	2.82I	2.85I	14	14	2-176	0	20	
Bromodichloromethane	ug/L	0.66	20	19.4	18.7	94	90	64-146	4	20	
cis-1,3-Dichloropropene	ug/L	0	20	16.1	16.1	81	80	53-146	1	20	
4-Methyl-2-pentanone	ug/L	0	50	38.8	39.9	78	80	48-140	3	20	
Toluene	ug/L	0.44	20	17.9	18.2	87	89	62-149	2	20	
trans-1,3-Dichloropropene	ug/L	0	20	17.2	17.0	86	85	51-150	1	20	
1,1,2-Trichloroethane	ug/L	0	20	20.3	19.5	102	98	62-159	4	20	
Tetrachloroethene	ug/L	0.24	20	15.2	15.0	76	75	50-150	1	20	
Dibromochloromethane	ug/L	0.16	20	19.7	18.9	98	94	51-139	4	20	
Chlorobenzene	ug/L	0	20	17.5	17.9	87	89	64-144	2	20	
1,1,1,2-Tetrachloroethane	ug/L	0	20	18.3	18.7	92	93	70-130	1	20	
Ethylbenzene	ug/L	0	20	17.4	17.7	87	89	59-149	2	20	
Bromoform	ug/L	0	20	16.6	16.4	83	82	16-166	1	20	
1,1,2,2-Tetrachloroethane	ug/L	0	20	16.3	16.6	81	83	52-177	2	20	
1,4-Dichlorobenzene	ug/L	0.72	20	16.5	16.6	79	80	60-142	1	20	
n-Butylbenzene	ug/L	0	20	14.9	15.8	74	79		7		
1,2-Dichlorobenzene	ug/L	0	20	16.1	16.4	80	82	63-139	2	20	
Naphthalene	ug/L	0	20	14.4	16.1	72	80		11	20	
Methyl-t-butyl ether	ug/L	0	20	18.4	18.5	92	93	48-172	1	20	
Xylene, m,p-	ug/L	0	40	34.9	35.8	87	89	57-153	2	20	
Xylene, o-	ug/L	0	20	16.7	16.8	84	84	69-144	0	20	
1,2,4-Trimethylbenzene	ug/L	0	20	16.0	16.9	80	84	70-130	5	20	
1,3,5-Trimethylbenzene	ug/L	0	20	16.2	17.0	81	85	70-130	5	20	
1,3-Dichloropropane	ug/L	0	20	18.0	18.0	90	90		0		
cis-1,4-Dichloro-2-Butene	ug/L	0	20	12.8	12.9	64	65		2		
1,1-Dichloropropene	ug/L	0	20	16.1	16.1	81	80		1	20	
2-Hexanone	ug/L	0	50	38.3	39.7	77	79		3		
2,2-Dichloropropane	ug/L	0	20	14.4	14.2	72	71		1		
Ethyl tert-butyl ether (ETBE)	ug/L	0	20	19.3	19.4	96	97		1		
n-Butyl alcohol	ug/L	0	50	34.4	31.7	69	63	70-130	9	20	
Methyl iodide	ug/L	0	20	8.85	8.32	44	42		5		
Dibromomethane	ug/L	0	20	18.8	18.0	94	90		4		
Bromochloromethane	ug/L	0	20	17.9	17.8	90	89		1		
Carbon disulfide	ug/L	0	20	18.5	18.3	93	92		1		

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17704 17705 Original: 901850001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
t-Butanol (TBA)	ug/L	2.71	500	421	417	84	83		1		
Trichlorotrifluoroethane	ug/L	0	20	16.1	15.9	80	80		0		
1,2,3-Trichlorobenzene	ug/L	0	20	15.0	15.9	75	80		6		
sec-Butylbenzene	ug/L	0	20	14.1	14.7	70	74		6		
1,4 Dioxane	ug/L	0	500	371	382	74	76		3		
1,2,4-Trichlorobenzene	ug/L	0	20	13.5	14.1	68	70		3		
trans-1,4-Dichloro-2-butene	ug/L	0	20	14.5	14.8	72	74		3		
Bromobenzene	ug/L	0	20	16.0	16.5	80	82		2		
diisopropyl Ether (DIPE)	ug/L	0	20	18.3	18.3	91	92		1		
Vinyl acetate	ug/L	0	20	17.3	17.1	86	86		0		
1,2-Dibromoethane	ug/L	0	20	17.7	17.8	89	89		0		
4-Chlorotoluene	ug/L	0	20	16.2	16.5	81	83		2		
t-amyl methyl ether (TAME)	ug/L	0	20	17.3	17.4	87	87		0		
Styrene	ug/L	0	20	13.2	13.0	66	65	70-130	2	20	6,J
n-Propylbenzene	ug/L	0	20	15.4	16.0	77	80		4		
4-Isopropyltoluene	ug/L	0	20	12.8	13.7	64	68		6		
Isopropylbenzene (Cumene)	ug/L	0	20	14.0	14.8	70	74	70-130	6	20	
2-Chlorotoluene	ug/L	0	20	16.1	16.6	81	83		2		
1,2-Dibromo-3-chloropropane	ug/L	0	20	14.5	15.5	72	78	70-130	8	20	
1,2,3-Trichloropropane	ug/L	0	20	16.2	16.3	81	82		1		
tert-Butylbenzene	ug/L	0	20	15.8	16.2	79	81		3		
4-Bromofluorobenzene (S)	%	95				93	98	64-130	5	20	
Dibromofluoromethane (S)	%	114				107	105	69-134	2	20	
Toluene d8 (S)	%	99				100	101	63-127	1	20	

MATRIX SPIKE SAMPLE: 18015 Original: 901840001

Parameter	Units	Original Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Volatiles							
Acrolein	ug/L	0	100	45.9	46	2-93	
Dichlorodifluoromethane	ug/L	0	20	20.6	103	46-174	
Chloromethane	ug/L	0	20	26.0	130	46-173	
Vinyl chloride	ug/L	0	20	22.7	113	60-162	
Bromomethane	ug/L	0	20	19.6	98	33-170	
Chloroethane	ug/L	0	20	25.0	125	50-163	
Trichlorofluoromethane	ug/L	0	20	22.6	113	52-173	
1,1-Dichloroethene	ug/L	0	20	17.8	89	54-157	
Acetone	ug/L	5.93	50	58.4	105	24-225	
Methylene chloride	ug/L	0	20	21.8	109	42-182	
trans-1,2-Dichloroethene	ug/L	0	20	20.0	100	49-164	
Acrylonitrile	ug/L	0	100	113	113	3-107	6,J
1,1-Dichloroethane	ug/L	0	20	20.1	100	60-167	
cis-1,2-Dichloroethene	ug/L	0	20	19.2	96	51-157	
2-Butanone	ug/L	0	50	46.8	94	49-145	

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QUALITY CONTROL DATA

MATRIX SPIKE SAMPLE: 18015 Original: 901840001

Parameter	Units	Original Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloroform	ug/L	18	20	34.4	82	60-164	
1,1,1-Trichloroethane	ug/L	0	20	17.5	87	45-154	
Carbon tetrachloride	ug/L	0	20	17.6	88	45-154	
Benzene	ug/L	0	20	17.9	89	59-158	
1,2-Dichloroethane	ug/L	0	20	20.7	103	45-166	
Trichloroethene	ug/L	0	20	17.5	88	59-152	
1,2-Dichloropropane	ug/L	0	20	19.7	98	65-155	
2-Chloroethylvinyl ether	ug/L	0	20	2.84	14	2-176	
Bromodichloromethane	ug/L	5.59	20	24.5	95	64-146	
cis-1,3-Dichloropropene	ug/L	0	20	17.3	86	53-146	
4-Methyl-2-pentanone	ug/L	0	50	44.8	90	48-140	
Toluene	ug/L	0.15	20	19.1	95	62-149	
trans-1,3-Dichloropropene	ug/L	0	20	18.3	91	51-150	
1,1,2-Trichloroethane	ug/L	0	20	21.3	107	62-159	
Tetrachloroethene	ug/L	0.33	20	16.1	79	50-150	
Dibromochloromethane	ug/L	1.58	20	22.1	102	51-139	
Chlorobenzene	ug/L	0	20	18.9	94	64-144	
1,1,1,2-Tetrachloroethane	ug/L	0	20	19.6	98	70-130	
Ethylbenzene	ug/L	0	20	18.9	95	59-149	
Bromoform	ug/L	0	20	17.2	86	16-166	
1,1,2,2-Tetrachloroethane	ug/L	0	20	18.5	92	52-177	
1,4-Dichlorobenzene	ug/L	1.36	20	18.2	84	60-142	
n-Butylbenzene	ug/L	0	20	16.4	82		
1,2-Dichlorobenzene	ug/L	0	20	17.7	88	63-139	
Naphthalene	ug/L	0	20	18.2	91		
Methyl-t-butyl ether	ug/L	0	20	19.9	99	48-172	
Xylene, m,p-	ug/L	0	40	38.0	95	57-153	
Xylene, o-	ug/L	0	20	18.2	91	69-144	
1,2,4-Trimethylbenzene	ug/L	0	20	17.3	86	70-130	
1,3,5-Trimethylbenzene	ug/L	0	20	8.30	42	70-130	6,J
1,3-Dichloropropane	ug/L	0	20	19.5	97		
cis-1,4-Dichloro-2-Butene	ug/L	0	20	14.1	70		
1,1-Dichloropropene	ug/L	0	20	17.3	86		
2-Hexanone	ug/L	0	50	45.4	91		
2,2-Dichloropropane	ug/L	0	20	15.4	77		
Ethyl tert-butyl ether (ETBE)	ug/L	0	20	20.9	105		
n-Butyl alcohol	ug/L	0	50	37.4	75	70-130	
Methyl iodide	ug/L	0	20	2.30	12		
Dibromomethane	ug/L	0	20	19.7	99		
Bromochloromethane	ug/L	0	20	18.8	94		
Carbon disulfide	ug/L	0	20	19.4	97		
t-Butanol (TBA)	ug/L	2.26	500	510	102		
Trichlorotrifluoroethane	ug/L	0	20	16.3	82		
1,2,3-Trichlorobenzene	ug/L	0	20	17.5	88		
sec-Butylbenzene	ug/L	0	20	16.0	80		
1,4 Dioxane	ug/L	0	500	454	91		
1,2,4-Trichlorobenzene	ug/L	0	20	15.2	76		
trans-1,4-Dichloro-2-butene	ug/L	0	20	15.6	78		

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QUALITY CONTROL DATA

MATRIX SPIKE SAMPLE: 18015 *Original: 901840001*

Parameter	Units	Original Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromobenzene	ug/L	0	20	17.4	87		
diisopropyl Ether (DIPE)	ug/L	0	20	20.1	101		
Vinyl acetate	ug/L	0	20	5.19	26		
1,2-Dibromoethane	ug/L	0	20	19.0	95		
4-Chlorotoluene	ug/L	0	20	17.6	88		
t-amyl methyl ether (TAME)	ug/L	0	20	19.0	95		
Styrene	ug/L	0	20	0.458U	0	70-130	6,J
n-Propylbenzene	ug/L	0	20	16.8	84		
4-Isopropyltoluene	ug/L	0	20	14.8	74		
Isopropylbenzene (Cumene)	ug/L	0	20	15.5	78	70-130	
2-Chlorotoluene	ug/L	0	20	16.6	83		
1,2-Dibromo-3-chloropropane	ug/L	0	20	17.1	85	70-130	
1,2,3-Trichloropropane	ug/L	0	20	18.0	90		
tert-Butylbenzene	ug/L	0	20	17.6	88		
4-Bromofluorobenzene (S)	%	95			96	64-130	
Dibromofluoromethane (S)	%	117			105	69-134	
Toluene d8 (S)	%	100			100	63-127	

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QUALITY CONTROL DATA

QC Batch: LACH/1770 Analysis Method: EPA 350.1

QC Batch Method: EPA 350.1

Associated Lab Samples: 901811001 901811002 901821001 901821002 901823001 901840001 901841005 901841006 901842001

METHOD BLANK: 17706

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Ammonia	mg/L-N	0.0234I	0.017	

LABORATORY CONTROL SAMPLE & LCSD: 17707 17708

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Ammonia	mg/L-N	2.5	2.70	2.70	108	108	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17709 17710 Original: 901810001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Ammonia	mg/L-N			2.13	2.14				1	20	

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QUALITY CONTROL DATA

QC Batch: INPR/1468 Analysis Method: SM 5540 C

QC Batch Method: SM 5540 C

Associated Lab Samples: 901780001 901835001 901838001 901840001 901842001 901852001 901852002 901872001 901873001

METHOD BLANK: 17734

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Surfactants	mg/L-LA	0.040U	0.040	

LABORATORY CONTROL SAMPLE & LCSD: 17735 17736

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Surfactants	mg/L-LA	1	0.997	0.979	100	98	80-120	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17737 17738 Original: 901844002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Surfactants	mg/L-LA	0.271	1	1.28	1.27	101	100	80-120	1	20	

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QUALITY CONTROL DATA

QC Batch: EXTO/1758 Analysis Method: EPA 608

QC Batch Method: EPA 608

Associated Lab Samples: 901839001 901840001 901842001 901843002 901850001 901850002 901850003 901852001 901852002 901853002 901910001 901910002

METHOD BLANK: 17796

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Pesticides				
Aldrin	ug/L	0.00139U	0.00139	
Dieldrin	ug/L	0.00106U	0.00106	
Tetrachloro-m-xylene (S)	%	49	32-137	
Decachlorobiphenyl (S)	%	74	25-165	

LABORATORY CONTROL SAMPLE: 17797

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Pesticides						
Aldrin	ug/L	0.1	0.058	58	43-149	
Dieldrin	ug/L	0.1	0.079	79	47-162	
Tetrachloro-m-xylene (S)	%			56	32-137	
Decachlorobiphenyl (S)	%			91	25-165	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17798 17799 Original: 901874005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Pesticides											
Aldrin	ug/L	0	0.1	0.060	0.058	60	58	43-149	3	35	
Dieldrin	ug/L	0	0.1	0.077	0.071	77	71	47-162	8	33	
Tetrachloro-m-xylene (S)	%					50	50	32-137	0		
Decachlorobiphenyl (S)	%					79	79	25-165	0		

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QUALITY CONTROL DATA

QC Batch: IC/1189 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Associated Lab Samples: 901784001, 901821001, 901821002, 901823001, 901831002, 901835001, 901838001, 901840001, 901841001, 901841004, 901841005, 901841006, 901842001, 901852001, 901852002, 901854009, 901855003, 901872001, 901873001

METHOD BLANK: 17825

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Nitrate	mg/L-N	0.007U	0.007	
Nitrite	mg/L-N	0.005U	0.005	
Fluoride	mg/L	0.030U	0.030	
Sulfate	mg/L	0.076U	0.076	

LABORATORY CONTROL SAMPLE & LCSD: 17826 17827

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Nitrate	mg/L-N	2.5	2.58	2.61	103	104	90-110	1	20	
Nitrite	mg/L-N	2.5	2.44	2.46	97	98	90-110	1	20	
Fluoride	mg/L	2.5	2.54	2.59	102	104	90-110	1.9	20	
Sulfate	mg/L	7.5	7.64	7.69	102	103	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17828 17829 Original: 901841001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Nitrate	mg/L-N	0	25	26.7	26.0	107	104	90-110	3	20	
Nitrite	mg/L-N	0	25	25.7	23.9	103	96	90-110	7	20	
Fluoride	mg/L			35.8	35.3						
Sulfate	mg/L			126	120						

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QUALITY CONTROL DATA

QC Batch: MSV/1452 Analysis Method: EPA 524.2

QC Batch Method: EPA 524.2

Associated Lab Samples: 901834001 901835002 901835003 901838001 901838002 901840001 901840002 901842001 901852001 901852002 901872001 901872002 901873001 901873002

METHOD BLANK: 17837

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Volatiles				
Vinyl chloride	ug/L	0.120U	0.120	
1,1-Dichloroethene	ug/L	0.086U	0.086	
Methylene chloride	ug/L	0.117U	0.117	
trans-1,2-Dichloroethene	ug/L	0.087U	0.087	
cis-1,2-Dichloroethene	ug/L	0.085U	0.085	
Chloroform	ug/L	0.077U	0.077	
1,2-Dichloroethane	ug/L	0.070U	0.070	
1,1,1-Trichloroethane	ug/L	0.132U	0.132	
Benzene	ug/L	0.077U	0.077	
Carbon tetrachloride	ug/L	0.134U	0.134	
1,2-Dichloropropane	ug/L	0.093U	0.093	
Trichloroethene	ug/L	0.121U	0.121	
Bromodichloromethane	ug/L	0.091U	0.091	
Toluene	ug/L	0.140U	0.140	
Dibromochloromethane	ug/L	0.15U	0.15	
Tetrachloroethene	ug/L	0.148U	0.148	
Chlorobenzene	ug/L	0.113U	0.113	
Ethylbenzene	ug/L	0.070U	0.070	
Xylene, m,p-	ug/L	0.134U	0.134	
Bromoform	ug/L	0.15U	0.15	
Styrene	ug/L	0.040U	0.040	
Xylene, o-	ug/L	0.083U	0.083	
1,4-Dichlorobenzene	ug/L	0.150U	0.150	
1,2-Dichlorobenzene	ug/L	0.076U	0.076	
1,2,4-Trichlorobenzene	ug/L	0.117U	0.117	
1,1-Dichloroethane	ug/L	0.075U	0.075	
4-Bromofluorobenzene (S)	%	88	70-130	
1,2-Dichlorobenzene-d4 (S)	%	93	70-130	
Xylenes (total)	ug/L	0.210U	0.210	

LABORATORY CONTROL SAMPLE: 17838

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Volatiles						
Vinyl chloride	ug/L	5	5.32	106	70-130	
1,1-Dichloroethene	ug/L	5	4.50	90	70-130	
Methylene chloride	ug/L	5	3.82	76	70-130	

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE: 17838

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
trans-1,2-Dichloroethene	ug/L	5	4.47	89	70-130	
cis-1,2-Dichloroethene	ug/L	5	4.14	83	70-130	
Chloroform	ug/L	5	4.35	87	70-130	
1,2-Dichloroethane	ug/L	5	4.32	86	70-130	
1,1,1-Trichloroethane	ug/L	5	4.31	86	70-130	
Benzene	ug/L	5	4.18	84	70-130	
Carbon tetrachloride	ug/L	5	4.38	88	70-130	
1,2-Dichloropropane	ug/L	5	4.32	86	70-130	
Trichloroethene	ug/L	5	4.52	90	70-130	
Bromodichloromethane	ug/L	5	4.08	81.6	70-130	
Toluene	ug/L	5	4.45	89	70-130	
Dibromochloromethane	ug/L	5	4.62	92.4	70-130	
Tetrachloroethene	ug/L	5	4.66	93	70-130	
Chlorobenzene	ug/L	5	4.76	95	70-130	
Ethylbenzene	ug/L	5	4.51	90	70-130	
Xylene, m,p-	ug/L	10	9.01	90	70-130	
Bromoform	ug/L	5	4.06	81.2	70-130	
Styrene	ug/L	5	4.23	85	70-130	
Xylene, o-	ug/L	5	4.35	87	70-130	
1,4-Dichlorobenzene	ug/L	5	4.71	94	70-130	
1,2-Dichlorobenzene	ug/L	5	4.62	92	70-130	
1,2,4-Trichlorobenzene	ug/L	5	4.29	86	70-130	
1,1-Dichloroethane	ug/L	5	4.46	89	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
1,2-Dichlorobenzene-d4 (S)	%			99	70-130	
Xylenes (total)	ug/L		13.4			

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QUALITY CONTROL DATA

QC Batch: MICP/1259 Analysis Method: SM 5210B BOD

QC Batch Method: BOD PREP

Associated Lab Samples: 901835002 901840001 901842001 901852001 901852002 901853003 901872001 901873001

METHOD BLANK: 17849

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
BOD	mg/L	2.0U	2.0	

LABORATORY CONTROL SAMPLE: 17851

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Wet Chemistry						
BOD	mg/L	198	107	54	85-115	J

SAMPLE DUPLICATE: 17852 Original: 901842001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
BOD	mg/L	5.63	5.68	0.9	20	

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QUALITY CONTROL DATA

QC Batch: SOLI/1497 Analysis Method: SM 2540 C

QC Batch Method: SM 2540 C

Associated Lab Samples: 901780001, 901828002, 901828004, 901835001, 901840001, 901842001, 901852001, 901852002, 901872001, 901873001, 901880001, 901894001, 901894002, 901922001, 901922002, 901922003, 901922004, 901922005, 901922006

METHOD BLANK: 17860

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Dissolved Solids(TDS)	mg/L	7.00U	7.00	

SAMPLE DUPLICATE: 17861 Original: 901828002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Total Dissolved Solids(TDS)	mg/L	101	96.0	5.1	20	

SAMPLE DUPLICATE: 17862 Original: 901922006

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Total Dissolved Solids(TDS)	mg/L	772	744	3.7	20	

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QUALITY CONTROL DATA

QC Batch: INPR/1470 Analysis Method: EPA 335.4 Cyanide

QC Batch Method: EPA 335.2

Associated Lab Samples: 901742001 901742002 901780001 901825001 901835001 901839001
901840001 901842001 901843002 901850001 901850002 901850003
901852001 901852002 901853002 901907001 901907002 901907003
901910001

METHOD BLANK: 17913

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Cyanide	mg/L	0.0040U	0.0040	

LABORATORY CONTROL SAMPLE & LCSD: 17914 17915

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Total Cyanide	mg/L	0.2	0.2132	0.2143	107	107	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17916 17917 Original: 901742001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Total Cyanide	mg/L	0	0.2	0.1988	0.2040	99	102	90-110	3	20	

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QUALITY CONTROL DATA

QC Batch: DIGM/1613 Analysis Method: EPA 245.1

QC Batch Method: EPA 245.1

Associated Lab Samples: 901835001 901838001 901840001 901842001 901852001 901852002
901872001 901873001 901901001 901910001 901919001

METHOD BLANK: 17974

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Mercury	mg/L	0.000056U	0.000056	

LABORATORY CONTROL SAMPLE: 17975

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.002	0.00175	88	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17976 17977 Original: 901838001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Mercury	mg/L	3.3e-005	0.002	0.00200	0.00192	100	96	80-120	4	20	Q

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QUALITY CONTROL DATA

QC Batch: INPR/1473 Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Associated Lab Samples: 901780001, 901840001, 901841002, 901841004, 901842001, 901852001, 901852002, 901853003, 901854003, 901854005, 901854006, 901854007, 901855003, 901857001, 901896001, 901896002, 901896003, 901896004, 901896005, 901896006

METHOD BLANK: 17990

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Phosphorus	mg/L	0.004U	0.004	

LABORATORY CONTROL SAMPLE & LCSD: 17991 17992

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Total Phosphorus	mg/L	0.5	0.512	0.521	102	104	90-110	1.9	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17995 17996 Original: 901896005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Total Phosphorus	mg/L	0.027	0.5	0.478	0.478	90.2	90.4	90-110	0.22	20	

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QUALITY CONTROL DATA

QC Batch: IC/1193 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Associated Lab Samples: 901778002, 901821001, 901833017, 901835001, 901838001, 901840001, 901841005, 901842001, 901852001, 901852002, 901872001, 901896001, 901896002, 901896004, 901896006, 901907003

METHOD BLANK: 18051

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Chloride	mg/L	0.066U	0.066	

LABORATORY CONTROL SAMPLE & LCSD: 18052 18053

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Chloride	mg/L	5	5.10	5.19	102	104	90-110	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 18054 18055 Original: 901833017

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Chloride	mg/L			203	207						

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QUALITY CONTROL DATA

QC Batch: PH/1052 Analysis Method: SM4500H-B

QC Batch Method: SM4500H-B

Associated Lab Samples: 901835001, 901838001, 901840001, 901842001, 901852001, 901852002, 901854001, 901854004, 901854005, 901854009, 901894001, 901894002, 901896001, 901896002, 901896003, 901896004, 901896005, 901896006, 901909001

SAMPLE DUPLICATE: 18165 Original: 901896001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
pH	pH unit	7.24	7.29	0.7	20	

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QUALITY CONTROL DATA

QC Batch: INPR/1484 Analysis Method: EPA 351.2

QC Batch Method: EPA 351.2

Associated Lab Samples: 901780001, 901811002, 901821001, 901821002, 901823001, 901840001, 901841004, 901841005, 901841006, 901842001, 901852001, 901852002, 901853003, 901854003, 901854006, 901854008, 901855003, 901857001, 901880001

METHOD BLANK: 18613

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Kjeldahl Nitrogen	mg/L-N	0.266I	0.22	

LABORATORY CONTROL SAMPLE & LCSD: 18614 18615

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Total Kjeldahl Nitrogen	mg/L-N	5	4.56	5.22	91.1	104	90-110	13.2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 18616 18617 Original: 901811002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Total Kjeldahl Nitrogen	mg/L-N	6.44	5	9.74	11.0	66.1	92.1	90-110	32.9	20	

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QUALITY CONTROL DATA QUALIFIERS

QUALITY CONTROL PARAMETER QUALIFIERS

J	Estimated value.
Q	Holding time exceeded.
V	Present in blank.
[5]	NCR-LCS and/or LCSD recoveries above acceptable limits. The reported target analyte is below detection limits establishing that there is no high biased result reported
[6]	MS and/or MSD recoveries outside control limits. However, LCS and/or LCSD within limits. Data reported.
[7]	NCR-% RPD exceeds control limits

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QUALITY CONTROL CROSS REFERENCE TABLE

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
901840001	REUSE EFFLUENT	EPA 625	EXTO/1744	EPA 625	MSSV/1248
901840001	REUSE EFFLUENT	EPA 625	EXTO/1744	Semi-volatile Mass Spec Scan	MSSV/1248
901840001	REUSE EFFLUENT	EPA 504.1	EXTO/1746	EPA 504.1	GCSV/1399
901840002	TRIP BLANK	EPA 504	EXTO/1746	EPA 504	GCSV/1399
901840001	REUSE EFFLUENT	SM 2150 B	MISC/1114		
901840001	REUSE EFFLUENT	EPA 365.1	LACH/1768		
901840001	REUSE EFFLUENT	SM 2120B Color	HACH/1120		
901840001	REUSE EFFLUENT	EPA 200.7	DIGM/1602	EPA 200.7	ICP/1374
901840001	REUSE EFFLUENT	EPA 200.8	DIGM/1603	EPA 200.8	ICPM/1076
901840001	REUSE EFFLUENT	EPA 624	MSV/1447		
901840001	REUSE EFFLUENT	EPA 350.1	LACH/1770		
901840001	REUSE EFFLUENT	SM 5540 C	INPR/1468	SM 5540 C	HACH/1123
901840001	REUSE EFFLUENT	EPA 608	EXTO/1758	EPA 608	GCSV/1401
901840001	REUSE EFFLUENT	EPA 300.0	IC/1189		
901840001	REUSE EFFLUENT	EPA 524.2	MSV/1452		
901840002	TRIP BLANK	EPA 524.2	MSV/1452		
901840001	REUSE EFFLUENT	BOD PREP	MICP/1259	SM 5210B BOD	BOD/1220
901840001	REUSE EFFLUENT	SM 2540 C	SOLI/1497		

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QUALITY CONTROL CROSS REFERENCE TABLE

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
901840001	REUSE EFFLUENT	EPA 335.2	INPR/1470	EPA 335.4 Cyanide	LACH/1791
901840001	REUSE EFFLUENT	EPA 245.1	DIGM/1613	EPA 245.1	HG/1081
901840001	REUSE EFFLUENT	EPA 365.1	INPR/1473	EPA 365.1	LACH/1784
901840001	REUSE EFFLUENT	EPA 300.0	IC/1193		
901840001	REUSE EFFLUENT	SM4500H-B	PH/1052		
901840001	REUSE EFFLUENT	EPA 351.2	INPR/1484	EPA 351.2	LACH/1828
901840001	REUSE EFFLUENT	EPA 100.2	S_09/	EPA 100.2	S_09/
901840001	REUSE EFFLUENT	EPA 508.1	S_05/	EPA 508.1	S_05/
901840001	REUSE EFFLUENT	EPA 515.3	S_05/	EPA 515.3	S_05/
901840001	REUSE EFFLUENT	EPA 525.2	S_05/	EPA 525.2	S_05/
901840001	REUSE EFFLUENT	EPA 531.1	S_05/	EPA 531.1	S_05/
901840001	REUSE EFFLUENT	EPA 547	S_05/	EPA 547	S_05/
901840001	REUSE EFFLUENT	EPA 548.1	S_05/	EPA 548.1	S_05/
901840001	REUSE EFFLUENT	EPA 549.2	S_05/	EPA 549.2	S_05/

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CHAIN OF CUSTODY RECORD

Log# 901840 T#S___ Quote: 156403 Page ___ of 15

Company Name: Miami Dade (WASD) PO# 58591
Address: 8950 SW 232 ST
City: Miami State: FL Zip: 33170
Attn: Clive Powell Fax# 3052598500
email: CPOWE @ miamidade.gov
Project Name: Annual Sampling Proj#
Sampler Signature: [signature] Phone# 3052598508

LAB ANALYSIS — Parameters: Primary Drinking Water Standards; Secondary Drinking Standards; Municipal WW Minimum Criteria

#	Sample Label (Client ID)	Collect Date	Collect Time	Matrix Code	Field Filtered	Integrity OK (Y/N)	Total # of Containers	Lab Analysis (# of Containers Size/Type)	Remarks
e.	MW-1	6/16/04	11:35	GW	X		1	1 16oz P (EXAMPLE: DISS. 8RCRA 6010)	
1	Trip blank						8	(8)	
2	Reuse Effluent	2/19/09	24HC	WW			28	✓ ✓ ✓ (8)V (4)DL (5)Lp (4)8P (1)16oz P (1)2AG (1)16AG	CALL 3059393393
3									
4									
5									
6									
7									
8									
9									
0									

Container Type Codes: AV Amber Vial; CV Clear Vial; P Plastic; AL Amber Liter; CL Clear Liter; AP Amber Plastic; AG Amber Glass; SJ Soil Jar; ES Encore Sampler; PPV Preproserved vial; PLC Plastic container; PLJ Plastic Jar; Ziploc Ziploc bag; TEDLAR B Tedlar bag; WHIRL P Whirl pak; G Gallon Jug; Other
Size(s): 2oz, 4oz, 8oz, 16oz, 32oz or 1L, 40ml other
Example: 4ozP = 4oz Plastic, 8ozSJ = 8oz Soil Jar

Matrix Codes: SO Solid Waste; SO Soil; SE Sediment; OL Oil; PE Petroleum; NA Nonaqueous; ML Misc. Liquid; GW Ground Water; EFF Effluent; INF Influent; WW Waste Water; AFW Analyte Free Water; DW Drinking Water; SU Surface Water; AQ Aqueous; SW Source Water; A Air; O Other (Please Specify)

Pres Codes: A. None; B. HNO3; C. H2SO4; D. NaOH; E. HCL; F. MeOH; G. Na2S2O3; H. NaHSO4; I. Ice; J. MCAA; K. Zn Acetate; O. Other

Short Hold	QA/QC Report Level	COC OK	Initials	Required State Certification	Coolers
(Y) N	None 1 2 3 Other	(Y) N	[initials]		

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
	[signature]	Gras	2/13/09	11:00				
	Clive Powell	MDWASD	2/19/09	12:30	[signature]	Gras	2/19/09	12:30
	[signature]	Gras	2/19/09	15:25	[signature]	GAS	2/19/09	15:25

Lab Use Only (Yes / No / NA):
Sample INTACT upon arrival?
Received on Wet Ice? Temp ___
Proper Preservatives Indicated?
Received within holding time?
Custody seals intact?
Volatile rec'd without headspace?
Proper Containers Used?

ORIGINAL

199122

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March 20, 2009

CLIVE POWELL
MIAMI DADE WATER & SEWER
SOUTH DISTRICT LABORATORY
8950 SW 232 ST.
Miami, FL 33170

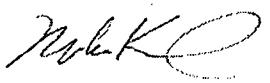
RE:
Workorder: 901842
Project: ANNUAL SAMPLING

Dear CLIVE POWELL:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, February 19, 2009. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mike Kimmel
mkimmel@genapure.com

FL-NELAC E86240

Statement of uncertainty is available upon request.
Enclosures

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SAMPLE SUMMARY

Lab ID	Sample ID	Collector	Matrix	Date Collected	Date Received
901842001	COMBINED EFFLUENT	CL	Wastewater	2/19/2009	2/19/2009

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ANALYTICAL RESULTS

Lab ID: **901842001** Date Received: 2/19/2009 Matrix: Wastewater

Sample ID: **COMBINED EFFLUENT** Date Collected: 2/19/2009

Parameters	Results	Qual	Units	PQL	MDL	DF	Prepared	Analyzed	By
Wet Chemistry									
Analytical Method: SM 2540 C									
Total Dissolved Solids(TDS)	439		mg/L	35	7.00	1		2/23/2009 1:10:00 PM	ARHO
Preparation Method: EPA 351.2	Analytical Method: EPA 351.2								
Total Kjeldahl Nitrogen	28.5	V	mg/L-N	11	2.2	10	3/2/2009 6:00:00 PM	3/3/2009 11:50:00 AM	IGON
Preparation Method: EPA 335.2	Analytical Method: EPA 335.4 Cyanide								
Total Cyanide	0.0059I		mg/L	0.02	0.0040	1	2/24/2009 10:22:00 AM	2/24/2009 1:57:00 PM	IGON
Analytical Method: SM 2120B Color									
Color (True/Apparent)	40.0		pcu	25	5.0	1		2/20/2009 7:45:00 AM	ZESC
Analytical Method: EPA 350.1									
Ammonia	29.0	V	mg/L-N	0.435	0.087	5		2/20/2009 12:53:38 PM	IGON
Analytical Method: EPA 300.0									
Chloride	118		mg/L	6.65	1.33	20		2/23/2009 4:50:00 PM	ADES
Fluoride	0.300U		mg/L	1.5	0.300	10		2/20/2009 8:50:00 PM	ADES
Nitrate	0.074U		mg/L-N	0.37	0.074	10		2/20/2009 8:50:00 PM	ADES
Nitrite	0.053U		mg/L-N	0.265	0.053	10		2/20/2009 8:50:00 PM	ADES
Sulfate	37.0		mg/L	3.775	0.755	10		2/20/2009 8:50:00 PM	ADES
Preparation Method: BOD PREP	Analytical Method: SM 5210B BOD								
BOD	5.63	J	mg/L	10	2.0	1	2/20/2009 7:30:00 PM	2/25/2009 9:45:00 AM	LGAR
Analytical Method: EPA 1664A									
Oil and Grease	13.5		mg/L	7	1.4	1		2/23/2009 4:00:00 PM	JSUL
Analytical Method: SM 2150 B									
Odor	16.0		TON	5	1	1		2/20/2009 7:10:00 AM	ZESC
Preparation Method: SM 5540 C	Analytical Method: SM 5540 C								
Surfactants	0.114I		mg/L-LAS	0.2	0.040	1	2/20/2009 10:40:00 AM	2/20/2009 10:40:00 AM	ARHO
Analytical Method: EPA 365.1									

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ANALYTICAL RESULTS

Lab ID: **901842001** Date Received: 2/19/2009 Matrix: Wastewater

Sample ID: **COMBINED EFFLUENT** Date Collected: 2/19/2009

Parameters	Results	Qual	Units	PQL	MDL	DF	Prepared	Analyzed	By
Ortho Phosphate - P	2.38		mg/L-P	0.135	0.027	5		2/20/2009 1:36:56 PM	TAAL
Total Phosphorus	2.51		mg/L	0.11	0.022	5	2/24/2009 8:30:00 AM	2/24/2009 12:30:06 PM	ZESC
Analytical Method: SM4500H-B									
pH	7.26		pH unit	0.5	0.100	1		2/24/2009 12:55:00 PM	ADES
Analytical Method: EPA 120.1									
Specific Conductance	737		umhos/cm	10	2	1		2/25/2009 12:00:00 PM	ADES
EDB Analysis									
Preparation Method: EPA 504.1	Analytical Method: EPA 504.1								
1,2-Dibromo-3-chloropropane	0.00310U		ug/L	0.0155	0.00310	1	2/23/2009 5:00:00 PM	2/24/2009 12:22:00 AM	LREL
1,2-Dibromoethane	0.00640U		ug/L	0.032	0.00640	1	2/23/2009 5:00:00 PM	2/24/2009 12:22:00 AM	LREL
4-Bromofluorobenzene (S)	78		%		70-130	1	2/23/2009 5:00:00 PM	2/24/2009 12:22:00 AM	LREL
INORGANICS									
Preparation Method: EPA 245.1	Analytical Method: EPA 245.1								
Mercury	0.000056U		mg/L	0.00028	0.000056	1	2/23/2009 11:30:00 AM	2/23/2009 4:01:00 PM	ITUP
Preparation Method: EPA 200.7	Analytical Method: EPA 200.7								
Aluminum	0.046U		mg/L	0.23	0.046	1	2/20/2009 11:00:00 AM	2/23/2009 10:26:50 PM	TBUT
Chromium	0.00250I		mg/L	0.0055	0.0011	1	2/20/2009 11:00:00 AM	2/24/2009 2:34:52 PM	TBUT
Copper	0.0096U		mg/L	0.048	0.0096	1	2/20/2009 11:00:00 AM	2/24/2009 2:34:52 PM	TBUT
Iron	0.140		mg/L	0.225	0.045	1	2/20/2009 11:00:00 AM	2/23/2009 10:26:50 PM	TBUT
Nickel	0.0052U		mg/L	0.026	0.0052	1	2/20/2009 11:00:00 AM	2/23/2009 10:26:50 PM	TBUT
Silver	0.0016U		mg/L	0.008	0.0016	1	2/20/2009 11:00:00 AM	2/24/2009 2:34:52 PM	TBUT
Sodium	78.8		mg/L	0.37	0.074	1	2/20/2009 11:00:00 AM	2/24/2009 2:34:52 PM	TBUT
Zinc	0.0133I		mg/L	0.0265	0.0053	1	2/20/2009 11:00:00 AM	2/24/2009 2:34:52 PM	TBUT
Preparation Method: EPA 200.8	Analytical Method: EPA 200.8								
Antimony	0.0010U		mg/L	0.005	0.0010	1	2/20/2009 11:00:00 AM	2/24/2009 12:20:00 AM	DFIR
Arsenic	0.0016U		mg/L	0.008	0.0016	1	2/20/2009 11:00:00 AM	2/24/2009 12:20:00 AM	DFIR
Barium	0.00782		mg/L	0.0075	0.0015	1	2/20/2009 11:00:00 AM	2/24/2009 12:20:00 AM	DFIR
Beryllium	0.00085U		mg/L	0.00425	0.00085	1	2/20/2009 11:00:00 AM	2/24/2009 12:20:00 AM	DFIR

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ANALYTICAL RESULTS

Lab ID: **901842001** Date Received: 2/19/2009 Matrix: Wastewater

Sample ID: **COMBINED EFFLUENT** Date Collected: 2/19/2009

Parameters	Results	Qual	Units	PQL	MDL	DF	Prepared	Analyzed	By
Cadmium	0.00011U		mg/L	0.00055	0.00011	1	2/20/2009 11:00:00 AM	2/24/2009 12:20:00 AM	DFIR
Lead	0.00075U		mg/L	0.00375	0.00075	1	2/20/2009 11:00:00 AM	2/24/2009 12:20:00 AM	DFIR
Manganese	0.0125		mg/L	0.0055	0.0011	1	2/20/2009 11:00:00 AM	2/24/2009 12:20:00 AM	DFIR
Selenium	0.00082U		mg/L	0.0041	0.00082	1	2/20/2009 11:00:00 AM	2/24/2009 12:20:00 AM	DFIR
Thallium	0.00027U		mg/L	0.00135	0.00027	1	2/20/2009 11:00:00 AM	2/24/2009 12:20:00 AM	DFIR
Analytical Method: 1613									
2,3,7,8-TCDD	5.0U		ug/L	25	5.0	1		3/4/2009 6:50:00 PM	SUB
Wet Chemistry - Subcontract									
Analytical Method: EPA 100.2									
Asbestos	0.18U	1	MFL	0.9	0.18	1		2/28/2009 1:00:00 PM	SUB
Semivolatiles									
Preparation Method: EPA 625	Analytical Method: EPA 625								
1,2,4-Trichlorobenzene	0.23U		ug/L	1.15	0.23	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
1,2-Dichlorobenzene	0.34U		ug/L	1.7	0.34	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
1,2-Diphenylhydrazine	0.23U		ug/L	1.15	0.23	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
1,3-Dichlorobenzene	0.35U		ug/L	1.75	0.35	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
1,4-Dichlorobenzene	0.677I		ug/L	1.4	0.28	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
2,4,6-Trichlorophenol	0.27U		ug/L	1.35	0.27	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
2,4-Dichlorophenol	0.43U		ug/L	2.15	0.43	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
2,4-Dinitrophenol	1.4U		ug/L	7	1.4	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
2,4-Dinitrotoluene	0.31U		ug/L	1.55	0.31	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
2,6-Dinitrotoluene	0.31U		ug/L	1.55	0.31	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
2-Chloronaphthalene	0.32U		ug/L	1.6	0.32	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
2-Chlorophenol	0.22U		ug/L	1.1	0.22	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
2-Nitrophenol	0.24U		ug/L	1.2	0.24	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
3,3'-Dichlorobenzidine	0.31U		ug/L	1.55	0.31	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
4,6-Dinitro-2-methylphenol	0.35U		ug/L	1.75	0.35	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
4-Chloro-3-methylphenol	0.22U		ug/L	1.1	0.22	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC

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ANALYTICAL RESULTS

Lab ID: **901842001** Date Received: 2/19/2009 Matrix: Wastewater

Sample ID: **COMBINED EFFLUENT** Date Collected: 2/19/2009

Parameters	Results	Qual	Units	PQL	MDL	DF	Prepared	Analyzed	By
4-Chlorophenyl phenyl ether	0.45U		ug/L	2.25	0.45	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Acenaphthene	0.25U		ug/L	1.25	0.25	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Acenaphthylene	0.26U		ug/L	1.3	0.26	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Anthracene	0.25U		ug/L	1.25	0.25	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Benzidine	9.7U		ug/L	48.5	9.7	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Benzo(a)anthracene	0.27U		ug/L	1.35	0.27	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Benzo(a)pyrene	0.31U		ug/L	1.55	0.31	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Benzo(b)fluoranthene	0.25U		ug/L	1.25	0.25	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Benzo(g,h,i)perylene	0.28U		ug/L	1.4	0.28	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Benzo(k)fluoranthene	0.39U		ug/L	1.95	0.39	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Bis(2-Chloroethoxy)methane	0.32U		ug/L	1.6	0.32	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Bis(2-Chloroethyl)ether	0.46U		ug/L	2.3	0.46	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Bis(2-Chloroisopropyl)ether	0.34U		ug/L	1.7	0.34	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Bis(2-Ethylhexyl)phthalate	0.450I		ug/L	1	0.20	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
4-Bromophenyl phenyl ether	0.27U		ug/L	1.35	0.27	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Butyl benzyl phthalate	0.36U		ug/L	1.8	0.36	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Chrysene	0.28U		ug/L	1.4	0.28	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Di-n-butyl phthalate	0.21U		ug/L	1.05	0.21	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Di-n-octyl phthalate	0.28U		ug/L	1.4	0.28	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Dibenz(a,h)anthracene	0.55U		ug/L	2.75	0.55	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Diethyl phthalate	0.33U		ug/L	1.65	0.33	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Dimethyl phthalate	0.31U		ug/L	1.55	0.31	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
2,4-Dimethylphenol	0.40U		ug/L	2	0.40	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Fluoranthene	0.20U		ug/L	1	0.20	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Fluorene	0.27U		ug/L	1.35	0.27	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Hexachlorobenzene	0.32U		ug/L	1.6	0.32	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Hexachlorobutadiene	0.45U		ug/L	2.25	0.45	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC

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ANALYTICAL RESULTS

Lab ID: **901842001** Date Received: 2/19/2009 Matrix: Wastewater
Sample ID: **COMBINED EFFLUENT** Date Collected: 2/19/2009

Parameters	Results	Qual	Units	PQL	MDL	DF	Prepared	Analyzed	By
Hexachlorocyclopentadiene	0.74U		ug/L	3.7	0.74	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Hexachloroethane	0.36U		ug/L	1.8	0.36	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Indeno(1,2,3-cd)pyrene	0.26U		ug/L	1.3	0.26	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Isophorone	0.34U		ug/L	1.7	0.34	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Naphthalene	0.34U		ug/L	1.7	0.34	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Nitrobenzene	0.31U		ug/L	1.55	0.31	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
4-Nitrophenol	0.79U		ug/L	3.95	0.79	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Pentachlorophenol	0.67U		ug/L	3.35	0.67	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Phenanthrene	0.29U		ug/L	1.45	0.29	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Phenol	0.41U		ug/L	2.05	0.41	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Pyrene	0.47U		ug/L	2.35	0.47	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
n-Nitrosodi-n-propylamine	0.33U		ug/L	1.65	0.33	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
n-Nitrosodimethylamine	1.0U		ug/L	5	1.0	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
n-Nitrosodiphenylamine	0.31U		ug/L	1.55	0.31	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Nitrobenzene-d5 (S)	74		%		10-117	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
2-Fluorobiphenyl (S)	71		%		10-112	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Terphenyl-d14 (S)	102		%		20-146	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
Phenol-d6 (S)	29		%		10-59	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
2-Fluorophenol (S)	48		%		24-64	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC
2,4,6-Tribromophenol (S)	99		%		52-121	1	2/20/2009 9:00:00 AM	2/23/2009 3:35:00 PM	TBUC

Pesticides

Preparation Method: EPA 608 Analytical Method: EPA 608

4,4'-DDD	0.000993U		ug/L	0.004965	0.000993	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
4,4'-DDE	0.00272U	4	ug/L	0.0136	0.00272	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
4,4'-DDT	0.00120U		ug/L	0.006	0.00120	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
Aldrin	0.00139U		ug/L	0.00695	0.00139	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
Chlordane(Technical)	0.00630U		ug/L	0.0315	0.00630	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC

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ANALYTICAL RESULTS

Lab ID: **901842001** Date Received: 2/19/2009 Matrix: Wastewater

Sample ID: **COMBINED EFFLUENT** Date Collected: 2/19/2009

Parameters	Results	Qual	Units	PQL	MDL	DF	Prepared	Analyzed	By
Dieldrin	0.00157U	4	ug/L	0.00785	0.00157	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
Endosulfan I	0.00215U	4	ug/L	0.01075	0.00215	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
Endosulfan II	0.00129U		ug/L	0.00645	0.00129	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
Endosulfan sulfate	0.00153U	4	ug/L	0.00765	0.00153	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
Endrin	0.000717U		ug/L	0.003585	0.000717	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
Endrin aldehyde	0.000695U		ug/L	0.003475	0.000695	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
Endrin ketone	0.000969U		ug/L	0.004845	0.000969	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
Heptachlor	0.00885U	4	ug/L	0.04425	0.00885	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
Heptachlor epoxide	0.00121U		ug/L	0.00605	0.00121	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
Methoxychlor	0.000900U		ug/L	0.0045	0.000900	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
PCB 1016	0.012U		ug/L	0.06	0.012	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
PCB 1221	0.014U		ug/L	0.07	0.014	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
PCB 1232	0.190U		ug/L	0.95	0.190	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
PCB 1242	0.014U		ug/L	0.07	0.014	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
PCB 1248	0.00850U		ug/L	0.0425	0.00850	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
PCB 1254	0.014U		ug/L	0.07	0.014	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
PCB 1260	0.015U		ug/L	0.075	0.015	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
Toxaphene	0.047U		ug/L	0.235	0.047	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
alpha-BHC	0.00313U	4	ug/L	0.01565	0.00313	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
alpha-Chlordane	0.00118U		ug/L	0.0059	0.00118	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
beta-BHC	0.00196U	4	ug/L	0.0098	0.00196	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
delta-BHC	0.000904U		ug/L	0.00452	0.000904	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
gamma-BHC (Lindane)	0.00604U	4	ug/L	0.0302	0.00604	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
gamma-Chlordane	0.00130U		ug/L	0.0065	0.00130	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
Tetrachloro-m-xylene (S)	68		%		32-137	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
Decachlorobiphenyl (S)	38		%		25-165	1	2/23/2009 3:30:00 PM	2/25/2009 4:37:41 AM	CCIC
Synthetic Organics									
Preparation Method: EPA 531.1			Analytical Method: EPA 531.1						
Carbofuran	0.25U	2	ug/L	1.25	0.25	1	2/25/2009 3:30:00 PM	2/28/2009 2:24:00 AM	SUB
Oxamyl	0.18U		ug/L	0.9	0.18	1	2/25/2009 3:30:00 PM	2/28/2009 2:24:00 AM	SUB
Preparation Method: EPA 508.1			Analytical Method: EPA 508.1						
Alachlor	0.055U	2	ug/L	0.275	0.055	1	2/25/2009 10:00:00 AM	2/25/2009 10:30:00 PM	SUB

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ANALYTICAL RESULTS

Lab ID: **901842001** Date Received: 2/19/2009 Matrix: Wastewater

Sample ID: **COMBINED EFFLUENT** Date Collected: 2/19/2009

Parameters	Results	Qual	Units	PQL	MDL	DF	Prepared	Analyzed	By
Atrazine (Aatrex)	0.026U		ug/L	0.13	0.026	1	2/25/2009 10:00:00 AM	2/25/2009 10:30:00 PM	SUB
gamma-BHC (Lindane)	0.0050U		ug/L	0.025	0.0050	1	2/25/2009 10:00:00 AM	2/25/2009 10:30:00 PM	SUB
Chlordane(Technical)	0.035U		ug/L	0.175	0.035	1	2/25/2009 10:00:00 AM	2/25/2009 10:30:00 PM	SUB
Endrin	0.0020U		ug/L	0.01	0.0020	1	2/25/2009 10:00:00 AM	2/25/2009 10:30:00 PM	SUB
Heptachlor	0.0080U		ug/L	0.04	0.0080	1	2/25/2009 10:00:00 AM	2/25/2009 10:30:00 PM	SUB
Heptachlor epoxide	0.0040U		ug/L	0.02	0.0040	1	2/25/2009 10:00:00 AM	2/25/2009 10:30:00 PM	SUB
Hexachlorobenzene	0.025U		ug/L	0.125	0.025	1	2/25/2009 10:00:00 AM	2/25/2009 10:30:00 PM	SUB
Hexachlorocyclopentadiene	0.021U		ug/L	0.105	0.021	1	2/25/2009 10:00:00 AM	2/25/2009 10:30:00 PM	SUB
Methoxychlor	0.021U		ug/L	0.105	0.021	1	2/25/2009 10:00:00 AM	2/25/2009 10:30:00 PM	SUB
Simazine (Princep)	0.025U		ug/L	0.125	0.025	1	2/25/2009 10:00:00 AM	2/25/2009 10:30:00 PM	SUB
Toxaphene	0.21U		ug/L	1.05	0.21	1	2/25/2009 10:00:00 AM	2/25/2009 10:30:00 PM	SUB
Polychlorinated Biphenyls-PCBS	0.10U		ug/L	0.5	0.10	1	2/25/2009 10:00:00 AM	2/25/2009 10:30:00 PM	SUB
Preparation Method: EPA 515.3	Analytical Method: EPA 515.3								
2,4-D	0.030U	2	ug/L	0.15	0.030	1	2/26/2009 9:00:00 AM	2/27/2009 5:07:00 PM	SUB
Dalapon	0.66U		ug/L	3.3	0.66	1	2/26/2009 9:00:00 AM	2/27/2009 5:07:00 PM	SUB
Dinoseb	0.090U		ug/L	0.45	0.090	1	2/26/2009 9:00:00 AM	2/27/2009 5:07:00 PM	SUB
Pentachlorophenol	0.010U		ug/L	0.05	0.010	1	2/26/2009 9:00:00 AM	2/27/2009 5:07:00 PM	SUB
Picloram	0.010U		ug/L	0.05	0.010	1	2/26/2009 9:00:00 AM	2/27/2009 5:07:00 PM	SUB
2,4,5-TP (Silvex)	0.080U		ug/L	0.4	0.080	1	2/26/2009 9:00:00 AM	2/27/2009 5:07:00 PM	SUB
Analytical Method: EPA 547									
Glyphosate	2.4U	2	ug/L	12	2.4	1		2/24/2009 4:08:00 AM	SUB
Preparation Method: EPA 548.1	Analytical Method: EPA 548.1								
Endothall	0.28U	2	ug/L	1.4	0.28	1	2/25/2009 9:00:00 AM	2/28/2009 6:23:00 PM	SUB
Preparation Method: EPA 549.2	Analytical Method: EPA 549.2								
Diquat	0.22U	2	ug/L	1.1	0.22	1	2/26/2009 7:58:00 PM	2/26/2009 7:58:00 PM	SUB
Preparation Method: EPA 525.2	Analytical Method: EPA 525.2								
Benzo(a)pyrene	0.019U	2	ug/L	0.095	0.019	1	2/25/2009 4:30:00 PM	2/26/2009 7:59:00 PM	SUB
Di(2-ethylhexyl)adipate	0.39U		ug/L	1.95	0.39	1	2/25/2009 4:30:00 PM	2/26/2009 7:59:00 PM	SUB
Bis(2-Ethylhexyl)phthalate	0.660I	I	ug/L	2.55	0.51	1	2/25/2009 4:30:00 PM	2/26/2009 7:59:00 PM	SUB
Volatiles									
Analytical Method: EPA 624									
1,1,1-Trichloroethane	0.680U		ug/L	3.4	0.680	1		2/23/2009 6:31:00 AM	LNEM
1,1,2,2-Tetrachloroethane	0.570U		ug/L	2.85	0.570	1		2/23/2009 6:31:00 AM	LNEM
1,1,2-Trichloroethane	0.840U		ug/L	4.2	0.840	1		2/23/2009 6:31:00 AM	LNEM
1,1-Dichloroethane	0.410U		ug/L	2.05	0.410	1		2/23/2009 6:31:00 AM	LNEM
1,1-Dichloroethene	0.640U		ug/L	3.2	0.640	1		2/23/2009 6:31:00 AM	LNEM

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ANALYTICAL RESULTS

Lab ID: **901842001** Date Received: 2/19/2009 Matrix: Wastewater

Sample ID: **COMBINED EFFLUENT** Date Collected: 2/19/2009

Parameters	Results	Qual	Units	PQL	MDL	DF	Prepared	Analyzed	By
1,2-Dichloroethane	0.897U		ug/L	4.485	0.897	1		2/23/2009 6:31:00 AM	LNEM
1,2-Dichloropropane	0.725U		ug/L	3.625	0.725	1		2/23/2009 6:31:00 AM	LNEM
2-Chloroethylvinyl ether	0.466U		ug/L	2.33	0.466	1		2/23/2009 6:31:00 AM	LNEM
Acrolein	2.47U		ug/L	12.35	2.47	1		2/23/2009 6:31:00 AM	LNEM
Acrylonitrile	0.955U	3,J	ug/L	4.775	0.955	1		2/23/2009 6:31:00 AM	LNEM
Benzene	0.621U		ug/L	3.105	0.621	1		2/23/2009 6:31:00 AM	LNEM
Bromodichloromethane	0.140U		ug/L	0.7	0.140	1		2/23/2009 6:31:00 AM	LNEM
Bromoform	0.486U		ug/L	2.43	0.486	1		2/23/2009 6:31:00 AM	LNEM
Bromomethane	0.427U		ug/L	2.135	0.427	1		2/23/2009 6:31:00 AM	LNEM
Carbon tetrachloride	0.468U		ug/L	2.34	0.468	1		2/23/2009 6:31:00 AM	LNEM
Chlorobenzene	0.316U		ug/L	1.58	0.316	1		2/23/2009 6:31:00 AM	LNEM
Chloroethane	0.710U		ug/L	3.55	0.710	1		2/23/2009 6:31:00 AM	LNEM
Chloroform	1.64		ug/L	2.86	0.572	1		2/23/2009 6:31:00 AM	LNEM
Chloromethane	0.524U		ug/L	2.62	0.524	1		2/23/2009 6:31:00 AM	LNEM
Dibromochloromethane	0.378U		ug/L	1.89	0.378	1		2/23/2009 6:31:00 AM	LNEM
cis-1,3-Dichloropropene	0.664U		ug/L	3.32	0.664	1		2/23/2009 6:31:00 AM	LNEM
trans-1,3-Dichloropropene	0.522U		ug/L	2.61	0.522	1		2/23/2009 6:31:00 AM	LNEM
Ethylbenzene	0.323U		ug/L	1.615	0.323	1		2/23/2009 6:31:00 AM	LNEM
Methylene chloride	0.240U		ug/L	1.2	0.240	1		2/23/2009 6:31:00 AM	LNEM
Tetrachloroethene	0.370I		ug/L	1.56	0.312	1		2/23/2009 6:31:00 AM	LNEM
Toluene	0.389U		ug/L	1.945	0.389	1		2/23/2009 6:31:00 AM	LNEM
Trichloroethene	0.821U		ug/L	4.105	0.821	1		2/23/2009 6:31:00 AM	LNEM
Vinyl chloride	0.506U		ug/L	2.53	0.506	1		2/23/2009 6:31:00 AM	LNEM
Xylene, m,p-	0.639U		ug/L	3.195	0.639	1		2/23/2009 6:31:00 AM	LNEM
Xylene, o-	0.341U		ug/L	1.705	0.341	1		2/23/2009 6:31:00 AM	LNEM
Xylenes (total)	0.980U		ug/L	4.9	0.980	1		2/23/2009 6:31:00 AM	LNEM
cis-1,2-Dichloroethene	0.442U		ug/L	2.21	0.442	1		2/23/2009 6:31:00 AM	LNEM

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ANALYTICAL RESULTS

Lab ID: **901842001** Date Received: 2/19/2009 Matrix: Wastewater

Sample ID: **COMBINED EFFLUENT** Date Collected: 2/19/2009

Parameters	Results	Qual	Units	PQL	MDL	DF	Prepared	Analyzed	By
trans-1,2-Dichloroethene	0.410U		ug/L	2.05	0.410	1		2/23/2009 6:31:00 AM	LNEM
Analytical Method: EPA 524.2									
1,1,1-Trichloroethane	0.132U		ug/L	0.66	0.132	1		2/21/2009 6:38:00 AM	LNEM
1,1,2-Trichloroethane	0.088U		ug/L	0.44	0.088	1		2/21/2009 6:38:00 AM	LNEM
1,1-Dichloroethane	0.075U		ug/L	0.375	0.075	1		2/21/2009 6:38:00 AM	LNEM
1,1-Dichloroethene	0.086U		ug/L	0.43	0.086	1		2/21/2009 6:38:00 AM	LNEM
1,2,4-Trichlorobenzene	0.117U		ug/L	0.585	0.117	1		2/21/2009 6:38:00 AM	LNEM
1,2-Dichlorobenzene	0.076U		ug/L	0.38	0.076	1		2/21/2009 6:38:00 AM	LNEM
1,2-Dichloroethane	0.070U		ug/L	0.35	0.070	1		2/21/2009 6:38:00 AM	LNEM
1,2-Dichloropropane	0.093U		ug/L	0.465	0.093	1		2/21/2009 6:38:00 AM	LNEM
1,4-Dichlorobenzene	1.14		ug/L	0.75	0.150	1		2/21/2009 6:38:00 AM	LNEM
Benzene	0.077U		ug/L	0.385	0.077	1		2/21/2009 6:38:00 AM	LNEM
Bromodichloromethane	0.091U		ug/L	0.455	0.091	1		2/21/2009 6:38:00 AM	LNEM
Bromoform	0.15U		ug/L	0.75	0.15	1		2/21/2009 6:38:00 AM	LNEM
Carbon tetrachloride	0.134U		ug/L	0.67	0.134	1		2/21/2009 6:38:00 AM	LNEM
Chlorobenzene	0.113U		ug/L	0.565	0.113	1		2/21/2009 6:38:00 AM	LNEM
Chloroform	1.66		ug/L	0.385	0.077	1		2/21/2009 6:38:00 AM	LNEM
Dibromochloromethane	0.15U		ug/L	0.75	0.15	1		2/21/2009 6:38:00 AM	LNEM
Ethylbenzene	0.070U		ug/L	0.35	0.070	1		2/21/2009 6:38:00 AM	LNEM
Methylene chloride	0.117U		ug/L	0.585	0.117	1		2/21/2009 6:38:00 AM	LNEM
Styrene	0.040U		ug/L	0.2	0.040	1		2/21/2009 6:38:00 AM	LNEM
Tetrachloroethene	0.460I		ug/L	0.74	0.148	1		2/21/2009 6:38:00 AM	LNEM
Toluene	0.140U		ug/L	0.7	0.140	1		2/21/2009 6:38:00 AM	LNEM
Trichloroethene	0.121U		ug/L	0.605	0.121	1		2/21/2009 6:38:00 AM	LNEM
Total Trihalomethanes	1.66I		ug/L	2.35	0.47	1		2/21/2009 6:38:00 AM	LNEM
Vinyl chloride	0.120U		ug/L	0.6	0.120	1		2/21/2009 6:38:00 AM	LNEM
Xylene, m,p-	0.134U		ug/L	0.67	0.134	1		2/21/2009 6:38:00 AM	LNEM

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ANALYTICAL RESULTS

Lab ID: **901842001** Date Received: 2/19/2009 Matrix: Wastewater

Sample ID: **COMBINED EFFLUENT** Date Collected: 2/19/2009

Parameters	Results	Qual	Units	PQL	MDL	DF	Prepared	Analyzed	By
Xylene, o-	0.083U		ug/L	0.415	0.083	1		2/21/2009 6:38:00 AM	LNEM
Xylenes (total)	0.210U		ug/L	1.05	0.210	1		2/21/2009 6:38:00 AM	LNEM
cis-1,2-Dichloroethene	0.085U		ug/L	0.425	0.085	1		2/21/2009 6:38:00 AM	LNEM
trans-1,2-Dichloroethene	0.087U		ug/L	0.435	0.087	1		2/21/2009 6:38:00 AM	LNEM
Analytical Method: EPA 624									
4-Bromofluorobenzene (S)	91		%		64-130	1		2/23/2009 6:31:00 AM	LNEM
Dibromofluoromethane (S)	112		%		69-134	1		2/23/2009 6:31:00 AM	LNEM
Toluene d8 (S)	99		%		63-127	1		2/23/2009 6:31:00 AM	LNEM
Analytical Method: EPA 524.2									
4-Bromofluorobenzene (S)	91		%		70-130	1		2/21/2009 6:38:00 AM	LNEM
1,2-Dichlorobenzene-d4 (S)	99		%		70-130	1		2/21/2009 6:38:00 AM	LNEM

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ANALYTICAL RESULTS QUALIFIERS

PARAMETER QUALIFIERS

I	Estimated value; between MDL and PQL
J	Estimated value.
V	Present in blank.
[1]	E86772
[2]	E83079
[3]	NCR-LCS and/or LCSD recoveries above acceptable limits. The reported target analyte is below detection limits establishing that there is no high biased result reported
[4]	NCR-% difference of results from primary and secondary columns is >40%, possible due to matrix interference. Detection limit elevated above lowest concentration.

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CASE NARRATIVE

Sample Analysis Comments

Lab ID 901842001 Client ID COMBINED EFFLUENT

Analyte/2,4-D

[2] E83079

Analyte/4,4'-DDE

NCR-% difference of results from primary and secondary columns is >40%, possible due to matrix interference. Detection limit elevated above lowest concentration.

Analyte/Acrylonitrile

NCR-LCS and/or LCSD recoveries above acceptable limits. The reported target analyte is below detection limits establishing that there is no high biased result reported

Analyte/Alachlor

[2] E83079

Analyte/Asbestos

[1] E86772

Analyte/Benzo(a)pyrene

[2] E83079

Analyte/Bis(2-Ethylhexyl)phthalate

I = Estimated value; between MDL and PQL

Analyte/Carbofuran

[2] E83079

Analyte/Dieldrin

NCR-% difference of results from primary and secondary columns is >40%, possible due to matrix interference. Detection limit elevated above lowest concentration.

Analyte/Diquat

[2] E83079

Analyte/Endosulfan I

NCR-% difference of results from primary and secondary columns is >40%, possible due to matrix interference. Detection limit elevated above lowest concentration.

Analyte/Endosulfan sulfate

NCR-% difference of results from primary and secondary columns is >40%, possible due to matrix interference. Detection limit elevated above lowest concentration.

Analyte/Endothall

[2] E83079

Analyte/Glyphosate

[2] E83079

Analyte/Heptachlor

NCR-% difference of results from primary and secondary columns is >40%, possible due to matrix interference. Detection limit elevated above lowest concentration.

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CASE NARRATIVE

Sample Analysis Comments

Lab ID 901842001 Client ID COMBINED EFFLUENT

Analyte/alpha-BHC

NCR-% difference of results from primary and secondary columns is >40%, possible due to matrix interference. Detection limit elevated above lowest concentration.

Analyte/beta-BHC

NCR-% difference of results from primary and secondary columns is >40%, possible due to matrix interference. Detection limit elevated above lowest concentration.

Analyte/gamma-BHC (Lindane)

NCR-% difference of results from primary and secondary columns is >40%, possible due to matrix interference. Detection limit elevated above lowest concentration.

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QUALITY CONTROL DATA

QC Batch: EXTO/1744 Analysis Method: EPA 625

QC Batch Method: EPA 625

Associated Lab Samples: 901780001 901839001 901840001 901842001 901843002 901850001 901850002 901850003

METHOD BLANK: 17506

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Semivolatiles				
Acenaphthene	ug/L	0.25U	0.25	
Acenaphthylene	ug/L	0.26U	0.26	
Anthracene	ug/L	0.25U	0.25	
Benzidine	ug/L	9.7U	9.7	
Benzo(a)anthracene	ug/L	0.27U	0.27	
Benzo(a)pyrene	ug/L	0.31U	0.31	
Benzo(b)fluoranthene	ug/L	0.25U	0.25	
Benzo(g,h,i)perylene	ug/L	0.28U	0.28	
Benzo(k)fluoranthene	ug/L	0.39U	0.39	
Bis(2-Chloroethoxy)methane	ug/L	0.32U	0.32	
Bis(2-Chloroethyl)ether	ug/L	0.46U	0.46	
Bis(2-Chloroisopropyl)ether	ug/L	0.34U	0.34	
Bis(2-Ethylhexyl)phthalate	ug/L	0.20U	0.20	
4-Bromophenyl phenyl ether	ug/L	0.27U	0.27	
Butyl benzyl phthalate	ug/L	0.36U	0.36	
2-Chloronaphthalene	ug/L	0.32U	0.32	
4-Chlorophenyl phenyl ether	ug/L	0.45U	0.45	
Chrysene	ug/L	0.28U	0.28	
Dibenz(a,h)anthracene	ug/L	0.55U	0.55	
1,2-Dichlorobenzene	ug/L	0.34U	0.34	
1,3-Dichlorobenzene	ug/L	0.35U	0.35	
1,4-Dichlorobenzene	ug/L	0.28U	0.28	
3,3'-Dichlorobenzidine	ug/L	0.31U	0.31	
Diethyl phthalate	ug/L	0.33U	0.33	
Dimethyl phthalate	ug/L	0.31U	0.31	
Di-n-butyl phthalate	ug/L	0.21U	0.21	
2,4-Dinitrotoluene	ug/L	0.31U	0.31	
2,6-Dinitrotoluene	ug/L	0.31U	0.31	
Di-n-octyl phthalate	ug/L	0.28U	0.28	
Fluoranthene	ug/L	0.20U	0.20	
Fluorene	ug/L	0.27U	0.27	
Hexachlorobenzene	ug/L	0.32U	0.32	
Hexachlorobutadiene	ug/L	0.45U	0.45	
Hexachlorocyclopentadiene	ug/L	0.74U	0.74	
Hexachloroethane	ug/L	0.36U	0.36	
Indeno(1,2,3-cd)pyrene	ug/L	0.26U	0.26	
Isophorone	ug/L	0.34U	0.34	
Naphthalene	ug/L	0.34U	0.34	
Nitrobenzene	ug/L	0.31U	0.31	
n-Nitrosodimethylamine	ug/L	1.0U	1.0	
n-Nitrosodi-n-propylamine	ug/L	0.33U	0.33	
n-Nitrosodiphenylamine	ug/L	0.31U	0.31	

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QUALITY CONTROL DATA

METHOD BLANK: 17506

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Phenanthrene	ug/L	0.29U	0.29	
Pyrene	ug/L	0.47U	0.47	
1,2,4-Trichlorobenzene	ug/L	0.23U	0.23	
2-Chlorophenol	ug/L	0.22U	0.22	
2,4-Dichlorophenol	ug/L	0.43U	0.43	
2,4-Dimethylphenol	ug/L	0.40U	0.40	
4,6-Dinitro-2-methylphenol	ug/L	0.35U	0.35	
2,4-Dinitrophenol	ug/L	1.4U	1.4	
2-Nitrophenol	ug/L	0.24U	0.24	
4-Nitrophenol	ug/L	0.79U	0.79	
4-Chloro-3-methylphenol	ug/L	0.22U	0.22	
Pentachlorophenol	ug/L	0.67U	0.67	
Phenol	ug/L	0.41U	0.41	
2,4,6-Trichlorophenol	ug/L	0.27U	0.27	
Nitrobenzene-d5 (S)	%	83	10-117	
2-Fluorobiphenyl (S)	%	83	10-112	
Terphenyl-d14 (S)	%	111	20-146	
Phenol-d6 (S)	%	33	10-59	
2-Fluorophenol (S)	%	46	24-64	
2,4,6-Tribromophenol (S)	%	95	52-121	

LABORATORY CONTROL SAMPLE: 17507

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Semivolatiles						
Acenaphthylene	ug/L	50	42.5	85	33-145	
Anthracene	ug/L	50	45.4	91	27-133	
Benzo(a)anthracene	ug/L	50	48.5	97	33-143	
Benzo(b)fluoranthene	ug/L	50	38.0	76	24-159	
Benzo(k)fluoranthene	ug/L	50	46.4	93	11-162	
Benzo(g,h,i)perylene	ug/L	50	50.3	101	0-219	
Benzo(a)pyrene	ug/L	50	44.4	89	17-163	
Butyl benzyl phthalate	ug/L	50	52.7	105	0-152	
Bis(2-Chloroethoxy)methane	ug/L	50	41.2	82	33-184	
Bis(2-Chloroethyl)ether	ug/L	50	38.9	78	12-158	
Bis(2-Chloroisopropyl)ether	ug/L	50	38.9	78	36-166	
Bis(2-Ethylhexyl)phthalate	ug/L	50	57.9	116	8-158	
4-Bromophenyl phenyl ether	ug/L	50	48.9	98	53-127	
4-Chlorophenyl phenyl ether	ug/L	50	41.0	82	25-158	
Chrysene	ug/L	50	42.7	85	17-168	
Dibenz(a,h)anthracene	ug/L	50	49.3	99	0-227	
1,2-Dichlorobenzene	ug/L	50	33.9	68	32-129	

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE: 17507

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3-Dichlorobenzene	ug/L	50	32.6	65	0-172	
3,3'-Dichlorobenzidine	ug/L	50	39.6	79	0-262	
2,4-Dichlorophenol	ug/L	50	36.3	73	39-135	
Diethyl phthalate	ug/L	50	44.7	89	0-114	
2,4-Dimethylphenol	ug/L	50	41.5	83	32-119	
Dimethyl phthalate	ug/L	50	44.9	90	0-112	
Di-n-octyl phthalate	ug/L	50	56.7	113	4-146	
2,4-Dinitrophenol	ug/L	50	37.3	75	0-191	
2,6-Dinitrotoluene	ug/L	50	41.9	84	50-158	
Fluoranthene	ug/L	50	47.5	95	26-137	
Fluorene	ug/L	50	42.6	85	59-121	
Hexachlorobenzene	ug/L	50	42.6	85	0-152	
Hexachlorobutadiene	ug/L	50	32.7	65	24-116	
Hexachlorocyclopentadiene	ug/L	50	22.2	44	10-115	
Hexachloroethane	ug/L	50	34.0	68	40-113	
Isophorone	ug/L	50	46.2	92	21-196	
Indeno(1,2,3-cd)pyrene	ug/L	50	48.4	97	0-171	
4,6-Dinitro-2-methylphenol	ug/L	50	32.8	66	0-181	
Naphthalene	ug/L	50	37.3	75	21-133	
Nitrobenzene	ug/L	50	39.7	79	35-180	
n-Nitrosodimethylamine	ug/L	50	27.1	54		
2-Nitrophenol	ug/L	50	36.3	73	29-182	
Phenanthrene	ug/L	50	43.9	88	54-120	
2,4,6-Trichlorophenol	ug/L	50	40.6	81	37-144	
Di-n-butyl phthalate	ug/L	50	51.5	103	57-126	
2-Chloronaphthalene	ug/L	50	39.8	80	60-118	
Phenol	ug/L	50	18.3	37	5-112	
2-Chlorophenol	ug/L	50	34.5	69	23-134	
n-Nitrosodi-n-propylamine	ug/L	50	42.4	85	0-230	
1,4-Dichlorobenzene	ug/L	50	33.9	68	20-124	
n-Nitrosodiphenylamine	ug/L	50	40.4	81	42-113	
1,2,4-Trichlorobenzene	ug/L	50	35.1	70	44-142	
4-Chloro-3-methylphenol	ug/L	50	40.6	81	22-147	
Acenaphthene	ug/L	50	39.7	79	47-145	
4-Nitrophenol	ug/L	50	25.1	50	0-132	
2,4-Dinitrotoluene	ug/L	50	41.1	82	39-139	
Pentachlorophenol	ug/L	50	48.4	97	14-176	
Pyrene	ug/L	50	47.2	94	52-115	
Benzidine	ug/L	50	9.7U	16	10-104	
Nitrobenzene-d5 (S)	%			82	39-117	
2-Fluorobiphenyl (S)	%			83	40-112	
Terphenyl-d14 (S)	%			112	31-146	
Phenol-d6 (S)	%			39	10-59	
2-Fluorophenol (S)	%			49	24-64	
2,4,6-Tribromophenol (S)	%			102	52-121	

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17508 17509 Original: 901791008

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Semivolatiles											
Acenaphthylene	ug/L	0.0859	50	38.4	39.9	77	80	33-145	4	20	
Anthracene	ug/L	0.0575	50	42.2	43.2	84	86	27-133	2	20	
Benzo(a)anthracene	ug/L	0	50	47.6	48.6	95	97	33-143	2	20	
Benzo(b)fluoranthene	ug/L	0	50	36.9	40.6	74	81	24-159	9	20	
Benzo(k)fluoranthene	ug/L	0	50	43.2	39.4	86	79	11-162	8	20	
Benzo(g,h,i)perylene	ug/L	0	50	45.2	46.9	90	94	0-219	4	20	
Benzo(a)pyrene	ug/L	0.0785	50	42.2	43.7	84	87	17-163	4	20	
Butyl benzyl phthalate	ug/L	0	50	51.0	50.9	102	102	0-152	0	20	
Bis(2-Chloroethoxy)methane	ug/L	0	50	38.0	37.1	76	74	33-184	3	20	
Bis(2-Chloroethyl)ether	ug/L	0	50	34.8	36.2	70	72	12-158	3	20	
Bis(2-Chloroisopropyl)ether	ug/L	0	50	35.6	36.7	71	73	36-166	3	20	
Bis(2-Ethylhexyl)phthalate	ug/L	0	50	55.1	54.6	110	109	8-158	0.9	20	
4-Bromophenyl phenyl ether	ug/L	0	50	45.4	45.7	91	91	53-127	0	20	
4-Chlorophenyl phenyl ether	ug/L	0	50	38.0	39.6	76	79	25-158	4	20	
Chrysene	ug/L	0	50	41.2	41.3	82	83	17-168	1	20	
Dibenz(a,h)anthracene	ug/L	0	50	47.2	48.1	94	96	0-227	2	20	
1,2-Dichlorobenzene	ug/L	0	50	31.4	32.1	63	64	32-129	2	20	
1,3-Dichlorobenzene	ug/L	0	50	29.4	30.7	59	61	0-172	3	20	
3,3'-Dichlorobenzidine	ug/L	0	50	40.9	40.1	82	80	0-262	2	20	
2,4-Dichlorophenol	ug/L	0	50	33.1	33.8	66	68	39-135	3	20	
Diethyl phthalate	ug/L	0	50	42.7	45.5	85	91	0-114	7	20	
2,4-Dimethylphenol	ug/L	0	50	38.4	37.1	77	74	32-119	4	20	
Dimethyl phthalate	ug/L	0.0703	50	41.5	42.9	83	86	0-112	4	20	
Di-n-octyl phthalate	ug/L	0	50	54.2	54.1	108	108	4-146	0	20	
2,4-Dinitrophenol	ug/L	0	50	35.5	35.6	71	71	0-191	0	20	
2,6-Dinitrotoluene	ug/L	0	50	38.5	38.2	77	76	50-158	1	20	
Fluoranthene	ug/L	0	50	46.4	45.5	93	91	26-137	2	20	
Fluorene	ug/L	0.0657	50	39.2	40.8	78	82	59-121	5	20	
Hexachlorobenzene	ug/L	0	50	39.1	39.4	78	79	0-152	1	20	
Hexachlorobutadiene	ug/L	0	50	30.3	31.2	61	62	24-116	2	20	
Hexachlorocyclopentadiene	ug/L	0	50	18.4	19.9	37	40	10-115	8	20	
Hexachloroethane	ug/L	0	50	30.0	32.0	60	64	40-113	6	20	
Isophorone	ug/L	0	50	42.6	42.3	85	85	21-196	0	20	
Indeno(1,2,3-cd)pyrene	ug/L	0	50	47.0	48.4	94	97	0-171	3	20	
4,6-Dinitro-2-methylphenol	ug/L	0	50	30.1	29.6	60	59	0-181	2	20	
Naphthalene	ug/L	0	50	33.7	33.9	67	68	21-133	1	20	
Nitrobenzene	ug/L	0	50	35.5	35.5	71	71	35-180	0	20	
n-Nitrosodimethylamine	ug/L	0	50	25.6	26.0	51	52		2		
2-Nitrophenol	ug/L	0	50	32.7	33.6	65	67	29-182	3	20	
Phenanthrene	ug/L	0.0608	50	41.5	41.9	83	84	54-120	1	20	
2,4,6-Trichlorophenol	ug/L	0	50	37.5	38.8	75	78	37-144	4	20	
Di-n-butyl phthalate	ug/L	0	50	48.8	49.8	98	100	57-126	2	20	
2-Chloronaphthalene	ug/L	0.0739	50	35.7	36.8	71	74	60-118	4	20	
Phenol	ug/L	0	50	16.9	16.9	34	34	5-112	0	20	

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17508 17509 Original: 901791008

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
2-Chlorophenol	ug/L	0	50	31.3	32.9	63	66	23-134	5	20	
n-Nitrosodi-n-propylamine	ug/L	0	50	37.4	38.4	75	77	0-230	3	20	
1,4-Dichlorobenzene	ug/L	0	50	30.4	31.5	61	63	20-124	3	20	
n-Nitrosodiphenylamine	ug/L	0	50	38.9	39.2	78	78	42-113	0	20	
1,2,4-Trichlorobenzene	ug/L	0	50	31.4	32.6	63	65	44-142	3	20	
4-Chloro-3-methylphenol	ug/L	0	50	37.5	37.4	75	75	22-147	0	20	
Acenaphthene	ug/L	0	50	35.9	37.5	72	75	47-145	4	20	
4-Nitrophenol	ug/L	0	50	24.3	24.3	49	49	0-132	0	20	
2,4-Dinitrotoluene	ug/L	0	50	39.3	39.8	79	80	39-139	1	20	
Pentachlorophenol	ug/L	0	50	46.9	46.3	94	93	14-176	1	20	
Pyrene	ug/L	0.0488	50	44.5	44.2	89	88	52-115	1	20	
Benzidine	ug/L	0	50	9.7U	9.7U	16	9	10-104	56	20	6,5
Nitrobenzene-d5 (S)	%					74	74	39-117	0		
2-Fluorobiphenyl (S)	%					76	80	40-112	5		
Terphenyl-d14 (S)	%					106	105	31-146	0.9		
Phenol-d6 (S)	%					36	36	10-59	0		
2-Fluorophenol (S)	%					46	47	24-64	2		
2,4,6-Tribromophenol (S)	%					97	93	52-121	4		

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QUALITY CONTROL DATA

QC Batch: EXTO/1745 Analysis Method: EPA 1664A

QC Batch Method: EPA 1664A

Associated Lab Samples: 901783001 901783002 901789001 901839001 901842001 901843002 901850001 901850002 901850003 901853002

METHOD BLANK: 17510

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Oil and Grease	mg/L	1.4U	1.4	

LABORATORY CONTROL SAMPLE: 17511

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Wet Chemistry						
Oil and Grease	mg/L	200	186	93	78-114	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17512 17513 Original: 901791010

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Oil and Grease	mg/L	0.36	200	184	181	92	90	70-130	2	20	

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QUALITY CONTROL DATA

QC Batch: EXTO/1746 Analysis Method: EPA 504.1

QC Batch Method: EPA 504

Associated Lab Samples: 901742001, 901742002, 901780001, 901780002, 901835001, 901835003, 901838001, 901838002, 901840001, 901840002, 901842001, 901852001, 901852002, 901852003, 901872001, 901872002, 901873001, 901873002

METHOD BLANK: 17514

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDB Analysis				
1,2-Dibromo-3-chloropropane	ug/L	0.00310U	0.00310	
1,2-Dibromoethane	ug/L	0.00640U	0.00640	
4-Bromofluorobenzene (S)	%	78	70-130	

LABORATORY CONTROL SAMPLE & LCSD: 17515 17516

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
EDB Analysis										
1,2-Dibromo-3-chloropropane	ug/L	0.252	0.278	0.287	110	114	72-150	4	20	
1,2-Dibromoethane	ug/L	0.252	0.288	0.288	114	114	78-142	0	20	
4-Bromofluorobenzene (S)	%				78	77	70-130	1		

MATRIX SPIKE SAMPLE: 17517 Original: 901791009

Parameter	Units	Original Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
EDB Analysis							
1,2-Dibromo-3-chloropropane	ug/L	0	0.252	0.287	114	70-130	
1,2-Dibromoethane	ug/L	0	0.252	0.288	114	70-130	
4-Bromofluorobenzene (S)	%				76	70-130	

SAMPLE DUPLICATE: 17518 Original: 901742001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
EDB Analysis						
1,2-Dibromo-3-chloropropane	ug/L		0.00310U	0		
1,2-Dibromoethane	ug/L		0.00640U	0		
4-Bromofluorobenzene (S)	%		72	6		

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QUALITY CONTROL DATA

QC Batch: MISC/1114 Analysis Method: SM 2150 B

QC Batch Method: SM 2150 B

Associated Lab Samples: 901835002 901840001 901842001 901852001 901852002

METHOD BLANK: 17677

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Odor	TON	1U	1	

SAMPLE DUPLICATE: 17678 Original: 901840001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Odor	TON	16.0	16.0	0	20	

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QUALITY CONTROL DATA

QC Batch: LACH/1768 Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Associated Lab Samples: 901818001 901822001 901840001 901842001

METHOD BLANK: 17679

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Ortho Phosphate - P	mg/L-P	0.005U	0.005	

LABORATORY CONTROL SAMPLE & LCSD: 17680 17681

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Ortho Phosphate - P	mg/L-P	0.5	0.520	0.521	104	104	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17682 17683 Original: 901818001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Ortho Phosphate - P	mg/L-P	0.247	0.5	0.768	0.770	104	105	90-110	1	20	

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QUALITY CONTROL DATA

QC Batch: HACH/1120 Analysis Method: SM 2120B Color

QC Batch Method: SM 2120B Color

Associated Lab Samples: 901780001 901835001 901840001 901842001

METHOD BLANK: 17684

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Color (True/Apparent)	pcu	5.0U	5.0	

SAMPLE DUPLICATE: 17685 Original: 901780001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Color (True/Apparent)	pcu	300	300	0	20	

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QUALITY CONTROL DATA

QC Batch: DIGM/1602 Analysis Method: EPA 200.7

QC Batch Method: EPA 200.7

Associated Lab Samples: 901823001 901826001 901827001 901828002 901828004 901829001 901835001 901838001 901840001 901842001 901850001 901850002 901850003

METHOD BLANK: 17690

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Aluminum	mg/L	0.046U	0.046	
Chromium	mg/L	0.0011U	0.0011	
Copper	mg/L	0.0096U	0.0096	
Iron	mg/L	0.045U	0.045	
Nickel	mg/L	0.0052U	0.0052	
Silver	mg/L	0.0016U	0.0016	
Sodium	mg/L	0.074U	0.074	
Zinc	mg/L	0.0053U	0.0053	

LABORATORY CONTROL SAMPLE: 17691

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	mg/L	5	5.16	103	70-130	
Chromium	mg/L	1	1.05	105	70-130	
Copper	mg/L	1	1.06	106	70-130	
Iron	mg/L	5	5.34	107	70-130	
Nickel	mg/L	1	1.05	105	70-130	
Silver	mg/L	0.5	0.577	115	70-130	
Sodium	mg/L	25	27.4	109	70-130	
Zinc	mg/L	1	1.06	106	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17692 17693 Original: 901838001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Aluminum	mg/L	0.112	5	5.42	5.45	106	107	70-130	0.9	20	
Chromium	mg/L	0.00445	1	1.06	1.08	105	107	70-130	2	20	
Copper	mg/L	0.00733	1	1.07	1.08	107	108	70-130	0.9	20	
Iron	mg/L	0.193	5	5.50	5.38	106	104	70-130	2	20	
Nickel	mg/L	0.00367	1	1.04	1.05	104	105	70-130	1	20	
Silver	mg/L	-0.00322	0.5	0.605	0.580	121	116	70-130	4	20	
Sodium	mg/L	238	25	257	252	80	58	70-130	32	20	
Zinc	mg/L	0.0633	1	1.14	1.16	107	109	70-130	2	20	

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QUALITY CONTROL DATA

QC Batch: DIGM/1603 Analysis Method: EPA 200.8

QC Batch Method: EPA 200.8

Associated Lab Samples: 901738001 901738002 901742001 901742002 901802001 901835001 901838001 901839001 901840001 901842001 901843002 901850001 901850002 901850003

METHOD BLANK: 17694

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Antimony	mg/L	0.0010U	0.0010	
Arsenic	mg/L	0.0016U	0.0016	
Barium	mg/L	0.0015U	0.0015	
Beryllium	mg/L	0.00085U	0.00085	
Cadmium	mg/L	0.00011U	0.00011	
Lead	mg/L	0.00075U	0.00075	
Manganese	mg/L	0.0011U	0.0011	
Selenium	mg/L	0.00082U	0.00082	
Thallium	mg/L	0.00027U	0.00027	

LABORATORY CONTROL SAMPLE: 17695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.2	0.216	108	85-115	
Arsenic	mg/L	0.2	0.207	104	85-115	
Barium	mg/L	0.2	0.204	102	85-115	
Beryllium	mg/L	0.2	0.208	104	85-115	
Cadmium	mg/L	0.2	0.202	101	85-115	
Lead	mg/L	0.2	0.214	107	85-115	
Manganese	mg/L	0.2	0.210	105	85-115	
Selenium	mg/L	0.2	0.199	100	85-115	
Thallium	mg/L	0.2	0.211	106	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17696 17697 Original: 901838001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Antimony	mg/L			0.214	0.222						Q
Arsenic	mg/L			0.200	0.205						Q
Barium	mg/L	0.00704	0.2	0.201	0.208	97	101	70-130	4	20	Q
Beryllium	mg/L			0.202	0.207						Q
Cadmium	mg/L			0.188	0.198						Q
Lead	mg/L			0.212	0.215						Q
Manganese	mg/L	0.0177	0.2	0.207	0.208	95	95	70-130	0	20	Q
Selenium	mg/L			0.187	0.195						Q

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17696 17697 Original: 901838001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Thallium	mg/L			0.209	0.210						Q

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QUALITY CONTROL DATA

QC Batch: LACH/1770 Analysis Method: EPA 350.1

QC Batch Method: EPA 350.1

Associated Lab Samples: 901811001 901811002 901821001 901821002 901823001 901840001 901841005 901841006 901842001

METHOD BLANK: 17706

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Ammonia	mg/L-N	0.0234I	0.017	

LABORATORY CONTROL SAMPLE & LCSD: 17707 17708

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Ammonia	mg/L-N	2.5	2.70	2.70	108	108	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17709 17710 Original: 901810001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Ammonia	mg/L-N			2.13	2.14				1	20	

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QUALITY CONTROL DATA

QC Batch: INPR/1468 Analysis Method: SM 5540 C

QC Batch Method: SM 5540 C

Associated Lab Samples: 901780001 901835001 901838001 901840001 901842001 901852001 901852002 901872001 901873001

METHOD BLANK: 17734

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Surfactants	mg/L-LAS	0.040U	0.040	

LABORATORY CONTROL SAMPLE & LCSD: 17735 17736

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Surfactants	mg/L-LAS	1	0.997	0.979	100	98	80-120	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17737 17738 Original: 901844002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Surfactants	mg/L-LAS	0.271	1	1.28	1.27	101	100	80-120	1	20	

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QUALITY CONTROL DATA

QC Batch: EXTO/1758 Analysis Method: EPA 608

QC Batch Method: EPA 608

Associated Lab Samples: 901839001 901840001 901842001 901843002 901850001 901850002 901850003 901852001 901852002 901853002 901910001 901910002

METHOD BLANK: 17796

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Pesticides				
alpha-BHC	ug/L	0.000924U	0.000924	
beta-BHC	ug/L	0.00123U	0.00123	
delta-BHC	ug/L	0.000904U	0.000904	
Chlordane(Technical)	ug/L	0.00630U	0.00630	
gamma-Chlordane	ug/L	0.00130U	0.00130	
alpha-Chlordane	ug/L	0.00118U	0.00118	
Heptachlor epoxide	ug/L	0.00121U	0.00121	
Endosulfan I	ug/L	0.00103U	0.00103	
4,4'-DDE	ug/L	0.00148U	0.00148	
Endosulfan II	ug/L	0.00129U	0.00129	
4,4'-DDD	ug/L	0.000993U	0.000993	
Endosulfan sulfate	ug/L	0.000279U	0.000279	
Methoxychlor	ug/L	0.000900U	0.000900	
Endrin aldehyde	ug/L	0.000695U	0.000695	
Toxaphene	ug/L	0.047U	0.047	
Endrin ketone	ug/L	0.000969U	0.000969	
PCB 1221	ug/L	0.014U	0.014	
PCB 1232	ug/L	0.190U	0.190	
PCB 1242	ug/L	0.014U	0.014	
PCB 1248	ug/L	0.00850U	0.00850	
PCB 1254	ug/L	0.014U	0.014	
PCB 1016	ug/L	0.012U	0.012	
PCB 1260	ug/L	0.015U	0.015	
gamma-BHC (Lindane)	ug/L	0.000563U	0.000563	
Heptachlor	ug/L	0.00152U	0.00152	
Aldrin	ug/L	0.00139U	0.00139	
Dieldrin	ug/L	0.00106U	0.00106	
Endrin	ug/L	0.000717U	0.000717	
4,4'-DDT	ug/L	0.00120U	0.00120	
Tetrachloro-m-xylene (S)	%	49	32-137	
Decachlorobiphenyl (S)	%	74	25-165	

LABORATORY CONTROL SAMPLE: 17797

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Pesticides						
alpha-BHC	ug/L	0.1	0.067	67	33-150	
beta-BHC	ug/L	0.1	0.078	78	37-162	

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE: 17797

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
delta-BHC	ug/L	0.1	0.013I	13		
Chlordane(Technical)	ug/L		0.00630U			
gamma-Chlordane	ug/L	0.1	0.076	76	39-147	
alpha-Chlordane	ug/L	0.1	0.076	76	43-151	
Heptachlor epoxide	ug/L	0.1	0.077	77	48-138	
Endosulfan I	ug/L	0.1	0.075	75	42-148	
4,4'-DDE	ug/L	0.1	0.083I	83	38-174	
Endosulfan II	ug/L	0.1	0.084I	84	19-214	
4,4'-DDD	ug/L	0.1	0.087I	87	28-209	
Endosulfan sulfate	ug/L	0.1	0.078I	78	10-218	
Methoxychlor	ug/L	0.1	0.095	95	10-317	
Endrin aldehyde	ug/L	0.1	0.090I	90	12-217	
Toxaphene	ug/L		0.047U			
Endrin ketone	ug/L	0.1	0.076I	76	36-148	
PCB 1221	ug/L		0.014U			
PCB 1232	ug/L		0.190U			
PCB 1242	ug/L		0.014U			
PCB 1248	ug/L		0.00850U			
PCB 1254	ug/L		0.014U			
PCB 1016	ug/L		0.012U			
PCB 1260	ug/L		0.015U			
gamma-BHC (Lindane)	ug/L	0.1	0.070	70	33-155	
Heptachlor	ug/L	0.1	0.070	70	47-148	
Aldrin	ug/L	0.1	0.058	58	43-149	
Dieldrin	ug/L	0.1	0.079	79	47-162	
Endrin	ug/L	0.1	0.087I	87	41-189	
4,4'-DDT	ug/L	0.1	0.087I	87	14-228	
Tetrachloro-m-xylene (S)	%			56	32-137	
Decachlorobiphenyl (S)	%			91	25-165	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17798 17799 Original: 901874005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Pesticides											
alpha-BHC	ug/L	0	0.1	0.060	0.058	60	58	33-150	3	28	
beta-BHC	ug/L	0	0.1	0.070	0.068	70	68	37-162	3	27	
delta-BHC	ug/L	0	0.1	0.012I	0.012I	12	12		0		
Chlordane(Technical)	ug/L			0.00630U	0.00630U						
gamma-Chlordane	ug/L	0	0.1	0.061	0.057	61	57	39-147	7	24	
alpha-Chlordane	ug/L	0	0.1	0.073	0.068	73	68	43-151	7	28	
Heptachlor epoxide	ug/L	0	0.1	0.075	0.070	75	70	48-138	7	24	
Endosulfan I	ug/L	0	0.1	0.074	0.068	74	68	42-148	8	24	
4,4'-DDE	ug/L	0	0.1	0.078I	0.074I	78	74	38-174	5	33	
Endosulfan II	ug/L	0	0.1	0.080I	0.078I	80	78	19-214	3	33	

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17798 17799 Original: 901874005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
4,4'-DDD	ug/L	0	0.1	0.082I	0.079I	82	79	28-209	4	36	
Endosulfan sulfate	ug/L	0	0.1	0.073I	0.071I	73	71	10-218	3	35	
Methoxychlor	ug/L	0	0.1	0.084	0.083	84	83	10-317	1	26	
Endrin aldehyde	ug/L	0	0.1	0.070I	0.071I	70	71	12-217	1	24	
Toxaphene	ug/L			0.047U	0.047U						
Endrin ketone	ug/L	0	0.1	0.073I	0.072I	73	72	36-148	1	26	
PCB 1221	ug/L			0.014U	0.014U						
PCB 1232	ug/L			0.190U	0.190U						
PCB 1242	ug/L			0.014U	0.014U						
PCB 1248	ug/L			0.00850U	0.00850U						
PCB 1254	ug/L			0.014U	0.014U						
PCB 1016	ug/L			0.012U	0.012U						
PCB 1260	ug/L			0.015U	0.015U						
gamma-BHC (Lindane)	ug/L	0	0.1	0.065	0.061	65	61	33-155	6	26	
Heptachlor	ug/L	0	0.1	0.063	0.062	63	62	47-148	2	30	
Aldrin	ug/L	0	0.1	0.060	0.058	60	58	43-149	3	35	
Dieldrin	ug/L	0	0.1	0.077	0.071	77	71	47-162	8	33	
Endrin	ug/L	0	0.1	0.081I	0.076I	81	76	41-189	6	32	
4,4'-DDT	ug/L	0	0.1	0.078I	0.076I	78	76	14-228	3	28	
Tetrachloro-m-xylene (S)	%					50	50	32-137	0		
Decachlorobiphenyl (S)	%					79	79	25-165	0		

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QUALITY CONTROL DATA

QC Batch: IC/1189 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Associated Lab Samples: 901784001, 901821001, 901821002, 901823001, 901831002, 901835001, 901838001, 901840001, 901841001, 901841004, 901841005, 901841006, 901842001, 901852001, 901852002, 901854009, 901855003, 901872001, 901873001

METHOD BLANK: 17825

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Nitrate	mg/L-N	0.007U	0.007	
Nitrite	mg/L-N	0.005U	0.005	
Fluoride	mg/L	0.030U	0.030	
Sulfate	mg/L	0.076U	0.076	

LABORATORY CONTROL SAMPLE & LCSD: 17826 17827

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Nitrate	mg/L-N	2.5	2.58	2.61	103	104	90-110	1	20	
Nitrite	mg/L-N	2.5	2.44	2.46	97	98	90-110	1	20	
Fluoride	mg/L	2.5	2.54	2.59	102	104	90-110	1.9	20	
Sulfate	mg/L	7.5	7.64	7.69	102	103	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17828 17829 Original: 901841001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Nitrate	mg/L-N	0	25	26.7	26.0	107	104	90-110	3	20	
Nitrite	mg/L-N	0	25	25.7	23.9	103	96	90-110	7	20	
Fluoride	mg/L			35.8	35.3						
Sulfate	mg/L			126	120						

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QUALITY CONTROL DATA

QC Batch: MSV/1452 Analysis Method: EPA 524.2

QC Batch Method: EPA 524.2

Associated Lab Samples: 901834001 901835002 901835003 901838001 901838002 901840001 901840002 901842001 901852001 901852002 901872001 901872002 901873001 901873002

METHOD BLANK: 17837

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Volatiles				
Vinyl chloride	ug/L	0.120U	0.120	
1,1-Dichloroethene	ug/L	0.086U	0.086	
Methylene chloride	ug/L	0.117U	0.117	
trans-1,2-Dichloroethene	ug/L	0.087U	0.087	
cis-1,2-Dichloroethene	ug/L	0.085U	0.085	
Chloroform	ug/L	0.077U	0.077	
1,2-Dichloroethane	ug/L	0.070U	0.070	
1,1,1-Trichloroethane	ug/L	0.132U	0.132	
Benzene	ug/L	0.077U	0.077	
Carbon tetrachloride	ug/L	0.134U	0.134	
1,2-Dichloropropane	ug/L	0.093U	0.093	
Trichloroethene	ug/L	0.121U	0.121	
Bromodichloromethane	ug/L	0.091U	0.091	
Toluene	ug/L	0.140U	0.140	
Dibromochloromethane	ug/L	0.15U	0.15	
Tetrachloroethene	ug/L	0.148U	0.148	
Chlorobenzene	ug/L	0.113U	0.113	
Ethylbenzene	ug/L	0.070U	0.070	
Xylene, m,p-	ug/L	0.134U	0.134	
Bromoform	ug/L	0.15U	0.15	
Styrene	ug/L	0.040U	0.040	
Xylene, o-	ug/L	0.083U	0.083	
1,4-Dichlorobenzene	ug/L	0.150U	0.150	
1,2-Dichlorobenzene	ug/L	0.076U	0.076	
1,2,4-Trichlorobenzene	ug/L	0.117U	0.117	
1,1-Dichloroethane	ug/L	0.075U	0.075	
4-Bromofluorobenzene (S)	%	88	70-130	
1,2-Dichlorobenzene-d4 (S)	%	93	70-130	
Xylenes (total)	ug/L	0.210U	0.210	

LABORATORY CONTROL SAMPLE: 17838

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Volatiles						
Vinyl chloride	ug/L	5	5.32	106	70-130	
1,1-Dichloroethene	ug/L	5	4.50	90	70-130	
Methylene chloride	ug/L	5	3.82	76	70-130	

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE: 17838

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
trans-1,2-Dichloroethene	ug/L	5	4.47	89	70-130	
cis-1,2-Dichloroethene	ug/L	5	4.14	83	70-130	
Chloroform	ug/L	5	4.35	87	70-130	
1,2-Dichloroethane	ug/L	5	4.32	86	70-130	
1,1,1-Trichloroethane	ug/L	5	4.31	86	70-130	
Benzene	ug/L	5	4.18	84	70-130	
Carbon tetrachloride	ug/L	5	4.38	88	70-130	
1,2-Dichloropropane	ug/L	5	4.32	86	70-130	
Trichloroethene	ug/L	5	4.52	90	70-130	
Bromodichloromethane	ug/L	5	4.08	81.6	70-130	
Toluene	ug/L	5	4.45	89	70-130	
Dibromochloromethane	ug/L	5	4.62	92.4	70-130	
Tetrachloroethene	ug/L	5	4.66	93	70-130	
Chlorobenzene	ug/L	5	4.76	95	70-130	
Ethylbenzene	ug/L	5	4.51	90	70-130	
Xylene, m,p-	ug/L	10	9.01	90	70-130	
Bromoform	ug/L	5	4.06	81.2	70-130	
Styrene	ug/L	5	4.23	85	70-130	
Xylene, o-	ug/L	5	4.35	87	70-130	
1,4-Dichlorobenzene	ug/L	5	4.71	94	70-130	
1,2-Dichlorobenzene	ug/L	5	4.62	92	70-130	
1,2,4-Trichlorobenzene	ug/L	5	4.29	86	70-130	
1,1-Dichloroethane	ug/L	5	4.46	89	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
1,2-Dichlorobenzene-d4 (S)	%			99	70-130	
Xylenes (total)	ug/L		13.4			

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QUALITY CONTROL DATA

QC Batch: MICP/1259 Analysis Method: SM 5210B BOD

QC Batch Method: BOD PREP

Associated Lab Samples: 901835002 901840001 901842001 901852001 901852002 901853003 901872001 901873001

METHOD BLANK: 17849

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
BOD	mg/L	2.0U	2.0	

LABORATORY CONTROL SAMPLE: 17851

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Wet Chemistry						
BOD	mg/L	198	107	54	85-115	J

SAMPLE DUPLICATE: 17852 Original: 901842001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
BOD	mg/L	5.63	5.68	0.9	20	

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QUALITY CONTROL DATA

QC Batch: SOLI/1497 Analysis Method: SM 2540 C

QC Batch Method: SM 2540 C

Associated Lab Samples: 901780001, 901828002, 901828004, 901835001, 901840001, 901842001, 901852001, 901852002, 901872001, 901873001, 901880001, 901894001, 901894002, 901922001, 901922002, 901922003, 901922004, 901922005, 901922006

METHOD BLANK: 17860

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Dissolved Solids(TDS)	mg/L	7.00U	7.00	

SAMPLE DUPLICATE: 17861 Original: 901828002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Total Dissolved Solids(TDS)	mg/L	101	96.0	5.1	20	

SAMPLE DUPLICATE: 17862 Original: 901922006

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Total Dissolved Solids(TDS)	mg/L	772	744	3.7	20	

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QUALITY CONTROL DATA

QC Batch: MSV/1454 Analysis Method: EPA 624

QC Batch Method: EPA 624

Associated Lab Samples: 901839001 901842001 901843002 901850002 901850003 901852002 901852003 901853002 901908001 901908002 901910001 901910002

METHOD BLANK: 17874

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Volatiles				
Acrolein	ug/L	2.47U	2.47	
Chloromethane	ug/L	0.524U	0.524	
Vinyl chloride	ug/L	0.506U	0.506	
Bromomethane	ug/L	0.427U	0.427	
Chloroethane	ug/L	0.710U	0.710	
1,1-Dichloroethene	ug/L	0.640U	0.640	
Methylene chloride	ug/L	0.240U	0.240	
trans-1,2-Dichloroethene	ug/L	0.410U	0.410	
Acrylonitrile	ug/L	0.955U	0.955	
1,1-Dichloroethane	ug/L	0.410U	0.410	
cis-1,2-Dichloroethene	ug/L	0.442U	0.442	
Chloroform	ug/L	0.572U	0.572	
1,1,1-Trichloroethane	ug/L	0.680U	0.680	
Carbon tetrachloride	ug/L	0.468U	0.468	
Benzene	ug/L	0.621U	0.621	
1,2-Dichloroethane	ug/L	0.897U	0.897	
Trichloroethene	ug/L	0.821U	0.821	
1,2-Dichloropropane	ug/L	0.725U	0.725	
2-Chloroethylvinyl ether	ug/L	0.466U	0.466	
Bromodichloromethane	ug/L	0.140U	0.140	
cis-1,3-Dichloropropene	ug/L	0.664U	0.664	
Toluene	ug/L	0.389U	0.389	
trans-1,3-Dichloropropene	ug/L	0.522U	0.522	
1,1,2-Trichloroethane	ug/L	0.840U	0.840	
Tetrachloroethene	ug/L	0.312U	0.312	
Dibromochloromethane	ug/L	0.378U	0.378	
Chlorobenzene	ug/L	0.316U	0.316	
Ethylbenzene	ug/L	0.323U	0.323	
Bromoform	ug/L	0.486U	0.486	
1,1,2,2-Tetrachloroethane	ug/L	0.570U	0.570	
Xylene, m,p-	ug/L	0.639U	0.639	
Xylene, o-	ug/L	0.341U	0.341	
4-Bromofluorobenzene (S)	%	92	64-130	
Dibromofluoromethane (S)	%	117	69-134	
Toluene d8 (S)	%	102	63-127	

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE: 17875

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Volatiles						
Acrolein	ug/L	100	69.1	69	2-93	
Chloromethane	ug/L	20	23.2	116	46-173	
Vinyl chloride	ug/L	20	25.4	127	60-162	
Bromomethane	ug/L	20	19.2	96	33-170	
Chloroethane	ug/L	20	30.0	150	50-163	
1,1-Dichloroethene	ug/L	20	22.2	111	54-157	
Methylene chloride	ug/L	20	23.1	115	42-182	
trans-1,2-Dichloroethene	ug/L	20	22.7	113	49-164	
Acrylonitrile	ug/L	100	113	113	3-107	3,J
1,1-Dichloroethane	ug/L	20	22.0	110	60-167	
cis-1,2-Dichloroethene	ug/L	20	19.4	97	51-157	
Chloroform	ug/L	20	19.2	96	60-164	
1,1,1-Trichloroethane	ug/L	20	19.4	97	45-154	
Carbon tetrachloride	ug/L	20	20.2	101	45-154	
Benzene	ug/L	20	18.7	94	59-158	
1,2-Dichloroethane	ug/L	20	20.9	104	45-166	
Trichloroethene	ug/L	20	19.0	95	59-152	
1,2-Dichloropropane	ug/L	20	19.3	97	65-155	
2-Chloroethylvinyl ether	ug/L	20	13.8	69	2-176	
Bromodichloromethane	ug/L	20	18.2	91	64-146	
cis-1,3-Dichloropropene	ug/L	20	19.3	96	53-146	
Toluene	ug/L	20	19.7	99	62-149	
trans-1,3-Dichloropropene	ug/L	20	17.9	89	51-150	
1,1,2-Trichloroethane	ug/L	20	19.9	99	62-159	
Tetrachloroethene	ug/L	20	16.7	84	50-150	
Dibromochloromethane	ug/L	20	17.2	86	51-139	
Chlorobenzene	ug/L	20	17.2	86	64-144	
Ethylbenzene	ug/L	20	18.2	91	59-149	
Bromoform	ug/L	20	12.8	64	16-166	
1,1,2,2-Tetrachloroethane	ug/L	20	16.1	80	52-177	
Xylene, m,p-	ug/L	40	36.7	92	57-153	
Xylene, o-	ug/L	20	17.4	87	69-144	
4-Bromofluorobenzene (S)	%			95	64-130	
Dibromofluoromethane (S)	%			103	69-134	
Toluene d8 (S)	%			103	63-127	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17876 17877 Original: 901852002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Volatiles											
Acrolein	ug/L	0	100	33.7	35.1	34	35	2-93	3	20	
Chloromethane	ug/L	0	20	23.3	23.8	116	119	46-173	3	20	
Vinyl chloride	ug/L	0	20	24.4	23.6	122	118	60-162	3	20	

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17876 17877 Original: 901852002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Bromomethane	ug/L	0	20	12.7	13.3	64	66	33-170	3	20	
Chloroethane	ug/L	0	20	29.1	27.7	145	138	50-163	5	20	
1,1-Dichloroethene	ug/L	0	20	23.5	22.9	118	115	54-157	3	20	
Methylene chloride	ug/L	0	20	24.8	23.4	124	117	42-182	6	20	
trans-1,2-Dichloroethene	ug/L	0	20	24.3	23.3	121	116	49-164	4	20	
Acrylonitrile	ug/L	0	100	125	122	125	122	3-107	2	20	J,5
1,1-Dichloroethane	ug/L	0	20	23.2	23.1	116	116	60-167	0	20	
cis-1,2-Dichloroethene	ug/L	0	20	19.8	19.8	99	99	51-157	0	20	
Chloroform	ug/L	1.93	20	21.6	21.5	98	98	60-164	0	20	
1,1,1-Trichloroethane	ug/L	0	20	19.9	20.3	100	102	45-154	2	20	
Carbon tetrachloride	ug/L	0	20	20.9	20.7	105	104	45-154	1	20	
Benzene	ug/L	0	20	19.3	19.2	96	96	59-158	0	20	
1,2-Dichloroethane	ug/L	0	20	21.7	21.7	109	108	45-166	0.9	20	
Trichloroethene	ug/L	0	20	20.2	20.0	101	100	59-152	1	20	
1,2-Dichloropropane	ug/L	0	20	19.8	19.6	99	98	65-155	1	20	
2-Chloroethylvinyl ether	ug/L	0	20	17.0	19.7	85	99	2-176	15	20	
Bromodichloromethane	ug/L	0	20	19.4	19.3	97	96	64-146	1	20	
cis-1,3-Dichloropropene	ug/L	0	20	19.3	20.0	96	100	53-146	4	20	
Toluene	ug/L	0.31	20	20.3	20.5	102	103	62-149	1	20	
trans-1,3-Dichloropropene	ug/L	0	20	18.3	18.5	91	93	51-150	2	20	
1,1,2-Trichloroethane	ug/L	0	20	20.8	20.9	104	104	62-159	0	20	
Tetrachloroethene	ug/L	0.34	20	17.5	17.3	86	85	50-150	1	20	
Dibromochloromethane	ug/L	0	20	18.0	18.3	90	91	51-139	1	20	
Chlorobenzene	ug/L	0	20	17.4	17.9	87	90	64-144	3	20	
Ethylbenzene	ug/L	0	20	18.0	18.6	90	93	59-149	3	20	
Bromoform	ug/L	0	20	13.9	15.1	70	75	16-166	7	20	
1,1,2,2-Tetrachloroethane	ug/L	0	20	15.5	16.5	78	82	52-177	5	20	
Xylene, m,p-	ug/L	0	40	36.7	38.4	92	96	57-153	4	20	
Xylene, o-	ug/L	0	20	17.0	17.4	85	87	69-144	2	20	
4-Bromofluorobenzene (S)	%	90				92	96	64-130	4	20	
Dibromofluoromethane (S)	%	110				107	104	69-134	3	20	
Toluene d8 (S)	%	99				102	104	63-127	2	20	

MATRIX SPIKE SAMPLE: 18014 Original: 901853002

Parameter	Units	Original Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Volatiles							
Acrolein	ug/L	0	100	66.2	66	2-93	
Chloromethane	ug/L	0	20	23.2	116	46-173	
Vinyl chloride	ug/L	0	20	25.0	125	60-162	
Bromomethane	ug/L	0	20	16.5	82	33-170	
Chloroethane	ug/L	0	20	28.5	143	50-163	
1,1-Dichloroethene	ug/L	0	20	23.9	119	54-157	
Methylene chloride	ug/L	0.15	20	25.6	128	42-182	
trans-1,2-Dichloroethene	ug/L	0	20	25.9	129	49-164	
Acrylonitrile	ug/L	0	100	126	126	3-107	J,5

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QUALITY CONTROL DATA

MATRIX SPIKE SAMPLE: 18014 Original: 901853002

Parameter	Units	Original Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethane	ug/L	0	20	24.4	122	60-167	
cis-1,2-Dichloroethene	ug/L	0	20	21.5	108	51-157	
Chloroform	ug/L	18.9	20	37.2	92	60-164	J,5
1,1,1-Trichloroethane	ug/L	0	20	21.2	106	45-154	
Carbon tetrachloride	ug/L	0	20	22.1	110	45-154	
Benzene	ug/L	0	20	20.2	101	59-158	
1,2-Dichloroethane	ug/L	0	20	21.7	109	45-166	
Trichloroethene	ug/L	0	20	20.8	104	59-152	
1,2-Dichloropropane	ug/L	0	20	21.0	105	65-155	
2-Chloroethylvinyl ether	ug/L	0	20	2.65I	13	2-176	
Bromodichloromethane	ug/L	2.63	20	22.5	99	64-146	
cis-1,3-Dichloropropene	ug/L	0	20	18.4	92	53-146	
Toluene	ug/L	8.84	20	29.4	103	62-149	
trans-1,3-Dichloropropene	ug/L	0	20	18.5	92	51-150	
1,1,2-Trichloroethane	ug/L	0	20	21.0	105	62-159	
Tetrachloroethene	ug/L	0	20	18.4	92	50-150	
Dibromochloromethane	ug/L	0.32	20	19.5	98	51-139	
Chlorobenzene	ug/L	0	20	19.1	95	64-144	
Ethylbenzene	ug/L	0	20	19.9	100	59-149	
Bromoform	ug/L	0	20	15.6	78	16-166	
1,1,2,2-Tetrachloroethane	ug/L	0	20	17.5	88	52-177	
Xylene, m,p-	ug/L	0.24	40	40.5	101	57-153	
Xylene, o-	ug/L	0	20	19.0	95	69-144	
4-Bromofluorobenzene (S)	%	86			96	64-130	
Dibromofluoromethane (S)	%	116			102	69-134	
Toluene d8 (S)	%	100			101	63-127	

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QUALITY CONTROL DATA

QC Batch: INPR/1470 Analysis Method: EPA 335.4 Cyanide

QC Batch Method: EPA 335.2

Associated Lab Samples: 901742001, 901742002, 901780001, 901825001, 901835001, 901839001, 901840001, 901842001, 901843002, 901850001, 901850002, 901850003, 901852001, 901852002, 901853002, 901907001, 901907002, 901907003, 901910001

METHOD BLANK: 17913

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Cyanide	mg/L	0.0040U	0.0040	

LABORATORY CONTROL SAMPLE & LCSD: 17914 17915

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Total Cyanide	mg/L	0.2	0.2132	0.2143	107	107	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17916 17917 Original: 901742001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Total Cyanide	mg/L	0	0.2	0.1988	0.2040	99	102	90-110	3	20	

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QUALITY CONTROL DATA

QC Batch: DIGM/1613 Analysis Method: EPA 245.1

QC Batch Method: EPA 245.1

Associated Lab Samples: 901835001 901838001 901840001 901842001 901852001 901852002
901872001 901873001 901901001 901910001 901919001

METHOD BLANK: 17974

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Mercury	mg/L	0.000056U	0.000056	

LABORATORY CONTROL SAMPLE: 17975

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.002	0.00175	88	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17976 17977 Original: 901838001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Mercury	mg/L	3.3e-005	0.002	0.00200	0.00192	100	96	80-120	4	20	Q

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QUALITY CONTROL DATA

QC Batch: INPR/1473 Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Associated Lab Samples: 901780001, 901840001, 901841002, 901841004, 901842001, 901852001, 901852002, 901853003, 901854003, 901854005, 901854006, 901854007, 901855003, 901857001, 901896001, 901896002, 901896003, 901896004, 901896005, 901896006

METHOD BLANK: 17990

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Phosphorus	mg/L	0.004U	0.004	

LABORATORY CONTROL SAMPLE & LCSD: 17991 17992

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Total Phosphorus	mg/L	0.5	0.512	0.521	102	104	90-110	1.9	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 17995 17996 Original: 901896005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Total Phosphorus	mg/L	0.027	0.5	0.478	0.478	90.2	90.4	90-110	0.22	20	

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QUALITY CONTROL DATA

QC Batch: IC/1193 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Associated Lab Samples: 901778002, 901821001, 901833017, 901835001, 901838001, 901840001, 901841005, 901842001, 901852001, 901852002, 901872001, 901896001, 901896002, 901896004, 901896006, 901907003

METHOD BLANK: 18051

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Chloride	mg/L	0.066U	0.066	

LABORATORY CONTROL SAMPLE & LCSD: 18052 18053

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Chloride	mg/L	5	5.10	5.19	102	104	90-110	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 18054 18055 Original: 901833017

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Chloride	mg/L			203	207						

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QUALITY CONTROL DATA

QC Batch: PH/1052 Analysis Method: SM4500H-B

QC Batch Method: SM4500H-B

Associated Lab Samples: 901835001, 901838001, 901840001, 901842001, 901852001, 901852002, 901854001, 901854004, 901854005, 901854009, 901894001, 901894002, 901896001, 901896002, 901896003, 901896004, 901896005, 901896006, 901909001

SAMPLE DUPLICATE: 18165 Original: 901896001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
pH	pH unit	7.24	7.29	0.7	20	

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QUALITY CONTROL DATA

QC Batch: SPCD/1026 Analysis Method: EPA 120.1

QC Batch Method: EPA 120.1

Associated Lab Samples: 901784001, 901785010, 901785011, 901841004, 901841005, 901842001, 901852001, 901852002, 901894001, 901894002, 901989001, 901989002, 901989003, 901989004, 901989005, 901989006

METHOD BLANK: 18272

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Specific Conductance	umhos/c	2U	2	

SAMPLE DUPLICATE: 18273 Original: 901784001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Specific Conductance	umhos/c	1384	1407	2		

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QUALITY CONTROL DATA

QC Batch: INPR/1484 Analysis Method: EPA 351.2

QC Batch Method: EPA 351.2

Associated Lab Samples: 901780001, 901811002, 901821001, 901821002, 901823001, 901840001, 901841004, 901841005, 901841006, 901842001, 901852001, 901852002, 901853003, 901854003, 901854006, 901854008, 901855003, 901857001, 901880001

METHOD BLANK: 18613

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Kjeldahl Nitrogen	mg/L-N	0.266I	0.22	

LABORATORY CONTROL SAMPLE & LCSD: 18614 18615

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Total Kjeldahl Nitrogen	mg/L-N	5	4.56	5.22	91.1	104	90-110	13.2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 18616 18617 Original: 901811002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Total Kjeldahl Nitrogen	mg/L-N	6.44	5	9.74	11.0	66.1	92.1	90-110	32.9	20	

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QUALITY CONTROL DATA QUALIFIERS

QUALITY CONTROL PARAMETER QUALIFIERS

J	Estimated value.
Q	Holding time exceeded.
V	Present in blank.
[3]	NCR-LCS and/or LCSD recoveries above acceptable limits. The reported target analyte is below detection limits establishing that there is no high biased result reported
[5]	MS and/or MSD recoveries outside control limits. However, LCS and/or LCSD within limits. Data reported.
[6]	NCR-% RPD exceeds control limits

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QUALITY CONTROL CROSS REFERENCE TABLE

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
901842001	COMBINED EFFLUENT	EPA 625	EXTO/1744	EPA 625	MSSV/1248
901842001	COMBINED EFFLUENT	EPA 1664A	EXTO/1745		
901842001	COMBINED EFFLUENT	EPA 504.1	EXTO/1746	EPA 504.1	GCSV/1399
901842001	COMBINED EFFLUENT	SM 2150 B	MISC/1114		
901842001	COMBINED EFFLUENT	EPA 365.1	LACH/1768		
901842001	COMBINED EFFLUENT	SM 2120B Color	HACH/1120		
901842001	COMBINED EFFLUENT	EPA 200.7	DIGM/1602	EPA 200.7	ICP/1374
901842001	COMBINED EFFLUENT	EPA 200.8	DIGM/1603	EPA 200.8	ICPM/1076
901842001	COMBINED EFFLUENT	EPA 350.1	LACH/1770		
901842001	COMBINED EFFLUENT	SM 5540 C	INPR/1468	SM 5540 C	HACH/1123
901842001	COMBINED EFFLUENT	EPA 608	EXTO/1758	EPA 608	GCSV/1401
901842001	COMBINED EFFLUENT	EPA 300.0	IC/1189		
901842001	COMBINED EFFLUENT	EPA 524.2	MSV/1452		
901842001	COMBINED EFFLUENT	BOD PREP	MICP/1259	SM 5210B BOD	BOD/1220
901842001	COMBINED EFFLUENT	SM 2540 C	SOLI/1497		
901842001	COMBINED EFFLUENT	EPA 624	MSV/1454		
901842001	COMBINED EFFLUENT	EPA 335.2	INPR/1470	EPA 335.4 Cyanide	LACH/1791

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QUALITY CONTROL CROSS REFERENCE TABLE

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
901842001	COMBINED EFFLUENT	EPA 245.1	DIGM/1613	EPA 245.1	HG/1081
901842001	COMBINED EFFLUENT	EPA 365.1	INPR/1473	EPA 365.1	LACH/1784
901842001	COMBINED EFFLUENT	EPA 300.0	IC/1193		
901842001	COMBINED EFFLUENT	SM4500H-B	PH/1052		
901842001	COMBINED EFFLUENT	EPA 120.1	SPCD/1026		
901842001	COMBINED EFFLUENT	EPA 351.2	INPR/1484	EPA 351.2	LACH/1828
901842001	COMBINED EFFLUENT	1613	S_06/	1613	S_06/
901842001	COMBINED EFFLUENT	EPA 100.2	S_09/	EPA 100.2	S_09/
901842001	COMBINED EFFLUENT	EPA 508.1	S_05/	EPA 508.1	S_05/
901842001	COMBINED EFFLUENT	EPA 515.3	S_05/	EPA 515.3	S_05/
901842001	COMBINED EFFLUENT	EPA 525.2	S_05/	EPA 525.2	S_05/
901842001	COMBINED EFFLUENT	EPA 531.1	S_05/	EPA 531.1	S_05/
901842001	COMBINED EFFLUENT	EPA 547	S_05/	EPA 547	S_05/
901842001	COMBINED EFFLUENT	EPA 548.1	S_05/	EPA 548.1	S_05/
901842001	COMBINED EFFLUENT	EPA 549.2	S_05/	EPA 549.2	S_05/

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CHAIN OF CUSTODY RECORD

Log# 901842 T#S___ Quote:___ 156703 Page___of___

Company Name: MIAMI DADE WASD PO# 58591
Address: 3950 SW 232 ST
City: Miami State: FL Zip: 33170
Attn: CLIVE POWELL Fax# 3052538520
email: CPOWE@MIAMIDADE.GOV
Project Name: Annual Sampling Proj#
Sampler Signature: [signature] Phone# 3052538508

LAB ANALYSIS

Parameters: PRIORITY POLLUTANTS; OIL & GREASE; DIOXIN; (Combined 2/19/09) PRIMARY DRINKING WATER STANDARDS; SECONDARY DRINKING WATER STANDARDS; MUNICIPAL WWTP MINIMUM CRITERIA

#	Sample Label (Client ID)	Collect Date	Collect Time	Matrix Code	Field Filtered	Integrity OK(Y/N)	Total # of containers	# of Containers Size/Type
e.g.	MW-1	6/16/04	11:35	GW	X		1	1 16ozP
1	Combined Effluent	2/19/09	24HC	WW			29	(4) 8A; (4) LP; 1 (7) L; (8) V; (3) 8P; (1) 1GP U
2	Trip Blank							(4)
3								
4								
5								
6								
7								
8								
9								
0								

REMARKS

Please include Dibromoethane 2-Methyl-4,6-Dinitrophenol 2,3,7,8-Tetrachlorodibenzo-p-Dioxin

CALL 3059893390

Container Type Codes

AV Amber Vial; CV Clear Vial; P Plastic; AL Amber Liter; CL Clear Liter; AP Amber Plastic; AG Amber Glass; SJ Soil Jar; Other___
ES Encore Sampler; PPV Preprelserved vial; PLC Plastic container; PLJ Plastic Jar; Ziploc Ziploc bag; TEDLAR B Tedlar bag; WhirlPak Whirl pak; G Gallon Jug

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz or 1L, 40ml other...
Example: 4ozP = 4oz Plastic, 8ozSJ=8oz Soil Jar

Matrix Codes

SD Solid Waste; SO Soil; SE Sediment; OL Oil; PE Petroleum; NA Nonaqueous; ML Misc. Liquid; GW Ground Water; EFF Effluent; INF Influent
WW Waste Water; AFW Analyte Free Water; DW Drinking Water; SU Surface Water; AQ Aqueous; SW Source Water; A Air; O Other___ (Please Specify)

Pres/Codes

A. None; B. HNO₃; C. H₂SO₄; D. NaOH; E. HCL; F. MeOH; G. Na₂S₂O₃; H. NaHSO₄; I. Ice; J. MCAA; K. Zn Acetate; O. Other

EXAMPLE Diss 8RCRA 6010

ORIGINAL

TAT Standard	Rush	Short Hold	QA/QC Report Level	COC OK	Initials	Required State Certification	Coolers #'s
Y		Y N	None 1 2 3 Other	Y N	[initials]		

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
	Clive Powell	MDWASD	2/19/09	12:30	[signature]	GAS	2/19/09	1230
	John Jove	GAS	2/19/09	15:25	[signature]	Cas	2/19/09	15:25

Lab Use Only

	Yes	No	N/A
Sample INTACT upon arrival?			
Received on Wet Ice? Temp			
Proper Preservatives Indicated?			
Received within holding time?			
Custody seals intact?			
Volatile rec'd without headspace?			
Proper Containers Used?			

199124

Friday, March 20, 2009

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April 30, 2009

DEBORAH DAIGLE
HDR ENGINEERING
5426 BAY CENTER DR.
SUITE 400
Tampa, FL 33609

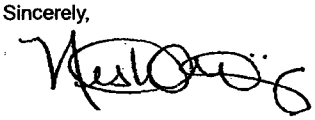
RE:
Workorder: 904015
Project: FPL

Dear DEBORAH DAIGLE:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, April 14, 2009. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Neshmah Castaneda
ncastaneda@genapure.com
Project Manager

FL-NELAC E86240

Statement of uncertainty is available upon request.
FL Qualifiers: I=value between MDL and PQL; V=value was positive in Blank; J=estimated value.See comment;
U=undetected; Q=out of hold
EPA Qualifiers: B=value was positive in Blank; J=estimated value. May be between MDL and PQL;
U=undetected; Q=out of hold
Enclosures

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SAMPLE SUMMARY

Lab ID	Sample ID	Collector	Matrix	Date Collected	Date Received	Temp
904015001	PW-1	CL	Groundwater	4/13/2009 16:00	4/14/2009 10:00	4
904015002	TRIP BLANK	CL	DI Water	4/13/2009 16:00	4/14/2009 10:00	4

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ANALYTICAL RESULTS

Lab ID: **904015001** Date Received: 4/14/2009 Matrix: Groundwater

Sample ID: **PW-1/** Date Collected: 4/13/2009 4:00:00 PM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Wet Chemistry									
Analytical Method: SM 2540 C									
Total Dissolved Solids(TDS)	35800		mg/L	350	500	50		4/16/2009 16:30	AR
Preparation Method: EPA 351.2		Analytical Method: EPA 351.2							
Total Kjeldahl Nitrogen	0.379	I	mg/L	0.22	0.40	1	4/20/2009 16:00	4/22/2009 12:49	IG
Analytical Method: EPA 350.1									
Ammonia	0.133		mg/L	0.017	0.050	1		4/21/2009 12:22	IG
Analytical Method: EPA 300.0									
Bromide	101		mg/L	0.522	5.00	10		4/15/2009 03:03	AD
Chloride	20700		mg/L	199	1500	3000		4/24/2009 15:28	AD
Fluoride	0.300	U	mg/L	0.300	2.00	10		4/15/2009 03:03	AD
Nitrate	0.074	U	mg/L	0.074	0.500	10		4/15/2009 03:03	AD
Nitrite	0.053	U	mg/L	0.053	0.500	10		4/15/2009 03:03	AD
Sulfate	2530	V	mg/L	15.1	100	200		4/20/2009 19:52	AD
Analytical Method: EPA 410.4									
COD	1510		mg/L	33.5	50.0	5		4/30/2009 16:58	AR
Analytical Method: SM 2320 B									
Total Alkalinity	154		mg/L	0.02	0.05	1		4/16/2009 12:00	JC
Preparation Method: BOD PREP		Analytical Method: SM 5210B BOD							
BOD	40	U	mg/L	40	40	20	4/14/2009 20:00	4/19/2009 12:45	RB
Analytical Method: SM 5310B									
Total Organic Carbon	2.5		mg/L	0.60	1.0	1		4/16/2009 08:46	LP
Analytical Method: EPA 1664A									
Oil and Grease	1.5	I	mg/L	1.4	4.0	1		4/15/2009 15:00	JS
Analytical Method: SW-846 7196A									
Chromium VI	0.007	U	mg/L	0.007	0.010	1		4/14/2009 15:30	AD
Preparation Method: SW-846 9012A		Analytical Method: SW-846 9012A							
Total Cyanide	0.0032	U	mg/L	0.0032	0.0050	1	4/16/2009 13:40	4/16/2009 16:57	IG
Analytical Method: SM 4500 CO2 D									
Bicarbonate Alkalinity	156		mg/L	2.0	2.0	1		4/16/2009 14:00	JC
Preparation Method: SM 5540 C		Analytical Method: SM 5540 C							
Surfactants	0.040	U	mg/L-LAS	0.040	0.200	1	4/15/2009 15:45	4/15/2009 15:45	AR
Analytical Method: SM 2130 B									
Turbidity	0.67	I	NTU	0.05	1.0	1		4/14/2009 17:00	ZE
Analytical Method: SM 2520 B									
Salinity	8.6			0.1	0.1	1		4/17/2009 15:30	AD

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ANALYTICAL RESULTS

Lab ID: **904015001** Date Received: 4/14/2009 Matrix: Groundwater

Sample ID: **PW-1/** Date Collected: 4/13/2009 4:00:00 PM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Analytical Method: SM 4500-S F(20th Ed.)									
Sulfide	8.00		mg/L	0.800	1.00	1		4/14/2009 18:00	AR
Analytical Method: EPA 365.1									
Ortho Phosphate - P	0.030		mg/L-P	0.005	0.015	1		4/15/2009 08:18	ZE
Total Phosphorus	0.063		mg/L	0.004	0.015	1	4/15/2009 09:30	4/15/2009 15:50	ZE
Analytical Method: SM 2540 D									
Total Suspended Solids	23.9		mg/L	2.0	4.0	1		4/16/2009 14:05	MF
Analytical Method: SM4500H-B									
pH	7.01		pH unit	0.100	0.100	1		4/15/2009 13:30	AD
Analytical Method: EPA 120.1									
Conductivity	21300		umhos/cm	2.0	2.0	1		4/23/2009 14:30	SM
Subcontract Analysis									
Analytical Method: EPA 906									
See Attached	Attached	U1				1		4/17/2009 12:00	SU
Analytical Method: Krone1989/GCMS									
See Attached	Attached	U2				1		4/23/2009 21:13	SU
Analytical Method: 903.1									
Radium 226	2.6+/-0.3	U3	pCi/l	0.20	0.20	1		4/27/2009 10:52	SU
Analytical Method: 900.0									
Gross Alpha (Incl Uranium)	53.4+/-28.8	U3	pCi/l	43	43	1		4/24/2009 13:52	SU
Gross Beta	44+/-29.8	U	pCi/l	41	41	1		4/24/2009 13:52	SU
Radiological Analysis									
Analytical Method: RA-05									
Radium 228	<0.9+/-0.6	U3	pCi/l	0.90	0.90	1		4/27/2009 11:12	SU
PCBs									
Preparation Method: 3510C	Analytical Method: SW-846 8082								
PCB 1016	0.012	U	ug/L	0.012	0.500	1	4/15/2009 18:00	4/18/2009 08:42	MR
PCB 1221	0.014	U	ug/L	0.014	0.500	1	4/15/2009 18:00	4/18/2009 08:42	MR
PCB 1232	0.190	U	ug/L	0.190	0.500	1	4/15/2009 18:00	4/18/2009 08:42	MR
PCB 1242	0.010	U	ug/L	0.010	0.500	1	4/15/2009 18:00	4/18/2009 08:42	MR
PCB 1248	0.00850	U	ug/L	0.00850	0.500	1	4/15/2009 18:00	4/18/2009 08:42	MR
PCB 1254	0.014	U	ug/L	0.014	0.500	1	4/15/2009 18:00	4/18/2009 08:42	MR
PCB 1260	0.015	U	ug/L	0.015	0.500	1	4/15/2009 18:00	4/18/2009 08:42	MR
Decachlorobiphenyl (S)	121		%	45-162		1	4/15/2009 18:00	4/18/2009 08:42	MR
Tetrachloro-m-xylene (S)	95		%	50-125		1	4/15/2009 18:00	4/18/2009 08:42	MR
Herbicides									

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ANALYTICAL RESULTS

Lab ID: **904015001** Date Received: 4/14/2009 Matrix: Groundwater

Sample ID: **PW-1/** Date Collected: 4/13/2009 4:00:00 PM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Preparation Method: 3510C Analytical Method: SW-846 8151A									
2,4,5-T	0.345	U	ug/L	0.345	2.00	1	4/15/2009 08:30	4/16/2009 06:46	MR
2,4,5-TP (Silvex)	0.492	U	ug/L	0.492	2.00	1	4/15/2009 08:30	4/16/2009 06:46	MR
2,4-D	0.406	U	ug/L	0.406	2.00	1	4/15/2009 08:30	4/16/2009 06:46	MR
2,4-DB	0.547	U	ug/L	0.547	2.00	1	4/15/2009 08:30	4/16/2009 06:46	MR
Dalapon	0.509	U	ug/L	0.509	2.00	1	4/15/2009 08:30	4/16/2009 06:46	MR
Dicamba	0.369	U	ug/L	0.369	2.00	1	4/15/2009 08:30	4/16/2009 06:46	MR
Dichlorprop	0.399	U	ug/L	0.399	2.00	1	4/15/2009 08:30	4/16/2009 06:46	MR
Dinoseb	0.509	U	ug/L	0.509	2.00	1	4/15/2009 08:30	4/16/2009 06:46	MR
MCPA	47.7	U	ug/L	47.7	200	1	4/15/2009 08:30	4/16/2009 06:46	MR
MCPP	98.0	U	ug/L	98.0	200	1	4/15/2009 08:30	4/16/2009 06:46	MR
DCAA (S)	66		%	46-142		1	4/15/2009 08:30	4/16/2009 06:46	MR
Metals Analysis									
Preparation Method: SW-846 7470 Analytical Method: SW-846 7470									
Mercury	0.00013	U	mg/L	0.00013	0.00020	1	4/23/2009 09:45	4/23/2009 17:03	IT
Preparation Method: SW-846 3010A Analytical Method: SW-846 6010									
Aluminum	0.046	U	mg/l	0.046	0.20	1	4/15/2009 15:45	4/17/2009 03:40	TB
Antimony	0.0038	U	mg/l	0.0038	0.020	1	4/15/2009 15:45	4/17/2009 03:40	TB
Arsenic	0.0046	U	mg/l	0.0046	0.010	1	4/15/2009 15:45	4/17/2009 03:40	TB
Barium	0.0159		mg/l	0.0020	0.010	1	4/15/2009 15:45	4/17/2009 03:40	TB
Beryllium	0.00067	U	mg/l	0.00067	0.0040	1	4/15/2009 15:45	4/17/2009 03:40	TB
Boron	4.41		mg/l	0.034	0.25	10	4/15/2009 15:45	4/17/2009 03:34	TB
Cadmium	0.00057	U	mg/l	0.00057	0.0050	1	4/15/2009 15:45	4/17/2009 03:40	TB
Calcium	471		mg/l	0.59	2.0	10	4/15/2009 15:45	4/17/2009 03:34	TB
Chromium	0.0011	U	mg/l	0.0011	0.0050	1	4/15/2009 15:45	4/17/2009 03:40	TB
Cobalt	0.00072	U	mg/l	0.00072	0.010	1	4/15/2009 15:45	4/17/2009 03:40	TB
Copper	0.0096	U	mg/l	0.0096	0.020	1	4/15/2009 15:45	4/17/2009 03:40	TB
Iron	0.189		mg/l	0.045	0.10	1	4/15/2009 15:45	4/17/2009 03:40	TB
Lead	0.0031	U	mg/l	0.0031	0.010	1	4/15/2009 15:45	4/17/2009 03:40	TB
Magnesium	1430		mg/l	0.45	2.0	10	4/15/2009 15:45	4/17/2009 03:34	TB
Manganese	0.015	U6	mg/l	0.015	0.015	1	4/15/2009 15:45	4/17/2009 03:40	TB
Molybdenum	0.0030	U	mg/l	0.0030	0.0050	1	4/15/2009 15:45	4/17/2009 03:40	TB
Nickel	0.0175		mg/l	0.0052	0.010	1	4/15/2009 15:45	4/17/2009 03:40	TB
Potassium	443		mg/l	3.50	10	10	4/15/2009 15:45	4/17/2009 03:34	TB
Selenium	0.0054	U	mg/l	0.0054	0.030	1	4/15/2009 15:45	4/17/2009 03:40	TB
Silica	5.00		mg/l		0.30	1	4/15/2009 15:45	4/17/2009 03:40	TB
Silver	0.0016	U	mg/l	0.0016	0.020	1	4/15/2009 15:45	4/17/2009 03:40	TB
Sodium	10000	V	mg/l	3.70	13	50	4/15/2009 15:45	4/17/2009 20:55	TB
Strontium	8.32		mg/l	0.015	0.15	10	4/15/2009 15:45	4/17/2009 03:34	TB
Tin	0.0042	U	mg/l	0.0042	0.025	1	4/15/2009 15:45	4/17/2009 03:40	TB
Titanium	0.0061	U	mg/l	0.0061	0.050	1	4/15/2009 15:45	4/17/2009 03:40	TB
Vanadium	0.0056	U	mg/l	0.0056	0.020	1	4/15/2009 15:45	4/17/2009 03:40	TB
Zinc	7.27	V	mg/l	0.053	0.25	10	4/15/2009 15:45	4/17/2009 03:34	TB
Preparation Method: EPA 200.8 Analytical Method: EPA 200.8									

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ANALYTICAL RESULTS

Lab ID: **904015001** Date Received: 4/14/2009 Matrix: Groundwater

Sample ID: **PW-1/** Date Collected: 4/13/2009 4:00:00 PM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Thallium	0.00027	U	mg/L	0.00027	0.0020	1	4/16/2009 20:00	4/21/2009 14:09	DF
PAH									
Preparation Method: 3510C	Analytical Method: SW-846 8270C low PAH								
1-Methylnaphthalene	0.026	U	ug/L	0.026	1.0	1	4/16/2009 13:30	4/17/2009 00:04	TB
2-Methylnaphthalene	0.030	U	ug/L	0.030	1.0	1	4/16/2009 13:30	4/17/2009 00:04	TB
Acenaphthene	0.027	U	ug/L	0.027	1.0	1	4/16/2009 13:30	4/17/2009 00:04	TB
Acenaphthylene	0.026	U	ug/L	0.026	1.0	1	4/16/2009 13:30	4/17/2009 00:04	TB
Anthracene	0.0056	U	ug/L	0.0056	1.0	1	4/16/2009 13:30	4/17/2009 00:04	TB
Benzo(a)anthracene	0.011	U	ug/L	0.011	0.10	1	4/16/2009 13:30	4/17/2009 00:04	TB
Benzo(a)pyrene	0.013	U	ug/L	0.013	0.10	1	4/16/2009 13:30	4/17/2009 00:04	TB
Benzo(b)fluoranthene	0.015	U	ug/L	0.015	0.10	1	4/16/2009 13:30	4/17/2009 00:04	TB
Benzo(g,h,i)perylene	0.014	U	ug/L	0.014	0.10	1	4/16/2009 13:30	4/17/2009 00:04	TB
Benzo(k)fluoranthene	0.012	U	ug/L	0.012	0.10	1	4/16/2009 13:30	4/17/2009 00:04	TB
Chrysene	0.017	U	ug/L	0.017	0.10	1	4/16/2009 13:30	4/17/2009 00:04	TB
Dibenz(a,h)anthracene	0.0056	U	ug/L	0.0056	0.20	1	4/16/2009 13:30	4/17/2009 00:04	TB
Fluoranthene	0.0078	U	ug/L	0.0078	1.0	1	4/16/2009 13:30	4/17/2009 00:04	TB
Fluorene	0.011	U	ug/L	0.011	1.0	1	4/16/2009 13:30	4/17/2009 00:04	TB
Indeno(1,2,3-cd)pyrene	0.011	U	ug/L	0.011	0.10	1	4/16/2009 13:30	4/17/2009 00:04	TB
Naphthalene	0.034	U	ug/L	0.034	1.0	1	4/16/2009 13:30	4/17/2009 00:04	TB
Phenanthrene	0.014	U	ug/L	0.014	1.0	1	4/16/2009 13:30	4/17/2009 00:04	TB
Pyrene	0.0084	U	ug/L	0.0084	0.10	1	4/16/2009 13:30	4/17/2009 00:04	TB
2-Fluorobiphenyl (S)	59.9		%	10-116		1	4/16/2009 13:30	4/17/2009 00:04	TB
Nitrobenzene-d5 (S)	62.4		%	10-112		1	4/16/2009 13:30	4/17/2009 00:04	TB
Terphenyl-d14 (S)	82.4		%	20-128		1	4/16/2009 13:30	4/17/2009 00:04	TB
Organophosphorus Pesticides									
Preparation Method: 3510C	Analytical Method: SW-846 8141A								
Aspon	0.185	U	ug/L	0.185	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Azinphos-ethyl	0.130	U	ug/L	0.130	2.00	1	4/14/2009 23:00	4/16/2009 04:38	LR
Bolstar	0.202	U	ug/L	0.202	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Carbophenothion	0.063	U	ug/L	0.063	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Chlorpyrifos	0.121	U	ug/L	0.121	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Chlorpyrifos-methyl	0.137	U	ug/L	0.137	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Coumaphos	0.079	U	ug/L	0.079	1.50	1	4/14/2009 23:00	4/16/2009 04:38	LR
Crotoxyphos	0.078	U	ug/L	0.078	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Demeton-o	0.041	U	ug/L	0.041	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Demeton-s	0.062	U	ug/L	0.062	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Dichlorfenthion	0.190	U	ug/L	0.190	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Dichlorovos	0.075	U	ug/L	0.075	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Dicrotophos	0.175	U	ug/L	0.175	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Dimethoate	0.184	U	ug/L	0.184	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Dioxathion	0.110	U	ug/L	0.110	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Disulfoton	0.129	U	ug/L	0.129	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
EPN	0.132	U	ug/L	0.132	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Ethion	0.132	U	ug/L	0.132	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR

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ANALYTICAL RESULTS

Lab ID: **904015001** Date Received: 4/14/2009 Matrix: Groundwater

Sample ID: **PW-1/** Date Collected: 4/13/2009 4:00:00 PM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Ethoprop	0.068	U	ug/L	0.068	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Famphur	0.081	U	ug/L	0.081	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Fenithrothion	0.198	U	ug/L	0.198	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Fensulfothion	0.192	U	ug/L	0.192	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Fenthion	0.074	U	ug/L	0.074	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Leptophos	0.046	U	ug/L	0.046	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Merphos	0.208	U	ug/L	0.208	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Mevinphos	0.172	U	ug/L	0.172	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Naled	0.220	U	ug/L	0.220	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Phorate	0.177	U	ug/L	0.177	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Phosmet	0.102	U	ug/L	0.102	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Phosphamidon	0.311	U	ug/L	0.311	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Ronnel	0.054	U	ug/L	0.054	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
TEPP	0.189	U	ug/L	0.189	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Terbufos	0.063	U	ug/L	0.063	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Tetrachlorvinphos (Stirofos)	0.107	U	ug/L	0.107	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Thionazine	0.179	U	ug/L	0.179	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Tokuthion (Prothiophos)	0.106	U	ug/L	0.106	0.500	1	4/14/2009 23:00	4/16/2009 04:38	LR
Trichlorfon	1.09	U	ug/L	1.09	1.80	1	4/14/2009 23:00	4/16/2009 04:38	LR
Triphenyl Phosphate (S)	89		%	43-134		1	4/14/2009 23:00	4/16/2009 04:38	LR
Tributyl Phosphate (S)	108		%	44-125		1	4/14/2009 23:00	4/16/2009 04:38	LR
Semivolatiles									
Preparation Method: 3510C Analytical Method: SW-846 8270C									
1,2,4-Trichlorobenzene	1.5	U	ug/L	1.5	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
1,2-Dichlorobenzene	0.34	U	ug/L	0.34	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
1,2-Diphenylhydrazine	0.23	U	ug/L	0.23	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
1,3-Dichlorobenzene	0.35	U	ug/L	0.35	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
1,4-Dichlorobenzene	0.28	U	ug/L	0.28	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
2,4,5-Trichlorophenol	0.38	U	ug/L	0.38	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
2,4,6-Trichlorophenol	0.27	U	ug/L	0.27	1.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
2,4-Dichlorophenol	0.43	U	ug/L	0.43	0.53	1	4/16/2009 09:00	4/16/2009 18:02	TB
2,4-Dinitrophenol	1.4	U	ug/L	1.4	10	1	4/16/2009 09:00	4/16/2009 18:02	TB
2,4-Dinitrotoluene	0.31	U	ug/L	0.31	0.45	1	4/16/2009 09:00	4/16/2009 18:02	TB
2,6-Dinitrotoluene	0.31	U	ug/L	0.31	0.39	1	4/16/2009 09:00	4/16/2009 18:02	TB
2-Chloronaphthalene	0.32	U	ug/L	0.32	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
2-Chlorophenol	2.6	U	ug/L	2.6	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
2-Methylphenol	0.22	U	ug/L	0.22	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
2-Nitroaniline	0.20	U	ug/L	0.20	50	1	4/16/2009 09:00	4/16/2009 18:02	TB
2-Nitrophenol	0.24	U	ug/L	0.24	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
3,3'-Dichlorobenzidine	0.31	U	ug/L	0.31	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
3-Nitroaniline	0.28	U	ug/L	0.28	50	1	4/16/2009 09:00	4/16/2009 18:02	TB
4,6-Dinitro-2-methylphenol	0.35	U	ug/L	0.35	10	1	4/16/2009 09:00	4/16/2009 18:02	TB
4-Chloro-3-methylphenol	0.22	U	ug/L	0.22	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
4-Chloroaniline	0.29	U	ug/L	0.29	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
4-Chlorophenyl phenyl ether	0.45	U	ug/L	0.45	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB

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ANALYTICAL RESULTS

Lab ID: **904015001** Date Received: 4/14/2009 Matrix: Groundwater

Sample ID: **PW-1/** Date Collected: 4/13/2009 4:00:00 PM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Aniline	0.28	U	ug/L	0.28	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
Benzidine	9.7	U	ug/L	9.7	10	1	4/16/2009 09:00	4/16/2009 18:02	TB
Benzoic acid	2.0	U	ug/L	2.0	50	1	4/16/2009 09:00	4/16/2009 18:02	TB
Benzyl alcohol	0.22	U	ug/L	0.22	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
Bis(2-Chloroethoxy)methane	0.32	U	ug/L	0.32	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
Bis(2-Chloroethyl)ether	0.46	U	ug/L	0.46	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
Bis(2-Chloroisopropyl)ether	0.34	U	ug/L	0.34	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
Bis(2-Ethylhexyl)phthalate	0.20	U	ug/L	0.20	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
4-Bromophenyl phenyl ether	0.27	U	ug/L	0.27	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
Butyl benzyl phthalate	0.36	U	ug/L	0.36	10	1	4/16/2009 09:00	4/16/2009 18:02	TB
Carbazole	0.28	U	ug/L	0.28	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
Di-n-butyl phthalate	0.21	U	ug/L	0.21	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
Di-n-octyl phthalate	0.28	U	ug/L	0.28	1.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
Dibenzofuran	0.29	U	ug/L	0.29	10	1	4/16/2009 09:00	4/16/2009 18:02	TB
Diethyl phthalate	0.33	U	ug/L	0.33	1.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
Dimethyl phthalate	0.31	U	ug/L	0.31	1.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
2,4-Dimethylphenol	0.40	U	ug/L	0.40	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
Hexachlorobenzene	0.32	U	ug/L	0.32	1.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
Hexachlorobutadiene	0.45	U	ug/L	0.45	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
Hexachlorocyclopentadiene	0.70	U	ug/L	0.70	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
Hexachloroethane	0.36	U	ug/L	0.36	2.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
Isophorone	0.34	U	ug/L	0.34	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
4-Nitroaniline	0.24	U	ug/L	0.24	50	1	4/16/2009 09:00	4/16/2009 18:02	TB
Nitrobenzene	0.31	U	ug/L	0.31	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
4-Nitrophenol	0.79	U	ug/L	0.79	10	1	4/16/2009 09:00	4/16/2009 18:02	TB
Pentachlorophenol	0.70	U	ug/L	0.70	10	1	4/16/2009 09:00	4/16/2009 18:02	TB
Phenol	0.40	U	ug/L	0.40	1.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
Pyridine	8.9	U	ug/L	8.9	10	1	4/16/2009 09:00	4/16/2009 18:02	TB
m,p-Cresol	0.23	U	ug/L	0.23	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
n-Nitrosodi-n-propylamine	0.33	U	ug/L	0.33	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
n-Nitrosodimethylamine	3.4	U	ug/L	3.4	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
n-Nitrosodiphenylamine	0.31	U	ug/L	0.31	4.0	1	4/16/2009 09:00	4/16/2009 18:02	TB
Nitrobenzene-d5 (S)	58		%	7.7-130		1	4/16/2009 09:00	4/16/2009 18:02	TB
2-Fluorobiphenyl (S)	58		%	19-126		1	4/16/2009 09:00	4/16/2009 18:02	TB
Terphenyl-d14 (S)	62		%	27-133		1	4/16/2009 09:00	4/16/2009 18:02	TB
Phenol-d6 (S)	34.5		%	10-59		1	4/16/2009 09:00	4/16/2009 18:02	TB
2-Fluorophenol (S)	44		%	28-62		1	4/16/2009 09:00	4/16/2009 18:02	TB
2,4,6-Tribromophenol (S)	64		%	48-132		1	4/16/2009 09:00	4/16/2009 18:02	TB
Analytical Method: EPA 300.1									
Bromate	83	U4	ug/L	83	620	250		4/20/2009 13:42	SU
Volatiles									
Analytical Method: SW-846 8260B									
1,1,1,2-Tetrachloroethane	0.120	U	ug/L	0.120	1.00	1		4/16/2009 16:10	LN
1,1,1-Trichloroethane	0.682	U	ug/L	0.682	1.00	1		4/16/2009 16:10	LN
1,1,2,2-Tetrachloroethane	0.572	U	ug/L	0.572	1.00	1		4/16/2009 16:10	LN

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ANALYTICAL RESULTS

Lab ID: **904015001** Date Received: 4/14/2009 Matrix: Groundwater

Sample ID: **PW-1/** Date Collected: 4/13/2009 4:00:00 PM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
1,1,2-Trichloroethane	0.841	U	ug/L	0.841	1.00	1		4/16/2009 16:10	LN
1,1-Dichloroethane	0.410	U	ug/L	0.410	1.00	1		4/16/2009 16:10	LN
1,1-Dichloroethene	0.638	U	ug/L	0.638	1.00	1		4/16/2009 16:10	LN
1,1-Dichloropropene	0.632	U	ug/L	0.632	1.00	1		4/16/2009 16:10	LN
1,2,3-Trichlorobenzene	0.686	U	ug/L	0.686	1.00	1		4/16/2009 16:10	LN
1,2,3-Trichloropropane	0.160	U	ug/L	0.160	1.00	1		4/16/2009 16:10	LN
1,2,4-Trichlorobenzene	0.538	U	ug/L	0.538	1.00	1		4/16/2009 16:10	LN
1,2,4-Trimethylbenzene	0.508	U	ug/L	0.508	1.00	1		4/16/2009 16:10	LN
1,2-Dibromo-3-chloropropane	0.933	U	ug/L	0.933	1.00	1		4/16/2009 16:10	LN
1,2-Dibromoethane	0.345	U	ug/L	0.345	1.00	1		4/16/2009 16:10	LN
1,2-Dichlorobenzene	0.584	U	ug/L	0.584	1.00	1		4/16/2009 16:10	LN
1,2-Dichloroethane	0.897	U	ug/L	0.897	1.00	1		4/16/2009 16:10	LN
1,2-Dichloropropane	0.725	U	ug/L	0.725	1.00	1		4/16/2009 16:10	LN
1,3,5-Trimethylbenzene	0.477	U	ug/L	0.477	1.00	1		4/16/2009 16:10	LN
1,3-Dichlorobenzene	0.558	U	ug/L	0.558	1.00	1		4/16/2009 16:10	LN
1,3-Dichloropropane	0.345	U	ug/L	0.345	1.00	1		4/16/2009 16:10	LN
1,4-Dichlorobenzene	0.537	U	ug/L	0.537	1.00	1		4/16/2009 16:10	LN
2,2-Dichloropropane	0.700	U	ug/L	0.700	1.00	1		4/16/2009 16:10	LN
2-Butanone	4.28	U	ug/L	4.28	10.0	1		4/16/2009 16:10	LN
2-Chloroethylvinyl ether	0.470	U	ug/L	0.470	1.00	1		4/16/2009 16:10	LN
2-Chlorotoluene	0.550	U	ug/L	0.550	1.00	1		4/16/2009 16:10	LN
2-Hexanone	1.83	U	ug/L	1.83	10.0	1		4/16/2009 16:10	LN
4-Chlorotoluene	0.570	U	ug/L	0.570	1.00	1		4/16/2009 16:10	LN
4-Isopropyltoluene	0.380	U	ug/L	0.380	1.00	1		4/16/2009 16:10	LN
4-Methyl-2-pentanone	0.220	U	ug/L	0.220	1.00	1		4/16/2009 16:10	LN
Acetone	1.43	U	ug/L	1.43	10.0	1		4/16/2009 16:10	LN
Acrolein	2.47	U	ug/L	2.47	10.0	1		4/16/2009 16:10	LN
Acrylonitrile	0.955	U	ug/L	0.955	10.0	1		4/16/2009 16:10	LN
Benzene	0.621	U	ug/L	0.621	1.00	1		4/16/2009 16:10	LN
Bromobenzene	0.382	U	ug/L	0.382	1.00	1		4/16/2009 16:10	LN
Bromochloromethane	0.637	U	ug/L	0.637	1.00	1		4/16/2009 16:10	LN
Bromodichloromethane	0.100	U	ug/L	0.100	1.00	1		4/16/2009 16:10	LN
Bromoform	0.486	U	ug/L	0.486	1.00	1		4/16/2009 16:10	LN
Bromomethane	0.427	U	ug/L	0.427	1.00	1		4/16/2009 16:10	LN
n-Butylbenzene	0.564	U	ug/L	0.564	1.00	1		4/16/2009 16:10	LN
Carbon disulfide	0.650	U	ug/L	0.650	10.0	1		4/16/2009 16:10	LN
Carbon tetrachloride	0.468	U	ug/L	0.468	1.00	1		4/16/2009 16:10	LN
Chlorobenzene	0.316	U	ug/L	0.316	1.00	1		4/16/2009 16:10	LN
Chloroethane	1.00	U	ug/L	1.00	1.00	1		4/16/2009 16:10	LN
Chloroform	0.572	U	ug/L	0.572	1.00	1		4/16/2009 16:10	LN
Chloromethane	0.524	U	ug/L	0.524	1.00	1		4/16/2009 16:10	LN
Dibromochloromethane	0.378	U	ug/L	0.378	1.00	1		4/16/2009 16:10	LN
Dibromomethane	0.739	U	ug/L	0.739	1.00	1		4/16/2009 16:10	LN
Dichlorodifluoromethane	0.525	U	ug/L	0.525	1.00	1		4/16/2009 16:10	LN
cis-1,3-Dichloropropene	0.664	U	ug/L	0.664	1.00	1		4/16/2009 16:10	LN

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ANALYTICAL RESULTS

Lab ID: **904015001** Date Received: 4/14/2009 Matrix: Groundwater

Sample ID: **PW-1/** Date Collected: 4/13/2009 4:00:00 PM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
trans-1,3-Dichloropropene	0.522	U	ug/L	0.522	1.00	1		4/16/2009 16:10	LN
Ethylbenzene	0.323	U	ug/L	0.323	1.00	1		4/16/2009 16:10	LN
Hexachlorobutadiene	0.763	U	ug/L	0.763	1.00	1		4/16/2009 16:10	LN
Isopropylbenzene (Cumene)	0.528	U	ug/L	0.528	1.00	1		4/16/2009 16:10	LN
Methyl-t-butyl ether	0.650	U	ug/L	0.650	1.00	1		4/16/2009 16:10	LN
Methylene chloride	0.580	U	ug/L	0.580	5.00	1		4/16/2009 16:10	LN
Naphthalene	0.417	U	ug/L	0.417	1.00	1		4/16/2009 16:10	LN
Styrene	0.458	U	ug/L	0.458	1.00	1		4/16/2009 16:10	LN
Tetrachloroethene	0.312	U	ug/L	0.312	1.00	1		4/16/2009 16:10	LN
Toluene	0.389	U	ug/L	0.389	1.00	1		4/16/2009 16:10	LN
Trichloroethene	0.821	U	ug/L	0.821	1.00	1		4/16/2009 16:10	LN
Trichlorofluoromethane	1.00	U	ug/L	1.00	1.00	1		4/16/2009 16:10	LN
Vinyl acetate	0.570	U	ug/L	0.570	10.0	1		4/16/2009 16:10	LN
Vinyl chloride	0.506	U	ug/L	0.506	1.00	1		4/16/2009 16:10	LN
Xylene, m,p-	0.639	U	ug/L	0.639	2.00	1		4/16/2009 16:10	LN
Xylene, o-	0.341	U	ug/L	0.341	1.00	1		4/16/2009 16:10	LN
Xylenes (total)	0.980	U	ug/L	0.980	3.00	1		4/16/2009 16:10	LN
cis-1,2-Dichloroethene	0.442	U	ug/L	0.442	1.00	1		4/16/2009 16:10	LN
n-Propylbenzene	0.624	U	ug/L	0.624	1.00	1		4/16/2009 16:10	LN
sec-Butylbenzene	0.521	U	ug/L	0.521	1.00	1		4/16/2009 16:10	LN
tert-Butylbenzene	0.607	U	ug/L	0.607	1.00	1		4/16/2009 16:10	LN
trans-1,2-Dichloroethene	0.410	U	ug/L	0.410	1.00	1		4/16/2009 16:10	LN
4-Bromofluorobenzene (S)	85		%	64-130		1		4/16/2009 16:10	LN
Dibromofluoromethane (S)	98		%	69-134		1		4/16/2009 16:10	LN
Toluene d8 (S)	98		%	63-127		1		4/16/2009 16:10	LN
Pesticides									
Preparation Method: 3510C	Analytical Method: SW-846 8081A								
4,4'-DDD	0.000993	U	ug/L	0.000993	0.100	1	4/14/2009 20:00	4/16/2009 13:39	CC
4,4'-DDE	0.00148	U	ug/L	0.00148	0.100	1	4/14/2009 20:00	4/16/2009 13:39	CC
4,4'-DDT	0.00120	U	ug/L	0.00120	0.100	1	4/14/2009 20:00	4/16/2009 13:39	CC
Aldrin	0.00139	U	ug/L	0.00139	0.050	1	4/14/2009 20:00	4/16/2009 13:39	CC
Dieldrin	0.00106	U	ug/L	0.00106	0.050	1	4/14/2009 20:00	4/16/2009 13:39	CC
Endosulfan I	0.00103	U	ug/L	0.00103	0.100	1	4/14/2009 20:00	4/16/2009 13:39	CC
Endosulfan II	0.00103	U	ug/L	0.00103	0.100	1	4/14/2009 20:00	4/16/2009 13:39	CC
Endosulfan sulfate	0.00279	U	ug/L	0.00279	0.100	1	4/14/2009 20:00	4/16/2009 13:39	CC
Endrin	0.00717	U	ug/L	0.00717	0.100	1	4/14/2009 20:00	4/16/2009 13:39	CC
Endrin aldehyde	0.000695	U	ug/L	0.000695	0.100	1	4/14/2009 20:00	4/16/2009 13:39	CC
Endrin ketone	0.000969	U	ug/L	0.000969	0.100	1	4/14/2009 20:00	4/16/2009 13:39	CC
Heptachlor	0.00152	U	ug/L	0.00152	0.050	1	4/14/2009 20:00	4/16/2009 13:39	CC
Heptachlor epoxide	0.00236	I	ug/L	0.00121	0.050	1	4/14/2009 20:00	4/16/2009 13:39	CC
Methoxychlor	0.000900	U	ug/L	0.000900	0.100	1	4/14/2009 20:00	4/16/2009 13:39	CC
Toxaphene	0.047	U	ug/L	0.047	3.00	1	4/14/2009 20:00	4/16/2009 13:39	CC
alpha-BHC	0.000924	U	ug/L	0.000924	0.050	1	4/14/2009 20:00	4/16/2009 13:39	CC
alpha-Chlordane	0.00118	U	ug/L	0.00118	0.050	1	4/14/2009 20:00	4/16/2009 13:39	CC
beta-BHC	0.00123	U	ug/L	0.00123	0.020	1	4/14/2009 20:00	4/16/2009 13:39	CC

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ANALYTICAL RESULTS

Lab ID: **904015001** Date Received: 4/14/2009 Matrix: Groundwater

Sample ID: **PW-1/** Date Collected: 4/13/2009 4:00:00 PM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
delta-BHC	0.000904	U	ug/L	0.000904	0.050	1	4/14/2009 20:00	4/16/2009 13:39	CC
gamma-BHC (Lindane)	0.000563	U	ug/L	0.000563	0.050	1	4/14/2009 20:00	4/16/2009 13:39	CC
gamma-Chlordane	0.00130	U	ug/L	0.00130	0.050	1	4/14/2009 20:00	4/16/2009 13:39	CC
Tetrachloro-m-xylene (S)	71		%	32-137		1	4/14/2009 20:00	4/16/2009 13:39	CC
Decachlorobiphenyl (S)	87		%	25-165		1	4/14/2009 20:00	4/16/2009 13:39	CC
Wet Chemistry - Subcontract									
Analytical Method: EPA 100.2									
Asbestos	0.18	U5	MFL	0.18	0.18	1		4/16/2009 17:00	SU
Analytical Method: EPA 7063 mod									
Arsenite (Trivalent As)	2	U2	ug/L	2	2	1		4/27/2009 12:00	SU
Volatiles - Subcontract									
Analytical Method: RSK 175									
Dissolved Ethane	0.024	U	ug/L	0.024	1.00	1		4/16/2009 18:20	SU
Dissolved Ethene	0.030	U	ug/L	0.030	1.00	1		4/16/2009 18:20	SU
Methane	20.3	7	ug/L	0.116	5.00	1		4/16/2009 18:20	SU

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ANALYTICAL RESULTS

Lab ID: **904015002** Date Received: 4/14/2009 Matrix: DI Water

Sample ID: **TRIP BLANK/** Date Collected: 4/13/2009 4:00:00 PM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Volatiles									
Analytical Method: SW-846 8260B									
1,1,1,2-Tetrachloroethane	0.120	U	ug/L	0.120	1.00	1		4/16/2009 16:34	LN
1,1,1-Trichloroethane	0.682	U	ug/L	0.682	1.00	1		4/16/2009 16:34	LN
1,1,2,2-Tetrachloroethane	0.572	U	ug/L	0.572	1.00	1		4/16/2009 16:34	LN
1,1,2-Trichloroethane	0.841	U	ug/L	0.841	1.00	1		4/16/2009 16:34	LN
1,1-Dichloroethane	0.410	U	ug/L	0.410	1.00	1		4/16/2009 16:34	LN
1,1-Dichloroethene	0.638	U	ug/L	0.638	1.00	1		4/16/2009 16:34	LN
1,1-Dichloropropene	0.632	U	ug/L	0.632	1.00	1		4/16/2009 16:34	LN
1,2,3-Trichlorobenzene	0.686	U	ug/L	0.686	1.00	1		4/16/2009 16:34	LN
1,2,3-Trichloropropane	0.160	U	ug/L	0.160	1.00	1		4/16/2009 16:34	LN
1,2,4-Trichlorobenzene	0.538	U	ug/L	0.538	1.00	1		4/16/2009 16:34	LN
1,2,4-Trimethylbenzene	0.508	U	ug/L	0.508	1.00	1		4/16/2009 16:34	LN
1,2-Dibromo-3-chloropropane	0.933	U	ug/L	0.933	1.00	1		4/16/2009 16:34	LN
1,2-Dibromoethane	0.345	U	ug/L	0.345	1.00	1		4/16/2009 16:34	LN
1,2-Dichlorobenzene	0.584	U	ug/L	0.584	1.00	1		4/16/2009 16:34	LN
1,2-Dichloroethane	0.897	U	ug/L	0.897	1.00	1		4/16/2009 16:34	LN
1,2-Dichloropropane	0.725	U	ug/L	0.725	1.00	1		4/16/2009 16:34	LN
1,3,5-Trimethylbenzene	0.477	U	ug/L	0.477	1.00	1		4/16/2009 16:34	LN
1,3-Dichlorobenzene	0.558	U	ug/L	0.558	1.00	1		4/16/2009 16:34	LN
1,3-Dichloropropane	0.345	U	ug/L	0.345	1.00	1		4/16/2009 16:34	LN
1,4-Dichlorobenzene	0.537	U	ug/L	0.537	1.00	1		4/16/2009 16:34	LN
2,2-Dichloropropane	0.700	U	ug/L	0.700	1.00	1		4/16/2009 16:34	LN
2-Butanone	4.28	U	ug/L	4.28	10.0	1		4/16/2009 16:34	LN
2-Chloroethylvinyl ether	0.470	U	ug/L	0.470	1.00	1		4/16/2009 16:34	LN
2-Chlorotoluene	0.550	U	ug/L	0.550	1.00	1		4/16/2009 16:34	LN
2-Hexanone	1.83	U	ug/L	1.83	10.0	1		4/16/2009 16:34	LN
4-Chlorotoluene	0.570	U	ug/L	0.570	1.00	1		4/16/2009 16:34	LN
4-Isopropyltoluene	0.380	U	ug/L	0.380	1.00	1		4/16/2009 16:34	LN
4-Methyl-2-pentanone	0.220	U	ug/L	0.220	1.00	1		4/16/2009 16:34	LN
Acetone	1.43	U	ug/L	1.43	10.0	1		4/16/2009 16:34	LN
Acrolein	2.47	U	ug/L	2.47	10.0	1		4/16/2009 16:34	LN
Acrylonitrile	0.955	U	ug/L	0.955	10.0	1		4/16/2009 16:34	LN
Benzene	0.621	U	ug/L	0.621	1.00	1		4/16/2009 16:34	LN
Bromobenzene	0.382	U	ug/L	0.382	1.00	1		4/16/2009 16:34	LN
Bromochloromethane	0.637	U	ug/L	0.637	1.00	1		4/16/2009 16:34	LN
Bromodichloromethane	0.100	U	ug/L	0.100	1.00	1		4/16/2009 16:34	LN
Bromoform	0.486	U	ug/L	0.486	1.00	1		4/16/2009 16:34	LN
Bromomethane	0.427	U	ug/L	0.427	1.00	1		4/16/2009 16:34	LN
n-Butylbenzene	0.564	U	ug/L	0.564	1.00	1		4/16/2009 16:34	LN
Carbon disulfide	0.650	U	ug/L	0.650	10.0	1		4/16/2009 16:34	LN
Carbon tetrachloride	0.468	U	ug/L	0.468	1.00	1		4/16/2009 16:34	LN
Chlorobenzene	0.316	U	ug/L	0.316	1.00	1		4/16/2009 16:34	LN
Chloroethane	1.00	U	ug/L	1.00	1.00	1		4/16/2009 16:34	LN
Chloroform	0.572	U	ug/L	0.572	1.00	1		4/16/2009 16:34	LN

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ANALYTICAL RESULTS

Lab ID: **904015002** Date Received: 4/14/2009 Matrix: DI Water

Sample ID: **TRIP BLANK/** Date Collected: 4/13/2009 4:00:00 PM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Chloromethane	0.524	U	ug/L	0.524	1.00	1		4/16/2009 16:34	LN
Dibromochloromethane	0.378	U	ug/L	0.378	1.00	1		4/16/2009 16:34	LN
Dibromomethane	0.739	U	ug/L	0.739	1.00	1		4/16/2009 16:34	LN
Dichlorodifluoromethane	0.525	U	ug/L	0.525	1.00	1		4/16/2009 16:34	LN
cis-1,3-Dichloropropene	0.664	U	ug/L	0.664	1.00	1		4/16/2009 16:34	LN
trans-1,3-Dichloropropene	0.522	U	ug/L	0.522	1.00	1		4/16/2009 16:34	LN
Ethylbenzene	0.323	U	ug/L	0.323	1.00	1		4/16/2009 16:34	LN
Hexachlorobutadiene	0.763	U	ug/L	0.763	1.00	1		4/16/2009 16:34	LN
Isopropylbenzene (Cumene)	0.528	U	ug/L	0.528	1.00	1		4/16/2009 16:34	LN
Methyl-t-butyl ether	0.650	U	ug/L	0.650	1.00	1		4/16/2009 16:34	LN
Methylene chloride	0.580	U	ug/L	0.580	5.00	1		4/16/2009 16:34	LN
Naphthalene	0.417	U	ug/L	0.417	1.00	1		4/16/2009 16:34	LN
Styrene	0.458	U	ug/L	0.458	1.00	1		4/16/2009 16:34	LN
Tetrachloroethene	0.312	U	ug/L	0.312	1.00	1		4/16/2009 16:34	LN
Toluene	0.389	U	ug/L	0.389	1.00	1		4/16/2009 16:34	LN
Trichloroethene	0.821	U	ug/L	0.821	1.00	1		4/16/2009 16:34	LN
Trichlorofluoromethane	1.00	U	ug/L	1.00	1.00	1		4/16/2009 16:34	LN
Vinyl acetate	0.570	U	ug/L	0.570	10.0	1		4/16/2009 16:34	LN
Vinyl chloride	0.506	U	ug/L	0.506	1.00	1		4/16/2009 16:34	LN
Xylene, m,p-	0.639	U	ug/L	0.639	2.00	1		4/16/2009 16:34	LN
Xylene, o-	0.341	U	ug/L	0.341	1.00	1		4/16/2009 16:34	LN
Xylenes (total)	0.980	U	ug/L	0.980	3.00	1		4/16/2009 16:34	LN
cis-1,2-Dichloroethene	0.442	U	ug/L	0.442	1.00	1		4/16/2009 16:34	LN
n-Propylbenzene	0.624	U	ug/L	0.624	1.00	1		4/16/2009 16:34	LN
sec-Butylbenzene	0.521	U	ug/L	0.521	1.00	1		4/16/2009 16:34	LN
tert-Butylbenzene	0.607	U	ug/L	0.607	1.00	1		4/16/2009 16:34	LN
trans-1,2-Dichloroethene	0.410	U	ug/L	0.410	1.00	1		4/16/2009 16:34	LN
4-Bromofluorobenzene (S)	82		%	64-130		1		4/16/2009 16:34	LN
Dibromofluoromethane (S)	100		%	69-134		1		4/16/2009 16:34	LN
Toluene d8 (S)	96		%	63-127		1		4/16/2009 16:34	LN

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ANALYTICAL RESULTS QUALIFIERS

PARAMETER QUALIFIERS

V	Present in blank.
[1]	E14157
[2]	E87358
[3]	E83033
[4]	E83079
[5]	E86772
[6]	Detection limit has been elevated due to matrix interference.
[7]	E87854

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CASE NARRATIVE

Sample Analysis Comments

Lab ID 904015001 Client ID PW-1

Analyte/Arsenite (Trivalent As)

[2] E87358

Analyte/Asbestos

[5] E86772

Analyte/Bromate

[4] E83079

Analyte/Gross Alpha (Incl Uranium)

[3] E83033

Analyte/Manganese

Detection limit has been elevated due to matrix interference.

Analyte/Methane

[7] E87854

Analyte/Radium 226

[3] E83033

Analyte/Radium 228

[3] E83033

Analyte/See Attached

[1] E14157

[2] E87358

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QUALITY CONTROL DATA

QC Batch: EXTO/2010 Analysis Method: EPA 1664A

QC Batch Method: EPA 1664A

Associated Lab Samples: 903906001, 903917001, 903918001, 903922001, 903999001, 904015001, 904047005, 904048001, 904049001, 904050004, 904058002, 904072003, 904073004, 904074003, 904076003

METHOD BLANK: 24131

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Oil and Grease	mg/L	1.4U	1.4	

LABORATORY CONTROL SAMPLE: 24132

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Wet Chemistry						
Oil and Grease	mg/L	200	197	98	78-114	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24133 24134 Original: 903952010

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Oil and Grease	mg/L	1.2	200	194	201	97	100	70-130	3	20	

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QUALITY CONTROL DATA

QC Batch: LACH/2030 Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Associated Lab Samples: 903976001, 903976002, 903976003, 904015001, 904029001, 904029002, 904029003, 904029004, 904029005, 904029006, 904029007, 904029008, 904029009, 904029010, 904029011

METHOD BLANK: 24283

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Ortho Phosphate - P	mg/L-P	0.005U	0.005	

LABORATORY CONTROL SAMPLE & LCSD: 24284 24285

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Ortho Phosphate - P	mg/L-P	0.5	0.536	0.536	107	107	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24465 24466 Original: 904030004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Ortho Phosphate - P	mg/L-P			0.583	0.584				1	20	

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QUALITY CONTROL DATA

QC Batch: HACH/1190 Analysis Method: SM 4500-S F(20th Ed.)

QC Batch Method: SM 4500-S F(20th Ed.)

Associated Lab Samples: 903814001 903814002 903865001 903865002 903953001 903953002 904010001 904010002 904010003 904015001

METHOD BLANK: 24291

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Sulfide	mg/L	0.800U	0.800	

LABORATORY CONTROL SAMPLE: 24292

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Wet Chemistry						
Sulfide	mg/L	10	8.80	88	70-130	

SAMPLE DUPLICATE: 24293 Original: 903814001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Sulfide	mg/L	1.20	1.20	0	20	

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QUALITY CONTROL DATA

QC Batch: EXTO/2015 Analysis Method: SW-846 8270C low PAH

QC Batch Method: 3510C

Associated Lab Samples: 903950022 904006012 904006013 904015001 904060001 904062001 904062002 904149001 904158010

METHOD BLANK: 24428

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
PAH				
Acenaphthene	ug/L	0.027U	0.027	
Acenaphthylene	ug/L	0.026U	0.026	
Anthracene	ug/L	0.0056U	0.0056	
Benzo(a)anthracene	ug/L	0.011U	0.011	
Benzo(b)fluoranthene	ug/L	0.015U	0.015	
Benzo(k)fluoranthene	ug/L	0.012U	0.012	
Benzo(g,h,i)perylene	ug/L	0.014U	0.014	
Benzo(a)pyrene	ug/L	0.013U	0.013	
Chrysene	ug/L	0.017U	0.017	
Dibenz(a,h)anthracene	ug/L	0.0056U	0.0056	
Fluoranthene	ug/L	0.0078U	0.0078	
Fluorene	ug/L	0.011U	0.011	
Indeno(1,2,3-cd)pyrene	ug/L	0.011U	0.011	
1-Methylnaphthalene	ug/L	0.026U	0.026	
2-Methylnaphthalene	ug/L	0.030U	0.030	
Naphthalene	ug/L	0.034U	0.034	
Phenanthrene	ug/L	0.014U	0.014	
Pyrene	ug/L	0.0084U	0.0084	
2-Fluorobiphenyl (S)	%	54.9	10-116	
Nitrobenzene-d5 (S)	%	50.6	10-112	
Terphenyl-d14 (S)	%	79.6	20-128	

METHOD BLANK: 24809

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
PAH				
Acenaphthene	ug/L	0.027U	0.027	
Acenaphthylene	ug/L	0.026U	0.026	
Anthracene	ug/L	0.0110I	0.0056	V
Benzo(a)anthracene	ug/L	0.0197I	0.011	V
Benzo(b)fluoranthene	ug/L	0.015U	0.015	
Benzo(k)fluoranthene	ug/L	0.0148I	0.012	
Benzo(g,h,i)perylene	ug/L	0.014U	0.014	V
Benzo(a)pyrene	ug/L	0.0151I	0.013	V
Chrysene	ug/L	0.017U	0.017	V
Dibenz(a,h)anthracene	ug/L	0.0107I	0.0056	V
Fluoranthene	ug/L	0.0116I	0.0078	V
Fluorene	ug/L	0.0153I	0.011	V
Indeno(1,2,3-cd)pyrene	ug/L	0.0121I	0.011	V

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QUALITY CONTROL DATA

METHOD BLANK: 24809

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1-Methylnaphthalene	ug/L	0.026U	0.026	
2-Methylnaphthalene	ug/L	0.030U	0.030	
Naphthalene	ug/L	0.034U	0.034	
Phenanthrene	ug/L	0.0167I	0.014	V
Pyrene	ug/L	0.0103I	0.0084	V
2-Fluorobiphenyl (S)	%	49.3	10-116	
Nitrobenzene-d5 (S)	%	44.7	10-112	
Terphenyl-d14 (S)	%	56.8	20-128	

LABORATORY CONTROL SAMPLE: 24429

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PAH						
Acenaphthene	ug/L	5	3.30	66	23-100	
Acenaphthylene	ug/L	5	3.50	70	21-109	
Anthracene	ug/L	5	3.70	74	39-111	
Benzo(a)anthracene	ug/L	5	3.95	79	28-115	
Benzo(b)fluoranthene	ug/L	5	4.58	92	15-116	
Benzo(k)fluoranthene	ug/L	5	3.33	67	33-122	
Benzo(g,h,i)perylene	ug/L	5	4.03	81	29-120	
Benzo(a)pyrene	ug/L	5	3.95	79	27-119	
Chrysene	ug/L	5	3.74	75	11-115	
Dibenz(a,h)anthracene	ug/L	5	3.77	75	11-115	
Fluoranthene	ug/L	5	3.40	68	42-112	
Fluorene	ug/L	5	3.48	70	25-109	
Indeno(1,2,3-cd)pyrene	ug/L	5	4.19	84	16-120	
1-Methylnaphthalene	ug/L	5	3.02	60	10-104	
2-Methylnaphthalene	ug/L	5	3.15	63	10-115	
Naphthalene	ug/L	5	3.08	62	12-102	
Phenanthrene	ug/L	5	3.63	73	38-108	
Pyrene	ug/L	5	4.35	87	36-123	
2-Fluorobiphenyl (S)	%			72.7	10-116	
Nitrobenzene-d5 (S)	%			67.7	10-112	
Terphenyl-d14 (S)	%			86.3	20-128	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24430 24431 Original: 904031002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
PAH											
Acenaphthene	ug/L	0	5	1.66	2.27	33	45	23-100	31	20	8
Acenaphthylene	ug/L	0.00798	5	1.83	2.53	37	51	21-109	32	20	8

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24430 24431 Original: 904031002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Anthracene	ug/L	0.00413	5	2.40	2.92	48	58	39-111	19	20	
Benzo(a)anthracene	ug/L	0	5	2.96	3.24	59	65	34-121	10	20	
Benzo(b)fluoranthene	ug/L	0.00374	5	3.04	3.27	61	65	27-119	6	20	
Benzo(k)fluoranthene	ug/L	0.00303	5	3.17	3.83	63	77	29-120	20	20	
Benzo(g,h,i)perylene	ug/L	0	5	3.05	3.42	61	68	15-116	11	20	
Benzo(a)pyrene	ug/L	0	5	2.95	3.31	59	66	28-115	11	20	
Chrysene	ug/L	0	5	2.76	3.36	55	67	33-122	20	20	
Dibenz(a,h)anthracene	ug/L	0.00315	5	2.88	3.23	58	65	11-115	11	20	
Fluoranthene	ug/L	0.00422	5	2.58	3.14	52	63	42-112	19	20	
Fluorene	ug/L	0.00574	5	1.91	2.59	38	52	25-109	31	20	8
Indeno(1,2,3-cd)pyrene	ug/L	0.0022	5	3.10	3.52	62	70	16-120	12	20	
1-Methylnaphthalene	ug/L	0.0199	5	1.28	1.79	26	36	10-104	32	20	8
2-Methylnaphthalene	ug/L	0.0243	5	1.34	1.87	27	37	10-115	31	20	8
Naphthalene	ug/L	0.0623	5	1.40	2.03	27	39	12-102	36	20	8
Phenanthrene	ug/L	0.00654	5	2.37	2.89	47	58	38-108	21	20	8
Pyrene	ug/L	0.00432	5	2.89	3.41	58	68	36-123	16	20	
2-Fluorobiphenyl (S)	%					36.2	49.5	10-116	31		
Nitrobenzene-d5 (S)	%					35.3	50.5	10-112	35.4		
Terphenyl-d14 (S)	%					52	61.4	20-128	16.6		

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QUALITY CONTROL DATA

QC Batch: EXTO/2017 Analysis Method: SW-846 8270C

QC Batch Method: 3510C

Associated Lab Samples: 903997001 903997002 904015001 904066001 904118001

METHOD BLANK: 24436

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Semivolatiles				
Benzidine	ug/L	9.7U	9.7	
Benzoic acid	ug/L	2.0U	2.0	
Butyl benzyl phthalate	ug/L	0.36U	0.36	
Bis(2-Chloroethoxy)methane	ug/L	0.32U	0.32	
Bis(2-Chloroethyl)ether	ug/L	0.46U	0.46	
Bis(2-Chloroisopropyl)ether	ug/L	0.34U	0.34	
Bis(2-Ethylhexyl)phthalate	ug/L	0.272I	0.20	V
4-Bromophenyl phenyl ether	ug/L	0.27U	0.27	
Carbazole	ug/L	0.28U	0.28	
4-Chlorophenyl phenyl ether	ug/L	0.45U	0.45	
Dibenzofuran	ug/L	0.29U	0.29	
1,2-Dichlorobenzene	ug/L	0.34U	0.34	
1,3-Dichlorobenzene	ug/L	0.35U	0.35	
3,3'-Dichlorobenzidine	ug/L	0.31U	0.31	
2,4-Dichlorophenol	ug/L	0.43U	0.43	
Diethyl phthalate	ug/L	0.33U	0.33	
2,4-Dimethylphenol	ug/L	0.40U	0.40	
Dimethyl phthalate	ug/L	0.31U	0.31	
Di-n-octyl phthalate	ug/L	0.28U	0.28	
2,4-Dinitrophenol	ug/L	1.4U	1.4	
2,6-Dinitrotoluene	ug/L	0.31U	0.31	
Hexachlorobenzene	ug/L	0.32U	0.32	
Hexachlorobutadiene	ug/L	0.45U	0.45	
Hexachlorocyclopentadiene	ug/L	0.70U	0.70	
Hexachloroethane	ug/L	0.36U	0.36	
Isophorone	ug/L	0.34U	0.34	
2-Methylphenol	ug/L	0.22U	0.22	
Nitrobenzene	ug/L	0.31U	0.31	
2-Nitrophenol	ug/L	0.24U	0.24	
n-Nitrosodimethylamine	ug/L	3.4U	3.4	
n-Nitrosodiphenylamine	ug/L	0.31U	0.31	
2,4,5-Trichlorophenol	ug/L	0.38U	0.38	
2,4,6-Trichlorophenol	ug/L	0.27U	0.27	
Benzyl alcohol	ug/L	0.22U	0.22	
Aniline	ug/L	0.28U	0.28	
Pyridine	ug/L	8.9U	8.9	
3-Nitroaniline	ug/L	0.28U	0.28	
4-Nitroaniline	ug/L	0.24U	0.24	
Di-n-butyl phthalate	ug/L	0.21U	0.21	
1,2-Diphenylhydrazine	ug/L	0.23U	0.23	
2-Nitroaniline	ug/L	0.20U	0.20	
2-Chloronaphthalene	ug/L	0.32U	0.32	
4-Chloroaniline	ug/L	0.29U	0.29	

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QUALITY CONTROL DATA

METHOD BLANK: 24436

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
m,p-Cresol	ug/L	0.23U	0.23	
4,6-Dinitro-2-methylphenol	ug/L	0.35U	0.35	
Phenol	ug/L	0.40U	0.40	
2-Chlorophenol	ug/L	2.6U	2.6	
1,4-Dichlorobenzene	ug/L	0.28U	0.28	
n-Nitrosodi-n-propylamine	ug/L	0.33U	0.33	
1,2,4-Trichlorobenzene	ug/L	1.5U	1.5	
4-Chloro-3-methylphenol	ug/L	0.22U	0.22	
4-Nitrophenol	ug/L	0.79U	0.79	
2,4-Dinitrotoluene	ug/L	0.31U	0.31	
Pentachlorophenol	ug/L	0.70U	0.70	
Nitrobenzene-d5 (S)	%	59	7.7-130	
Phenol-d6 (S)	%	22.6	10-59	
2-Fluorobiphenyl (S)	%	58	19-126	
2-Fluorophenol (S)	%	40	28-62	
2,4,6-Tribromophenol (S)	%	62	48-132	
Terphenyl-d14 (S)	%	59	27-133	

METHOD BLANK: 24761

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Semivolatiles				
Benzidine	ug/L	9.7U	9.7	
Benzoic acid	ug/L	2.0U	2.0	
Butyl benzyl phthalate	ug/L	0.36U	0.36	
Bis(2-Chloroethoxy)methane	ug/L	0.32U	0.32	
Bis(2-Chloroethyl)ether	ug/L	0.46U	0.46	
Bis(2-Chloroisopropyl)ether	ug/L	0.34U	0.34	
Bis(2-Ethylhexyl)phthalate	ug/L	0.20U	0.20	
4-Bromophenyl phenyl ether	ug/L	0.27U	0.27	
Carbazole	ug/L	0.28U	0.28	
4-Chlorophenyl phenyl ether	ug/L	0.45U	0.45	
Dibenzofuran	ug/L	0.29U	0.29	
1,2-Dichlorobenzene	ug/L	0.34U	0.34	
1,3-Dichlorobenzene	ug/L	0.35U	0.35	
3,3'-Dichlorobenzidine	ug/L	0.31U	0.31	
2,4-Dichlorophenol	ug/L	0.43U	0.43	
Diethyl phthalate	ug/L	0.33U	0.33	
2,4-Dimethylphenol	ug/L	0.40U	0.40	
Dimethyl phthalate	ug/L	0.31U	0.31	
Di-n-octyl phthalate	ug/L	0.28U	0.28	
2,4-Dinitrophenol	ug/L	1.4U	1.4	
2,6-Dinitrotoluene	ug/L	0.31U	0.31	
Hexachlorobenzene	ug/L	0.32U	0.32	
Hexachlorobutadiene	ug/L	0.45U	0.45	
Hexachlorocyclopentadiene	ug/L	0.70U	0.70	

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QUALITY CONTROL DATA

METHOD BLANK: 24761

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Hexachloroethane	ug/L	0.36U	0.36	
Isophorone	ug/L	0.34U	0.34	
2-Methylphenol	ug/L	0.22U	0.22	
Nitrobenzene	ug/L	0.31U	0.31	
2-Nitrophenol	ug/L	0.24U	0.24	
n-Nitrosodimethylamine	ug/L	3.4U	3.4	
n-Nitrosodiphenylamine	ug/L	0.31U	0.31	
2,4,5-Trichlorophenol	ug/L	0.38U	0.38	
2,4,6-Trichlorophenol	ug/L	0.27U	0.27	
Benzyl alcohol	ug/L	0.22U	0.22	
Aniline	ug/L	0.28U	0.28	
Pyridine	ug/L	8.9U	8.9	
3-Nitroaniline	ug/L	0.28U	0.28	
4-Nitroaniline	ug/L	0.24U	0.24	
Di-n-butyl phthalate	ug/L	0.21U	0.21	
1,2-Diphenylhydrazine	ug/L	0.23U	0.23	
2-Nitroaniline	ug/L	0.20U	0.20	
2-Chloronaphthalene	ug/L	0.32U	0.32	
4-Chloroaniline	ug/L	0.29U	0.29	
m,p-Cresol	ug/L	0.23U	0.23	
4,6-Dinitro-2-methylphenol	ug/L	0.35U	0.35	
Phenol	ug/L	0.40U	0.40	
2-Chlorophenol	ug/L	2.6U	2.6	
1,4-Dichlorobenzene	ug/L	0.28U	0.28	
n-Nitrosodi-n-propylamine	ug/L	0.33U	0.33	
1,2,4-Trichlorobenzene	ug/L	1.5U	1.5	
4-Chloro-3-methylphenol	ug/L	0.22U	0.22	
4-Nitrophenol	ug/L	0.79U	0.79	
2,4-Dinitrotoluene	ug/L	0.31U	0.31	
Pentachlorophenol	ug/L	0.70U	0.70	
Nitrobenzene-d5 (S)	%	74	7.7-130	
Phenol-d6 (S)	%	29.5	10-59	
2-Fluorobiphenyl (S)	%	76	19-126	
2-Fluorophenol (S)	%	42	28-62	
2,4,6-Tribromophenol (S)	%	89	48-132	
Terphenyl-d14 (S)	%	84	27-133	

LABORATORY CONTROL SAMPLE: 24437

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Semivolatiles						
Benzidine	ug/L	50	12.9	26	10-104	
Benzoic acid	ug/L	50	17.0I	34		
Butyl benzyl phthalate	ug/L	50	37.3	75	10-152	

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE: 24437

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bis(2-Chloroethoxy)methane	ug/L	50	34.7	69	33-184	
Bis(2-Chloroethyl)ether	ug/L	50	30.8	62	12-158	
Bis(2-Chloroisopropyl)ether	ug/L	50	30.5	61	36-166	
Bis(2-Ethylhexyl)phthalate	ug/L	50	38.5	77	10-158	
4-Bromophenyl phenyl ether	ug/L	50	39.7	79	53-127	
Carbazole	ug/L	50	39.2	78	44-140	
4-Chlorophenyl phenyl ether	ug/L	50	35.6	71	25-158	
Dibenzofuran	ug/L	50	34.6	69		
1,2-Dichlorobenzene	ug/L	50	35.4	71	32-129	
1,3-Dichlorobenzene	ug/L	50	31.1	62	10-172	
3,3'-Dichlorobenzidine	ug/L	50	39.1	78	10-262	
2,4-Dichlorophenol	ug/L	50	38.2	76	10-191	
Diethyl phthalate	ug/L	50	33.7	67	10-114	
2,4-Dimethylphenol	ug/L	50	40.0	80	32-119	
Dimethyl phthalate	ug/L	50	35.5	71	10-112	
Di-n-octyl phthalate	ug/L	50	43.2	86	10-146	
2,4-Dinitrophenol	ug/L	50	32.7	65	29-182	
2,6-Dinitrotoluene	ug/L	50	31.2	62	50-158	
Hexachlorobenzene	ug/L	50	37.5	75	10-152	
Hexachlorobutadiene	ug/L	50	34.3	69	24-116	
Hexachlorocyclopentadiene	ug/L	50	30.7	61	10-115	
Hexachloroethane	ug/L	50	33.9	68	40-113	
Isophorone	ug/L	50	38.0	76	21-196	
2-Methylphenol	ug/L	50	29.1	58	55-126	
Nitrobenzene	ug/L	50	35.1	70	35-180	
2-Nitrophenol	ug/L	50	39.0	78	29-182	
n-Nitrosodimethylamine	ug/L	50	24.0	48	28-64	
n-Nitrosodiphenylamine	ug/L	50	35.2	70	42-113	
2,4,5-Trichlorophenol	ug/L	50	35.3	71		
2,4,6-Trichlorophenol	ug/L	50	40.3	81	37-144	
Benzyl alcohol	ug/L	50	29.9	60		
Aniline	ug/L	50	23.3	47		
Pyridine	ug/L	50	15.2	30		
3-Nitroaniline	ug/L	50	34.4I	69		
4-Nitroaniline	ug/L	50	34.4I	69		
Di-n-butyl phthalate	ug/L	50	39.3	79	62-154	
1,2-Diphenylhydrazine	ug/L		34.9			
2-Nitroaniline	ug/L	50	36.4I	73		
2-Chloronaphthalene	ug/L	50	37.2	74	60-118	
4-Chloroaniline	ug/L	50	32.7	65		
m,p-Cresol	ug/L		27.3			
4,6-Dinitro-2-methylphenol	ug/L	50	30.6	61	10-181	
Phenol	ug/L	50	14.5	29		
2-Chlorophenol	ug/L	50	31.9	64	25-117	
1,4-Dichlorobenzene	ug/L	50	31.5	63	30-116	

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE: 24437

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
n-Nitrosodi-n-propylamine	ug/L	50	32.5	65	43-136	
1,2,4-Trichlorobenzene	ug/L	50	34.7	69	30-119	
4-Chloro-3-methylphenol	ug/L	50	36.0	72	30-128	
4-Nitrophenol	ug/L	50	17.0	34	10-73	
2,4-Dinitrotoluene	ug/L	50	32.1	64	54-133	
Pentachlorophenol	ug/L	50	35.3	71	29-142	
Nitrobenzene-d5 (S)	%			75	10-112	
Phenol-d6 (S)	%			32.2	10-59	
2-Fluorobiphenyl (S)	%			69	10-116	
2-Fluorophenol (S)	%			49	28-62	
2,4,6-Tribromophenol (S)	%			78	48-132	
Terphenyl-d14 (S)	%			77	20-128	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24438 24439 Original: 904031004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Semivolatiles											
Benzidine	ug/L	0	50	13.6	9.7U	27	12	10-104	77	20	8
Benzoic acid	ug/L	0	50	13.6I	16.2I	27	32		17		
Butyl benzyl phthalate	ug/L	0	50	36.9	38.6	74	77	10-152	4	20	
Bis(2-Chloroethoxy)methane	ug/L	0	50	32.5	32.3	65	65	33-184	0	20	
Bis(2-Chloroethyl)ether	ug/L	0	50	30.8	30.2	62	60		3		
Bis(2-Chloroisopropyl)ether	ug/L	0	50	30.6	29.7	61	59	36-166	3	20	
Bis(2-Ethylhexyl)phthalate	ug/L	0	50	37.0	36.6	74	73	10-158	1	20	
4-Bromophenyl phenyl ether	ug/L	0	50	40.2	38.9	80	78	53-127	3	20	
Carbazole	ug/L	0	50	37.3	38.4	75	77	73-131	3	20	
4-Chlorophenyl phenyl ether	ug/L	0	50	36.5	35.7	73	71	25-158	3	20	
Dibenzofuran	ug/L	0	50	34.6	34.7	69	69		0		
1,2-Dichlorobenzene	ug/L	0	50	33.9	34.1	68	68	32-129	0	20	
1,3-Dichlorobenzene	ug/L	0	50	31.1	30.1	62	60	10-172	3	20	
3,3'-Dichlorobenzidine	ug/L	0	50	38.1	39.0	76	78	10-262	3	20	
2,4-Dichlorophenol	ug/L	0	50	37.0	37.3	74	75	39-135	1	20	
Diethyl phthalate	ug/L	0.0925	50	33.9	33.2	68	66	10-114	3	20	
2,4-Dimethylphenol	ug/L	0	50	39.0	39.2	78	78	32-119	0	20	
Dimethyl phthalate	ug/L	0.0899	50	36.3	35.2	73	70	10-112	4	20	
Di-n-octyl phthalate	ug/L	0.0698	50	42.6	42.1	85	84	10-146	1	20	
2,4-Dinitrophenol	ug/L	0	50	32.5	34.2	65	68	10-191	5	20	
2,6-Dinitrotoluene	ug/L	0	50	32.5	31.3	65	63	39-139	3	20	
Hexachlorobenzene	ug/L	0	50	36.1	36.5	72	73	10-152	1	20	
Hexachlorobutadiene	ug/L	0	50	34.1	33.5	68	67	24-116	1	20	
Hexachlorocyclopentadiene	ug/L	0	50	30.8	28.8	62	58	10-115	7	20	
Hexachloroethane	ug/L	0	50	34.0	32.5	68	65	40-113	5	20	

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24438 24439 Original: 904031004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Isophorone	ug/L	0	50	36.3	36.2	73	72	21-196	1	20	
2-Methylphenol	ug/L	0	50	31.0	30.1	62	60	55-126	3	20	
Nitrobenzene	ug/L	0	50	34.6	33.2	69	66	35-180	4	20	
2-Nitrophenol	ug/L	0	50	37.9	36.4	76	73	29-182	4	20	
n-Nitrosodimethylamine	ug/L	0	50	24.2	24.1	48	48		0		
n-Nitrosodiphenylamine	ug/L	0	50	34.6	35.3	69	71	42-113	3	20	
2,4,5-Trichlorophenol	ug/L	0	50	35.2	33.5	70	67		4		
2,4,6-Trichlorophenol	ug/L	0	50	40.2	38.3	80	77	37-144	4	20	
Benzyl alcohol	ug/L	0	50	29.9	29.1	60	58		3		
Aniline	ug/L	0	50	22.7	22.6	45	45		0		
Pyridine	ug/L	0	50	14.9	14.3	30	29		3		
3-Nitroaniline	ug/L	0	50	34.8l	35.6l	70	71		1		
4-Nitroaniline	ug/L	0	50	34.8l	35.6l	70	71		1		
Di-n-butyl phthalate	ug/L	0.0938	50	38.9	39.2	78	78	57-126	0	20	
1,2-Diphenylhydrazine	ug/L			34.1	34.1						
2-Nitroaniline	ug/L	0	50	37.1l	37.3l	74	75		1		
2-Chloronaphthalene	ug/L	0	50	36.7	35.3	73	71	60-118	3	20	
4-Chloroaniline	ug/L	0	50	31.3	32.1	63	64		2		
m,p-Cresol	ug/L			28.8	28.8						
4,6-Dinitro-2-methylphenol	ug/L	0	50	29.5	30.3	59	61	10-181	3	20	
Phenol	ug/L	0	50	15.9	15.2	32	30		6		
2-Chlorophenol	ug/L	0	50	32.9	30.5	66	61	23-134	8	20	
1,4-Dichlorobenzene	ug/L	0	50	32.5	31.1	65	62	20-124	5	20	
n-Nitrosodi-n-propylamine	ug/L	0	50	32.1	32.3	64	65	10-230	2	20	
1,2,4-Trichlorobenzene	ug/L	0	50	33.7	33.6	67	67	44-142	0	20	
4-Chloro-3-methylphenol	ug/L	0	50	35.0	35.8	70	72	22-147	3	20	
4-Nitrophenol	ug/L	0	50	19.0	17.0	38	34	10-132	11	20	
2,4-Dinitrotoluene	ug/L	0	50	33.4	33.2	67	66	54-133	2	20	
Pentachlorophenol	ug/L	0	50	34.4	35.2	69	70	14-176	1	20	
Nitrobenzene-d5 (S)	%					72	71	10-112	1		
Phenol-d6 (S)	%					34.6	33.9	10-59	2		
2-Fluorobiphenyl (S)	%					69	67	10-116	3		
2-Fluorophenol (S)	%					52	48	28-62	8		
2,4,6-Tribromophenol (S)	%					78	78	48-132	0		
Terphenyl-d14 (S)	%					75	77	20-128	3		

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QUALITY CONTROL DATA

QC Batch: EXTO/2018 Analysis Method: SW-846 8141A

QC Batch Method: 3510C

Associated Lab Samples: 903945015 903950013 903950014 903950015 904015001

METHOD BLANK: 24440

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Organophosphorus Pesticides				
Carbophenothion	ug/L	0.063U	0.063	
Chlorpyrifos	ug/L	0.121U	0.121	
Chlorpyrifos-methyl	ug/L	0.137U	0.137	
Demeton-s	ug/L	0.062U	0.062	
Demeton-o	ug/L	0.041U	0.041	
Crotoxyphos	ug/L	0.078U	0.078	
Dichlorovos	ug/L	0.075U	0.075	
Fenithrothion	ug/L	0.198U	0.198	
Ronnel	ug/L	0.054U	0.054	
Terbufos	ug/L	0.063U	0.063	
Fenthion	ug/L	0.074U	0.074	
Leptophos	ug/L	0.046U	0.046	
Tributyl Phosphate (S)	%	93	44-125	
Triphenyl Phosphate (S)	%	93	43-134	

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Organophosphorus Pesticides				
Phosphamidon	ug/L	0.311U	0.311	
Aspon	ug/L	0.185U	0.185	
Phorate	ug/L	0.177U	0.177	
Bolstar	ug/L	0.202U	0.202	
Dichlorfenthion	ug/L	0.190U	0.190	
Dioxathion	ug/L	0.110U	0.110	
Fensulfothion	ug/L	0.192U	0.192	
Naled	ug/L	0.220U	0.220	
Dimethoate	ug/L	0.184U	0.184	
Thionazine	ug/L	0.179U	0.179	
TEPP	ug/L	0.189U	0.189	
EPN	ug/L	0.132U	0.132	
Merphos	ug/L	0.208U	0.208	
Mevinphos	ug/L	0.172U	0.172	

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Organophosphorus Pesticides				
Phosmet	ug/L	0.102U	0.102	
Disulfoton	ug/L	0.129U	0.129	
Azinphos-ethyl	ug/L	0.130U	0.130	
Coumaphos	ug/L	0.079U	0.079	
Dicrotophos	ug/L	0.175U	0.175	
Ethoprop	ug/L	0.068U	0.068	
Famphur	ug/L	0.081U	0.081	

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QUALITY CONTROL DATA

METHOD BLANK: 24440

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Ethion	ug/L	0.132U	0.132	
Tetrachlorvinphos (Stirofos)	ug/L	0.107U	0.107	
Trichlorfon	ug/L	1.09U	1.09	
Tokuthion (Prothiophos)	ug/L	0.106U	0.106	

LABORATORY CONTROL SAMPLE: 24441

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Organophosphorus Pesticides						
Carbophenothion	ug/L	2	2.34	117	21-148	
Chlorpyrifos	ug/L	2	2.38	119	46-133	
Chlorpyrifos-methyl	ug/L	2	2.21	111	44-122	
Demeton-s	ug/L		4.33			
Demeton-o	ug/L		0.407I			
Crotoxyphos	ug/L	2	4.24	212		
Dichlorovos	ug/L	2	1.56	78	12-128	
Fenithrothion	ug/L	2	1.55	78		
Ronnel	ug/L	2	2.07	104	35-126	
Terbufos	ug/L	2	1.79	90	48-124	
Fenthion	ug/L	2	2.11	105		
Leptophos	ug/L	2	2.14	107	11-146	
Tributyl Phosphate (S)	%			97	44-125	
Triphenyl Phosphate (S)	%			101	43-134	

LABORATORY CONTROL SAMPLE: 24441

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Organophosphorus Pesticides						
Phosphamidon	ug/L		0.311U			
Aspon	ug/L		0.185U			
Phorate	ug/L		0.177U			
Bolstar	ug/L		0.202U			
Dichlorfenthion	ug/L		0.190U			
Dioxathion	ug/L		0.110U			
Fensulfothion	ug/L		0.192U			
Naled	ug/L		0.220U			
Dimethoate	ug/L		0.184U			
Thionazine	ug/L		0.179U			
TEPP	ug/L		0.189U			
EPN	ug/L		0.132U			
Merphos	ug/L		0.208U			

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE: 24441

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mevinphos	ug/L		0.172U			

LABORATORY CONTROL SAMPLE: 24441

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Organophosphorus Pesticides						
Phosmet	ug/L		0.102U			
Disulfoton	ug/L		0.129U			
Azinphos-ethyl	ug/L		0.130U			
Coumaphos	ug/L		0.079U			
Dicrotophos	ug/L		0.175U			
Ethoprop	ug/L		0.068U			
Famphur	ug/L		0.081U			
Ethion	ug/L		0.132U			
Tetrachlorvinphos (Stirofos)	ug/L		0.107U			
Trichlorfon	ug/L		1.09U			
Tokuthion (Prothiophos)	ug/L		0.106U			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24442 24443 Original: 904031006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Organophosphorus Pesticides											
Carbophenothion	ug/L	0	2	2.23	2.24	112	112	21-148	0	20	
Chlorpyrifos	ug/L	0	2	2.27	2.07	114	103	46-133	10	20	
Chlorpyrifos-methyl	ug/L	0	2	2.07	1.83	104	91	44-122	13	20	
Demeton-s	ug/L			3.93	3.56						
Demeton-o	ug/L			0.388I	0.326I						
Crotoxyphos	ug/L	0	2	4.24	4.46	212	223		5		
Dichlorovos	ug/L	0	2	2.10	1.78	105	89	12-128	16	20	
Fenithrothion	ug/L	0	2	2.17	1.79	109	90		19		
Ronnel	ug/L	0	2	1.89	1.71	94	85	35-126	10	20	
Terbufos	ug/L	0	2	1.87	1.54	94	77	48-124	20	20	
Fenthion	ug/L	0	2	2.42	2.11	121	106		13		
Leptophos	ug/L	0	2	2.12	1.95	106	97	11-146	9	20	
Tributyl Phosphate (S)	%					103	91	44-125	12		
Triphenyl Phosphate (S)	%					104	102	43-134	2		

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24442 24443 Original: 904031006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Organophosphorus Pesticides											
Phosphamidon	ug/L			0.311U	0.311U						
Aspon	ug/L			0.185U	0.185U						
Phorate	ug/L			0.177U	0.177U						
Bolstar	ug/L			0.202U	0.202U						
Dichlorfenthion	ug/L			0.190U	0.190U						
Dioxathion	ug/L			0.110U	0.110U						
Fensulfothion	ug/L			0.192U	0.192U						
Naled	ug/L			0.220U	0.220U						
Dimethoate	ug/L			0.184U	0.184U						
Thionazine	ug/L			0.179U	0.179U						
TEPP	ug/L			0.189U	0.189U						
EPN	ug/L			0.132U	0.132U						
Merphos	ug/L			0.208U	0.208U						
Mevinphos	ug/L			0.172U	0.172U						

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24442 24443 Original: 904031006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Organophosphorus Pesticides											
Phosmet	ug/L			0.102U	0.102U						
Disulfoton	ug/L			0.129U	0.129U						
Azinphos-ethyl	ug/L			0.130U	0.130U						
Coumaphos	ug/L			0.079U	0.079U						
Dicrotophos	ug/L			0.175U	0.175U						
Ethoprop	ug/L			0.068U	0.068U						
Famphur	ug/L			0.081U	0.081U						
Ethion	ug/L			0.132U	0.132U						
Tetrachlorvinphos (Stirofos)	ug/L			0.107U	0.107U						
Trichlorfon	ug/L			1.09U	1.09U						
Tokuthion (Prothiophos)	ug/L			0.106U	0.106U						

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QUALITY CONTROL DATA

QC Batch: EXTO/2019 Analysis Method: SW-846 8082

QC Batch Method: 3510C

Associated Lab Samples: 904015001

METHOD BLANK: 24444

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
PCBs				
PCB 1221	ug/L	0.014U	0.014	
PCB 1232	ug/L	0.190U	0.190	
PCB 1242	ug/L	0.010U	0.010	
PCB 1248	ug/L	0.00850U	0.00850	
PCB 1254	ug/L	0.014U	0.014	
PCB 1016	ug/L	0.012U	0.012	
PCB 1260	ug/L	0.015U	0.015	
Decachlorobiphenyl (S)	%	121	45-162	
Tetrachloro-m-xylene (S)	%	96	50-125	

LABORATORY CONTROL SAMPLE: 24445

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCBs						
PCB 1221	ug/L		0.014U			
PCB 1232	ug/L		0.190U			
PCB 1242	ug/L		0.010U			
PCB 1248	ug/L		0.00850U			
PCB 1254	ug/L		0.014U			
PCB 1016	ug/L	1	1.17	117	12-176	
PCB 1260	ug/L	1	1.27	127	10-180	
Decachlorobiphenyl (S)	%			119	45-162	
Tetrachloro-m-xylene (S)	%			96	50-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24446 24447 Original: 904031007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
PCBs											
PCB 1221	ug/L			0.014U	0.014U						
PCB 1232	ug/L			0.190U	0.190U						
PCB 1242	ug/L			0.010U	0.010U						
PCB 1248	ug/L			0.00850U	0.00850U						
PCB 1254	ug/L			0.014U	0.014U						
PCB 1016	ug/L	0	1	1.20	1.05	120	105	12-176	13	20	
PCB 1260	ug/L	0	1	1.30	1.08	130	108	10-181	18	20	

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24446 24447 Original: 904031007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Decachlorobiphenyl (S)	%					125	117	45-162	7		
Tetrachloro-m-xylene (S)	%					100	95	50-125	5		

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QUALITY CONTROL DATA

QC Batch: EXTO/2020 Analysis Method: SW-846 8151A

QC Batch Method: 3510C

Associated Lab Samples: 903945015 903950013 903950014 903950015 904015001

METHOD BLANK: 24448

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Herbicides				
2,4-D	ug/L	0.406U	0.406	
2,4,5-T	ug/L	0.345U	0.345	
2,4,5-TP (Silvex)	ug/L	0.492U	0.492	
2,4-DB	ug/L	0.547U	0.547	
Dalapon	ug/L	0.509U	0.509	
Dicamba	ug/L	0.369U	0.369	
Dichlorprop	ug/L	0.399U	0.399	
Dinoseb	ug/L	0.509U	0.509	
MCPA	ug/L	47.7U	47.7	
MCPP	ug/L	98.0U	98.0	
DCAA (S)	%	53	46-142	

LABORATORY CONTROL SAMPLE: 24449

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Herbicides						
2,4-D	ug/L	5	2.90	58	29-146	
2,4,5-T	ug/L	5	2.89	58	29-156	
Dinoseb	ug/L	5	1.21I	24		
2,4,5-TP (Silvex)	ug/L	5	3.11	62	30-180	
MCPA	ug/L	500	246	49		
Dalapon	ug/L	5	2.95	59		
Dicamba	ug/L	5	2.60	52	35-135	
Dichlorprop	ug/L	5	2.81	56	36-148	
MCPP	ug/L		341			
2,4-DB	ug/L	5	3.73	75	18-195	
DCAA (S)	%			61	46-142	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24450 24451 Original: 904031005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Herbicides											
2,4-D	ug/L	0	5	3.43	3.45	69	69	29-146	0	20	
2,4,5-T	ug/L	0	5	3.45	3.47	69	69	29-157	0	20	
Dinoseb	ug/L	0	5	1.63I	1.05I	33	21		44		

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24450 24451 Original: 904031005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
2,4,5-TP (Silvex)	ug/L	0	5	3.69	3.73	74	75	30-180	1	20	
MCPA	ug/L	0	500	297	308	59	62		5		
Dalapon	ug/L	0	5	3.56	3.43	71	69		3		
Dicamba	ug/L	0	5	3.11	3.21	62	64	35-135	3	20	
Dichlorprop	ug/L	0	5	3.28	3.45	66	69	36-148	4	20	
MCPP	ug/L			396	455						
2,4-DB	ug/L	0	5	4.23	4.23	85	85	18-195	0	20	
DCAA (S)	%					71	76	46-142	7		

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QUALITY CONTROL DATA

QC Batch: EXTO/2021 Analysis Method: SW-846 8081A

QC Batch Method: 3510C

Associated Lab Samples: 903945015 903950013 903950014 903950015 904015001

METHOD BLANK: 24452

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Pesticides				
alpha-BHC	ug/L	0.000924U	0.000924	
beta-BHC	ug/L	0.00123U	0.00123	
delta-BHC	ug/L	0.000904U	0.000904	
Heptachlor epoxide	ug/L	0.00121U	0.00121	
Endosulfan I	ug/L	0.00103U	0.00103	
4,4'-DDE	ug/L	0.00148U	0.00148	
Endosulfan II	ug/L	0.00103U	0.00103	
4,4'-DDD	ug/L	0.000993U	0.000993	
Endosulfan sulfate	ug/L	0.00279U	0.00279	
Methoxychlor	ug/L	0.000900U	0.000900	
Endrin ketone	ug/L	0.000969U	0.000969	
Endrin aldehyde	ug/L	0.000695U	0.000695	
alpha-Chlordane	ug/L	0.00118U	0.00118	
gamma-Chlordane	ug/L	0.00130U	0.00130	
gamma-BHC (Lindane)	ug/L	0.000563U	0.000563	
Heptachlor	ug/L	0.00152U	0.00152	
Aldrin	ug/L	0.00139U	0.00139	
Dieldrin	ug/L	0.00106U	0.00106	
Endrin	ug/L	0.00717U	0.00717	
4,4'-DDT	ug/L	0.00120U	0.00120	
Tetrachloro-m-xylene (S)	%	82	32-137	
Decachlorobiphenyl (S)	%	93	25-165	

LABORATORY CONTROL SAMPLE: 24453

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Pesticides						
alpha-BHC	ug/L	0.1	0.087	87		
beta-BHC	ug/L	0.1	0.089	89		
delta-BHC	ug/L	0.1	0.052	52		
Heptachlor epoxide	ug/L	0.1	0.095	95		
Endosulfan I	ug/L	0.1	0.088I	88		
4,4'-DDE	ug/L	0.1	0.118	118		
Endosulfan II	ug/L	0.1	0.118	118		
4,4'-DDD	ug/L	0.1	0.113	113		
Endosulfan sulfate	ug/L	0.1	0.104	104		
Methoxychlor	ug/L	0.1	0.187	187		
Endrin ketone	ug/L	0.1	0.144	144		
Endrin aldehyde	ug/L	0.1	0.118	118		

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE: 24453

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
alpha-Chlordane	ug/L	0.1	0.102	102		
gamma-Chlordane	ug/L	0.1	0.100	100		
gamma-BHC (Lindane)	ug/L	0.1	0.086	86	33-155	
Heptachlor	ug/L	0.1	0.119	119	47-148	
Aldrin	ug/L	0.1	0.088	88	43-149	
Dieldrin	ug/L	0.1	0.100	100	47-162	
Endrin	ug/L	0.1	0.125	125	41-189	
4,4'-DDT	ug/L	0.1	0.119	119	14-228	
Tetrachloro-m-xylene (S)	%			71	32-137	
Decachlorobiphenyl (S)	%			95	25-165	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24454 24455 Original: 904031008

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Pesticides											
alpha-BHC	ug/L	0	0.1	0.101	0.100	101	100		1		
beta-BHC	ug/L	0	0.1	0.090	0.097	90	97		7		
delta-BHC	ug/L	0	0.1	0.054	0.058	54	58		7		
Heptachlor epoxide	ug/L	0.00336	0.1	0.095	0.103	91	99		8		
Endosulfan I	ug/L	0	0.1	0.087I	0.095I	87	95		9		
4,4'-DDE	ug/L	0	0.1	0.112	0.130	112	130		15		
Endosulfan II	ug/L	0	0.1	0.112	0.116	112	116		4		
4,4'-DDD	ug/L	0	0.1	0.114	0.121	114	121		6		
Endosulfan sulfate	ug/L	0	0.1	0.098I	0.112	98	112		13		
Methoxychlor	ug/L	0	0.1	0.181	0.192	181	192		6		
Endrin ketone	ug/L	0	0.1	0.138	0.151	138	151		9		
Endrin aldehyde	ug/L	0.00104	0.1	0.114	0.123	113	122		8		
alpha-Chlordane	ug/L	0	0.1	0.098	0.110	98	110		12		
gamma-Chlordane	ug/L	0	0.1	0.099	0.108	99	108		9		
gamma-BHC (Lindane)	ug/L	0	0.1	0.090	0.084	90	84	33-155	7	20	
Heptachlor	ug/L	0	0.1	0.116	0.123	116	123	47-148	6	20	
Aldrin	ug/L	0	0.1	0.087	0.093	87	93	43-149	7	20	
Dieldrin	ug/L	0	0.1	0.099	0.107	99	107	47-162	8	20	
Endrin	ug/L	0	0.1	0.113	0.115	113	115	41-189	2	20	
4,4'-DDT	ug/L	0	0.1	0.115	0.123	115	123	14-228	7	20	
Tetrachloro-m-xylene (S)	%					81	73	32-137	10		
Decachlorobiphenyl (S)	%					101	92	25-165	9		

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QUALITY CONTROL DATA

QC Batch: INPR/1606 Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Associated Lab Samples: 903914002 903914003 903926001 903926002 903998001 903998002 903998003 904015001 904020003 904032001 904032002 904032003

METHOD BLANK: 24467

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Phosphorus	mg/L	0.004U	0.004	

LABORATORY CONTROL SAMPLE & LCSD: 24468 24469

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Total Phosphorus	mg/L	0.5	0.517	0.513	103	103	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24470 24471 Original: 903914002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Total Phosphorus	mg/L	0.061	0.5	0.543	0.546	96.4	97	90-110	0.62	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24472 24473 Original: 904032003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Total Phosphorus	mg/L	0.044	0.5	0.560	0.563	103	104	90-110	0.97	20	

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QUALITY CONTROL DATA

QC Batch: MISC/1182 Analysis Method: SM 2130 B

QC Batch Method: SM 2130 B

Associated Lab Samples: 903998001 903998002 903998003 904015001 904034001 904034002 904034003 904034004 904034005

METHOD BLANK: 24474

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Turbidity	NTU	0.05U	0.05	

SAMPLE DUPLICATE: 24475 Original: 903998001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Turbidity	NTU		1.4	1	20	

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QUALITY CONTROL DATA

QC Batch: DIGM/1827 Analysis Method: SW-846 6010

QC Batch Method: SW-846 3010A

Associated Lab Samples: 903998001 903998002 903998003 904010001 904010002 904010003
904015001 904032001 904032002 904032003 904039002 904039003
904039004 904039005 904039006 904039007 904039008 904040003

METHOD BLANK: 24487

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Metals Analysis				
Aluminum	mg/l	0.046U	0.046	
Antimony	mg/l	0.0038U	0.0038	
Arsenic	mg/l	0.0046U	0.0046	
Barium	mg/l	0.0020U	0.0020	
Beryllium	mg/l	0.00067U	0.00067	
Boron	mg/l	0.0034U	0.0034	
Cadmium	mg/l	0.00057U	0.00057	
Calcium	mg/l	0.059U	0.059	
Chromium	mg/l	0.0011U	0.0011	
Cobalt	mg/l	0.00072U	0.00072	
Copper	mg/l	0.0096U	0.0096	
Iron	mg/l	0.045U	0.045	
Lead	mg/l	0.0031U	0.0031	
Magnesium	mg/l	0.045U	0.045	
Manganese	mg/l	0.0044U	0.0044	
Molybdenum	mg/l	0.0030U	0.0030	
Nickel	mg/l	0.0052U	0.0052	
Potassium	mg/l	0.35U	0.35	
Selenium	mg/l	0.0054U	0.0054	
Silver	mg/l	0.0016U	0.0016	
Sodium	mg/l	0.195I	0.074	
Strontium	mg/l	0.0015U	0.0015	
Tin	mg/l	0.0042U	0.0042	
Vanadium	mg/l	0.0056U	0.0056	
Zinc	mg/l	0.00608I	0.0053	
Titanium	mg/l	0.0061U	0.0061	

LABORATORY CONTROL SAMPLE: 24488

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Metals Analysis						
Aluminum	mg/l	5	5.19	104	80-120	
Antimony	mg/l	1	0.966	97	80-120	
Arsenic	mg/l	1	1.04	104	80-120	
Barium	mg/l	1	1.05	105	80-120	
Beryllium	mg/l	1	1.06	106	80-120	
Boron	mg/l	1	1.06	106	80-120	

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE: 24488

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium	mg/l	1	1.05	105	80-120	
Calcium	mg/l	25	25.8	103	80-120	
Chromium	mg/l	1	1.04	104	80-120	
Cobalt	mg/l	1	1.04	104	80-120	
Copper	mg/l	1	1.06	106	80-120	
Iron	mg/l	5	5.37	107	80-120	
Lead	mg/l	1	1.12	112	80-120	
Magnesium	mg/l	25	25.7	103	80-120	
Manganese	mg/l	1	1.06	106	80-120	
Molybdenum	mg/l	1	1.00	100	80-120	
Nickel	mg/l	1	1.06	106	80-120	
Potassium	mg/l	10	9.78	98	80-120	
Selenium	mg/l	1	1.03	103	80-120	
Silver	mg/l	0.5	0.525	105	80-120	
Sodium	mg/l	25	24.2	97	80-120	
Strontium	mg/l	1	1.06	106	80-120	
Tin	mg/l	1	0.992	99	80-120	
Vanadium	mg/l	1	1.08	108	80-120	
Zinc	mg/l	1	1.07	107	80-120	
Titanium	mg/l	1	1.00	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24489 24490 Original: 903998001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Metals Analysis											
Aluminum	mg/l	0.13	5	5.44	5.07	106	99	75-125	7	20	
Antimony	mg/l	0.00167	1	0.982	0.978	98	98	75-125	0	20	
Arsenic	mg/l	0.00266	1	1.07	0.990	107	99	75-125	8	20	
Barium	mg/l	0.0132	1	1.07	0.994	106	98	75-125	8	20	
Beryllium	mg/l	-1.19e-0	1	1.07	0.982	107	98	75-125	9	20	
Boron	mg/l	0.0344	1	1.11	1.03	108	100	75-125	8	20	
Cadmium	mg/l	7.23e-00	1	1.07	0.990	107	99	75-125	8	20	
Calcium	mg/l	116	25	144	141	110	97	75-125	13	20	
Chromium	mg/l	-0.00143	1	1.04	0.964	104	96	75-125	8	20	
Cobalt	mg/l	0.00015	1	1.04	0.959	104	96	75-125	8	20	
Copper	mg/l	0.00061	1	1.05	0.976	105	98	75-125	7	20	
Iron	mg/l	0.152	5	5.54	5.09	108	99	75-125	9	20	
Lead	mg/l	-0.00159	1	1.13	1.04	113	104	75-125	8	20	
Magnesium	mg/l	2.85	25	28.8	28.3	104	102	75-125	2	20	
Manganese	mg/l	0.00936	1	1.07	0.982	106	97	75-125	9	20	
Molybdenum	mg/l	0.00177	1	1.01	0.998	101	100	75-125	1	20	
Nickel	mg/l	0.00069	1	1.06	0.983	106	98	75-125	8	20	
Potassium	mg/l	1.39	10	11.5	11.4	101	101	75-125	0	20	
Selenium	mg/l	-0.00061	1	1.05	0.965	105	96	75-125	9	20	

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24489 24490 Original: 903998001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Silver	mg/l	0.00028	0.5	0.533	0.526	107	105	75-125	2	20	
Sodium	mg/l	7.25	25	32.1	31.8	99	98	75-125	1	20	
Strontium	mg/l	0.68	1	1.76	1.68	108	100	75-125	8	20	
Tin	mg/l	-0.00104	1	1.00	0.986	100	99	75-125	1	20	
Vanadium	mg/l	-0.00206	1	1.09	1.01	109	101	75-125	8	20	
Zinc	mg/l	0.00693	1	1.09	1.01	109	100	75-125	9	20	
Titanium	mg/l	0.00135	1	1.02	1.00	102	100	75-125	2	20	

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QUALITY CONTROL DATA

QC Batch: IC/1264 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Associated Lab Samples: 903957002, 903957003, 903957010, 903998001, 903998002, 903998003, 904007001, 904007002, 904007003, 904015001, 904032001, 904032002, 904032003, 904033005, 904033006, 904033007, 904033008, 904033009, 904033011, 904033013

METHOD BLANK: 24499

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Bromide	mg/L	0.052U	0.052	
Nitrite	mg/L	0.005U	0.005	
Nitrate	mg/L	0.007U	0.007	
Fluoride	mg/L	0.030U	0.030	

LABORATORY CONTROL SAMPLE & LCSD: 24500 24501

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Bromide	mg/L	2.5	2.42	2.42	97	97	90-110	0	20	
Nitrite	mg/L	2.5	2.44	2.42	97	97	90-110	0	20	
Nitrate	mg/L	2.5	2.46	2.46	98	98	90-110	0	20	
Fluoride	mg/L	2.5	2.48	2.50	99.3	99.8	90-110	0.5	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24502 24503 Original: 904032001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Bromide	mg/L	0	25	28.9	25.9	116	104	90-110	11	20	
Nitrite	mg/L	0	25	26.0	22.5	104	90	90-110	14	20	
Nitrate	mg/L	0	25	25.2	25.0	101	100	90-110	1	20	
Fluoride	mg/L	0.395	25	26.6	26.4	105	104	90-110	0.96	20	

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QUALITY CONTROL DATA

QC Batch: MICP/1360 Analysis Method: SM 5210B BOD

QC Batch Method: BOD PREP

Associated Lab Samples: 904015001

METHOD BLANK: 24509

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
BOD	mg/L	2.0U	2.0	

LABORATORY CONTROL SAMPLE: 24511

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Wet Chemistry						
BOD	mg/L	198	171	86	70-130	

SAMPLE DUPLICATE: 24512 Original: 904015001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
BOD	mg/L	40U	40U	0	20	

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QUALITY CONTROL DATA

QC Batch: PH/1074 Analysis Method: SM4500H-B

QC Batch Method: SM4500H-B

Associated Lab Samples: 903759001, 903895001, 903895002, 903895003, 903908001, 903918001, 903926001, 903926002, 903937001, 903937002, 904015001, 904045001, 904046001, 904047004, 904048001, 904049001, 904066001

SAMPLE DUPLICATE: 24531 Original: 903937001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
pH	pH unit	7.47	7.64	2	20	

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QUALITY CONTROL DATA

QC Batch: INPR/1610 Analysis Method: SW-846 9012A

QC Batch Method: EPA 335.2

Associated Lab Samples: 903957001 903957002 903957004 903957005 903957006 903957007 903957008 903957009 903999001 904015001 904075003 904077004 904111001

METHOD BLANK: 24589

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Cyanide	mg/L	0.0032U	0.0032	

LABORATORY CONTROL SAMPLE & LCSD: 24590 24591

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Total Cyanide	mg/L	0.2	0.2086	0.2077	104	104	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24592 Original: 903957001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry							0		0	0	
Total Cyanide	mg/L	0.0003	0.2	0.1749		87	0	90-110	0	0	

MATRIX SPIKE SAMPLE: 24594 Original: 904075003

Parameter	Units	Original Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Wet Chemistry							
Total Cyanide	mg/L	0.0036	0.2	0.0222	11	90-110	

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QUALITY CONTROL DATA

QC Batch: HACH/1191 Analysis Method: SW-846 7196A

QC Batch Method: SW-846 7196A

Associated Lab Samples: 904015001

METHOD BLANK: 24597

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Chromium VI	mg/L	0.007U	0.007	

LABORATORY CONTROL SAMPLE & LCSD: 24598 24599

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Chromium VI	mg/L	0.2	0.200	0.198	100	99	85-115	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24600 24601 Original: 904015001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Chromium VI	mg/L	0.005	0.2	0.203	0.203	102	102	85-115	0	20	

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QUALITY CONTROL DATA

QC Batch: SOLI/1688 Analysis Method: SM 2540 D

QC Batch Method: SM 2540 D

Associated Lab Samples: 903965001, 903966002, 903967001, 903968001, 903969003, 903969004, 903977001, 903977002, 903999001, 904015001, 904017001, 904017002, 904017003, 904017004, 904017005, 904017007, 904017008, 904017009, 904047004, 904118001

METHOD BLANK: 24620

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Suspended Solids	mg/L	1.0U	1.0	

SAMPLE DUPLICATE: 24621 Original: 903969004

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Total Suspended Solids	mg/L	152	170	10.7	20	

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QUALITY CONTROL DATA

QC Batch: INPR/1611 Analysis Method: SM 5540 C

QC Batch Method: SM 5540 C

Associated Lab Samples: 904015001 904111001

METHOD BLANK: 24643

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Surfactants	mg/L-LAS	0.040U	0.040	

LABORATORY CONTROL SAMPLE & LCSD: 24644 24645

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Surfactants	mg/L-LAS	1	0.976	0.972	98	97	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24646 24647 Original: 904015001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Surfactants	mg/L-LAS	0.005	1	0.923	0.934	92	93	80-120	1	20	

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QUALITY CONTROL DATA

QC Batch: MSV/1616 Analysis Method: SW-846 8260B

QC Batch Method: SW-846 8260B

Associated Lab Samples: 903997001, 903997002, 903997003, 903997004, 904000001, 904000002, 904000003, 904000004, 904015001, 904015002, 904016001, 904016002, 904016003, 904114001, 904114002, 904114003, 904114004, 904114005, 904114006, 904114007

METHOD BLANK: 24668

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Volatiles				
Acetone	ug/L	1.43U	1.43	
Acrolein	ug/L	2.47U	2.47	
Acrylonitrile	ug/L	0.955U	0.955	
Bromochloromethane	ug/L	0.637U	0.637	
Bromodichloromethane	ug/L	0.100U	0.100	
Bromoform	ug/L	0.486U	0.486	
Bromomethane	ug/L	0.450I	0.427	J,9
Carbon disulfide	ug/L	0.650U	0.650	
Carbon tetrachloride	ug/L	0.468U	0.468	
Chloroethane	ug/L	1.00U	1.00	
Xylene, m,p-	ug/L	0.639U	0.639	
Chloroform	ug/L	0.572U	0.572	
Chloromethane	ug/L	0.524U	0.524	
Dibromochloromethane	ug/L	0.378U	0.378	
Dibromomethane	ug/L	0.739U	0.739	
Dichlorodifluoromethane	ug/L	0.525U	0.525	
1,1-Dichloroethane	ug/L	0.410U	0.410	
1,2-Dichloroethane	ug/L	0.897U	0.897	
cis-1,2-Dichloroethene	ug/L	0.442U	0.442	
trans-1,2-Dichloroethene	ug/L	0.410U	0.410	
Methylene chloride	ug/L	0.610I	0.580	
1,2-Dichloropropane	ug/L	0.725U	0.725	
cis-1,3-Dichloropropene	ug/L	0.664U	0.664	
trans-1,3-Dichloropropene	ug/L	0.522U	0.522	
Ethylbenzene	ug/L	0.323U	0.323	
2-Hexanone	ug/L	1.83U	1.83	
Isopropylbenzene (Cumene)	ug/L	0.528U	0.528	
2-Butanone	ug/L	4.28U	4.28	
4-Methyl-2-pentanone	ug/L	0.220U	0.220	
n-Propylbenzene	ug/L	0.624U	0.624	
Styrene	ug/L	0.458U	0.458	
Tetrachloroethene	ug/L	0.312U	0.312	
1,1,1,2-Tetrachloroethane	ug/L	0.120U	0.120	
1,1,2,2-Tetrachloroethane	ug/L	0.572U	0.572	
1,2,4-Trichlorobenzene	ug/L	0.538U	0.538	
1,1,1-Trichloroethane	ug/L	0.682U	0.682	
1,1,2-Trichloroethane	ug/L	0.841U	0.841	
Trichlorofluoromethane	ug/L	1.00U	1.00	
1,2,3-Trichloropropane	ug/L	0.160U	0.160	
1,2,4-Trimethylbenzene	ug/L	0.508U	0.508	

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QUALITY CONTROL DATA

METHOD BLANK: 24668

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,3,5-Trimethylbenzene	ug/L	0.477U	0.477	
Vinyl chloride	ug/L	0.506U	0.506	
Xylene, o-	ug/L	0.341U	0.341	
1,2-Dibromo-3-chloropropane	ug/L	0.933U	0.933	
1,2-Dibromoethane	ug/L	0.345U	0.345	
Vinyl acetate	ug/L	0.570U	0.570	
Methyl-t-butyl ether	ug/L	0.650U	0.650	
4-Isopropyltoluene	ug/L	0.380U	0.380	
2,2-Dichloropropane	ug/L	0.700U	0.700	
1,1-Dichloropropene	ug/L	0.632U	0.632	
2-Chloroethylvinyl ether	ug/L	0.470U	0.470	
1,3-Dichloropropane	ug/L	0.345U	0.345	
Bromobenzene	ug/L	0.382U	0.382	
2-Chlorotoluene	ug/L	0.550U	0.550	
4-Chlorotoluene	ug/L	0.570U	0.570	
tert-Butylbenzene	ug/L	0.607U	0.607	
sec-Butylbenzene	ug/L	0.521U	0.521	
1,3-Dichlorobenzene	ug/L	0.558U	0.558	
1,4-Dichlorobenzene	ug/L	0.537U	0.537	
n-Butylbenzene	ug/L	0.564U	0.564	
1,2-Dichlorobenzene	ug/L	0.584U	0.584	
Hexachlorobutadiene	ug/L	0.763U	0.763	
Naphthalene	ug/L	0.417U	0.417	
1,2,3-Trichlorobenzene	ug/L	0.686U	0.686	
1,1-Dichloroethene	ug/L	0.638U	0.638	
Benzene	ug/L	0.621U	0.621	
Trichloroethene	ug/L	0.821U	0.821	
Toluene	ug/L	0.389U	0.389	
Chlorobenzene	ug/L	0.316U	0.316	
4-Bromofluorobenzene (S)	%	86	64-130	
Dibromofluoromethane (S)	%	98	69-134	
Toluene d8 (S)	%	98	63-127	
Xylenes (total)	ug/L	0.980U	0.980	

LABORATORY CONTROL SAMPLE & LCSD: 24669 24670

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Volatiles										
Acetone	ug/L	50	60.9	62.1	122	124		2		
Acrolein	ug/L	100	56.5	56.5	57	56		2		
Acrylonitrile	ug/L	100	99.9	98.4	100	98		2		
Bromochloromethane	ug/L	20	18.9	18.9	94	94		0		
Bromodichloromethane	ug/L	20	18.0	18.0	90	90		0		
Bromoform	ug/L	20	19.3	19.3	96	96		0		
Bromomethane	ug/L	20	13.8	15.0	69	75		8		

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE & LCSD: 24669 24670

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Carbon disulfide	ug/L	20	34.7	34.2	174	171		2		
Carbon tetrachloride	ug/L	20	22.1	21.9	110	110		0		
Chloroethane	ug/L	20	21.8	18.7	109	93		16		
Xylene, m,p-	ug/L	40	43.1	43.5	108	109		0.9		
Chloroform	ug/L	20	18.7	18.5	93	93		0		
Chloromethane	ug/L	20	11.7	9.94	59	50		17		
Dibromochloromethane	ug/L	20	19.2	19.3	96	97		1		
Dibromomethane	ug/L	20	18.8	18.9	94	94		0		
Dichlorodifluoromethane	ug/L	20	19.2	18.1	96	91		5		
1,1-Dichloroethane	ug/L	20	21.9	21.3	110	107		3		
1,2-Dichloroethane	ug/L	20	19.6	19.5	98	98		0		
cis-1,2-Dichloroethene	ug/L	20	20.6	20.3	103	102		1		
trans-1,2-Dichloroethene	ug/L	20	24.6	24.7	123	123		0		
Methylene chloride	ug/L	20	20.3	19.3	102	97		5		
1,2-Dichloropropane	ug/L	20	19.7	19.6	98	98		0		
cis-1,3-Dichloropropene	ug/L	20	20.0	19.8	100	99		1		
trans-1,3-Dichloropropene	ug/L	20	19.4	19.3	97	96		1		
Ethylbenzene	ug/L	20	21.1	20.9	105	105		0		
2-Hexanone	ug/L	50	54.2	52.1	108	104		4		
Isopropylbenzene (Cumene)	ug/L	20	18.6	19.1	93	96		3		
2-Butanone	ug/L	50	53.5	51.7	107	103		4		
4-Methyl-2-pentanone	ug/L	50	51.7	49.0	103	98		5		
n-Propylbenzene	ug/L	20	20.3	21.0	101	105		4		
Styrene	ug/L	20	18.3	18.2	92	91		1		
Tetrachloroethene	ug/L	20	22.9	23.1	114	115		0.9		
1,1,1,2-Tetrachloroethane	ug/L	20	19.3	19.1	96	95		1		
1,1,2,2-Tetrachloroethane	ug/L	20	16.6	17.1	83	85		2		
1,2,4-Trichlorobenzene	ug/L	20	18.3	18.4	91	92		1		
1,1,1-Trichloroethane	ug/L	20	20.7	21.2	103	106		3		
1,1,2-Trichloroethane	ug/L	20	19.6	19.2	98	96		2		
Trichlorofluoromethane	ug/L	20	26.3	23.3	131	117		11		
1,2,3-Trichloropropane	ug/L	20	20.7	20.7	103	103		0		
1,2,4-Trimethylbenzene	ug/L	20	20.2	20.5	101	103		2		
1,3,5-Trimethylbenzene	ug/L	20	20.0	20.9	100	105		5		
Vinyl chloride	ug/L	20	24.2	20.9	121	105		14		
Xylene, o-	ug/L	20	20.3	20.1	101	100		1		
1,2-Dibromo-3-chloropropane	ug/L	20	15.3	15.7	76	78		3		
1,2-Dibromoethane	ug/L	20	18.6	18.7	93	93		0		
Vinyl acetate	ug/L	20	17.6	16.5	88	83		6		
Methyl-t-butyl ether	ug/L	20	18.9	18.7	95	93		2		
4-Isopropyltoluene	ug/L	20	21.0	20.9	105	104		1		
2,2-Dichloropropane	ug/L	20	21.5	21.1	107	106		0.9		
1,1-Dichloropropene	ug/L	20	20.0	19.8	100	99		1		
2-Chloroethylvinyl ether	ug/L	20	19.1	18.7	96	94		2		
1,3-Dichloropropane	ug/L	20	19.2	19.2	96	96		0		
Bromobenzene	ug/L	20	17.6	17.9	88	90		2		
2-Chlorotoluene	ug/L	20	18.4	18.9	92	94		2		
4-Chlorotoluene	ug/L	20	17.9	18.6	90	93		3		

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE & LCSD: 24669 24670

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
tert-Butylbenzene	ug/L	20	20.9	22.0	104	110		6		
sec-Butylbenzene	ug/L	20	22.6	22.6	113	113		0		
1,3-Dichlorobenzene	ug/L	20	18.2	18.1	91	91		0		
1,4-Dichlorobenzene	ug/L	20	18.3	18.3	91	91		0		
n-Butylbenzene	ug/L	20	22.4	22.8	112	114		2		
1,2-Dichlorobenzene	ug/L	20	18.0	18.2	90	91		1		
Hexachlorobutadiene	ug/L	20	20.8	21.4	104	107		3		
Naphthalene	ug/L	20	19.2	19.3	96	96		0		
1,2,3-Trichlorobenzene	ug/L	20	18.4	19.0	92	95		3		
1,1-Dichloroethene	ug/L	20	28.0	26.9	140	135	62-141	4	20	
Benzene	ug/L	20	20.0	20.4	100	102	65-141	2	20	
Trichloroethene	ug/L	20	21.8	21.9	109	109	65-140	0	20	
Toluene	ug/L	20	20.8	21.0	104	105	64-139	1	20	
Chlorobenzene	ug/L	20	19.5	19.5	97	98	48-146	1	20	
4-Bromofluorobenzene (S)	%				85	89	64-130	5		
Dibromofluoromethane (S)	%				99	98	69-134	1		
Toluene d8 (S)	%				99	98	63-127	1		
Xylenes (total)	ug/L		63.4	63.6						

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QUALITY CONTROL DATA

QC Batch: TOC/1111 Analysis Method: SM 5310B

QC Batch Method: SM 5310B

Associated Lab Samples: 903971002 904012001 904015001 904019001 904028001 904086001 904092001 904097001 904097002

LABORATORY CONTROL SAMPLE & LCSD: 24691 24692

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Total Organic Carbon	mg/L	80	83.8	82.2	105	103	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24693 24694 Original: 904015001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Total Organic Carbon	mg/L	2.5	80	83.8	82.9	102	101	90-110	1	10	

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QUALITY CONTROL DATA

QC Batch: ALKA/1098 Analysis Method: SM 2320 B

QC Batch Method: SM 2320 B

Associated Lab Samples: 903879001, 903885001, 903885002, 903976001, 903976002, 903976003, 904015001, 904038002, 904038003, 904039002, 904039003, 904039004, 904039005, 904039006, 904039007, 904088001, 904088002, 904088003, 904088004

METHOD BLANK: 24695

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Alkalinity	mg/L	0.02U	0.02	

LABORATORY CONTROL SAMPLE & LCSD: 24696 24697

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Total Alkalinity	mg/L	250	243	244	97	98	90-110	1	20	

SAMPLE DUPLICATE: 24698 Original: 903885001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Total Alkalinity	mg/L	128	128	0		

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QUALITY CONTROL DATA

QC Batch: SOLI/1689 Analysis Method: SM 2540 C

QC Batch Method: SM 2540 C

Associated Lab Samples: 903978001, 903978002, 903985002, 903985005, 903985007, 903985009, 903998001, 903998002, 903998003, 904015001, 904017001, 904017002, 904017003, 904017004, 904017005, 904017007, 904017008, 904017009, 904040001, 904040002

METHOD BLANK: 24735

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Dissolved Solids(TDS)	mg/L	7.00U	7.00	

SAMPLE DUPLICATE: 24736 Original: 903978001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Total Dissolved Solids(TDS)	mg/L	1180	1350	13.4	20	

SAMPLE DUPLICATE: 24737 Original: 904017009

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Total Dissolved Solids(TDS)	mg/L	156	163	4.4	20	

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QUALITY CONTROL DATA

QC Batch: DIGM/1832 Analysis Method: EPA 200.8

QC Batch Method: EPA 200.8

Associated Lab Samples: 903890001, 903890002, 903891001, 903891002, 903902001, 903902002, 903951001, 903951002, 903997003, 904015001, 904055001, 904055002, 904111001, 904147002

METHOD BLANK: 24762

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Metals Analysis				
Thallium	mg/L	0.00027U	0.00027	

LABORATORY CONTROL SAMPLE: 24763

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Metals Analysis						
Thallium	mg/L	0.2	0.205	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24764 24765 Original: 903890001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Metals Analysis											
Thallium	mg/L			0.211	0.213						

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QUALITY CONTROL DATA

QC Batch: MISC/1185 Analysis Method: SM 2520 B

QC Batch Method: SM 2520 B

Associated Lab Samples: 903584001 903730001 903730002 903730003 904005001 904005002
904005003 904005004 904015001 904040001 904040002 904040003

SAMPLE DUPLICATE: 24831 Original: 903584001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Salinity	ppt	0.50	0.8	46.2	20	

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QUALITY CONTROL DATA

QC Batch: IC/1272 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Associated Lab Samples: 903914001, 903914002, 903970001, 904005001, 904005003, 904015001, 904040003, 904054001, 904054002, 904055001, 904055002, 904056001, 904094001, 904094002, 904111001, 904128001, 904145001, 904145002, 904160002

METHOD BLANK: 25058

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Sulfate	mg/L	0.135I	0.076	

LABORATORY CONTROL SAMPLE & LCSD: 25059 25060

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Sulfate	mg/L	7.5	7.23	7.19	96	96	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 25061 25062 Original: 903970001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Sulfate	mg/L	706	375	465	424	-64	-75	90-110	-16	20	

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QUALITY CONTROL DATA

QC Batch: INPR/1615 Analysis Method: EPA 351.2

QC Batch Method: EPA 351.2

Associated Lab Samples: 903813001 903944001 903998001 903998002 903998003 904015001
904020003 904028001 904032001 904032002 904032003 904056001
904057001 904092001 904093001 904094001 904094002

METHOD BLANK: 25077

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Kjeldahl Nitrogen	mg/L	0.22U	0.22	

LABORATORY CONTROL SAMPLE & LCSD: 25078 25079

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Total Kjeldahl Nitrogen	mg/L	5	4.70	4.70	94	94	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 25080 25081 Original: 903944001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Total Kjeldahl Nitrogen	mg/L	0.199	5	5.57	5.45	111	109	90-110	1.8	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 25410 25411 Original: 904032003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Total Kjeldahl Nitrogen	mg/L	0.27	5	3.80	3.70	70.6	68.6	90-110	2.9	20	

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QUALITY CONTROL DATA

QC Batch: LACH/2075 Analysis Method: EPA 350.1

QC Batch Method: EPA 350.1

Associated Lab Samples: 903909012, 903909013, 903909014, 903909016, 903926001, 903926002, 903944002, 903999001, 904015001, 904019001, 904028001, 904032001, 904032002, 904047003, 904048001, 904049001, 904050003, 904058001

METHOD BLANK: 25189

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Ammonia	mg/L	0.017U	0.017	

LABORATORY CONTROL SAMPLE & LCSD: 25190 25191

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Ammonia	mg/L	2.5	2.55	2.60	102	104	90-110	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 25194 25195 Original: 904058001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Ammonia	mg/L	0.742	2.5	3.51	3.50	111	110	90-110	0.9	20	

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QUALITY CONTROL DATA

QC Batch: DIGM/1864 Analysis Method: SW-846 7470

QC Batch Method: SW-846 7470

Associated Lab Samples: 904015001 904341001 904341002 904341003 904341004

METHOD BLANK: 25576

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Metals Analysis				
Mercury	mg/L	0.00013U	0.00013	

LABORATORY CONTROL SAMPLE: 25577

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Metals Analysis						
Mercury	mg/L	0.002	0.00204	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 25578 25579 Original: 904015001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Metals Analysis											
Mercury	mg/L	3.3e-005	0.002	0.00220	0.00215	110	108	75-125	2	20	

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QUALITY CONTROL DATA

QC Batch: IC/1281 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Associated Lab Samples: 903845001, 904015001, 904088002, 904111001, 904147002, 904162004, 904173004, 904215002, 904215003, 904223001, 904385005, 904385006, 904393001, 904405001, 904405002

METHOD BLANK: 25762

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Chloride	mg/L	0.066U	0.066	

LABORATORY CONTROL SAMPLE & LCSD: 25763 25764

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Chloride	mg/L	5	4.94	4.97	99	99	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 25765 25766 Original: 903845001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Chloride	mg/L	214	250	485	474	108	104	90-110	4	20	

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QUALITY CONTROL DATA

QC Batch: MISC/1193 Analysis Method: EPA 410.4

QC Batch Method: EPA 410.4

Associated Lab Samples: 904015001, 904047003, 904048001, 904049001, 904050003, 904067001, 904074006, 904075005, 904076006, 904077003, 904097001, 904097002, 904111001, 904156001, 904157002, 904211001, 904258001, 904290002, 904298001, 904298002

METHOD BLANK: 26177

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
COD	mg/L	6.7U	6.7	

LABORATORY CONTROL SAMPLE & LCSD: 26178 26179

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
COD	mg/L	200	202	207	101	104	90-110	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 26180 26181 Original: 904097002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
COD	mg/L	24	200	221	220	98	98	90-110	0	20	

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QUALITY CONTROL DATA QUALIFIERS

QUALITY CONTROL PARAMETER QUALIFIERS

J	Estimated value.
V	Present in blank.
[8]	NCR-% RPD exceeds control limits
[9]	NCR-Result was based on a one-point calibration
[10]	MS and/or MSD recoveries outside control limits. However, LCS and/or LCSD within limits. Data reported.
[11]	MS and/or MSD recoveries outside control limits due to the high level of target analyte in the spiked sample. LCS and/or LCSD within limits. Data reported.
[12]	NCR-% difference of results from primary and secondary columns is >40%, possible due to matrix interference. Detection limit elevated above lowest concentration.

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QUALITY CONTROL CROSS REFERENCE TABLE

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
904015001	PW-1	EPA 1664A	EXTO/2010		
904015001	PW-1	EPA 365.1	LACH/2030		
904015001	PW-1	SM 4500-S F(20th Ed.)	HACH/1190		
904015001	PW-1	3510C	EXTO/2015	SW-846 8270C low PAH	MSSV/1351
904015001	PW-1	3510C	EXTO/2017	SW-846 8270C	MSSV/1348
904015001	PW-1	3510C	EXTO/2018	SW-846 8141A	GCSV/1542
904015001	PW-1	3510C	EXTO/2019	SW-846 8082	GCSV/1557
904015001	PW-1	3510C	EXTO/2020	SW-846 8151A	GCSV/1556
904015001	PW-1	3510C	EXTO/2021	SW-846 8081A	GCSV/1546
904015001	PW-1	EPA 365.1	INPR/1606	EPA 365.1	LACH/2047
904015001	PW-1	SM 2130 B	MISC/1182		
904015001	PW-1	SW-846 3010A	DIGM/1827	SW-846 6010	ICP/1490
904015001	PW-1	EPA 300.0	IC/1264		
904015001	PW-1	BOD PREP	MICP/1360	SM 5210B BOD	BOD/1306
904015001	PW-1	SM4500H-B	PH/1074		
904015001	PW-1	SW-846 9012A	INPR/1610	SW-846 9012A	LACH/2052
904015001	PW-1	SW-846 7196A	HACH/1191		

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QUALITY CONTROL CROSS REFERENCE TABLE

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
904015001	PW-1	SM 2540 D	SOLI/1688		
904015001	PW-1	SM 5540 C	INPR/1611	SM 5540 C	HACH/1193
904015001	PW-1	SW-846 8260B	MSV/1616		
904015002	TRIP BLANK	SW-846 8260B	MSV/1616		
904015001	PW-1	SM 5310B	TOC/1111		
904015001	PW-1	SM 2320 B	ALKA/1098		
904015001	PW-1	SM 4500 CO2 D	ALKA/1099		
904015001	PW-1	SM 2540 C	SOLI/1689		
904015001	PW-1	EPA 200.8	DIGM/1832	EPA 200.8	ICPM/1104
904015001	PW-1	SM 2520 B	MISC/1185		
904015001	PW-1	EPA 300.0	IC/1272		
904015001	PW-1	EPA 351.2	INPR/1615	EPA 351.2	LACH/2086
904015001	PW-1	EPA 350.1	LACH/2075		
904015001	PW-1	EPA 120.1	SPCD/1036		
904015001	PW-1	SW-846 7470	DIGM/1864	SW-846 7470	HG/1100
904015001	PW-1	EPA 300.0	IC/1281		
904015001	PW-1	EPA 410.4	MISC/1193		

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QUALITY CONTROL CROSS REFERENCE TABLE

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
904015001	PW-1	900.0	S_01/	900.0	S_01/
904015001	PW-1	903.1	S_01/	903.1	S_01/
904015001	PW-1	EPA 100.2	S_09/	EPA 100.2	S_09/
904015001	PW-1	EPA 300.1	S_05/	EPA 300.1	S_05/
904015001	PW-1	EPA 7063 mod	S_36/	EPA 7063 mod	S_36/
904015001	PW-1	EPA 906	S_33/	EPA 906	S_33/
904015001	PW-1	Krone1989/GCMS	S_37/	Krone1989/GCMS	S_37/
904015001	PW-1	RA-05	S_17/	RA-05	S_17/
904015001	PW-1	RSK 175	S_15/	RSK 175	S_15/

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CHAIN OF CUSTODY RECORD

Log# 904015 T#S ___ Quote: ___ Page ___ of ___

Container Type Codes

AV	Amber Vial	ES	Encore Sampler
CV	Clear Vial	PPV	Prepreserved vial
P	Plastic	PL-C	Plastic container
AL	Amber Liter	PL-J	Plastic Jar
CL	Clear Liter	Ziploc	Ziploc bag
AP	Amber Plastic	TEDLAR B	Tedlar bag
AG	Amber Glass	WHIRL P	Whirl pak
SJ	Soil Jar	G	Gallon Jug

Other ___
Size(s): 2oz, 4oz, 8oz, 16oz, 32oz or 1L, 40ml other ___
Example: 4ozP = 4oz Plastic, 8ozSJ=8oz Soil Jar

Company Name: HDR PO#
Address:
City: State: Zip:
Attn: Fax#
email: deborah.daigle@hdrinc.com
Project Name: FPL Proj#
Sampler Signature: Phone#

LAB ANALYSIS

	1	2	3	4	5
Sample					
TRC					
pH	2	2	2	2	2
Pres Codes	A	A	A	A	A
Parameters	Full 8081	Full 8141	Full 8151	Full 8270	Full 8082

EXAMPLE Diss.8RCRA 6010

Matrix Codes

SD	Solid Waste	WW	Waste Water
SO	Soil	AFW	Analyte Free Water
SE	Sediment	DW	Drinking Water
OL	Oil	SU	Surface Water
PE	Petroleum	AQ	Aqueous
NA	Nonaqueous	SW	Source Water
ML	Misc. Liquid	A	Air
GW	Ground Water	O	Other ___ (Please Specify)
EFF	Effluent		
INF	Influent		

Pres/Codes

A. None	E. HCL	I. Ice
B. HNO3	F. MeOH	J. MCAA
C. H2SO4	G. Na2S2O3	K. Zn Acetate
D. NaOH	H. NaHSO4	O. Other

#	Sample Label (Client ID)	Collect Date	Collect Time	Matrix Code	Field Filtered	Integrity OK(Y/N)	Total # of containers	# of Containers / Size/Type										REMARKS
i.e.	MW-1	6/16/04	11:35	GW	X		1										1 16ozP	
1	Trip Blank			AFW			1	2	2	2	2	2	1L AG					
2	PW-1	4/13/09		✓				1	1	1	1	1	1L AG					
3																		
4																		
5																		
6																		
7																		
8																		
9																		
0																		

EDD Standard / Level	Short Hold	QA/QC Report Level	COC OK	Initials	Required State Certification	Coolers #'s
(Y) N / Non-standard	Y___ (N)	None ___ 1 ___ 2 ___ 3 ___ Other ___	(Y) N	MC		

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
	[signature]	GAS	4-2-09	0900	[signature]	HDR	4/5/09	1200
	[signature]	HDR	4-13-09	1800	[signature]	GAS	4/14/09	10:40

Lab Use Only (Y / No / NA)
Sample INTACT upon arrival?
Received on Wet Ice? Temp 4
Proper Preservatives Indicated?
Received within holding time?
Custody seals intact?
Volatile vials without headspace?
Proper Containers Used?

ORIGINAL

Genapure Telephone:888-862-LABS or 561-447-7373 Fax: 888-456-4846 or 561-447-6136 Revision G101007

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CHAIN OF CUSTODY RECORD

Log# GG4015 T#S___ Quote:_______ Page___ of___

Company Name: HDR	PO#
Address:	
City: State: Zip:	
Attn:	Fax#
email: deborah.daigle@hdrinc.com	
Project Name: PPL	Proj#
Sampler Signature	Phone#

LAB ANALYSIS

	1	2	3	4	5	6	7	8	9
Sample									
TRC									
pH	7	7	7	7	12	7	2	2	
Pres Codes	A	A	A	A	F	A	B	C	
Parameters	Bromide, TDS, TSS, ALK, Turb, Cond, SO4, FL	BOD	Bromide	OPO4 (FF)	CN	MBAS, NO3, NO2	PP Metals	COD, TP	H2S

#	Sample Label (Client ID)	Collect Date	Collect Time	Matrix Code	Field Filtered	Integrity OK (Y/N)	Total # of Containers	# of Containers Size/Type: 1	2	3	4	5	6	7	8	9	EXAMPLE Diss BRCRA 6010	REMARKS
i.e.	MW-1	6/16/04	11:35	GW	X		1										1 16ozP	
1	PW-1	4/13/09	1600	✓				1	1	1	1	1	1	1	1	1		
2								4 8P 1 AmP 3 Am										
3																		
4																		
5																		
6																		
7																		
8																		
9																		
0																		

Container Type Codes
AV Amber Vial; CV Clear Vial; P Plastic; AL Amber Liter; CL Clear Liter; AP Amber Plastic; AG Amber Glass; SJ Soil Jar; Other
ES Encore Sampler; PPV Preprepared vial; PLC Plastic container; PLJ Plastic Jar; Ziploc Ziploc bag; TEDLAR B. Tedlar bag; WHIRL P Whirl pak; G Gallon Jug
Size(s): 2oz, 4oz, 8oz, 16oz, 32oz or 1L, 40ml other____
Example: 4ozP = 4oz Plastic, 8ozSJ=8oz Soil Jar

Matrix Codes*
SO Solid Waste; SO Soil; SE Sediment; OL Oil; PE Petroleum; NA Nonaqueous; NL Misc. Liquid; GW Ground Water; EFF Effluent; INF Influent
WW Waste Water; APW Analyte Free Water; DW Drinking Water; SU Surface Water; AQ Aqueous; SW Source Water; A Air; O Other____ (Please Specify)

Pres/Codes
A. None; B. HNO3; C. H2SO4; D. NaOH; E. HCL; F. MeOH; G. Na2S2O3; H. NaHSO4; I. Ice; J. MCAA; K. Zn Acetate; O. Other

Turnaround: Standard / Rush	Short Hold	QA/QC Report Level	COC OK	Initials	Required State Certification	Coolers #'s
(Y/N)	Not Required	(Y) N	None 1 2 3 Other	(Y) N	[illegible]	

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	[signature]	HDR	4-13-09	1800	[signature]	GAS	4/14/09	10:10

Lab Use Only (Yes / No / N/A)
- Sample INTACT upon arrival? ✓
- Received on Wet Ice? Temp 6 ✓
- Proper Preservatives Indicated? ✓
- Received within holding time? ✓
- Custody seals intact? ✓
- Volatile rec'd without headspace? ✓ (N/A)
- Proper Containers Used? ✓

ORIGINAL

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CHAIN OF CUSTODY RECORD

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Log# 904015 T#S___ Quote:______ Page___of___

Company Name: HDR PO#
Address:
City: State: Zip:
Attn: Fax#
email: deborah.daugh@hdrinc.com
Project Name: FEL Proj# 101650
Sampler Signature: [signature] Phone#

LAB ANALYSIS — Parameters: TOC | Full 8260 | Ethane, methane, Ethene | Gross A, B, 2022 (6), 228 | Trivalent As | tritium | tri-butyltin | Asbestos | O&G

Pres Codes: E; E; VWR

#	Sample Label (Client ID)	Collect Date	Collect Time	Matrix Code*	Field Filtered	Integrity OK(Y/N)	Total # of containers
i.e.	MW-1	6/16/04	11:35	GW	X		1
1	PW-1	4/13/09	1600	✓			
2							
3							
4							
5							
6							
7							
8							
9							
0							

Row 1 # containers: 1 | 2 (40A) | 2 (VOA) | 1 | 1 | 1 | 1 | 1 | 1
Row 2 note: (1) V (1) AG (1) AP (1) 16P (1) A (1) CR

Example: Diss RCRA 6010 — # of Containers / Size/Type: 1 16ozP

REMARKS

Short Hold	QA/QC Report Level	COC OK	Initials	Required State Certification	Coolers #'s
Y___ N	None___ 1___ 2___ 3___ Other___	Y	[initials]		

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	[signature]	HDR	4-13-09	1800	[signature]	GAS	4/14/09	10:10

Container Type Codes: AV Amber Vial; CV Clear Vial; P Plastic; AL Amber Liter; CL Clear Liter; AP Amber Plastic; AG Amber Glass; SJ Soil Jar; ES Encore Sampler; PPV Prepreserved vial; PLC Plastic container; PLJ Plastic Jar; Ziploc Ziploc bag; TEDLAR B Tedlar bag; WHIRL P Whirl pak; G Gallon Jug; Other. Sizes: 2oz, 4oz, 8oz, 16oz, 32oz or 1L, 40ml other. Example: 4ozP = 4oz Plastic, 8ozSJ=8oz Soil Jar

Matrix Codes*: SD Solid Waste; SO Soil; SE Sediment; OL Oil; PE Petroleum; NA Nonaqueous; ML Misc. Liquid; GW Ground Water; EFF Effluent; INF Influent; WW Waste Water; AFW Analyte Free Water; DW Drinking Water; SU Surface Water; AQ Aqueous; SW Source Water; A Air; O Other (Please Specify)

Pres/Codes: A. None; B. HNO3; C. H2SO4; D. NaOH; E. HCL; F. MeOH; G. Na2S2O3; H. NaHSO4; I. Ice; J. MCAA; K. Zn Acetate; O. Other

Lab Use Only: Sample INTACT upon arrival?; Received on Wet Ice? Temp; Proper Preservatives indicated?; Received within holding time?; Custody seals intact?; Volatile rec'd without headspace?; Proper Containers Used?

ORIGINAL

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Fax: (561) 447-7374

June 4, 2009

DEBORAH DAIGLE
HDR ENGINEERING
5426 BAY CENTER DR.
SUITE 400
Tampa, FL 33609

RE:
Workorder: 904913
Project: FPL 101650

Dear DEBORAH DAIGLE:

Enclosed are the analytical results for sample(s) received by the laboratory on Wednesday, May 06, 2009. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Neshmah Castaneda
ncastaneda@genapure.com
Project Manager

FL-NELAC E86240

Statement of uncertainty is available upon request.
FL Qualifiers: I=value between MDL and PQL; V=value was positive in Blank; J=estimated value.See comment;
U=undetected; Q=out of hold
EPA Qualifiers: B=value was positive in Blank; J=estimated value. May be between MDL and PQL;
U=undetected; Q=out of hold
Enclosures

CERTIFICATE OF ANALYSIS

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Phone: (561) 447-7373
Fax: (561) 447-7374

SAMPLE SUMMARY

Lab ID	Sample ID	Collector	Matrix	Date Collected	Date Received	Temp
904913001	TRIP BLANK	CLIENT	DI Water	5/5/2009 00:00	5/6/2009 10:15	4
904913002	PW-1	CLIENT	Groundwater	5/5/2009 09:35	5/6/2009 10:15	4

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ANALYTICAL RESULTS

Lab ID: **904913001** Date Received: 5/6/2009 10:15 Matrix: DI Water

Sample ID: **TRIP BLANK/** Date Collected: 5/5/2009

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Volatiles									
Analytical Method: SW-846 8260B									
1,1,1,2-Tetrachloroethane	0.120	U	ug/L	0.120	1.00	1		5/8/2009 02:35	LN
1,1,1-Trichloroethane	0.682	U	ug/L	0.682	1.00	1		5/8/2009 02:35	LN
1,1,2,2-Tetrachloroethane	0.572	U	ug/L	0.572	1.00	1		5/8/2009 02:35	LN
1,1,2-Trichloroethane	0.841	U	ug/L	0.841	1.00	1		5/8/2009 02:35	LN
1,1-Dichloroethane	0.410	U	ug/L	0.410	1.00	1		5/8/2009 02:35	LN
1,1-Dichloroethene	0.638	U	ug/L	0.638	1.00	1		5/8/2009 02:35	LN
1,1-Dichloropropene	0.632	U	ug/L	0.632	1.00	1		5/8/2009 02:35	LN
1,2,3-Trichlorobenzene	0.686	U	ug/L	0.686	1.00	1		5/8/2009 02:35	LN
1,2,3-Trichloropropane	0.160	U	ug/L	0.160	1.00	1		5/8/2009 02:35	LN
1,2,4-Trichlorobenzene	0.538	U	ug/L	0.538	1.00	1		5/8/2009 02:35	LN
1,2,4-Trimethylbenzene	0.508	U	ug/L	0.508	1.00	1		5/8/2009 02:35	LN
1,2-Dibromo-3-chloropropane	0.933	U	ug/L	0.933	1.00	1		5/8/2009 02:35	LN
1,2-Dibromoethane	0.345	U	ug/L	0.345	1.00	1		5/8/2009 02:35	LN
1,2-Dichlorobenzene	0.584	U	ug/L	0.584	1.00	1		5/8/2009 02:35	LN
1,2-Dichloroethane	0.897	U	ug/L	0.897	1.00	1		5/8/2009 02:35	LN
1,2-Dichloropropane	0.725	U	ug/L	0.725	1.00	1		5/8/2009 02:35	LN
1,3,5-Trimethylbenzene	0.477	U	ug/L	0.477	1.00	1		5/8/2009 02:35	LN
1,3-Dichlorobenzene	0.558	U	ug/L	0.558	1.00	1		5/8/2009 02:35	LN
1,3-Dichloropropane	0.345	U	ug/L	0.345	1.00	1		5/8/2009 02:35	LN
1,4-Dichlorobenzene	0.537	U	ug/L	0.537	1.00	1		5/8/2009 02:35	LN
2,2-Dichloropropane	0.700	U	ug/L	0.700	1.00	1		5/8/2009 02:35	LN
2-Butanone	4.28	U	ug/L	4.28	10.0	1		5/8/2009 02:35	LN
2-Chloroethylvinyl ether	0.470	U	ug/L	0.470	1.00	1		5/8/2009 02:35	LN
2-Chlorotoluene	0.550	U	ug/L	0.550	1.00	1		5/8/2009 02:35	LN
2-Hexanone	1.83	U	ug/L	1.83	10.0	1		5/8/2009 02:35	LN
4-Chlorotoluene	0.570	U	ug/L	0.570	1.00	1		5/8/2009 02:35	LN
4-Isopropyltoluene	0.380	U	ug/L	0.380	1.00	1		5/8/2009 02:35	LN
4-Methyl-2-pentanone	0.220	U	ug/L	0.220	1.00	1		5/8/2009 02:35	LN
Acetone	1.43	U	ug/L	1.43	10.0	1		5/8/2009 02:35	LN
Acrolein	2.47	U	ug/L	2.47	10.0	1		5/8/2009 02:35	LN
Acrylonitrile	0.955	U	ug/L	0.955	10.0	1		5/8/2009 02:35	LN
Benzene	0.621	U	ug/L	0.621	1.00	1		5/8/2009 02:35	LN
Bromobenzene	0.382	U	ug/L	0.382	1.00	1		5/8/2009 02:35	LN
Bromochloromethane	0.637	U	ug/L	0.637	1.00	1		5/8/2009 02:35	LN
Bromodichloromethane	0.100	U	ug/L	0.100	1.00	1		5/8/2009 02:35	LN
Bromoform	0.486	U	ug/L	0.486	1.00	1		5/8/2009 02:35	LN
Bromomethane	0.427	U	ug/L	0.427	1.00	1		5/8/2009 02:35	LN
n-Butylbenzene	0.564	U	ug/L	0.564	1.00	1		5/8/2009 02:35	LN
Carbon disulfide	0.650	U	ug/L	0.650	10.0	1		5/8/2009 02:35	LN
Carbon tetrachloride	0.468	U	ug/L	0.468	1.00	1		5/8/2009 02:35	LN
Chlorobenzene	0.316	U	ug/L	0.316	1.00	1		5/8/2009 02:35	LN
Chloroethane	1.00	U	ug/L	1.00	1.00	1		5/8/2009 02:35	LN
Chloroform	0.572	U	ug/L	0.572	1.00	1		5/8/2009 02:35	LN

CERTIFICATE OF ANALYSIS

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Fax: (561) 447-7374

ANALYTICAL RESULTS

Lab ID: **904913001** Date Received: 5/6/2009 10:15 Matrix: DI Water

Sample ID: **TRIP BLANK/** Date Collected: 5/5/2009

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Chloromethane	1.03		ug/L	0.524	1.00	1		5/8/2009 02:35	LN
Dibromochloromethane	0.378	U	ug/L	0.378	1.00	1		5/8/2009 02:35	LN
Dibromomethane	0.739	U	ug/L	0.739	1.00	1		5/8/2009 02:35	LN
Dichlorodifluoromethane	0.525	U	ug/L	0.525	1.00	1		5/8/2009 02:35	LN
cis-1,3-Dichloropropene	0.664	U	ug/L	0.664	1.00	1		5/8/2009 02:35	LN
trans-1,3-Dichloropropene	0.522	U	ug/L	0.522	1.00	1		5/8/2009 02:35	LN
Ethylbenzene	0.323	U	ug/L	0.323	1.00	1		5/8/2009 02:35	LN
Hexachlorobutadiene	0.763	U	ug/L	0.763	1.00	1		5/8/2009 02:35	LN
Isopropylbenzene (Cumene)	0.528	U	ug/L	0.528	1.00	1		5/8/2009 02:35	LN
Methyl-t-butyl ether	0.650	U	ug/L	0.650	1.00	1		5/8/2009 02:35	LN
Methylene chloride	1.16	I	ug/L	0.580	5.00	1		5/8/2009 02:35	LN
Naphthalene	0.417	U	ug/L	0.417	1.00	1		5/8/2009 02:35	LN
Styrene	0.458	U	ug/L	0.458	1.00	1		5/8/2009 02:35	LN
Tetrachloroethene	0.312	U	ug/L	0.312	1.00	1		5/8/2009 02:35	LN
Toluene	0.389	U	ug/L	0.389	1.00	1		5/8/2009 02:35	LN
Trichloroethene	0.821	U	ug/L	0.821	1.00	1		5/8/2009 02:35	LN
Trichlorofluoromethane	1.00	U	ug/L	1.00	1.00	1		5/8/2009 02:35	LN
Vinyl acetate	0.570	U	ug/L	0.570	10.0	1		5/8/2009 02:35	LN
Vinyl chloride	0.506	U	ug/L	0.506	1.00	1		5/8/2009 02:35	LN
Xylene, m,p-	0.639	U	ug/L	0.639	2.00	1		5/8/2009 02:35	LN
Xylene, o-	0.341	U	ug/L	0.341	1.00	1		5/8/2009 02:35	LN
Xylenes (total)	0.980	U	ug/L	0.980	3.00	1		5/8/2009 02:35	LN
cis-1,2-Dichloroethene	0.442	U	ug/L	0.442	1.00	1		5/8/2009 02:35	LN
n-Propylbenzene	0.624	U	ug/L	0.624	1.00	1		5/8/2009 02:35	LN
sec-Butylbenzene	0.521	U	ug/L	0.521	1.00	1		5/8/2009 02:35	LN
tert-Butylbenzene	0.607	U	ug/L	0.607	1.00	1		5/8/2009 02:35	LN
trans-1,2-Dichloroethene	0.410	U	ug/L	0.410	1.00	1		5/8/2009 02:35	LN
4-Bromofluorobenzene (S)	100		%	64-130		1		5/8/2009 02:35	LN
Dibromofluoromethane (S)	119		%	69-134		1		5/8/2009 02:35	LN
Toluene d8 (S)	97		%	63-127		1		5/8/2009 02:35	LN

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Boca Raton, FL 33431
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Fax: (561) 447-7374

ANALYTICAL RESULTS

Lab ID: **904913002** Date Received: 5/6/2009 10:15 Matrix: Groundwater

Sample ID: **PW-1/** Date Collected: 5/5/2009 9:35:00 AM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Wet Chemistry									
Analytical Method: SM 2540 C									
Total Dissolved Solids(TDS)	33800		mg/L	350	500	50		5/6/2009 16:45	AR
Preparation Method: EPA 351.2		Analytical Method: EPA 351.2							
Total Kjeldahl Nitrogen	0.494		mg/L	0.22	0.40	1	5/12/2009 18:00	5/13/2009 13:20	IG
Analytical Method: EPA 350.1									
Ammonia	0.182		mg/L	0.017	0.050	1		5/12/2009 12:38	IG
Analytical Method: EPA 300.0									
Bromide	110	6	mg/L	0.522	5.00	10		5/6/2009 23:16	AD
Chloride	19400		mg/L	133	1000	2000		5/14/2009 08:14	AD
Fluoride	0.584	I6	mg/L	0.300	2.00	10		5/6/2009 23:16	AD
Nitrate	0.074	U	mg/L	0.074	0.500	10		5/6/2009 23:16	AD
Nitrite	0.053	U6	mg/L	0.053	0.500	10		5/6/2009 23:16	AD
Sulfate	2540	V,Q	mg/L	15.1	100	200		5/13/2009 21:33	AD
Analytical Method: EPA 410.4									
COD	1550		mg/L	67.0	100	10		5/12/2009 09:00	AR
Analytical Method: SM 2320 B									
Total Alkalinity	150		mg/L	0.02	0.05	1		5/13/2009 13:30	LP
Preparation Method: BOD PREP		Analytical Method: SM 5210B BOD							
BOD	<206	5	mg/L	40	40	20	5/5/2009 19:45	5/11/2009 11:30	JC
Analytical Method: SM 5310B									
Total Organic Carbon	2.1		mg/L	0.60	1.0	1		5/12/2009 22:00	LP
Analytical Method: EPA 1664A									
Oil and Grease	1.7	I	mg/L	1.4	4.0	1		5/7/2009 15:35	JS
Preparation Method: SW-846 9012A		Analytical Method: SW-846 9012A							
Total Cyanide	0.0032	U	mg/L	0.0032	0.0050	1	5/7/2009 11:20	5/7/2009 14:47	IG
Preparation Method: SM 5540 C		Analytical Method: SM 5540 C							
Surfactants	0.040	U	mg/L-LAS	0.040	0.200	1	5/6/2009 19:11	5/6/2009 20:00	AR
Analytical Method: SM 2130 B									
Turbidity	0.21	I	NTU	0.05	1.0	1		5/6/2009 17:15	ZE
Analytical Method: SM 4500-S F(20th Ed.)									
Sulfide	0.415		mg/L	0.050	0.063	1		5/12/2009 17:20	AR
Analytical Method: EPA 365.1									
Ortho Phosphate - P	0.033		mg/L-P	0.005	0.015	1		5/6/2009 17:44	ZE
Total Phosphorus	0.085		mg/L	0.004	0.015	1	5/12/2009 18:15	5/13/2009 15:55	ZE
Analytical Method: SM 2540 D									
Total Suspended Solids	21.2		mg/L	2.0	4.0	1		5/11/2009 14:10	MF
Analytical Method: EPA 120.1									
Conductivity	15500		umhos/cm			1		5/11/2009 16:00	AD
Radiological Analysis									

CERTIFICATE OF ANALYSIS

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Boca Raton, FL 33431
Phone: (561) 447-7373
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ANALYTICAL RESULTS

Lab ID: **904913002** Date Received: 5/6/2009 10:15 Matrix: Groundwater

Sample ID: **PW-1/** Date Collected: 5/5/2009 9:35:00 AM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Analytical Method: 903.1									
Radium 226	2.8+/-0.3	1	pCi/l	0.20	0.20	1		5/19/2009 11:42	SU
Analytical Method: RA-05									
Radium 228	1.4+/-0.6	1	pCi/l	0.70	0.70	1		5/19/2009 11:04	SU
Herbicides									
Preparation Method: 3510C	Analytical Method: SW-846 8151A								
2,4,5-T	0.345	U	ug/L	0.345	2.00	1	5/7/2009 18:30	5/9/2009 03:45	MR
2,4,5-TP (Silvex)	0.492	U	ug/L	0.492	2.00	1	5/7/2009 18:30	5/9/2009 03:45	MR
2,4-D	0.406	U	ug/L	0.406	2.00	1	5/7/2009 18:30	5/9/2009 03:45	MR
2,4-DB	0.547	U	ug/L	0.547	2.00	1	5/7/2009 18:30	5/9/2009 03:45	MR
Dalapon	0.509	U	ug/L	0.509	2.00	1	5/7/2009 18:30	5/9/2009 03:45	MR
Dicamba	0.369	U	ug/L	0.369	2.00	1	5/7/2009 18:30	5/9/2009 03:45	MR
Dichlorprop	0.399	U	ug/L	0.399	2.00	1	5/7/2009 18:30	5/9/2009 03:45	MR
Dinoseb	0.509	U	ug/L	0.509	2.00	1	5/7/2009 18:30	5/9/2009 03:45	MR
MCPA	47.7	U	ug/L	47.7	200	1	5/7/2009 18:30	5/9/2009 03:45	MR
MCPP	98.0	U	ug/L	98.0	200	1	5/7/2009 18:30	5/9/2009 03:45	MR
DCAA (S)	86		%	46-142		1	5/7/2009 18:30	5/9/2009 03:45	MR
PCBs									
Preparation Method: 3510C	Analytical Method: SW-846 8082								
PCB 1016	0.012	U	ug/L	0.012	0.500	1	5/7/2009 19:00	5/9/2009 09:27	MR
PCB 1221	0.014	U	ug/L	0.014	0.500	1	5/7/2009 19:00	5/9/2009 09:27	MR
PCB 1232	0.190	U	ug/L	0.190	0.500	1	5/7/2009 19:00	5/9/2009 09:27	MR
PCB 1242	0.010	U	ug/L	0.010	0.500	1	5/7/2009 19:00	5/9/2009 09:27	MR
PCB 1248	0.00850	U	ug/L	0.00850	0.500	1	5/7/2009 19:00	5/9/2009 09:27	MR
PCB 1254	0.014	U	ug/L	0.014	0.500	1	5/7/2009 19:00	5/9/2009 09:27	MR
PCB 1260	0.015	U	ug/L	0.015	0.500	1	5/7/2009 19:00	5/9/2009 09:27	MR
Tetrachloro-m-xylene (S)	91		%	50-125		1	5/7/2009 19:00	5/9/2009 09:27	MR
Decachlorobiphenyl (S)	117		%	45-162		1	5/7/2009 19:00	5/9/2009 09:27	MR
Metals Analysis									
Preparation Method: SW-846 7470	Analytical Method: SW-846 7470								
Mercury	0.00013	U	mg/L	0.00013	0.00020	1	5/13/2009 11:30	5/14/2009 12:42	TI
Preparation Method: SW-846 3010A	Analytical Method: SW-846 6010								
Antimony	0.0038	U	mg/l	0.0038	0.020	1	5/7/2009 14:00	5/8/2009 20:37	TB
Arsenic	0.0046	U	mg/l	0.0046	0.010	1	5/7/2009 14:00	5/8/2009 20:37	TB
Beryllium	0.00067	U	mg/l	0.00067	0.0040	1	5/7/2009 14:00	5/8/2009 20:37	TB
Cadmium	0.00057	U	mg/l	0.00057	0.0050	1	5/7/2009 14:00	5/8/2009 20:37	TB
Chromium	0.0011	U	mg/l	0.0011	0.0050	1	5/7/2009 14:00	5/8/2009 20:37	TB
Copper	0.0096	U	mg/l	0.0096	0.020	1	5/7/2009 14:00	5/8/2009 20:37	TB
Lead	0.00334	I	mg/l	0.0031	0.010	1	5/7/2009 14:00	5/8/2009 20:37	TB
Nickel	0.0052	U	mg/l	0.0052	0.010	1	5/7/2009 14:00	5/8/2009 20:37	TB
Selenium	0.0054	U	mg/l	0.0054	0.030	1	5/7/2009 14:00	5/8/2009 20:37	TB
Silver	0.0016	U	mg/l	0.0016	0.020	1	5/7/2009 14:00	5/8/2009 20:37	TB
Zinc	0.0240	I	mg/l	0.0053	0.025	1	5/7/2009 14:00	5/8/2009 20:37	TB

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ANALYTICAL RESULTS

Lab ID: **904913002** Date Received: 5/6/2009 10:15 Matrix: Groundwater

Sample ID: **PW-1/** Date Collected: 5/5/2009 9:35:00 AM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Preparation Method: EPA 200.8 Analytical Method: EPA 200.8									
Thallium	0.00027	U	mg/L	0.00027	0.0020	1	5/7/2009 11:30	5/12/2009 22:44	DF
Analytical Method: EPA 300.1									
Bromate	100	U3	ug/L	100	750	300		5/12/2009 19:22	SU
Wet Chemistry - Subcontract									
Analytical Method: EPA 100.2									
Asbestos	0.18	U2	MFL	0.18	0.18	1		5/14/2009 18:00	SU
Analytical Method: EPA 7063 mod									
Arsenite (Trivalent As)	2	U4	ug/L	2	2	1		5/21/2009 12:00	SU
Organophosphorus Pesticides									
Preparation Method: 3510C Analytical Method: SW-846 8141A									
Aspon	0.185	U	ug/L	0.185	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Azinphos-ethyl	0.130	U	ug/L	0.130	2.00	1	5/7/2009 15:00	5/10/2009 01:33	LR
Bolstar	0.202	U	ug/L	0.202	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Carbophenothion	0.063	U	ug/L	0.063	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Chlorpyrifos	0.121	U	ug/L	0.121	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Chlorpyrifos-methyl	0.137	U	ug/L	0.137	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Coumaphos	0.079	U	ug/L	0.079	1.50	1	5/7/2009 15:00	5/10/2009 01:33	LR
Crotoxyphos	0.078	U	ug/L	0.078	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Demeton-o	0.041	U	ug/L	0.041	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Demeton-s	0.062	U	ug/L	0.062	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Dichlorfenthion	0.190	U	ug/L	0.190	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Dichlorovos	0.075	U	ug/L	0.075	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Dicrotophos	0.175	U	ug/L	0.175	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Dimethoate	0.184	U	ug/L	0.184	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Dioxathion	0.110	U	ug/L	0.110	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Disulfoton	0.129	U	ug/L	0.129	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
EPN	0.132	U	ug/L	0.132	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Ethion	0.132	U	ug/L	0.132	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Ethoprop	0.068	U	ug/L	0.068	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Famphur	0.081	U	ug/L	0.081	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Fenithrothion	0.198	U	ug/L	0.198	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Fenthion	0.074	U	ug/L	0.074	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Leptophos	0.046	U	ug/L	0.046	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Merphos	0.208	U	ug/L	0.208	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Mevinphos	0.172	U	ug/L	0.172	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Naled	0.220	U	ug/L	0.220	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Phorate	0.177	U	ug/L	0.177	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Phosmet	0.102	U	ug/L	0.102	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Phosphamidon	0.311	U	ug/L	0.311	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Ronnel	0.054	U	ug/L	0.054	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
TEPP	0.189	U	ug/L	0.189	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Terbufos	0.063	U	ug/L	0.063	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Thionazine	0.179	U	ug/L	0.179	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR

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ANALYTICAL RESULTS

Lab ID: **904913002** Date Received: 5/6/2009 10:15 Matrix: Groundwater

Sample ID: **PW-1/** Date Collected: 5/5/2009 9:35:00 AM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Tokuthion (Prothiophos)	0.106	U	ug/L	0.106	0.500	1	5/7/2009 15:00	5/10/2009 01:33	LR
Trichlorfon	1.09	U	ug/L	1.09	1.80	1	5/7/2009 15:00	5/10/2009 01:33	LR
Tributyl Phosphate (S)	120		%	44-125		1	5/7/2009 15:00	5/10/2009 01:33	LR
Triphenyl Phosphate (S)	122		%	43-134		1	5/7/2009 15:00	5/10/2009 01:33	LR
Semivolatiles									
Preparation Method: 3510C Analytical Method: SW-846 8270C									
1,2,4-Trichlorobenzene	1.5	U	ug/L	1.5	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
1,2-Dichlorobenzene	0.34	U	ug/L	0.34	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
1,2-Diphenylhydrazine	0.23	U	ug/L	0.23	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
1,3-Dichlorobenzene	0.35	U	ug/L	0.35	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
1,4-Dichlorobenzene	0.28	U	ug/L	0.28	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
2,4,5-Trichlorophenol	0.38	U	ug/L	0.38	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
2,4,6-Trichlorophenol	0.27	U	ug/L	0.27	1.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
2,4-Dichlorophenol	0.43	U	ug/L	0.43	0.53	1	5/7/2009 13:00	5/7/2009 18:04	TB
2,4-Dinitrophenol	1.4	U	ug/L	1.4	10	1	5/7/2009 13:00	5/7/2009 18:04	TB
2,4-Dinitrotoluene	0.31	U	ug/L	0.31	0.45	1	5/7/2009 13:00	5/7/2009 18:04	TB
2,6-Dinitrotoluene	0.31	U	ug/L	0.31	0.39	1	5/7/2009 13:00	5/7/2009 18:04	TB
2-Chloronaphthalene	0.32	U	ug/L	0.32	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
2-Chlorophenol	2.6	U	ug/L	2.6	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
2-Methylphenol	0.22	U	ug/L	0.22	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
2-Nitroaniline	0.20	U	ug/L	0.20	50	1	5/7/2009 13:00	5/7/2009 18:04	TB
2-Nitrophenol	0.24	U	ug/L	0.24	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
3,3'-Dichlorobenzidine	0.31	U	ug/L	0.31	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
3-Nitroaniline	0.28	U	ug/L	0.28	50	1	5/7/2009 13:00	5/7/2009 18:04	TB
4,6-Dinitro-2-methylphenol	0.35	U	ug/L	0.35	10	1	5/7/2009 13:00	5/7/2009 18:04	TB
4-Chloro-3-methylphenol	0.22	U	ug/L	0.22	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
4-Chloroaniline	0.29	U	ug/L	0.29	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
4-Chlorophenyl phenyl ether	0.45	U	ug/L	0.45	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
Aniline	0.28	U	ug/L	0.28	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
Benzidine	9.7	U	ug/L	9.7	10	1	5/7/2009 13:00	5/7/2009 18:04	TB
Benzoic acid	2.0	U	ug/L	2.0	50	1	5/7/2009 13:00	5/7/2009 18:04	TB
Benzyl alcohol	0.22	U	ug/L	0.22	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
Bis(2-Chloroethoxy)methane	0.32	U	ug/L	0.32	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
Bis(2-Chloroethyl)ether	0.46	U	ug/L	0.46	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
Bis(2-Chloroisopropyl)ether	0.34	U	ug/L	0.34	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
Bis(2-Ethylhexyl)phthalate	0.20	U	ug/L	0.20	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
4-Bromophenyl phenyl ether	0.27	U	ug/L	0.27	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
Butyl benzyl phthalate	0.36	U	ug/L	0.36	10	1	5/7/2009 13:00	5/7/2009 18:04	TB
Carbazole	0.28	U	ug/L	0.28	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
Di-n-butyl phthalate	0.21	U	ug/L	0.21	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
Di-n-octyl phthalate	0.28	U	ug/L	0.28	1.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
Dibenzofuran	0.29	U	ug/L	0.29	10	1	5/7/2009 13:00	5/7/2009 18:04	TB
Diethyl phthalate	0.33	U	ug/L	0.33	1.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
Dimethyl phthalate	0.31	U	ug/L	0.31	1.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
2,4-Dimethylphenol	0.40	U	ug/L	0.40	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
Hexachlorobenzene	0.32	U	ug/L	0.32	1.0	1	5/7/2009 13:00	5/7/2009 18:04	TB

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ANALYTICAL RESULTS

Lab ID: **904913002** Date Received: 5/6/2009 10:15 Matrix: Groundwater

Sample ID: **PW-1/** Date Collected: 5/5/2009 9:35:00 AM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Hexachlorobutadiene	0.45	U	ug/L	0.45	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
Hexachlorocyclopentadiene	0.70	U	ug/L	0.70	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
Hexachloroethane	0.36	U	ug/L	0.36	2.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
Isophorone	0.34	U	ug/L	0.34	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
4-Nitroaniline	0.24	U	ug/L	0.24	50	1	5/7/2009 13:00	5/7/2009 18:04	TB
Nitrobenzene	0.31	U	ug/L	0.31	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
4-Nitrophenol	0.79	U	ug/L	0.79	10	1	5/7/2009 13:00	5/7/2009 18:04	TB
Pentachlorophenol	0.70	U	ug/L	0.70	10	1	5/7/2009 13:00	5/7/2009 18:04	TB
Phenol	0.40	U	ug/L	0.40	1.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
Pyridine	8.9	U	ug/L	8.9	10	1	5/7/2009 13:00	5/7/2009 18:04	TB
m,p-Cresol	0.23	U	ug/L	0.23	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
n-Nitrosodi-n-propylamine	0.33	U	ug/L	0.33	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
n-Nitrosodimethylamine	3.4	U	ug/L	3.4	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
n-Nitrosodiphenylamine	0.31	U	ug/L	0.31	4.0	1	5/7/2009 13:00	5/7/2009 18:04	TB
Nitrobenzene-d5 (S)	72		%	7.7-130		1	5/7/2009 13:00	5/7/2009 18:04	TB
2-Fluorobiphenyl (S)	68		%	19-126		1	5/7/2009 13:00	5/7/2009 18:04	TB
Terphenyl-d14 (S)	77		%	27-133		1	5/7/2009 13:00	5/7/2009 18:04	TB
Phenol-d6 (S)	45.1		%	10-59		1	5/7/2009 13:00	5/7/2009 18:04	TB
2-Fluorophenol (S)	46		%	28-62		1	5/7/2009 13:00	5/7/2009 18:04	TB
2,4,6-Tribromophenol (S)	80		%	48-132		1	5/7/2009 13:00	5/7/2009 18:04	TB
Volatiles									
Analytical Method: SW-846 8260B									
1,1,1,2-Tetrachloroethane	0.120	U	ug/L	0.120	1.00	1		5/8/2009 02:59	LN
1,1,1-Trichloroethane	0.682	U	ug/L	0.682	1.00	1		5/8/2009 02:59	LN
1,1,2,2-Tetrachloroethane	0.572	U	ug/L	0.572	1.00	1		5/8/2009 02:59	LN
1,1,2-Trichloroethane	0.841	U	ug/L	0.841	1.00	1		5/8/2009 02:59	LN
1,1-Dichloroethane	0.410	U	ug/L	0.410	1.00	1		5/8/2009 02:59	LN
1,1-Dichloroethene	0.638	U	ug/L	0.638	1.00	1		5/8/2009 02:59	LN
1,1-Dichloropropene	0.632	U	ug/L	0.632	1.00	1		5/8/2009 02:59	LN
1,2,3-Trichlorobenzene	0.686	U	ug/L	0.686	1.00	1		5/8/2009 02:59	LN
1,2,3-Trichloropropane	0.160	U	ug/L	0.160	1.00	1		5/8/2009 02:59	LN
1,2,4-Trichlorobenzene	0.538	U	ug/L	0.538	1.00	1		5/8/2009 02:59	LN
1,2,4-Trimethylbenzene	0.508	U	ug/L	0.508	1.00	1		5/8/2009 02:59	LN
1,2-Dibromo-3-chloropropane	0.933	U	ug/L	0.933	1.00	1		5/8/2009 02:59	LN
1,2-Dibromoethane	0.345	U	ug/L	0.345	1.00	1		5/8/2009 02:59	LN
1,2-Dichlorobenzene	0.584	U	ug/L	0.584	1.00	1		5/8/2009 02:59	LN
1,2-Dichloroethane	0.897	U	ug/L	0.897	1.00	1		5/8/2009 02:59	LN
1,2-Dichloropropane	0.725	U	ug/L	0.725	1.00	1		5/8/2009 02:59	LN
1,3,5-Trimethylbenzene	0.477	U	ug/L	0.477	1.00	1		5/8/2009 02:59	LN
1,3-Dichlorobenzene	0.558	U	ug/L	0.558	1.00	1		5/8/2009 02:59	LN
1,3-Dichloropropane	0.345	U	ug/L	0.345	1.00	1		5/8/2009 02:59	LN
1,4-Dichlorobenzene	0.537	U	ug/L	0.537	1.00	1		5/8/2009 02:59	LN
2,2-Dichloropropane	0.700	U	ug/L	0.700	1.00	1		5/8/2009 02:59	LN
2-Butanone	4.28	U	ug/L	4.28	10.0	1		5/8/2009 02:59	LN
2-Chloroethylvinyl ether	0.470	U	ug/L	0.470	1.00	1		5/8/2009 02:59	LN

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ANALYTICAL RESULTS

Lab ID: **904913002** Date Received: 5/6/2009 10:15 Matrix: Groundwater

Sample ID: **PW-1/** Date Collected: 5/5/2009 9:35:00 AM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
2-Chlorotoluene	0.550	U	ug/L	0.550	1.00	1		5/8/2009 02:59	LN
2-Hexanone	1.83	U	ug/L	1.83	10.0	1		5/8/2009 02:59	LN
4-Chlorotoluene	0.570	U	ug/L	0.570	1.00	1		5/8/2009 02:59	LN
4-Isopropyltoluene	0.380	U	ug/L	0.380	1.00	1		5/8/2009 02:59	LN
4-Methyl-2-pentanone	0.220	U	ug/L	0.220	1.00	1		5/8/2009 02:59	LN
Acetone	1.43	U	ug/L	1.43	10.0	1		5/8/2009 02:59	LN
Acrolein	2.47	U	ug/L	2.47	10.0	1		5/8/2009 02:59	LN
Acrylonitrile	0.955	U	ug/L	0.955	10.0	1		5/8/2009 02:59	LN
Benzene	0.621	U	ug/L	0.621	1.00	1		5/8/2009 02:59	LN
Bromobenzene	0.382	U	ug/L	0.382	1.00	1		5/8/2009 02:59	LN
Bromochloromethane	0.637	U	ug/L	0.637	1.00	1		5/8/2009 02:59	LN
Bromodichloromethane	0.100	U	ug/L	0.100	1.00	1		5/8/2009 02:59	LN
Bromoform	0.486	U	ug/L	0.486	1.00	1		5/8/2009 02:59	LN
Bromomethane	0.427	U	ug/L	0.427	1.00	1		5/8/2009 02:59	LN
n-Butylbenzene	0.564	U	ug/L	0.564	1.00	1		5/8/2009 02:59	LN
Carbon disulfide	0.650	U	ug/L	0.650	10.0	1		5/8/2009 02:59	LN
Carbon tetrachloride	0.468	U	ug/L	0.468	1.00	1		5/8/2009 02:59	LN
Chlorobenzene	0.316	U	ug/L	0.316	1.00	1		5/8/2009 02:59	LN
Chloroethane	1.00	U	ug/L	1.00	1.00	1		5/8/2009 02:59	LN
Chloroform	0.572	U	ug/L	0.572	1.00	1		5/8/2009 02:59	LN
Chloromethane	0.524	U	ug/L	0.524	1.00	1		5/8/2009 02:59	LN
Dibromochloromethane	0.378	U	ug/L	0.378	1.00	1		5/8/2009 02:59	LN
Dibromomethane	0.739	U	ug/L	0.739	1.00	1		5/8/2009 02:59	LN
Dichlorodifluoromethane	0.525	U	ug/L	0.525	1.00	1		5/8/2009 02:59	LN
cis-1,3-Dichloropropene	0.664	U	ug/L	0.664	1.00	1		5/8/2009 02:59	LN
trans-1,3-Dichloropropene	0.522	U	ug/L	0.522	1.00	1		5/8/2009 02:59	LN
Ethylbenzene	0.323	U	ug/L	0.323	1.00	1		5/8/2009 02:59	LN
Hexachlorobutadiene	0.763	U	ug/L	0.763	1.00	1		5/8/2009 02:59	LN
Isopropylbenzene (Cumene)	0.528	U	ug/L	0.528	1.00	1		5/8/2009 02:59	LN
Methyl-t-butyl ether	0.650	U	ug/L	0.650	1.00	1		5/8/2009 02:59	LN
Methylene chloride	0.580	U	ug/L	0.580	5.00	1		5/8/2009 02:59	LN
Naphthalene	0.417	U	ug/L	0.417	1.00	1		5/8/2009 02:59	LN
Styrene	0.458	U	ug/L	0.458	1.00	1		5/8/2009 02:59	LN
Tetrachloroethene	0.312	U	ug/L	0.312	1.00	1		5/8/2009 02:59	LN
Toluene	0.389	U	ug/L	0.389	1.00	1		5/8/2009 02:59	LN
Trichloroethene	0.821	U	ug/L	0.821	1.00	1		5/8/2009 02:59	LN
Trichlorofluoromethane	1.00	U	ug/L	1.00	1.00	1		5/8/2009 02:59	LN
Vinyl acetate	0.570	U	ug/L	0.570	10.0	1		5/8/2009 02:59	LN
Vinyl chloride	0.506	U	ug/L	0.506	1.00	1		5/8/2009 02:59	LN
Xylene, m,p-	0.639	U	ug/L	0.639	2.00	1		5/8/2009 02:59	LN
Xylene, o-	0.341	U	ug/L	0.341	1.00	1		5/8/2009 02:59	LN
Xylenes (total)	0.980	U	ug/L	0.980	3.00	1		5/8/2009 02:59	LN
cis-1,2-Dichloroethene	0.442	U	ug/L	0.442	1.00	1		5/8/2009 02:59	LN
n-Propylbenzene	0.624	U	ug/L	0.624	1.00	1		5/8/2009 02:59	LN
sec-Butylbenzene	0.521	U	ug/L	0.521	1.00	1		5/8/2009 02:59	LN
tert-Butylbenzene	0.607	U	ug/L	0.607	1.00	1		5/8/2009 02:59	LN

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ANALYTICAL RESULTS

Lab ID: **904913002** Date Received: 5/6/2009 10:15 Matrix: Groundwater

Sample ID: **PW-1/** Date Collected: 5/5/2009 9:35:00 AM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
trans-1,2-Dichloroethene	0.410	U	ug/L	0.410	1.00	1		5/8/2009 02:59	LN
4-Bromofluorobenzene (S)	97		%	64-130		1		5/8/2009 02:59	LN
Dibromofluoromethane (S)	113		%	69-134		1		5/8/2009 02:59	LN
Toluene d8 (S)	96		%	63-127		1		5/8/2009 02:59	LN
Pesticides									
Preparation Method: 3510C	Analytical Method: SW-846 8081A								
4,4'-DDD	0.000993	U	ug/L	0.000993	0.100	1	5/7/2009 13:00	5/8/2009 23:54	CC
4,4'-DDE	0.00148	U	ug/L	0.00148	0.100	1	5/7/2009 13:00	5/8/2009 23:54	CC
4,4'-DDT	0.00120	U	ug/L	0.00120	0.100	1	5/7/2009 13:00	5/8/2009 23:54	CC
Aldrin	0.00139	U	ug/L	0.00139	0.050	1	5/7/2009 13:00	5/8/2009 23:54	CC
Dieldrin	0.00344	I	ug/L	0.00106	0.050	1	5/7/2009 13:00	5/8/2009 23:54	CC
Endosulfan I	0.00316	I	ug/L	0.00103	0.100	1	5/7/2009 13:00	5/8/2009 23:54	CC
Endosulfan II	0.00103	U	ug/L	0.00103	0.100	1	5/7/2009 13:00	5/8/2009 23:54	CC
Endosulfan sulfate	0.00279	U	ug/L	0.00279	0.100	1	5/7/2009 13:00	5/8/2009 23:54	CC
Endrin	0.00717	U	ug/L	0.00717	0.100	1	5/7/2009 13:00	5/8/2009 23:54	CC
Endrin aldehyde	0.000695	U	ug/L	0.000695	0.100	1	5/7/2009 13:00	5/8/2009 23:54	CC
Endrin ketone	0.000969	U	ug/L	0.000969	0.100	1	5/7/2009 13:00	5/8/2009 23:54	CC
Heptachlor	0.00152	U	ug/L	0.00152	0.050	1	5/7/2009 13:00	5/8/2009 23:54	CC
Heptachlor epoxide	0.00121	U	ug/L	0.00121	0.050	1	5/7/2009 13:00	5/8/2009 23:54	CC
Methoxychlor	0.000900	U	ug/L	0.000900	0.100	1	5/7/2009 13:00	5/8/2009 23:54	CC
Toxaphene	0.047	U	ug/L	0.047	3.00	1	5/7/2009 13:00	5/8/2009 23:54	CC
alpha-BHC	0.000924	U	ug/L	0.000924	0.050	1	5/7/2009 13:00	5/8/2009 23:54	CC
alpha-Chlordane	0.00289	I	ug/L	0.00118	0.050	1	5/7/2009 13:00	5/8/2009 23:54	CC
beta-BHC	0.00123	U	ug/L	0.00123	0.020	1	5/7/2009 13:00	5/8/2009 23:54	CC
delta-BHC	0.000904	U	ug/L	0.000904	0.050	1	5/7/2009 13:00	5/8/2009 23:54	CC
gamma-BHC (Lindane)	0.000563	U	ug/L	0.000563	0.050	1	5/7/2009 13:00	5/8/2009 23:54	CC
gamma-Chlordane	0.00130	U	ug/L	0.00130	0.050	1	5/7/2009 13:00	5/8/2009 23:54	CC
Tetrachloro-m-xylene (S)	92		%	32-137		1	5/7/2009 13:00	5/8/2009 23:54	CC
Decachlorobiphenyl (S)	90		%	25-165		1	5/7/2009 13:00	5/8/2009 23:54	CC
PAH									
Preparation Method: 3510C	Analytical Method: SW-846 8270C low PAH								
1-Methylnaphthalene	0.026	U	ug/L	0.026	1.0	1	5/7/2009 22:45	5/8/2009 18:27	TB
2-Methylnaphthalene	0.030	U	ug/L	0.030	1.0	1	5/7/2009 22:45	5/8/2009 18:27	TB
Acenaphthene	0.027	U	ug/L	0.027	1.0	1	5/7/2009 22:45	5/8/2009 18:27	TB
Acenaphthylene	0.026	U	ug/L	0.026	1.0	1	5/7/2009 22:45	5/8/2009 18:27	TB
Anthracene	0.0056	U	ug/L	0.0056	1.0	1	5/7/2009 22:45	5/8/2009 18:27	TB
Benzo(a)anthracene	0.011	U	ug/L	0.011	0.10	1	5/7/2009 22:45	5/8/2009 18:27	TB
Benzo(a)pyrene	0.013	U	ug/L	0.013	0.10	1	5/7/2009 22:45	5/8/2009 18:27	TB
Benzo(b)fluoranthene	0.015	U	ug/L	0.015	0.10	1	5/7/2009 22:45	5/8/2009 18:27	TB
Benzo(g,h,i)perylene	0.014	U	ug/L	0.014	0.10	1	5/7/2009 22:45	5/8/2009 18:27	TB
Benzo(k)fluoranthene	0.012	U	ug/L	0.012	0.10	1	5/7/2009 22:45	5/8/2009 18:27	TB
Chrysene	0.017	U	ug/L	0.017	0.10	1	5/7/2009 22:45	5/8/2009 18:27	TB
Dibenz(a,h)anthracene	0.0056	U	ug/L	0.0056	0.20	1	5/7/2009 22:45	5/8/2009 18:27	TB
Fluoranthene	0.0078	U	ug/L	0.0078	1.0	1	5/7/2009 22:45	5/8/2009 18:27	TB
Fluorene	0.011	U	ug/L	0.011	1.0	1	5/7/2009 22:45	5/8/2009 18:27	TB

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ANALYTICAL RESULTS

Lab ID: **904913002** Date Received: 5/6/2009 10:15 Matrix: Groundwater

Sample ID: **PW-1/** Date Collected: 5/5/2009 9:35:00 AM

Parameters	Results	Qual	Units	MDL	PQL	DF	Prepared	Analyzed	By
Indeno(1,2,3-cd)pyrene	0.011	U	ug/L	0.011	0.10	1	5/7/2009 22:45	5/8/2009 18:27	TB
Naphthalene	0.034	U	ug/L	0.034	1.0	1	5/7/2009 22:45	5/8/2009 18:27	TB
Phenanthrene	0.014	U	ug/L	0.014	1.0	1	5/7/2009 22:45	5/8/2009 18:27	TB
Pyrene	0.0084	U	ug/L	0.0084	0.10	1	5/7/2009 22:45	5/8/2009 18:27	TB
2-Fluorobiphenyl (S)	57.2		%	10-116		1	5/7/2009 22:45	5/8/2009 18:27	TB
Nitrobenzene-d5 (S)	61.5		%	10-112		1	5/7/2009 22:45	5/8/2009 18:27	TB
Terphenyl-d14 (S)	69.9		%	20-128		1	5/7/2009 22:45	5/8/2009 18:27	TB
Volatiles - Subcontract									
Analytical Method: RSK 175									
Dissolved Ethane	0.024	U	ug/L	0.024	1.00	1		5/18/2009 15:47	SU
Dissolved Ethene	0.030	U	ug/L	0.030	1.00	1		5/18/2009 15:47	SU
Methane	11.4	7	ug/L	0.116	5.00	1		5/18/2009 15:47	SU

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ANALYTICAL RESULTS QUALIFIERS

PARAMETER QUALIFIERS

Q	Holding time exceeded.
V	Present in blank.
[1]	E83033
[2]	E86772
[3]	E83079
[4]	E87225
[5]	BOD sample result estimated due to the oxygen depletion being outside acceptable range.
[6]	MS and/or MSD recoveries outside control limits. However, LCS and/or LCSD within limits. Data reported.
[7]	E87854

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CASE NARRATIVE

Sample Analysis Comments

Lab ID 904913002 Client ID PW-1

Analyte/Arsenite (Trivalent As)

[4] E87225

Analyte/Asbestos

[2] E86772

Analyte/BOD

BOD sample result estimated due to the oxygen depletion being outside acceptable range.

Analyte/Bromate

[3] E83079

Analyte/Bromide

MS and/or MSD recoveries outside control limits. However, LCS and/or LCSD within limits. Data reported.

Analyte/Fluoride

MS and/or MSD recoveries outside control limits. However, LCS and/or LCSD within limits. Data reported.

Analyte/Methane

[7] E87854

Analyte/Nitrite

MS and/or MSD recoveries outside control limits. However, LCS and/or LCSD within limits. Data reported.

Analyte/Radium 226

[1] E83033

Analyte/Radium 228

[1] E83033

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QUALITY CONTROL DATA

QC Batch: LACH/2178 Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Associated Lab Samples: 904824001 904824002 904824003 904824004 904824005 904824006 904824007 904824008 904824009 904824010 904824011 904913002

METHOD BLANK: 27217

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Ortho Phosphate - P	mg/L-P	0.005U	0.005	

LABORATORY CONTROL SAMPLE & LCSD: 27218 27219

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Ortho Phosphate - P	mg/L-P	0.5	0.483	0.481	97	96	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27222 27223 Original: 904824011

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Ortho Phosphate - P	mg/L-P	0.079	0.5	0.546	0.547	93	94	90-110	1	20	

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QUALITY CONTROL DATA

QC Batch: IC/1297 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Associated Lab Samples: 904760003, 904787001, 904787002, 904787003, 904787004, 904787005, 904789001, 904791003, 904879001, 904879002, 904883003, 904884002, 904890001, 904890002, 904913002

METHOD BLANK: 27280

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Bromide	mg/L	0.052U	0.052	
Nitrite	mg/L	0.005U	0.005	
Nitrate	mg/L	0.007U	0.007	
Fluoride	mg/L	0.030U	0.030	

LABORATORY CONTROL SAMPLE & LCSD: 27281 27282

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Bromide	mg/L	2.5	2.65	2.71	106	108	90-110	2	20	
Nitrite	mg/L	2.5	2.63	2.68	105	107	90-110	2	20	
Nitrate	mg/L	2.5	2.61	2.65	104	106	90-110	2	20	
Fluoride	mg/L	2.5	2.72	2.75	109	110	90-110	0.91	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27283 27284 Original: 904913002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Bromide	mg/L	110	25	106	108	-18	-10	90-110	-55.	20	
Nitrite	mg/L	0	25	46.3	46.4	185	186	90-110	0.54	20	
Nitrate	mg/L	0	25	24.2	24.7	97	99	90-110	2	20	
Fluoride	mg/L	0.584	25	22.7	23.2	88.6	90.4	90-110	2	20	

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QUALITY CONTROL DATA

QC Batch: SOLI/1753 Analysis Method: SM 2540 C

QC Batch Method: SM 2540 C

Associated Lab Samples: 904895004 904913002 904914002 904914004 904918001 904918002 904918003 904918004 904918005 904918006 904918007 904918008 904918009

METHOD BLANK: 27285

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Dissolved Solids(TDS)	mg/L	7.00U	7.00	

SAMPLE DUPLICATE: 27286 Original: 904895004

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Total Dissolved Solids(TDS)	mg/L	406	359	12.3	20	

SAMPLE DUPLICATE: 27287 Original: 904914004

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Total Dissolved Solids(TDS)	mg/L	124	113	9.3	20	

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QUALITY CONTROL DATA

QC Batch: MISC/1205 Analysis Method: SM 2130 B

QC Batch Method: SM 2130 B

Associated Lab Samples: 904913002

METHOD BLANK: 27288

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Turbidity	NTU	0.05U	0.05	

SAMPLE DUPLICATE: 27289 Original: 904905002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Turbidity	NTU	0.57I	0.59I	3	20	

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QUALITY CONTROL DATA

QC Batch: INPR/1668 Analysis Method: SM 5540 C

QC Batch Method: SM 5540 C

Associated Lab Samples: 904913002 904917001 904917002 904917003 904917004

METHOD BLANK: 27290

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Surfactants	mg/L-LAS	0.040U	0.040	

LABORATORY CONTROL SAMPLE & LCSD: 27291 27292

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Surfactants	mg/L-LAS	1	0.948	0.948	95	95	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27293 27294 Original: 904917002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Surfactants	mg/L-LAS	0	1	0.902	0.909	90	91	80-120	1	20	

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QUALITY CONTROL DATA

QC Batch: EXTO/2116 Analysis Method: SW-846 8270C low PAH

QC Batch Method: 3510C

Associated Lab Samples: 904906004, 904906005, 904906006, 904913002, 904921001, 904938002, 904938004, 904938008, 904938011, 904938014, 904938015, 904938018, 904938023, 904938026, 904938030, 904938031, 904947004, 904948001, 904948002

METHOD BLANK: 27305

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
PAH				
Acenaphthene	ug/L	0.027U	0.027	
Acenaphthylene	ug/L	0.026U	0.026	
Anthracene	ug/L	0.0056U	0.0056	
Benzo(a)anthracene	ug/L	0.011U	0.011	
Benzo(b)fluoranthene	ug/L	0.015U	0.015	
Benzo(k)fluoranthene	ug/L	0.012U	0.012	
Benzo(g,h,i)perylene	ug/L	0.014U	0.014	
Benzo(a)pyrene	ug/L	0.013U	0.013	
Chrysene	ug/L	0.017U	0.017	
Dibenz(a,h)anthracene	ug/L	0.0056U	0.0056	
Fluoranthene	ug/L	0.0078U	0.0078	
Fluorene	ug/L	0.011U	0.011	
Indeno(1,2,3-cd)pyrene	ug/L	0.011U	0.011	
1-Methylnaphthalene	ug/L	0.026U	0.026	
2-Methylnaphthalene	ug/L	0.030U	0.030	
Naphthalene	ug/L	0.034U	0.034	
Phenanthrene	ug/L	0.014U	0.014	
Pyrene	ug/L	0.0084U	0.0084	
2-Fluorobiphenyl (S)	%	58	10-116	
Nitrobenzene-d5 (S)	%	61.1	10-112	
Terphenyl-d14 (S)	%	71.4	20-128	

LABORATORY CONTROL SAMPLE: 27306

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PAH						
Acenaphthene	ug/L	5	2.78	56	23-100	
Acenaphthylene	ug/L	5	2.91	58	21-109	
Anthracene	ug/L	5	2.96	59	39-111	
Benzo(a)anthracene	ug/L	5	3.42	68	28-115	
Benzo(b)fluoranthene	ug/L	5	2.91	58	15-116	
Benzo(k)fluoranthene	ug/L	5	3.95	79	33-122	
Benzo(g,h,i)perylene	ug/L	5	3.22	64	29-120	
Benzo(a)pyrene	ug/L	5	3.42	68	27-119	
Chrysene	ug/L	5	3.39	68	11-115	
Dibenz(a,h)anthracene	ug/L	5	3.31	66	11-115	

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE: 27306

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoranthene	ug/L	5	3.25	65	42-112	
Fluorene	ug/L	5	2.82	56	25-109	
Indeno(1,2,3-cd)pyrene	ug/L	5	3.34	67	16-120	
1-Methylnaphthalene	ug/L	5	2.43	49	10-104	
2-Methylnaphthalene	ug/L	5	3.05	61	10-115	
Naphthalene	ug/L	5	2.56	51	12-102	
Phenanthrene	ug/L	5	2.96	59	38-108	
Pyrene	ug/L	5	3.46	69	36-123	
2-Fluorobiphenyl (S)	%			57.4	10-116	
Nitrobenzene-d5 (S)	%			59.7	10-112	
Terphenyl-d14 (S)	%			67	20-128	

MATRIX SPIKE SAMPLE: 27307 Original: 904934001

Parameter	Units	Original Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
PAH							
Acenaphthene	ug/L	0.019	5	2.98	60	23-100	
Acenaphthylene	ug/L	0.0111	5	3.25	65	21-109	
Anthracene	ug/L	0.00376	5	3.50	70	39-111	
Benzo(a)anthracene	ug/L	0	5	3.64	73	34-121	
Benzo(b)fluoranthene	ug/L	0.00393	5	3.08	62	27-119	
Benzo(k)fluoranthene	ug/L	0.00737	5	4.36	87	29-120	
Benzo(g,h,i)perylene	ug/L	0	5	3.48	70	15-116	
Benzo(a)pyrene	ug/L	0.00954	5	3.85	77	28-115	
Chrysene	ug/L	0	5	3.66	73	33-122	
Dibenz(a,h)anthracene	ug/L	0	5	3.64	73	11-115	
Fluoranthene	ug/L	0	5	3.68	74	42-112	
Fluorene	ug/L	0	5	3.19	64	25-109	
Indeno(1,2,3-cd)pyrene	ug/L	0	5	3.70	74	16-120	
1-Methylnaphthalene	ug/L	0	5	2.45	49	10-104	
2-Methylnaphthalene	ug/L	0	5	3.15	63	10-115	
Naphthalene	ug/L	0	5	2.52	50	12-102	
Phenanthrene	ug/L	0.00736	5	3.36	67	38-108	
Pyrene	ug/L	0.00472	5	3.74	75	36-123	
2-Fluorobiphenyl (S)	%				55.6	10-116	
Nitrobenzene-d5 (S)	%				55.5	10-112	
Terphenyl-d14 (S)	%				65.3	20-128	

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QUALITY CONTROL DATA

QC Batch: EXTO/2117 Analysis Method: SW-846 8270C

QC Batch Method: 3510C

Associated Lab Samples: 904913002 904921001

METHOD BLANK: 27309

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Semivolatiles				
Benzidine	ug/L	9.7U	9.7	
Benzoic acid	ug/L	2.0U	2.0	
Butyl benzyl phthalate	ug/L	0.36U	0.36	
Bis(2-Chloroethoxy)methane	ug/L	0.32U	0.32	
Bis(2-Chloroethyl)ether	ug/L	0.46U	0.46	
Bis(2-Chloroisopropyl)ether	ug/L	0.34U	0.34	
Bis(2-Ethylhexyl)phthalate	ug/L	0.20U	0.20	
4-Bromophenyl phenyl ether	ug/L	0.27U	0.27	
Carbazole	ug/L	0.28U	0.28	
4-Chlorophenyl phenyl ether	ug/L	0.45U	0.45	
Dibenzofuran	ug/L	0.29U	0.29	
1,2-Dichlorobenzene	ug/L	0.34U	0.34	
1,3-Dichlorobenzene	ug/L	0.35U	0.35	
3,3'-Dichlorobenzidine	ug/L	0.31U	0.31	
2,4-Dichlorophenol	ug/L	0.43U	0.43	
Diethyl phthalate	ug/L	0.33U	0.33	
2,4-Dimethylphenol	ug/L	0.40U	0.40	
Dimethyl phthalate	ug/L	0.31U	0.31	
Di-n-octyl phthalate	ug/L	0.28U	0.28	
2,4-Dinitrophenol	ug/L	1.4U	1.4	
2,6-Dinitrotoluene	ug/L	0.31U	0.31	
Hexachlorobenzene	ug/L	0.32U	0.32	
Hexachlorobutadiene	ug/L	0.45U	0.45	
Hexachlorocyclopentadiene	ug/L	0.70U	0.70	
Hexachloroethane	ug/L	0.36U	0.36	
Isophorone	ug/L	0.34U	0.34	
2-Methylphenol	ug/L	0.22U	0.22	
Nitrobenzene	ug/L	0.31U	0.31	
2-Nitrophenol	ug/L	0.24U	0.24	
n-Nitrosodimethylamine	ug/L	3.4U	3.4	
n-Nitrosodiphenylamine	ug/L	0.31U	0.31	
2,4,5-Trichlorophenol	ug/L	0.38U	0.38	
2,4,6-Trichlorophenol	ug/L	0.27U	0.27	
Benzyl alcohol	ug/L	0.22U	0.22	
Aniline	ug/L	0.28U	0.28	
Pyridine	ug/L	8.9U	8.9	
3-Nitroaniline	ug/L	0.28U	0.28	
4-Nitroaniline	ug/L	0.24U	0.24	
Di-n-butyl phthalate	ug/L	0.21U	0.21	
1,2-Diphenylhydrazine	ug/L	0.23U	0.23	
2-Nitroaniline	ug/L	0.20U	0.20	
2-Chloronaphthalene	ug/L	0.32U	0.32	
4-Chloroaniline	ug/L	0.29U	0.29	

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QUALITY CONTROL DATA

METHOD BLANK: 27309

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
m,p-Cresol	ug/L	0.23U	0.23	
4,6-Dinitro-2-methylphenol	ug/L	0.35U	0.35	
Phenol	ug/L	0.40U	0.40	
2-Chlorophenol	ug/L	2.6U	2.6	
1,4-Dichlorobenzene	ug/L	0.28U	0.28	
n-Nitrosodi-n-propylamine	ug/L	0.33U	0.33	
1,2,4-Trichlorobenzene	ug/L	1.5U	1.5	
4-Chloro-3-methylphenol	ug/L	0.22U	0.22	
4-Nitrophenol	ug/L	0.79U	0.79	
2,4-Dinitrotoluene	ug/L	0.31U	0.31	
Pentachlorophenol	ug/L	0.70U	0.70	
Nitrobenzene-d5 (S)	%	75	7.7-130	
Phenol-d6 (S)	%	36.5	10-59	
2-Fluorobiphenyl (S)	%	69	19-126	
2-Fluorophenol (S)	%	48	28-62	
2,4,6-Tribromophenol (S)	%	81	48-132	
Terphenyl-d14 (S)	%	78	27-133	

LABORATORY CONTROL SAMPLE: 27310

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Semivolatiles						
Benzidine	ug/L	50	22.4	45	10-104	
Benzoic acid	ug/L	50	16.7l	33		
Butyl benzyl phthalate	ug/L	50	39.5	79	10-152	
Bis(2-Chloroethoxy)methane	ug/L	50	36.8	74	33-184	
Bis(2-Chloroethyl)ether	ug/L	50	37.1	74	12-158	
Bis(2-Chloroisopropyl)ether	ug/L	50	37.0	74	36-166	
Bis(2-Ethylhexyl)phthalate	ug/L	50	36.0	72	10-158	
4-Bromophenyl phenyl ether	ug/L	50	40.2	80	53-127	
Carbazole	ug/L	50	45.3	91	44-140	
4-Chlorophenyl phenyl ether	ug/L	50	38.9	78	25-158	
Dibenzofuran	ug/L	50	40.7	81		
1,2-Dichlorobenzene	ug/L	50	39.0	78	32-129	
1,3-Dichlorobenzene	ug/L	50	35.5	71	10-172	
3,3'-Dichlorobenzidine	ug/L	50	42.7	85	10-262	
2,4-Dichlorophenol	ug/L	50	37.7	75	10-191	
Diethyl phthalate	ug/L	50	37.9	76	10-114	
2,4-Dimethylphenol	ug/L	50	38.2	76	32-119	
Dimethyl phthalate	ug/L	50	40.4	81	10-112	
Di-n-octyl phthalate	ug/L	50	33.4	67	10-146	
2,4-Dinitrophenol	ug/L	50	41.5	83	29-182	

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE: 27310

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,6-Dinitrotoluene	ug/L	50	39.1	78	50-158	
Hexachlorobenzene	ug/L	50	39.2	78	10-152	
Hexachlorobutadiene	ug/L	50	34.5	69	24-116	
Hexachlorocyclopentadiene	ug/L	50	23.5	47	10-115	
Hexachloroethane	ug/L	50	35.7	71	40-113	
Isophorone	ug/L	50	41.6	83	21-196	
2-Methylphenol	ug/L	50	33.0	66	55-126	
Nitrobenzene	ug/L	50	39.1	78	35-180	
2-Nitrophenol	ug/L	50	38.2	76	29-182	
n-Nitrosodimethylamine	ug/L	50	28.9	58	28-64	
n-Nitrosodiphenylamine	ug/L	50	36.7	73	42-113	
2,4,5-Trichlorophenol	ug/L	50	37.6	75		
2,4,6-Trichlorophenol	ug/L	50	39.2	78	37-144	
Benzyl alcohol	ug/L	50	36.4	73		
Aniline	ug/L	50	30.0	60		
Pyridine	ug/L	50	20.1	40		
3-Nitroaniline	ug/L	50	50.1	100		
4-Nitroaniline	ug/L	50	50.1	100		
Di-n-butyl phthalate	ug/L	50	39.2	78	62-154	
1,2-Diphenylhydrazine	ug/L		36.4			
2-Nitroaniline	ug/L	50	46.7I	93		
2-Chloronaphthalene	ug/L	50	39.9	80	60-118	
4-Chloroaniline	ug/L	50	39.7	79		
m,p-Cresol	ug/L		30.3			
4,6-Dinitro-2-methylphenol	ug/L	50	42.2	84	10-181	
Phenol	ug/L	50	17.3	35		
2-Chlorophenol	ug/L	50	33.8	68	25-117	
1,4-Dichlorobenzene	ug/L	50	37.4	75	30-116	
n-Nitrosodi-n-propylamine	ug/L	50	38.0	76	43-136	
1,2,4-Trichlorobenzene	ug/L	50	39.1	78	30-119	
4-Chloro-3-methylphenol	ug/L	50	37.9	76	30-128	
4-Nitrophenol	ug/L	50	23.0	46	10-73	
2,4-Dinitrotoluene	ug/L	50	43.3	87	54-133	
Pentachlorophenol	ug/L	50	49.4	99	29-142	
Nitrobenzene-d5 (S)	%			78	10-112	
Phenol-d6 (S)	%			39.3	10-59	
2-Fluorobiphenyl (S)	%			71	10-116	
2-Fluorophenol (S)	%			49	28-62	
2,4,6-Tribromophenol (S)	%			82	48-132	
Terphenyl-d14 (S)	%			76	20-128	

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27311 27312 Original: 904934002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Semivolatiles											
Benzidine	ug/L	0	50	21.2	17.0	42	34	10-104	21	20	8
Benzoic acid	ug/L	0	50	16.7I	16.4I	33	33		0		
Butyl benzyl phthalate	ug/L	0	50	36.8	36.3	74	73	10-152	1	20	
Bis(2-Chloroethoxy)methane	ug/L	0	50	31.2	30.7	62	61	33-184	2	20	
Bis(2-Chloroethyl)ether	ug/L	0	50	32.8	32.4	66	65		2		
Bis(2-Chloroisopropyl)ether	ug/L	0	50	32.5	30.9	65	62	36-166	5	20	
Bis(2-Ethylhexyl)phthalate	ug/L	0	50	33.5	33.2	67	66	10-158	2	20	
4-Bromophenyl phenyl ether	ug/L	0	50	37.3	37.2	75	74	53-127	1	20	
Carbazole	ug/L	0.0865	50	43.2	41.5	86	83	73-131	4	20	
4-Chlorophenyl phenyl ether	ug/L	0	50	35.5	36.2	71	72	25-158	1	20	
Dibenzofuran	ug/L	0.0821	50	37.9	37.3	76	75		1		
1,2-Dichlorobenzene	ug/L	0	50	33.8	33.2	68	66	32-129	3	20	
1,3-Dichlorobenzene	ug/L	0	50	31.1	29.6	62	59	10-172	5	20	
3,3'-Dichlorobenzidine	ug/L	0	50	39.9	39.5	80	79	10-262	1	20	
2,4-Dichlorophenol	ug/L	0	50	31.8	33.8	64	68	39-135	6	20	
Diethyl phthalate	ug/L	0	50	36.9	34.4	74	69	10-114	7	20	
2,4-Dimethylphenol	ug/L	0	50	31.8	32.7	64	65	32-119	2	20	
Dimethyl phthalate	ug/L	0	50	38.6	37.5	77	75	10-112	3	20	
Di-n-octyl phthalate	ug/L	0.0735	50	31.9	30.5	64	61	10-146	5	20	
2,4-Dinitrophenol	ug/L	0	50	41.3	38.3	83	77	10-191	8	20	
2,6-Dinitrotoluene	ug/L	0	50	36.5	36.5	73	73	39-139	0	20	
Hexachlorobenzene	ug/L	0	50	35.3	33.9	71	68	10-152	4	20	
Hexachlorobutadiene	ug/L	0	50	30.1	29.2	60	58	24-116	3	20	
Hexachlorocyclopentadiene	ug/L	0	50	20.6	19.6	41	39	10-115	5	20	
Hexachloroethane	ug/L	0	50	29.8	29.9	60	60	40-113	0	20	
Isophorone	ug/L	0	50	36.7	35.8	73	72	21-196	1	20	
2-Methylphenol	ug/L	0	50	28.5	28.5	57	57	55-126	0	20	
Nitrobenzene	ug/L	0	50	33.0	34.0	66	68	35-180	3	20	
2-Nitrophenol	ug/L	0	50	32.7	32.8	65	66	29-182	2	20	
n-Nitrosodimethylamine	ug/L	0	50	25.5	24.7	51	49		4		
n-Nitrosodiphenylamine	ug/L	0	50	34.6	33.7	69	67	42-113	3	20	
2,4,5-Trichlorophenol	ug/L	0	50	36.3	35.0	73	70		4		
2,4,6-Trichlorophenol	ug/L	0	50	35.8	36.3	72	73	37-144	1	20	
Benzyl alcohol	ug/L	0	50	33.7	31.9	67	64		5		
Aniline	ug/L	0	50	27.9	24.9	56	50		11		
Pyridine	ug/L	0	50	17.5	13.0	35	26		30		
3-Nitroaniline	ug/L	0	50	48.1I	46.6I	96	93		3		
4-Nitroaniline	ug/L	0	50	48.1I	46.6I	96	93		3		
Di-n-butyl phthalate	ug/L	0.0895	50	37.3	37.2	75	74	57-126	1	20	
1,2-Diphenylhydrazine	ug/L			32.5	32.3						
2-Nitroaniline	ug/L	0	50	42.7I	42.0I	85	84		1		
2-Chloronaphthalene	ug/L	0	50	34.6	35.2	69	70	60-118	1	20	
4-Chloroaniline	ug/L	0	50	36.3	33.4	73	67		9		
m,p-Cresol	ug/L			26.7	26.6						

CERTIFICATE OF ANALYSIS

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27311 27312 Original: 904934002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
4,6-Dinitro-2-methylphenol	ug/L	0	50	40.0	38.6	80	77	10-181	4	20	
Phenol	ug/L	0	50	15.3	15.3	31	31		0		
2-Chlorophenol	ug/L	0	50	30.0	28.9	60	58	23-134	3	20	
1,4-Dichlorobenzene	ug/L	0	50	31.4	31.3	63	63	20-124	0	20	
n-Nitrosodi-n-propylamine	ug/L	0	50	34.2	34.0	68	68	10-230	0	20	
1,2,4-Trichlorobenzene	ug/L	0	50	31.8	32.3	64	65	44-142	2	20	
4-Chloro-3-methylphenol	ug/L	0	50	35.0	34.7	70	69	22-147	1	20	
4-Nitrophenol	ug/L	0	50	22.1	21.2	44	42	10-132	5	20	
2,4-Dinitrotoluene	ug/L	0	50	39.8	39.1	80	78	54-133	3	20	
Pentachlorophenol	ug/L	0	50	46.1	46.4	92	93	14-176	1	20	
Nitrobenzene-d5 (S)	%					70	68	10-112	3		
Phenol-d6 (S)	%					36.4	36	10-59	1.1		
2-Fluorobiphenyl (S)	%					61	62	10-116	2		
2-Fluorophenol (S)	%					45	45	28-62	0		
2,4,6-Tribromophenol (S)	%					81	79	48-132	3		
Terphenyl-d14 (S)	%					72	71	20-128	1		

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QUALITY CONTROL DATA

QC Batch: EXTO/2118 Analysis Method: SW-846 8081A

QC Batch Method: 3510C

Associated Lab Samples: 904913002 904941002 904941003

METHOD BLANK: 27313

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Pesticides				
alpha-BHC	ug/L	0.000924U	0.000924	
beta-BHC	ug/L	0.00123U	0.00123	
delta-BHC	ug/L	0.000904U	0.000904	
Heptachlor epoxide	ug/L	0.00121U	0.00121	
Endosulfan I	ug/L	0.00103U	0.00103	
4,4'-DDE	ug/L	0.00148U	0.00148	
Endosulfan II	ug/L	0.00103U	0.00103	
4,4'-DDD	ug/L	0.000993U	0.000993	
Endosulfan sulfate	ug/L	0.00279U	0.00279	
Methoxychlor	ug/L	0.000900U	0.000900	
Endrin ketone	ug/L	0.000969U	0.000969	
Endrin aldehyde	ug/L	0.000695U	0.000695	
alpha-Chlordane	ug/L	0.00118U	0.00118	
gamma-Chlordane	ug/L	0.00130U	0.00130	
Toxaphene	ug/L	0.047U	0.047	
gamma-BHC (Lindane)	ug/L	0.000563U	0.000563	
Heptachlor	ug/L	0.00152U	0.00152	
Aldrin	ug/L	0.00139U	0.00139	
Dieldrin	ug/L	0.00106U	0.00106	
Endrin	ug/L	0.00717U	0.00717	
4,4'-DDT	ug/L	0.00120U	0.00120	
Tetrachloro-m-xylene (S)	%	62	32-137	
Decachlorobiphenyl (S)	%	79	25-165	

LABORATORY CONTROL SAMPLE: 27314

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Pesticides						
alpha-BHC	ug/L	0.1	0.086	86		
beta-BHC	ug/L	0.1	0.109	109		
delta-BHC	ug/L	0.1	0.072	72		
Heptachlor epoxide	ug/L	0.1	0.093	93		
Endosulfan I	ug/L	0.1	0.094I	94		
4,4'-DDE	ug/L	0.1	0.115	115		
Endosulfan II	ug/L	0.1	0.098I	98		
4,4'-DDD	ug/L	0.1	0.151	151		
Endosulfan sulfate	ug/L	0.1	0.120	120		
Methoxychlor	ug/L	0.1	0.185	185		
Endrin ketone	ug/L	0.1	0.130	130		

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE: 27314

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Endrin aldehyde	ug/L	0.1	0.106	106		
alpha-Chlordane	ug/L	0.1	0.097	97		
gamma-Chlordane	ug/L	0.1	0.096	96		
Toxaphene	ug/L		0.047U			
gamma-BHC (Lindane)	ug/L	0.1	0.090	90	33-155	
Heptachlor	ug/L	0.1	0.095	95	47-148	
Aldrin	ug/L	0.1	0.087	87	43-149	
Dieldrin	ug/L	0.1	0.095	95	47-162	
Endrin	ug/L	0.1	0.101	101	41-189	
4,4'-DDT	ug/L	0.1	0.119	119	14-228	
Tetrachloro-m-xylene (S)	%			88	32-137	
Decachlorobiphenyl (S)	%			101	25-165	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27315 27316 Original: 904934003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Pesticides											
alpha-BHC	ug/L	0	0.1	0.079	0.061	79	61		26		
beta-BHC	ug/L	0	0.1	0.107	0.080	107	80		29		
delta-BHC	ug/L	0	0.1	0.074	0.055	74	55		29		
Heptachlor epoxide	ug/L	0	0.1	0.089	0.068	89	68		27		
Endosulfan I	ug/L	0	0.1	0.090I	0.070I	90	70		25		
4,4'-DDE	ug/L	0	0.1	0.118	0.092I	118	92		25		
Endosulfan II	ug/L	0	0.1	0.099I	0.078I	99	78		24		
4,4'-DDD	ug/L	0	0.1	0.161	0.127	161	127		24		
Endosulfan sulfate	ug/L	0	0.1	0.125	0.095I	125	95		27		
Methoxychlor	ug/L	0	0.1	0.194	0.146	194	146		28		
Endrin ketone	ug/L	0	0.1	0.133	0.102	133	102		26		
Endrin aldehyde	ug/L	0	0.1	0.088I	0.059I	88	59		39		
alpha-Chlordane	ug/L	0	0.1	0.092	0.071	92	71		26		
gamma-Chlordane	ug/L	0	0.1	0.087	0.068	87	68		25		
Toxaphene	ug/L			0.047U	0.047U						
gamma-BHC (Lindane)	ug/L	0	0.1	0.084	0.063	84	63	33-155	29	20	8
Heptachlor	ug/L	0	0.1	0.088	0.066	88	66	47-148	29	20	8
Aldrin	ug/L	0	0.1	0.080	0.062	80	62	43-149	25	20	8
Dieldrin	ug/L	0	0.1	0.092	0.073	92	73	47-162	23	20	8
Endrin	ug/L	0	0.1	0.100	0.079I	100	79	41-189	23	20	8
4,4'-DDT	ug/L	0	0.1	0.120	0.090I	120	90	14-228	29	20	8
Tetrachloro-m-xylene (S)	%					78	61	32-137	24		
Decachlorobiphenyl (S)	%					97	79	25-165	20		

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QUALITY CONTROL DATA

QC Batch: EXTO/2119 Analysis Method: SW-846 8082

QC Batch Method: 3510C

Associated Lab Samples: 904913002

METHOD BLANK: 27317

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
PCBs				
PCB 1221	ug/L	0.014U	0.014	
PCB 1232	ug/L	0.190U	0.190	
PCB 1242	ug/L	0.010U	0.010	
PCB 1248	ug/L	0.00850U	0.00850	
PCB 1254	ug/L	0.014U	0.014	
PCB 1016	ug/L	0.012U	0.012	
PCB 1260	ug/L	0.015U	0.015	
Decachlorobiphenyl (S)	%	113	45-162	
Tetrachloro-m-xylene (S)	%	95	50-125	

LABORATORY CONTROL SAMPLE: 27318

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCBs						
PCB 1221	ug/L		0.014U			
PCB 1232	ug/L		0.190U			
PCB 1242	ug/L		0.010U			
PCB 1248	ug/L		0.00850U			
PCB 1254	ug/L		0.014U			
PCB 1016	ug/L	1	0.957	96	12-176	
PCB 1260	ug/L	1	0.802	80	10-180	
Decachlorobiphenyl (S)	%			91	45-162	
Tetrachloro-m-xylene (S)	%			71	50-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27319 27320 Original: 904934004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
PCBs											
PCB 1221	ug/L			0.014U	0.014U						
PCB 1232	ug/L			0.190U	0.190U						
PCB 1242	ug/L			0.010U	0.010U						
PCB 1248	ug/L			0.00850U	0.00850U						
PCB 1254	ug/L			0.014U	0.014U						
PCB 1016	ug/L	0	1	1.04	0.976	104	98	12-176	6	20	
PCB 1260	ug/L	0	1	0.943	0.890	94	89	10-181	5	20	

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27319 27320 Original: 904934004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Decachlorobiphenyl (S)	%					110	101	45-162	9		
Tetrachloro-m-xylene (S)	%					75	76	50-125	1		

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QUALITY CONTROL DATA

QC Batch: EXTO/2120 Analysis Method: SW-846 8141A

QC Batch Method: 3510C

Associated Lab Samples: 904913002

METHOD BLANK: 27321

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Organophosphorus Pesticides				
Carbophenothion	ug/L	0.063U	0.063	
Chlorpyrifos	ug/L	0.121U	0.121	
Chlorpyrifos-methyl	ug/L	0.137U	0.137	
Demeton-s	ug/L	0.062U	0.062	
Demeton-o	ug/L	0.041U	0.041	
Crotoxyphos	ug/L	0.078U	0.078	
Dichlorovos	ug/L	0.075U	0.075	
Fenithrothion	ug/L	0.198U	0.198	
Ronnel	ug/L	0.054U	0.054	
Terbufos	ug/L	0.063U	0.063	
Fenthion	ug/L	0.074U	0.074	
Leptophos	ug/L	0.046U	0.046	
Tributyl Phosphate (S)	%	97	44-125	
Triphenyl Phosphate (S)	%	98	43-134	

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Organophosphorus Pesticides				
Phosphamidon	ug/L	0.311U	0.311	
Aspon	ug/L	0.185U	0.185	
Phorate	ug/L	0.177U	0.177	
Bolstar	ug/L	0.202U	0.202	
Dichlorfenthion	ug/L	0.190U	0.190	
Dioxathion	ug/L	0.110U	0.110	
Naled	ug/L	0.220U	0.220	
Dimethoate	ug/L	0.184U	0.184	
TEPP	ug/L	0.189U	0.189	
Thionazine	ug/L	0.179U	0.179	
EPN	ug/L	0.132U	0.132	
Merphos	ug/L	0.208U	0.208	
Mevinphos	ug/L	0.172U	0.172	

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Organophosphorus Pesticides				
Phosmet	ug/L	0.102U	0.102	
Disulfoton	ug/L	0.129U	0.129	
Azinphos-ethyl	ug/L	0.130U	0.130	
Coumaphos	ug/L	0.079U	0.079	
Dicrotophos	ug/L	0.175U	0.175	
Famphur	ug/L	0.081U	0.081	
Ethoprop	ug/L	0.068U	0.068	
Ethion	ug/L	0.132U	0.132	

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QUALITY CONTROL DATA

METHOD BLANK: 27321

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Tokuthion (Prothiophos)	ug/L	0.106U	0.106	
Trichlorfon	ug/L	1.09U	1.09	

LABORATORY CONTROL SAMPLE: 27322

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbophenothion	ug/L	2	2.25	113	21-148	
Chlorpyrifos	ug/L	2	2.10	105	46-133	
Chlorpyrifos-methyl	ug/L	2	2.04	102	44-122	
Demeton-s	ug/L		0.377I			
Crotoxyphos	ug/L	2	2.64	132		
Demeton-o	ug/L		1.82			
Dichlorovos	ug/L	2	2.08	104	12-128	
Fenithrothion	ug/L	2	2.09	104		
Ronnel	ug/L	2	2.03	102	35-126	
Terbufos	ug/L	2	1.96	98	48-124	
Fenthion	ug/L	2	2.10	105		
Leptophos	ug/L	2	2.19	109	11-146	
Tributyl Phosphate (S)	%			101	44-125	
Triphenyl Phosphate (S)	%			120	43-134	

LABORATORY CONTROL SAMPLE: 27322

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Organophosphorus Pesticides						
Phosphamidon	ug/L		0.311U			
Aspon	ug/L		0.185U			
Phorate	ug/L		0.177U			
Bolstar	ug/L		0.202U			
Dichlorfenthion	ug/L		0.190U			
Dioxathion	ug/L		0.110U			
Naled	ug/L		0.220U			
Dimethoate	ug/L		0.184U			
TEPP	ug/L		0.189U			
Thionazine	ug/L		0.179U			
EPN	ug/L		0.132U			
Merphos	ug/L		0.208U			
Mevinphos	ug/L		0.172U			

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE: 27322

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Organophosphorus Pesticides						
Phosmet	ug/L		0.102U			
Disulfoton	ug/L		0.129U			
Azinphos-ethyl	ug/L		0.130U			
Coumaphos	ug/L		0.079U			
Dicrotophos	ug/L		0.175U			
Famphur	ug/L		0.081U			
Ethoprop	ug/L		0.068U			
Ethion	ug/L		0.132U			
Tokuthion (Prothiophos)	ug/L		0.106U			
Trichlorfon	ug/L		1.09U			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27323 27324 Original: 904934005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Carbophenothion	ug/L	0	2	1.98	2.18	99	109	21-148	10	20	
Chlorpyrifos	ug/L	0	2	2.07	2.00	104	100	46-133	4	20	
Chlorpyrifos-methyl	ug/L	0	2	2.07	2.00	104	100	44-122	4	20	
Demeton-s	ug/L			0.360I	0.381I						
Crotoxyphos	ug/L	0	2	2.57	2.42	129	121		6		
Demeton-o	ug/L			1.80	1.81						
Dichlorovos	ug/L	0	2	2.09	2.16	104	108	12-128	4	20	
Fenithrothion	ug/L	0	2	2.06	2.17	103	109		6		
Ronnel	ug/L	0	2	2.01	2.00	101	100	35-126	1	20	
Terbufos	ug/L	0	2	2.03	1.99	101	100	48-124	1	20	
Fenthion	ug/L	0	2	2.05	2.04	103	102		1		
Leptophos	ug/L	0	2	2.06	1.93	103	97	11-146	6	20	
Tributyl Phosphate (S)	%					109	102	44-125			
Triphenyl Phosphate (S)	%					112	106	43-134			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27323 27324 Original: 904934005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Phosphamidon	ug/L			0.311U	0.311U						
Aspon	ug/L			0.185U	0.185U						
Phorate	ug/L			0.177U	0.177U						
Bolstar	ug/L			0.202U	0.202U						
Dichlorfenthion	ug/L			0.190U	0.190U						
Dioxathion	ug/L			0.110U	0.110U						
Naled	ug/L			0.220U	0.220U						
Dimethoate	ug/L			0.184U	0.184U						

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27323 27324 Original: 904934005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TEPP	ug/L			0.189U	0.189U						
Thionazine	ug/L			0.179U	0.179U						
EPN	ug/L			0.132U	0.132U						
Merphos	ug/L			0.208U	0.208U						
Mevinphos	ug/L			0.172U	0.172U						

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27323 27324 Original: 904934005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Organophosphorus Pesticides											
Phosmet	ug/L			0.102U	0.102U						
Disulfoton	ug/L			0.129U	0.129U						
Azinphos-ethyl	ug/L			0.130U	0.130U						
Coumaphos	ug/L			0.079U	0.079U						
Dicrotophos	ug/L			0.175U	0.175U						
Famphur	ug/L			0.081U	0.081U						
Ethoprop	ug/L			0.068U	0.068U						
Ethion	ug/L			0.132U	0.132U						
Tokuthion (Prothiophos)	ug/L			0.106U	0.106U						
Trichlorfon	ug/L			1.09U	1.09U						

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QUALITY CONTROL DATA

QC Batch: EXTO/2121 Analysis Method: SW-846 8151A

QC Batch Method: 3510C

Associated Lab Samples: 904913002

METHOD BLANK: 27325

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Dinoseb	ug/L	0.509U	0.509	

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Herbicides				
2,4-D	ug/L	0.406U	0.406	
2,4,5-T	ug/L	0.345U	0.345	
2,4,5-TP (Silvex)	ug/L	0.492U	0.492	
Dalapon	ug/L	0.509U	0.509	
Dicamba	ug/L	0.369U	0.369	
Dichlorprop	ug/L	0.399U	0.399	
MCPA	ug/L	47.7U	47.7	
MCPP	ug/L	98.0U	98.0	
DCAA (S)	%	75	46-142	

LABORATORY CONTROL SAMPLE: 27326

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dinoseb	ug/L	5	2.90	58		

LABORATORY CONTROL SAMPLE: 27326

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Herbicides						
2,4-D	ug/L	5	4.41	88	29-146	
2,4,5-T	ug/L	5	4.37	87	29-156	
2,4,5-TP (Silvex)	ug/L	5	4.51	90	30-180	
MCPA	ug/L	500	397	79		
Dalapon	ug/L	5	3.54	71		
Dicamba	ug/L	5	3.82	76	35-135	
Dichlorprop	ug/L	5	4.07	81	36-148	
MCPP	ug/L		388			
DCAA (S)	%			84	46-142	

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27327 27328 Original: 904934006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Dinoseb	ug/L	0	5	2.98	2.98	60	60		0		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27327 27328 Original: 904934006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Herbicides											
2,4-D	ug/L	0	5	4.71	5.02	94	100	29-146	6	20	
2,4,5-T	ug/L	0	5	4.68	4.87	94	97	29-157	3	20	
2,4,5-TP (Silvex)	ug/L	0	5	4.79	5.01	96	100	30-180	4	20	
MCPA	ug/L	0	500	442	449	88	90		2		
Dalapon	ug/L	0	5	4.06	4.70	81	94		15		
Dicamba	ug/L	0	5	4.23	4.40	85	88	35-135	3	20	
Dichlorprop	ug/L	0	5	4.49	4.50	90	90	36-148	0	20	
MCPP	ug/L			455	449						
DCAA (S)	%					93	96	46-142	3		

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QUALITY CONTROL DATA

QC Batch: EXTO/2122 Analysis Method: EPA 1664A

QC Batch Method: EPA 1664A

Associated Lab Samples: 904913002 904916001 904919001 904920001 904927001 904928001 904932001 904933001

METHOD BLANK: 27329

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Oil and Grease	mg/L	1.4U	1.4	

LABORATORY CONTROL SAMPLE: 27330

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Wet Chemistry						
Oil and Grease	mg/L	200	188	94	78-114	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27331 27332 Original: 904934007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Oil and Grease	mg/L	1.2	200	189	190	95	95	70-130	0	20	

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QUALITY CONTROL DATA

QC Batch: DIGM/1920 Analysis Method: SW-846 6010

QC Batch Method: SW-846 3010A

Associated Lab Samples: 904776001, 904776003, 904776005, 904776007, 904833001, 904833002, 904833003, 904840001, 904840002, 904840003, 904841002, 904841003, 904845001, 904913002

METHOD BLANK: 27350

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Metals Analysis				
Antimony	mg/l	0.0038U	0.0038	
Arsenic	mg/l	0.0046U	0.0046	
Beryllium	mg/l	0.00067U	0.00067	
Cadmium	mg/l	0.00057U	0.00057	
Chromium	mg/l	0.0011U	0.0011	
Copper	mg/l	0.0096U	0.0096	
Lead	mg/l	0.0031U	0.0031	
Nickel	mg/l	0.0052U	0.0052	
Selenium	mg/l	0.0054U	0.0054	
Silver	mg/l	0.0016U	0.0016	
Zinc	mg/l	0.0053U	0.0053	

LABORATORY CONTROL SAMPLE: 27351

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Metals Analysis						
Antimony	mg/l	1	0.998	100	80-120	
Arsenic	mg/l	1	1.01	101	80-120	
Beryllium	mg/l	1	0.990	99	80-120	
Cadmium	mg/l	1	0.999	100	80-120	
Chromium	mg/l	1	0.984	98	80-120	
Copper	mg/l	1	0.997	100	80-120	
Lead	mg/l	1	0.994	99	80-120	
Nickel	mg/l	1	0.985	98	80-120	
Selenium	mg/l	1	0.979	98	80-120	
Silver	mg/l	0.5	0.507	101	80-120	
Zinc	mg/l	1	1.01	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27352 27353 Original: 904913002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Metals Analysis											
Antimony	mg/l	0	1	1.10	1.10	110	110		0		

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QUALITY CONTROL DATA

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27352 27353 Original: 904913002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	RPD	Qualifiers
Arsenic	mg/l	0.00266	1	1.15	1.15	115	115			0	
Beryllium	mg/l	0	1	0.927	0.923	93	92			1	
Cadmium	mg/l	0	1	1.14	1.13	114	113			0.9	
Chromium	mg/l	0.00036	1	0.879	0.871	88	87			1	
Copper	mg/l	0	1	0.894	0.881	89	88			1	
Lead	mg/l	0.00334	1	0.862	0.860	86	86			0	
Nickel	mg/l	0	1	0.889	0.885	89	89			0	
Selenium	mg/l	0	1	1.12	1.12	112	112			0	
Silver	mg/l	0	0.5	0.670	0.670	134	134			0	
Zinc	mg/l	0.024	1	1.17	1.17	114	114			0	

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QUALITY CONTROL DATA

QC Batch: DIGM/1922 Analysis Method: EPA 200.8

QC Batch Method: EPA 200.8

Associated Lab Samples: 904765001 904765002 904782002 904825001 904913002

METHOD BLANK: 27358

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Metals Analysis				
Thallium	mg/L	0.00027U	0.00027	

LABORATORY CONTROL SAMPLE: 27359

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Metals Analysis						
Thallium	mg/L	0.2	0.206	103	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27360 27361 Original: 904825001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Metals Analysis											
Thallium	mg/L	0.00064	0.2	0.220	0.226	110	113	70-130	3	20	

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QUALITY CONTROL DATA

QC Batch: TOC/1122 Analysis Method: SM 5310B

QC Batch Method: SM 5310B

Associated Lab Samples: 904816001, 904816002, 904831001, 904853001, 904901001, 904902001, 904902002, 904902003, 904902004, 904902005, 904902006, 904902007, 904902008, 904913002, 904939001, 904939002, 904939003

METHOD BLANK: 27400

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Organic Carbon	mg/L	0.60U	0.60	

LABORATORY CONTROL SAMPLE: 27401

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Wet Chemistry						
Total Organic Carbon	mg/L	80	87.5	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27403 27404 Original: 904816001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Total Organic Carbon	mg/L	19	80	105	104	107	106	90-110	0.9	10	

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QUALITY CONTROL DATA

QC Batch: INPR/1669 Analysis Method: SW-846 9012A

QC Batch Method: EPA 335.2

Associated Lab Samples: 904825001 904892001 904892003 904913002 904917001 904917002 904917003 904917004 904920001 904939004

METHOD BLANK: 27410

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Cyanide	mg/L	0.0032U	0.0032	

LABORATORY CONTROL SAMPLE & LCSD: 27411 27412

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Total Cyanide	mg/L	0.2	0.2013	0.1981	101	99	90-110	2	20	

MATRIX SPIKE SAMPLE: 27413 Original: 904825001

Parameter	Units	Original Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Wet Chemistry							
Total Cyanide	mg/L	0.0058	0.2	0.2042	99	90-110	

MATRIX SPIKE SAMPLE: 27415 Original: 904920001

Parameter	Units	Original Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Wet Chemistry							
Total Cyanide	mg/L	0.0038	0.2	0.2075	104	90-110	

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QUALITY CONTROL DATA

QC Batch: MSV/1665 Analysis Method: SW-846 8260B

QC Batch Method: SW-846 8260B

Associated Lab Samples: 904913001 904913002 904947001 904947002 904947003 904947004

METHOD BLANK: 27497

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Volatiles				
Acetone	ug/L	1.43U	1.43	
Acrolein	ug/L	2.47U	2.47	
Acrylonitrile	ug/L	0.955U	0.955	
Bromochloromethane	ug/L	0.637U	0.637	
Bromodichloromethane	ug/L	0.100U	0.100	
Bromoform	ug/L	0.486U	0.486	
Bromomethane	ug/L	0.427U	0.427	
Carbon disulfide	ug/L	0.650U	0.650	
Carbon tetrachloride	ug/L	0.468U	0.468	
Chloroethane	ug/L	1.00U	1.00	
Xylene, m,p-	ug/L	0.639U	0.639	
Chloroform	ug/L	0.572U	0.572	
Chloromethane	ug/L	0.524U	0.524	
Dibromochloromethane	ug/L	0.378U	0.378	
Dibromomethane	ug/L	0.739U	0.739	
Dichlorodifluoromethane	ug/L	0.525U	0.525	
1,1-Dichloroethane	ug/L	0.410U	0.410	
1,2-Dichloroethane	ug/L	0.897U	0.897	
cis-1,2-Dichloroethene	ug/L	0.442U	0.442	
trans-1,2-Dichloroethene	ug/L	0.410U	0.410	
Methylene chloride	ug/L	0.580U	0.580	
1,2-Dichloropropane	ug/L	0.725U	0.725	
cis-1,3-Dichloropropene	ug/L	0.664U	0.664	
trans-1,3-Dichloropropene	ug/L	0.522U	0.522	
Ethylbenzene	ug/L	0.323U	0.323	
2-Hexanone	ug/L	1.83U	1.83	
Isopropylbenzene (Cumene)	ug/L	0.528U	0.528	
2-Butanone	ug/L	4.28U	4.28	
4-Methyl-2-pentanone	ug/L	0.220U	0.220	
n-Propylbenzene	ug/L	0.624U	0.624	
Styrene	ug/L	0.458U	0.458	
Tetrachloroethene	ug/L	0.312U	0.312	
1,1,1,2-Tetrachloroethane	ug/L	0.120U	0.120	
1,1,2,2-Tetrachloroethane	ug/L	0.572U	0.572	
1,2,4-Trichlorobenzene	ug/L	0.538U	0.538	
1,1,1-Trichloroethane	ug/L	0.682U	0.682	
1,1,2-Trichloroethane	ug/L	0.841U	0.841	
Trichlorofluoromethane	ug/L	1.00U	1.00	
1,2,3-Trichloropropane	ug/L	0.160U	0.160	
1,2,4-Trimethylbenzene	ug/L	0.508U	0.508	
1,3,5-Trimethylbenzene	ug/L	0.477U	0.477	
Vinyl chloride	ug/L	0.506U	0.506	
Xylene, o-	ug/L	0.341U	0.341	

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QUALITY CONTROL DATA

METHOD BLANK: 27497

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dibromo-3-chloropropane	ug/L	0.933U	0.933	
1,2-Dibromoethane	ug/L	0.345U	0.345	
Vinyl acetate	ug/L	0.570U	0.570	
Methyl-t-butyl ether	ug/L	0.650U	0.650	
4-Isopropyltoluene	ug/L	0.380U	0.380	
2,2-Dichloropropane	ug/L	0.700U	0.700	
1,1-Dichloropropene	ug/L	0.632U	0.632	
2-Chloroethylvinyl ether	ug/L	0.470U	0.470	
1,3-Dichloropropane	ug/L	0.345U	0.345	
Bromobenzene	ug/L	0.382U	0.382	
2-Chlorotoluene	ug/L	0.550U	0.550	
4-Chlorotoluene	ug/L	0.570U	0.570	
tert-Butylbenzene	ug/L	0.607U	0.607	
sec-Butylbenzene	ug/L	0.521U	0.521	
1,3-Dichlorobenzene	ug/L	0.558U	0.558	
1,4-Dichlorobenzene	ug/L	0.537U	0.537	
n-Butylbenzene	ug/L	0.564U	0.564	
1,2-Dichlorobenzene	ug/L	0.584U	0.584	
Hexachlorobutadiene	ug/L	0.763U	0.763	
Naphthalene	ug/L	0.417U	0.417	
1,2,3-Trichlorobenzene	ug/L	0.686U	0.686	
1,1-Dichloroethene	ug/L	0.638U	0.638	
Benzene	ug/L	0.621U	0.621	
Trichloroethene	ug/L	0.821U	0.821	
Toluene	ug/L	0.389U	0.389	
Chlorobenzene	ug/L	0.316U	0.316	
4-Bromofluorobenzene (S)	%	106	64-130	
Dibromofluoromethane (S)	%	113	69-134	
Toluene d8 (S)	%	97	63-127	
Xylenes (total)	ug/L	0.980U	0.980	

LABORATORY CONTROL SAMPLE & LCSD: 27498 27499

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Volatiles										
Acetone	ug/L	50	54.7	53.8	109	108		0.9		
Acrolein	ug/L	100	54.6	55.9	55	56		2		
Acrylonitrile	ug/L	100	98.2	94.8	98	95		3		
Bromochloromethane	ug/L	20	18.9	17.4	95	87		9		
Bromodichloromethane	ug/L	20	20.0	19.8	100	99		1		
Bromoform	ug/L	20	20.5	20.3	102	102		0		
Bromomethane	ug/L	20	15.4	18.4	77	92		18		
Carbon disulfide	ug/L	20	17.8	17.1	89	85		5		
Carbon tetrachloride	ug/L	20	24.3	23.9	122	120		2		
Chloroethane	ug/L	20	24.1	24.0	121	120		0.8		

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE & LCSD: 27498 27499

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Xylene, m,p-	ug/L	40	42.7	43.3	107	108		0.9		
Chloroform	ug/L	20	20.8	19.9	104	100		4		
Chloromethane	ug/L	20	17.2	16.3	86	82		5		
Dibromochloromethane	ug/L	20	22.0	22.1	110	111		0.9		
Dibromomethane	ug/L	20	20.1	19.7	100	99		1		
Dichlorodifluoromethane	ug/L	20	22.3	21.3	111	107		4		
1,1-Dichloroethane	ug/L	20	20.2	19.9	101	100		1		
1,2-Dichloroethane	ug/L	20	23.0	22.5	115	113		2		
cis-1,2-Dichloroethene	ug/L	20	19.6	18.9	98	94		4		
trans-1,2-Dichloroethene	ug/L	20	20.8	19.8	104	99		5		
Methylene chloride	ug/L	20	19.1	18.9	96	94		2		
1,2-Dichloropropane	ug/L	20	18.8	18.5	94	93		1		
cis-1,3-Dichloropropene	ug/L	20	20.0	19.6	100	98		2		
trans-1,3-Dichloropropene	ug/L	20	20.0	19.7	100	98		2		
Ethylbenzene	ug/L	20	21.0	21.2	105	106		0.9		
2-Hexanone	ug/L	50	60.5	62.0	121	124		2		
Isopropylbenzene (Cumene)	ug/L	20	18.0	18.1	90	91		1		
2-Butanone	ug/L	50	55.8	53.3	112	107		5		
4-Methyl-2-pentanone	ug/L	50	52.7	54.5	105	109		4		
n-Propylbenzene	ug/L	20	19.3	19.9	97	100		3		
Styrene	ug/L	20	20.1	20.5	100	102		2		
Tetrachloroethene	ug/L	20	22.1	22.8	111	114		3		
1,1,1,2-Tetrachloroethane	ug/L	20	22.1	22.5	110	113		3		
1,1,2,2-Tetrachloroethane	ug/L	20	17.6	17.8	88	89		1		
1,2,4-Trichlorobenzene	ug/L	20	20.5	20.7	103	104		1		
1,1,1-Trichloroethane	ug/L	20	22.4	22.9	112	115		3		
1,1,2-Trichloroethane	ug/L	20	18.9	18.2	94	91		3		
Trichlorofluoromethane	ug/L	20	19.5	19.4	98	97		1		
1,2,3-Trichloropropane	ug/L	20	21.4	22.2	107	111		4		
1,2,4-Trimethylbenzene	ug/L	20	21.6	22.1	108	111		3		
1,3,5-Trimethylbenzene	ug/L	20	20.5	21.4	103	107		4		
Vinyl chloride	ug/L	20	23.2	23.4	116	117		0.9		
Xylene, o-	ug/L	20	19.3	19.8	96	99		3		
1,2-Dibromo-3-chloropropane	ug/L	20	19.4	21.0	97	105		8		
1,2-Dibromoethane	ug/L	20	20.3	20.3	101	101		0		
Vinyl acetate	ug/L	20	16.2	16.4	81	82		1		
Methyl-t-butyl ether	ug/L	20	20.7	20.6	103	103		0		
4-Isopropyltoluene	ug/L	20	19.4	19.8	97	99		2		
2,2-Dichloropropane	ug/L	20	22.6	22.4	113	112		0.9		
1,1-Dichloropropene	ug/L	20	23.6	23.1	118	115		3		
2-Chloroethylvinyl ether	ug/L	20	16.9	17.6	85	88		3		
1,3-Dichloropropane	ug/L	20	19.8	20.1	99	101		2		
Bromobenzene	ug/L	20	18.5	18.0	92	90		2		
2-Chlorotoluene	ug/L	20	19.2	19.9	96	100		4		
4-Chlorotoluene	ug/L	20	19.0	19.6	95	98		3		
tert-Butylbenzene	ug/L	20	20.2	21.0	101	105		4		
sec-Butylbenzene	ug/L	20	20.1	20.9	100	105		5		
1,3-Dichlorobenzene	ug/L	20	19.1	19.6	95	98		3		

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QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE & LCSD: 27498 27499

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
1,4-Dichlorobenzene	ug/L	20	18.7	19.2	94	96		2		
n-Butylbenzene	ug/L	20	21.5	21.9	108	110		2		
1,2-Dichlorobenzene	ug/L	20	19.1	19.6	96	98		2		
Hexachlorobutadiene	ug/L	20	21.6	22.6	108	113		5		
Naphthalene	ug/L	20	18.5	18.7	92	94		2		
1,2,3-Trichlorobenzene	ug/L	20	20.7	22.0	104	110		6		
1,1-Dichloroethene	ug/L	20	20.9	19.8	104	99	62-141	5	20	
Benzene	ug/L	20	17.7	17.4	88	87	65-141	1	20	
Trichloroethene	ug/L	20	20.1	20.6	100	103	65-140	3	20	
Toluene	ug/L	20	19.2	18.6	96	93	64-139	3	20	
Chlorobenzene	ug/L	20	19.9	20.1	100	101	48-146	1	20	
4-Bromofluorobenzene (S)	%				94	95	64-130	1		
Dibromofluoromethane (S)	%				111	108	69-134	3		
Toluene d8 (S)	%				100	99	63-127	1		
Xylenes (total)	ug/L		61.9	63.0						

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QUALITY CONTROL DATA

QC Batch: MICP/1402 Analysis Method: SM 5210B BOD

QC Batch Method: BOD PREP

Associated Lab Samples: 904849001 904850001 904913002

METHOD BLANK: 27635

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
BOD	mg/L	2.0U	2.0	

LABORATORY CONTROL SAMPLE: 27637

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Wet Chemistry						
BOD	mg/L	198	174	88	70-130	

SAMPLE DUPLICATE: 27638 Original: 904850001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
BOD	mg/L	236	233	1	20	

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QUALITY CONTROL DATA

QC Batch: SOLI/1761 Analysis Method: SM 2540 D

QC Batch Method: SM 2540 D

Associated Lab Samples: 904769002, 904833001, 904847002, 904848001, 904848002, 904849001, 904850001, 904852001, 904852002, 904860001, 904860002, 904878001, 904911001, 904911002, 904912001, 904913002, 904932001, 904933001, 904956001

METHOD BLANK: 27771

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Suspended Solids	mg/L	1.0U	1.0	

SAMPLE DUPLICATE: 27772 Original: 904848001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Total Suspended Solids	mg/L	30.8	30.3	1.6	20	

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QUALITY CONTROL DATA

QC Batch: MISC/1211 Analysis Method: EPA 410.4

QC Batch Method: EPA 410.4

Associated Lab Samples: 904354001 904852001 904852002 904913002 904916001 904919002
904973001 904973002 904973003 905024002 905041001 905049001

METHOD BLANK: 27777

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
COD	mg/L	6.7U	6.7	

LABORATORY CONTROL SAMPLE & LCSD: 27778 27779

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
COD	mg/L	200	202	194	101	97	90-110	4	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27780 27781 Original: 904973003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
COD	mg/L	27	200	220	216	96	94	90-110	2	20	

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QUALITY CONTROL DATA

QC Batch: HACH/1218 Analysis Method: SM 4500-S F(20th Ed.)

QC Batch Method: SM 4500-S F(20th Ed.)

Associated Lab Samples: 904913002 904941002 904941003 904941004 905041001 905107001

METHOD BLANK: 27782

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Sulfide	mg/L	0.050U	0.050	

LABORATORY CONTROL SAMPLE: 27783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Wet Chemistry						
Sulfide	mg/L	10	8.80	88	70-130	

SAMPLE DUPLICATE: 27784 Original: 904905002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Sulfide	mg/L	0.050U	0.050U	0	20	

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QUALITY CONTROL DATA

QC Batch: INPR/1675 Analysis Method: EPA 365.1

QC Batch Method: EPA 365.1

Associated Lab Samples: 904875001, 904875002, 904875003, 904876001, 904879001, 904879002, 904882001, 904882002, 904883003, 904884002, 904888003, 904890001, 904890002, 904891001, 904913002, 904924001, 904924002, 905020041, 905020042

METHOD BLANK: 27809

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Phosphorus	mg/L	0.004U	0.004	

LABORATORY CONTROL SAMPLE & LCSD: 27810 27811

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Total Phosphorus	mg/L	0.5	0.480	0.488	95.9	97.7	90-110	1.9	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27812 27813 Original: 905020041

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Total Phosphorus	mg/L	2.23	2.5	4.74	4.70	100	98.7	90-110	1.3	20	Q

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27814 27815 Original: 904879001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Total Phosphorus	mg/L	0.003	0.5	0.513	0.509	103	102	90-110	0.98	20	

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QUALITY CONTROL DATA

QC Batch: LACH/2194 Analysis Method: EPA 350.1

QC Batch Method: EPA 350.1

Associated Lab Samples: 904873001 904873002 904873003 904875001 904875002 904875003
904876001 904878002 904879001 904879002 904882001 904882002
904890001 904890002 904891001 904913002 905020041 905020042

METHOD BLANK: 27867

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Ammonia	mg/L	0.017U	0.017	

LABORATORY CONTROL SAMPLE & LCSD: 27868 27869

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Ammonia	mg/L	2.5	2.73	2.73	109	109	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27872 27873 Original: 904878002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Ammonia	mg/L	0	2.5	2.62	2.62	105	105	90-110	0	20	

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QUALITY CONTROL DATA

QC Batch: INPR/1684 Analysis Method: EPA 351.2

QC Batch Method: EPA 351.2

Associated Lab Samples: 904879001, 904879002, 904882001, 904882002, 904883003, 904884002, 904888003, 904890001, 904890002, 904891001, 904911001, 904911002, 904912001, 904913002, 904941001, 904965002, 904968001

METHOD BLANK: 27996

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Kjeldahl Nitrogen	mg/L	0.22U	0.22	

LABORATORY CONTROL SAMPLE & LCSD: 27997 27998

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Total Kjeldahl Nitrogen	mg/L	5	5.01	4.99	100	99.8	90-110	0.2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27999 28000 Original: 904882001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Total Kjeldahl Nitrogen	mg/L	0.877	5	6.27	5.35	108	89.5	90-110	18.7	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 28602 28603 Original: 904890001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Total Kjeldahl Nitrogen	mg/L	1.15	5	6.44	6.68	106	111	90-110	4.6	20	

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QUALITY CONTROL DATA

QC Batch: ALKA/1111 Analysis Method: SM 2320 B

QC Batch Method: SM 2320 B

Associated Lab Samples: 904913002 904959001 904965001 904965002 904973001 904973002 904973003 904974001 904974002 904977001 904977002 904990001 904990002 904990003

METHOD BLANK: 28011

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Total Alkalinity	mg/L	0.02U	0.02	

LABORATORY CONTROL SAMPLE & LCSD: 28012 28013

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Total Alkalinity	mg/L	250	244	240	98	96	90-110	2	20	

SAMPLE DUPLICATE: 28635 Original: 904913002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Wet Chemistry						
Total Alkalinity	mg/L	150	148	1		

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QUALITY CONTROL DATA

QC Batch: DIGM/1953 Analysis Method: SW-846 7470

QC Batch Method: SW-846 7470

Associated Lab Samples: 904913002, 905010001, 905116002, 905116005, 905136002, 905146003, 905146005, 905146007, 905146009, 905146011, 905146013, 905146015, 905146017

METHOD BLANK: 28227

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Metals Analysis				
Mercury	mg/L	0.00013U	0.00013	

LABORATORY CONTROL SAMPLE: 28228

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Metals Analysis						
Mercury	mg/L	0.002	0.00182	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 28229 28230 Original: 904905002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Metals Analysis											
Mercury	mg/L	-0.00013	0.002	0.00190	0.00203	95	102	75-125	7	20	

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QUALITY CONTROL DATA

QC Batch: IC/1308 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Associated Lab Samples: 904861001, 904861002, 904863001, 904863002, 904866001, 904869001, 904870001, 904872001, 904872002, 904872003, 904913002, 904918001, 904918002, 904918003, 904918006, 904983001, 904983002, 904983003

METHOD BLANK: 28265

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Sulfate	mg/L	0.164I	0.076	

LABORATORY CONTROL SAMPLE & LCSD: 28266 28267

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Sulfate	mg/L	7.5	7.23	7.22	96	96	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 28268 28269 Original: 904983001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Sulfate	mg/L	449	75	560	563	148	152	90-110	3	20	

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QUALITY CONTROL DATA

QC Batch: IC/1310 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Associated Lab Samples: 904861001, 904861002, 904863001, 904863002, 904869001, 904870001, 904893001, 904913002, 904918001, 904918002, 904918003, 904995001, 904995002, 905193001, 905193002, 905195003, 905197001, 905197002, 905212004

METHOD BLANK: 28318

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Wet Chemistry				
Chloride	mg/L	0.066U	0.066	

LABORATORY CONTROL SAMPLE & LCSD: 28319 28320

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry										
Chloride	mg/L	5	4.91	4.96	98	99	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 28321 28322 Original: 905193002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Wet Chemistry											
Chloride	mg/L			243	243				0.82	20	

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QUALITY CONTROL DATA QUALIFIERS

QUALITY CONTROL PARAMETER QUALIFIERS

Q	Holding time exceeded.
[6]	MS and/or MSD recoveries outside control limits. However, LCS and/or LCSD within limits. Data reported.
[8]	NCR-% RPD exceeds control limits

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QUALITY CONTROL CROSS REFERENCE TABLE

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
904913002	PW-1	EPA 365.1	LACH/2178		
904913002	PW-1	EPA 300.0	IC/1297		
904913002	PW-1	SM 2540 C	SOLI/1753		
904913002	PW-1	SM 2130 B	MISC/1205		
904913002	PW-1	SM 5540 C	INPR/1668	SM 5540 C	HACH/1214
904913002	PW-1	3510C	EXTO/2116	SW-846 8270C low PAH	MSSV/1383
904913002	PW-1	3510C	EXTO/2117	SW-846 8270C	MSSV/1381
904913002	PW-1	3510C	EXTO/2118	SW-846 8081A	GCSV/1613
904913002	PW-1	3510C	EXTO/2119	SW-846 8082	GCSV/1619
904913002	PW-1	3510C	EXTO/2120	SW-846 8141A	GCSV/1624
904913002	PW-1	3510C	EXTO/2121	SW-846 8151A	GCSV/1618
904913002	PW-1	EPA 1664A	EXTO/2122		
904913002	PW-1	SW-846 3010A	DIGM/1920	SW-846 6010	ICP/1551
904913002	PW-1	EPA 200.8	DIGM/1922	EPA 200.8	ICPM/1117
904913002	PW-1	SM 5310B	TOC/1122		
904913002	PW-1	SW-846 9012A	INPR/1669	SW-846 9012A	LACH/2181
904913001	TRIP BLANK	SW-846 8260B	MSV/1665		

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QUALITY CONTROL CROSS REFERENCE TABLE

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
904913002	PW-1	SW-846 8260B	MSV/1665		
904913002	PW-1	BOD PREP	MICP/1402	SM 5210B BOD	BOD/1344
904913002	PW-1	SM 2540 D	SOLI/1761		
904913002	PW-1	EPA 410.4	MISC/1211		
904913002	PW-1	SM 4500-S F(20th Ed.)	HACH/1218		
904913002	PW-1	EPA 365.1	INPR/1675	EPA 365.1	LACH/2208
904913002	PW-1	EPA 350.1	LACH/2194		
904913002	PW-1	EPA 120.1	SPCD/1040		
904913002	PW-1	EPA 351.2	INPR/1684	EPA 351.2	LACH/2228
904913002	PW-1	SM 2320 B	ALKA/1111		
904913002	PW-1	SW-846 7470	DIGM/1953	SW-846 7470	HG/1107
904913002	PW-1	EPA 300.0	IC/1308		
904913002	PW-1	EPA 300.0	IC/1310		
904913002	PW-1	903.1	S_17/	903.1	S_17/
904913002	PW-1	EPA 100.2	S_09/	EPA 100.2	S_09/
904913002	PW-1	EPA 300.1	S_05/	EPA 300.1	S_05/
904913002	PW-1	EPA 7063 mod	S_36/	EPA 7063 mod	S_36/
904913002	PW-1	RA-05	S_17/	RA-05	S_17/
904913002	PW-1	RSK 175	S_15/	RSK 175	S_15/

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CHAIN OF CUSTODY RECORD

Log# 904913 T#S___ Quote:________ Page 1 of 3

Container Type Codes
AV Amber Vial; ES Encore Sampler; CV Clear Vial; PPV Prepreserved vial; P Plastic; PL C Plastic container; AL Amber Liter; PL J Plastic Jar; CL Clear Liter; Ziploc Ziploc bag; AP Amber Plastic; TEDLAR B Tedlar bag; AG Amber Glass; WHIRL P Whirl pak; SJ Soil Jar; G Gallon Jug; Other____
Size(s): 2oz, 4oz, 8oz, 16oz, 32oz or 1L, 40ml other____
Example: 4ozP = 4oz Plastic, 8ozSJ=8oz Soil Jar

Matrix Codes
SO Solid Waste; WW Waste Water; SO Soil; AFW Analyte Free Water; SE Sediment; DW Drinking Water; OL Oil; SU Surface Water; PE Petroleum; AQ Aqueous; NA Nonaqueous; SW Source Water; ML Misc. Liquid; A Air; GW Ground Water; O Other____ (Please Specify); EFF Effluent; INF Influent

Pres/Codes
A. None; B. HNO_3; C. H_2SO_4; D. NaOH; E. HCL; F. MeOH; G. $Na_2S_2O_3$; H. $NaHSO_4$; I. Ice; J. MCAA; K. Zn Acetate; O. Other

Company Name: HDR PO#
Address:
City: State: Zip:
Attn: Deborah Daugh Fax#
email: deborah.daugh@hdrinc.com
Project Name: FPL Proj#
Sampler Signature: [signature] Phone# 813-382-5677

LAB ANALYSIS — Parameters: 8081 | 8082 | Oil | 8270 | NO3, MBAS, NO2 | PP Metals | CN | TKN, OD, TP | H2S | EXAMPLE Diss.8RCRA 6010

#	Sample Label (Client ID)	Collect Date	Collect Time	Matrix Code	Field Filtered	Integrity OK (Y/N)	Total # of containers	8081	8082	Oil	8270	NO3, MBAS, NO2	PP Metals	CN	TKN, OD, TP	H2S	REMARKS
i.e.	MW-1	6/16/04	11:35	GW	X		1										1 / 16ozP
1	Trip Blank			AFW			1				V						
2	PW-1	5/5/09	0935	GW													
3																	
4																	
5																	
6																	
7																	
8																	
9																	
0																	

TAT Standard / Rush	Short Hold	QA/QC Report Level	COC OK	Initials	Required State Certification	Coolers #'s
Std / N/A Date Required	Y ✓ N___	None___ 1___ 2___ 3___ Other___	Y N			

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
	[signature]	GAS	4-9-09	1110	[signature] Deborah Daugh	HDR	5-5-09	1200
	[signature] Deborah Daugh	HDR	5-5-09	1230	GN	GAS	5/6/09	10:15

Lab Use Only (Yes / No / N/A)
Sample INTACT upon arrival?
Received on Wet Ice? Temp 4°C
Proper Preservatives Indicated?
Received within holding time?
Custody seals intact?
Volatile rec'd without headspace?
Proper Containers Used?

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198018

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CHAIN OF CUSTODY RECORD

Log# 904913 T#S___ Quote:_______ Page 2 of 3

Company Name: HDR PO#
Address:
City: State: Zip:
Attn: Deborah Daigle Fax#
email: deborah.daigle@hdrinc.com
Project Name: FPL Proj# 101658
Sampler Signature: [signature] Phone# 813-382-5677

LAB ANALYSIS — Parameters: OPO4 PF | BOD | 8260 | 8141 | 8151 | Bromide, Alk, turb, cond, SO4, FL, TDS, TSS, CL | TOC | Bromide | Trivalent Arsenic

#	Sample Label (Client ID)	Collect Date	Collect Time	Matrix Code*	Field Filtered	Integrity OK(Y/N)	Total # of containers	OPO4 PF	BOD	8260	8141	8151	Bromide, Alk, turb, cond, SO4, FL, TDS, TSS, CL	TOC	Bromide	Trivalent Arsenic	EXAMPLE Diss.8RCRA 6010	REMARKS
i.e.	MW-1	6/16/04	11:35	GW	X		1										1 / 16ozP	
1	PW-1	5/5/09	0930	GW				1	1	2 VOA	1	1	1	1	1	2		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
0																		

Rows: Sample, TRC, pH, Pres Codes. # of Containers / Size Type.

T.A.T. Standard	Rush (Date Required)	Short Hold	QA/QC Report Level	COC OK	Initials	Required State Certification	Coolers #'s
GN	N/A	Y ✓ N___	None___ 1___ 2___ 3___ Other___	(Y) N	GN		

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	[signature]	HDR	5-5-09	1230				
					GN		5/6/9	10:15

Container Type Codes
AV Amber Vial; CV Clear Vial; P Plastic; AL Amber Liter; CL Clear Liter; AP Amber Plastic; AG Amber Glass; SJ Soil Jar; Other; ES Encore Sampler; PPV Prepreserved vial; PL C Plastic container; PL J Plastic Jar; Ziploc Ziploc bag; TEDLAR B Tedlar bag; WHIRL P Whirl pak; G Gallon Jug
Size(s): 2oz, 4oz, 8oz, 16oz, 32oz or 1L, 40ml other____
Example: 4ozP = 4oz Plastic, 8ozSJ=8oz Soil Jar

Matrix Codes*
SD Solid Waste; SO Soil; SE Sediment; OL Oil; PE Petroleum; NA Nonaqueous; ML Misc Liquid; GW Ground Water; EFF Effluent; INF Influent; WW Waste Water; AFW Analyte Free Water; DW Drinking Water; SU Surface Water; AQ Aqueous; SW Source Water; A Air; O Other (Please Specify)

Pres/Codes:
A. None; B. HNO3; C. H2SO4; D. NaOH; E. HCL; F. MeOH; G. Na2S2O3; H. NaHSO4; I. Ice; J. MCAA; K. Zn Acetate; O. Other

Lab Use Only (Yes / No / NA)
Sample INTACT upon arrival?
Received on Wet Ice? Temp 4 °C
Proper Preservatives Indicated?
Received within holding time?
Custody seals intact?
Volatile rac'd without headspace?
Proper Containers Used?

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CHAIN OF CUSTODY RECORD

Log# 904913 T#S___ Quote:________ Page 3 of 3

Container Type Codes

AV Amber Vial; ES Encore Sampler; CV Clear Vial; PPV Prepreserved vial; P Plastic; PL C Plastic container; AL Amber Liter; PL J Plastic Jar; CL Clear Liter; Ziploc Ziploc bag; AP Amber Plastic; TEDLAR B Tedlar bag; AG Amber Glass; WHIRL P Whirl pak; SJ Soil Jar; G Gallon Jug; Other____

Size(s): 8oz, 4oz, 6oz, 16oz, 32oz or 1L, 40ml other____
Example: 4ozP = 4oz Plastic, 8ozSJ=8oz Soil Jar

Matrix Codes

SD Solid Waste; WW Waste Water; SO Soil; AFW Analyte Free Water; SE Sediment; DW Drinking Water; OL Oil; SU Surface Water; PE Petroleum; AQ Aqueous; NA Nonaqueous; SW Source Water; ML Misc. Liquid; A Air; GW Ground Water; O Other____ (Please Specify); EFF Effluent; INF Influent

Pres/Codes

A. None; B. HNO_3; C. H_2SO_4; D. NaOH; E. HCL; F. MeOH; G. $Na_2S_2O_3$; H. $NaHSO_4$; I. Ice; J. MCAA; K. Zn Acetate; O. Other

Company Name: HDR PO#
Address:
City: State: Zip:
Attn: deborahdaigh Fax#
email: deborah.daigh@hdrinc.com
Project Name: FPL Proj# 101650
Sampler Signature: [signature] Phone# 813-382-5277

LAB ANALYSIS

Sample / TRC / pH / Pres. Codes

Parameters: Asbestos | Dissolved Gases | Rad 226/228 | | | | | | EXAMPLE Diss 8RCRA 6010

#	Sample Label (Client ID)	Collect Date	Collect Time	Matrix Code	Field Filtered	Integrity OK (Y/N)	Total # of containers	Asbestos	Dissolved Gases	Rad 226/228							Example	REMARKS
i.e.	MW-1	6/16/04	11:35	GW	X		1										1 16ozP	
1	PW-1	5/5/09	0930	GW				1	2 VOA									
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
0																		

Y/N	Date Required	Short Hold	QA/QC Report Level	COC OK	Initials	Required State Certification	Coolers #'s
		Y___ N___	None___ 1___ 2___ 3___ Other___	(Y) N	GN		

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	[signature]	HDR	5-5-09	1230				
					GN	GAS	5/6/09	10:15

Lab Use Only (Yes / No / N/A)

Sample INTACT upon arrival?
Received on Wet Ice? Temp 4 °C
Proper Preservatives Indicated?
Received within holding time?
Custody seals intact?
Volatile rec'd without headspace?
Proper Containers Used?

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198019

Thursday, June 04, 2009

TABLES

TABLE 3-3

(REVISED)

TABLE 3-3
MAXIMUM EMISSIONS DUE TO THE PROJECT COMPARED TO THE PSD SIGNIFICANT EMISSION RATES

Pollutant	Pollutant Emissions (TPY)		PSD Review
	Potential Emissions from Project[a]	Significant Emission Rate	
Sulfur Dioxide	<1	40	No
Particulate Matter [PM(TSP)]	943.3	25	Yes
Particulate Matter (PM_{10})	24	15	Yes
Nitrogen Dioxide	36	40	No
Carbon Monoxide	25	100	No
Volatile Organic Compounds	4	40	No
Lead	NEG	0.6	No
Sulfuric Acid Mist	NEG	7	No
Total Fluorides	NEG	3	No
Total Reduced Sulfur	NEG	10	No
Reduced Sulfur Compounds	NEG	10	No
Hydrogen Sulfide	NEG	10	No
Mercury	NEG	0.1	No

Note: NEG = Negligible.

[a] Refer to Table 2-4.

TABLE FDEP-PSD-1-c-1

TABLE FDEP-PSD-1-c-1
ESTIMATED PHYSICAL, PERFORMANCE, AND EMISSIONS DATA FOR THE CIRCULATING WATER COOLING TOWERS FOR TURKEY POINT UNITS 6 & 7

Parameter	Circulating Water Cooling Towers
Physical Data	
Number of Towers per Unit	3
Number of Cells per Tower	12
Cell Diameter, ft	33.67
Cell Stack Height, ft (fan stack height is 14 feet)	66.5
Tower Dimensions	
Height to Fan Deck, ft	53
Length, ft	259
Width, ft	240.7
Performance Data	
Discharge Velocity, ft/min per cell	1,982
Circulating Water Flow Rate (CWFR), gal/min (3 Cooling Towers)	631,100
Design hot water temperature, °F	115.4
Design cold water temperature, °F	91
Heat Rejected, million Btu/hr	7,628
Evaporation at Design Conditions, gal/min (3 Cooling Towers)	12,723
Design Air Flow Rate per cell, acfm	1,764,500
Liquid/ Gas (Air Flow) (L/G) Ratio	1.272
Hours of operation	8,760
Temperature of Exit Air, °F	104.7
Emission Data	
Drift Rate[a] (DR), percent	0.0005
Total Dissolved Solids (TDS) Concentration[b], maximum ppmw	4,000
Solution Drift[c] (SD), lb/hr	1,579.0
PM Drift[d], lb/hr	6.316
tons/year/unit (3 towers)	27.7
tons/year (6 towers)	55.3
PM_{10} Drift[e]	
PM_{10} Emissions, lb/hr	2.42
tons/year/unit (3 towers)	10.6
tons/year (6 towers)	21.2

[a] Drift rate is the percent of circulating water.

[b] A TDS of 4,000 ppmw.

[c] Includes water and based on circulating water flow rate and drift rate (CWFR x DR x 8.34 lb/gal; 8.34 lb/gal used for maximum PM_{10}).

[d] PM calculated based on total dissolved solids and solution drift (TDS x SD).

[e] PM_{10} based on Calculating Realistic PM_{10} Emissions from Cooling Towers, Joel Riesman and Gordon Frisbie (2001). TDS is 4,000 ppmw. Result is maximum PM_{10} emissions. See Appendix A.

TABLE FDEP-PSD-4-1

TABLE FDEP-PSD-4-1
ESTIMATED HAP EMISSIONS
CIRCULATING WATER COOLING TOWERS - UNITS 6 AND 7

Parameter		Salt Water	Reclaimed Water
Physical Data			
Number of Towers per Unit	3		
Number of Cells per Tower	12		
Cycles of Concentration		1.5	4
Emission Data			
Drift Rate[a] (DR), percent		0.0005	0.0005
Total HAP ppmw[b]		0.39	1.11
Number of Analyses for HAPs		107	54
Number of Analyses Above the Detection Limits		2	5
Solution Drift[c] (SD), lb/hr		1,656.6	1,656.6
HAP Emissions[d], lb/hr		0.0010	0.0073
tons/year/unit (3 towers)		0.0043	0.0322
tons/year (6 towers)		0.0085	0.0644

[a] Drift rate is the percent of circulating water.

[b] HAP concentration based on sample analysis. For concentrations that were reported below dectection limit calculations assume concentration at detection limit to be conservative. The ppmw multiplied by the cycles of concentration to calculate emissions.

[c] Includes water and based on circulating water flow rate and drift rate. (CWFR x DR x 8.75 lb/gal x 60 min/hr).

[d] HAP calculated based on total concentration and solution drift.

TABLE FDEP-PSD-4-2

TABLE FDEP-PSD-4-2
ESTIMATED HAZARDOUS AIR POLLUTANT EMISSION DATA FOR DIESEL GENERATORS AND GENERAL PURPOSE DIESEL ENGINES ASSOCIATED WITH TURKEY POINT UNITS 6 & 7

Parameter		Standby Diesel Generators		Ancillary Diesel Generators		Diesel Fire Pump Engines		General Purpose Engines			
Performance											
Number for TP 6 & 7		4		4		2		Various			
Heat input (MMBtu/hr)[a] (MMBtu)[b] (HHV)		39.12		0.39		2.32		8,106			
Maximum operation (hours)		96		96		96		--			
Hazardous Air Pollutants	**Emission Factor (lb/MMBtu)**	**Emissions[c] (lb/hr)**	**(TPY)**	**Emissions[c] (lb/hr)**	**(TPY)**	**Emissions[c] (lb/hr)**	**(TPY)**	**Emissions[c] (lb/hr)**	**(TPY)**	**TOTAL (lb/hr)**	**(TPY)**
Benzene	9.33E-04	1.46E-01	7.01E-03	1.46E-03	7.02E-05	4.34E-03	2.08E-04	--	3.78E-03	1.52E-01	1.11E-02
Toluene	4.09E-04	6.40E-02	3.07E-03	6.41E-04	3.08E-05	1.90E-03	9.12E-05	--	1.66E-03	6.66E-02	4.85E-03
Xylenes	2.58E-04	4.04E-02	1.94E-03	4.04E-04	1.94E-05	1.20E-03	5.76E-05	--	1.05E-03	4.20E-02	3.06E-03
1,3-butadiene	3.91E-05	6.12E-03	2.94E-04	6.13E-05	2.94E-06	1.82E-04	8.72E-06	--	1.58E-04	6.36E-03	4.64E-04
Formaldehyde	1.18E-03	1.85E-01	8.86E-03	1.85E-03	8.88E-05	5.48E-03	2.63E-04	--	4.78E-03	1.92E-01	1.40E-02
Acetaldehyde	7.67E-04	1.20E-01	5.76E-03	1.20E-03	5.77E-05	3.56E-03	1.71E-04	--	3.11E-03	1.25E-01	9.10E-03
Acrolein	9.25E-05	1.45E-02	6.95E-04	1.45E-04	6.96E-06	4.30E-04	2.06E-05	--	3.75E-04	1.51E-02	1.10E-03
PAH											
Naphthalene	8.48E-05	1.33E-02	6.37E-04	1.33E-04	6.38E-06	3.94E-04	1.89E-05	--	3.44E-04	1.38E-02	1.01E-03
Acenaphthylene	5.06E-06	7.92E-04	3.80E-05	7.93E-06	3.81E-07	2.35E-05	1.13E-06	--	2.05E-05	8.23E-04	6.00E-05
Acenaphthene	1.42E-06	2.22E-04	1.07E-05	2.23E-06	1.07E-07	6.60E-06	3.17E-07	--	5.76E-06	2.31E-04	1.68E-05
Fluorene	2.92E-05	4.57E-03	2.19E-04	4.58E-05	2.20E-06	1.36E-04	6.51E-06	--	1.18E-04	4.75E-03	3.46E-04
Phenanthrene	2.94E-05	4.60E-03	2.21E-04	4.61E-05	2.21E-06	1.37E-04	6.56E-06	--	1.19E-04	4.78E-03	3.49E-04
Anthracene	1.87E-06	2.93E-04	1.40E-05	2.93E-06	1.41E-07	8.69E-06	4.17E-07	--	7.58E-06	3.04E-04	2.22E-05
Fluoranthene	7.61E-06	1.19E-03	5.72E-05	1.19E-05	5.72E-07	3.54E-05	1.70E-06	--	3.08E-05	1.24E-03	9.03E-05
Pyrene	4.78E-06	7.48E-04	3.59E-05	7.49E-06	3.60E-07	2.22E-05	1.07E-06	--	1.94E-05	7.78E-04	5.67E-05
Benzo(a)anthracene	1.68E-06	2.63E-04	1.26E-05	2.63E-06	1.26E-07	7.81E-06	3.75E-07	--	6.81E-06	2.73E-04	1.99E-05
Chrysene	3.53E-07	5.52E-05	2.65E-06	5.53E-07	2.66E-08	1.64E-06	7.87E-08	--	1.43E-06	5.74E-05	4.19E-06
Benzo(b)fluoranthene	9.91E-08	1.55E-05	7.44E-07	1.55E-07	7.45E-09	4.61E-07	2.21E-08	--	4.02E-07	1.61E-05	1.18E-06
Benzo(k)fluoranthene	1.55E-07	2.43E-05	1.16E-06	2.43E-07	1.17E-08	7.20E-07	3.46E-08	--	6.28E-07	2.52E-05	1.84E-06
Benzo(a)pyrene	1.88E-07	2.94E-05	1.41E-06	2.95E-07	1.41E-08	8.74E-07	4.19E-08	--	7.62E-07	3.06E-05	2.23E-06
Indeno(1,2,3-cd)pyrene	3.75E-07	5.87E-05	2.82E-06	5.88E-07	2.82E-08	1.74E-06	8.37E-08	--	1.52E-06	6.10E-05	4.45E-06
Dibenz(a,h)anthracene	5.83E-07	9.12E-05	4.38E-06	9.14E-07	4.39E-08	2.71E-06	1.30E-07	--	2.36E-06	9.49E-05	6.92E-06
Benzo(g,h,i)pereylene	4.89E-07	7.65E-05	3.67E-06	7.66E-07	3.68E-08	2.27E-06	1.09E-07	--	1.98E-06	7.96E-05	5.80E-06
Total PAH	1.68E-04	2.63E-02	1.26E-03	2.63E-04	1.26E-05	7.81E-04	3.75E-05	--	6.81E-04	2.73E-02	1.99E-03
TOTAL HAPS	**4.01E-03**	**6.28E-01**	**3.02E-02**	**6.29E-03**	**3.02E-04**	**1.87E-02**	**8.96E-04**	--	**1.63E-02**	**6.53E-01**	**4.76E-02**

Sources: AP1000 Design Control Document; Chapter 8 http://www.nrc.gov/reactors/new-licensing/design-cert/ap1000.html; Caterpillar, 2008.
AP1000 DCD; Chapter 9; Table 9.5.4-1 2000 gpm fire pump; 300 ft head NFPA 20 Certified; Fairbanks Morse Fire Pumps, 2008.
Emissions based on AP-42 Section 3.3 Gasoline and Diesel Industrial Engines; Table 3.3-2.

[a] Hourly heat input for standby generators, ancillary generators, and fire pumps.

[b] Annual heat input for general purpose engines.

[c] Total emissions for all engines.

TABLE FDEP-PSD-8-1

TABLE FDEP-PSD-8-1
PLUME VISUAL IMPACT ANALYSIS - SCREENING LEVEL 2 - IDENTIFICATION OF WORSE-CASE METEOROLOGICAL CONDITIONS

Dispersion Conditions						Transport	Frequency of Occurrence (percent) of Dispersion Conditions [c]			
Stability		Wind Speed	Dispersion Parameter		Sigma Y x Sigma Z x Wind Speed	Time to NP Area	7 a.m. to 1 p.m.		1 p.m. to 7 p.m.	
Category	Name	(m/s)	Horizontal (sigma Y (m))	Vertical (sigma Z (m))	(m^3/s)	(hours) [a]	f [b]	cf [b]	f [b]	cf [b]
SSE Wind Direction Sector										
F	Moderately Stable	1	18.0	18.1	324	0.1	0.00	0.00	0.00	0.00
F	Moderately Stable	2	18.0	18.1	649	0.1	0.00	0.00	0.22	0.22
E	Slightly Stable	1	27.0	27.3	737	0.1	0.00	0.00	0.00	0.22
D	Neutral	1	36.1	24.8	895	0.1	0.00	0.00	0.00	0.22
F	Moderately Stable	3	18.0	18.1	973	0.0	0.00	0.00	0.47	0.69
E	Slightly Stable	2	27.0	27.3	1,475	0.1	0.00	0.00	0.16	0.85
D	Neutral	2	36.1	24.8	1,790	0.1	0.03	0.03	0.06	0.91
E	Slightly Stable	3	27.0	27.3	2,212	0.0	0.00	0.03	0.33	1.24
D	Neutral	3	36.1	24.8	2,685	0.0	0.19	0.22	0.20	1.44
E	Slightly Stable	4	27.0	27.3	2,949	0.0	0.03	0.25	0.31	1.75
D	Neutral	4	36.1	24.8	3,580	0.0	0.35	0.59	0.42	2.17
E	Slightly Stable	5	27.0	27.3	3,686	0.0	0.01	0.60	0.07	2.25
D	Neutral	5	36.1	24.8	4,475	0.0	0.56	1.16	0.62	2.87
S Wind Direction Sector										
F	Moderately Stable	1	18.0	18.1	324	0.1	0.00	0.00	0.00	0.00
F	Moderately Stable	2	18.0	18.1	649	0.1	0.02	0.02	0.25	0.25
E	Slightly Stable	1	27.0	27.3	737	0.1	0.00	0.02	0.00	0.25
D	Neutral	1	36.1	24.8	895	0.1	0.00	0.02	0.00	0.25
F	Moderately Stable	3	18.0	18.1	973	0.0	0.01	0.03	0.22	0.47
E	Slightly Stable	2	27.0	27.3	1,475	0.1	0.02	0.05	0.10	0.57
D	Neutral	2	36.1	24.8	1,790	0.1	0.07	0.12	0.09	0.66
E	Slightly Stable	3	27.0	27.3	2,212	0.0	0.00	0.12	0.25	0.90
D	Neutral	3	36.1	24.8	2,685	0.0	0.16	0.28	0.18	1.09
E	Slightly Stable	4	27.0	27.3	2,949	0.0	0.02	0.30	0.17	1.26
D	Neutral	4	36.1	24.8	3,580	0.0	0.32	0.62	0.44	1.70
E	Slightly Stable	5	27.0	27.3	3,686	0.0	0.00	0.62	0.04	1.73
D	Neutral	5	36.1	24.8	4,475	0.0	0.39	1.01	0.31	2.04
SSW Wind Direction Sector										
F	Moderately Stable	1	18.0	18.1	324	0.1	0.00	0.00	0.00	0.00
F	Moderately Stable	2	18.0	18.1	649	0.1	0.01	0.01	0.07	0.07
E	Slightly Stable	1	27.0	27.3	737	0.1	0.00	0.01	0.00	0.07
D	Neutral	1	36.1	24.8	895	0.1	0.00	0.01	0.00	0.07
F	Moderately Stable	3	18.0	18.1	973	0.0	0.00	0.01	0.08	0.16
E	Slightly Stable	2	27.0	27.3	1,475	0.1	0.00	0.01	0.05	0.21
D	Neutral	2	36.1	24.8	1,790	0.1	0.02	0.03	0.03	0.24
E	Slightly Stable	3	27.0	27.3	2,212	0.0	0.01	0.04	0.12	0.36
D	Neutral	3	36.1	24.8	2,685	0.0	0.07	0.11	0.06	0.42
E	Slightly Stable	4	27.0	27.3	2,949	0.0	0.02	0.13	0.05	0.47
D	Neutral	4	36.1	24.8	3,580	0.0	0.14	0.26	0.10	0.57
E	Slightly Stable	5	27.0	27.3	3,686	0.0	0.02	0.28	0.00	0.57
D	Neutral	5	36.1	24.8	4,475	0.0	0.10	0.38	0.14	0.70
SW Wind Direction Sector										
F	Moderately Stable	1	18.0	18.1	324	0.1	0.00	0.00	0.00	0.00
F	Moderately Stable	2	18.0	18.1	649	0.1	0.00	0.00	0.05	0.05
E	Slightly Stable	1	27.0	27.3	737	0.1	0.00	0.00	0.00	0.05
D	Neutral	1	36.1	24.8	895	0.1	0.00	0.00	0.00	0.05
F	Moderately Stable	3	18.0	18.1	973	0.0	0.01	0.01	0.08	0.14
E	Slightly Stable	2	27.0	27.3	1,475	0.1	0.00	0.01	0.03	0.16
D	Neutral	2	36.1	24.8	1,790	0.1	0.10	0.11	0.02	0.18
E	Slightly Stable	3	27.0	27.3	2,212	0.0	0.02	0.13	0.09	0.27
D	Neutral	3	36.1	24.8	2,685	0.0	0.15	0.27	0.12	0.39
E	Slightly Stable	4	27.0	27.3	2,949	0.0	0.01	0.28	0.04	0.43
D	Neutral	4	36.1	24.8	3,580	0.0	0.08	0.37	0.16	0.58
E	Slightly Stable	5	27.0	27.3	3,686	0.0	0.00	0.37	0.00	0.58
D	Neutral	5	36.1	24.8	4,475	0.0	0.13	0.49	0.22	0.80
WSW Wind Direction Sector										
F	Moderately Stable	1	18.0	18.1	324	0.1	0.00	0.00	0.00	0.00
F	Moderately Stable	2	18.0	18.1	649	0.1	0.02	0.02	0.02	0.02
E	Slightly Stable	1	27.0	27.3	737	0.1	0.00	0.02	0.00	0.02
D	Neutral	1	36.1	24.8	895	0.1	0.00	0.02	0.00	0.02
F	Moderately Stable	3	18.0	18.1	973	0.0	0.01	0.03	0.16	0.17
E	Slightly Stable	2	27.0	27.3	1,475	0.1	0.00	0.03	0.01	0.18
D	Neutral	2	36.1	24.8	1,790	0.1	0.03	0.05	0.05	0.23
E	Slightly Stable	3	27.0	27.3	2,212	0.0	0.01	0.06	0.14	0.37
D	Neutral	3	36.1	24.8	2,685	0.0	0.06	0.13	0.14	0.50
E	Slightly Stable	4	27.0	27.3	2,949	0.0	0.00	0.13	0.32	0.82
D	Neutral	4	36.1	24.8	3,580	0.0	0.14	0.26	0.27	1.10
E	Slightly Stable	5	27.0	27.3	3,686	0.0	0.00	0.26	0.16	1.25
D	Neutral	5	36.1	24.8	4,475	0.0	0.13	0.39	0.29	1.54
W Wind Direction Sector										
F	Moderately Stable	1	18.0	18.1	324	0.1	0.00	0.00	0.00	0.00
F	Moderately Stable	2	18.0	18.1	649	0.1	0.02	0.02	0.17	0.17
E	Slightly Stable	1	27.0	27.3	737	0.1	0.00	0.02	0.00	0.17
D	Neutral	1	36.1	24.8	895	0.1	0.00	0.02	0.00	0.17
F	Moderately Stable	3	18.0	18.1	973	0.0	0.02	0.04	0.18	0.36
E	Slightly Stable	2	27.0	27.3	1,475	0.1	0.01	0.05	0.05	0.41
D	Neutral	2	36.1	24.8	1,790	0.1	0.07	0.12	0.07	0.48
E	Slightly Stable	3	27.0	27.3	2,212	0.0	0.01	0.13	0.14	0.62
D	Neutral	3	36.1	24.8	2,685	0.0	0.16	0.29	0.16	0.78
E	Slightly Stable	4	27.0	27.3	2,949	0.0	0.01	0.30	0.20	0.99
D	Neutral	4	36.1	24.8	3,580	0.0	0.22	0.52	0.34	1.32
E	Slightly Stable	5	27.0	27.3	3,686	0.0	0.00	0.52	0.14	1.46
D	Neutral	5	36.1	24.8	4,475	0.0	0.16	0.68	0.36	1.82

TABLE FDEP-PSD-8-1
PLUME VISUAL IMPACT ANALYSIS - SCREENING LEVEL 2 - IDENTIFICATION OF WORSE-CASE METEOROLOGICAL CONDITIONS

Dispersion Conditions						Transport Time to NP Area (hours) [a]	Frequency of Occurrence (percent) of Dispersion Conditions [c]			
Stability		Wind Speed	Dispersion Parameter		Sigma Y x Sigma Z x Wind Speed		7 a.m. to 1 p.m.		1 p.m. to 7 p.m.	
Category	Name	(m/s)	Horizontal (sigma Y (m))	Vertical (sigma Z (m))	(m^3/s)		f [b]	cf [b]	f [b]	cf [b]
WNW Wind Direction Sector										
F	Moderately Stable	1	18.0	18.1	324	0.1	0.00	0.00	0.00	0.00
F	Moderately Stable	2	18.0	18.1	649	0.1	0.00	0.00	0.15	0.15
E	Slightly Stable	1	27.0	27.3	737	0.1	0.00	0.00	0.00	0.15
D	Neutral	1	36.1	24.8	895	0.1	0.00	0.00	0.00	0.15
F	Moderately Stable	3	18.0	18.1	973	0.0	0.01	0.01	0.09	0.24
E	Slightly Stable	2	27.0	27.3	1,475	0.1	0.00	0.01	0.03	0.26
D	Neutral	2	36.1	24.8	1,790	0.1	0.06	0.07	0.06	0.33
E	Slightly Stable	3	27.0	27.3	2,212	0.0	0.00	0.07	0.14	0.47
D	Neutral	3	36.1	24.8	2,685	0.0	0.15	0.22	0.14	0.60
E	Slightly Stable	4	27.0	27.3	2,949	0.0	0.02	0.24	0.07	0.68
D	Neutral	4	36.1	24.8	3,580	0.0	0.14	0.37	0.16	0.84
E	Slightly Stable	5	27.0	27.3	3,686	0.0	0.00	0.37	0.05	0.89
D	Neutral	5	36.1	24.8	4,475	0.0	0.17	0.55	0.19	1.08
NW Wind Direction Sector										
F	Moderately Stable	1	18.0	18.1	324	0.1	0.00	0.00	0.00	0.00
F	Moderately Stable	2	18.0	18.1	649	0.1	0.05	0.05	0.16	0.16
E	Slightly Stable	1	27.0	27.3	737	0.1	0.00	0.05	0.00	0.16
D	Neutral	1	36.1	24.8	895	0.1	0.00	0.05	0.00	0.16
F	Moderately Stable	3	18.0	18.1	973	0.0	0.05	0.09	0.13	0.29
E	Slightly Stable	2	27.0	27.3	1,475	0.1	0.00	0.09	0.04	0.33
D	Neutral	2	36.1	24.8	1,790	0.1	0.04	0.13	0.08	0.41
E	Slightly Stable	3	27.0	27.3	2,212	0.0	0.01	0.14	0.15	0.56
D	Neutral	3	36.1	24.8	2,685	0.0	0.17	0.31	0.16	0.71
E	Slightly Stable	4	27.0	27.3	2,949	0.0	0.03	0.34	0.09	0.80
D	Neutral	4	36.1	24.8	3,580	0.0	0.22	0.56	0.36	1.16
E	Slightly Stable	5	27.0	27.3	3,686	0.0	0.02	0.58	0.05	1.21
D	Neutral	5	36.1	24.8	4,475	0.0	0.26	0.84	0.20	1.41
NNW Wind Direction Sector										
F	Moderately Stable	1	18.0	18.1	324	0.1	0.00	0.00	0.00	0.00
F	Moderately Stable	2	18.0	18.1	649	0.1	0.08	0.08	0.17	0.17
E	Slightly Stable	1	27.0	27.3	737	0.1	0.00	0.08	0.00	0.17
D	Neutral	1	36.1	24.8	895	0.1	0.00	0.08	0.00	0.17
F	Moderately Stable	3	18.0	18.1	973	0.0	0.05	0.13	0.26	0.43
E	Slightly Stable	2	27.0	27.3	1,475	0.1	0.01	0.14	0.13	0.56
D	Neutral	2	36.1	24.8	1,790	0.1	0.09	0.23	0.10	0.66
E	Slightly Stable	3	27.0	27.3	2,212	0.0	0.05	0.27	0.25	0.90
D	Neutral	3	36.1	24.8	2,685	0.0	0.33	0.60	0.17	1.08
E	Slightly Stable	4	27.0	27.3	2,949	0.0	0.07	0.68	0.17	1.25
D	Neutral	4	36.1	24.8	3,580	0.0	0.41	1.09	0.41	1.66
E	Slightly Stable	5	27.0	27.3	3,686	0.0	0.11	1.20	0.13	1.79
D	Neutral	5	36.1	24.8	4,475	0.0	0.41	1.61	0.26	2.04
N Wind Direction Sector										
F	Moderately Stable	1	18.0	18.1	324	0.1	0.00	0.00	0.00	0.00
F	Moderately Stable	2	18.0	18.1	649	0.1	0.07	0.07	0.35	0.35
E	Slightly Stable	1	27.0	27.3	737	0.1	0.00	0.07	0.00	0.35
D	Neutral	1	36.1	24.8	895	0.1	0.00	0.07	0.00	0.35
F	Moderately Stable	3	18.0	18.1	973	0.0	0.06	0.14	0.16	0.50
E	Slightly Stable	2	27.0	27.3	1,475	0.1	0.03	0.16	0.15	0.65
D	Neutral	2	36.1	24.8	1,790	0.1	0.10	0.26	0.09	0.74
E	Slightly Stable	3	27.0	27.3	2,212	0.0	0.11	0.37	0.09	0.83
D	Neutral	3	36.1	24.8	2,685	0.0	0.42	0.79	0.12	0.95
E	Slightly Stable	4	27.0	27.3	2,949	0.0	0.05	0.85	0.12	1.07
D	Neutral	4	36.1	24.8	3,580	0.0	0.33	1.18	0.39	1.46
E	Slightly Stable	5	27.0	27.3	3,686	0.0	0.04	1.21	0.02	1.48
D	Neutral	5	36.1	24.8	4,475	0.0	0.37	1.58	0.20	1.68

[a] Proposed project location is approximately 0.5 km from closest boundary of Class I area.

[b] f= frequency for given meteorological condition; cf= cumulative frequency up to and including condition.

[c] Based on surface meteorological data for 2001 to 2005 from the National Weather Service (NWS) station at the Tampa International Airport.

[d] Approximately 95 percent of the Chassahowitzka NWA is downwind of the proposed project with a south-southeast wind direction.

TABLE FDEP-PSD-10

TABLE FDEP-PSD-10
ESTIMATED VOC EMISSIONS
CIRCULATING WATER COOLING TOWERS - UNITS 6 AND 7

Parameter		Salt Water	Reclaimed Water
Physical Data			
Number of Towers per Unit	3		
Number of Cells per Tower	12		
Cycles of Concentration		1.5	4
Emission Data			
Drift Rate[a] (DR), percent		0.0005	0.0005
Total VOC ppmw[b]		0.089	0.055
Number of Analyses for HAPs		138	39
Number of Analyses Above the Detection Limits		0	6
Solution Drift[c] (SD), lb/hr		1,656.6	1,656.6
VOC Emissions[d], lb/hr		0.00022	0.00009
tons/year/unit (3 towers)		0.00097	0.00040
tons/year (6 towers)		0.0019	0.0008

[a] Drift rate is the percent of circulating water.

[b] HAP concentration based on sample analysis. For concentrations that were reported below dectection limit calculations assume concentration at detection limit to be conservative. The ppmw multiplied by the cycles of concentration to calculate emissions.

[c] Includes water and based on circulating water flow rate and drift rate. (CWFR x DR x 8.75 lb/gal x 60 min/hr).

[d] HAP calculated based on total concentration and solution drift.

TABLE FDEP-PSD-11

TABLE FDEP-PSD-11
ESTIMATED PERFORMANCE AND EMISSION DATA FOR DIESEL GENERATORS AND GENERAL PURPOSE DIESEL ENGINES ASSOCIATED WITH TURKEY POINT UNITS 6 & 7

Parameter	Standby Diesel Generators	Ancillary Diesel Generators	Diesel Fire Pump Engines	General Purpose Engines	Total
Performance					
Number for TP 6 & 7	4	4	2	Various	
Rating (kW)	4,100	36			
Rating (hp)	5,831	51	330	<600	
Fuel	Diesel	Diesel	Diesel	Diesel	
Fuel Heat content (Btu/lb) (HHV)	19,300	19,300	19,300	19,300	
Fuel density (lb/gal)	7.0	7.0	7.0	7.0	
Heat input (MMBtu/hr)[a] (MMBtu)[b] (HHV)	39.12	0.39	2.32	8,106	
Fuel usage (gallons/hr)	289.6	2.9	17.2		
Maximum operation (hours)	96	96	96		
Maximum fuel usage (gallons/yr/unit)	27,802	278	1,651		
Maximum fuel usage (gallons/yr[f]	111,206	1,114	3,302	60,000	
Stack Parameters					
Number of Stacks	2	1	1		
Exhaust Flow (cfm; each stack)	16,428	311	1,750		
Stack Velocity (ft/sec; each stack)	60	60	60		
Exhaust Temperature (°F; each stack)	874	1,040	744		
Stack Height (ft; each stack)	40	93	17		
Stack Diameter (ft; each stack)	2.41	0.33	0.79		
Emissions					
$PM/PM_{10}/PM_{2.5}$[d] - Basis (g/hp-hr)[a] (lb/MMBtu)[b]	0.4	0.4	0.4	0.31	
Emission rate (lb/hr)	5.1	0.05	0.29		
(tpy/diesel engine)	0.25	0.002	0.014		
(tpy)	0.987	0.009	0.028	1.26	2.280

Sources: AP1000 Design Control Document; Chapter 8 http://www.nrc.gov/reactors/new-licensing/design-cert/ap1000.html; Caterpillar, 2008.
AP1000 DCD; Chapter 9; Table 9.5.4-1 2000 gpm fire pump; 300 ft head NFPA 20 Certified; Fairbanks Morse Fire Pumps, 2008.

[a] For standby generators and ancillary generators; emissions based on 40 CFR Part 60 Subpart IIII

[b] For general purpose engines; emissions based on AP-42 Section 3.3 Gasoline and Diesel Industrial Engines; Table 3.3-1.

[c] For general purpose engines the annual usage based on usages from FPL St. Lucie Nuclear Plant, FDEP Annual Operating Reports with margin.

[d] $PM_{2.5}$ emissions assumed equal to PM. Footnote b of AP-42 Table 3.3-1 states: "All particulate is assumede to be≤ 1μm in size."

FIGURES

FIGURE FDEP-PSD-8-1

FIGURE FDEP-PSD-8-1
Visual Effects Screening Analysis for
Source: TURKEY PT UNITS 6&7
Area: BISCAYNE NP

*** Level-1 Screening ***

Input Emissions for

Particulates	5.89	LB /HR
NOx (as NO2)	15.32	LB /HR
Primary NO2	.00	LB /HR
Soot	.00	LB /HR
Primary SO4	.00	LB /HR

**** Default Particle Characteristics Assumed

Transport Scenario Specifications:

Background Ozone:	.04 ppm
Background Visual Range:	40.00 km
Source-Observer Distance:	.50 km
Min. Source-Class I Distance:	.50 km
Max. Source-Class I Distance:	10.00 km
Plume-Source-Observer Angle:	11.25 degrees
Stability:	6
Wind Speed:	1.00 m/s

R E S U L T S

Asterisks (*) indicate plume impacts that exceed screening criteria

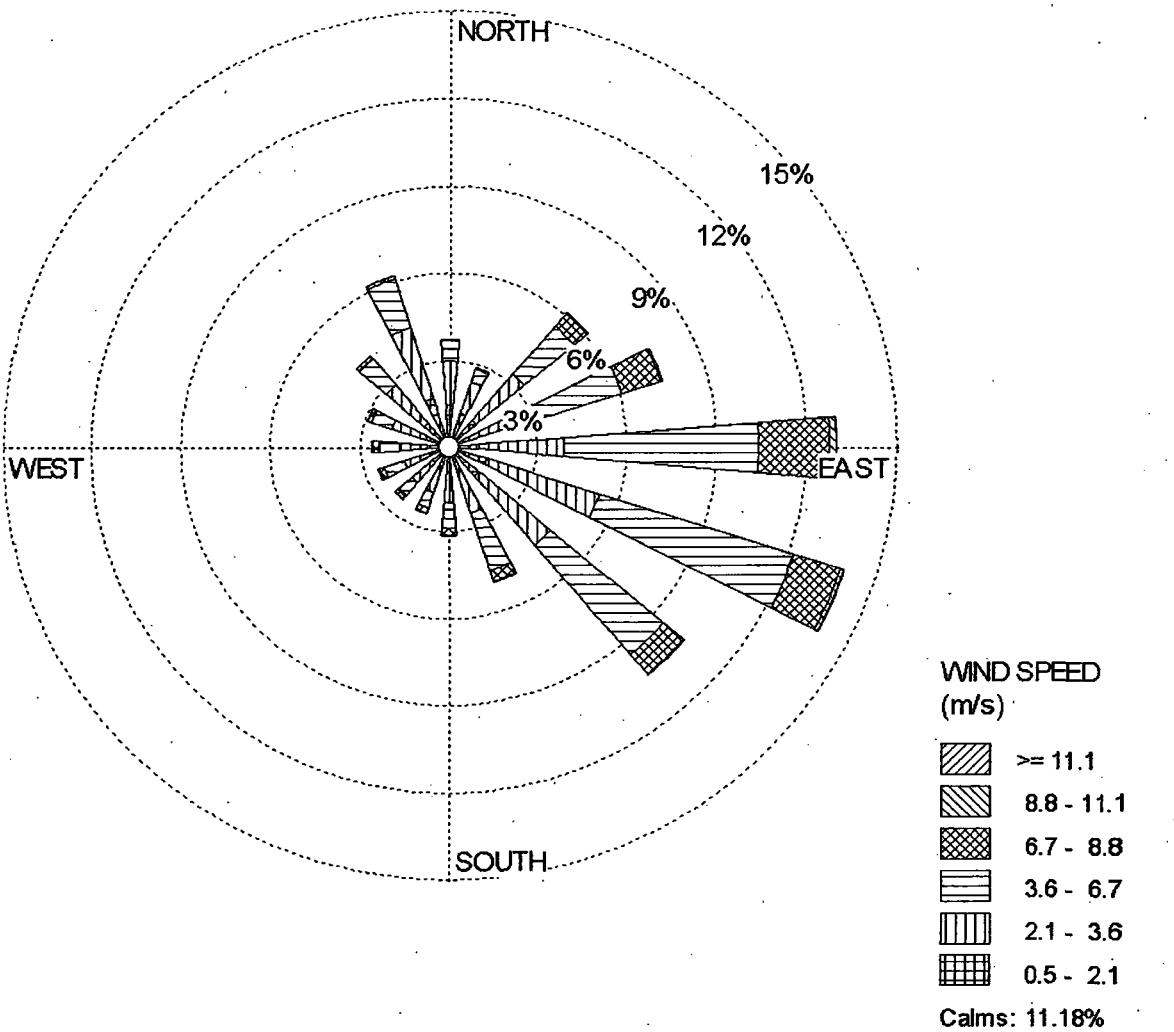
Maximum Visual Impacts INSIDE Class I Area
Screening Criteria ARE Exceeded

					Delta E		Contrast	
Backgrnd	Theta	Azi	Distance	Alpha	Crit	Plume	Crit	Plume
SKY	10.	158.	1.0	11.	2.48	8.390*	.05	.073*
SKY	140.	158.	1.0	11.	2.00	3.977*	.05	-.071*
TERRAIN	10.	158.	1.0	11.	2.00	46.622*	.05	.185*
TERRAIN	140.	158.	1.0	11.	2.00	7.377*	.05	.067*

Maximum Visual Impacts OUTSIDE Class I Area
Screening Criteria ARE Exceeded

					Delta E		Contrast	
Backgrnd	Theta	Azi	Distance	Alpha	Crit	Plume	Crit	Plume
SKY	10.	5.	.2	164.	2.00	13.674*	.05	.237*
SKY	140.	5.	.2	164.	2.00	4.350*	.05	-.131*
TERRAIN	10.	5.	.2	164.	2.00	79.460*	.05	.410*
TERRAIN	140.	5.	.2	164.	2.00	15.865*	.05	.177*

FIGURE FDEP-PSD-8-2



Average Wind Speed	3.61 m/s
Calm Winds	11.18%

Figure FDEP-PSD-8-2.
Annual Wind Rose for 2001 to 2005
At Miami International Airport, Florida (Station No. 12839)
FPL Turkey Point, Miami-Dade County, Florida

Source: National Climatic Data Center, 2001–2005; Golder, 2009.

FIGURE FDEP-PSD-8-3

FIGURE FDEP-PSD-8-3
Visual Effects Screening Analysis for
Source: TURKEY PT UNITS 6&7
Area: BISCAYNE NP

*** User-selected Screening Scenario Results ***

Input Emissions for

Particulates	5.89	LB /HR
NOx (as NO2)	15.32	LB /HR
Primary NO2	.00	LB /HR
Soot	.00	LB /HR
Primary SO4	.00	LB /HR

**** Default Particle Characteristics Assumed

Transport Scenario Specifications:

Background Ozone:	.04 ppm
Background Visual Range:	40.00 km
Source-Observer Distance:	.50 km
Min. Source-Class I Distance:	.50 km
Max. Source-Class I Distance:	10.00 km
Plume-Source-Observer Angle:	11.25 degrees
Stability:	5
Wind Speed:	3.00 m/s

R E S U L T S

Asterisks (*) indicate plume impacts that exceed screening criteria

Maximum Visual Impacts INSIDE Class I Area
Screening Criteria ARE Exceeded

					Delta E		Contrast	
Backgrnd	Theta	Azi	Distance	Alpha	Crit	Plume	Crit	Plume
SKY	10.	158.	1.0	11.	3.66	2.868	.06	.013
SKY	140.	158.	1.0	11.	2.00	1.296	.06	-.019
TERRAIN	10.	158.	1.0	11.	2.00	16.493*	.06	.045
TERRAIN	140.	158.	1.0	11.	2.00	2.026*	.06	.015

Maximum Visual Impacts OUTSIDE Class I Area
Screening Criteria ARE Exceeded

					Delta E		Contrast	
Backgrnd	Theta	Azi	Distance	Alpha	Crit	Plume	Crit	Plume
SKY	10.	5.	.2	164.	2.00	3.531*	.05	.056*
SKY	140.	5.	.2	164.	2.00	1.228	.05	-.034
TERRAIN	10.	5.	.2	164.	2.00	37.316*	.05	.118*
TERRAIN	140.	5.	.2	164.	2.00	5.552*	.05	.039